

FORMAL INSTITUTIONAL FAILINGS AND INFORMAL EMPLOYMENT: EVIDENCE FROM THE WESTERN BALKANS

Colin C. Williams, Ardiana Gashi

Abstract

Institutional theory has explained informal employment to result from formal institutional failings. The aim of this paper is to identify the formal institutional failings associated with informal employment so that action can be taken by governments. Using the Tobit model for econometric analysis and reporting conditional and unconditional marginal effects of the 2021 Balkans Business Barometer survey conducted in six Western Balkan economies (Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia), the contribution of this paper is to reveal that the perceived incidence and share of informal employment is significantly associated with businesses perceiving governance, public integrity and corruption as very negative or negative, the perception that the government does not consider business concerns and business dissatisfaction with public services. However, the perceived incidence and share of informal employment is not significantly associated with the views of business on tax rates and tax administration, or the perceived instability and lack of predictability of government. The theoretical and policy implications are then discussed.

Keywords: *informal economy; undeclared work; shadow economy; tax evasion; institutional theory; public policy.*

JEL classification: *H26, J46, K34, O17, P2*

1. Introduction

Over the past decade or so, informal employment has been predominantly explained using institutional theory as resulting from formal institutional failings. Until now, however, the specific formal institutional failings that result in businesses turning to informal employment has been seldom investigated empirically. The aim of this paper is to start to fill this gap. Reporting the results of the 2021 Balkans Business Barometer survey, this paper will evaluate in a Western Balkans context the validity of various formal institutional failings that institutional theory has proposed as being significantly associated with the incidence and share of informal employment.

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This will advance understanding of informal employment in three ways. Theoretically, although institutional theory has proposed various formal institutional failings that result in informal employment, these are often theoretical propositions and empirical evaluations in specific contexts are rare. This paper in the contemporary Western Balkans context evaluates which formal institutional failings are valid as determinants of informal employment in this context and which are not. Empirically, meanwhile, this paper reports a new data set, namely the Balkans Barometer survey, to explore which formal institutional failings are relevant. The novelty of this dataset is that whereas most studies are based on workers' views, this survey examines the views of business, who are the major instigators of informal employment. And third and finally, and in terms of policy, this paper begins to unpack the specific formal institutional failings that will need to be addressed by governments to tackle informal employment and how this can be done.

To commence, a literature review is provided of how institutional theory has explained informal employment along with hypotheses to test the various formal institutional failings that have been theoretically proposed as resulting in informal employment. This will be followed by a discussion of the data and methodology here used to evaluate these hypotheses in the Western Balkans. The third section then reports the results on which formal institutional failings are relevant and which are not in this context, followed by a discussion in the fourth and final section of the theoretical and policy implications of the findings.

At the outset, a brief definition of informal employment is required. Throughout this paper, and reflecting the consensus in both academe and practice, informal employment refers to employees not registered with the state for tax, social security and/or labour law purposes, when they should be registered (Gashi and Williams 2019; Krasniqi and Williams 2017). The result is that employees often have no written contracts or terms of employment.

2. Literature review

Previous reviews of the theoretical explanations of informal employment have revealed how the dominant theorisation has altered over time (Williams 2017, 2019). In the mid-twentieth century, modernisation theory dominated, representing informal employment as resulting from economic under-development and a lack of modernisation of governance. From the 1970s until the early twenty-first century, neo-liberal and political economy theories then competed for

dominance, which respectively viewed the informal economy and informal employment as resulting from over- and under-intervention in formal work and welfare provision (see Williams 2012). From early in the twenty-first century until the present-day, institutional theory has become the dominant explanation, not least because it synthesises and incorporates the core tenets of these previous theorisations.

For institutional theorists, economies and societies are composed of both formal institutions that provide the legal rules of the game as well as informal institutions that provide the socially shared norms, values and beliefs (Baumol and Blinder 2008; Helmke and Levitsky 2004; North 1990). Informal employment takes place outside the formal rules but inside the rules of the informal institutions (Godfrey 2011; Kistruck et al. 2015; Siqueira et al. 2016; Webb et al. 2009; Welter et al. 2015). If there is symmetry between the formal and informal rules, then participation in informal employment would occur only unintentionally when businesses and employers are not aware of the formal rules. However, if there is an asymmetry between the formal and informal rules, participation in informal employment arises (Godfrey 2011; 2015; London et al. 2014; Webb and Ireland 2015; Webb et al. 2009, 2019; Williams and Shahid 2016; Williams et al. 2015; Windebank and Horodnic 2017). Indeed, the greater is the asymmetry between the formal and informal rules, the greater is the incidence and share of informal employment (Arendt et al. 2020; Horodnic and Williams 2022; Shahid et al. 2022; Williams and Franic 2015, Williams and Shahid 2016; Williams et al. 2014, 2015).

In recent years, there has been an emphasis in the institutionalist literature on this asymmetry. Less attention has been paid to the formal institutional failings. However, this asymmetry between the formal and informal rules is seen in institutional theory to be caused by formal institutional failings. Therefore, it is important to understand what formal institutional failings lead to this asymmetry and consequently informal employment. To identify these formal institutional failings, institutional theory has incorporated the determinants identified in the previous modernisation, neo-liberal and political economy theories and grouped them into four types of formal institutional failure (see Williams 2017, 2019):

- (i) formal institutional resource misallocations and inefficiencies comprising indicators measuring the lack of modernisation of government and corruption.
- (ii) formal institutional voids and weaknesses including measures of state intervention in work and welfare.

- (iii) formal institutional powerlessness measuring the capacity to enforce law and regulations and the ability to provide incentives to encourage compliance.
- (iv) formal institutional instability and uncertainty measuring the frequency of changing the laws and regulations.

Each is here considered in turn.

2.1. Formal institutional resource misallocations and inefficiencies

The formal institutional resource misallocations and inefficiencies discussed reflect the core tenets of modernisation theory. They involve the quality of public authorities and public sector corruption. The lack of modernisation of public authorities is seen to take at least three forms which lead businesses to believe that government does not at all consider business concerns. First, there is a perceived and/or actual lack of redistributive justice in relation to public services. Businesses do not perceive themselves as receiving the public goods and services they deserve given the level of tax and social contributions they make (Kinsey and Gramsick 1993; Richardson and Sawyer 2001; Thurman et al. 1984). This makes them more likely to use informal employment. Second, businesses do not perceive public services to treat them in an impartial, respectful, and responsible way (Braithwaite and Reinhart 2000, Murphy 2005). This again increases the likelihood of them using informal employment (Hartner et al. 2008; Murphy 2003; Murphy et al. 2009). Third, and finally, businesses do not view themselves as being treated in a fair manner relative to others (Kinsey and Gramsick 1993), which again increases the likelihood of using informal employment (Bird et al. 2006; McGee et al. 2008; Molero and Pujol 2012).

Resource misallocations and inefficiencies also arise when there is public sector corruption (Aidis and Van Praag 2007; Khan and Quaddus 2015; Qian and Strahan 2007; Round et al. 2008; Tonoyan et al. 2010; Williams et al., 2017). Here, three kinds of corruption are relevant. First is the misuse of public office for private gain (Bardhan 1997; Pope 2000; Shleifer and Vishny 1993; Svensson 2005). This is where public officials request or receive bribes, gifts, and other kinds of payment (e.g., a portion of a given contract) for a service provided. For businesses, this might produce the quicker provision of a public service, such as an operating license, or construction permit. This leads to resource misallocations and inefficiencies. Although businesses paying bribes to public officials have higher subsequent firm performance levels than those

not doing so, the net impact on the overall economy is negative (Williams and Kedir 2016; Williams and Martinez-Perez 2016; Williams et al. 2016). A second kind of corruption, which is less researched, is state capture, where businesses influence the formulation of laws and policies to their advantage using illicit or non-transparent means (Fries et al. 2003). The result is their preferential treatment by the state, such as public resources being allocated to them. For those outside of this powerful elite, the outcome is frequently higher taxes, burdensome registration and licensing regulations and costs, thus providing a barrier to entry into the formal economy, and fewer state resources provided for the taxes and social contributions paid (De Soto 1989; Siqueira et al. 2016; Williams et al. 2016). The third and final type of corruption, again less studied, is when personal connections are used to circumvent formal procedures and/or gain preferential access to public goods and services (Efendic and Ledeneva, 2020; Ledeneva and Efendic, 2022). This is often termed *veze* in Serbia, Croatia, and Bosnia and Herzegovina, *vrski* in North Macedonia (Williams and Bezeredi 2017), and *vruzki* in Bulgaria (Williams and Yang 2017).

To evaluate formal institutional resource misallocations and inefficiencies as explanations for informal employment, the following hypothesis can be tested:

Resource misallocations and inefficiencies hypothesis (H1): the perception that governance is poor and corruption exists, and that government does not at all consider business concerns, is associated with a higher perceived incidence and share of informal employment.

H1a: the perception that governance is poor and corruption exists, is associated with a higher perceived incidence and share of informal employment.

H1b: the perception that government does not at all consider business concerns is associated with a higher perceived incidence and share of informal employment.

2.2. Formal institutional voids and weaknesses

Another formal institutional failing seen to drive businesses to use informal employment are formal institutional voids and weaknesses. The earlier theoretical debate between the neo-liberal and political economy theories is essentially about which institutional voids and weaknesses produce larger informal economies.

Therefore, institutional voids viewed as weaknesses by some scholars are strengths for others. The core debate is whether informal employment results from too little state intervention, as political economy theorists state, or too much state interference, as neo-liberal theorists believe. Institutional theory positions this debate as being over the formal institutional voids and weaknesses that result in informal employment. Tax rates and the power of the tax administration are classic examples. Neo-liberals seek lower rates and involvement (De Soto 1989; Nwabuzor 2005) and political economy theorists higher rates and involvement (Castells and Portes 1989; Fernandez-Kelly 2006; Slavnic 2010) to reduce informal employment. To evaluate whether such formal institutional voids and weaknesses are associated with greater informal employment, the following hypothesis can be tested:

Formal institutional voids and weaknesses hypothesis (H2): businesses viewing tax administration and tax rates as an obstacle are more likely to perceive the incidence and share of informal employment as higher.

2.3. Formal institutional powerlessness

A third formal institutional failing argued by institutional theory to result in informal employment is formal institutional powerlessness. Powerlessness here refers to the lack of capacity of public authorities to provide benefits of formality and prevent informality, so that businesses have a reason to comply. The outcome of powerlessness is thus low costs and high benefits of informality, along with low benefits and high costs of formality. For businesses, the benefits of formality might include property rights, access to credit, training, contracts with larger companies, access to public sector procurement contracts, and the ability to become more capital-intensive (Fajnzylber et al. 2011; Skousen and Mahoney 2015). When underdeveloped, the benefits of formality are outweighed by the costs of formality and benefits of informality. The result is the dissatisfaction of businesses with public services since they receive neither benefits from formality and a lowering of the costs of formality, nor action by the state to increase the costs of informality and lower its benefits. To evaluate the association between formal institutional powerlessness and informal employment, the following hypothesis can be tested:

Formal institutional powerlessness hypothesis (H3): dissatisfaction with public services for businesses

is positively associated with a higher perceived incidence and share of informal employment.

2.4. Formal institutional instability and uncertainty

The fourth formal institutional failing concerns the perceived and/or actual instability and uncertainty of the formal rules. Formal institutional instability and uncertainty results from continuous changes in laws and regulations (Levitsky and Murillo 2009; Williams and Shahid 2016). Both political and government instability have been revealed as strongly associated with the use of informal employment (Torgler and Schneider 2007, 2009). Businesses are confronted with constant changes in the formal rules, meaning that they do not expect today's rules to exist in the future (Hitt and Xu 2019; Urbano et al. 2019; Zhao and Li 2019). In these contexts when the formal rules continuously change and are unpredictable, businesses look elsewhere for a more permanent set of values, norms, and understandings about what is acceptable, namely informal institutions, which are seen as more enduring (Urbano et al. 2019). To evaluate the association between formal institutional instability and uncertainty and informal employment, the following hypothesis can be tested:

Formal institutional instability and uncertainty hypothesis (H4): the perceived instability and lack of predictability of the government is positively associated with a higher perceived incidence and share of informal employment.

3. Data and methodology

3.1. Data

To evaluate these hypotheses regarding which formal institutional failings are associated with informal employment, a study of the Western Balkans is here undertaken. To do so, data is extracted from the 2021 Balkan Barometer Business Opinion survey conducted in six Western Balkan countries, namely Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia. Some 1,200 enterprises were surveyed between December 2020 and February 2021. The sample is representative, extracted from the latest official data of the National Business Centre, in each of the economies. The survey was carried out on a face to face basis, information collected from a member of a company's management board/team, decision takers in the respective enterprises.

3.2. Variables

In the Balkan Barometer Business Opinion survey, no direct question was asked about their use of informal employment, doubtless due to a belief that businesses would not answer such a question. Instead, an indirect question was asked from which the dependent variable is here constructed, namely “what percentage of the total number of employees would you estimate a typical company in your area of business registers with the relevant authorities?”. The compliance of businesses has been widely shown to be conditional on their perceptions of the behaviour of their peers (Alm et al. 1999; Chang and Lai 2004; Horodnic and Williams 2022; Lefebvre et al. 2015; Levenko and Staehr 2021; Mendoza Rodriguez and Wielhouwer 2015; Narsa et al. 2016; Traxler 2010; Williams and Horodnic 2021). If businesses believe that compliance is widespread, they too adhere to the rules (Alm 1999, 2012). However, if they believe non-compliance is widespread, they too are more likely to be non-compliant (Hallsworth et al. 2017). Therefore, this question on their perceptions of the degree to which peers register their employees with the relevant authorities is an excellent proxy indicator of their own use of informal employment.

Of the 1,200 enterprises interviewed, 436 did not respond to this question. Of the 756 responses, 151 are from Albania, 126 from Bosnia and Herzegovina, 105 from Kosovo, 164 from North Macedonia, 90 from Montenegro and 120 from Serbia. For the dependent variable, a continuous variable is constructed to measure whether they state there is informal employment in typical companies in their area and the percentage of the total number of employees they estimate a typical company in their area registers with the relevant authorities. This constructed dependent variable consists of 57% of responses with zero (due to non-response) and the rest with the proportion they report as unregistered ranging from 1 to 100%. The mean proportion of employees that businesses state is not reported by a typical company in their area to the relevant authorities is 39.7%. There are differences across countries: the highest share of enterprises that perceive that their competitors in their field of operation is found in Kosovo (74%), followed by Albania (44%), Serbia and North Macedonia (38% of respondents) with the lowest share found in Bosnia and Herzegovina and Montenegro (33%). Among those that perceived informal employment among their competitors, the highest share was found in Montenegro estimated as 49% of employees, followed by North Macedonia (47%), Kosovo with 45%,

Bosnia and Herzegovina with 42% and lowest share is found in Albania with 28% of employees and Serbia with 30% of employees.

To examine determinants of the perceived incidence and share of informal employment in these Western Balkan economies, which has been shown above to be also a good proxy indicator of their own use of informal employment, a first set of explanatory variables relates to the formal institutional failings discussed above in the literature review. First, to test the resource misallocations and inefficiencies hypothesis (H1), a dichotomous variable is used equal to 1 for businesses that perceive government governance, public integrity and corruption as very negative or negative, or 0 otherwise (H1a) and a dummy variable equal to 1 for business that state that government does not take at all into account business concerns and 0 otherwise (H1b). Second, to test the formal institutional voids and weaknesses hypothesis (H2), a dummy variable equal to 1 for businesses that stated that taxes administration and tax rates are a major or moderate obstacle for the operation and growth of the business and 0 for those that do not consider them as barriers. Third, to test the formal institutional powerlessness hypothesis (H3), a binary variable is used to measure the role of quality of public business services which is 1 if businesses are dissatisfied with public services and 0 otherwise. Fourth and finally, and to test the formal institutional instability and uncertainty hypothesis (H4), a dummy variable is used equal to 1 for businesses that the instability and lack of predictability of government is a major or moderate obstacle for the operation and growth of the business and 0 for those that do not consider them as barriers.

A second set of explanatory variables relates to the characteristics of businesses previously identified as significantly associated with the incidence and share of informal employment in previous studies (Arendt et al. 2020; Horodnic and Williams 2022; Shahid et al. 2022; Williams and Shahid 2016; Williams et al. 2015). These include: the size of businesses with a dummy variable equal to 1 for businesses that have up to 9 employees and zero otherwise; the age of the businesses using a dichotomous variable equal to 1 one for business established after year 2000 and zero for those established up to year 2000; the gender of the owner with 1 is the owner/manager is a woman and 0 otherwise; and four sector dummies for agriculture, construction, manufacturing and trade.

The third and final set of explanatory variables relate to the economic conditions, using the two Balkan Business Sentiment Indices (BBSI) for the present

and expected situation, calculated by the Regional Cooperation Council who conducted the survey. Each Index is constructed from responses of respondents' experience with the general economic situation and the situation in their business with regards to development and demand for products or services over the past 12 months and those related to the respondents' expectations for the coming 12 months, again in terms of anticipated and the general economic situation in their place of living. The index can range from 0 that is worse, to 50 no change and 100 indicating a better perception. Given the pandemic context at the time of the survey and its potential influence on informal employment (Williams and Kayaoglu 2020), an additional variable related to the COVID-19 crisis was included whereby businesses were asked if the pandemic is an obstacle for their business operation and a dummy is

defined set to 1 for those that responded positively to the question, and 0 otherwise. Finally, and to measure the hiring practices and the availability of labour, a binary variable is constructed equalling 1 for businesses that state that they would not hire a new graduate without a working experience and 0 otherwise.

Table 1 presents the descriptive findings. It displays that 57% of enterprises in the survey were micro enterprises, 72% were established after 2000, and 19% were managed by women. The Balkan Business present situation Index was 43 (that is far from good) while a higher score is found regarding future expectations. 7% would not hire a young new graduate without work experience and finally and 81% reported that COVID-19 is a major or moderate obstacle for the operation and growth of their business. Regarding the institutional explanatory variables, 58% of businesses

Table 1. Descriptive statistics

Variables	Mean, % survey sample	Regression sample	Firms perceiving informal employment
Business characteristics			
DV=1 if it is a Micro enterprises; =0 for small, medium and large enterprises	57%	54%	58%
DV=1 if enterprise established after year 2000;= 0 if established prior to year 2020	72%	73%	73%
DV=1 if Women is a manager of an enterprise; =0 if owned by a men	19%	18%	14%
4 industry dummies: Agriculture; Manufacturing; Construction and Trade DV			
Economic conditions			
Balkan Business Sentiment Index, present situation index	43	43	41
Balkan Business Sentiment Index, expectation index	51	51	53
DV=1 if COVID-19 a major or moderate obstacle for the operation and growth of the business; 0 if COVID-19 is a minor or not an obstacle	81%	80%	83%
DV=1 if enterprise Unlikely to hire a newly hired a graduate without work experience; =0 if likely to hire a graduate without a working experience	29.2%	29.5%	27.8%
The role of institutions			
DV=1 if Tax administration and tax rates are a major or moderate obstacle for the operation and growth of the business; =0 if tax administration and tax rates are a minor or not an obstacle for the operation and growth of the business	58%	57%	57%
DV=1 if Government governance, public integrity and corruption perceived as very negative or negative; -0 if government governance, public integrity and corruption perceived as neutral or positive	37%	37%	44%
DV=1 if Government does not take at all into account business concerns; =0 if government takes into account business concerns	25%	25%	27%
DV=1 if enterprise is Dissatisfied with public services for businesses; =0 if satisfied with public services for businesses	26%	25%	33%

Note: DV=Dummy variable

stated that tax administration and tax rates are a major or moderate obstacle for the operation and growth of the business; 37% rated as negative government governance, public integrity and corruption; 25% stated that government does not take at all into account business concerns, and 26% reported dissatisfaction with public business services.

Table 1 also shows the descriptive statistics for the regression analysis sample and for the sample of businesses that reported that their competitors use informal employment (and are thus likely to use informal employment themselves, as shown above). The descriptive statistics reveal that a higher share of businesses that perceive informal employment among their competitors are micro-enterprises, have been established after year 2000 but fewer are managed by women. A worse present situation is observed among businesses reporting the use of informal employment, but a better promising future business situation is observed. A higher share of businesses that report informal employment is used stated that COVID-19 is an obstacle, and a lower share of businesses were reluctant to hire a young unexperienced graduate. Regarding variables measuring the quality of institutions, among businesses that reported the use of informal employment, a higher share reported a negative assessment of government governance, a higher share considered that the government does not take business concerns into account, and a higher share were dissatisfied with public business services.

Overall, the Business Sentiment present and expectation indices are similar across economies but there are differences across other variables. COVID-19 is found to be an obstacle for a larger share of enterprises in Montenegro (91%) and among lower share of enterprises in Bosnia and Herzegovina (74%). With regards to the role of institutions set of variables, there are differences across countries: the highest share of enterprises considering tax administration and tax rates as an obstacle are found in Montenegro (76%) and lowest in Albania (49%). The highest share of enterprises perceiving government governance, public integrity and corruption as very negative or negative if found in Kosovo (52%) while the lowest in Serbia (18% of respondents). About half of enterprises in Kosovo consider that government does not take at all into account business concerns compared to 13% in Serbia. The share of enterprises not satisfied with public services for businesses ranges from 15% in Serbia to 35% in Kosovo.

3.3. Econometric methodology

To analyse the data, firstly, descriptive statistics have been used followed by an econometric methodology here described. The dependent variable consists of zero values for firms that do not report informal employment among competitors at all and continuous positive values for those that assert that informal employment is used. Given the presence of zero values for the dependent variable, using Ordinary Least Squares (OLS) would lead to negative fitted values (i.e., negative predictions for the dependent variable). Moreover, because the distribution of the dependent variable is "left-censored" at zero, y clearly cannot have a conditional normal distribution (Wooldridge 2002, p. 596). Even if the sample is restricted to only those observations with positive values of the dependent variable, the expected value of the dependent variable cannot have a linear relationship with the independent variables (Wooldridge 2002, p. 518). Coefficients should not be estimated by the sub-sample of observations with $y_i > 0$, for two reasons. First, the observations with $y_i = 0$ contain relevant information on the parameters and standard errors; and second, because in the sub-sample of observations with $y_i > 0$ the error terms do not have a zero mean as they come from a truncated distribution (Heij et al. 2004, p. 495). Consequently, OLS – or any kind of linear regression – is not appropriate with a dependent variable of this type, because the coefficient estimates will be biased and inconsistent.

Therefore, we require a "corner solution model", of which the tobit model is the "canonical form" (Greene 2003, p. 778; Wooldridge 2002, pp. 518-19). The maximum likelihood (ML) estimation for tobit model involves dividing observations into two sets. The first set contains uncensored observations, which ML treats in the same way as any linear regression model (LRM); and the second set contains censored observations.

The tobit model provides unconditional marginal effects explaining two effects: first, the probability of a positive response (i.e., the probability of firms using informal employment based on the proxy indicator of whether they view competitors as doing so, as explained above); and second, for positive responses the impact of explanatory variables on, in our case, the share of informal workers. Tobin (1958, p.25) who developed the tobit model argued that because an explanatory variable may be expected to influence both the probability of a positive response and the observed value, it would be inefficient to throw away

information on the value of the dependent variable. Since both effects can be considered with the tobit model, this model will be used for the empirical analysis.

4. Findings

Interpreting tobit estimates is more difficult than interpreting linear regression coefficients because these do not directly measure the effects of interest (Wooldridge 2006, pp.597-598). The interest here is in explaining variations in observed informal employment. In the tobit model, estimated coefficients reveal the qualitative nature of the relationships

(i.e., whether they are positive or negative) between changes in the independent variables and observed variations in the dependent variable. However, these relationships are best quantified by two marginal effects, namely the “conditional” effects that estimate changes in the expected (or predicted) prevalence of informal employment for those workplaces in which informal employment is reported; and “unconditional” effects that account in addition for the effect of changing values of the independent variables on the probability that workplaces engage in informal employment (i.e., will change from zero to positive and thus observable). Table 2 provides the findings from the main tobit model and separately the conditional and unconditional ones.

Table 2. Empirical results, tobit model

	Main Tobit model		Unconditional MFX		Conditional MFX				
	Coef.	St.error	Coef.	St.error	Coef.	St.error			
Business characteristics									
Micro enterprise	6.34	1.40	2.78	1.99	2.10	1.50			
Established after year 2000	-2.81	-0.55	-1.23	2.23	-0.93	1.68			
Managed by women	-17.33	-3.00	***	-7.61	2.52	***	-5.74	1.90	***
Agriculture sector	-9.09	-0.61	-3.99	6.54	-3.01	4.93			
Manufacturing sector	8.40	1.32	3.69	2.78	2.78	2.10			
Construction sector	11.82	1.71	5.19	3.03	3.92	2.29			
Trade sector	1.58	0.29	0.69	2.41	0.52	1.82			
Economic conditions									
Business Sentiment Index-Present situation	-0.22	-1.52	-0.09	0.06	-0.07	0.05			
Business Sentiment Index-Expectation index	0.14	1.29	0.06	0.05	0.05	0.04			
COVID-19 a major or moderate obstacle for the operation and growth of the business DV	1.55	0.25	0.68	2.73	0.51	2.06			
Unlikely to hire a newly hired a graduate without work experience DV	-9.91	-1.95	*	-4.35	2.23	*	-3.28	1.68	**
The role of institutions									
Government governance, public integrity and corruption perceived as very negative or negative	11.07	1.99	**	4.86	2.44	**	3.67	1.84	*
Government does not take at all into account business concerns	9.42	1.64	*	4.14	2.52		3.12	1.90	*
Taxes administration and tax rates are a major or moderate obstacle for the operation and growth of the business DV	-6.01	-1.23		-2.64	2.14		-1.99	1.62	
Instability and lack of predictability of the government	-6.69	-1.26		-2.94	2.34		-2.22	1.76	
Dissatisfied with public services for businesses DV	9.46	1.76	*	4.16	2.36	*	3.14	1.78	*
Number of observations	518		518		518				

Note: *, **, *** significant at 10, 5 and 1% level.

The tobit model relies crucially on normality and homoscedasticity in the underlying latent variable model. If any of the assumptions fail, then it is unclear what the tobit MLE is estimating (Wooldridge 2006, p.602; Verbeek 2004, p.225). Since the data are left and right-censored, the conditional moment test used for tobit model to test the null hypothesis that the disturbances have normal distribution cannot be applied. As for the homoscedasticity assumption, Greene (2003, p.768) states that marginal effects in the heteroscedasticity model will generally be very similar to those computed from the model which assumes heteroscedasticity. Wooldridge (2002, p.534) argues the same; namely that the partial effects could be similar even though the estimates of coefficients might be very different. To avoid inconsistent parameter estimates resulting from heteroscedasticity, Beckmann (2002) computed the White's asymptotic covariance matrix for the tobit model. However, Greene (2002, E21-12) states that "the specification of the censored normal regression model is fragile, and robust estimation of the asymptotic covariance is essentially a moot point". Following this discussion, since we are interested in the marginal effects, heteroscedasticity is not a major concern.

Table 2 reports the findings. Among business characteristics, it is found that businesses managed by women report a significantly lower incidence and share of informal employment in the field they operate. There is no statistically significant difference in relation to either firm size, age of business or the sector of the businesses. Economic conditions measured through the Business Sentiment present and expectation index do not have an impact on informal employment perceived by enterprises in the field they operate, and neither does whether COVID-19 is seen as a major or moderate obstacle for the operation and growth of the business. An interesting finding regards the variable included to measure the relevance of the perceived quality of education. It is found that firms that would not hire a graduate without work experience (i.e., interpreted as a measure of lack of education system to prepare graduates for real world of work) are expected to have a lower probability and share of informal workers. Having difficulties finding skilled workers from the education system, businesses provide good working conditions in this case a contract to maintain their workers.

Turning to the hypotheses, Table 2 reveals that some formal institutional failings are significantly associated with the incidence and share of informal employment perceived by enterprises in the field they operate and others are not. Businesses that perceive government governance, public integrity and

corruption perceived as very negative or negative are significantly more likely to perceive the incidence and share of informal employment as higher (confirming H1a). Businesses that consider that the government does not consider business concerns are also significantly more likely to perceive the incidence and share of informal employment as higher. However, there is no significant association between businesses viewing tax administration and tax rates as an obstacle and their perceptions of the incidence and share of informal employment (refuting H2). Businesses dissatisfied with public services are nevertheless significantly more likely to perceive the incidence and share of informal employment as higher (confirming H3) but there is no significant probability of perceiving the incidence and share of informal employment as higher among businesses viewing the instability and unpredictability of government as a problem (refuting H4).

5. Discussion and Conclusions

This paper has evaluated in a Western Balkans context the validity of various formal institutional failings that institutional theory has proposed as being significantly associated with the incidence and share of informal employment. It has revealed that the perceived incidence and share of informal employment in these Western Balkan economies is significantly associated with some formal institutional failings but not others. The perceived incidence and share of informal employment are significantly associated with resource misallocations and inefficiencies, namely the perception that government governance, public integrity and corruption perceived is very negative or negative, and the perception that the government does not consider business concerns. The incidence and share of informal employment are also significantly associated with formal institutional powerlessness expressed in business dissatisfaction with public services. However, the perceived incidence and share of informal employment are not significantly associated with either the formal institutional voids and weaknesses measured in terms of their views of tax rates and tax administration, or the instability and lack of predictability of government.

Theoretically, the implication is that not all formal institutional failings used by institutional theory to explain the perceived incidence and share of informal employment are relevant in all contexts. In the Western Balkans, only formal resource misallocations and inefficiencies and formal institutional powerlessness are valid, and not formal institutional voids and

weaknesses, or the instability and lack of predictability of government. Whether this is similarly the case in other contexts now needs to be evaluated. It also needs to be evaluated whether the same findings apply when a wider range of measures are used to evaluate each of these formal institutional failings.

Turning to the policy implications, the tentative finding is that not all formal institutional failings require action in the Western Balkans, but only formal resource misallocations and inefficiencies and formal institutional powerlessness. To improve formal resource misallocations and inefficiencies in the form of governance, public integrity and corruption, as well as the perception that the government does not consider business concerns, at least three institutional reforms can be pursued:

1. Procedural justice can be improved, meaning that businesses, employers, workers, and citizens are treated in an impartial, respectful, and responsible way by public authorities, thus marking a paradigm shift from a “cops and robbers” mentality to a service-oriented perspective.
2. Procedural fairness can be enhanced, meaning that businesses, employers, workers, and citizens view the social contributions they make as fair compared with what others pay.
3. Redistributive justice can be improved, meaning that businesses, employers, workers, and citizens view the public goods and services received as appropriate for the social contributions made.

When doing so, it is important to differentiate between the reform of input public authorities, which cover the legislative and executive branches of government and produce policies, and the reform of output public authorities, which deliver public goods and services decided on the input side, such as tax administrations, labour inspectorates, and courts (Rothstein 2005). Examining 92 countries between 1981 and 2014, Koumpias et al. (2020) find that trust in output authorities (e.g., tax administrations, labour inspectorates) has a significantly larger impact on compliance. Therefore, these should be the focus of attention. This reinforces the wider finding that when output authorities (e.g., tax administrations) treat businesses more as partners and are customer-friendly, and build a relationship of trust, the result is greater voluntary compliance (e.g., Kirchler et al. 2008; Kogler et al. 2016).

There is also a need to address formal institutional powerlessness which involves changing the low costs and high benefits of informality, along with the low benefits and high costs of formality. There is now a large literature on the Western Balkans highlights

how this involves public authorities increasing the perceived and actual effectiveness of deterrence measures such as penalties and the risk of detection and using preventative policy measures to make formality easier and more beneficial. For in-depth reviews on how this can be achieved in each Western Balkan economy, see Efendic and Williams (2018) on Bosnia and Herzegovina, Gashi and Williams (2018) on Kosovo, Katnic and Williams (2018) on Montenegro, Kosta and Williams (2018) on Albania, Radulovic and Williams (2018) on Serbia and Mojsoska Blazevski and Williams (2018) on North Macedonia.

If this paper encourages similar research on identifying which formal institutional failings are significantly associated with the incidence and share of informal employment in other regions, and which are not, to build up a better model of the contexts in which different formal institutional failings are valid determinants, then this paper will have achieved one of its objectives. If this paper also encourages public authorities to focus their attention on correcting the formal institutional failings which are significant in determining informal employment, then it will have achieved its wider intention.

Finally, it is important to note a limitation of this analysis is that the dependent variable is a proxy of participation to informal economy, measured by the perception of the managers about the share of informal employment for companies similar to their, hence the variable is not the direct participation of that specific business to the informal economy. Another limitation is related to sample size, with only 200 companies in each economy.

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