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# EXPLAINING AND TACKLING UNDER-DECLARED EMPLOYMENT IN FYR MACEDONIA: THE EMPLOYERS PERSPECTIVE

Colin C. Williams, Slavko Bezeredi

## Abstract

*The aim of this paper is to evaluate how employers who illegally under-report their employees' salaries to evade paying the full tax and social contributions owed can be explained and tackled. These employers have been conventionally explained as rational economic actors doing so when the benefits outweigh the costs, and thus the solution is to increase the sanctions and/or probability of detection. An alternative social actor approach, however, explains employers as under-reporting salaries because of their lack of both vertical trust (i.e., their beliefs are not in symmetry with the laws and regulations) and horizontal trust (i.e., they believe many others are non-compliant). Reporting a 2015 survey of 450 employers in FYR Macedonia, the finding is that there is no strong association between employers under-reporting salaries and their perceived level of penalties and risks of detection, but a strong significant association with both their level of vertical and horizontal trust. The theoretical and policy implications are then discussed.*

**Keywords:** envelope wages; informal economy; tax evasion; FYR Macedonia.

**JEL Classification:** H26, J46, K42, O17, P37

## INTRODUCTION

The aim of this paper is to explain why some employers pay their employees an official declared wage and an additional undeclared ("envelope") wage, and how this illegal practice can be tackled. Employers doing so have been conventionally explained as rational economic actors who pay envelope wages when the pay-off is greater than the expected cost of being caught and punished (Allingham and Sandmo 1972). The policy solution is therefore to increase the actual or perceived penalties and probability of detection. However, over the past decade, drawing inspiration from institutional theory (North 1990), an alternative explanation has emerged. A social actor approach explains salary under-reporting to result from employers lack of "vertical trust", measured by a non-alignment between their norms, values and beliefs, and the laws and regulations of the formal institutions (Alm et al. 2010, 2012; Cummings et al. 2009; Kirchner

2007; Murphy 2008; Torgler 2007, 2012; Williams and Horodnic 2015a,b, 2016a,b). Recently, furthermore, this social actor approach has additionally begun to assert that employers pay envelope wages when they lack horizontal trust that other employers are operating in a compliant manner (Baric 2016). The solution

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is therefore to improve vertical and horizontal trust. In this paper, the intention is to evaluate these competing ways of explaining and tackling under-declared employment.

This paper therefore seeks to advance theory in three ways. First, most studies explaining under-declared employment have focused upon employees' rationales. This paper evaluates employers' reasons, who are the ones deciding to pay envelope wages. Second, by evaluating the rational economic actor and social actor perspectives, it advances considerably how to explain employers paying envelope wages by highlighting that they are more social actors, lacking vertical trust, rather than rational economic actors. And third and importantly for advancing institutional theory, it will reveal the importance of horizontal trust as an explanation for employers paying envelope wages. This has so far received little attention in institutional theory.

To advance understanding of how participation in under-declared employment can be explained and tackled, therefore, section 2 reviews the previous literature on the extent and nature of under-declared employment, and the competing views on how it can be explained and tackled. The outcome is a set of hypotheses. To test these, section 3 then reports the data used, namely the 2015 GREY survey of employers in FYR Macedonia, involving 450 face-to-face interviews. Section 4 reports the findings regarding the validity of the different ways of explaining and tackling under-declared employment, while section 5 summarises the theoretical and policy implications.

### *EXPLAINING AND TACKLING UNDER-DECLARED EMPLOYMENT: REVIEW AND HYPOTHESES DEVELOPMENT*

Since the turn of the millennium, it has been recognised that formal employers sometimes evade paying the full tax and social contributions they owe for their formal employees by using the illegal practice of paying them an undeclared ("envelope") wage in addition to their official declared wage (Horodnic 2016; Meriküll and Staehr 2010; Neef 2002; Williams 2007, 2008a, 2009a,b). This normally happens at the job interview stage via a verbal agreement which supersedes the formal written contract (Chavdarova 2014; Williams 2009a; Williams and Horodnic 2017a,b; Woolfson 2007). Sometimes employers impose additional conditions. These might include that the employee: does not take their full statutory entitlement to annual leave; works longer hours than in their formal contract, and/or does different tasks and

responsibilities to that specified in their formal contract (Williams and Horodnic 2017a,b).

Many of the earlier studies evaluating the prevalence and nature of under-declared employment were small-scale qualitative studies in East-Central European nations, such as Bulgaria (Chavdarova 2014), Estonia (Meriküll and Staehr 2010), Latvia (Meriküll and Staehr 2010; OECD 2003; Sedlenieks 2003), Lithuania (Meriküll and Staehr 2010; Woolfson 2007), Romania (Neef 2002), Russia (Williams and Round 2008) and Ukraine (Round, Williams and Rodgers 2008; Williams 2007). For instance, the study in Lithuania by Woolfson (2007) is an in-depth case study of one person. Meanwhile, although the Ukraine study covers 600 households, it is limited to three localities (Williams 2007), while the Russia study is confined to 313 households in three districts of Moscow (Williams and Round 2007).

Despite not being nationally representative samples, these studies nevertheless provide clues to its prevalence. For example, in Ukraine, 30 per cent of formal employees reported being paid an additional envelope wage (Williams 2007), 65 per cent in Moscow (Williams and Round 2007) and 19.5 per cent, 16.3 per cent and 7.2 per cent in Latvia, Estonia and Lithuania respectively in 1998 and 9.6 per cent, 22.5 per cent and 11.7 per cent respectively in 2002 (Meriküll and Staehr 2010). However, all these surveys were conducted at the height of the transition process in post-socialist societies.

The first extensive representative survey on a cross-national level of the prevalence and distribution of under-declared employment was a 2007 Eurobarometer survey involving 11,135 interviews with formal employees across the 27 member states of the European Union (EU). Analyses of this dataset reveal the prevalence of wage under-reporting across the EU as a whole (Williams 2009a; Williams and Padmore 2013a,b), as well as in South-Eastern Europe (Williams 2010, 2012a; Williams et al. 2011), the Baltic region (Williams 2009d) and East-Central Europe (Williams 2008a,b, 2009b,c, 2012b; Williams and Round 2008). Across the EU, 5.5 per cent of formal employees were found to receive under-reported wages, amounting on average to 43 per cent of their gross wage, with its prevalence much lower in Western and Nordic nations than in Southern and East-Central Europe, as was the share of the gross wage received as an envelope wage lower (e.g., Williams 2009a, 2013). This Eurobarometer survey was repeated in 2013 with 11,025 dependent employees across the 28 member states of the EU, revealing that one in 33 employees receive under-reported wages with similar variations continuing to persist across the EU regions (Williams and Horodnic 2017a).

All these studies, however, are based on interviews with employees. This is important. Overall, it is employers, rather than employees, who decide whether an employee should be paid an envelope wage, and it is employers, not employees, who are penalised if caught (Williams 2018). As such, it is important to understand employers' perspectives since they are the ones deciding to pay envelope wages, not the employees who are more passive recipients of such an employment relationship. Indeed, this is similarly the case in FYR Macedonia, which is the focus of this paper. Only employees have been so far surveyed (Mojsoska Blazevski and Williams 2018; Williams and Bezeredi 2018), not employers who are the ones deciding to pay envelope wages. The aim of this paper, therefore, is to explain why employers pay envelope wages and how employers can be prevented from doing so.

Until now, the dominant view has been that employers are "rational economic actors" who pay envelope wages when the benefits are greater than the costs. This perspective has its roots in the seminal work of Allingham and Sandmo (1972) on tax non-compliance. If the benefits from evading payment of the full tax and social contributions owed is greater than the perceived and/or actual costs, then employers will do so. The policy approach is therefore to ensure that the costs outweigh the benefits. This is achieved by increasing the actual and/or the perceived probability of detection and/or level of penalties. Indeed, this is currently the main policy approach pursued by governments across the European Union (EU) and beyond (Williams and Puts 2017; ILO 2017). This is also the dominant policy approach in FYR Macedonia. The tax administration and labour inspectorate have sought to tackle under-declared employment by increasing the penalties and probability of detection to ensure that the costs outweigh the benefits. The amendment of the Law on Labour Relations (Official Gazette of the Republic of Macedonia No. 54/2013) increased the penalties for such wage under-reporting to €7,000 and the risks of detection have been improved, not least through strengthened administrative cooperation via electronic data exchange, as well as by pursuing targeted inspections in high-risk sectors (Mojsoska Blazevski and Williams 2018).

However, despite the widespread adoption of this rational economic actor approach by governments, the evidence that increasing the penalties and probability of detection leads to compliance is less than conclusive. Some studies confirm that compliance is significantly higher when the levels of penalties and risks of detection are higher (Feld and Frey 2002; Mas'ud et al. 2015; Mazzolini et al. 2017), others find

no significant association (Hartl et al. 2015; Shaw et al. 2008; Williams and Franic 2015, 2016), and yet others that non-compliance increases (Chang and Lai 2004; Hofmann et al. 2017; Kaplanoglou and Rapano, 2015; Murphy 2005, 2008; Murphy and Harris 2007). A problem specific to salary under-reporting, moreover, is that this practice is difficult for tax and labour inspectors to detect. These are formal employees with a formal written contract working for a formal employer and the additional contract is verbal. Despite being difficult to detect and even more so to prove, this approach remains dominant. To evaluate the validity of this rational economic actor approach in explaining and tackling under-declared employment, therefore, the following hypotheses can be tested:

*Rational economic actor hypothesis (H1):* the higher are the perceived penalties and risks of detection, the lower is the likelihood of employers paying envelope wages.

*H1a:* the higher are the perceived penalties, the lower is the likelihood of employers paying envelope wages.

*H1b:* the higher are the perceived risks of detection, the lower is the likelihood of employers paying envelope wages.

The recognition that many employers do not pay envelope wages even when the benefit/cost ratio suggests they should so (Alm et al. 2010; Kirchler 2007; Murphy 2008; Murphy and Harris 2007; Windebank and Horodnic 2017) has led to the emergence of an alternative "social actor" explanation. Drawing inspiration from institutional theory (Helmke and Levitsky 2004; North 1990), all societies are viewed as having formal institutions, which are laws and regulations defining the legal rules of the game, and informal institutions, which are the "socially shared rules, usually unwritten, that are created, communicated and enforced outside of officially sanctioned channels" (Helmke and Levitsky 2004, 727). Under-declared employment is asserted to occur when there is a lack of vertical trust (measured by the non-alignment of the formal and informal institutions). This lack of vertical trust in South-East Europe might arise for example due to a perception of widespread public-sector corruption (Aralica et al. 2018; Williams et al. 2017). When this vertical trust is lower, the prevalence of under-declared employment is asserted to be higher.

Analysing employees' views of the formal rules of the game, this has been confirmed. A statistically significant relationship has been identified between the level of vertical trust and receiving envelope wages (Williams and Horodnic 2015a, 2017a,b). Until now,

however, the only employer surveys to have investigated this issue have identified a link between wage underreporting and tolerance to tax evasion. However, these have been conducted in Estonia, Latvia and Lithuania (Putniņš and Sauka 2017) and Romania and Moldova (Putniņš et al. 2018). Whether this is more widely the case, therefore, especially in South-Eastern Europe, needs to be investigated.

In the past few years, furthermore, it has been asserted to be not just the lack of vertical trust (i.e., formal/informal institutional asymmetry) that leads to salary under-reporting, but also the lack of horizontal trust that others are being compliant (Baric 2016). When employers perceive a large majority of their competitors as not adhering to the formal rules of the game, the argument is that they decide to also be non-compliant. Indeed, the lower the level of horizontal trust (i.e., the greater the perceived propensity of other employers to be non-compliant), the greater will be likelihood that employers will be themselves non-compliant. To evaluate the validity of this social actor approach towards explaining and tackling under-declared employment, therefore, the following hypothesis can be evaluated:

*Social actor hypothesis (H2):* the greater the level of vertical and horizontal trust, the lower is the likelihood of employers paying envelope wages.

*H2a:* the greater is the level of vertical trust, the lower is the likelihood of employers paying envelope wages.

*H2b:* the greater the level of horizontal trust, the lower is the likelihood of employers paying envelope wages.

## DATA AND VARIABLES

### Data

To evaluate these two contrasting ways of explaining and tackling under-declared employment, data is reported from a representative employers' survey conducted in 2015 in FYR Macedonia, a country with one of the highest levels of undeclared work in Europe (Medina and Schneider 2018). Indeed, recent studies reveal that undeclared work is far more prevalent across South-East Europe than in the EU (Efendic and Williams 2018; Gashi and Williams 2018; Katnic and Williams 2018; Kosta and Williams 2018; Radulovic and Williams 2018). The sampling methodology ensured that the samples are proportionate to the universe in the country with respect to firm size, region and sector. The owners or managers of a representative sample of 450 businesses were surveyed.

Given the sensitive topic, and to build up rapport with the participants, the survey adopted a gradual approach to the more sensitive questions. The interview schedule commenced by asking the employers about their satisfaction with the business environment, followed by questions on the acceptability of some uncompliant behaviours and only then questions regarding whether they consider they are affected by the existence of the businesses which employ informal practices and their engagement in such practices, including under-declared employment. Examining the responses of the interviewers regarding their perceived reliability of the interviews, in 94 per cent of cases, interviewers reported excellent or fair cooperation from the employers. Cooperation was bad, or the interviewer did not assess the perceived reliability of the interviews in only 1 per cent of cases.

### Variables

To evaluate the hypotheses, we here use ordered logit regression analysis. The dependent variable is a categorical variable showing how often employers hire an employee on a contract with "hidden clauses, that is, social insurance and tax contributions are paid based on for example the minimum wage, whilst the rest of the pay is paid undeclared, without a payslip": 1 = never, 2 = sometimes, 3 = in most cases, 4 = always.

To analyse whether there is an association between employers paying envelope wages, and the two types of policy approach, four key explanatory variables are used. On the one hand, the two variables investigating the elements of the "rational economic actor" approach are:

- *Detection risk:* A categorical variable describing respondent's estimation about the probability that the typical company in his/her industry would be caught if the company was to underreport the amount it pays to employees in salaries: 1 = less than 30%, 2 = 30 to 60%, 3 = more than 60%.
- *Expected sanction:* A categorical variable measuring anticipated penalties when the company were caught for deliberately misreporting: 1 = nothing serious or a small fine, 2 = a serious fine that would affect the competitiveness of the company, 3 = a serious fine that would put the company at risk of insolvency, 4 = the company would be forced to cease operations.

On the other hand, the two variables investigating the vertical and horizontal trust elements respectively of the "social actor" approach are:

- *Tax morale:* A categorical variable recorded using the following survey question - To what extent do

you agree with the statements that underreporting annual revenue or turnover to evade taxes is acceptable. This variable is measured on a 10-point Likert scale, 1 means completely disagree, 10 means completely agree. Thus, the lower the tax morale index value, the higher is the tax morale, and vice versa

- *Estimated share*: A categorical variable describing the respondent's estimation of the overall share of the undeclared economy in his/her country: 1=less than 10%, 2=10 to 20%, 3=21 to 30%, 4=31 to 50%, 5=50% or more.

A series of individual-level and firm-level variables derived from previous studies analysing the likelihood of participation in the informal economy (Ali and Najman, 2018; Hudson et al. 2012; Putniņš and Sauka 2017; Putniņš et al. 2018; Williams and Horodnic 2017a,b) are used as control variables as detailed below.

- *Sector*: A categorical variable describing the main activity of the company: 1 = agriculture, 2 = hotels and restaurants, 3 = services, 4 = construction, 5 = transport and communications, 6 = trade, 7 = retail, 8 = industry, 9 = health, 10 = other.
- *Number of employees*: A categorical variable describing the total number of currently employed people in the observed company (excluding owners and partners): 1 = sole proprietor's and micro (0-9 employees), 2 = small (10-49 employees), 3 = medium and large (50+ employees).
- *Status business*: A categorical variable describing the legal status of observed company: 1 = sole proprietorship, 2 = private limited company, limited by shares (LTD.), 3 = public Ltd Company (PLC), 4 = other.
- *Age business*: A categorical variable showing how many years has the observed company been trading (this includes under all ownerships and all legal

statuses): 1 = less than 5 years, 2 = 6-10 years, 3 = 11-20 years, 4 = more than 20 years.

- *Business locality*: A categorical variable describing in what kind of locality does the observed company carry out its main activity: 1 = the capital, 2 = big city (regional centre), 3 = small town, 4 = village or rural area, 5 = the entire country, 6 = both inside the country and outside the country, or outside the country only.
- *Vat registered*: A dummy variable describing whether the respondent's company is VAT registered: 0 = no, 1 = yes.

For the descriptive analysis we report the crude data for each variable to provide an accurate description and to minimise the bias that one would encounter by excluding those employers who did not provide responses to all the variables in the analysis but provided responses for some questions. In the regression analysis, on the other hand, only those respondents for which data on each variable was available for each model were analysed due to the technical requirements of this type of analysis

## RESULTS

Examining the employers interviewed, 35.1 per cent never paid envelope wages, 38.0 per cent sometimes did so, 22.9 per cent in most cases did so, and 4.0 per cent always did so (see Table 1). This displays how commonly employers pay an additional undeclared (envelope) wage in FYR Macedonia.

However, not all types of employer were equally likely to pay envelope wages. Examining those employers who in most cases or always pay envelope wages (i.e., the last two columns of Table 1), the finding is that employers in the agriculture, construction,

**Table 1:** Use of under-declared employment by employers when hiring employees

	Never	Sometimes	In most cases	Always
<b>Total</b>	<b>35.1</b>	<b>38.0</b>	<b>22.9</b>	<b>4.0</b>
<b>Sector</b>				
Agriculture	26.7	33.3	40.0	0.0
Hotels and restaurants	22.2	63.0	11.1	3.7
Services	42.9	32.7	20.4	4.1
Construction	25.0	41.7	16.7	16.7
Transport and communications	50.0	29.4	17.7	2.9
Trade	18.3	40.9	39.4	1.4
Retail	28.4	40.3	23.9	7.5
Industry	53.3	26.7	17.8	2.2
Health	55.6	37.0	7.4	0.0
Other	41.2	41.2	17.7	0.0

Table 1: Continued

<b>Number of employees</b>				
Sole traders and micro (0-9 employees)	34.0	39.2	22.9	3.9
Small (10-49 employees)	33.3	33.3	27.3	6.1
Medium and large (50+ employees)	72.7	18.2	9.1	0.0
<b>Status business</b>				
Sole proprietorship	11.1	42.9	39.7	6.4
Private limited company, limited by shares (LTD.)	37.3	37.7	20.7	4.5
Public Ltd Company (PLC)	40.5	43.2	16.2	0.0
Other	44.4	33.3	22.2	0.0
<b>Age business</b>				
Less than 5 years	32.5	36.3	23.8	7.5
6 - 10 years	41.3	30.3	24.8	3.7
11 - 20 years	29.5	48.4	20.5	1.6
More than 20 years	39.7	33.3	22.2	4.8
<b>Estimated share</b>				
Less than 10%	61.3	29.0	9.7	0.0
10 to 20%	44.6	36.5	17.6	1.4
21 to 30%	45.0	36.3	16.3	2.5
31 to 50%	27.7	42.6	26.6	3.2
50% or more	18.6	39.2	33.0	9.3
<b>Business locality</b>				
The capital	48.3	31.7	16.7	3.3
Big city (regional centre)	37.2	38.3	20.9	3.6
Small town	21.9	39.1	34.4	4.7
Village or rural area	27.3	18.2	45.5	9.1
The entire country	26.9	46.2	19.2	7.7
Both inside the country and outside the country, or outside the country only	31.6	52.6	15.8	0.0
<b>Vat registered</b>				
No	32.3	40.3	24.2	3.2
Yes	35.0	38.0	22.7	4.3
<b>Tax morale</b>				
1 and 2	35.8	39.5	21.6	3.2
3 and 4	44.4	40.7	14.8	0.0
5 and 6	24.5	37.7	28.3	9.4
7 and 8	12.5	41.7	37.5	8.3
9 and 10	20.0	26.7	46.7	6.7
<b>Detection risk</b>				
Less than 30%	40.0	32.3	23.1	4.6
30 to 60%	30.1	43.7	22.3	3.9
More than 60%	34.1	39.9	22.5	3.6
<b>Expected sanction</b>				
Nothing serious or a small fine	34.0	34.0	25.5	6.4
A serious fine that would affect the competitiveness of the company	30.6	41.0	26.6	1.7
A serious fine that would put the company at risk of insolvency	48.8	34.2	12.2	4.9
The company would be forced to cease operations	25.9	44.4	22.2	7.4

Source: Authors' own work based on the GREY Survey in FYROM

trade and retail sectors are far more likely than those in the health, or hotel and restaurants industries to pay envelope wages. So too are envelope wages more likely in smaller businesses, sole proprietorship businesses, and in small towns and villages or rural areas.

Analysing the competing explanations and policy approaches, Table 1 firstly reveals in relation to the rational economic actor approach that there does not appear to be any strong correlation between whether employers pay envelope wages and their perception of the risk of detection. Similarly, there is no clear relationship between whether employers pay envelope wages and their perceptions of the expected sanction. Although those who perceive the sanction to be nothing serious or a small fine are more likely to pay envelope wages always or in most cases than those who believe that a serious fine would result that would put the company at risk of insolvency, those who believe that their company would be forced to cease trading are surprisingly just as likely as those who say that there would be no serious fine.

Examining whether the likelihood of employers paying envelope wages always or in most cases is correlated with the levels of vertical and horizontal trust, Table 1 firstly reveals that the greater the adherence of employers to the formal rules of the game (i.e., the laws and regulations), the less likely are they to always or in most cases pay envelope wages. This appears to be strongly correlated. Similarly, those who estimate the share of the undeclared economy in FYR Macedonia as higher are markedly more likely to in most cases or always pay envelope wages. Some 42.3 per cent of those who perceive the undeclared economy to be 50 per cent or more of GDP always or in most cases pay envelope wages compared with just 9.7 per cent of those who perceive the undeclared economy to be less than 10 per cent of GDP.

These, however, are descriptive statistics. They do not hold constant the other variables which may influence these correlations. To do so, Table 2 presents an ordered logit regression analysis. This adopts a staged approach. The issue of horizontal trust is included in all the models along with the control variables. Model 1 adds the influence of vertical trust, model 2 the risk of detection, model 3 the expected sanction and model 4 includes all these explanatory factors. Before examining the correlation between these explanations for employers being more likely to pay envelope wages, it is first necessary to examine the types of business more likely to pay envelope wages when all other variables are held constant.

Table 2 reveals similar results across all models. Compared with the construction industry, manufacturing firms and the health sector are significantly

less likely to pay envelope wages to their employees. Why this is the case needs to be analysed in future qualitative research on the construction industry. This could test whether it is due to the traditions of under-declared work in this sector, whether it is due to the more flexible employment relations in this sector, the intense price pressures put on sub-contractors to minimise wage costs, and so forth. However, just because envelope wages are more prevalent in the construction sector than in the manufacturing and the health sectors, does not mean that a sector-specific approach should be adopted by state enforcement authorities. As Table 2 reveals, envelope wages are not significantly more prevalent in the construction sector compared with many other sectors, and as Table 1 reveals, such envelope wages prevail in all sectors of the economy. A sector-specific approach, therefore, does not appear the way forward.

Turning to the firms of different legal types, compared with sole proprietors, private limited companies and public limited companies are significantly less likely to pay envelope wages. This is possibly due to the relative absence of a formal human resource management function in such businesses. The age and size of the business, however, is not significantly associated with the likelihood of paying envelope wages. Employers in small towns, however, are significantly less likely to employ workers on envelope wages than those in the capital city of Skopje, suggesting that state resources to tackle envelope wages might be relatively concentrated in Skopje.

To evaluate the rational economic actor explanation and policy approach, it can be seen in models 2 and 4 that there is no strong significant association between the likelihood of employers paying envelope wages and the risk of detection (refuting Hypothesis H1b). Meanwhile, models 3 and 4 display a weak but significant correlation between the likelihood of employers paying envelope wages and the level of penalties. Employers who perceive a serious fine would be imposed that would put the company at risk of insolvency are significantly less likely to pay envelope wages than those perceiving the sanction as nothing serious or a small fine (confirming hypothesis H1a). An employer who believes that the sanction is a serious fine that would put the company at risk of insolvency for deliberately misreporting has a 2.7 percentage points lower probability of always paying envelope wages than employers who believe that the company would receive nothing serious or a small fine for deliberately misreporting.

Secondly, and evaluating the social actor explanation, there is firstly a strong significant association between the level of vertical trust and the likelihood

**Table 2:** Estimation results from the ordered logit regression

	Model 1		Model 2		Model 3		Model 4	
	Coefficient (Standard error)	Marginal effect	Coefficient (Standard error)	Marginal effect	Coefficient (Standard error)	Marginal effect	Coefficient (Standard error)	Marginal effect
<b>Sector</b>								
<b>(RC: Construction)</b>								
Agriculture	0.111 (0.672)	0.006	0.212 (0.667)	0.011	0.199 (0.668)	0.010	0.336 (0.686)	0.018
Hotels and restaurants	-0.387 (0.592)	-0.018	-0.200 (0.593)	-0.009	-0.212 (0.581)	-0.009	-0.305 (0.604)	-0.012
Services	-0.235 (0.533)	-0.011	-0.053 (0.539)	-0.002	-0.033 (0.531)	-0.002	0.080 (0.560)	0.004
Transport and communications	-0.854 (0.575)	-0.033	-0.738 (0.573)	-0.026	-0.923 (0.575)	-0.030	-0.703 (0.593)	-0.024
Trade	0.003 (0.490)	0.000	0.178 (0.487)	0.009	0.131 (0.491)	0.006	0.190 (0.502)	0.009
Retail	-0.303 (0.512)	-0.014	-0.122 (0.511)	-0.005	-0.123 (0.515)	-0.005	-0.113 (0.525)	-0.005
Industry	-1.440 (0.568)**	-0.045	-1.356 (0.572)**	-0.038	-1.283 (0.566)**	-0.036	-1.108 (0.599)*	-0.033
Health	-1.450 (0.740)**	-0.045	-1.149 (0.718)	-0.034	-1.071 (0.723)	-0.033	-1.265 (0.742)*	-0.035
Other	-0.436 (0.824)	-0.020	-0.280 (0.816)	-0.012	-0.188 (0.831)	-0.008	-0.027 (0.852)	-0.001
<b>Number of employees</b>								
<b>(RC: Sole traders and micro (0-9 employees))</b>								
Small (10-49 employees)	0.615 (0.393)	0.030	0.566 (0.392)	0.027	0.759 (0.394)*	0.038	0.612 (0.404)	0.030
Medium and large (50+ employees)	-0.482 (0.800)	-0.015	-0.429 (0.777)	-0.013	-0.269 (0.771)	-0.009	-0.509 (0.822)	-0.016
<b>Status business (RC: Sole proprietorship)</b>								
Private limited company, limited by shares (LTD.)	-0.542 (0.315)*	-0.024	-0.649 (0.313)**	-0.029	-0.622 (0.313)**	-0.027	-0.426 (0.323)	-0.018
Public Ltd Company (PLC)	-0.743 (0.440)*	-0.030	-0.899 (0.442)**	-0.036	-0.955 (0.44)**	-0.037	-0.817 (0.452)*	-0.030
Other	0.148 (0.721)	0.008	-0.244 (0.687)	-0.013	-0.319 (0.693)	-0.016	0.175 (0.721)	0.010
<b>Age business (RC: Less than 5 years)</b>								
6 - 10 years	-0.460 (0.313)	-0.019	-0.349 (0.310)	-0.014	-0.305 (0.308)	-0.012	-0.420 (0.318)	-0.017
11 - 20 years	-0.205 (0.306)	-0.009	-0.179 (0.305)	-0.008	-0.163 (0.304)	-0.007	-0.164 (0.311)	-0.007
More than 20 years	-0.434 (0.355)	-0.018	-0.385 (0.360)	-0.015	-0.412 (0.351)	-0.016	-0.380 (0.363)	-0.015
<b>Estimated share (RC: 50% or more)</b>								
Less than 10%	-2.072 (0.475)***	-0.069	-2.445 (0.487)***	-0.079	-2.176 (0.469)***	-0.073	-2.178 (0.502)***	-0.071
10 to 20%	-1.106 (0.349)***	-0.052	-1.338 (0.342)***	-0.062	-1.283 (0.340)***	-0.058	-1.149 (0.351)***	-0.053

Table 2: Continued

21 to 30%	-1.286 (0.337)***	-0.056	-1.473 (0.336)***	-0.065	-1.423 (0.336)***	-0.061	-1.365 (0.341)***	-0.058
31 to 50%	-0.871 (0.302)***	-0.044	-0.893 (0.301)***	-0.049	-0.886 (0.299)***	-0.046	-0.847 (0.305)***	-0.044
<b>Business locality (RC: Small town)</b>								
The capital	-0.917 (0.441)**	-0.034	-0.801 (0.433)*	-0.031	-0.832 (0.430)*	-0.030	-0.958 (0.450)**	-0.035
Big city (regional centre)	-0.480 (0.299)	-0.021	-0.488 (0.305)	-0.021	-0.421 (0.300)	-0.018	-0.448 (0.313)	-0.020
Village or rural area	-0.115 (0.642)	-0.006	-0.109 (0.646)	-0.006	0.021 (0.638)	0.001	-0.117 (0.654)	-0.006
The entire country	-0.046 (0.500)	-0.002	-0.244 (0.514)	-0.012	-0.118 (0.501)	-0.006	-0.112 (0.522)	-0.006
Both inside the country and out- side the country, or outside the country only	-0.513 (0.547)	-0.022	-0.571 (0.545)	-0.024	-0.571 (0.548)	-0.023	-0.572 (0.553)	-0.024
<b>Vat registered</b>	-0.026 (0.291)	-0.001	0.061 (0.293)	0.002	0.050 (0.287)	0.002	-0.039 (0.300)	-0.002
<b>Tax morale</b>	0.119 (0.046)***	0.005					0.126 (0.048)***	0.005
<b>Detection risk (RC: Less than 30%)</b>								
30 to 60%			-0.351 (0.272)	-0.014			-0.329 (0.276)	-0.013
More than 60%			-0.175 (0.270)	-0.007			-0.153 (0.278)	-0.006
<b>Expected sanction (RC: Nothing serious or a small fine)</b>								
A serious fine that would affect the competitiveness of the company					-0.375 (0.266)	-0.016	-0.311 (0.271)	-0.013
A serious fine that would put the company at risk of insolvency					-0.736 (0.333)**	-0.027	-0.607 (0.347)*	-0.023
The company would be forced to cease operations					-0.305 (0.437)	-0.013	-0.241 (0.463)	-0.011
<b>Number of observations</b>	345		350		355		340	
<b>Pseudo R2</b>	0.097		0.098		0.101		0.103	
<b>Prob &gt; F</b>	0.000		0.000		0.000		0.000	

**Notes:** (1) Dependent variable: "Hiring an employee under contract with hidden clauses" measured on a four-point scale (1=Never; 2=Sometimes; 3=In most cases; 4=Always)

(2) We report the marginal effects for the highest score of the dependent variable (4)

(3) The lower the tax morale index value, the higher is the tax morale, and vice versa

(4) Significance: \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

Source: Authors' own work based on the GREY Survey in FYROM

of employers paying envelope wages. The lower the level of vertical trust (measured by employers' tolerance of those who engage in the undeclared economy, or what is here called tax morale), the significantly greater is the likelihood of the employer always paying envelope wages (confirming Hypothesis H2a). An increase in the tax morale index by one unit increases the share of employers always hiring workers on envelope wages by 0.5 percentage points.

Similarly, it is shown across all models that there is a strong significant association between the level of horizontal trust and the likelihood of employers always paying envelope wages. The lower the level of horizontal trust (measured by the employers estimate of the share of the informal economy in the country), the significantly greater is the likelihood of the employer always paying envelope wages (confirming Hypothesis H2b). An employer who estimates that less than 10 per cent of work in the country is in the informal economy has around a 6-7 percentage points lower probability of always employing under-declared workers than employers who estimates that greater than 50 per cent of work is in the informal economy. It is also important to recognise that model 4, which includes all the independent variables, has a better goodness-of-fit (as measured by the pseudo R<sup>2</sup> value) compared with the other models.

## DISCUSSION AND CONCLUSIONS

To explain why employers' pay envelope wages and how this illegal employment practice can be tackled, this paper has evaluated two perspectives, namely a rational economic actor explanation which views employers as paying envelope wages when the benefits outweigh the costs, and an emergent social actor approach which explains employers as paying envelope wages when they lack both vertical trust (i.e., their norms, values and beliefs are not in symmetry with the laws and regulations) and horizontal trust (i.e., they believe many others are being non-compliant). Reporting a 2015 survey of 450 employers in FYR Macedonia, the finding is that there is no association between employers paying envelope wages and the perceived risk of detection, and only a weak significant association with the perceived level of penalties. However, there is a strong significant association with both the level of vertical and horizontal trust. Those employers whose norms differ to the laws and regulations, display a significantly greater likelihood of paying envelope wages, as do those who perceive a larger proportion of the population to be engaged in the undeclared economy.

In terms of theoretical implications, therefore, this paper makes three advances. First, most studies explaining under-declared employment have focused upon employees' rationales and few have evaluated employers' reasons when theorising under-declared employment. This paper has filled this lacuna in South-Eastern Europe. Given that employers decide to pay envelope wages, explaining their rationales is important if under-declared employment is to be theorised. Second, this paper refutes the view of employers as rational economic actors and confirms the view that they are social actors and the usefulness of an institutional theory lens. The finding is that there is no association between employers paying envelope wages and the perceived risk of detection, and only a weak significant association with the level of penalties, but a strong association between vertical trust and under-declared employment. The greater the degree of asymmetry between the laws and regulations of formal institutions and the norms, values and beliefs of employers, the greater is the prevalence of under-declared employment. Third and finally, and importantly for further advancing institutional theory, a strong association is identified between horizontal trust and the likelihood of employers paying envelope wages. Theoretically, therefore, this displays the need to extend the scope of analysis of institutional theory beyond its current focus upon solely vertical trust when explaining under-declared employment and to include also horizontal trust when explaining employers' decision to pay envelope wages.

In terms of policy implications therefore, the finding is that tackling under-declared employment requires a shift away from viewing employers primarily as rational economic actors. Increasing the risk of detection, even if this was feasible to do cost effectively, is not related to the propensity to pay envelope wages, and even if increasing the penalties is significantly related to the propensity for employers to pay envelope wages, it is a weak association. Instead, there is a need to recognise that employers are primarily social actors. A strong significant association exists between employers paying envelope wages and their lack of both vertical trust (i.e., their norms, values and beliefs do not align with the formal laws and regulations) and horizontal trust (i.e., they believe many other employers are paying envelope wages). To tackle under-declared employment, therefore, increasing the level of deterrents will have little impact, while measures that improve the social contract between the government and employers (i.e., improving vertical trust) will have a significant impact. On the one hand, this can be achieved by changing employers' norms, values and beliefs regarding the acceptability of paying envelope

wages, using education and awareness raising campaigns. However, it is unlikely that this will be effective unless formal institutions themselves change. On the other hand, therefore, there is also a need to change the formal institutions, such as by reducing the level of public sector corruption and improving procedural and distributive justice and fairness (Horodnic 2018; Horodnic and Williams 2018; Molero and Pujol 2012; Murphy 2005; Williams and Horodnic 2015a). There is also a need to improve horizontal trust. To do so, information on their peers might be provided to employers. Many employers believe that the undeclared economy is larger than most measurements suggest. Governments, therefore, could actively publicise the high level of employer compliance. Studies of UK taxpayers reveal that such messages have a strong significant impact on increasing compliance (Hallsworth et al. 2017).

Despite these theoretical and policy implications, this paper nevertheless has its limitations. First, it is based on just one country. Future studies, therefore, should evaluate whether similar findings are identified when conducting employer surveys in other countries. Second, and importantly, although this study reveals that the propensity of employers to pay envelope wages is significantly associated with their levels of vertical and horizontal trust, it does not uncover the reasons for this lack of vertical and horizontal trust. Future quantitative as well as in-depth qualitative research could be conducted, therefore, to discover these reasons, including the formal institutions in which there are low levels of vertical trust which lead to envelope wages being paid, and why a lack of horizontal trust prevails, so that targeted policy measures can be pursued to improve the level of trust between employers as well as between employers and government.

In sum, this paper has revealed the importance of the “social actor” approach in both explaining as well as tackling the propensity of employers to pay envelope wages, and the need for a shift away from “rational economic actor” explanations and the associated deterrence approach that seeks to increase the penalties and probability of detection. If this paper stimulates similar research in other countries and more in-depth research on the reasons for the lack of vertical and horizontal trust, then it will have fulfilled a primary intention. If this then leads to changes in how under-declared employment is tackled, and greater emphasis on addressing the low the levels of vertical and horizontal trust that lead to higher levels of under-declared employment, then it will have fulfilled its fuller intention.

## REFERENCES

- Ali, N. and B. Najman. 2018. Informal competition, firm productivity and policy reforms in Egypt. In *The informal economy exploring drivers and practices Egypt*, edited by I.A. Horodnic, P. Rodgers, C.C. Williams and L. Momtazian, 229-254. London: Routledge.
- Allingham, M. and A. Sandmo. 1972. Income tax evasion: a theoretical analysis. *Journal of Public Economics* 1 (2): 323-338.
- Alm, J., E. Kirchler and S. Muehlbacher. 2012. Combining psychology and economics in the analysis of compliance: from enforcement to cooperation. *Economic Analysis and Policy* 42 (2): 133-151.
- Alm, J., T. Cherry, M. Jones and M. McKee. 2010. Taxpayer information assistance services and tax compliance behaviour. *Journal of Economic Psychology* 31 (4): 577-586.
- Aralica, Z., T. Svilokos and K. Bacic. 2018. Institutions, and firms' performances in transition countries: the case of the selected CESEE countries. *The South East European Journal of Economics and Business* 13 (1): 68-80.
- Baric, M. 2016. Undeclared work in Croatia: a social exchange perspective. Sheffield: PhD thesis, Management School, University of Sheffield.
- Chang, T. J. and C. C. Lai. 2004. Collaborative tax evasion and social norms: why deterrence does not work. *Oxford Economic Papers* 56 (2): 344-368.
- Chavdarova, T. 2014. Envelope wages. Paper presented at the States and States of Informality Conference, Sofia, 5 September.
- Cummings, R. G., J. Martinez-Vazquez, M. McKee and B. Torgler. 2009. Tax morale affects tax compliance: evidence from surveys and an artefactual field experiment. *Journal of Economic Behavior and Organization* 70 (3): 447-457.
- Efendic, A. and C. C. Williams. 2018. Diagnostic report on undeclared work in Bosnia and Herzegovina. Sarajevo: Regional Cooperation Council.
- Feld, L. P. and B. S. Frey. 2002. Trust breeds trust: how taxpayers are treated. *Economics of Governance*, 3: 87-99.
- Gashi, A. and C. C. Williams. 2018. Diagnostic report on undeclared work in Kosovo. Sarajevo: Regional Cooperation Council.
- Hallsworth, M., J. A. List, R. D. Metcalfe and I. Vlaev. 2017. The behavioralist as tax collector: using natural field experiments to enhance tax compliance. *Journal of Public Economics* 148: 14-31.
- Hartl, B., E. Hofmann, K. Gangl, M. Hartner-Tiefenthaler and E. Kirchler. 2015. Does the sole description of a tax authority affect tax evasion? The impact of described coercive and legitimate power. *PLoS One* 10 (4), e0123355.
- Helmke, G. and S. Levitsky. 2004. Informal institutions and comparative politics: a research agenda. *Perspectives on Politics* 2: 725-740.

- Hofmann, E., B. Hartl, K. Gangl, M. Hartner-Tiefenthaler and E. Kirchler. 2017. Authorities' coercive and legitimate power: the impact on cognitions underlying cooperation. *Frontiers in Psychology* 8 (5), doi:10.3389/fpsyg.2017.00005.
- Horodnic, I. A., 2016. Cash wage payments in transition economies: consequences of envelope wages. Berlin: IZA World of Labour.
- Horodnic, I. A. 2018. Tax morale and institutional theory: a systematic review. *International Journal of Sociology and Social Policy* <https://doi.org/10.1108/IJSSP-03-2018-0039>.
- Horodnic, I. A. and C. C. Williams. 2018. Do deterrents prevent undeclared work? An evaluation of the rational economic actor approach. Sheffield: Policy Brief no.1, Sheffield University Management School, available at: <http://dx.doi.org/10.2139/ssrn.3108375> (accessed 10 August 2018).
- Hudson, J., C. C. Williams, M. Orviska and S. Nadin. 2012. Evaluating the impact of the informal economy on businesses in South East Europe: some lessons from the 2009 World Bank Enterprise Survey. *The South-East European Journal of Economics and Business* 7 (1): 99-110.
- ILO. 2017. ILO approach to strategic compliance for labour inspectorates. Geneva: ILO.
- Kaplanoglou, G. and V. T. Rapanos. 2015. Why do people evade taxes? New experimental evidence from Greece. *Journal of Behavioral and Experimental Economics* 56: 21-32.
- Katnic, M. and C. C. Williams. 2018. Diagnostic report on undeclared work in Montenegro. Sarajevo: Regional Cooperation Council.
- Kirchler, E. 2007. *The economic psychology of tax behaviour*. Cambridge: Cambridge University Press.
- Kosta, B. and C. C. Williams. 2018. Diagnostic report on undeclared work in Albania. Sarajevo: Regional Cooperation Council.
- Mas'ud, A., N. A. A. Manaf and N. Saad. 2015. Testing assumptions of the 'slippery slope framework' using cross-country data: evidence from sub-Saharan Africa. *International Journal of Business and Society* 16 (3): 408-421.
- Mazzolini, G., L. Pagani and A. Santoro. 2017. The deterrence effect of real-world operational tax audits. Milan: DEMS Working Paper Series No. 359, Department of Economics, Management and Statistics, University of Milan – Bicocca.
- Meriküll, J. and K. Staehr. 2010. Unreported employment and envelope wages in mid-transition: comparing developments and causes in the Baltic countries. *Comparative Economic Studies*, 52 (3), 637-670.
- Mojsovska Blazevski, N. and C. C. Williams. 2018. Diagnostic report on undeclared work in the Former Yugoslav Republic of Macedonia. Sarajevo: Regional Cooperation Council.
- Molero, J. C. and F. Pujol. 2012. Walking inside the potential tax evader's mind: tax morale does matter. *Journal of Business Ethics* 105 (2): 151-162.
- Murphy, K. 2005. Regulating more effectively: the relationship between procedural justice, legitimacy, and tax non-compliance. *Journal of Law and Society* 32 (4): 562-589.
- Murphy, K. 2008. Enforcing tax compliance: to punish or persuade? *Economic Analysis & Policy* 38 (1): 113-135.
- Murphy, K., and N. Harris. 2007. Shaming, shame and recidivism: a test of reintegrative shaming theory in the white-collar crime context. *The British Journal of Criminology* 47 (6): 900-917.
- Neef, R. 2002. Aspects of the informal economy in a transforming country: the case of Romania. *International Journal of Urban and Regional Research* 26(2): 299-322.
- North, D. C. 1990. *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- OECD, 2003. *Labour market and social policies in the Baltic countries*. Paris: OECD.
- Putniņš, T. and A. Sauka. 2017. *Shadow economy index for the Baltic countries 2009 – 2016*. Riga: Centre for Sustainable Business at Stockholm School of Economics in Riga.
- Putniņš, T., A. Sauka and A. A. Davidescu. 2018. *Shadow economy index for Moldova and Romania 2015 – 2016*. Riga: Centre for Sustainable Business at Stockholm School of Economics in Riga.
- Radulovic, B. and C. C. Williams. 2018. Diagnostic report on undeclared work in Serbia. Sarajevo: Regional Cooperation Council.
- Round, J., C. C. Williams and P. Rodgers. 2008. Corruption in the post-Soviet workplace: the experiences of recent graduates in contemporary Ukraine. *Work, Employment & Society* 22(2): 149-166.
- Sedlenieks, K., 2003. Cash in an envelope: corruption and tax avoidance as an economic strategy in Contemporary Riga. In *Everyday Economy in Russia, Poland and Latvia*, edited by K-O. Arnstberg and T. Boren. 42-62. Stockholm: Almqvist and Wiksell.
- Shaw, J., J. Slemrod and J. Whiting. 2008. *Administration & Compliance*. Oxford: Oxford University Press.
- Torgler, B. 2007. Tax morale in Central and Eastern European countries. In *Tax evasion, trust and state capacities: how good is tax morale in Central and Eastern Europe?*, edited by N. Hayoz and S. Hug, 155-186. Bern: Peter Lang.
- Torgler, B. 2012. Tax morale, Eastern Europe and European enlargement. *Communist and Post-Communist Studies* 45 (1): 11-25.
- Williams, C. C. 2007. Tackling undeclared work in Europe: lessons from a study of Ukraine. *European Journal of Industrial Relations* 13 (2): 219-237.

- Williams, C. C. 2008a. Envelope wages in Central and Eastern Europe and the EU. *Post-Communist Economies* 20 (3): 363–376.
- Williams, C. C. 2008b. Illegitimate wage practices in Eastern Europe: the case of envelope wages. *Journal of East European Management Studies* 13 (3): 253–270.
- Williams, C. C. 2009a. Evaluating the extent and nature of envelope wages in the European Union: a geographical analysis. *European Spatial Research and Policy* 16 (1): 115–129.
- Williams, C. C. 2009b. Illegitimate wage practices in Central and Eastern Europe: a study of the prevalence and impacts of envelope wages. *Debatte: Journal of Contemporary Central and Eastern Europe* 17 (1): 65–83.
- Williams, C. C. 2009c. The commonality of envelope wages in Eastern European economies. *Eastern European Economics* 47 (2): 37–52.
- Williams, C. C. 2009d. The prevalence of envelope wages in the Baltic Sea region. *Baltic Journal of Management* 4 (3): 288–300.
- Williams, C. C. 2010. Beyond the formal/informal jobs divide: evaluating the prevalence of hybrid ‘under-declared’ employment in South-Eastern Europe. *International Journal of Human Resource Management* 21 (14): 2529–2546.
- Williams, C. C. 2012a. Cross-national variations in the under-reporting of wages in South-East Europe: a result of over-regulation or under-regulation? *The South East European Journal of Economics and Business* 7 (1): 53–61.
- Williams, C. C. 2012b. Explaining undeclared wage payments by employers in Central and Eastern Europe: a critique of the neo-liberal de-regulatory theory. *Debatte: Journal of Contemporary Central and Eastern Europe* 20 (1): 3–20.
- Williams, C. C. 2013. Evaluating cross-national variations in the extent and nature of informal employment in the European Union. *Industrial Relations Journal* 44 (5–6): 479–494.
- Williams, C. C. 2018. *Entrepreneurship in the informal sector: an institutional perspective*. London: Routledge.
- Williams, C. C. and S. Bezeredi. 2018. Evaluating policy approaches towards undeclared work: some lessons from FYR Macedonia. *South-Eastern Europe Journal of Economics* 15 (2): 171–187.
- Williams, C. C. and J. Franic. 2015. Tackling the propensity towards undeclared work: some policy lessons from Croatia. *South East European Journal of Economics and Business* 10 (1): 18–31.
- Williams, C. C. and J. Franic. 2016. Explaining participation in the informal economy in post-socialist societies: a study of the asymmetry between formal and informal institutions in Croatia. *Journal of Contemporary Central and Eastern Europe* 24 (1): 51–65
- Williams, C. C. and I. Horodnic. 2015a. Explaining and tackling envelope wages in the Baltic Sea region. *Baltic Journal of Management* 10 (3): 295–312.
- Williams, C. C. and I. Horodnic. 2015b. Evaluating the prevalence of the undeclared economy in Central and Eastern Europe: an institutional asymmetry perspective. *European Journal of Industrial Relations* 21 (4): 389–406.
- Williams, C. C. and I. A. Horodnic. 2016a. An institutional theory of the informal economy: some lessons from the United Kingdom. *International Journal of Social Economics* 43 (7): 722–738.
- Williams, C. C. and I. A. Horodnic. 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* 23 (1): 3–24.
- Williams, C. C. and I. A. Horodnic. 2017b. Evaluating the illegal employer practice of under-reporting employees’ salaries. *British Journal of Industrial Relations* 55 (1): 83–111.
- Williams, C. C. and I. A. Horodnic. 2017b. Under-declaring work/falsely declaring work: under-declared employment in the European Union, European Commission, Brussels.
- Williams, C. C. and J. Padmore. 2013a. Evaluating the prevalence and distribution of quasi-formal employment in Europe. *Relations Industrielles/Industrial Relations* 68 (1): 71–95.
- Williams, C. C. and J. Padmore. 2013b. Envelope wages in the European Union. *International Labour Review* 152 (3–4): 411–430.
- Williams, C. C. and E. Puts. 2017. *Platform Survey Report: organisational characteristics of enforcement bodies, measures adopted to tackle undeclared work, and the use of databases and digital tools*. Brussels: European Commission.
- Williams, C. C. and J. Round. 2008. The prevalence and impacts of envelope wages in East-Central Europe. *Journal of East-West Business* 14 (3/4): 299–323.
- Williams, C. C., M. Fethi and A. Kedir. 2011. Illegitimate wage practices in southeast Europe: an evaluation of envelope wages. *Balkanistica* 24: 237–262.
- Williams, N., D. Radevic, C. Gherhes and T. Vorley. 2017. The nature of corruption affecting entrepreneurship in transition economies: some lessons from Montenegro. *The South East European Journal of Economics and Business*, 12 (2): 20–34.
- Windebank, J. and I. A. Horodnic. 2017. Explaining participation in undeclared work in France: lessons for policy evaluation. *International Journal of Sociology and Social Policy* 37 (3–4): 203–217.
- Woolfson, C. 2007. Pushing the envelope: the ‘informalization’ of labour in post-communist new EU member states. *Work, Employment & Society* 21 (4): 551–564.