Journal of Developmental Entrepreneurship

World Scientific
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TACKLING BOGUS SELF-EMPLOYMENT: SOME LESSONS FROM ROMANIA

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Received February 2017
Revised March 2017

In recent years, recognition that bogus self-employment is rapidly growing, not least because of the advent of what has been called the 'gig,' 'sharing' or 'collaborative' economy, has led governments to search for ways to tackle this form of dependent self-employment that is widely viewed as diminishing the quality of working conditions. Until now, however, there have been few ex-post evaluations of policy initiatives that seek to tackle this phenomenon. Therefore, the aim of this paper is to provide one of the first ex-post evaluations by examining the outcomes of a 2016 legislative initiative in Romania to tackle bogus self-employment. Reporting both descriptive statistics and OLS regression analysis on monthly official data from August 2014 to August 2016, the finding is that while other business types and waged employment rates followed a similar trend to the years before the introduction of the new legislation, the number of self-employed started a negative trend after the new legislation was announced. After controlling for other indicators related to the economy (i.e. GDP) and labor market (i.e. employees, other companies, vacancy rates), the impact of the new legislation on the self-employed remains negative, offering reasonable grounds for assuming bogus self-employed was lowered by the new legislation. The paper concludes by discussing the wider implications of these findings.

Keywords: Self-employment; bogus self-employment; informal economy; sharing economy; gig economy; Romania.

1. Introduction

Over the past few decades, there has been recognition that formal, full-time and permanent waged employment is becoming ever less the standard employment relationship. Considering this employment relationship has been the key vehicle for allocating rights and social protection, the diminution of this particular form of employment relationship as standard raises issues for working conditions, rights and benefits. Not only are employees increasingly engaged in non-standard forms of

employment (e.g., part-time, fixed-term and agency) (Conaty et al., 2016; Gialis et al., 2015; Hatfield, 2015; Eichhorst et al., 2013; Pedersini and Coletto, 2010; Forde and MacKenzie, 2007), which poses challenges for the operation of regulatory frameworks, but there is a growth in participation in self-employment, which is usually not covered by the umbrella of protective rights for the worker and responsibilities for the employer. Although protective rights are being gradually extended in many countries to protect the working conditions of non-standard employees (ILO, 2016), this is not usually extended to the 'self-employed' who have been treated as a residual group largely outside of the purview of labor standards and regulation. This is because they are not perceived to have an employment relationship with their clients but rather, a contract for services.

However, the growth of self-employment in general, and 'bogus' self-employment more particularly, whereby workers are self-employed but have a de facto employment relationship, if not de jure, because they only work for one employer, has led to a burgeoning literature on dependent self-employment (Fehringer, 2014; Kautonen et al., 2010; Thörnquist, 2014). This has highlighted both the prevalence of bogus self-employment and the precarious working conditions of those in such an employment relationship. The aim of this paper is to contribute to this small but rapidly expanding literature by seeking to advance understanding on how the growth in bogus self-employment can be tackled. To do this, we evaluate a policy initiative from Romania, which might be transferable to other countries seeking to tackle the emergent form of self-employment, or what might be better termed disguised employment.

To commence, the next section reviews the literature on bogus self-employment and the problems arising from the growth of this employment relationship. Identifying that despite an expanding literature on the growth of bogus self-employment and the resultant problems in terms of precarious working conditions, much less has been written on policy solutions to reduce the prevalence of this employment relationship, a new piece of fiscal legislation in Romania to reduce bogus self-employment is then reviewed. To evaluate the effectiveness of this legislation on reducing bogus self-employment, the third section introduces the methodology used, followed in the fourth section by an evaluation of the results. The fifth and final section discusses the wider implications of these findings.

2. Bogus Self-Employment: Its Impacts and Prevalence

Although there is no widely accepted definition of bogus self-employment (Fehringer, 2014; Thörnquist, 2014), most definitions refer to the legal and economic aspects of employment relationships that operate in the so-called 'grey area' between pure waged employment and genuine self-employment (Thörnquist, 2013; Kautonen et al., 2010; Ana, 2009; Jorens, 2009). Dependent or waged employment describes the relationship between an employer and an employee that creates reciprocal obligations and rights (Pedersini and Coletto, 2010; Ana, 2009; Jorens, 2009). The employee is seen as a person carrying out a specific activity/work under the supervision and authority of their employer for remuneration (Ana, 2009). Meanwhile, genuine self-employment covers economically active people providing services to one or more beneficiaries (Pedersini

and Coletto, 2010; Ana, 2009). While the employee works for the benefit of the employer under their authority, the self-employed person works independently for the benefit of their clients (Ana, 2009). The European Court of Justice underlines the relationship of subordination as the most important element distinguishing between dependent employment and self-employment (Jorens, 2009). Employment exists in the 'grey area' when the self-employed provide services for an employer, not a client, and the work relation is in fact a relation of subordination. Therefore, bogus self-employment possesses the features of subordinate employment but is disguised as autonomous independent work (Eichhorst et al., 2013; Pedersini and Coletto, 2010; Ana, 2009; Jorens, 2009; Böheim and Muehlberger, 2006). Although this 'grey area' is variously referred to as dependent self-employment (Thörnquist, 2014, 2013; Eichhorst et al., 2013), bogus self-employment (Hatfield, 2015; Thörnquist, 2014, 2013), false self-employment (Thörnquist, 2014, 2013; Harvey and Behling, 2008), quasi self-employment and hybrid self-employment (Gialis et al., 2015; Fehringer, 2014; Mandrone et al., 2014; Kautonen et al., 2010) and 'involuntary self-employment' (Kautonen et al., 2010, 2009), all terms refer to the worker being pushed by an employer to conduct the work on a self-employed basis.

This is because by employing somebody as self-employed rather than in subordinate employment, employers are able to evade employment rights and entitlements (e.g., holiday/sickness pay) attached to the employment of an employee, as well as taxes, which leads this practice to be considered a form of social dumping (Fehringer, 2014; Thörnquist, 2014; Congregado et al., 2012) and also a type of precarious work. Indeed, a survey of employment experts in twelve European Union Member States under the project Precarious Work and Social Rights concludes that bogus self-employment is the second most common form of work associated with precarious work, after undeclared work (Thörnquist, 2014). Similar results are revealed by Eichhorst et al. (2013), which underlines that, even if atypical forms of employment such as bogus self-employment are not forms of precarious work per se, in most instances this tends to be the case.

In recent years, bogus self-employment has moved further into the spotlight and become more prominent because of the technological changes transforming the nature of employment. The growth of online platforms and mobile device applications (apps) has sparked a debate over whether there is a need for a new, third category of employment relationship, somewhere between the traditional employee and the independent contractor (self-employed). The outcome has been a number of legal challenges alleging the misclassification of 'gig workers' as independent contractors and from which a legal consensus has yet to emerge. This debate has important implications because these workers do not have the same protections as those in traditional employment relationships. Advocacy of the need for a legal category of 'independent workers' often draws on the example of Uber and Lyft drivers. This view holds that they are like traditional taxi cab or truck owner-drivers, except that their communication with clients is mediated through mobile device apps. Workers in this category would not be entitled to the full range of rights and benefits accorded to those in the standard employment

relationship. However, there are contrary views that Uber and Lyft drivers and other workers in comparable circumstances are de facto employees under well-established legal frameworks (e.g., working hours are measureable and a guaranteed minimum wage is effectively paid) and should be categorized as such and provided with the associated legal protections and benefits.

Therefore, bogus self-employment has negative consequences for various stakeholders. Workers employed as bogus self-employed witness diminished social protection, career opportunities and job security (Thörnquist, 2014; Seely, 2010; Harvey and Behling, 2008). For this reason, it is considered a form of worker exploitation that erodes the 'notion of employee' (Likic-Brboric et al., 2013; Thörnquist, 2013) and destabilizes social protection by undermining important principles such as solidarity, quality and equity (Fehringer, 2014; Eichhorst et al., 2013). Meanwhile, employers contracting self-employed persons have less interest in investing in their training, which might lead to lower labor skills in the industries where the phenomena is widespread (Thörnquist, 2013). For legitimate businesses, moreover, an unfair competitive advantage is gained by the enterprises that disguise their subordinate employees under the status of self-employed to reduce their labor costs, resulting in wage dumping (Fehringer, 2014; Thörnquist, 2014, 2013; Seely, 2010; Jorens, 2009). Furthermore, government loses money because of reduced tax revenue, which otherwise could have been used for social protection as well as control over working conditions (Thörnquist, 2014, 2013; Eichhorst et al., 2013).

Reviewing the literature on where bogus self-employment is most prevalent, the finding is that this disguised employment is more common in countries with weak trade unions and strong neoliberal views, with the United Kingdom representing the most prominent example in Western Europe (Thörnquist, 2013). Yet, even with strong trade unions, bogus self-employment is a difficult issue to address because, for example, when speaking about migrant workers, they are not willing to contact the trade unions under the risk of being fired, while the employment agencies and employers have an economic interest in hiding such employment relationships from the trade unions (see, for example, Sweden on construction and haulage industries in Thörnquist, 2014, 2013). However, in the past decade or so, this 'grey area' has arguably become increasingly common and not only across Europe but also the developing world (Thörnquist, 2013; Ebisui, 2012). Although it is recognized that this 'grey area' of employment is increasingly common, there is little rigorous analysis of the prevalence of this practice (Fehringer, 2014; Eichhorst et al., 2013; Thörnquist, 2013), with sectoral studies and/or case studies showing that the sectors more affected are construction (Fehringer, 2014; Thörnquist, 2014, 2013; Eichhorst et al., 2013; Böheim and Muehlberger, 2006), transport, insurance and accounting, architecture and the creative sector (Eichhorst et al., 2013), and elderly care (Fehringer, 2014).

Thus, even if tackling bogus self-employment is currently of high priority for many governments, little data exists at the moment about the spread of this employment relationship (Fehringer, 2014; Eichhorst et al., 2013; Thörnquist, 2013) or its impacts. Neither has there been much attention paid to how it might be tackled. Therefore, the

challenge for governments is to achieve a difficult balancing act of encouraging genuine self-employment given its prominent role as a driver of economic development and growth, but at the same time, deterring forms of bogus self-employment (Mandrone et al., 2014; Eichhorst et al., 2013; Pedersini and Coletto, 2010) and ensuring a fair balance between flexibility and security on the labor market (Leschke et al., 2006). Until now, the vast majority of initiatives to combat this phenomenon have focused on the question of how to correctly assess and classify the forms of employment relationship in legislation (Thörnquist, 2013; Jorens, 2009), which in a large number of countries across the European Union and beyond does not make a clear distinction between genuine and bogus self-employment. To achieve this, an increasing number of governments have introduced 'tests' and regulations to assess if the economic activity of the self-employed is independent or not, and to correctly determine their employment status (Eichhorst et al., 2013). For example, in the UK, there is a list of questions used in court decisions (Seely, 2010) as well as four tests, namely, the test of control, the test of integration, the test of economic reality and the mutuality of obligation, which are used to classify employment relationships (Jores, 2009; Böheim and Muehlberger, 2006). Meanwhile, what is employment in France depends only on the conditions under which the work is carried out, and it is not affected by the 'name of the agreement' nor the 'will expressed by both parties' (Jores, 2009). Therefore, attention here turns toward a specific legislative initiative that has sought to develop criteria to define whether an employment relationship is indeed self-employment and also to reduce the incentives for intentionally misclassifying an employment relationship as self-employment.

3. Tackling Bogus Self-employment in Romania

In Romania, which is the focus of this paper, the term bogus self-employment is not included in the Romanian Fiscal Code. However, in July 2015, a range of criteria were introduced to define independent, own-account activity or self-employment, and in January 2016, the level of taxation for self-employed was modified, while the level of taxation for dependent employment was preserved (see Tables A1 and A2 in the Appendix for details). As such, according to the Romanian Fiscal Code, an independent activity is defined as any activity conducted by an individual to obtain revenue, which meets at least four of the following criteria:

(i) The individual has the freedom of choice of where and how to work, as well as the freedom to choose the work program;
(ii) The individual has the freedom to have multiple customers;
(iii) The inherent risks of the business are assumed by the individual;
(iv) Work is performed by using an individual's assets;
(v) Work is performed by the individual through the use of intellectual and/or physical skills, depending on the particularities of each activity;
(vi) The individual is a member of a professional body, which has the role of representation, regulation and supervision of the carried out profession, according to

special normative acts regulating the organization and the way the profession in question is conducted, and

(vii) The individual has the freedom to conduct directly the activity, with employees or in collaboration with third parties, according to the law.

If after an inspection by government representatives such as the representatives of the National Agency of Fiscal Administration (NAFA), the minimum number of four criteria is not met, the work is considered waged employment and the taxes due are recalculated in line with the regulation in place for waged employment.

In addition to the introduction of criteria for assessing whether a person is self-employed or not, the financial incentives for being self-employed rather than an employee have been altered. In Romania, the self-employed were included in social protection schemes before the new legislation (European Commission, 2014). The first important change is related to the fact that starting from January 2016, all self-employed have to pay social contributions (i.e., those having another job, retired people and those having an income lower than the minimum wage are no longer exempted as they were in the previous period). Moreover, the income for which the self-employed wish to be insured is not optional (i.e. a minimum was mandatory before the new legislation, but above that level, the self-employed were allowed to choose the income for which they wished to be insured). The social contribution was split in 2016 into two fractions: for about one third of all net income, the social security contribution became mandatory and, to obtain full insurance, the contribution has to be paid for the remaining two parts of the overall net income (details about the tax level are provided in Table A2 in the Appendix). At the same time, the level of taxation for waged employment remained similar to 2015. To better understand how this legislation affected the labor market, Figure A1 in the Appendix provides an example of the net income earned by an individual if hired as an employee compared with the net profit earned by being (bogus) self-employed. As such, for a budget of 10,000 euros available during a year for a specific activity in 2014 and 2015, the net income of the employee will be approximately 50 percent lower than the net profit of a (bogus) self-employed with both forms of employment covering social insurance. This means even if job security is not ensured, the high differences in the net income offer incentives to choose (bogus) self-employment.

However, two scenarios are possible with the new legislation. If the self-employed do not have another job, are not retired and/or do not have an income lower than the minimum wage, then to obtain full insurance, the taxes due are similar to the taxes for waged employment. Thus, the economic incentive for (bogus) self-employment has vanished and taking a high job security risk is not worthwhile from the workers point of view. At the same time, for those having the self-employment status as secondary (i.e., having another job and therefore, having social insurance already paid), the new taxation level increases their contribution without offering them any additional benefits. This might discourage their willingness to declare their additional income. In sum, the new legislation modified the level of taxation for the self-employed and introduced criteria for defining whether an activity was self-employment or not and therefore, sought to make bogus self-employment less attractive from a financial point of view.

Based on this, the hypothesis here evaluated is that the changes in January 2016 in the Romanian Fiscal Code regarding the taxation level have led to a decreasing number of active self-employed (i.e., the bogus self-employment share has decreased since the economic advantages have disappeared).

4. Data and Methodology

To evaluate this hypothesis regarding the effect of the new legislation on self-employment, we use longitudinal data from August 2014 to August 2016, extracted from the Romanian National Trade Register Office and Romanian National Institute of Statistics. First, we analyze the prevalence of the active self-employed (monthly growth rate) against waged employment and alternative entrepreneurial forms (companies) during the two analyzed years in monthly segments, as well as the trends in the number of closed and inactive self-employed. Second, a regression analysis is provided to test the effect of the new taxation level on the growth of self-employment, when controlling for other indicators of the labor market that have been linked in previous studies with self-employment (Eichhorst et al., 2013; van Es and van Vuuren, 2010; Golpe et al., 2008; Robson, 2003). Thus, the variables used in the analysis are as follows:

Dependent variable

- Self-employed (monthly growth rate): monthly growth rate of the active self-employed, expressed as a percentage (own calculations based on data from Romanian National Trade Register Office, 2016a).

Independent variables

- New taxation level publicly announced: dummy variable with recoded value 0 for the period (months) before the new taxation level was announced and 1 for the period after (months) the new taxation level was announced.
- Companies (monthly growth rate): monthly growth rate of the other types of companies (e.g. limited liability companies, joint stock companies), expressed as percentage (own calculations based on data from Romanian National Trade Register Office, 2016b).
- Employees (monthly growth rate): monthly growth rate of the total number of employees at the end of the month, expressed as percentage. Employees at the end of the month represent the number of employees with a labor contract for a definite or indefinite period of time and with full- or part-time status (those with suspended work contract included) registered in the unit at the end of the reference period. The employees relocated abroad and those who hold more than one position, the main position being not in the reporting unit, are not included. Military staff and similar are excluded (Ministry of National Defense, Ministry of Administration and Interior, Romanian Intelligence Service, etc.) (own calculations based on data from Romanian National Institute of Statistics, 2016a).
- Vacancies rate: represents the ratio between the number of vacancies and total number of jobs (occupied and vacant, excluding the blocked ones or meant for promotion inside the enterprise or institution), expressed as percentage (Romanian National Institute of Statistics, 2016b).

- Quarterly Gross Domestic Product at market price (QGDP): the main macro-economic aggregate of national accounting, represents the final result of production activity for resident productive units, for a certain period (one quarter) (Romanian National Institute of Statistics, 2016c).

Below, we report the findings.

5. Findings

Here, we report the trends in active self-employment (monthly growth rate) against waged employment and the alternative entrepreneurial forms (companies), and the trends in the number of closed and inactive self-employed. To do this, we explore the trends in self-employment during the two analyzed years (i.e., the periods before and after the announcement of the new taxation level). Official records reveal that in late 2014, there were 392,104 active self-employed across Romania, corresponding to approximately 27 self-employed per 1,000 permanent resident population of working age. However, self-employment is not evenly distributed across Romania.

To start to display the uneven distribution of the self-employed, Table 1 reports the regional variations. This shows that the number of self-employed is higher in the North-West (68,652 self-employed), North-East (60,024), Center (54,706), South-Muntenia (52,110), and lower in the West (36,177), Bucharest-Ilfov (37,302), South-West Oltenia (40,616) and South-East (42,517). Examining the distribution across Romanian counties, the finding is that in late 2014, the most self-employed were to found in Bucharest (31,705), Cluj (17,880), Iasi (15,966), Bihor (14,749) and Prahova (13,174) and the fewest in Giurgiu (2,924), Ialomita (3,909), Calarasi (4,374), Covasna (4,462) and Tulcea (4,795). Nevertheless, if linked to the number of permanent resident population of working age, self-employment as a legal form for carrying economic activities was more common in Alba (47.1 self-employed per 1,000 permanent resident population in working age), Bistrita-Nasaud (42.9), Harghita (42.8), Salaj (40.1), Cluj (37.7), Mehedinti (37.5) and less common in Giurgiu (16.6), Galati (18.3), Ialomita (20.7), Constanta (21.4) and Calarasi (21.5).

Table 1. Active self-employed in Romania (number and density* per 1000 permanent resident population in working age at January 1st), by region (2014-2016)

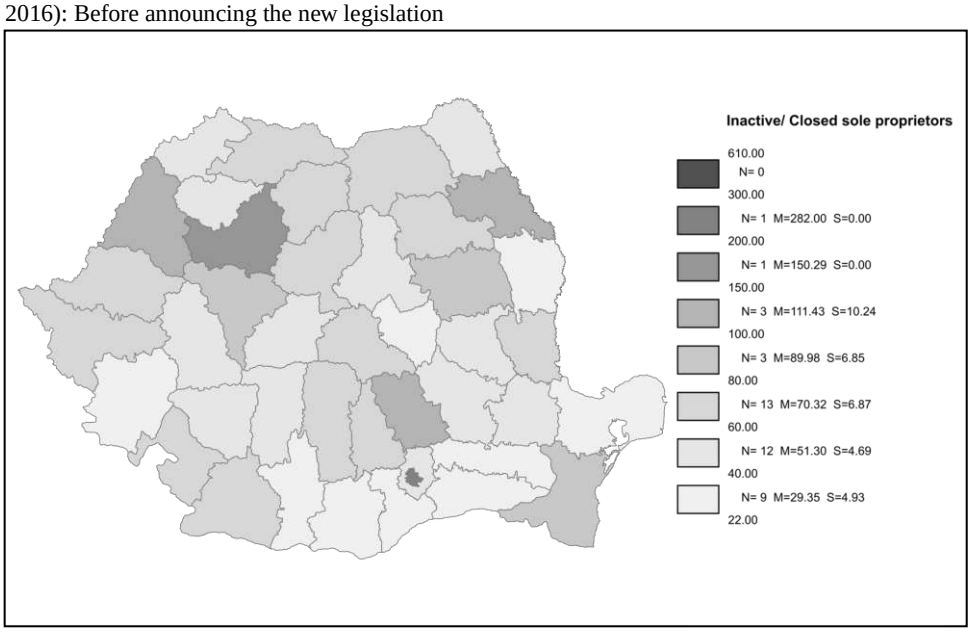
Region		Dec, 2014		Oct, 2015		Dec, 2015		Aug, 2016	
Romania		392104	26.7	405777	27.8	396535	27.2	385667	26.6
North-West	Bihor	14749	36.2	15642	38.6	15358	37.9	15345	38.1
	Bistrița-Nasaud	9297	42.9	9252	42.9	9158	42.4	9057	42.1
	Cluj	17880	37.7	18124	38.4	17729	37.6	17014	36.2
	Maramures	12745	36.2	13197	37.7	13036	37.2	12717	36.6
	Satu Mare	7576	28.6	7692	29.2	7533	28.6	7213	27.6
	Sălaj	6405	40.1	6635	41.8	6563	41.3	6498	41.2
Center	Alba	11952	47.1	12083	48.0	11867	47.2	11451	45.9
	Brașov	9885	23.4	10440	24.9	10068	24.0	9632	23.3
	Covasna	4462	29.8	4660	31.3	4568	30.7	4515	30.6
	Harghita	9323	42.8	9482	43.8	9324	43.1	8918	41.6
	Mureș	10279	26.7	10893	28.4	10642	27.8	10460	27.5
	Sibiu	8805	28.6	9237	30.1	9025	29.5	8689	28.5
North-East	Bacău	10652	21.6	10985	22.3	10798	21.9	10414	21.2
	Botoșani	7480	25.7	7625	26.3	7513	25.9	7325	25.3
	Iași	15966	27.2	16417	27.4	16070	26.8	15473	25.5
	Neamț	8343	22.0	8662	23.0	8542	22.7	8326	22.2
	Suceava	10650	22.5	10975	23.1	10825	22.8	10425	21.9
	Vaslui	6933	22.9	7163	23.2	7110	23.0	6948	22.4
South-East	Brăila	5867	24.6	6150	26.2	5921	25.2	5831	25.2
	Buzău	6748	21.8	7161	23.4	7041	23.1	6936	22.9
	Constanța	11119	21.4	11660	22.7	11352	22.1	11014	21.7
	Galați	7839	18.3	8051	18.9	7832	18.4	7535	17.9
	Tulcea	4795	28.8	5188	31.7	5111	31.2	5474	33.9
	Vrancea	6149	24.3	6508	25.9	6397	25.4	6421	25.7
South-Muntenia	Argeș	11047	25.6	11365	26.6	11050	25.8	10521	24.8
	Călărași	4374	21.5	4672	23.1	4613	22.8	4597	22.9
	Dâmbovița	10265	29.4	10663	30.8	10501	30.3	10855	31.6
	Giurgiu	2924	16.6	3036	17.3	2969	17.0	3081	17.7
	Ialomița	3909	20.7	4147	22.2	4058	21.7	4070	21.9
	Prahova	13174	24.7	13564	25.7	13036	24.7	12255	23.5
	Teleorman	6417	26.3	6463	26.9	6351	26.4	6239	26.4
B.-Ilfov	București	31705	22.0	32393	23.0	30852	21.9	28100	20.3
	Ilfov	5597	22.7	6049	23.8	5858	23.1	5497	20.9
South-West Oltenia	Dolj	11547	25.3	12198	26.9	11850	26.1	11858	26.4
	Gorj	6722	26.8	6828	27.4	6687	26.8	6458	26.1
	Mehedinți	7146	37.5	7015	37.2	6811	36.1	6669	35.7
	Olt	7616	25.5	7902	26.7	7780	26.3	7904	27.0
	Vâlcea	7585	28.7	7778	29.7	7608	29.0	7285	28.1
West	Arad	10463	33.3	10843	34.8	10668	34.3	10483	33.9
	Caraș-Severin	5380	24.4	5606	25.8	5514	25.4	5463	25.5
	Hunedoara	8575	26.8	8885	28.2	8704	27.6	8547	27.5
	Timiș	11759	23.5	12488	25.0	12242	24.5	12154	24.5

Note: * in Italic

Source: own calculations based on data from the Romanian National Trade Register Office and National Institute of Statistics

Examining the changes in the number of self-employed between August 2014 and August 2016, and as Table 1 displays, the number of self-employed increased by 3.5 percent in October 2014 (reaching 405,777 self-employed), whereupon it started to decrease by 2.3 percent by December 2015 (396,535 self-employed) and a further 2.7 percent (385,667 self-employed) by August 2016. As such, after October 2015, the number of active self-employed decreased by 20,110. Similarly, the self-employment density decreased from 27.8 self-employed per 1,000 permanent resident population in working age in October 2015 to 26.6 in August 2016. This trend is not only valid at the national level but also for Romanian counties (Table 1). For instance, the number of self-employed increased to 32,393 by October 2015 then began falling to 30,852 by December 2015 and to 28,100 by August 2016. A similar trend can be observed in the case of self-employed density. Indeed, some counties did not completely follow the national trend, witnessing an increase of self-employment in 2016 compared with December 2015 (Tulcea, Vrancea, Dambovita, Giurgiu, Ialomita, Dolj and Olt), but registered growth rates are very low (for instance, the number of self-employed increased from 2,969 to 3,081 in Giurgiu or from 11,850 to 11,858 in Dolj).

Figure 1A. Inactive/Closed self-employed by region (average number/ month; Aug, 2014-Aug, 2016): Before announcing the new legislation

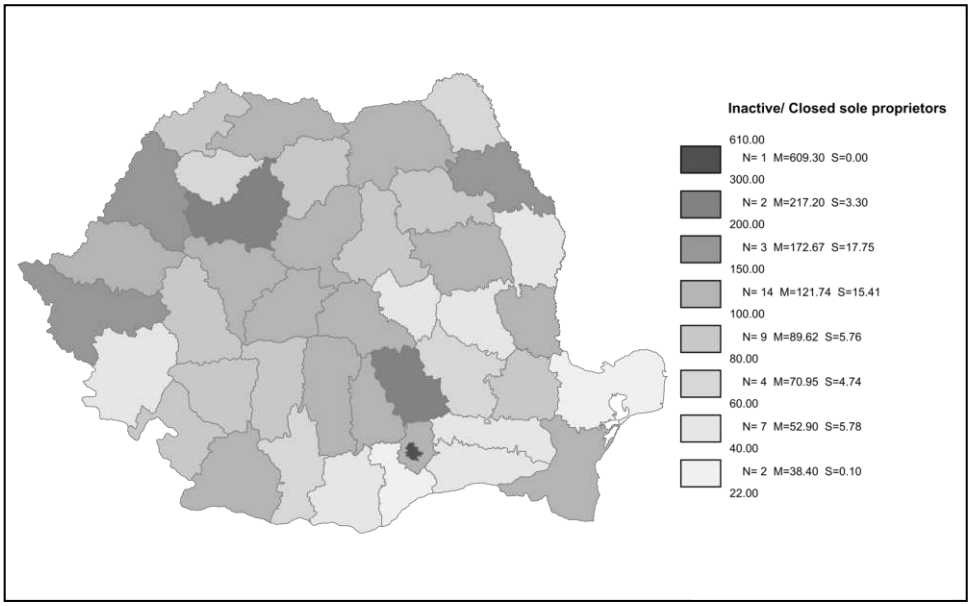


Source: own calculations based on data from the Romanian National Trade Register Office; made with Philcarto, http://philcarto.free.fr

Analyzing Table 1, the finding is that the level of self-employment in Romania started to decrease from October 2015. This is further reinforced when the inactive or closed self-employed are examined. Before announcing the new taxation level, some 2,830 self-employed became inactive or closed each month. After the Romanian government announced the new taxation level (in October 2015), the average number of

inactive or closed self-employed in Romania increased by about 70 percent, exceeding 4,800 inactive or closed self-employed per month. As Figure 1 displays, all Romanian counties display this increase in the average number of inactive or closed self-employed from October 2015 (Figure 1A compared with 1B).

Figure 1B. Inactive/Closed self-employed by region (average number/ month; Aug, 2014-Aug, 2016): After announcing the new legislation



Source: own calculations based on data from the Romanian National Trade Register Office; made with Philcarto, http://philcarto.free.fr

Moreover, before announcing the new taxation level (Figure 1A), 50 percent of Romanian counties reported a level of between 22 and 60 inactive or closed self-employed per month. However, after announcing the new legislation (Figure 1B), only 21 percent of Romanian counties reported a level of between 22 and 60 inactive or closed self-employed per month, 64 percent between 60 and 150 and 15 percent over 150. Among the most affected regions, Bucharest witnessed an increase from 282 inactive or closed self-employed per month before the announcement of the new legislation, to 609 after announcing the new legislation, while Cluj increased from 150 to 220. Therefore, analyzing the two sections in Figure 1, the conclusion is that this trend of an increase in the number of self-employed becoming inactive or closing their operations was not concentrated in certain geographical areas, but rather apparent across the whole country.

Nevertheless, the decrease in the number of self-employed between August 2014 and August 2016 does not appear to affect the distribution of self-employed people by gender and age. As Table 2 displays, self-employment is more common among men than women in all reference periods both before and after announcing the new taxation level (60 percent of self-employed people are men but only 30 percent are women).

Table 2. Members of active self-employed in Romania by gender and age (number of persons, 2014-2016)

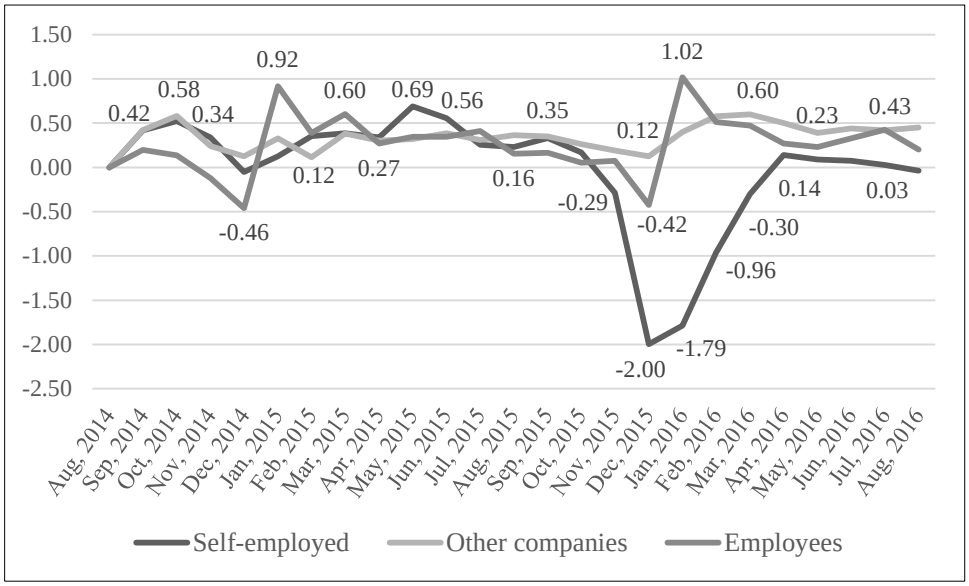
Distribution		Dec, 2014		Oct, 2015		Dec, 2015		Aug, 2016	
		(no.)		(no.)		(no.)		(no.)	
Self-employed		392104		405777		396535		385667	
Members of active self-employed		424389		437701		428371		416659	
		(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Gender	Female	168954	39.8	174194	39.8	169660	39.6	164004	39.4
	Male	255435	60.2	263507	60.2	258711	60.4	252655	60.6
Age	- 29	68436	16.1	67074	15.3	64496	15.1	59282	14.2
	30 - 39	118398	27.9	120814	27.6	117429	27.4	112341	27.0
	40 - 49	115631	27.2	123516	28.2	122079	28.5	121957	29.3
	50 - 59	73333	17.3	73460	16.8	72034	16.8	69333	16.6
	60 +	48591	11.5	52837	12.1	52333	12.2	53746	12.9

Source: data from the Romanian National Trade Register Office

When examining the distribution by age, the finding is that in October 2015, 15.3 percent of members of the active self-employed were aged under 29 years old, 27.6 percent were aged between 30-39 years, 28.2 percent between 40-49 years, 16.8 percent between 50-59 years and 12.1 percent over 60 years old. The same pattern is observed after October 2015, when the new taxation level was announced. Interestingly however, even if Romanian legislation allows self-employed to have employees, very few choose to do so. This was the case before and after announcing the new legislation. More specifically, 405,777 self-employed had 437,701 employees in October 2015 and 385,667 self-employed had 416,659 employees in August 2016 (Table 2).

To better understand the trends in self-employment before and after the announcement of the new taxation level, Figure 2 reports the monthly growth rate of self-employment between August 2014 and August 2016, alongside the monthly growth rate of all other companies (e.g. limited liability companies, joint stock companies) and the total number of employees. Figure 2 reveals that the number of self-employed in Romania registered a positive monthly growth rate between August 2014 and October 2015, with the highest value (0.59%) in May 2015. However, immediately after the new taxation level was announced, the monthly growth rate of self-employed began a downward path. As Figure 2 reveals, the number of self-employed decreased by 0.29 percent in November 2015, 2 percent in December 2015, 1.79 percent in January 2016, 0.96 percent in February 2016 and 0.3 percent in March 2016. The upward path was resumed in April 2016, but the growth rates are very low (e.g. 0.14% in April, 0.03% in July 2016).

Figure 2. Monthly growth rate of self-employed, other companies and the total number of employees, in % (August, 2014-August, 2016)



Source: own calculations based on data from the Romanian National Trade Register Office and National Institute of Statistics

However, the number of all other companies (other legal forms) increased in the analyzed. Positive growth rates were registered each month, with larger increases being recorded in 2016 (e.g. 0.6% in March 2016). The total number of employees displays a specific trend, with decreases at the end of the year. However, except the end of the year, the number of employees registered a positive monthly growth rate between August 2014 and August 2016. Unless considering the period between November 2015 and March 2016, the three indicators in Figure 2 follow the same pattern (with higher fluctuations in the case of the number of employees at the end and the beginning of the year). In addition, positive growth rates for both the number of employees and the number of all other companies at the beginning of 2016 reinforce the idea that the decrease in the number of self-employed because of an economic downturn can be excluded.

After announcing the new taxation level, the number of all other companies increased (e.g. 0.6% in March 2016). Moreover, the number of employees decreased less in December 2015 than in the same period in 2014 (0.42% compared with 0.46) and in January 2016 increased more than in the same period in 2014 (1.025% compared with 0.92%). Thus, there are reasonable grounds to assume the closed self-employed (some of them bogus self-employed considering their quick decision not to operate under the new legislation) became either employees, migrated to another legal form for carrying out their economic activities or entered the informal economy.

Table 3. OLS regression estimates for the impact of the taxation level on the sole enterprises

Dependent variable: Self-employed (monthly growth rate)	OLS
Independent variables:	Coefficients
New taxation level publicly announced	-0.817**
	(0.301)
Limited liability companies (monthly growth rate)	-0.0648
	(0.898)
Employees (monthly growth rate)	0.584
	(0.526)
Vacancies rate (detrended)	-2.542
	(3.941)
lnQGDP (detrended)	2.496**
	(1.166)
Constant	0.249
	(0.335)
Observations	22
R-squared	0.540

Notes: Robust standard errors in parentheses. Significant at * p < 0.1, ** p < 0.05, *** p < 0.01.
Source: own calculations based on data from the Romanian National Trade Register Office and National Institute of Statistics

To further investigate our hypothesis, we employ OLS regression (Table 3). The time series have been checked for stationarity before being used in the model. As such, to ensure stationarity of series, two variables have been de-trended, namely the QGDP and the vacancies rate. The results of the model specification tests are provided in Table A3 in the Appendix. By using the Breusch-Pagan test (Breusch and Pagan, 1979) and Cook-Weisberg test (Cook and Weisberg, 1983), we conclude that variance of the residuals is not homogenous. Therefore, we used the robust standard errors to address the heteroscedasticity problem as widely recommended in the literature (King and Roberts, 2015; Williams, 2015). No first or higher order serial autocorrelation were identified by performing the Breusch-Godfrey LM test (Breusch, 1978; Godfrey, 1978). The mean variance inflation factor (VIF) shows that multicollinearity does not represent an issue for our model. In addition, a skewness and kurtosis test for normality (Jarque and Bera, 1987), using the adjustments of Royston (1991) and that of D'Agostino et al. (1990), shows that errors are normally distributed. As such, our model meets the OLS assumptions. The coefficients in Table 3 reveal a negative effect of the new taxation level on the self-employment monthly growth rate, confirming our hypothesis. Although there is no history of those closed and/or inactive self-employed for allowing us to investigate how many of these persons became employees and how many chose other forms of entrepreneurship (other type of company), or even work outside the formal economy, we

have solid evidence to speculate that bogus self-employment decreased with the introduction of the new legislation.

6. Discussion and Conclusions

This paper has evaluated the level of self-employment in Romania before and after introducing new legislation in January 2016, which changed the taxation level and compulsoriness of paying social security contributions for the self-employed. That was preceded by another measure introduced in July 2015, which set seven criteria for determining if an activity is independent, or whether it is dependent self-employment and therefore, they have to pay the taxes required for an employee.

The results show that, after the new taxation level was announced, the monthly growth rate of the active self-employed began a negative trend, while the trends of other forms of companies remained positive, which eliminates the suspicion of any economic change in Romania affecting self-employment. The negative effect of the new legislation on the number of self-employed is further supported by the regression analysis, which shows that even after controlling for other variables from the labor market that influence self-employment, the negative relationship remains statistically significant. At the same time, the monthly number of closed and inactive self-employed increased. If before the new taxation level, 50 percent of Romanian counties reported between 22 and 60 inactive or closed self-employed per month, after announcing the new legislation, only 21 percent of Romanian counties reported between 22 and 60 inactive or closed self-employed per month, 64 percent between 60 and 150 and 15 percent over 150.

Thus, we have tentative evidence to assume the new legislation had a positive impact on decreasing the level of bogus self-employment in Romania. Therefore, the suggestion is that countries that introduce criteria for defining whether an employment relationship is bogus self-employment, and move toward equalizing the tax incentives for employing somebody as a waged employee rather than as a self-employed person on a ‘contract for services,’ can reduce the level of bogus self-employment. What is required now is for other countries to experiment with similar policies to Romania to tackle the growing problem of bogus self-employment. Before doing so, this paper needs to end with a caveat. In Romania, a problem that is apparent now is that the increased level of taxation of those self-employed who have another job and have social insurance covered (and thus, the self-employed status is secondary) means they might now opt to leave the formal economy because their net profit is affected and no additional benefit is gained. Therefore, the perverse consequence tackling bogus self-employment might have the knock-on effect of shifting some groups of self-employed out of the formal economy and into the informal economy. Indeed, whether this is the case will need to be monitored in future studies. However, it is for certain that with the rapid growth of what is variously referred to as the ‘gig,’ ‘sharing’ or ‘collaborative’ economy, countries will need to take action to ensure the growth of bogus self-employment and its associated poorer quality working conditions do not further expand. Hopefully, this paper, in providing one of the

first ex-post evaluations of a legislative initiative to tackle bogus self-employment, will provide some food for thought about the way forward for governments.

Appendix A.

Table A1. Taxes paid to the Romanian Government when hiring an employee, by employer and employee (2014-2016)

Categories	TAXES DUE							
	2014 (Jan-Sept)		2014 (Oct-Dec)		2015		2016	
	by the:		by the:		by the:		by the:	
	[a]	[b]	[a]	[b]	[a]	[b]	[a]	[b]
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Social Security Contributions	20.8*	10.5	15.8*	10.5	15.8*	10.5	15.8*	10.5
Health Insurance Contributions	5.2	5.5	5.2	5.5	5.2	5.5	5.2	5.5
Medical leave insurance	0.85	-	0.85	-	0.85	-	0.85	-
Unemployment tax	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Accident risk insurance	0.15-0.85	-	0.15-0.85	-	0.15-0.85	-	0.15-0.85	-
Guarantee for insolvability of the employer	0.25	-	0.25	-	0.25	-	0.25	-
Income tax	-	16	-	16	-	16	-	16

Notes: * Standard working conditions; [a] Employer, [b] Employee.

Source: Romanian Fiscal Code, Romanian Fiscal Code amended by Law no. 571/2003, Government Decision no. 44/2004, Romanian Fiscal Code amended by Law no. 123/2014, Law on State Budget 2014 no. 356/2013, Government Decision no. 44/2004 updated 2014, 2015, Law no. 227/2015 regarding the Fiscal Code updated Oct 2016

Table A2. Taxes due by a self-employed in Romania (2014-2016)

Categories	2014	2015	2016
Income tax	**16% of:** a) net income, or b) income standards (applied to specific sectors; e.g. agriculture)*		
Social Security Contributions	▪ For self-employed companies having a minimum income of 804 RON (approx. 178 EUR)** ▪ **31.3%** of the income which the person wishes to be insured for ▪ It cannot be less than 35% of the medium gross salary of 2223 RON or higher than 5 times ▪ The minimum is 31.3% x 35% x 2223 (medium salary) = 243 RON (54 EUR)	amendments ▪ For self-employed companies having a minimum income of 845 RON (approx. 187 EUR)** ▪ The contribution decreased from 31.3% to **26.3%**	amendments ▪ The contribution of **26.3%** split in two fractions: ▪ 1. MANDATORY: **10.5%** of the net income (it cannot be less than 35% of the medium gross salary of 2681 RON or higher than 5 times of its value). The minimum is 938 RON per year (approx. 208 EUR) ▪ 2. OPTIONAL: for those seeking full insurance, the rest of **15.8%** (applied to the same base).
Health Insurance Contributions	▪ **5.5%** of net income***	▪ **5.5%** of net income***	▪ **5.5%** of net income***

Notes: * In very few cases income standards are chosen; ** Not mandatory for those having another job, retired people, and those having an income lower than the minimum wage; *** It cannot be lower than a minimum gross salary.

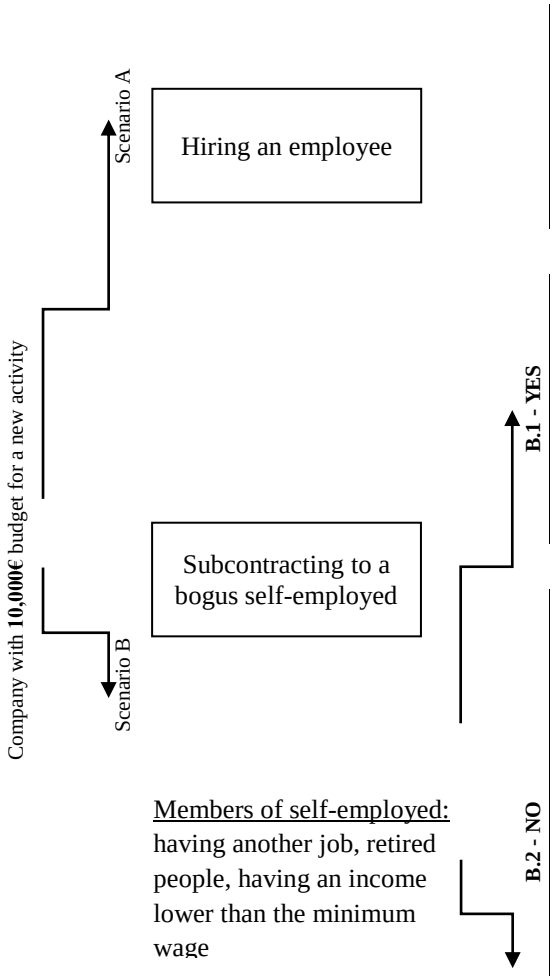
Source: Romanian Fiscal Code, Romanian Fiscal Code amended by Law no. 571/2003, Romanian Fiscal Code amended by Law no. 123/2014, Law no. 227/2015 regarding the Fiscal Code updated Oct 2016

Table A3. The Results of Model Specification Tests

	OLS - Dependent variable: Sole proprietors (monthly growth rate)
Breusch-Pagan / Cook-Weisberg test	p>0.0005/ Addressed by using robust standard errors/ White-Huber standard errors
Breusch-Godfrey LM test	p>0.1906
Skewness/Kurtosis tests	p>0.3307
mean VIF (Variance Inflation Factor)	1.86

Source: own calculations based on data from the Romanian National Trade Register Office and National Institute of Statistics

Figure A1. Hiring an employee vs. subcontracting to a bogus self-employed (2014-2016)



	2014 (€)	2015 (€)	2016 (€)
Taxes due by the employer	2,092	1,853	1,853
Taxes due by the employee	2,360	2,432	2,432
Net salary for the employee	**5,548**	**5,715**	**5,715**
Social Security Contributions	-	-	1,050
Health Insurance Contributions	131	144	550
Income tax	1,579	1,577	1,344
Net profit for the bogus self-employed	**8,290**	**8,279**	**7,056**
Social Security Contributions	600	592	1,050 [2,630]*
Health Insurance Contributions	517	517	550
Income tax	1,421	1,423	1,344 [1,091]*
Net profit for the bogus self-employed	**7,462**	**7,468**	
• B.2.a – with mandatory 10.5% social insurance (1/3 of full insurance)			**7,056**
• B.2.b – with full social insurance			**5,729**

Source: own calculations

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