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EXPLAINING PARTICIPATION IN UNDECLARED WORK IN FRANCE: LESSONS FOR POLICY EVALUATION

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EXPLAINING PARTICIPATION IN UNDECLARED WORK IN FRANCE: LESSONS FOR POLICY EVALUATION

Abstract

Purpose

France is as a model of best-practice in the European Union as regards policy to combat undeclared work. This paper takes the country as a case study with which to evaluate the competing explanations of why people engage in undeclared work which underpin such policy: namely, the dominant rational-economic actor approach and the more recent socialactor approach.

Methodology

To evaluate these approaches, the results of 1,027 interviews undertaken in 2013 with a representative sample of the French population are analysed.

Findings

The finding is that higher perceived penalties and risks of detection have no significant impact on the likelihood of conducting undeclared work in France. In contrast, the level of tax morale has a significant impact on engagement in the activity: the higher the tax morale, the lower is the likelihood of participation in the undeclared economy. Higher penalties and risks of detection only decrease the likelihood of participation in undeclared work amongst the small minority of the French population with very low tax morale.

Practical Implications

Current policy in France to counter undeclared work is informed principally by the rational economic actor approach based on a highly-developed infrastructure for detection and significant penalties alongside incentives to declare small-scale own-account work. The present analysis suggests that this approach needs to be supplemented with measures to improve citizens' commitment to compliance by enhancing tax morale.

Originality/value

This case study of a country with a well-developed policy framework to combat undeclared work provides evidence to support the social-actor approach to informing policy change.

Keywords: informal sector, shadow economy, tax evasion, tax morale, France

Introduction

In recent years, it has been recognised that the undeclared economy is a widespread phenomenon and that it is growing rather than declining in many countries and global regions (Williams, 2014a,b; Williams and Schneider, 2016). For example, one recent analysis estimates that 59% of all new businesses in OECD countries start-up unregistered and operate on an undeclared basis (Autio and Fu, 2015). This has significant negative consequences: economies lose their competitiveness due to productive registered formal enterprises suffering unfair competition from unproductive unregistered enterprises and registered enterprises operating partially off-the-books (Leal Ordóñez, 2014); governments lose tax revenue (Bajada and Schneider, 2005) and regulatory control over work conditions (ILO, 2014) and customers lack legal recourse and certainty that health and safety regulations have been followed (Williams and Martinez-Perez, 2014). Undeclared workers, moreover, lack entitlement to labour rights such as the minimum wage and sick pay, cannot build up rights to the state pension and access occupational pension schemes, and lack access to health and safety standards as well as bargaining rights and voice (Andrews et al., 2011; European Commission, 2007). It is therefore important to consider how best undeclared work might be prevented which of course entails a clear understanding of what predisposes people in undeclared to engage work.

The aim of this paper, therefore, is to evaluate the different explanatory perspectives that inform policy measures to tackle undeclared work. The conventional approach adopted by governments based on the rational economic-actor model to explain participation in the activity views the undertaking of undeclared work as arising when the benefits from participation outweigh the expected cost of being caught and punished (Allingham and Sandmo, 1972). Adopting this explanatory framework, governments thus develop policies which increase the actual or perceived risks of detection and sanctions to deter participation. Nevertheless, it has been established that many citizens do not engage in undeclared work even when the pay-off is greater than the expected costs (Alm et al., 2010; Kirchler, 2007; Murphy, 2008), a situation that the rational-economic actor approach cannot explain. In order to arrive at such an explanation, the "social-actor" approach has emerged more recently that explains participation in undeclared work as a product of low tax morality, defined as the intrinsic motivation to pay taxes (Cummings et al., 2009). A current policy debate is therefore whether measures rooted solely in the conventional rationaleconomic actor approach need to be either replaced or combined with those arising from a social-actor approach that fosters improvements in tax morality so as to foster greater voluntary commitment to compliant behaviour (Alm and Torgler, 2011; Torgler, 2012).

Given this aim, the paper will take France as a case study since it is a country often viewed as a model within the European Union as regards policy towards tackling undeclared work. Indeed, France has been a policy 'early bird' within the rational-economic-actor frame. The country has developed both a coherent administrative framework for the detection and sanctioning of undeclared work as well as incentives to declare small-scale own-account work. For example, in the law of March 1997 for the reinforcement of the fight against illegal work created a new cross-departmental *Delegation interministérielle à la Lutte contre le Travail Illégal* (DILTI: Interministerial committee for the fight against illegal work) to coordinate the work of all relevant ministries and agencies alongside trade unions and employer organisations at local, regional and national level to detect and sanction

undeclared work. Alongside this framework for detecting undeclared work and enforcing compliance, the French government has also invested in measures to lessen the relative benefits of undeclared work with schemes that offer tax breaks and the simplification of bureaucratic procedures within sectors particularly prone to undeclared work and for very small businesses. These include the 2006 'Chèque emploi service universel' (CESU - Universal personal services voucher) which simplifies the procedures for hiring a worker to provide services to the household and is accompanied by tax breaks (Windebank, 2009) and the 2009 creation of the status of 'autoentrepreneur' (self-employed entrepreneur) designed to facilitate formalized secondary- or multi-activity by greatly simplifying the declaration procedures of very-small self-employed concerns (Barreul, 2012).

In the following section the article therefore explains the rational-economic actor and social-actor approaches towards explaining and tackling the undeclared economy and whether they can be combined. The third section then introduces the data and methodology to evaluate these approaches, namely a logistic regression analysis of 1,027 interviews conducted in France during 2013. In the fourth section, the findings are reported. This reveals no association between participation in undeclared work and the perceived level of penalties and risk of detection amongst the French participants, but a significant positive association between participation in undeclared work and the level of tax morality, along with how deterrents only impact on the likelihood of participation when tax morale is low. In the fifth and final section, the implications for theory and policy are then discussed.

Before commencing, however, the undeclared economy must be defined. Here, and reflecting the consensus among academics and practitioners, we define undeclared work as paid activity that is legal in all respects other than it is not declared to the authorities for tax, social security or labour law purposes, when it should be declared (European Commission, 2007; OECD, 2012; Williams and Windebank, 1998). If it is not legal in all other respects, it is not defined as undeclared work. If the goods or services traded are illegal for instance (e.g., illegal drugs), then it is not part of the undeclared economy, but the wider criminal economy.

Preventing undeclared work: a review of explanatory frameworks and related policy approaches

Reviewing the literature on how to tackle the undeclared economy, two contrasting approaches can be identified. The rational-economic-actor approach has its origins in the classic utilitarian theory of crime that depicts citizens as engaging in such acts when the expected costs (that is, the probability of being caught and ensuing sanctions) do not outweigh the benefits (Bentham, 1788). This approach was popularised by Becker (1968) who argued that by increasing the sanctions and probability of detection confronting those considering or actually disobeying the law, acting legally would become the rational choice of citizens. This was subsequently applied to tax evasion by Allingham and Sandmo (1972) who viewed non-compliance as occurring when the benefits outweighed the expected costs of doing so. To change the cost/benefit ratio confronting citizens thinking about participating or actually engaging in tax evasion, the argument was that the actual and/or perceived risks of detection and sanctions must be increased. This approach was subsequently widely adopted when explaining and tackling the undeclared economy (Grabiner, 2000; Hasseldine and Li, 1999; Richardson and Sawyer, 2001).

Previous research has produced mixed results regarding the effectiveness of increasing the risks of detection and penalties in reducing undeclared work. Although some evaluations have found that increasing the probability of detection reduces engagement in undeclared work, at least for some income groups (Klepper and Nagin, 1989; Slemrod et al., 2001) and that increasing penalties decreases participation in undeclared work (Wenzel, 2004), others have concluded that increasing the risks of detection does not lessen non-compliance (Shaw et al., 2008) and that raising the penalties results in either greater participation, has no effect, or only short-term effects (Feld and Frey, 2002; Murphy, 2005; Spicer and Lunstedt, 1976).

The present study will therefore seek to evaluate this rational economic actor approach by testing the following hypothesis:

Rational economic actor hypothesis (H1): increasing the perceived penalties and probability of detection lowers the likelihood of participation in undeclared work.

H1a: increasing the perceived penalties lowers the likelihood of participation in undeclared work.

H1b: increasing the perceived probability of detection lowers the likelihood of participation in undeclared work.

Given that many citizens do not engage in undeclared work even when the benefits outweigh the costs (Alm et al., 2010; Murphy, 2008), a new approach has emerged that portrays citizens as social actors and explains engagement in undeclared work to result from low tax morality, by which is meant a low intrinsic motivation to pay taxes (Alm and Torgler, 2006, 2011; McKerchar et al., 2013; Torgler, 2011; Torgler and Schneider, 2009; Williams and Shahid, 2016). Policy based on this explanation for participation in undeclared work would therefore seek to increase tax morality so as to improve the commitment of citizens to voluntarily comply (Kirchler, 2007; Torgler, 2011). This social-actor approach has its origins in the scholarship of Georg von Schanz (1890), the first scholar to highlight the existence of a tax contract between citizens and the state. Six decades later, the German "Cologne school of tax psychology" then popularised this approach and measured the level of tax morality (Schmölders, 1962; Strümpel, 1969). Although this social-actor approach declined in popularity with the emergence of the rational-economic-actor approach from the 1970s onwards, the last decade or so has seen its re-emergence (Alm et al., 2012; Kirchler, 2007; Torgler, 2011). Here, therefore, reductions in undeclared work are sought by engendering greater self-regulation. This voluntary commitment to compliant behaviour comes about when there is a high-commitment, high-trust culture in which citizens' values align with the formal rules imposed by the state (Alm and Torgler, 2011; Torgler, 2012). It could be suggested therefore that the implementation of strong deterrents to enforce compliance may be counterproductive in that measures such as close supervision and monitoring of citizens, the imposition of tight rules and prescribed procedures and centralised structures engender a low-trust, low-commitment and adversarial culture.

The social-actor perspective can be linked to institutional theory in which institutions represent "the rules of the game" and prescribe what activities are acceptable within a given society (Baumol and Blinder, 2008; Denzau and North 1994; Mathias et al., 2014; North, 1990, Williams *et al*, 2015). In all societies, there are both formal institutions (that is, codified laws and regulations) that set out the legal rules of the game and thus prescribe "state morality", as well as informal institutions which are the "socially shared rules, usually

unwritten, that are created, communicated and enforced outside of officially sanctioned channels" (Helmke and Levitsky, 2004: 727) and prescribe "civic morality". From a social-actor perspective, any asymmetry which arises when the formal institutions ("state morality") and informal institutions ("civic morality"), measured by the level of tax morality, may result in participation in undeclared work. In order to reduce levels of undeclared work, therefore, it would be argued that policy should attempt to align civic morality with state. To evaluate such an approach therefore, the following hypothesis can be tested:

Social actor hypothesis (H2): improving tax morality lowers the likelihood of participation in undeclared work.

It should not be thought that policies inspired by the rational-economic actor and social-actor perspectives are mutually exclusive. Indeed, it can be argued that governments can pursue not only "enforced" compliance by increasing the sanctions and probabilities of detection and therefore the power of authorities, but also "voluntary" compliance by fostering tax morality and thus trust in government (Kirchler *et al.*, 2008; Kogler *et al.*, 2015; Kastlunger et al., 2013; Khurana and Diwan, 2014; Muehlbacher *et al.*, 2011; Prinz et al., 2013; Wahl *et al.*, 2010). When there is no trust in authorities and they have no power, the argument is that there will be greater engagement in the undeclared economy. When trust in, and/or the power of, authorities increases nevertheless, engagement in undeclared work declines. Wahl et al (2010) in a laboratory experiment randomly presented each participant with one of four different descriptions of a fictitious country, in which the authorities are portrayed as trustworthy or untrustworthy and as powerful or powerless. They found that participants paid significantly more taxes when both power and trust were high. The outcome has been an argument that combining these two policy approaches is the most effective way of tackling undeclared work (Kogler et al., 2015; Muehlbacher et al., 2011).

However, it is also necessary to take into account the possibility that a potentially complex interaction exists between increasing the power of authorities and trust in authorities and that the impacts of increasing the probability of detection and sanctions may vary at different levels of tax morality. Increasing the risks of detection and penalties might result in greater non-compliance when tax morality is high, due to a breakdown of trust between the state and its citizens (Chang and Lai, 2004; Kirchler et al., 2014). In other words, tax morality might moderate the impacts of increasing the perceived probabilities of detection and sanctions on engagement in undeclared work. Until now, however, little if any research has been conducted on these moderating effects. In consequence, the following hypothesis will be tested in the present analysis:

Moderating impacts hypothesis (H3): the impacts of sanctions and risks of detection on engagement in undeclared work will vary according to the level of tax morality.

H3a: the impacts of the perceived penalties on participation on engagement in undeclared work will vary according to the level of tax morality.

H3b: the impacts of the perceived risk of detection on engagement in undeclared work will vary according to the level of tax morality.

Methodology

Data

To evaluate these explanatory perspectives and related public policy approaches for tackling the undeclared economy, data is reported from special Eurobarometer survey no. 402 which included 1,027 face-to-face interviews conducted in France between April and May 2013 in the national language with adults aged 15 years and older. A multi-stage random (probability) sampling methodology ensured that on the issues of gender, age, region and locality size, each level of sample is representative in proportion to its population size. For the univariate analysis, a sample weighting scheme is used to obtain meaningful descriptive results, as recommended in the wider literature (Sharon and Liu, 1994; Solon *et al.*, 2013; Winship and Radbill, 1994) and the Eurobarometer methodology. For the multivariate analysis however, debate exists over whether to use a weighting scheme (Pfefferman, 1993; Sharon and Liu, 1994; Solon *et al.*, 2013; Winship and Radbill, 1994). Reflecting the majoritarian view, the decision was taken not to do so.

Adopting a gradual approach towards the more sensitive questions, the face-to-face interviews firstly asked participants attitudinal questions regarding the acceptability of various forms of undeclared work and their views of the expected penalties and risks of detection, followed by questions on whether they had purchased and supplied undeclared goods. Here, we focus firstly upon the questions on the supply of undeclared work and secondly on attitudinal questions examining the level of tax morale and the respondent perceived penalties and risk of detection in respect with participation in undeclared economy.

Variables

To evaluate the degree to which it is the penalties and risks of detection and/or the level of tax morality which reduce the likelihood of participation in undeclared work in France, the dependent variable used examines who engages in undeclared work and is a dummy variable with recorded value 1 for persons 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?'.

To evaluate the association between participation in undeclared work and the policy measures, three explanatory variables are used. Firstly, to evaluate whether the perceived risk of detection influences participation, a dummy variable is used describing the perceived risk of being detected when engaging in undeclared work, with value 0 for a very small or fairly small risk and value 1 for a fairly high or very high risk. Secondly, to evaluate how penalties are associated with participation in undeclared economy, a dummy variable is used, describing the expected sanctions if caught doing undeclared work, with value 0 for normal tax or social security contributions due and value 1 for normal tax or social security contributions due, plus fine or prison.

Third and finally, to evaluate the association between participation in the undeclared economy and the level of tax morality, participants were asked to rate the acceptability of participating in six types of undeclared work using a 10-point Likert scale (where 1 means absolutely unacceptable and 10 means absolutely acceptable), namely: an individual is hired by a household for work and s/he does not declare the payment received to the tax or social security authorities even though it should be declared; a firm is hired by a household for work and it does not declare the payment received to the tax or social security authorities; a firm for work and it does not declare its activities to the tax or social security authorities; a firm hires an individual and all or a part of the wages paid to him/her are not officially declared; someone receives welfare payments without entitlement; and

someone evades taxes by not declaring or only partially declaring their income. An aggregate tax morality index for each individual was then constructed by collating participants' responses to the six questions. The Cronbach's Alpha coefficient of the scale is 0.854 which shows a good internal consistency of the scale (Kline, 2000). Here, the index is represented in the original 10-point Likert scale format, meaning that the lower the index value, the higher is their tax morality.

Drawing upon previous studies evaluating participation in undeclared work from either the supply- and/or demand-side (Williams and Horodnic, 2015a,b), the control variables selected are:

- *Gender*: a dummy variable with value 0 for females and 1 for males.
- *Age*: a continuous variable indicating the exact age of a respondent.
- Occupation: a categorical variable grouping respondents by their occupation with value 1 for self-employed, value 2 for employed, and value 3 for not working.
- People 15+ years in own household: a categorical variable for people 15+ years in respondent's household (including the respondent) with value 1 for one person, value 2 for two persons, value 3 for 3 persons or more.
- Children: a dummy variable for the presence of children up to 14 years old in the household with value 0 for individuals with no children and value 1 for those having children.
- Difficulties paying bills: a categorical variable for the respondent difficulties in paying bills with value 1 for having difficulties most of the time, value 2 for occasionally, and value 3 for almost never/ never.
- Area: a categorical variable for the area where the respondent lives with value 1 for rural area or village, value 2 for small or middle sized town, and value 3 for large town.

Analytical methods

To evaluate the association between participation in undeclared work and the perceived penalties and risk of detection, and the level of tax morality, only those 854 respondents for whom data on each and every control variable was available are here used in the logistic regression analysis. Below, the results are reported.

Findings

As Table 1 displays, 5 per cent of the 854 French interviewees who were interviewed faceto-face reported engaging in undeclared work during the 12 months prior to interview, a figure slightly higher than that of the Western European or EU28 average. Table 1 also reveals the variations between those who engage in undeclared work and those who do not regarding their perceptions of the expected sanctions against and risks of detection of participation in such work and their tax morality. Those participating in undeclared work perceive the expected sanctions as lower than those not engaged in undeclared work: 23% of those participating in undeclared work consider that only the normal tax or social security contributions will be due if caught compared with 18% of those not participating in undeclared work. Overall, a greater percentage of respondents in France, whether undertaking undeclared work or not, consider that sanctions will be high (including a fine or prison) than in Western Europe or the EU28. Meanwhile, 66% of French respondents doing undeclared work perceive the risk of being detected as very small or fairly small, compared with 62% of those not participating in undeclared work. As compared with Western Europe and the EU 28, a higher percentage of those engaging in undeclared work believe the risk of detection to be fairly high or high in France whilst this percentage is lower in France than in the rest of Europe amongst those not engaging in undeclared work. Those participating in undeclared work in France, moreover, have a lower level of tax morale (3.9) compared with those not engaging in undeclared work (2.0) and in comparison with those engaging in undeclared work in Western Europe (3.7) and in the EU28 (3.5). Similarly those not engaging in undeclared work in France still have a lower tax morale (2.0) than those in Western Europe (2.1) and in the EU28 (2.2). In sum, French participants in undeclared work view the severity of the punishment as lower and the risk of detection smaller and have a lower level of tax morale than those not participating in undeclared work.

INSERT TABLE 1 HERE

Table 2 reports the results of a logistic regression analysis which evaluates the hypotheses regarding whether participation in undeclared work is significantly associated with firstly, the level of sanctions and risk of detection and secondly, tax morality. It also shows that the social groups in France most likely to participate in undeclared work are younger people and the self-employed. Examining whether participation in undeclared work in France is associated with the perceived level of penalties and risk of detection, no significant association is found between participation in undeclared work and the perceived level of sanctions (refuting H1a). As such, when respondents perceive the level of sanctions to be higher, this does not result in lower levels of participation in undeclared work. Similarly, we found no significant association between the perceived risk of detection and participation in undeclared work, when other variables are held constant (refuting H1b). However, there is a significant association between participation in undeclared work and tax morality. The greater the level of tax morality, the lower is the propensity to participate in undeclared work (confirming H2). The outcome of Model 1 is therefore that little or no association is found between the likelihood of participating in undeclared work and the level of punishments or risk of detection but a strong association is identified with the level of tax morality.

INSERT TABLE 2 HERE

To examine whether tax morality moderates the impacts and effectiveness of penalties and detection risk, model 2 in Table 2 introduces the interaction terms between tax morality and the level of punishment and risk of detection. Overall, the finding is that the interaction terms between perceived penalties and risk of detection, and tax morality, are not significant (refuting H3a and H3b). However, although there is overall a lack of significance of the interaction terms, some important relationships exist at lower levels of tax morality that need to be reported. Figure 1 graphically portrays the impact of increasing the penalties and risks of detection on participation in undeclared work at various levels of tax morality for a "representative" French citizen, derived by taking the mean and modal values of the other independent variables. This representative French citizen is thus a 47 year-old woman who does not work, living in a two person household in a small or middle sized town, with no children who never, or almost never, faces financial difficulties paying the household bills. Figure 1 reveals firstly that the expected probability of engaging in

undeclared work increases with worsening the tax morality from close to zero, when tax morality is high (i.e., the tax morality index is 1), to between 59% and 86% depending on the perceived level of punishments and detection risk when tax morality is very poor (i.e., the tax morality index equals 10).

INSERT FIGURE 1 HERE

Indeed, when tax morality is relatively high (i.e., below a score of 3), increasing the perceived level of sanctions and risks of detection has relatively little effect on the probability of participation in undeclared work. However, as tax morality worsens above a tax morality index score of 3, the perceived level of punishment and risk of detection becomes more influential in shaping the level of participation in undeclared work. In such low trust environments, it is largely the perceived risk of detection rather than the level of penalties which reduces participation in undeclared work. The higher the perceived risk of detection, the lower is the probability of participation in undeclared work. However, as mentioned above, the interaction terms are not statistically significant.

Discussion and Conclusions

To evaluate the rational-economic-actor approach towards explaining and tackling undeclared work, the emergent social-actor approach and how the two might combine, we have examined how the expected risks of detection and sanctions and the level of tax morality is associated with participation in undeclared work in France. The finding is that there is no association between respondents perceiving higher risks of detection and levels of sanctions and lower rates of participation in undeclared work. However, higher levels of tax morality are associated with lower levels of participation in undeclared work. Furthermore, although when the expected risks of detection and penalties are higher, the likelihood of participation in undeclared work is lower when tax morality is low, overall the interaction effects between the level of penalties and risks of detection, and level of tax morality are not significant. In sum, therefore, these findings reveal that the model of the rational-economic actor perspective cannot adequately explain individuals' participation in undeclared work. Indeed, despite the highly developed nature of deterrent policies in France and the resultant level of fear of both detection and sanctions that is higher than the EU average in most categories, it has been shown that a greater percentage of French respondents than average in the EU undertake undeclared work. Conversely, the tax morale of the French is slightly lower than the EU28 average and indeed the average for Western Europe.

On the basis of these findings concerning how to explain individuals' participation in undeclared work, it might thus be tentatively suggested that further investment by the French government in structures such as the DILTI may not yield the desired results. It would seem rather that policy which focuses on improving tax morality may prove more effective in the long term than policy to enhance deterrents. Viewing low tax morality through the lens of institutional theory as a measure of the lack of alignment of the laws, codes and regulations of formal institutions, namely 'state morality', with the norms, beliefs and values of informal institutions, namely 'civic morality', (Helmke and Levitsky, 2004; North, 1990), the suggestion is that there is a need to reduce this institutional asymmetry. On the one hand, this requires changes in the norms, values and beliefs regarding the acceptability of participating in undeclared work (that is, civic morality) but also, on the other hand, changes in formal institutions. As revealed in previous studies in other advanced economies, compliance improves when there are improvements in procedural justice, which refers to whether citizens perceive the government to treat them in a respectful, impartial and responsible manner (Gangl et al., 2013; Murphy, 2005), procedural fairness, which refers to the extent to which citizens believe that they are paying their fair share compared with others (Molero and Pujol, 2012) and redistributive justice, which refers to whether citizens believe the goods and services they deserve given the taxes that they pay (Kirchgässner, 2011).

Policy change may therefore have to be much more wide-ranging to have an impact on civic morality than measures targeted specifically at undeclared work. There is debate, however, on what the direction of this change should be: for example, Williams (2014a) has argued that formal economic systems which are wealthier and more equal and where there is greater labour market intervention, higher levels of social protection and more effective redistribution via social transers are significantly correlated with lower levels of informalisation and undeclared work. In contrast, it has been argued that the re-alignment of civic and state morality relies on the state drawing back from interference in citizens' lives through legislation and taxation (De Soto, 2001; London and Hart, 2004)

There are a number of aspects of the French economy, society and political life which may influence tax morality negatively but which would require deep transformations in 'state morality' and in the public perception of this state morality. First, although poverty and inequality in France have traditionally been below the OECD average (OECD, 2008) with high degrees of spending on benefits, the country suffers from strong labour-market segmentation by age and qualifications (Milner, 2015). There is a widespread perception that the core labour force, represented by trades unions which pressure state institutions, protects its advantages at the expense of the peripheral workforce of the young, low qualified and ethnic minorities who find themselves either unemployed or in very precarious work and who may therefore perceive undeclared work to be a preferable or indeed sole option to secure an income or to supplement a low formal income. Second, there is a long-standing dissatisfaction with the French state on the part of small business owners, retailers and the self-employed which dates back to the 1950s and beyond. In terms of varieties of capitalism, France has traditionally been located on "the statist end of the market-state spectrum" (Milner, 2015, p.229) since the period of rapid state-led modernization following the Second World War. During this period, small business owners felt that their interests were being sacrificed, a dissatisfaction which gave rise to the political movement of Poujadisme - a movement whose spirit lives on in right-wing politics today. This movement grew from an act of citizen resistance to the state in the form of a refusal to cooperate with tax inspections by small business owners led by Pierre Poujade in his department of the Lot (Souillac, 2007). Lastly, there is the question of the social contributions that employees and employers have to pay in France which are high relative to comparable countries. As Morel and Carbonnier (2015) suggest, the growth of formal low-end service sector jobs, such as those in household services, retail and the hotel and restaurant sector, have been constrained in France due to labour-market and welfare institutions where strongly regulated labour markets combine with a compressed wage structure and relatively high wages even for the low-skilled along with generous social protection schemes. Employers and employees alike may therefore feel it just to circumvent these constraining regulations in order to provide services or pay wages which are affordable. The French policies which incentivise the regularisation of activities in the household services sector or in very small businesses have in fact been implemented to address exactly this problem.

In conclusion, if this paper results in re-evaluations of these various approaches towards explaining and tackling undeclared work, as well as the complex interplay between increasing deterrents and improving tax morality, in the French and wider European context, one of its principal aims will have been fulfilled. If this analysis has any impact on policy change, it will have fulfilled a broader intention. If there is one certainty arising out of this paper, however, it is that the French government and others can no longer simply assume that rebalancing the economic costs and benefits of engaging in undeclared work is the most effective way of reducing the level of such activity. Although much more difficult to operationalise, the way forward for tacking undeclared work must lie in improving tax morality amongst citizens.

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Table 1. Expected sanctions, detection risk and tax morale: by whether engaged in undeclared work

	France	Western Europe	EU 28
Engaged in undeclared work (%)	5	4	4
Expected sanctions (%)			
Tax or social security contributions due	23	26	32
Tax or social security contributions + fine or prison	77	74	68
Detection risk (%)			
Very small/ Fairly small	66	70	72
Fairly high/ Very high	34	30	28
Tax morality (mean)	3.9	3.7	3.5
Not engaged in undeclared work (%)	95	96	96
Expected sanctions (%)			
Tax or social security contributions due	18	19	24
Tax or social security contributions + fine or prison	82	81	76
Detection risk (%)	62	50	50
Very small/ Fairly small Fairly high/ Very high	62 38	59 41	59 41
Tax morality (mean)	2.0	2.1	2.2

	Ν	/Iodel 1		Model 2			
	β	Robust se(β)	Exp(β)	β		Robust se(β)	Exp(β)
Expected sanctions (Tax or social security co Tax or social security contributions + fine or prison	ntributions du -0.121	ue) 0.483	0.886	-0.410		0.824	0.664
Detection risk (Very small/ Fairly small) Fairly high/ Very high	-0.448	0.409	0.639	-0.070		0.811	0.933
Tax morality	0.646 **	* 0.091	1.908	0.638	** *	0.177	1.893
Gender (Female) Male	-0.478	0.408	0.620	-0.479		0.411	0.620
Age (Exact age)	-0.035 **		0.966	-0.033	**	0.411	0.967
Occupation (Self-employed) Employed	-1.926 **	* 0.642	0.146	-1.954	**	0.637	0.142
Not working	-1.460 **	0.640	0.232	-1.477	**	0.635	0.228
People 15+ years in own household (One) Two Three and more	-0.514 -0.210	0.463 0.545	0.598 0.811	-0.495 -0.198		0.465 0.540	0.610 0.821
Children (No children) Having children	0.190	0.468	1.210	0.194		0.472	1.214
Difficulties paying bills (Most of the time) From time to time Almost never/ never	-0.651 -0.395	0.508 0.460	0.522 0.674	-0.625 -0.368		0.514 0.468	0.535 0.692
Area (Rural area or village) Small or middle sized town Large town	0.031 0.739	0.467 0.502	1.031 2.094	0.056 0.758		0.467 0.504	1.058 2.135
Interactions							
Tax or social security contributions + fine or	prison x Tax n	norality		0.078		0.194	1.081
Fairly high/ Very high x Tax morality				-0.106		0.187	0.900
Constant	-0.980	1.199	0.375	-1.006		1.337	0.366
N Pseudo R ² Log pseudolikelihood X ² p>		-1	854 0.2483 14.5093 94.92 0.0000			-1:	854 0.2497 14.2896 96.46 0.0000
µ>			0.0000				0.00

Table 2. Logistic regressions of the propensity to participate in undeclared work in France

Notes:

Significant at *** p<0.01, ** p<0.05, * p<0.1.

All coefficients are compared to the benchmark category, shown in brackets.

When multiple imputation techniques are used (ten imputations were simulated through a system of chained equations for every missing value) for addressing the missing responses issue, the same variables are significantly associated with participation in the informal economy. Therefore, we use the available data, with no imputation, to keep minimize bias.

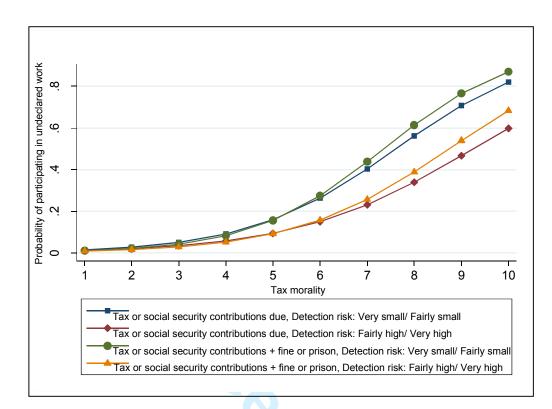


Figure 1. Predicted probability of participating in undeclared work of a "representative" citizen living in France: by expected sanctions, detection risk, and tax morality

Appendix

Variables	Definition	Mode or mean	Min / Max	
Supply of undeclared work (dependent variable)	Dummy variable of undeclared paid activities carry out in the last 12 months, apart from a regular employment	Not engaged in undeclared work (95%)	0/1	
Expected sanctions	Dummy for the penalties associated with participation in undeclared activities	Tax or social security contributions + fine or prison (81%)	0/1	
Detection risk	Dummy for the perceived risk of detection	Very small/ Fairly small (62%)	0/1	
Tax morality	Constructed index of self-reported tolerance towards tax non-compliance	2.1	1/8.5	
Gender	Dummy for the gender of the respondent	Female (51%)	0/1	
Age	Respondent exact age	47 years	/ 15 91	
Occupation	Respondent occupation in categories	Employed (47%)	1/3	
People 15+ years in own household	People 15+ years in respondent`s household (including the respondent) in categories	Two (50%)	1/3	
Children	Dummy for the presence of children (up to 14 years old) in the household	No children (66%)	0/1	
Difficulties paying bills	Respondent difficulties in paying bills in categories	Almost never/ never (59%)	1/3	
Area	Size of the area where the respondent lives in categories	Small/ middle town (42%)	1/3	

Table A1. Variables used in the analysis: definitions and descriptive statistics (N = 854)