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An evaluation of the shadow economy in Baltic states: a tax morale perspective

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Abstract

To explain the shadow economy in the Baltic states of Estonia, Lithuania and Latvia, this paper evaluates the relationship between the shadow economy and tax morale. Viewing tax morale as a measure of the symmetry between the codified laws and regulations of formal institutions (state morality) and the unwritten socially shared rules of informal institutions (civic morality), the proposition is that the lower the tax morale (i.e., the greater the asymmetry between state morality and civic morality), the greater is the propensity to participate in the shadow economy. To evaluate this, a 2013 survey is reported involving 3,036 face-to-face interviews in these three Baltic nations. Using ordered logistic regression analysis, the finding is that the lower is the tax morale of individuals, population groups and countries, the greater is the propensity to participate in the shadow economy. The paper then explores the implications for theorising and tackling the shadow economy.

Keywords: informal economy; undeclared work, tax morale; social contract; institutional analysis; Baltics.

JEL: E26, H26, J46, O17

Introduction

In recent years, numerous studies have revealed that the shadow economy is not some minor peripheral feature but a sizeable proportion of contemporary economies. This is the case not only in developing economies (ILO, 2011; 2012; 2013; Rani et al., 2013) but also across the post-Soviet economies, including the Baltic states (Kukk and Staehr, 2014; Meriküll and Staehr, 2010; Morris and Polese, 2014; Putniņš and Sauka, 2011, 2012, 2013, 2014a,b; Sauka and Putniņš, 2011; Williams et al., 2013) as well as the higher-income OECD nations (Schneider, 2013). As Putniņš and Sauka (2014b) reveal for example, in 2013, the Latvian shadow economy was the equivalent of 23.8% of

GDP whilst in Estonia and Lithuania it was 15.7% and 15.3% of GDP respectively. The result is not only significant public revenue losses but just as importantly, poorer quality working conditions, lower levels of welfare provision due to resource allocation distortions, reduced overall labour productivity and output, and unfair competition for legitimate businesses which puts pressure on them to evade regulatory standards (Andrews et al., 2011; Cunska et al., 2013; ILO, 2014; Ordóñez, 2014; Putniņš and Sauka, 2014b; TUC, 2008).

To explain this shadow economy in the Baltic countries of Estonia, Latvia and Lithuania, as well as beyond, the intention of this paper is to evaluate the relationship between the shadow economy and tax morale. In this paper, tax morale, defined as the intrinsic motivation to pay taxes (Cummings et al., 2009; Torgler, 2007), is viewed through the lens of institutional theory as a measure of the gap that exists between the codified laws and regulations of formal institutions (which we here term 'state morality') and the unwritten socially shared rules of informal institutions (which we here term 'civic morality'). The proposition in this paper is that the lower the tax morale (i.e., the greater the gap between state morality and civic morality), the greater is the likelihood of participation in the shadow economy. This is asserted to apply at both the individual, population group and country levels. Thus, if for example due to a lack of trust in government, the norms, values and beliefs of the informal institutions (i.e., 'civic morality') do not align with the codified laws and regulations of the formal institutions (i.e., 'state morality'), the assertion is that there is a higher likelihood of participation in the shadow economy. Conversely, if civic morality is wholly aligned with state morality, the proposition is that there is little likelihood of participation in the shadow economy. The aim of this paper, therefore, is to evaluate the validity of this tax morale explanation for the prevalence of the shadow economy and to discuss the

consequences for how the shadow economy is tackled. As will be revealed, a policy approach that seeks to reduce the asymmetry between state morality and civic morality necessitates a very different approach to that currently adopted by governments in these Baltic countries and beyond.

In the first section therefore, the previous explanations for the prevalence of the shadow economy will be briefly reviewed along with how a tax morale approach grounded in institutional theory provides a new lens for doing so. To evaluate the proposition that the lower the tax morale (i.e., the greater the asymmetry between state morality and civic morality), the greater is the propensity to participate in the shadow economy, the third section then introduces the methodology and data used to do so, namely an ordered logistic regression analysis of the association between the level of tax morale and the propensity to participate in the shadow economy using a 2013 survey involving 3,036 face-to-face interviews in the Baltic nations of Estonia, Latvia and Lithuania. The fourth section then presents the results followed in the fifth section by a discussion of the theoretical and policy implications before the sixth and final section summarises the findings.

Before commencing however, the shadow economy needs to be defined. In this paper, the working definition adopted, and reflecting the widespread consensus, is that the shadow economy is comprised of paid activities not declared to the authorities for tax, social security and/or labour law purposes when they should be but which are otherwise legal in all respects (European Commission, 2007; OECD, 2012; Schneider, 2008; Schneider and Williams, 2013). The only illegal component of activities in the shadow economy therefore, are that they are not declared for tax, social security and/or labour law purposes when they should be. If paid activities differ in other respects to the declared economy, which is paid work declared to the authorities for tax, social security

and/or labour law purposes, then these activities are not here defined as part of the shadow economy. For example, if paid activities involve the exchange of illegal goods and/or services (e.g., illegal drugs), then these activities are not here defined as part of the shadow economy but rather are part of the wider 'criminal' economy (Schneider and Williams, 2013; Williams, 2004). Akin to all definitions nevertheless, there are fuzzy edges, such as whether activities which are paid in the form of gifts or reciprocal labour rather than money should be included. In this paper however, only paid activities are included in the definition of the shadow economy.

Explaining the shadow economy: a tax morale approach

Over the past decade or so, a number of studies have shown that the size of the shadow economy is not evenly distributed but rather, varies across not only global regions (ILO, 2013), cross-nationally (Putniņš and Sauka, 2012, 2013, 2014a,b; Schneider, 2013; Schneider and Williams, 2013; Williams, 2014b,c, 2015b) and locally and regionally (Kesteloot and Meert, 1999; Williams and Windebank, 2001), but also according to various socio-demographic and socio-economic variables such as gender (ILO, 2013; Leonard, 1994, 1998; Stănculescu, 2005), age (Pedersen, 2003), employment status (Brill, 2011; Leonard, 1994; Slavnic, 2010; Taiwo, 2013) and income level (Barbour and Llanes, 2013; Williams, 2004). The consequence has been that a more contextualised understanding has emerged which recognises how the shadow economy can be large and growing in some populations, but smaller and declining in others (Pfau-Effinger, 2009; Putniņš and Sauka, 2014a,b; Sepulveda and Syrett, 2007; Williams, 2013, 2014b,c,2015a).

To explain the varying prevalence of the shadow economy, and as Williams (2014b) highlights, most studies adopt one of three competing theoretical perspectives.

Firstly, there is 'modernisation' theory which explains the prevalence of the shadow economy in terms of the lack of economic development and modernisation of state bureaucracies, secondly, 'neo-liberal' theory which explains the shadow economy as resulting from high taxes and over-burdensome rules and regulations which hinder the free operation of the market mechanism, and third and finally, there is 'political economy' theory which conversely explains the shadow economy as resulting from inadequate state intervention and a lack of safeguards for workers. The problem with these approaches however, is that they focus upon country-level conditions and cannot explain why some individuals participate in the shadow economy and others do not.

In recent years however, a 'tax morale' approach has begun to emerge that explains the shadow economy to result from low tax morale, by which is usually meant a low intrinsic motivation to pay taxes (Alm and Torgler, 2006, 2011; Cannari and D'Alessio, 2007; Clotfelter, 1983; Cummings et al., 2009; McKerchar et al, 2013; Torgler, 2011; Torgler and Schneider, 2007). To examine tax morale, the extent to which it is deemed acceptable to engage in shadow work is examined. Our argument in this paper is that it is in effect measuring the extent to which people disagree with the codified laws and regulations of the government. That is to say, tax morale is here interpreted through the lens of institutional theory (Baumol and Blinder, 2008; Helmke and Levitsky, 2004; North, 1990). Viewing institutions as the cognitive, normative and regulative structures that give meaning to social behaviour (Scott, 1995), institutional theory portrays all societies as having both formal institutions (i.e., codified regulations and laws) and informal institutions which are the 'socially shared rules, usually unwritten, that are created, communicated and enforced outside of officially sanctioned channels' (Helmke and Levitsky, 2004: 727). In this paper, the codified laws and regulations of formal institutions are viewed as representing 'state morality', whilst the

unwritten socially shared rules of informal institutions are seen as representing 'civic morality'. Seen through this institutionalist lens, tax morale is here viewed as representing the lack of alignment of state morality and civic morality (i.e., the degree of asymmetry between formal and informal institutions). It measures the level of acceptability of engaging in shadow work and this is a direct measure of the degree of institutional asymmetry. When state morality and civic morality are aligned, and consequently the codified laws and regulations are in symmetry with the norms, values and beliefs of citizens, then the shadow economy will not prevail. However, when the socially shared norms, values and beliefs of citizens are not in symmetry with the formal rules, such as when there is a lack of trust in government, then state morality and civic morality will not align and the proposition of this paper is that there will be a greater prevalence of the shadow economy.

To evaluate this proposition that the lower is the tax morale (i.e., the less aligned is state morality and civic morality), the greater is the propensity to participate in the shadow economy, the following hypothesis can be tested at both the societal, population group and individual levels:

> Tax morale hypothesis (H1): the likelihood of engaging in shadow economy will be greater in populations with greater asymmetry between state morality and civic morality (i.e., the lower is the tax morale)

If the shadow economy is more prevalent in populations with lower tax morale, it is important to identify the populations who possess low tax morale, not least so that they can be targeted by policy-makers seeking to reduce the size of the shadow economy. Until now, the tax morale literature has conducted exploratory analyses of a range of variables to examine their influence. This has included a range of socio-demographic and socio-economic variables such as age, gender, education level, employment status,

income level, marital status, social class and religiosity (Alm and Torgler, 2006; Cannari and D'Alessio, 2007; D'Arcy, 2011; Daude and Melguizo, 2010; Daude et al., 2013; Giachi, 2014; Kanniainen and Pääkkönen, 2009; Kastlunger et al., 2010, 2013; Lago-Peñas and Lago-Peñas, 2010; Martinez-Vazquez and Torgler, 2009; Russo, 2013; Torgler, 2004, 2005a,b, 2006; Torgler and Schneider, 2007; Williams and Martinez, 2014). The finding across a range of different contexts is that tax morale is lower among men, single people, the unemployed and self-employed, and increases with religiosity, age, perceived social status and income but is negatively related to years spent in formal education. This tax morale literature has also identified a strong correlation between the level of tax morale and the prevalence of the shadow economy (Alm and Torgler, 2006, Halla, 2010; Richardson, 2006; Torgler, 2005a, 2011; Torgler and Schneider, 2009). Here, therefore, a study is reported that evaluates this tax morale hypothesis in the Baltic nations.

Methodology

To analyse the relationship between tax morale and the prevalence of the shadow economy, data is reported from special Eurobarometer survey no. 402, which involved 3,036 face-to-face interviews conducted in 2013 in Estonia, Latvia and Lithuania. In each of these three Baltic countries, a multi-stage random (probability) sampling methodology was employed. This ensured that for each country, the sample was representative of the population in terms of gender, age, region and locality size. For the univariate analysis in consequence, the sample weighting scheme is used, as recommended in both the wider literature (Sharon and Liu, 1994; Solon et al., 2013; Winship and Radbill, 1994) and the Eurobarometer methodology, in order to obtain

meaningful descriptive results. For the multivariate analysis nevertheless, a debate exists over whether to use a weighting scheme. Reflecting the majoritarian view, the decision has been taken not to do so (Pfefferman, 1993; Sharon and Liu, 1994; Solon et al., 2013; Winship and Radbill, 1994).

The face-to-face interviews adopted a gradual approach towards the more sensitive questions. Firstly, therefore, participants were asked attitudinal questions regarding their views on the acceptability of engaging in the shadow economy, followed by questions on whether participants had purchased goods and services from the shadow economy and participated in shadow work. Here, the focus is firstly, upon the attitudinal questions to examine the level of tax morale across individuals, population groups and countries and secondly, the questions on their supply of shadow work.

To identify the level of their tax morale, participants' responses were analysed to the six attitudinal questions asked in this Eurobarometer survey regarding how they rate the acceptability of various types of shadow work on a 10-point Likert scale (where 1 means absolutely unacceptable and 10 means absolutely acceptable). These six questions in the Eurobarometer survey are in fact standard questions directly taken from previous surveys such as the International Social Survey (Torgler, 2005a), the World Values Survey (Alm and Torgler, 2006; Torgler, 2006), the European Values Surveys (Hug and Spõrri, 2011; Lago Peñas and Lago Peñas, 2010), the British Social Attitudes Survey (Orviska and Hudson, 2002), the Latinbarometro (Torgler, 2005b) and the Afrobarometer (Cummings et al., 2009). These questions, therefore, are the standard questions usually used to rate the level of tax morale. They are:

(1) an individual is hired by a household for work and s/he does not declare the payment received to the tax or social security authorities even though it should be declared;
(2) a firm is hired by a household for work and it does not declare the payment received to the tax or social security authorities;
(3) a firm is hired by another firm for work and it does not declare its activities to the tax or social security authorities;
(4) a firm hires an individual and all or a part of the wages paid to him\ her are not officially declared and
(5) someone receives welfare payments without entitlement;
(6) someone evades taxes by not declaring or only partially declaring their income.

Collating responses to these six questions by examining the mean score across these six behaviours, with no weighting, an aggregate 'tax morale index' is constructed for each individual, population group and country. The Cronbach's Alpha coefficient of the scale is 0.845 which shows a good internal consistency of the scale (Kline, 2000). The index has been represented here in the 10-point Likert scale original format. The lower the index value, the higher is the tax morality.

To analyse the tax morale hypothesis therefore, the dependent variable is the tax morale as measured by this tax morale index. As the dependent variable is a 10-point Likert scale index, we employ ordered logistic regressions. To analyse H1 regarding whether tax morality will be lower with higher levels of participation in shadow economy, a variable which measures the propensity to engage in the shadow economy is evaluated, namely:

- Participation in the shadow economy: a dummy variable with recorded value 1 for persons who answered ‘yes’ to the question ‘Have you yourself carried out any undeclared paid activities in the last 12 months?’ and recorded value 0 otherwise.

Given the problems in asking participants such a sensitive question and ensuring that honest responses were given, several techniques were employed. On the one hand, the definition of the shadow economy was given prior to asking this question so as to avoid participants defining the shadow economy in different ways. This asserted that the shadow economy refers to activities which are not or not fully reported to the tax or social security authorities and where the person who acquired the good or service was aware of this. On the other hand, social desirability bias was reduced by firstly, putting this more sensitive question later after building rapport with the interviewer, secondly, using a ‘face-saving’ technique which framed the question as non-judgementally as possible by stating before asking the question that this type of activity is relatively common and acceptable within social norms, thus helping to ‘legitimise’ admission to participating in such activity and thirdly, by giving repeated reassurances of anonymity, reminding respondents of the commitment to confidentiality.

Indeed, examining interviewers’ responses regarding the perceived reliability of the interviews, there is some reason to assume that participants were honest about their shadow work. In 88% of cases, interviewers reported good or excellent cooperation, in 10% fair cooperation and in only 2% bad cooperation. Nonetheless, it is probably best to remain cautious about these estimates of participation and to treat them as lower-bound estimates.

To select population groups for analysis meanwhile, the socio-demographic, socio-economic and spatial independent variables identified as important in the previous

studies of tax morale reviewed above are investigated. These are:

- Gender: a dummy variable with value 1 for men and 0 for women.
- Age: a numerical variable for the exact age of the respondent.
- Social class: a categorical variable for the participant's perception regarding the social class to which they belong with value 1 for the working class of society, value 2 for the middle class and value 3 for the upper class.
- Employment: a dummy variable with value 1 for employed respondents and 0 for unemployed respondents.
- Area respondent lives: a categorical variable for the area in which the participant lives with value 1 for rural area or village, value 2 for small or middle sized town, and value 3 for large town.
- Country: a categorical variable for the country where the respondent lives with value 1 for Estonia, value 2 for Latvia, and value 3 for Lithuania.

To analyse the tax morale hypothesis (H1), and given the nonparametric nature of the data, firstly, a two-sample Wilcoxon rank-sum (Mann-Whitney) test is used to evaluate whether the median tax morality score of those engaging in the shadow economy significantly differs to the median score of those not engaging in the shadow economy, whilst secondly, a Spearman's bivariate correlation is used to evaluate whether a statistically significant relationship exists between cross-national variations in tax morale and cross-national variations in the prevalence of the shadow economy. To evaluate whether H1 remains valid when a range of individual-level variables are introduced, an ordered logistic regression analysis is provided.

Findings

The mean tax morale score for the populations of Estonia, Latvia and Lithuania regarding the acceptability of participating in the shadow economy is 3.35 (where 1 is totally unacceptable and 10 totally acceptable). The codified laws and regulations of formal institutions (state morality) and the norms, values and beliefs of the informal institutions (civic morality) therefore, are not wholly aligned (i.e., the tax morale score is not 1.00).

Nevertheless, the social acceptability of participating in shadow work varies according to the type of shadow work considered. As Figure 1 reveals, although just 33.5% of the population of these three Baltic States find it highly unacceptable for an individual to engage in shadow work for a private household, 62.8% find it highly unacceptable for a firm to do shadow work for a private household, 73.3% for a firm to do shadow work for another firm, 66.2% for a firm to hire a worker on a shadow basis and 63.4% for someone to partially or completely conceal their income. Some 75.6% however, deem it highly unacceptable for somebody to claim welfare payments without entitlement, such as when they are working in the shadow economy but claiming benefits. The populations of these three Baltic countries therefore, see some types of shadow work as more (un)acceptable than others. Indeed, 31.4% of the population of these three Baltic countries view an individual engaging in shadow work for a private household as highly acceptable whereas less than 10% deem any other form of shadow work to be highly acceptable.

INSERT FIGURE 1 ABOUT HERE

Figure 2 reveals the mean tax morale score for each of these types of shadow work for the three Baltic States as a whole, as well as for each individual country (i.e., Estonia, Latvia and Lithuania). The finding is that the population of these three Baltic States deem it more unacceptable for firms than individuals to operate in the shadow economy (except for claiming welfare payments without entitlement). The mean tax morale score for a firm doing shadow work for a household is 3.22 and 3.04 for a firm hiring a shadow worker, and is even lower (2.59) for firms doing shadow work for another firm (i.e., the lower the score, the more unacceptable is the activity). However, they are more tolerant of individuals participating in the shadow economy. The acceptability of a person partially or completely concealing their income is 3.17 and 5.35 for a person who engages in shadow work for a household. The exception is those claiming benefits without entitlement, such as whilst working in the shadow economy. This is the most unacceptable of all behaviours, scoring 2.46, doubtless because such individuals are here viewed as 'taking our money' rather than seeking to 'keep their own money'. Similar patterns regarding the relative social acceptability of these different types of shadow work are replicated in each of the three Baltic nations, although Latvia has slightly lower overall tax morale, followed by Lithuania, whilst Estonia has the highest tax morale of all three Baltic States. The same patterns regarding the relative social acceptability of the different types of shadow work are also replicated across the 28 member states of the European Union (EU28), although the level of tax morale is higher (2.35) than in these three Baltic countries (3.35).

INSERT FIGURE 2 ABOUT HERE

In order to examine whether a relationship exists between tax morale and the prevalence of the shadow economy, Table 1 reports the level of tax morale and the extent of participation in the shadow economy for all individual variables analysed, as well as for the Baltic countries of Estonia, Latvia and Lithuania.

INSERT TABLE 1 ABOUT HERE

Examining how tax morale is related to participation in the shadow economy, this reveals that those who participated in the shadow economy over the past 12 months have a lower level of tax morale (4.86) than those who did not (3.17), where 1 means that it is totally unacceptable to engage in shadow work and 10 means that it is totally acceptable. Turning to how tax morale varies across the socio-demographic, socio-economic and spatial variables considered, moreover, the finding is that men, younger age groups, those who self-classify themselves as belonging to lower social classes, the employed and those living in rural areas have a lower tax morale than women, older age groups, those self-defining themselves as in a higher class, the unemployed and those living in larger urban areas. The same trends are identified when examining participation in the shadow economy. Those groups with lower tax morale are also those displaying higher participation rates in the shadow economy. The only exceptions are those self-defining themselves as the upper classes, who despite having higher tax morale display a higher participation rate in the shadow economy.

The tentative finding therefore, is that populations with lower tax morale are more likely to participate in the shadow economy. Indeed, this is tentatively supported by a Wilcoxon Rank Sum test which reveals that those participating in the shadow economy have a lower tax morale with a median tax morale index score of 5 compared

with a median of 3 for those participating the shadow economy (where 1=totally unacceptable and 10=totally acceptable across six tax non-compliance behaviours). See Table A2.

Turning to the cross-national variations, Table 1 also reveals that the level of tax morale is not the same across these Baltic nations. The level of tax morale (i.e., the adherence of the population to the codified laws and regulations of formal institutions) is lowest in Latvia (3.98) and Lithuania (3.16) whilst civic morality is better aligned with state morality in Estonia (2.96). At first glance, this does not appear to be related to participation in the shadow economy. Although those living in Latvia, where tax morale is lowest, represent 28% of the surveyed population but 34% of those surveyed who work in the shadow economy, the opposite is the case of Lithuania, which constitutes 54% of population surveyed but just 45% of those participating in the shadow economy. To evaluate whether there is a significant relationship between cross-national variations in tax morale and cross-national variations in the prevalence of the shadow economy, therefore, a Spearman's bivariate analysis is conducted at the EU28 level. This reveals a statistically significant association ($p<0.001$***). The lower the tax morale in a country, the greater is the prevalence of the shadow economy. Therefore, tax morale appears to be significantly associated with the prevalence of the shadow economy at not only the individual but also the societal level.

To determine whether this association remains significant when other characteristics are taken into account and held constant, Table 2 reports the results of an ordered logistic regression analysis. Model 1 examines whether this correlation remains significant when purely individual-level characteristics are added, and model 2 adds the country in which the respondent lives. The finding is that there is a strong association between tax morale and the shadow economy. As tax morale improves, the prevalence

of the shadow economy significantly declines. This further validates the tax morale hypothesis (H1).

INSERT TABLE 2 ABOUT HERE

Identifying the populations possessing lower tax morale and which therefore need to be targeted if the shadow economy tackled, Model 1 reveals that when other individual-level factors are held constant, men have lower tax morale than women and strong evidence exists that tax morale increases with age and a higher position in society. Strong evidence also exists that those living in rural areas have lower tax morale. Model 2, meanwhile, which adds the country variable, reveals that although the same socio-demographic and socio-economic trends continue to prevail, the additional finding is that those living in Latvia and Lithuania have significantly lower tax morale than those living in Estonia.

Discussion

Evaluating the tax morale hypothesis (H1), the above analysis displays a strong association between tax morale and the shadow economy. As tax morale worsens, the likelihood of participating in the shadow economy increases. This is the case at the individual, population group and country levels and remains strongly significant when other individual-level variables are introduced and held constant. In consequence, the lower is tax morale, the greater the prevalence of the shadow economy. The tax morale hypothesis (i.e., that the prevalence of the shadow economy will be greater in populations with lower levels of tax morale) is thus positively confirmed.

This analysis therefore, not only validates the tax morale explanation for the prevalence of the shadow economy but also reveals the need for a change in how the shadow economy is tackled. In these Baltic countries, the approach of governments until now has been to use direct controls to ensure that the cost of being caught and punished outweighs the pay-off from participating in the shadow economy (see Dekker et al., 2010; Eurofound, 2013; Williams, 2014a). This has been achieved by increasing the actual and perceived risks and costs associated with participation (see Allingham and Sandmo, 1972), such as increasing workplace inspections, although recently greater attention has started to be paid to making participation in the declared economy easier and more beneficial (Williams, 2014a).

The finding that the shadow economy is strongly associated with tax morale however, suggests the need for a change in approach. The shadow economy in these Baltic countries arises out of the lack of alignment of state morality and civic morality, with the prevalence of the shadow economy increasing as the degree of asymmetry increases. This applies both at the individual, population group and country level. To tackle the shadow economy, in consequence, a reduction in the degree of asymmetry between state morality and civic morality is required.

To identify how such an improvement in tax morale might be achieved, lessons can be learned from management practice at the organisational level where the search to align employees norms, values and beliefs with the mission and vision of the organisation have led to a shift from ‘hard’ to ‘soft’ human resource management (HRM), and from bureaucratic to post-bureaucratic management (Legge, 1995; Thompson and Alvesson, 2005; Watson, 2003). Table 3 provides a useful summary of the two approaches. In the direct controls approach (alternatively termed ‘hard’ HRM or bureaucratic management), organizations seeking to elicit behaviour change amongst

the workforce pursue compliance via close supervision and monitoring, tight rules, prescribed procedures and centralized structures within the context of a low commitment, low trust and adversarial culture. In the indirect controls approach ('soft' HRM or post-bureaucratic management) meanwhile, organizations elicit behaviour change using loose rules, flexible procedures and decentralized structures in the context of a high commitment, high trust culture of mutual interest.

The argument here is that to reduce institutional asymmetry and align state morality with civic morality, such an indirect controls approach could be scaled-up from the organizational level to the 'societal-level'. To improve tax morale therefore, the argument is that not only do the norms, values and beliefs of the informal institutions (civic morality) need to change but also, importantly, the formal institutions (state morality).

To change civic morality in order that it aligns with state morality, at least two policy initiatives might be pursued in these Baltic countries. Firstly, citizen education regarding the benefits of paying taxes is required. As the inscription over the entrance to the Internal Revenue Service in Washington DC states, 'Taxes are what we pay for a civilized society'. Engendering commitment to paying taxes therefore requires citizen education about the benefits of doing so. At present, governments have not seen this as a core concern when tackling the shadow economy. An example of good practice in this regard is 'SMARTS – a game for those who are in education' organised by the Free Trade Union Confederation of Latvia that sought to educate younger people about the benefits of paying tax (Karnite, 2013). Secondly, advertising campaigns are also required informing citizens of the costs of operating in the shadow economy and benefits of the declared economy. In these Baltic countries, and as the above analysis reveals, these campaigns could be targeted at men, younger age groups, those who

define themselves as higher class and those living in rural areas, who all have relatively low levels of tax morale compared with other societal groups. An information campaign in 2010 and 2011 in Estonia, 'Unpaid Taxes Will Leave a Mark', whose main message was interpreted to be that the maintenance of the state is the responsibility of all citizens, is an example of good practice. Some 65% of the people surveyed about this campaign asserted that the commercial increased awareness of unpaid taxes (Nurmela, 2013).

Improving tax morale nevertheless, does not solely entail changing civic morality. Formal institutions must also change if tax morale is to be improved. This is essential since in the Baltic States rules and regulations are more often than not borrowed or even directly imposed from outside the society rather than derived from existing socially accepted or internally discussed practices. To address this, a modernisation of governance is needed. This necessitates at least three process reforms with regard to formal institutions. Firstly, procedural justice must be enhanced, which refers to treating citizens in an impartial, respectful and responsible manner. This requires a shift from a 'cops and robbers' approach and towards a service-oriented culture (Leventhal, 1980; Murphy, 2005). Secondly, procedural fairness must be improved which refers to citizens believing that they pay their fair share compared with others (Molero and Pujol, 2012) and thirdly, redistributive justice must be enhanced which relates to citizens feeling they receive the goods and services they deserve given the taxes they pay (Kirchgässner, 2010).

If these policy initiatives are pursued to change both the formal and informal institutions, then as Luttmer and Singhai (2014) assert, this would change the five mechanisms through which tax morale operates, namely: their intrinsic motivations to pay taxes; reciprocity where the motivation for paying taxes depends on a person's

relationship to the state (i.e., their willingness to pay taxes depends on the public goods provided by the state); peer effects and social influences, where willingness to pay or not to pay taxes is influenced by peer group opinions; the long-run cultural factors that affect the willingness to pay taxes; and information imperfections and deviations from utility maximization.

Conclusions

To explain the prevalence of the shadow economy, this paper has evaluated the relationship between the shadow economy and tax morale. Viewing tax morale through the lens of institutional theory as a measure of the symmetry between the codified laws and regulations of formal institutions (state morality) and the unwritten socially shared rules of informal institutions (civic morality), the proposition has been tested that the lower the tax morale (i.e., the greater the asymmetry between state morality and civic morality), the greater is the propensity to participate in the shadow economy. This has been positively confirmed both at the individual, population group and country level.

To reduce the prevalence of the shadow economy, therefore, a policy shift has been advocated away from the use of direct controls to detect and punish those participating in the shadow economy and towards fostering a high trust high commitment culture where civic morality aligns with state morality. On the one hand, this requires improvements in tax morale using education and awareness raising measures regarding the benefits of paying taxes. On the other hand, it also requires changes in formal institutions so as to improve trust in government by developing greater procedural justice, procedural fairness and redistributive justice, in order to improve tax morale and reduce participation in the shadow economy.

In sum, this paper has outlined a new tax morale explanation for the shadow economy grounded in institutional theory. This is an explanation and method that could be now applied to countries other than the Baltic States. Indeed, whether this tax morale approach is valid when explaining and tackling the shadow economy in other European and global regions and countries now needs to be evaluated. If this paper therefore stimulates such evaluations, it will have achieved one of its objectives. If governments start viewing the shadow economy as resulting from lower tax morale, and begin discussing policy measures for improving such morale, rather than persisting with the detection and punishment of those participating in the shadow economy, then this paper will have achieved its wider intention.

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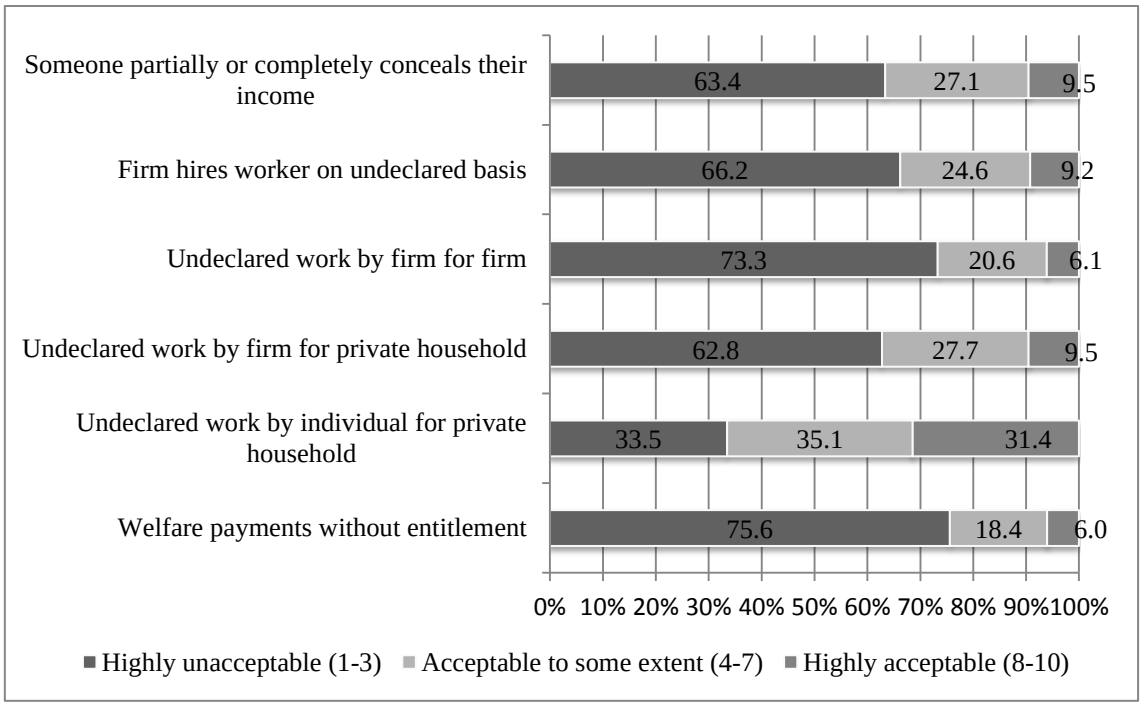

Figure 1. Acceptability of different types of shadow work in Baltic States, % of respondents

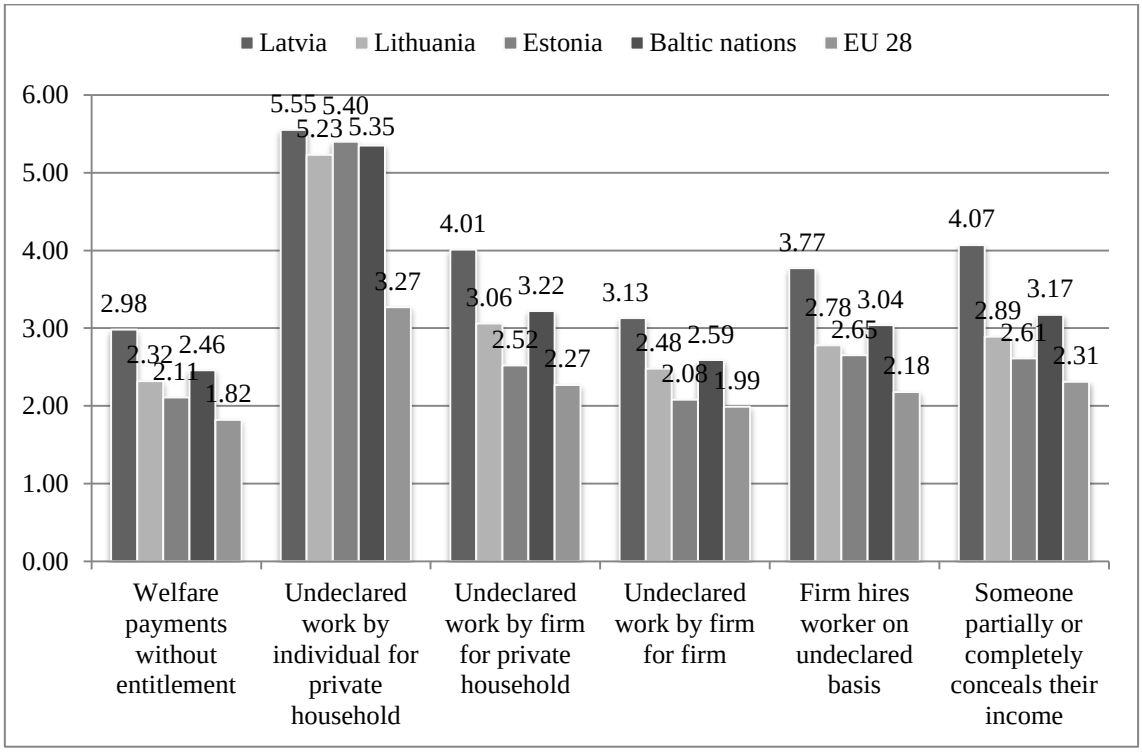

Figure 2. Acceptability of different types of shadow work, a comparison of average scores for Baltic States and EU28

Table 1. Tax morale and participation in the shadow economy in Estonia, Latvia and Lithuania: by population group and country

N = 3,036	Tax morality index (where 1 = totally unacceptable and 10 = totally acceptable)	% engaged in shadow economy	% of all population engaged in shadow economy	% of all population	€ earned in shadow economy (mean)
EU28	2.35	4	--	--	723
All Baltic nations	3.35	9	100	100	659
Shadow work:					
Yes	4.86	--	--	9	--
No	3.17	--	--	91	--
Gender:					
Men	3.60	13	65	46	782
Female	3.15	6	35	54	435
Age:					
15-24	3.53	11	23	19	445
25-34	3.53	13	28	19	1078
35-44	3.60	10	16	14	566
45-54	3.57	10	20	18	407
55-64	2.99	6	8	13	848
65+	2.72	3	5	17	155
Social class:					
Working class	3.49	10	58	51	500
Middle class	3.21	8	40	47	863
Higher class	2.75	11	2	2	418
Employment:					
Employed	3.42	11	59	49	604
Unemployed	3.29	7	41	51	745
Area:					
Rural/village	3.65	10	34	30	535
Small/middle town	3.36	9	36	38	729
Large town	3.08	9	30	32	717
Country:					
Latvia	3.98	11	34	28	478
Lithuania	3.16	8	45	54	696
Estonia	2.96	11	21	18	885

Table. 2. Toleration of shadow economy: ordered logistic model

	Model 1	Model 2
Shadow work (Not engaged in shadow work)		
Engaged in shadow work	1.246*** (0.117)	1.252***(0.115)
Gender (Women)		
Men	0.237*** (0.0730)	0.229***(0.0728)
Age (exact age)	-0.0152*** (0.0021)	0.0124***(0.00212)
Social class (Working class)		
Middle class	-0.235*** (0.0761)	-0.212*** (0.0763)
Higher class	-0.792*** (0.2800)	-0.716**(0.293)
Employment (Unemployed)		
Employed	0.0673 (0.0740)	0.0386 (0.0737)
Area (Rural/ village)		
Small/middle town	-0.261*** (0.0891)	-0.227** (0.0898)
Large town	-0.372*** (0.0915)	-0.343*** (0.0920)
Country (Estonia)		
Latvia		0.893*** (0.0906)
Lithuania		0.277*** (0.0839)
Constant cut1	-2.288*** (0.146)	-1.799*** (0.153)
Constant cut2	-1.205*** (0.140)	-0.701*** (0.149)
Constant cut3	-0.300** (0.137)	0.231 (0.148)
Constant cut4	0.477*** (0.137)	1.041*** (0.148)
Constant cut5	1.256*** (0.141)	1.847*** (0.152)
Constant cut6	1.956*** (0.147)	2.562*** (0.159)
Constant cut7	2.648*** (0.163)	3.263*** (0.175)
Constant cut8	3.380*** (0.191)	3.999*** (0.203)
Constant cut9	4.456*** (0.275)	5.075*** (0.287)
N	2471	2,471
Pseudo R^2	0.0256	0.0363
Log likelihood	-4672.7710	-4621.5295
χ^2	243.33	358.74
p>	0.0000	0.0000

Notes:
Significant at *** p<0.01, ** p<0.05, * p<0.1 (robust standard errors in parentheses).
All coefficients are compared to the benchmark category, shown in brackets.

Table 3 Direct and indirect control approaches in work organizations

Direct control approaches	Indirect control approaches
Close supervision and monitoring of activities	Empowerment and discretion applied to activities
Tight rules	Loose rules
Highly prescribed procedures	Flexible procedures
Centralized structures	Decentralized structures
Low commitment culture	High commitment culture
Low trust culture	High trust culture
Adversarial culture	Culture of mutual interest
A tightly bureaucratic structure and culture	A loosely bureaucratic structure and culture

Source: derived from Watson (2003: Table 5.2)

APPENDIX

Table A1. Variables used in the analysis: definitions and descriptive statistics

Variables	Definition	Mode or mean	Min / Max
Tax Morale Index (dependent variable)	Constructed index of self-reported tolerance towards shadow work	3.35	1 / 10
Shadow work	Dummy variable of shadow work carried out in the last 12 months	No shadow work (90.47%)	0 / 1
Gender	Dummy for the gender of the respondent	Female (54.40%)	0 / 1
Age	Respondent age (exact age)	44 years	15 / 96
Social class	Respondent perception regarding social class to which it belongs in categories	Working class of society (51.10%)	1 / 3
Employment	Dummy for the employment status of the respondent	Unemployed (50.92%)	0 / 1
Area respondent lives	Size of the area where the respondent lives in categories	Small or middle sized town (38.03%)	1 / 3
Country	Respondent country in categories	Lithuania (54.17%)	1 / 3

Source: Eurobarometer 79.2 (2013): Undeclared Work in the European Union

Table A2. Two-sample Wilcoxon rank-sum (Mann-Whitney) test

	obs	rank sum	expected
People not engaged in undeclared work	2338	2896301.5	3027710
People engaged in undeclared work	251	456453.5	325045
Combined	2589	3352755	3352755

unadjusted variance	1.267e+08
adjustment for ties	-3829809.5
adjusted variance	1.228e+08

Ho: Tax morality of people not engaged in undeclared work = Tax morality of people engaged in undeclared work

z =	-11.857
Prob> |z| =	0.0000