

Tax morale and institutional theory: a systematic review

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Abstract

Purpose – The purpose of this paper is to conduct a systematic review of the factors that shape tax morale. A large range of random explanatory variables identified in the literature as determinants of tax morale are synthesised and structured by drawing inspiration from the institutional theory.

Design/methodology/approach – To do this, a systematic search has been conducted using a library catalogue which provides access to more than 400 databases.

Findings – The finding is that the institutional theory provides a suitable theoretical basis to explore tax morale. Indeed, all the factors until now identified as determinants of tax morale (except the control variables/socio-demographic characteristics) can be categorised either as belonging to formal institutions or to informal institutions. The most salient factor is trust, with both vertical and horizontal trust positively related to tax morale.

Research limitations/implications – The outcome is a call for a more nuanced understanding of not only the effect of formal and informal institutions on tax morale but also how formal and informal institutions interact and alter each other and, consequently, affect tax morale.

Practical implications – The paper seeks to encourage governments to start recognising that as low tax morale arises when a gap exists between formal and informal institutions, they need to design policy measures aimed to reduce this gap, rather than persisting with deterrence measures.

Originality/value – This is the first systematic review of the factors that influence tax morale using an institutionalist lens.

Keywords Informal institutions, Tax compliance, Formal institutions, Tax morale, Horizontal trust, Vertical trust

Paper type Literature review

1. Introduction

Tax compliance has been extensively researched and yet, the question of why people pay taxes remains only partially answered. Tax non-compliance continues to represent a core issue for many governments around the world.

For many decades, the neoclassical approach developed by Allingham and Sandmo (1972) represented the benchmark economic model of tax non-compliance. The model assumes that tax payers are rational actors who seek to maximise the utility of their taxable income by weighting the benefits and the cost of compliance with the utility of tax non-compliance. As such, they will be non-compliant when the expected penalty and probability of being caught are rather small compared to the utility gained by non-compliance. As a result, the governments sought to ensure that the utility of non-compliance is outweighed by the cost of non-compliance and increased the penalties and the perceived probability of detection of the non-compliant taxpayers (Williams, 2014; Williams and Horodnic, 2015a, 2017a). However, reducing tax non-compliance is not just a matter of applying higher penalties and/or increasing the probability of detection. The first to recognise that the model does not capture

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all the rationales of tax non-compliance were the authors themselves as they state in their paper the following: “This is a very simple theory, and it may perhaps be criticized for giving too little attention to nonpecuniary factors in the taxpayer’s decision on whether or not to evade taxes” (Allingham and Sandmo, 1972). Indeed, despite its simplicity and clear-cut policy implications, the model fails to explain why the observed level of tax compliance is higher than the theoretical predicted level (Leonardo, 2011; Torgler *et al.*, 2007a). That stimulated the search for alternative models which take into account the non-pecuniary aspects of the tax compliance decision. As such, after being neglected for decades, starting in the 1990s, tax morale turned into a key issue in the recent empirical research on tax compliance (Torgler, 2011; Torgler *et al.*, 2007a).

The aim of this paper is to conduct a systematic review of the factors that influence tax morale. To do so, a large range of random explanatory variables identified in the literature as determinants of tax morale are synthesised and structured by drawing inspiration from institutional theory (Baumol and Blinder, 2008; Helmke and Levitsky, 2004; North, 1990). As such, tax morale is viewed in this paper primarily as a result of the interaction between the formal and the informal institutions. An asymmetry in a society between the laws and regulations of its formal institutions and the socially shared unwritten norms of its informal institutions will result in low tax morale. In Section 1, therefore, the importance of tax morale in explaining various forms of tax non-compliance will be briefly reviewed, followed by the methodology and a structured analysis of the effect of formal and informal institutions on tax morale, alongside the socio-demographic characteristics related to the variations in tax morale. The paper concludes by discussing the tentative policy implications and the identified gaps in the literature.

2. Tax morale and tax compliance

The concept of tax morale was introduced for the first time during the 1960s by “Cologne school of tax psychology” (Schmölders, 1970; Strümpel, 1969) but received little attention from tax researchers for several decades (Alm and Torgler, 2004). Starting in the 1990s, tax morale increasingly attracted attention and has become a central issue in empirical research on tax compliance (Torgler, 2011; Torgler *et al.*, 2007a). Tax morale is defined most often as the intrinsic motivation to pay taxes (Torgler, 2002b, 2005c, 2012; Torgler and Schneider, 2007a). Luttmer and Singhal (2014) define tax morale as the totality of non-pecuniary motivations and factors for tax compliance which fall outside the expected utility maximisation. As mentioned above, in this paper, using an institutionalist lens, the intrinsic motivation to pay taxes, tax morale, is viewed primarily to result from the interaction between formal and informal institutions. However, it is important to acknowledge that personal traits are also important in shaping the individual’s tax morale and thus, tax compliance behaviour. Previous studies show that there are individuals, referred to as “honest taxpayers”, which do not try to evade (Torgler, 2001, 2003c) because they are simply “predisposed not to evade” (Long and Swingen, 1991). The opposite extreme is represented by the “tax evaders” who, in general, have a low tax morale and act as rational actors comparing the benefits of evading taxes to the benefits of complying (Torgler, 2003c). Furthermore, there are individuals who may enjoy evading taxes and perceive this as a game, playing with the state (Kirchler *et al.*, 2007).

A literature review investigating if tax morale represents a significant factor that affects tax compliance or rather a marginal one concluded that tax morale plays a sizeable role in explaining tax compliance decisions (Luttmer and Singhal, 2014). Further support in this direction is provided by the study conducted on the particular case of the Protestant church in Bavaria, where tax enforcement is limited or non-existent and where the results show that about 20 per cent of the individuals paid taxes despite the lack of enforcement (Dwenger *et al.*, 2016). Indeed, although a high level of tax morality (i.e. an attitude) does not automatically result in a high level of tax compliance (i.e. a behaviour), analysing the results

of previous empirical studies, it becomes quickly apparent that tax morale has a strong effect on various forms of tax non-compliant behaviours. Lower levels of tax morale are associated with higher levels of tax evasion/lower levels of tax compliance (Brink and Porcano, 2016; Dell'Anno, 2009; Kirchgässner, 2010; Lima and Zaklan, 2008; Lisi, 2015; Stark and Kirchler, 2017; Sumartaya and Hafidiah, 2014; Torgler, 2004a; Torgler and Schaffner, 2007; Torgler *et al.*, 2008), higher levels of shadow economy (Halla, 2012; Torgler and Schneider, 2006, 2007a, b, 2009; Torgler *et al.*, 2007a, b), higher participation in undeclared work (Williams and Horodnic, 2015c, 2016a; Windebank and Horodnic, 2017) or higher participation in underreporting wages (Williams and Horodnic, 2015a, b, c, d, e, 2016b, 2017a). Similarly, a large asymmetry between formal and informal institutions was identified as being positively correlated with the informal payments made by patients for healthcare services (Horodnic and Williams, 2018; Williams and Horodnic, 2017, 2018).

In order to provide a better understanding of how tax morale is shaped and, therefore, to identify which policies could improve tax morale, the next sections provide a systematic review of the factors that influence tax morale. These factors are grouped into three main categories: formal institutions which include factors related to governance and countries' structural conditions; informal institutions which include the social influences; and socio-demographic characteristics and personal values.

3. Data and methodology

3.1 Data sources

For identifying the relevant papers related to tax morale, a systematic search has been conducted using Sheffield University's Library Catalogue which provides access to more than 400 databases, including for example, Ebsco, Econlit, Emerald Insight, Jstor, Proquest, Sage, Science Direct, Scopus and even Google Scholar. That provided access to journal papers, working papers, conference papers, books, thesis dissertations and official reports. The results were displayed by relevance, and we screened the first 300 results generated by using specific keywords. In addition, the references of the selected papers were checked as well as the personal pages of the most relevant authors in the field, in order to avoid the exclusion of important work which might have not appeared in the first search.

3.2 Inclusion criteria

The inclusion criteria were based on the use of the keywords "tax morale" or "tax morality". No limitation regarding the type or the year of publication was applied. Only the papers written in English have been kept. From the initial 600 results (300 for each keyword), after screening the titles and abstracts less than 200 papers were retained. A detailed review of these papers found 82 papers that analyse the factors affecting tax morale. Only original research papers which have used empirical or theoretical models referring to tax morale as a dependent variable have been kept and displayed in the resultant tables (i.e. those referring to tax compliance as dependent variable are not included). Literature review type papers, if relevant, were used for the introduction or for the concluding part of the paper.

Research articles, conference papers, books, thesis dissertations and official reports were identified and included. When a working paper was subsequently published in a scientific journal, the published version was kept in the analysis.

4. Results

The array of methods used in the selected papers was heterogeneous, with a predominance of surveys and laboratory experiments. A variety of secondary and primary sources of data has been used, including both cross-country data or individual country data. These include the World Values Survey, the European Values Surveys, the European Social Survey,

the Eurobarometer survey on undeclared work, the International Social Survey Programme, the Taxpayer Opinion Survey, the Latinbarometro, the Afrobarometer, the AsiaBarometer, the Australian Graduates' Hopes, Visions and Actions Survey, the Bank of Italy Survey of Household Wealth and Income, the Palestinian Public Opinion Survey, the Pakistan's Baseline Taxpayers' Perception Survey, the Spain's Survey of Fiscal Policy, the Spain's Survey into Tax Morale of the Citizenry or primary data collection via a self-designed survey. Tables I–III present the synthesised results collected from the 82 papers included in the systematic review. Due to the space limit, for each identified factor, only the predominant finding is displayed. In the situation that for the same factor an approximately similar number of papers found divergent results, those are kept and discussed (see e.g. the findings on deterrence measures in Table I).

4.1 Formal institutions and tax morale

The influence of formal institutions on tax morale represents the main research topic identified in the tax morale literature (Table I). It is argued that there is a social contract between citizens and the government and that the individuals pay taxes in exchange for the services provided by the government (Luttmer and Singhal, 2014; Torgler, 2001, 2002a; Torgler *et al.*, 2007b). As such, positive actions of the government increase social commitment and tax morale. The most salient factor influencing tax morale is represented by vertical trust. Indeed, regardless which public authority is analysed, a high tax morale level is associated with a high level of:

- (1) trust in the government (Andriani, 2016; Chan *et al.*, 2018; Daude *et al.*, 2012; Ibrahim *et al.*, 2015; Kondelaji *et al.*, 2016; Leonardo, 2011; Li, 2010; Ristovska *et al.*, 2013; Torgler, 2003b, d, 2004a, b, 2012; Torgler and Schaffner, 2007; Torgler and Schneider, 2004; Torgler *et al.*, 2007a, b; Trüdinger and Hildebrandt, 2013; Vythelingum *et al.*, 2017);
- (2) trust in the parliament (Alm and Torgler, 2006; Chan *et al.*, 2018; Frey and Torgler, 2007; Martinez-Vazquez and Torgler, 2009; Torgler, 2004c, 2005a; Torgler and Murphy, 2004; Torgler and Schneider, 2004; Torgler *et al.*, 2007a);
- (3) trust in court and the legal system/rule of law (Alm and Torgler, 2006; Andriani, 2016; Feld and Torgler, 2007; Filippin *et al.*, 2013; Frey and Torgler, 2007; Torgler, 2003a, b, c, 2004a, b, c, 2005a, b, 2012; Torgler and Murphy, 2004; Torgler and Schneider, 2004; Torgler *et al.*, 2007a, 2008, 2010; Vythelingum *et al.*, 2017);
- (4) trust in the tax authority and tax officials (Jahnke, 2015; Torgler, 2003b, c, 2004c; Torgler and Schaffner, 2007; Torgler *et al.*, 2008; Vythelingum *et al.*, 2017),
- (5) trust in public officials (Torgler and Schaffner, 2007; Torgler *et al.*, 2008);
- (6) trust in politicians (Lago-Peñas and Lago-Peñas, 2010);
- (7) trust in the president (Torgler, 2005b);
- (8) trust in political parties (Chan *et al.*, 2018);
- (9) trust in police (Leonardo and Martinez-Vazquez, 2016); and
- (10) trust in the European Union (Torgler, 2012).

Similarly, a large body of studies concluded that tax morale depends on perceived fairness and effectiveness of the government. As such, the more effective the government spending is perceived (Alasfour *et al.*, 2016; Barone and Mocetti, 2011; Molero and Pujol, 2012; Sipos, 2015; Vythelingum *et al.*, 2017) and the higher is the level of the perceived benefits (Alm and Gomez, 2008), the higher the level of tax morale. In addition, the transparency of public

Variable	Result	Study
Trust in public authorities	A high trust in public authorities is associated with high tax morale	Alm and Torgler (2006), Andriani (2016), Chan <i>et al.</i> (2018), Daude <i>et al.</i> (2012), Feld and Torgler (2007), Filippin <i>et al.</i> (2013), Frey and Torgler (2007), Ibrahim <i>et al.</i> (2015), Jahnke (2015), Kondelaji <i>et al.</i> (2016), Lago-Peñas and Lago-Peñas (2010), Leonardo (2011), Leonardo and Martinez-Vazquez (2016), Li (2010), Martinez-Vazquez and Torgler (2009), Ristovska <i>et al.</i> (2013), Torgler (2003a, b, c, d, 2004a, b, c, 2005a, b, c, 2012), Torgler and Murphy (2004), Torgler and Schaffner (2007), Torgler and Schneider (2004), Torgler <i>et al.</i> (2007a, b, 2008, 2010), Trüdinger and Hildebrandt (2013), Vythelingum <i>et al.</i> (2017)
Government quality/ spending effectiveness	Higher perceived quality/effectiveness of spending is associated with higher tax morale	Alasfour <i>et al.</i> (2016), Alm and Gomez (2008), Barone and Mocetti (2011), Frey and Torgler (2007), Molero and Pujol (2012), Sipos (2015), Vythelingum <i>et al.</i> (2017)
Government fairness (including fairness of tax system)	The higher the perceived fairness of the government, the higher the tax morale	Alasfour <i>et al.</i> (2016), Alm and Gomez (2008), Çevik (2016), Cyan <i>et al.</i> (2016), Cummings <i>et al.</i> (2005, 2009), Frey (2003), Niesiołędzka (2014), Torgler and Schaffner (2007), Torgler <i>et al.</i> (2008), Vythelingum <i>et al.</i> (2017)
Deterrence measures	No relationship with tax morale High risk of detection/expected sanctions associated with higher tax morale	Torgler (2003a, b, c), Torgler <i>et al.</i> (2010) Torgler and Werner (2005), Torgler <i>et al.</i> (2007a), Williams and Horodnic (2016c)
<i>Structural conditions</i>		
GDP/ GNP	Positive impact on tax morale/ positive correlated	Doerrenberg and Peichl (2010), Gerstenbluth <i>et al.</i> (2012), Williams and Krasniqi (2017), Williams and Martinez (2014)
Government expenditure (i.e. social protection, education, health)	Positive impact on tax morale	Doerrenberg and Peichl (2010), Williams and Horodnic (2016c), Williams and Krasniqi (2017), Williams and Martinez (2014)
Inflation	Negative impact on tax morale	Doerrenberg and Peichl (2010)
Tax rate	The higher the tax rate, the lower the tax morale. Progressive tax systems improve tax morale	Alasfour <i>et al.</i> (2016), Doerrenberg and Peichl (2010), Lago-Peñas and Lago-Peñas (2010), Molero and Pujol (2012), Torgler (2002a, 2003a), Torgler and Murphy (2004), Torgler <i>et al.</i> (2007b), Williams and Krasniqi (2017), Williams and Martinez (2014)
Income inequality (Gini index)	Negative correlated with tax morale	Gerstenbluth <i>et al.</i> (2012), Trüdinger and Hildebrandt (2013), Williams and Krasniqi (2017), Williams and Martinez (2014)
Corruption	Wider corruption is associated with lower tax morale	Alasfour <i>et al.</i> (2016), Gerstenbluth <i>et al.</i> (2012), Jahnke (2015), Torgler (2006), Torgler <i>et al.</i> (2008), Williams and Krasniqi (2017), Williams and Martinez (2014)

Table I.
Formal institutions
and vertical trust

(continued)

Table I.

Variable	Result	Study
Democracy/ responsive regulation/legal rights	Direct democracy leads to higher tax morale	Feld and Frey (2004, 2006), Lago-Peñas and Lago-Peñas 2010, Frey and Torgler (2007), Martins and Gomes (2014), Sá <i>et al.</i> (2015), Torgler (2003a, b, c), Torgler and Schneider (2004), Torgler <i>et al.</i> (2007b, 2010), Williams and Krasniqi (2017)
Centralisation	Centralisation induces lower tax morale. Local autonomy has a significantly positive effect on tax morale and the size of the shadow economy	Güth <i>et al.</i> (2005), Lago-Peñas and Lago-Peñas (2010), Maria-Dolores <i>et al.</i> (2010), Torgler (2005a), Torgler and Werner (2005), Torgler <i>et al.</i> (2007b, 2010)
Level of immigration	Higher immigration/immigrants associated with higher tax morale	Russo (2013), Williams and Martinez (2014)

spending is associated with higher tax morale (Sipos, 2015). Furthermore, tax morale is improved if the government and the tax system are perceived by the citizens as being fair (Alasfour *et al.*, 2016; Alm and Gomez, 2008; Çevik, 2016; Cummings *et al.*, 2005, 2009; Cyan *et al.*, 2016; Frey, 2003; Niesiołędzka, 2014; Torgler and Schaffner, 2007; Torgler *et al.*, 2008; Vythelingum *et al.*, 2017).

While the neoclassical approach developed by Allingham and Sandmo (1972) represented the benchmark economic model of tax non-compliance and, therefore, an overwhelming number of studies investigated the effect of the deterrence measures on tax compliance, only a few studies sought to investigate this issue with respect to tax morale and the results are not conclusive. While some studies identified a positive relationship between tax morale and the perceived level of detection or the perceived sanctions (Torgler and Werner, 2005; Torgler *et al.*, 2007a; Williams and Horodnic, 2016c), other studies found no relationship (Torgler, 2003a, 2005a, c; Torgler *et al.*, 2010). However, it is important to notice that increased levels of deterrence might disrupt the trust between government and citizens (Pommerehne and Frey, 1992; Torgler, 2001).

Finally, a significant body of papers investigate the influence of the country structural conditions on tax morale. A higher level of GDP, higher level of government expenditure and higher level of immigration are positively associated with tax morale. In stark contrast, higher levels of inflation, income inequality and tax rates are negatively associated with citizens' tax morale. Similarly, widespread corruption is associated with lower tax morale (list of studies in Table I). This suggests that, in countries where corruption is systemic, citizens have little trust in public authorities and their tax morale decreases because the obligation of paying taxes does not represent an accepted social norm as citizens feel cheated (Chan *et al.*, 2018; Saitta, 2017; Torgler, 2001; Torgler *et al.*, 2007b). Therefore, evading taxes is used by citizens as a self-defence mechanism.

Tax morale increases where there is a closer relationship between the government and citizens, expressed as legal rights/democracy or local autonomy (list of studies in Table I). Indeed, studies conducted in different cantons in Switzerland conclude that direct democratic rights (e.g. constitutional initiative, legislative initiative, legislative referendum, financial referendum) have positive effects on both tax morale and the size of the shadow economy (Torgler, 2005a, c; Torgler and Schneider, 2004; Torgler *et al.*, 2007b, 2010). Similarly, the more extensive is the competence of the local audit courts, which allows a higher transparency of the budget as well as spending the taxes according to the citizens' preferences, the higher is the tax morale (Torgler, 2005a; Torgler *et al.*, 2007b, 2010).

In sum, analysing how formal institutions shape tax morale, it can be concluded that citizens have a higher tax morale with higher levels of modernisation (i.e. higher GDP, more

Variable	Result	Study
Culture	Culture has impact on tax morale. There are cultural differences within and between countries influencing tax morale	Alm and Torgler (2004, 2006), Brink and Porcano (2016), D'Attoma (2015), Feld and Torgler (2007), Feld <i>et al.</i> (2008), Frey and Torgler (2007), Horodnic and Williams (2016), Kountouris and Remoundou (2013), Torgler (2002/2003, (2003b, 2004b, c, 2005b, 2012), Williams and Horodnic (2016c)
National pride/patriotism	Higher pride in national origin is associated with higher tax morale	Bilgin (2014), Kondelaji <i>et al.</i> (2016), Leonardo and Martinez-Vazquez (2016), MacGregor and Wilkinson (2012), Martinez-Vazquez and Torgler (2009), Martins and Gomes (2014), Ristovska <i>et al.</i> (2013), Torgler (2003b, d, 2004b), Torgler and Schneider (2004), Trüdinger and Hildebrandt (2013)
Religion	No difference in tax morale between different religions Higher religious values/high attendance to church are associated with higher tax morale	Alasfour <i>et al.</i> (2016), Kanninen and Pääkkönen (2010), Torgler (2003d) Alm and Torgler (2004, 2006), Andriani (2016), Bilgin (2014), Daude <i>et al.</i> (2012), Feld and Torgler (2007), Feld <i>et al.</i> (2008), Frey and Torgler (2007), Lago-Peñas and Lago-Peñas (2010), Leonardo and Martinez-Vazquez (2016), Martinez-Vazquez and Torgler (2009), Russo (2013), Sá <i>et al.</i> (2015), Torgler (2003a, d, 2005a, 2006, 2012, Torgler and Murphy (2004), Torgler <i>et al.</i> (2007a, b, 2010), Trüdinger and Hildebrandt (2013), Vythelingum <i>et al.</i> (2017)
<i>Sense of community (including peer effect)</i>		
Sense of community	A stronger sense of community fosters tax morale	Çevik (2016), Russo (2013), Trüdinger and Hildebrandt (2013)
Community size	Those living in larger areas have lower tax morale Those living in rural areas have a lower tax morale	Lubian and Zarri (2011), Williams and Martinez (2014) Horodnic and Williams (2016), Williams and Horodnic (2016a, b), Windebank and Horodnic (2016)
Civic participation, social responsibility	Positively associated with tax morale	Andriani (2016), Barone and Mocetti (2011), Braithwaite and Ahmed (2005), Cyan <i>et al.</i> (2016), D'Attoma (2015), Filippin <i>et al.</i> (2013), Lubian and Zarri (2011), Molero and Pujol (2012), Russo (2013), Trüdinger and Hildebrandt (2013)
Social stigma	Political participation and the intensity of discussing political matters with friends and family have negative effects on tax morale The social disapproval (social stigma) rise the tax morale	Sá <i>et al.</i> (2015), Torgler (2012), Torgler and Schaffner (2007), Torgler <i>et al.</i> (2008) Çevik (2016), Dell'Anno (2009), Vythelingum <i>et al.</i> (2017)
<i>Trust</i>		
Trust in other taxpayers	A high trust in other taxpayers is associated with high tax morale	Çevik (2016), Kondelaji <i>et al.</i> (2016), Martins and Gomes (2014), Torgler (2004a, 2005b), Torgler and Schaffner (2007), Torgler <i>et al.</i> (2008), Trüdinger and Hildebrandt (2013)
Perception of tax fraud/evasion (size)	The higher the tax evasion is perceived, the lower the tax morale	Alm and Gomez (2008), Çevik (2016), Frey and Torgler (2007), Molero and Pujol (2012), Torgler and Schaffner (2007)

Table II.
Informal institutions and horizontal trust

Variable	Result	Study
Gender	Women have higher tax morale than men	Alm and Torgler (2004, 2006), Chan <i>et al.</i> (2018), Cyan <i>et al.</i> (2016), Doerrenberg and Peichl (2010), D'Attoma (2015), Feld and Torgler (2007), Horodnic and Williams (2016), Leonardo and Martinez-Vazquez (2016), Li (2010), Maria-Dolores <i>et al.</i> (2010), Martinez-Vazquez and Torgler (2009), Russo (2013), Torgler (2003a, b, c, d, 2004a, c, 2006, 2012), Torgler and Murphy (2004), Torgler and Schneider (2004), Torgler and Werner (2005), Torgler <i>et al.</i> (2007a, b, 2008), Williams and Horodnic (2016a, c), Williams and Martinez (2014), Windebank and Horodnic (2016)
Age	Older people have higher tax morale	Alasfour <i>et al.</i> (2016), Alm and Gomez (2008), Alm and Torgler (2004, 2006), Barone and Mocetti (2011), Bilgin (2014), Braithwaite and Ahmed (2005), Chan <i>et al.</i> (2018), Daude <i>et al.</i> (2012), Feld and Torgler, 2007, Feld <i>et al.</i> , 2008, Filippin <i>et al.</i> (2013), Frey and Torgler (2007), Horodnic and Williams (2016), Kondelaji <i>et al.</i> (2016), Lago-Peñas and Lago-Peñas (2010), Leonardo and Martinez-Vazquez (2016), Li (2010), Lubian and Zarri (2011), Martinez-Vazquez and Torgler (2009), Nordblom and Žamac (2012), Ristovska <i>et al.</i> (2013), Torgler (2002/2003, 2003b, c, d, 2004a, b, c, 2005b, 2006, 2012), Torgler and Murphy (2004), Torgler and Werner (2005), Torgler <i>et al.</i> (2007a), Trüdinger and Hildebrandt (2013), Vythelingum <i>et al.</i> (2017), Williams and Horodnic (2016c), Williams and Martinez (2014), Windebank and Horodnic (2016)
Marital Status	Married people have higher tax morale than singles	Alm and Torgler (2004, 2006), Chan <i>et al.</i> (2018), Doerrenberg and Peichl (2010), Feld and Torgler (2007), Feld <i>et al.</i> , 2008, Li (2010), Torgler (2003a, b, c, 2004a, c, 2005b, 2006, 2012), Torgler and Murphy (2004), Torgler and Werner (2005), Torgler <i>et al.</i> (2007b), Vythelingum <i>et al.</i> (2017), Williams and Horodnic (2016c), Williams and Krasniqi (2017), Windebank and Horodnic (2016)
Financial/ economic status	Higher satisfaction with financial situation is correlated with higher tax morale	Alasfour <i>et al.</i> (2016), Alm and Torgler (2004), Barone and Mocetti (2011), D'Attoma 2015, Filippin <i>et al.</i> (2013), Ibrahim <i>et al.</i> (2015), Kondelaji <i>et al.</i> (2016), Lago-Peñas and Lago-Peñas (2010), Martinez-Vazquez and Torgler (2009), Martins and Gomes (2014), Ristovska <i>et al.</i> (2013), Torgler (2003a, d, 2004a, c, 2005b, 2006), Torgler <i>et al.</i> (2007b), Williams and Horodnic (2016c), Williams and Krasniqi (2017), Williams and Martinez (2014), Windebank and Horodnic (2016)
Social class	Higher economic class is associated with lower tax morale	Alm and Torgler (2004), Li (2010), Martinez-Vazquez and Torgler (2009), Torgler (2004b, 2006)
Life satisfaction	Individual's life satisfaction increases tax morale	Martins and Gomes (2014), Sá <i>et al.</i> (2015), Torgler (2003b, 2004b, 2005b)

(continued)

Table III.
Socio-demographic
characteristics
and personal
values/norms

Variable	Result	Study
Employment status	Self-employed persons have lower tax morale than employees	Alm and Torgler (2006), Chan <i>et al.</i> (2018), Daude <i>et al.</i> (2012), Doerrenberg and Peichl (2010), D'Attoma (2015), Filippin <i>et al.</i> (2013), Frey and Torgler (2007), Lago-Peñas and Lago-Peñas (2010), Lubian and Zarri (2011), Torgler (2003b, c, 2004b, c), Torgler <i>et al.</i> (2007a), Williams and Martinez (2014)
	Part-time employees, unemployed people and students have lower tax morale than full-time employees	Daude <i>et al.</i> (2012), Torgler (2003a, c, d, 2004b, c), Williams and Martinez (2014)
	Pensioners/retired have higher tax morale relative to non-pensioners	Cyan <i>et al.</i> (2016), Doerrenberg and Peichl (2010), Feld <i>et al.</i> , 2008, Martins and Gomes (2014), Torgler (2005c), Torgler and Murphy (2004), Vythelingum <i>et al.</i> (2017)
	Housewives/housekeepers have lower tax morale	Ibrahim <i>et al.</i> (2015), Williams and Martinez (2014)
Those engaged in undeclared work have lower tax morale	Those engaged in undeclared work have lower tax morale	Horodnic and Williams (2016), Williams and Horodnic (2016a, c, 2017b), Windebank and Horodnic (2016)
	Better educated persons have higher tax morale	Alasfour <i>et al.</i> (2016), Alm and Gomez (2008), Barone and Mocetti (2011), Cyan <i>et al.</i> (2016), Daude <i>et al.</i> (2012), D'Attoma (2015), Filippin <i>et al.</i> (2013), Li (2010), Lubian and Zarri (2011), Rodriguez-Justicia and Theilen (2018), Torgler (2003a, 2005c, 2012), Torgler <i>et al.</i> (2007b), Williams and Horodnic (2016c), Williams and Krasniqi (2017)
Support for democracy	Support for democratic values is associated with high tax morale	Daude <i>et al.</i> (2012), Leonardo (2011), Leonardo and Martinez-Vazquez (2016), Torgler (2003b, 2004b), Torgler and Schneider (2004)
Moral norms	Personal integrity increases tax morale	Bilgin (2014), Dell'Anno (2009), Mc KERCHAR <i>et al.</i> (2013), Torgler (2006)
Individuals' aversion to ethnic diversity	Higher aversion to ethnic diversity is associated with lower tax morale	Belmonte <i>et al.</i> (2018)

Table III.

effective social protection measures, lower level of inequalities and corruption), higher trust in public institutions and the fairness and effectiveness of public spending, as well as with higher participation in deciding on how public money is spent.

4.2 Informal institutions and tax morale

In behavioural sciences, individuals are not investigated as isolated entities but rather in relation to their social groups and cultures (Cullis and Lewis, 1997; Steinmo, 2017). As such, the individual attitude and behaviour is shaped by the informal institutions which refer to the socially shared unwritten norms, values and beliefs. The violation of social norms results in internal sanctions (i.e. guilt, shame) or external sanctions such as social stigma (Torgler, 2001; Torgler *et al.*, 2007a). What is therefore the influence of informal institutions on tax morale?

Starting with culture, which represents broad social norms which are persistent in time (Luttmer and Singhal, 2014), a large body of literature identifies a relationship between the informal institutions and tax morale. Analysing individuals living in the same environment but from different cultures, Kountouris and Remoundou (2013) investigate the level of tax morale of first-generation immigrants in Europe and concludes that the tax

morale in the country of origin affects the tax morale of the individuals in the hosting country. Similarly, comparing the tax morale in a similar environment in terms of deterrent measures yet with different cultural features, a higher tax morale was identified in East than in West Germany, which shows that tax morale is driven rather by other factors than deterrents such as informal institutions (Feld and Torgler, 2007; Feld *et al.*, 2008; Torgler, 2002/2003). Cross-cultural studies show that there is a significant difference in the level of tax morale between countries and that the level of patriotism directly affects tax morale (list of studies in Table II). For example, tax morale is lower in Eastern Europe as compared with Western Europe, and this might be explained by the institutional crisis experienced by ex-communist economies (Frey and Torgler, 2007). Indeed, analysing Hofstede's dimensions of culture, the finding is that the level of tax morale is lower in those cultures where the distance to power is higher (Brink and Porcano, 2016). Turning to religion, no difference in tax morale between different religions has been identified (Alasfour *et al.*, 2016; Kannianen and Pääkkönen, 2010; Torgler, 2003d). However, religiosity, measured mostly as the frequency of attendance at church, is positively associated with tax morale (list of studies in Table II). Similarly, a stronger sense of community in general terms, not only from a religious point of view, positively affects the tax morale. The stronger the feeling of belonging to the community (Çevik, 2016), social responsibility (Braithwaite and Ahmed, 2005; Cyan *et al.*, 2016) and civic participation, measured as active participation in the community, participation in voting or civic duty (Andriani, 2016; Barone and Mocetti, 2011; D'Attoma, 2015; Filippin *et al.*, 2013; Lubian and Zarri, 2011; Molero and Pujol, 2012; Russo, 2013; Trüdinger and Hildebrandt, 2013), the higher the tax morale. Meanwhile, the social disapproval of tax cheaters increases tax morale (Çevik, 2016; Dell'Anno, 2009; Vythelingum *et al.*, 2017). In contrast, and related with both horizontal and vertical trust, the intensity of discussing about tax authorities and/or political matters with colleagues, family and friends (Torgler, 2012; Torgler and Schaffner, 2007; Torgler *et al.*, 2008) or political participation (Sá *et al.*, 2015), has a negative effect on tax morale. This might suggest that the individuals share rather negative experiences related to the public authorities that, in turn, reduce vertical trust and therefore the tax morale of the entire group. Similarly, when discussing with friends and family, if some particular honest individuals become aware that other peers cheat in respect to their tax due, their own tax morale is reduced due to a reduced horizontal trust. Indeed, horizontal trust has a strong impact on the individuals' tax morale. When the members of a community have a high trust in other taxpayers, their tax morale is increased (Çevik, 2016; Kondelaji *et al.*, 2016; Martins and Gomes, 2014; Torgler, 2004a, 2005b; Torgler and Schaffner, 2007; Torgler *et al.*, 2008; Trüdinger and Hildebrandt, 2013). In opposition, where the perceived level of tax evasion is high and the other taxpayers are perceived as free riders, citizens' tax morale is lower (Alm and Gomez, 2008; Çevik, 2016; Frey and Torgler, 2007; Molero and Pujol, 2012; Torgler and Schaffner, 2007).

In sum, by analysing the effect of informal institutions it can be concluded that cultures, sub-cultures (within countries), communities and social groups affect tax morale. Individual tax morale is shaped by the behaviour of other members of the community. When tax compliance is considered a social norm and therefore being a cheater leads to exclusion and social disapproval, tax morale increases. On the contrary, where there is a low horizontal trust in a society and individuals perceive that a large share of the population evades taxes, the level of tax morale of honest tax payers is lowered.

4.3 Socio-demographic characteristics and personal values

Table III displays the most prevalent results regarding individuals' characteristics and the level of tax morale. Unlike the results presented in Tables I and II, where the link between the investigated variables and tax morale represented main research questions of the analysed

studies, the socio-demographic characteristics were used in general as control variables and included in the majority of empirical studies. As such, considering the large number of studies and the different sample size and geographical areas, the results were not similar. Table III displays the most prevalent result for each socio-demographic characteristic.

Tax morale is positively related to socio-demographic factors such as age, education, income and life satisfaction, and tends to be lower among upper social class. Tax morale tends to be higher among women and married people. Regarding the employment status, tax morale tends to be higher among pensioners and lower among self-employees, part-time employees, students, housewives/housekeepers, unemployed and those engaged in undeclared work (list of studies in Table III).

Turning to the individual's norms and values the findings in previous studies show that a higher moral integrity and a more pronounced feeling of guilt in evading taxes are positively related to tax morale (Bilgin, 2014; Dell'Anno, 2009; McKerchar *et al.*, 2013; Torgler, 2006). Similarly, with the results regarding the level of democracy as a structural condition, the individuals' support for democracy and democratic values are positively related to tax morale (Daude *et al.*, 2012; Leonardo, 2011; Leonardo and Martinez-Vazquez, 2016; Torgler, 2003b, 2004b; Torgler and Schneider, 2004). In contrast, a higher aversion to ethnic diversity is associated to lower tax morale (Belmonte *et al.*, 2018).

In sum, this section provided support for identifying the individual socio-demographic characteristics of those more likely to have a lower tax morale (i.e. younger people, male, housekeepers and unemployed or undeclared workers, those with low income, etc.) which might represent the target groups for policy measures related to awareness campaigns, tax education, etc.

5. Conclusions and policy implications

This paper has provided a systematic review of the factors related to tax morale. Drawing inspiration from the institutional theory (Baumol and Blinder, 2008; Helmke and Levitsky, 2004; North, 1990), tax morale has been viewed in this paper primarily to result from the interaction between formal and informal institutions. As such, an asymmetry between the laws and regulations and the socially shared unwritten norms results in low tax morale.

Evaluating the influence of formal institutions on tax morale, the first policy lesson is related to the limitations of the rational economic actor model. As previous studies show, increasing the level of deterrents produces inconclusive results (Torgler, 2003a, 2005a, c; Torgler and Werner, 2005; Torgler *et al.*, 2007a, 2010; Williams and Horodnic, 2016c) and might lead rather to lower tax morale and, consequently, lower tax compliance. Therefore, governments can use other measures beyond enforcement for improving citizens' tax morale and, consequently, their tax compliance.

Hence, measures for changing the formal institutions are required. As such, measures are needed not only for modernising government and for improving the structural economic and social conditions but also for building trust in public authorities. An extensive body of literature shows that tax morale is low, with low trust in various public authorities (i.e. government, parliament, courts and legal system, tax authority, etc.). Furthermore, the perceived fairness and effectiveness of the government spending as well as the perceived level of corruption shape the tax morale. As such, measures aimed to improve the social contract between governments and citizens and to foster the horizontal trust are necessary. This requires improvements in procedural justice (i.e. citizens are treated in a respectful, impartial and responsible manner by the tax authority, shifting away from a "cops and robbers" approach), procedural fairness (citizens perceive that the share they pay is fair in comparison with the share paid by others) and redistributive justice (citizens believe that they receive the goods and services they deserve according to the paid taxes) (Kirchgässner, 2010; Molero and Pujol, 2012; Murphy, 2005; Williams and Horodnic, 2015a).

Second, informal institutions are proven to shape tax morale as well, and measures aimed to alter informal institutions are thus required. As long as paying taxes owed does not represent a socially accepted norm, tax morale will be low. However, the results from previous studies show that governments have the capacity to influence social norms. As such, the governments can improve the transparency of public spending, can use awareness raising campaigns for providing information on what public goods and services are paid from taxes or can encourage tax education. For example, a study in UK shows that sending letters reminding the taxpayers how their taxes contribute to the public goods leads to a decrease in delaying tax payments (Hallsworth *et al.*, 2017). Similarly, a study conducted in Turkey and Spain shows that tax education in universities has a positive effect on the level of tax morale (Goksu and Sahpaz, 2015).

As a lack of trust in other taxpayers and the perception that tax evasion is widespread in a society negatively affects tax morale, measures aimed at fostering horizontal trust are also required. This can be achieved, for example, by providing to citizens' information about their peers' behaviour (Luttmer and Singhal, 2014). For example, a study conducted in the UK investigated whether different messages about the peers' behaviour influence timely payments (Hallsworth *et al.*, 2017). Three different messages were included in the study, namely, "nine out of ten people pay their tax on time", "nine out of ten people in the UK pay their tax on time" or "nine out of ten in the UK pay their tax on time. You are currently in the very small minority of people who have not paid us yet". All three messages proved to have a positive effect on timely payments with the highest effect for the third message which underlines that the individual falls in the minority of those non-compliant.

In sum, this paper has outlined the influence of formal and informal institutions on tax morale as well as the socio-demographic characteristics of those displaying low/high tax morale. Thus, by synthesising and structuring the factors that shape tax morale, the paper provides a useful tool for both researchers and policy makers. Researchers can easily acknowledge what was investigated so far in the field and the type of methods and data. For policy makers, the paper provides not only an overview of the population groups more susceptible to low tax morale, who therefore, can be targeted in future campaigns, but also the type of policy measures and narratives that are more likely to enhance tax morale. If governments start recognising that low tax morale and consequently high tax non-compliance arise when a gap exists between formal and informal institutions and begin exploring policy measures to reduce this gap, rather than persisting with deterrence measures, then this paper will have achieved its objective.

6. Directions for future research

As shown in this paper, in the past decades, a large number of studies have focussed on understanding tax morale and its role in tax compliance. However, the vast majority are based on cross-sectional analyses. Considering that tax morale and the individuals' willingness to comply can change over time (Torgler, 2002a), more longitudinal analyses would enable researchers to measure how different policy measures shape tax morale and how tax morale is altered by these measures.

Formal and informal institutions are influencing each other. Not only the government can use measures to alter formal institutions in a positive way for improving tax morale and tax compliance, but so too can citizens influence state morale by electing and voting officials that closer express their views and expectations on formal institutions. As such, investigating the interaction effects between formal and informal institutions in shaping the tax morale might lead to new important insights. Chan *et al.* (2018) made a step in this direction by analysing the interaction effects between vertical and horizontal trust in 108 countries. The results reveal a multiplier effect of trust on tax morale: "horizontal trust breeds vertical trust and vice versa" and shows that horizontal trust (measured as

generalised trust), varies under different levels of vertical trust and structural conditions (Chan *et al.*, 2018). Future studies to better understand this should now be undertaken.

Finally, the vast majority of studies on tax morale and tax compliance have used surveys or laboratory experiments. Rather recently, a few studies (see e.g. Hallsworth, 2014; Hallsworth *et al.*, 2017) have started to use field experiments in collaboration with the tax authorities. This approach not only creates a bridge between the research results and the design of policy measures but also eliminates the shortcomings of the artificial conditions created in laboratory experiments and enables us to observe the direct effect of a specific policy measure.

References

- Alasfour, F., Samy, M. and Bampton, R. (2016), "The determinants of tax morale and tax compliance: evidence from Jordan", in Hasseldine, J. (Ed.), *Advances in Taxation*, Emerald Group Publishing, Bingley, pp. 125-171.
- Allingham, M.G. and Sandmo, A. (1972), "Income tax evasion: a theoretical analysis", *Journal of Public Economics*, Vol. 1 Nos 3-4, pp. 323-338.
- Alm, J. and Gomez, J.L. (2008), "Social capital and tax morale in Spain", *Economic Analysis and Policy*, Vol. 38 No. 1, pp. 73-87.
- Alm, J. and Torgler, B. (2004), "Estimating the determinants of tax morale", *Proceedings: Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, Vol. 97, pp. 269-274.
- Alm, J. and Torgler, B. (2006), "Culture differences and tax morale in the United States and in Europe", *Journal of Economic Psychology*, Vol. 27 No. 2, pp. 224-246.
- Andriani, L. (2016), "Tax morale and prosocial behaviour: evidence from a Palestinian survey", *Cambridge Journal of Economics*, Vol. 40 No. 3, pp. 821-841.
- Barone, G. and Mocetti, S. (2011), "Tax morale and public spending inefficiency", *International Tax and Public Finance*, Vol. 18 No. 6, pp. 724-749.
- Baumol, W.J. and Blinder, A. (2008), *Macroeconomics: Principles and Policy*, South-Western Publishing, Cincinnati, OH.
- Belmonte, A., Dell'Anno, R. and Teobaldelli, D. (2018), "Tax morale, aversion to ethnic diversity, and decentralization", *European Journal of Political Economy*, available at: <https://doi.org/10.1016/j.ejpoleco.2017.12.004>
- Bilgin, C. (2014), "Determinants of tax morale in Spain and Turkey: an empirical analysis", *European Journal of Government and Economics*, Vol. 3 No. 1, pp. 60-74.
- Braithwaite, V. and Ahmed, E. (2005), "A threat to tax morale: the case of Australian higher education policy", *Journal of Economic Psychology*, Vol. 26 No. 4, pp. 523-540.
- Brink, W.D. and Porcano, T.M. (2016), "The impact of culture and economic structure on tax morale and tax evasion: a country-level analysis using SEM", in Hasseldine, J. (Ed.), *Advances in Taxation (Advances in Taxation, Vol. 23)*, Emerald Group Publishing, Bingley, pp. 87-123.
- Çevik, S. (2016), "Tax morale and tax compliance in socio-political context", in Aydin, M. and Tan, S.S. (Eds), *Political Economy of Taxation*, IJOPEC Publication, Istanbul, pp. 37-57.
- Chan, H.F., Supriyadi, M.W. and Torgler, B. (2018), "Trust and tax morale", in Uslaner, E.M. (Ed.), *The Oxford Handbook of Social and Political Trust*, Oxford University Press, New York, NY, pp. 1-71, available at: www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780190274801.001.0001/oxfordhb-9780190274801-e-23 (accessed 20 January 2018).
- Cullis, J.G. and Lewis, A. (1997), "Why people pay taxes: from a conventional economic model to a model of social convention", *Journal of Economic Psychology*, Vol. 18 Nos 2-3, pp. 305-321.

- Cummings, R.G., Martinez-Vazquez, J., McKee, M. and Torgler, B. (2005), "Effects of tax morale on tax compliance: experimental and survey evidence", available at: <https://leitner.yale.edu/sites/default/files/files/resources/docs/botswana.pdf> (accessed 10 January 2018).
- Cummings, R.G., Martinez-Vazquez, J., McKee, M. and Torgler, B. (2009), "Tax morale affects tax compliance: evidence from surveys and an artefactual field experiment", *Journal of Economic Behavior & Organization*, Vol. 70 No. 3, pp. 447-457.
- Cyan, M.R., Koumpias, A.M. and Martinez-Vazquez, J. (2016), "The determinants of tax morale in Pakistan", *Journal of Asian Economics*, Vol. 47, pp. 23-34.
- D'Attoma, J. (2015), "A nation divided: assessing the regional effects of institutions, social capital, and civic culture on tax morale in Italy", Dissertation thesis, University of Missouri-St Louis, St Louis, MO, July.
- Daude, C., Gutiérrez, H. and Melguizo, Á. (2012), "What drives tax morale?", Working Paper No. 35, OECD Development Centre, Paris.
- Dell'Anno, R. (2009), "Tax evasion, tax morale and policy maker's effectiveness", *The Journal of Socio-Economics*, Vol. 38 No. 6, pp. 988-997.
- Doerrenberg, P. and Peichl, A. (2010), "Progressive taxation and tax morale", IZA Discussion Paper No. 5378, The Institute for the Study of Labor (IZA), Bonn, December.
- Dwenger, N., Kleven, H., Rasul, I. and Rincke, J. (2016), "Extrinsic and intrinsic motivations for tax compliance: evidence from a field experiment in Germany", *American Economic Journal: Economic Policy*, Vol. 8 No. 3, pp. 203-232.
- Feld, L.P. and Frey, B.S. (2004), "Illegal, immoral, fattening or what? How deterrence and responsive regulation shape tax morale", Marburg Working Papers on Economics 200426, Faculty of Business Administration and Economics, Department of Economics, Philipps-Universität Marburg, Marburg.
- Feld, L.P. and Frey, B.S. (2006), "Tax evasion in Switzerland: the roles of deterrence and tax morale", Working Paper No. 284, Institute for Empirical Research in Economics, University of Zurich, Zurich, April.
- Feld, L.P. and Torgler, B. (2007), "Tax morale after the reunification of Germany: results from a quasi-natural experiment", CESifo Working Paper No. 1921, CESifo Group, Munich.
- Feld, L.P., Torgler, B. and Dong, B. (2008), "Coming closer? Tax morale, deterrence and social learning after German unification", Working Paper No. 2008-9, Center for Research in Economics, Management and the Arts, Basel.
- Filippin, A., Fiorio, C.V. and Viviano, E. (2013), "The effect of tax enforcement on tax morale", *European Journal of Political Economy*, Vol. 32, pp. 320-331.
- Frey, B.S. (2003), "Deterrence and tax morale in the European Union", *European Review*, Vol. 11 No. 3, pp. 385-406.
- Frey, B.S. and Torgler, B. (2007), "Tax morale and conditional cooperation", *Journal of Comparative Economics*, Vol. 35 No. 1, pp. 136-159.
- Gerstenbluth, M., Melgar, N., Pagano, J.P. and Rossi, M. (2012), "How do inequality affect tax morale in Latin America and Caribbean?", *Revista de Economía del Rosario*, Vol. 15 No. 2, pp. 123-135.
- Goksu, G.G. and Sahpaz, K.I. (2015), "Comparison of tax morale of Turkish and Spanish higher education students: the samples of Sakarya university and the university of Zaragoza", *Procedia – Social and Behavioral Sciences*, Vol. 186, pp. 222-230.
- Güth, W., Levati, V. and Sausgruber, R. (2005), "Tax morale and (de-)centralization: an experimental study", *Public Choice*, Vol. 125 Nos 1-2, pp. 171-188.
- Halla, M. (2012), "Tax morale and compliance behavior: first evidence on a causal link", *The B.E. Journal of Economic Analysis & Policy*, Vol. 12 No. 1, pp. 1-27.
- Hallsworth, M. (2014), "The use of field experiments to increase tax compliance", *Oxford Review of Economic Policy*, Vol. 30 No. 4, pp. 658-679.

- Hallsworth, M., List, J.A., Metcalfe, R.D. and Vlaev, I. (2017), "The behavioralist as tax collector: using natural field experiments to enhance tax compliance", *Journal of Public Economics*, Vol. 148, pp. 14-31.
- Helmke, G. and Levitsky, S. (2004), "Informal institutions and comparative politics: a research agenda", *Perspectives on Politics*, Vol. 2 No. 4, pp. 725-740.
- Horodnic, A.V. and Williams, C.C. (2018), "Informal payments by patients for health services: prevalence and determinants", *The Service Industries Journal*, Vol. 38 Nos 11-12, pp. 841-855, available at: <http://dx.doi.org/10.1080/02642069.2018.1450870>
- Horodnic, I.A. and Williams, C.C. (2016), "An evaluation of the shadow economy in Baltic States: a tax morale perspective", *International Journal of Entrepreneurship and Small Business*, Vol. 28 Nos 2-3, pp. 339-358.
- Ibrahim, M., Musah, A. and Abdul-Hanan, A. (2015), "Beyond enforcement: what drives tax morale in Ghana?", *Humanomics*, Vol. 31 No. 4, pp. 399-414.
- Jahnke, B. (2015), "How does petty corruption affect tax morale in sub-Saharan Africa? An empirical analysis", Hannover Economic Papers (HEP) dp-564, Wirtschaftswissenschaftliche Fakultät, Leibniz Universität Hannover, Hannover.
- Kanniainen, V. and Pääkkönen, J. (2010), "Do the catholic and protestant countries differ by their tax morale?", *Empirica*, Vol. 37 No. 3, pp. 271-290.
- Kirchgässner, G. (2010), "Tax morale, tax evasion, and the shadow economy", Discussion Paper No. 2010-17, Department of Economics, University of St Gallen, St Gallen, May.
- Kirchler, E., Muehlbacher, S., Kastlunger, B. and Wahl, I. (2007), "Why pay taxes? A review of tax compliance decisions", International Studies Program Working Paper No. 07-30, Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA, December.
- Kondelaji, M.H., Sameti, M., Amiri, H. and Moayedfar, R. (2016), "Analyzing determinants of tax morale based on social psychology theory: case study of Iran", *Iranian Economic Review*, Vol. 20 No. 4, pp. 581-598.
- Kountouris, Y. and Remoundou, K. (2013), "Is there a cultural component in tax morale? Evidence from immigrants in Europe", *Journal of Economic Behavior & Organization*, Vol. 96, pp. 104-119.
- Lago-Peñas, I. and Lago-Peñas, S. (2010), "The determinants of tax morale in comparative perspective: evidence from European countries", *European Journal of Political Economy*, Vol. 26 No. 4, pp. 441-453.
- Leonardo, G. and Martinez-Vazquez, J. (2016), "Politicians, bureaucrats, and tax morale: what shapes tax compliance attitudes?", International Studies Program Working Paper No. 16-08, Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA, August.
- Leonardo, G.M. (2011), "Politics and tax morale. The role of trust, values, and beliefs, in shaping individual attitudes towards tax compliance", dissertation thesis, Georgia Institute of Technology, Georgia State University, Atlanta, GA, December.
- Li, S.X. (2010), "Social identities, ethnic diversity, and tax morale", *Public Finance Review*, Vol. 38 No. 2, pp. 146-177.
- Lima, F.W.S. and Zaklan, G. (2008), "A multi-agent-based approach to tax morale", *International Journal of Modern Physics C*, Vol. 19 No. 12, pp. 1797-1808.
- Lisi, G. (2015), "Tax morale, tax compliance and the optimal tax policy", *Economic Analysis and Policy*, Vol. 45, pp. 27-32.
- Long, S. and Swingen, J. (1991), "The conduct of tax-evasion experiments: validation, analytical methods, and experimental Realism", in Webley, P., Robben, H., Elffers, H. and Hessing, D. (Eds), *Tax Evasion: An Experimental Approach*, Cambridge University Press, Cambridge, pp. 128-138.
- Lubian, D. and Zarri, L. (2011), "Happiness and tax morale: an empirical analysis", *Journal of Economic Behavior & Organization*, Vol. 80 No. 1, pp. 223-243.

- Luttmer, E.F.P. and Singhal, M. (2014), "Tax morale", *Journal of Economic Perspectives*, Vol. 28 No. 4, pp. 149-168.
- McKerchar, M., Bloomquist, K. and Pope, J. (2013), "Indicators of tax morale: an exploratory study", *Journal of Tax Research*, Vol. 11 No. 1, pp. 5-22.
- MacGregor, J. and Wilkinson, B. (2012), "The effect of economic patriotism on tax morale and attitudes toward tax compliance", in Stock, T. (Ed.), *Advances in Taxation (Advances in Taxation, Vol. 20)*, Emerald Group Publishing, Bingley, pp. 159-180.
- Maria-Dolores, R., Alarcón, C. and Garre, M.E. (2010), "Tax morale in Spain: a study into some of its principal determinants", *Journal of Economic Issues*, Vol. 44 No. 4, pp. 855-876.
- Martinez-Vazquez, J. and Torgler, B. (2009), "The evolution of tax morale in modern Spain", *Journal of Economic Issues*, Vol. 43 No. 1, pp. 1-28.
- Martins, A. and Gomes, C. (2014), "Tax morale, occupation and income level: an analysis of Portuguese taxpayers", *Journal of Economics, Business and Management*, Vol. 2 No. 2, pp. 112-116.
- Molero, J.C. and Pujol, F. (2012), "Walking inside the potential tax evader's mind: tax morale does matter", *Journal of Business Ethics*, Vol. 105 No. 2, pp. 151-162.
- Murphy, K. (2005), "Regulating more effectively: the relationship between procedural justice, legitimacy and tax non-compliance", *Journal of Law and Society*, Vol. 32 No. 4, pp. 562-589.
- Niesiołędzka, M. (2014), "Relations between procedural fairness, tax morale, institutional trust and tax evasion", *Journal of Social Research & Policy*, Vol. 5 No. 1, pp. 41-52.
- Nordblom, K. and Žamac, J. (2012), "Endogenous norm formation over the life cycle – the case of tax morale", *Economic Analysis & Policy*, Vol. 42 No. 2, pp. 153-170.
- North, D.C. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge.
- Pommerehne, W.W. and Frey, B.S. (1992), "The effects of tax administration on tax morale", Discussion Papers Series II 191, University of Konstanz, Konstanz, September.
- Ristovska, M., Mojsoska-Blazevski, N. and Nikolov, M. (2013), "An alternative view to the tax evasion: the effect of tax morale on paying taxes in Macedonia and EU countries", *Serbian Journal of Management*, Vol. 8 No. 2, pp. 169-183.
- Rodriguez-Justicia, D. and Theilen, B. (2018), "Education and tax morale", *Journal of Economic Psychology*, Vol. 64, pp. 18-48.
- Russo, F.F. (2013), "Tax morale and tax evasion reports", *Economics Letters*, Vol. 121 No. 1, pp. 110-114.
- Sá, C., Martins, A. and Gomes, C. (2015), "Tax morale determinants in Portugal", *European Scientific Journal*, ESJ August 2015 Special Edition, pp. 236-254, available at: www.eujournal.org/index.php/esj/issue/view/198
- Saitta, P. (2017), "Practices of subjectivity: the informal economies and the subaltern rebellion", *International Journal of Sociology and Social Policy*, Vol. 37 No. 7-8, pp. 400-416.
- Schmölders, G. (1970), "Survey research in public finance: a behavioural approach to fiscal theory", *Public Finance*, Vol. 25 No. 2, pp. 300-306.
- Sipos, A. (2015), "Determining factors of tax-morale with special emphasis on the tax revenues of local self-governments", *Procedia Economics and Finance*, Vol. 30, pp. 758-767.
- Stark, J.A. and Kirchler, E. (2017), "Inheritance tax compliance – earmarking with normative value principles", *International Journal of Sociology and Social Policy*, Vol. 37 Nos 7-8, pp. 452-467.
- Steinmo, S. (2017), "Trustworthy institutions: a cognitive theory of tax morale", available at: www.researchgate.net/publication/320289711_Trustworthy_Institutions_A_cognitive_theory_of_Tax_Morale (accessed 12 January 2018).
- Strümpel, B. (1969), "The contribution of survey research to public finance", in Peacock, A.T. (Ed.), *Quantitative Analysis in Public Finance*, Praeger Publishers, New York, NY, pp. 14-32.
- Sumartaya, D. and Hafidiah, A. (2014), "The influence of taxpayer's awareness and tax morale toward tax evasion", *International Journal of Business, Economics and Law*, Vol. 5 No. 1, pp. 60-68.

- Torgler, B. (2001), "What do we know about tax morale and tax compliance?", *International Review of Economics and Business (RISEC)*, Vol. 48 No. 3, pp. 395-419.
- Torgler, B. (2002/2003), "Does culture matter? Tax morale in an East-West-German comparison", *FinanzArchiv/ Public Finance Analysis*, Vol. 59 No. 4, pp. 504-528.
- Torgler, B. (2002a), "Speaking to theorists and searching for facts: tax morale and tax compliance in experiments", *Journal of Economic Surveys*, Vol. 16 No. 5, pp. 657-683.
- Torgler, B. (2002b), "Vertical and exchange equity in a tax morale experiment", available at: <https://pdfs.semanticscholar.org/b5c9/10008f223980fdd77ab23a7a878c0bbadf9b.pdf> (accessed 10 January 2018).
- Torgler, B. (2003a), "Tax morale and institutions", Working Paper No. 2003-09, Center for Research in Economics, Management and the Arts, Basel.
- Torgler, B. (2003b), "Tax morale in transition countries", *Post-Communist Economies*, Vol. 15 No. 3, pp. 357-381.
- Torgler, B. (2003c), "Tax morale, rule-governed behaviour and trust", *Constitutional Political Economy*, Vol. 14 No. 2, pp. 119-140.
- Torgler, B. (2003d), "To evade taxes or not to evade: that is the question", *Journal of Socio-Economics*, Vol. 32 No. 3, pp. 283-302.
- Torgler, B. (2004a), "Cross-culture comparison of tax morale and tax compliance: evidence from Costa Rica and Switzerland", *International Journal of Comparative Sociology*, Vol. 45 Nos 1-2, pp. 17-43.
- Torgler, B. (2004b), "Tax morale in Asian countries", *Journal of Asian Economics*, Vol. 15, pp. 237-266.
- Torgler, B. (2004c), "Tax morale, trust and corruption: empirical evidence from transition countries", Working Paper No. 2004-05, Center for Research in Economics, Management and the Arts, Basel.
- Torgler, B. (2005a), "A knight without a sword? The effects of audit courts on tax morale", *Journal of Institutional and Theoretical Economics (JITE)*, Vol. 161 No. 4, pp. 735-760.
- Torgler, B. (2005b), "Tax morale in Latin America", *Public Choice*, Vol. 122 Nos 1-2, pp. 133-157.
- Torgler, B. (2005c), "Tax morale and direct democracy", *European Journal of Political Economy*, Vol. 21 No. 2, pp. 525-531.
- Torgler, B. (2006), "The importance of faith: tax morale and religiosity", *Journal of Economic Behavior & Organization*, Vol. 61 No. 1, pp. 81-109.
- Torgler, B. (2007), *Tax Compliance and Morale: A Theoretical and Empirical Analysis*, Edward Elgar, Cheltenham.
- Torgler, B. (2011), "Tax morale and compliance review of evidence and case studies for Europe", Policy Research Working Paper No. 5922, The World Bank, Europe and Central Asia Region, December.
- Torgler, B. (2012), "Tax morale, Eastern Europe and European enlargement", *Communist and Post-Communist Studies*, Vol. 45 Nos 1-2, pp. 11-25.
- Torgler, B. and Murphy, K. (2004), "Tax morale in Australia: what shapes it and has it changed over time?", *Journal of Australian Taxation*, Vol. 7 No. 2, pp. 298-335.
- Torgler, B. and Schaffner, M. (2007), "Causes and consequences of tax morale: an empirical investigation", Working Paper No. 2007-11, Center for Research in Economics, Management and the Arts, Basel.
- Torgler, B. and Schneider, F. (2004), "Does culture influence tax morale? Evidence from different European countries", Working Paper No. 2004-17, Center for Research in Economics, Management and the Arts, Basel.
- Torgler, B. and Schneider, F. (2006), "Shadow economy, institutions, and tax morale", *Proceedings: Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, Vol. 99, pp. 204-210.

- Torgler, B. and Schneider, F. (2007a), "What shapes attitudes toward paying taxes? Evidence from multicultural European countries", *Social Science Quarterly*, Vol. 88 No. 2, pp. 443-470.
- Torgler, B. and Schneider, F. (2007b), "Shadow economy, tax morale, governance and institutional quality: a panel analysis", IZA Discussion Paper No. 2563, The Institute for the Study of Labor (IZA), Bonn, January.
- Torgler, B. and Schneider, F. (2009), "The impact of tax morale and institutional quality on the shadow economy", *Journal of Economic Psychology*, Vol. 30 No. 2, pp. 228-245.
- Torgler, B. and Werner, J. (2005), "Fiscal autonomy and tax morale: evidence from Germany", Working Paper No. 2005-07, Center for Research in Economics, Management and the Arts, Basel.
- Torgler, B., Demir, I.C., Macintyre, A. and Schaffner, M. (2008), "Causes and consequences of tax morale: an empirical investigation", *Economic Analysis and Policy*, Vol. 38 No. 2, pp. 313-339.
- Torgler, B., Schaffner, M. and Macintyre, A. (2007a), "Tax compliance, tax compliance, tax morale, and governance quality", International Studies Program Working Paper No. 07-27, Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA, December.
- Torgler, B., Schneider, F. and Schaltegger, C.A. (2007b), "With or against the people? The impact of a bottom-up approach on tax morale and the shadow economy", Working/Discussion Paper No. 211, QUT – School of Economics and Finance, Brisbane, February.
- Torgler, B., Schneider, F. and Schaltegger, C.A. (2010), "Local autonomy, tax morale, and the shadow economy", *Public Choice*, Vol. 144 Nos 1-2, pp. 293-321.
- Trüdinger, E.-M. and Hildebrandt, A. (2013), "Causes and contexts of tax morale: rational considerations, community orientations, and communist rule", *International Political Science Review*, Vol. 34 No. 2, pp. 191-209.
- Vythelingum, P., Soondram, H. and Jugurnath, B. (2017), "An assessment of tax morale among Mauritian taxpayers", *Journal of Accounting and Taxation*, Vol. 9 No. 1, pp. 1-10.
- Williams, C.C. (2014), *Confronting the Shadow Economy: Evaluating Tax Compliance and Behaviour Policies*, Edward Elgar, Cheltenham.
- Williams, C.C. and Horodnic, A.V. (2017), "Rethinking informal payments by patients in Europe: an institutional approach", *Health Policy*, Vol. 121 No. 10, pp. 1053-1062.
- Williams, C.C. and Horodnic, A.V. (2018), "Explaining informal payments for health services in Central and Eastern Europe: an institutional asymmetry perspective", *Post-Communist Economics*, Vol. 30 No. 4, pp. 440-458, available at: <https://doi.org/10.1080/14631377.2018.1442051>
- Williams, C.C. and Horodnic, I.A. (2015a), "Evaluating the prevalence of the undeclared economy in Central and Eastern Europe: an institutional asymmetry perspective", *European Journal of Industrial Relations*, Vol. 21 No. 4, pp. 389-406.
- Williams, C.C. and Horodnic, I.A. (2015b), "Explaining and tackling envelope wages in the Baltic Sea region: an institutional perspective", *Baltic Journal of Management*, Vol. 10 No. 3, pp. 295-312.
- Williams, C.C. and Horodnic, I.A. (2015c), "Explaining and tackling the shadow economy in Estonia, Latvia and Lithuania: a tax morale approach", *Baltic Journal of Economics*, Vol. 15 No. 2, pp. 81-98.
- Williams, C.C. and Horodnic, I.A. (2015d), "Explaining the prevalence of illegitimate wage practices in Southern Europe: an institutional analysis", *South European Society and Politics*, Vol. 20 No. 2, pp. 203-221.
- Williams, C.C. and Horodnic, I.A. (2015e), "Tackling the informal economy in Southeast Europe: an institutional approach", *Southeast European and Black Sea Studies*, Vol. 15 No. 4, pp. 519-539.
- Williams, C.C. and Horodnic, I.A. (2016a), "An institutional theory of the informal economy: some lessons from the United Kingdom", *International Journal of Social Economics*, Vol. 43 No. 7, pp. 722-738.
- Williams, C.C. and Horodnic, I.A. (2016b), "Cross-country variations in the participation of small businesses in the informal economy: an institutional asymmetry explanation", *Journal of Small Business and Enterprise Development*, Vol. 23 No. 1, pp. 3-24.

-
- Williams, C.C. and Horodnic, I.A. (2016c), "Tackling the undeclared economy in the European Union: an evaluation of the tax morale approach", *Industrial Relations Journal*, Vol. 47 No. 4, pp. 322-340.
- Williams, C.C. and Horodnic, I.A. (2017a), "Evaluating the illegal employer practice of under-reporting employees' salaries", *British Journal of Industrial Relations*, Vol. 55 No. 1, pp. 83-111.
- Williams, C.C. and Horodnic, I.A. (2017b), "Explaining the informal economy in post-communist societies: a study of the asymmetry between formal and informal institutions in Romania", in Polese, A., Williams, C.C., Horodnic, I.A. and Bejakovic, P. (Eds), *The Informal Economy in Global Perspective – Varieties of Governance*, Palgrave Macmillan, Cham, pp. 117-140.
- Williams, C.C. and Krasniqi, B. (2017), "Evaluating the individual- and country-level variations in tax morale: evidence from 35 Eurasian countries", *Journal of Economic Studies*, Vol. 44 No. 5, pp. 816-832.
- Williams, C.C. and Martinez, Á. (2014), "Explaining cross-national variations in tax morality in the European Union: an exploratory analysis", *Studies of Transition States and Societies*, Vol. 6 No. 1, pp. 5-18.
- Windebank, J. and Horodnic, I.A. (2016), "Explaining participation in informal employment: a social contract perspective", *International Journal of Entrepreneurship and Small Business*, Vol. 28 Nos 2-3, pp. 178-194.
- Windebank, J. and Horodnic, I.A. (2017), "Explaining participation in undeclared work in France: lessons for policy evaluation", *International Journal of Sociology and Social Policy*, Vol. 37 Nos 3-4, pp. 203-217.

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