

## TACKLING THE URBAN INFORMAL ECONOMY: SOME LESSONS FROM A STUDY OF EUROPE'S URBAN POPULATION

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### Abstract

The aim of this paper is to evaluate the most effective way of tackling the urban informal economy. It has been recently argued that the conventional rational economic actor approach (which increases the costs of participating in the urban informal economy so that they outweigh the benefits) should be replaced or complemented by a social actor approach which focuses upon improving tax morale. To evaluate the effectiveness of these supposedly alternative approaches to tackling the participation of urban populations in the informal economy, we report the results of face-to-face interviews conducted in 2013 with 17,886 urban dwellers across the 28 Member States of the EU. Multilevel logistic regression analysis reveals that both approaches are effective in significantly reducing the urban population's participation in the informal economy. When tax morale is high, however, the rational economic actor approach of increasing the costs has little impact on reducing the probability of engagement in the informal economy. The paper concludes by calling for greater emphasis on improving the tax morale of the urban population so as to tackle the informal economy in the urban areas of Europe and beyond.

**Keywords:** informal sector, institutional theory, tax evasion, tax morale, public policy, urban development, European Union.

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## 1. Introduction

A long-standing belief regarding the development of urban economies is that there is a natural and inevitable process whereby an ever greater proportion of goods and services are produced and delivered in the formal economy. The outcome is that the presence of the informal economy in urban areas is commonly viewed as a leftover from a previous production era and as gradually disappearing from view. In recent decades, however, this reading of urban economic development and growth has been challenged. This is because it has been recognized that the informal economy is a persistent and substantial feature of many urban economies (Williams and Windebank, 1998, 2001).

Conventionally, a rational economic actor approach has been adopted. This views participation in the urban informal economy as a rational economic decision and as occurring when the pay-off is greater than the expected cost of being caught and punished (Allingham and Sandmo, 1972). However, the recognition in academic circles that many citizens voluntarily comply even when the pay-off from working in the informal economy is greater than the expected costs (Alm *et al.*, 2010; Kirchler, 2007; Murphy, 2008), has resulted in calls for a 'social actor' approach. This views participation in the urban informal economy as arising when intrinsic motivation to pay taxes – tax morale (Torgler, 2007), is low. The consequent approach is to elicit greater voluntary commitment to compliant behavior by improving tax morale (Alm *et al.*, 2012; Torgler, 2012). On the whole, these two approaches have been previously viewed as mutually exclusive (Eurofound, 2013; Williams, 2014a). In recent years, however, a small literature has asserted that they can be used together (Alm *et al.*, 2012; Kirchler, Hoelzl and Wahl, 2008). The aim of this paper, therefore, is on the one hand, to evaluate the association between participation in the urban informal economy and firstly, increasing the risks of detection and level of penalties and secondly, improving tax morale, and on the other hand, to evaluate the interaction effects between increasing deterrence (i.e., the level of penalties and risks of detection) and tax morale.

To advance understanding of how to tackle the urban informal economy, therefore, section two reviews these rational economic actor and social actor approaches and develops hypotheses to test these two approaches, as well as their interaction effects. Section three then introduces the data and methodology used to test these hypotheses and section four reports the results. Finding a significant association between participation in the urban informal economy and the perceived level of penalties and risk of detection on the one hand, and participation in the urban informal economy and the level of tax morale on the other, as well as complex positive interaction effects, section five then concludes by drawing out the theoretical and policy implications.

Before commencing nevertheless, the urban informal economy must be defined. The urban informal economy covers paid work conducted in urban areas which is legal in all respects other than it is not declared to the authorities for tax purposes (Aliyev, 2015; Boels, 2014; European Commission, 2007; OECD, 2012; Williams, 2014a, 2014b).

## 2. Literature review and hypotheses development

Recently, it has been widely recognized that although the informal economy is more prevalent in cities in developing countries (particularly in post-communist countries, Lazăr, Moldovan and Pavel, 2008), this is an omnipresent phenomenon that continues to persist even in the urban environments of advanced economies (ILO, 2013; Schneider and Williams, 2013; Williams and Windebank, 1998, 2001). Reviewing the literature, it becomes quickly apparent that there are two distinct approaches for tackling the urban informal economy. Here, each is considered in turn along with a review of whether they are seen as contrasting or complementary approaches.

### 2.1. Rational economic actor policy approach

The origins of a rational economic actor approach lie in the classic utilitarian theory of crime developed by Jeremy Bentham (Bentham, 1788) and Cesare Beccaria (Beccaria, 1797). This views people as rational actors who evaluate the opportunities and risks confronting them and obey the law if the expected penalty and probability of being caught is smaller than the benefits to be gained by breaking the law. This approach was popularized by Becker (1968) in the late 1960s who argued that compliant behavior would become the rational choice of citizens if one increased the risks of detection and sanctions confronting those who were considering breaking the law. In the early 1970s, this was then applied to tax non-compliance by Allingham and Sandmo (1972). They view those working in the informal economy as rational economic actors who evaded tax when the pay-off was greater than the expected cost of being caught and punished. It was thus argued to be necessary to change the cost/benefit ratio confronting them, which could be achieved by increasing the actual and/or perceived penalties and risks of detection. This approach was subsequently widely adopted (e.g., Grabiner, 2000; Hasseldine and Li, 1999; Job, Stout and Smith, 2007; Richardson and Sawyer, 2001).

Evaluating whether increasing deterrents produces law-abiding behavior is less than conclusive, some literature has argued that increasing the probability of detection reduces participation, at least for some income groups (Alm, McClelland and Schulze, 1992; Alm, Sanchez and De Juan, 1995; Slemrod, Blumenthal and Christian, 2001; Varma and Doob, 1998), and that increasing fines reduces engagement in the informal economy (Alm, Sanchez and De Juan, 1995; Feld and Frey, 2002; Wenzel, 2004a, 2004b). Other literature, however, argues that increasing penalties either leads to a growth in the informal economy, has no effect, or only a short-term effect (Feld and Frey, 2002; Murphy, 2005; Webley and Halstead, 1986), and that increasing the probability of detection does not result in higher levels of compliance (e.g., Shaw, Slemrod and Whiting, 2008). To evaluate this rational economic actor approach in relation to urban economies, therefore, the following hypothesis can be tested:

*Rational economic actor hypothesis (H1):* The greater the perceived penalties and risk of detection, the lower is the likelihood of participation in the urban informal economy, *ceteris paribus*.

*H1a*: The greater are the perceived penalties, the lower is the likelihood of participation in the urban informal economy, *ceteris paribus*.

*H1b*: The greater are the perceived risks of detection, the lower is the likelihood of participation in the urban informal economy, *ceteris paribus*.

## 2.2. Social actor policy approach

Since the turn of the millennium, an alternative approach towards tackling the urban informal economy has become more prominent. The argument is that individuals are not always rational economic actors possessing perfect information, but often misperceive or do not perceive the true costs of their actions and are influenced by their social context (Alm, 2011), reflected in the fact that they voluntarily comply even when the benefit/cost ratio indicates that they should not (Alm *et al.*, 2010; Kirchler, 2007; Murphy, 2008; Murphy and Harris, 2007). The result is that a ‘social actor’ model has emerged. This explains participation in the informal economy to result from a low intrinsic motivation to pay taxes – low tax morale (Alm and Torgler, 2006; McKerchar, Bloomquist and Pope, 2013; Torgler, 2011; Torgler and Schneider, 2007). To tackle the informal economy, therefore, the intention is to engender a commitment in citizens to self-regulate by improving their tax morale (Kirchler, 2007; Torgler, 2007, 2011).

The origins of this approach lie in the work of Georg von Schanz (1890) who over a century ago drew attention to the relevance of a tax contract between the state and its citizens. Six decades later, the German ‘Cologne school of tax psychology’ popularized this by measuring tax morale among citizens (see Schmolders, 1952, 1960, 1962; Strümpel, 1969), viewing this as an important attitude strongly related to non-compliance (Schmolders, 1960). Although this school of thought went into abeyance with the rise of the rational economic actor model from the 1970s, since the turn of the millennium, it has resurfaced (see for example, Alm *et al.*, 2012; Kirchler, 2007; Torgler, 2007, 2011). The intention is to improve tax morale in order to engender greater voluntary commitment to compliant behavior (Torgler, 2012).

Through the lens of institutional theory (Baumol and Blinder, 2008; North, 1990), which views all societies as having both formal institutions (codified laws and regulations), as well as informal institutions (‘socially shared rules, usually unwritten, that are created, communicated and enforced outside of officially sanctioned channels’, Helmke and Levitsky, 2004, p. 727), tax morale can be seen as measuring the gap between the formal institutions (‘state morale’) and informal institutions (‘civic morale’). When this gap is large (low tax morale) the participation in the urban informal economy will be more prevalent. To evaluate the validity of this approach in relation to urban informal economies, therefore, the following hypothesis can be evaluated:

*Social actor hypothesis (H2)*: The greater the tax morale, the lower is the likelihood of participation in the urban informal economy, *ceteris paribus*.

### 2.3. *Contrasting or complementary policy approaches*

At present when tackling the informal economy, a rational economic actor approach is widely adopted. Governments seek to increase the penalties and probability of detection so as to deter participation. Indeed, Williams *et al.* (2013) reveal that just 10% of government officials in the EU28 view reducing tax morale as the most important approach (most of whom are in Nordic nations). The vast majority view the most important approach as increasing the level of punishments and risks of detection. The social actor approach, therefore, has not yet emerged as an accepted approach since most governments view the rational actor approach as more effective.

Although some argue that this social actor approach is an alternative to the rational economic actor approach (Eurofound, 2013; Williams, 2014a), the vast majority of scholars have asserted that these are complementary rather than competing approaches. In what is known as the 'slippery slope' approach, it is argued to be necessary to pursue not only 'enforced' compliance by increasing the penalties and risks of detection and therefore the power of authorities, but also 'voluntary' compliance by improving tax morale and therefore trust in authorities (Kirchler, Hoelzl and Wahl, 2008; Kogler, Muehlbacher and Kirchler, 2015; Muehlbacher, Kirchler and Schwarzenberger, 2011; Prinz, Muehlbacher and Kirchler, 2013; Wahl, Kastlunger and Kirchler, 2010). The argument is that when there is neither trust in authorities and authorities have no power, then the informal economy will be more prevalent. When trust in, and/or the power of, authorities increases however, then the informal economy reduces. Grounded in this finding, the argument has been that pursuing both is the most effective means of tackling the urban informal economy (Kogler, Muehlbacher and Kirchler, 2015).

It might be the case, nevertheless, that simultaneously increasing the power of authorities and trust in authorities may have interaction effects. Applying higher penalties and greater risks of detection might not always produce the same outcome. Where high tax morale already exists for instance, increasing the penalties and risks of detection might lead to greater non-compliance because of a breakdown in trust between the state and its citizens (Murphy and Harris, 2007). Put another way, increasing the perceived penalties and risks of detection may have different effects on participation depending on the level of tax morale. Until now, however, little evaluation of these interactions and dynamics has been undertaken so as to develop a more nuanced understanding of the interactions between deterrents and tax morale. To start to do so in an urban context, therefore, the following hypothesis can be tested:

*Interaction effects hypothesis (H3):* The effect of perceived penalties and risk of detection on the likelihood of participation in the urban informal economy is different at varying levels of tax morale, *ceteris paribus*.

*H3a:* The effect of perceived penalties on the likelihood of participation in the urban informal economy is different at varying levels of tax morale, *ceteris paribus*.

*H3b:* The effect of perceived risk of detection on the likelihood of participation in the urban informal economy is different at varying levels of tax morale, *ceteris paribus*.

### 3. Methodology

#### 3.1. Data

To analyze these hypotheses, data is reported from special Eurobarometer survey no. 402 conducted in 2013, which involved 27,563 face-to-face interviews conducted across the EU28, of which 17,886 self-reported themselves as living in urban areas. Given the sensitive nature of the topic, firstly, participants were asked attitudinal questions regarding the acceptability of various forms of informal work and their perceptions of the penalties and risks of detection. This was then followed by questions on whether they had purchased undeclared goods and services and finally, whether they had participated in informal work themselves.

#### 3.2. Variables

To evaluate whether increasing the penalties and risks of detection, and higher tax morale, reduces the likelihood of participation in the informal economy in urban areas of the EU28, the dependent variable used is a dummy variable with recorded value one for persons living in urban areas who answered 'yes' to the question: 'Apart from a regular employment, have you yourself carried out any undeclared paid activities in the last 12 months?'

Firstly, to evaluate whether the perceived risk of detection influences participation, a dummy variable (*risk*) was used describing the perceived risk of being detected when engaging in the informal economy, with value zero for a very small or fairly small risk and value one for a fairly high or very high risk. Secondly, to evaluate how penalties are associated with participation, a dummy variable (*sanctions*) was used, describing the expected sanctions if caught doing the urban informal economy, with value zero for those asserting that the normal tax or social security contributions would be due and value one for those stating that the normal tax or social security contributions would be due, plus there would be a fine or imprisonment.

Thirdly and finally, to evaluate the association between participation in the informal economy and tax morale, a continuous variable (*tax morale*) was used by constructing an index of self-reported attitudes towards the acceptability of the informal economy based on a ten point Likert scale. This survey uses a range of six tax non-compliant behaviors (for details, Williams and Horodnic, 2015c) and therefore an aggregate 'tax morale index' is constructed for each individual. The Cronbach's Alpha coefficient of the scale is 0.86 which shows a good internal consistency of the scale (Kline, 2000). A higher index value indicates a lower tax morale.

Drawing upon previous studies evaluating participation in the informal economy in terms of the important socio-demographic and socio-economic variables determining engagement (Williams and Horodnic, 2015a, 2015b; Williams and Padmore, 2013a, 2013b), the control variables selected are: gender, age, occupation, difficulties of paying bills, people 15+ years in own household, children and region.

In the following analysis, only those respondents living in urban areas were kept for which data on each and every control variable was available, which totaled 13,324



of the 17,886 respondents who reported living in urban areas. Examining the reliability of the data collected, moreover, in 93% of the interviews, the interviewers reported good or excellent cooperation from the participant, and average cooperation in 6% of cases. Cooperation was deemed poor in only 1% of cases.

### *3.3. Analytical methods*

To test the proposed hypotheses a multi-level logistic regression analysis is conducted. The analysis was undertaken in two stages. The first stage was to identify whether a multi-level approach was appropriate. The second stage involved constructing a model with individual-level variables and country-level variables to understand their association with the likelihood of participation in the informal economy and thus to test the three hypotheses. Below, we report the results.

## **4. Results**

Table 1 displays that 4% of those living in urban areas in the EU28 reported engaging in the informal economy during the past 12 months. Although this is a sensitive issue, resulting in this being a lower-bound estimate of the level of participation of the urban population in the informal economy, one in twenty-five reported doing so in the past year. The level of participation, moreover, varies across EU regions. The urban population living in Nordic nations has the highest participation rates (6%) whilst in East-Central Europe it is 4%, 4% in Western Europe and 2% in Southern Europe. As previous studies reveal however, just because participation rates are higher among the urban population in Nordic nations does not mean that they have larger informal economies. Much of this participation in Nordic nations is composed of one-off and small-scale paid favors for close social relations such as kin, friends and acquaintances, as is also the case in Western Europe, whereas in East-Central Europe and Southern Europe, participation is more often composed of waged employment and/or informal self-employment conducted on a more continuous basis (Eurofound, 2013; Williams and Horodnic, 2015c).

Turning to the relationship between the participation of the urban population in the informal economy and the various policy approaches, Table 1 reveals the differences between those engaged and not engaged regarding their perceptions of the risks of detection, the expected sanctions if caught, and their tax morale. Those engaged in the informal economy perceive the expected sanctions and risk of detection as lower than those not engaged; 31% of those engaged consider that only the normal tax or social security contributions will be due if caught compared with just 23% of those not engaged. Similarly, 72% of those engaged in informal work perceive the risk of being detected as very small or fairly small, compared with 59% of those not engaged. Those engaging in informal work, moreover, have lower tax morale (3.4) compared with those not engaged (2.2). These trends are the same across all EU regions. As such, urban participants in the informal economy across all EU regions view the severity of the punishment as lower, a smaller risk of detection, and have a lower tax morale than those not engaging in the informal economy.

**Table 1:** Participation of European Union urban populations in the informal economy: by expected sanctions, detection risk, and tax morale by EU region (N = 13,324)

	EU 28	Western Europe	Southern Europe	East-Central Europe	Nordic nations
<i>Engaged in the urban informal economy (%)</i>	4	4	2	4	6
<i>Expected sanctions (%)</i>					
Tax or social security contributions due	31	24	48	45	23
Tax or social security contributions + fine or prison	69	76	52	55	77
<i>Detection risk (%)</i>					
Very small/ Fairly small	72	70	69	80	79
Fairly high/ Very high	28	30	31	20	21
<i>Tax morale (mean)</i>	3.4	3.5	2.6	4	2.7
<i>Not engaged in the urban informal economy (%)</i>	96	96	98	96	92
<i>Expected sanctions (%)</i>					
Tax or social security contributions due	23	17	25	40	18
Tax or social security contributions + fine or prison	77	83	75	60	82
<i>Detection risk (%)</i>					
Very small/ Fairly small	59	58	57	60	72
Fairly high/ Very high	41	42	43	40	28
<i>Tax morale (mean)</i>	2.2	2.1	2.2	2.6	1.8

To analyze if these relationships remain significant when a host of control variables are taken into account and held constant, as well as the interaction effects, the first stage was to estimate a baseline random intercept model with no explanatory variables to identify whether a multi-level approach was appropriate. The finding is that 11% of the variance in the participation of the urban population in the informal economy was accounted for at the country level (Wald = 8.75, df=1, p<0.005). This indicates significant variation between countries in the degree of participation of the urban population in the informal economy. Having determined that the multilevel mixed-effects logistic regressions should be used, the second stage involved constructing a model including both individual-level explanatory variables and their interactions, and country-level explanatory variables, to test the three hypotheses.

The results of this multilevel mixed-effects logistic regression analysis of the participation of the urban population in the informal economy are reported in Table 2. Model 1 reports the urban populations most likely to participate in the informal economy. This reveals that men are significantly more likely to participate than women and so too are younger people, those living in smaller households, and facing difficulties in paying the household bills. Compared with self-employed people, however, both the employed and unemployed are less likely to participate. This, therefore, clearly indicates the urban populations that need to be targeted when tackling the informal economy.

Turning to the policy approaches, the first finding is that there is a statistically significant relationship between the participation of the urban population in the informal economy and the perceived level of penalties when other variables are introduced and held constant. Those viewing the expected sanctions to be higher (i.e., tax or social security contributions plus a fine or prison) are less likely to participate (con-



firming H1a). Similarly, those viewing the risk as fairly high or very high are less likely to engage compared with those who view the risk of being caught as fairly small and very small (confirming H1b). These results thus confirm the rational economic actor approach; increasing the actual or perceived penalties and risks of detection reduces the likelihood of urban populations participating in the informal economy.

**Table 2:** Multilevel mixed-effects logistic regression of propensity of European Union urban populations to participate in the informal economy

	Model 1			Model 2		
	b	se(b)	Exp(b)	b	se(b)	Exp(b)
<b>Fixed part</b>						
Expected sanctions (CG: Tax or social security contributions due)						
Tax or social security contributions + fine or prison	-0.248**	0.0989	0.781	-0.591***	0.192	0.554
Detection risk (CG: Very small/ Fairly small)						
Fairly high/ Very high	-0.609***	0.1030	0.544	-0.518**	0.201	0.596
Tax morality	0.354***	0.0249	1.425	0.304***	0.0410	1.356
Gender (CG: Women)						
Men	0.582***	0.0936	1.790	0.580***	0.0935	1.786
Age (exact age)	-0.040***	0.0030	0.961	-0.040***	0.0030	0.961
Occupation (CG: Self-employed)						
Employed	-0.742***	0.159	0.476	-0.737***	0.159	0.478
Not working	-0.602***	0.161	0.548	-0.601***	0.161	0.548
Difficulties paying bills (CG: Most of the time)						
From time to time	-0.711***	0.130	0.491	-0.706***	0.130	0.493
Almost never/ never	-1.085***	0.131	0.338	-1.080***	0.131	0.339
People 15+ years in own household (CG: One)						
Two	-0.280**	0.114	0.756	-0.282**	0.114	0.755
Three	-0.306**	0.146	0.736	-0.314**	0.147	0.731
Four and more	-0.359**	0.164	0.698	-0.360**	0.164	0.698
Children (CG: No children)						
Having children	-0.142	0.106	0.868	-0.139	0.106	0.870
Region (CG: East-Central Europe)						
Western Europe	-0.047	0.260	0.954	-0.043	0.261	0.958
Southern Europe	-1.091***	0.322	0.336	-1.083***	0.323	0.339
Nordic Nations	0.697*	0.361	2.008	0.715**	0.362	2.045
<i>Interaction terms</i>						
Expected sanctions:						
Tax or social security contributions + fine or prison x Tax morality				0.0979**	0.0477	1.103
Detection risk:						
Fairly high/ Very high x Tax morality				-0.0262	0.0519	0.974
Constant	-0.748**	0.323	0.473	-0.565	0.344	0.568
Observations			13,324			13,324
<b>Random part</b>						
Country-level variance			0.248***			0.251***
(Standard error)			0.091			0.092
Countries			28			28
Variance at country level (%)			7.01			7.09

Notes: Significant at \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Analyzing the social actor approach, there is again a significant association between participation and the level of tax morale; the higher the tax morality, the lower is the propensity to participate in the informal economy (confirming H2). This multilevel mixed-effect logistic regression analysis thus reveals a strong association between the likelihood of urban populations participating in the informal economy and not only the level of punishments and risk of detection but also the level of tax morale.

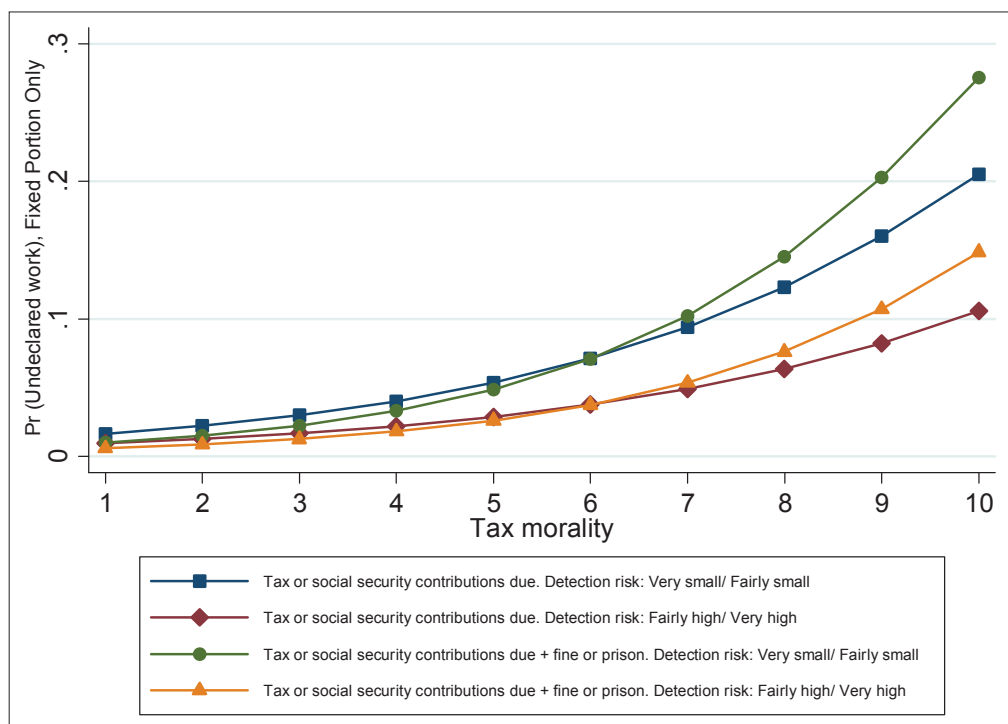
Is it the case however, that urban populations decrease their level of participation in the informal economy if a government combines the conventional rational economic actor approach of increasing the level of punishments and/or risk of detection, with the social actor approach of improving tax morale? Model 2 in Table 2 examines whether these two deterrence measures have a different impact on participation for urban populations with different levels of tax morale. This reveals that the perceived penalties affect the likelihood of participation in the informal economy differently at varying levels of tax morale (confirming H3a). However, the interaction term between the risk of detection and tax morale is not significant overall (refuting H3b).

To further analyze the interactions between the perceived penalties, the perceived risk of detection and tax morality, Figure 1 presents the predicted probabilities of 'representative' European citizens living in urban area participating in the informal economy by their level of tax morale, and what they perceive as the likely penalties and risk of detection. Here, the 'representative' European citizen living in an urban area is derived by taking the mean and modal values of the other independent variables. As such, the representative citizen is a 46 year-old not working woman, living in a two person household, located in Western Europe, with no children, who never or almost never has financial difficulties in paying the household bills. As Figure 1 reveals, when trust in authorities (i.e., tax morale) worsens, the predicted odds of this representative urban citizen engaging in the informal economy is smaller when the power of authorities is strongest (i.e., the risk of being detected is fairly high or very high and s/he expects that the punishment for such a behavior will be to pay the tax or social contribution due plus they will receive a fine or imprisonment). This reveals the importance of increasing the level of deterrence to prevent urban populations participating in the informal economy in contexts where tax morale is low.

However, when tax morale is relatively high (i.e., below a score of six), increasing the power of authorities has only a minor impact on the probability of urban populations participating in the informal economy. Indeed, the predicted probability of participating only reduces when the perceived risk of detection increases, but the perceived level of punishment has no influence on the likelihood of participation. As trust in authorities worsens (i.e., tax morale decreases) however, the power of authorities (i.e., the perceived level of punishment and risk of detection) plays an ever greater role in determining the level of participation. Indeed, it is only when tax morale decreases below a score of six that the power of authorities (i.e., the perceived level of punishment and risk of detection) plays a more significant role in reducing the predicted odds of the representative urban citizen engaging in the informal economy. In

such low trust urban environments, the greater the power of authorities, the lower is the probability of participation, with higher risks of detection having greater impacts on reducing participation than higher perceived punishments.

As such, when tax morale is high, the power of authorities has little overall impact on the probability of the urban population participating in the informal economy and only increasing the perceived risk of detection has a positive impact on reducing participation. When tax morale is low (i.e., above six) however, increasing the power of authorities has a greater impact on reducing participation, with increasing the perceived risks of detection having a greater impact on reducing participation in the informal economy than increasing the perceived punishments.



**Figure 1:** Predicted probability of the 'representative' EU urban citizen participating in the informal economy: by expected sanctions, detection risk, and tax morality

### 5. Discussion and conclusions

In this paper, we have evaluated the various policy approaches available for tackling the urban informal economy, namely the conventional rational economic actor approach which seeks to increase the penalties and risks of detection, and the social actor approach which seeks to improve tax morale, as well as the interaction effects of combining them. The finding is that the participation of urban populations in the informal economy decreases as the perceived level of penalties and risks of detection increase, as well as when tax morale improves. This suggests that both the conven-

tional rational economic actor as well as the social actor approach will be effective in reducing participation. These, therefore, are not alternative competing approaches but can be combined, as the 'slippery slope' approach has argued (Kirchler, Hoelzl and Wahl, 2008). However, increasing the power of authorities may vary at different levels of tax morale. Examining this for the probability of the 'representative' EU urban citizen living in urban area participating in the informal economy, the finding is that when trust in authorities and therefore tax morale is relatively high (i.e., below a score of six), increasing the power of authorities has only a minor impact on the probability of participating in the informal economy, and only in relation to increasing the perceived risk of detection. It is only when trust in authorities worsens and tax morale decreases below a score of six that the power of authorities (i.e., the perceived level of punishment and risk of detection) plays a more significant role in reducing the predicted odds of participation in the informal economy. In such low trust urban environments, the greater the power of authorities, the lower is the probability of participation, with higher risks of detection reducing the predicted odds of participation to a greater extent than higher perceived punishments.

Hence, if participation in the urban informal economy is to be reduced, a focus upon improving tax morale is required. The conventional rational economic actor approach focused on deterrents is not everywhere and always necessary. This is especially the case in populations where there is trust in authorities. In such populations, increasing the perceived level of penalties and risk of detection has no impact on the probability of participation. The use of deterrents is only influential when tax morale is low. The currently widely used rational actor approach thus needs to be at a very minimum complemented by a social actor approach which focuses upon improving tax morale. What policy measures could therefore be used to achieve this? Viewing low tax morale through the lens of institutional theory as a measure of the lack of alignment of the laws, codes and regulations of formal institutions and the norms, beliefs and values of informal institutions (Helmke and Levitsky, 2004; North, 1990), two sets of policy initiatives can be identified to reduce the gap between the formal institutions ('state morale') and informal institutions ('civic morale'), and consequently improve tax morale and reduce participation in the urban informal economy.

On the one hand, policy measures are needed that alter the norms, values and beliefs regarding the acceptability of the urban informal economy. These might be firstly, campaigns to raise awareness about the benefits of the formal economy and costs of the urban informal economy, and secondly, initiatives to educate urban citizens about the benefits of taxation in terms of the public goods and services they receive for the taxes they pay. This could include introducing education about taxes into civic education in schools, but also letters to taxpayers about how their taxes are being spent, and signs stating 'your taxes paid for this' in hospitals, doctors surgeries, roads and schools.

On the other hand, policy initiatives to reform the products and processes of formal institutions are also required. Firstly, this requires policy initiatives to change

the macro-level conditions that lead to lower tax morale, such as increasing expenditure on active labor market policies to support vulnerable groups and expenditure on social protection (Autio and Fu, 2015; Dau and Cuervo-Cazzurra, 2014; Klapper *et al.*, 2007; Thai and Turkina, 2014). Secondly, it requires changes in how formal institutions operate. Indeed, unless pursued, asymmetry will persist between formal institutions ('state morale') and informal institutions ('civic morale'), and trust in government and voluntary compliance will remain low, resulting in relatively higher participation in the urban informal economy. These findings, nevertheless, are based on just one dataset and are thus tentative.

In sum, if this paper encourages further data collection and evaluation of the different approaches used to explain and tackle the informal economy, as well as the interaction effects of combining them, both in individual urban populations and other global regions, then this paper will have fulfilled one of its intentions. If this widens the range of policy approaches and measures used to tackle the urban informal economy beyond the currently dominant approach of increasing the penalties and risks of detection, then it will have fulfilled its wider objective. What remains certain, however, is that it cannot continue to be assumed that the conventional deterrence approach is the most effective approach, especially in urban contexts where tax morale is not low.

### References:

1. Aliyev, H., 'Post-Soviet Informality: Towards Theory-Building', 2015, *International Journal of Sociology and Social Policy*, vol. 35, no. 3-4, pp. 182-198.
2. Allingham, M. and Sandmo, A., 'Income Tax Evasion: A Theoretical Analysis', 1972, *Journal of Public Economics*, vol. 1, no. 2, pp. 323-338.
3. Alm, J. and Torgler, B., 'Culture Differences and Tax Morale in the United States and in Europe', 2006, *Journal of Economic Psychology*, vol. 27, no. 2, pp. 224-246.
4. Alm, J., 'Designing Alternative Strategies to Reduce Tax Evasion', in Pickhardt, M. and Prinz, A. (eds.), *Tax Evasion and the Shadow Economy*, Cheltenham: Edward Elgar, 2011, pp. 13-32.
5. Alm, J., Cherry, T., Jones, M. and McKee, M., 'Taxpayer Information Assistance Services and Tax Compliance Behavior', 2010, *Journal of Economic Psychology*, vol. 31, no. 4, pp. 577-586.
6. Alm, J., Kirchler, E., Muehlbacher, M., Gangil, K., Hofmann, E., Logler, C. and Pol-lai, M., 'Rethinking the Research Paradigms for Analyzing Tax Compliance Behavior', 2012, *CESifo forum*, no. 10, pp. 33-40.
7. Alm, J., McClelland, G. and Schulze, W., 'Why Do People Pay Taxes?', 1992, *Journal of Public Economics*, vol. 48, no. 1, pp. 323-338.
8. Alm, J., Sanchez, I. and De Juan, A., 'Economic and Non-Economic Factors in Tax Compliance', 1995, *Kyklos*, vol. 48, no. 1, pp. 3-18.
9. Autio, E. and Fu, K., 'Economic and Political Institutions and Entry into Formal and Informal Entrepreneurship', 2015, *Asia-Pacific Journal of Management*, vol. 32, no. 1, pp. 67-94.
10. Baumol, W.J. and Blinder, A., *Macroeconomics: Principles and Policy*, Cincinnati: South-Western Publishing, 2008.

11. Beccaria, C., *On Crimes and Punishment*, Indianapolis: Hackett, 1797 [1986].
12. Becker, G.S., 'Crime and punishment: An Econometric Approach', 1968, *Journal of Political Economy*, vol. 76, no. 1, pp. 169-217.
13. Bentham, J., 'Principles of Penal Law', reprinted in Burton, J.H. (ed.), *The Works of Jeremy Bentham*, Philadelphia: Lea and Blanchard, 1788 [1983].
14. Boels, D., 'It's Better than Stealing: Informal Street Selling in Brussels', 2014, *International Journal of Sociology and Social Policy*, vol. 34, no. 9/10, pp. 670-693.
15. Dau, L.A. and Cuervo-Cazurra, A., 'To Formalize or Not to Formalize: Entrepreneurship and Pro-Market Institutions', 2014, *Journal of Business Venturing*, vol. 29, no. 5, pp. 668-686.
16. Eurofound, 'Tackling the Urban Informal Economy in 27 European Union Member States and Norway: Approaches and Measures since 2008', Dublin: Eurofound, 2013.
17. European Commission, *Stepping up the Fight against the Urban Informal Economy*, COM 628 (final), Brussels: European Commission, 2007.
18. Feld, L.P. and Frey, B., 'Trust Breeds Trust: How Taxpayers Are Treated', 2002, *Economics of Government*, vol. 3, no. 2, pp. 87-99.
19. Grabiner, L., *The Informal Economy*, London: HM Treasury, 2000.
20. Hasseldine, J. and Li, Z., 'More Tax Evasion Research Required in New Millennium', 1999, *Crime, Law and Social Change*, vol. 31, no. 1, pp. 91-104.
21. Helmke, G. and Levitsky, S., 'Informal Institutions and Comparative Politics: A Research Agenda', 2004, *Perspectives on Politics*, vol. 2, no. 4, pp. 725-740.
22. ILO, International Labor Organization, *Women and Men in the Informal Economy: Statistical Picture*, 2013, [Online] available at [http://laborsta.ilo.org/informal\\_economy\\_E.html](http://laborsta.ilo.org/informal_economy_E.html), accessed on July 1, 2016.
23. Job, J., Stout, A. and Smith, R., 'Culture Change in Three Taxation Administrations: From Command and Control to Responsive Regulation', 2007, *Law and Policy*, vol. 29, no. 1, pp. 84-101.
24. Kirchler, E., Hoelzl, E. and Wahl, I., 'Enforced versus Voluntary Tax Compliance: The "Slippery Slope" Framework', 2008, *Journal of Economic Psychology*, vol. 29, no. 2, pp. 210-225.
25. Kirchler, E., *The Economic Psychology of Tax Behaviour*, Cambridge: Cambridge University Press, 2007.
26. Klapper, L., Amit, R., Guillen, M.F. and Quesdada, J.M., *Entrepreneurship and Firm Formation across Countries*, Policy Research Working Paper Series no. 4313, Washington, D.C.: World Bank, 2007.
27. Kline, P., *The Handbook of Psychological Testing*, 2<sup>nd</sup> edition, London: Routledge, 2000.
28. Kogler, C., Muehlbacher, S. and Kirchler, E., 'Testing the "Slippery Slope Framework" among Self-Employed Taxpayers', 2015, *Economics of Governance*, vol. 16, no. 2, pp. 125-142.
29. Lazăr, D.T., Moldovan, B.A. and Pavel, A., 'Underground Economy's Measurement Methods', 2008, *Transylvanian Review of Administrative Sciences*, vol. 23E, pp. 43-58.
30. McKerchar, M., Bloomquist, K. and Pope, J., 'Indicators of Tax Morale: An Exploratory Study', 2013, *eJournal of Tax Research*, vol. 11, no. 1, pp. 5-22.
31. Muehlbacher, S., Kirchler, E. and Schwarzenberger, H., 'Voluntary Versus Enforced Tax Compliance: Empirical Evidence for The "Slippery Slope" Framework', 2011, *European Journal of Law and Economics*, vol. 32, no. 1, pp. 89-97.



32. Murphy, K. and Harris, N., 'Shaming, Shame and Recidivism: A Test of Reintegrative Shaming Theory in the White-Collar Crime Context', 2007, *British Journal of Criminology*, vol. 47, no. 6, pp. 900-917.
33. Murphy, K., 'Enforcing Tax Compliance: To Punish or Persuade?', 2008, *Economic Analysis and Policy*, vol. 38, no. 1, pp. 113-135.
34. Murphy, K., 'Regulating More Effectively: The Relationship between Procedural Justice, Legitimacy and Tax Non-Compliance', 2005, *Journal of Law and Society*, vol. 32, no. 4, pp. 562-589.
35. North, D. C., *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press, 1990.
36. OECD, *Reducing Opportunities for Tax Non-Compliance in the Underground Economy*, Paris: OECD, 2012, [Online] available at <http://www.oecd.org/tax/forum-on-tax-administration/49427993.pdf>, accessed on February 2, 2016.
37. Prinz, A., Muehlbacher, S. and Kirchler, E., 'The Slippery Slope Framework on Tax Compliance: An Attempt to Formalization', 2013, *Journal of Economic Psychology*, vol. 40, no. 1, pp. 20-34.
38. Richardson, M. and Sawyer, A., 'A Taxonomy of the Tax Compliance Literature: Further Findings, Problems and Prospects', 2001, *Australian Tax Forum*, vol. 16, no. 2, pp. 137-320.
39. Schmolders, G., 'Finanzpsychologie', 1951/1952, *Finanzarchiv*, vol. 13, pp. 1-36.
40. Schmolders, G., *Das Irrationale in der öffentlichen Finanzwissenschaft*, Hamburg: Rowolt, 1960.
41. Schmolders, G., *Volkswirtschaftslehre und Psychologie*, Berlin: Reinbek, 1962.
42. Schneider, F. and Williams, C.C., *The Shadow Economy*, London: Institute of Economic Affairs, 2013.
43. Shaw, J., Slemrod, J. and Whiting, J., *Administration and Compliance*, London: Institute for Fiscal Studies, 2008.
44. Slemrod, J., Blumenthal, M. and Christian, C.W., 'Taxpayer Response to an Increased Probability of Audit: Evidence from A Controlled Experiment in Minnesota', 2001, *Journal of Public Economics*, vol. 79, no. 3, pp. 455-483.
45. Strümpel, B., 'The Contribution of Survey Research to Public Finance', in Peacock, A.T. (ed.), *Quantitative Analysis in Public Finance*, New York: Praeger, 1969, pp. 12-32.
46. Thai, M.T.T. and Turkina, E., 'Macro-level Determinants of Formal Entrepreneurship versus Informal Entrepreneurship', 2014, *Journal of Business Venturing*, vol. 29, no. 4, pp. 490-510.
47. Torgler, B. and Schneider, F., *Shadow Economy, Tax Morale, Governance and Institutional Quality: A Panel Analysis*, IZA Discussion Paper no. 2563, Bonn: IZA, 2007.
48. Torgler, B., 'Tax Morale in Central and Eastern European Countries', in Hayoz, N. and Hug, S. (eds.), *Tax Evasion, Trust and State Capacities: How Good Is Tax Morale in Central and Eastern Europe?*, Bern: Peter Lang, 2007, pp. 155-186.
49. Torgler, B., 'Tax Morale, Eastern Europe and European Enlargement', 2012, *Communist and Post-Communist Studies*, vol. 45, no. 1, pp. 11-25.
50. Torgler, B., 'To Evade Taxes or Not: That Is The Question', 2003, *Journal of Socio-Economics*, vol. 32, no. 3, pp. 283-302.

51. Torgler, B., *Tax Morale and Compliance: Review of Evidence and Case Studies for Europe*, World Bank Policy Research Working Paper no. 5922, Washington, D.C.: World Bank, 2011.
52. Varma, K. and Doob, A., 'Deterring Economic Crimes: The Case of Tax Evasion', 1998, *Canadian Journal of Criminology*, vol. 40, no. 2, pp. 165-184.
53. von Schanz, G., *Die Steuern der Schweiz in ihrer Entwicklung seit Beginn des 19 Jahrhunderts, Vol I to V*, Stuttgart, 1890.
54. Wahl, I., Kastlunger, B. and Kirchler, E., 'Trust in Authorities and Power to Enforce Tax Compliance: An Empirical Analysis of The "Slippery Slope Framework"', 2010, *Law and Policy*, vol. 32, no. 4, pp. 383-406.
55. Webley, P. and Halstead, S., 'Tax Evasion on the Micro: Significant Simulations or Expedient Experiments', 1986, *Journal of Interdisciplinary Economics*, vol. 1, no. 2, pp. 87-100.
56. Wenzel, M., 'An Analysis of Norm Processes in Tax Compliance', 2004a, *Journal of Economic Psychology*, vol. 25, no. 2, pp. 213-228.
57. Wenzel, M., 'The Social Side of Sanction: Personal and Social Norms as Moderators of Deterrence', 2004b, *Law and Human Behaviour*, vol. 28, no. 5, pp. 547-567.
58. Williams, C.C. and Horodnic, I.A., 'Evaluating the Prevalence of the Undeclared Economy in Central and Eastern Europe: An Institutional Asymmetry Perspective', 2015a, *European Journal of Industrial Relations*, vol. 21, no. 4, pp. 389-406.
59. Williams, C.C. and Horodnic, I.A., 'Rethinking the Marginalisation Thesis: An Evaluation of the Socio-Spatial Variations in the Urban Informal Economy in the European Union', 2015b, *Employee Relations*, vol. 37, no. 1, pp. 48-65.
60. Williams, C.C. and Horodnic, I.A., 'Self-Employment, the Informal Economy and the Marginalisation Thesis: Some Evidence from the European Union', 2015c, *International Journal of Entrepreneurial Behaviour and Research*, vol. 21, no. 2, pp. 224-242.
61. Williams, C.C. and Padmore, J., 'Envelope Wages in the European Union', 2013b, *International Labour Review*, vol. 152, no. 3-4, pp. 411-430.
62. Williams, C.C. and Padmore, J., 'Evaluating the Prevalence and Distribution of Quasi-Formal Employment in Europe', 2013a, *Relations Industrielles/Industrial Relations*, vol. 68, no. 1, pp. 71-95.
63. Williams, C.C. and Windebank, J., 'Reconceptualising Paid Informal Exchange: Some Lessons from English Cities', 2001, *Environment and Planning A*, vol. 33, no. 1, pp. 121-140.
64. Williams, C.C. and Windebank, J., *Informal Employment in the Advanced Economies: Implications for Work and Welfare*, London: Routledge, 1998.
65. Williams, C.C., 'Out of the Shadows: A Classification of Economies by the Size and Character of their Informal Sector', 2014b, *Work, Employment and Society*, vol. 28, no. 5, pp. 735-753.
66. Williams, C.C., *Confronting the Shadow Economy: Evaluating Tax Compliance Behaviour and Policies*, Cheltenham: Edward Elgar, 2014a.
67. Williams, C.C., Windebank, J., Baric, M. and Nadin, S., 'Public Policy Innovations: The Case of the Urban Informal Economy', 2013, *Management Decision*, vol. 51, no. 6, pp. 1161-1175.