



Employment and economy in Central and Eastern Europe
emecon.eu

How to define and measure informal employment in CEE countries - the case of Poland

Dagmara Nikulin

The study of informal employment is still associated with several obstacles, from the scope of definition, through measurement methods, to policy recommendations. This article aims to revise the existing methodological frames in order to point out how to improve the study of informal employment in CEE countries. The case of Poland serves to examine whether the common definitions and measurement methods are suitable for an inclusive measurement of the scale of informal employment in CEE countries, which are mostly former socialist countries. Firstly, we describe the current state of informal employment relations in CEE countries to indicate the similarities among them. Secondly we compare the existing research on informal employment in Poland with the common definitions of this phenomenon, and in this way look for more comprehensive measures of informal employment in Poland (and other CEE countries). Through a critical analysis of existing research on informal employment we indicate possible extensions of definition and the scope of measurement of informal employment in CEE countries.

Introduction

In order to understand the whole economy, it is necessary to investigate not only the recorded (official) economy, but also the hidden one (Dixon, 1999). Despite the fact that the vast majority of research is on the informal economy as a whole, rather than on informal employment, the latter plays a significant role in the economy, on both a macro and micro scale. The main difficulty in research is connected with the definition and measurement of informal activities. Since the 1970s many efforts have been made to develop more precise definitions of the informal sector and informal employment in order to improve statistical estimates (ILO, 2003). Importantly, the term "informal employment" goes under several names, such as: unrecorded employment, shadow employment, hidden employment, unofficial employment and undeclared work. In developed countries, "partial" forms of informality (e.g. "envelope wages") occur frequently and, hidden in such ways, is therefore hard to indicate and measure. Hence, applying for instance a definition that takes into account only the size of the company or the obligation to registration, we may miss a significant part of informal jobs in measuring the informal employment (Venn, 2008). In CEE countries, which may be described as developed, there has been both a significant diversification in the nature of informal employment and important changes since the transformation period. Moreover, the role of "sovietal" factors, which influences attitudes towards informal activities is underscored in the literature (Renooy, Ivarsson, van der Wusten-Gritsai, & Meijer, 2004). Similarly, in CEE countries "tax morality" may differ from that of Western economies (Colin C. Williams & Martínez, 2014). To judge by the literature on shadow economy and informal employment, it would seem important to conduct a critical analysis of the ways of defining and measuring this phenomenon in former socialist countries, as the prevalence of informal employment in that part of Europe is still significantly high.

This article aims to review the existing definitions of and measurement methods for informal work. We focus on the example of Poland in order to revise the existing approach to defining and measuring informal employment and to propose a more inclusive one. In first

part we describe labour relations in CEE countries with an emphasis on informal labour relations. In this way we establish the prevalence of similar informal phenomena in most CEE countries, which enables us to extend the analysis results to more countries from the region. Then we summarise the existing research on informal employment in Poland to indicate its weaknesses and at the same time allow us to propose improvements in the measurement of informal activities in Poland and other CEE countries. These include also partial forms of informal activities such as "envelope wage" work (as in the Eurobarometer Special survey), different forms of additional informal jobs, and the "false self-employed". In this way we introduce a more comprehensive measurement of the scope of informal employment in Poland (and other CEE countries).

1. Informal employment in CEE countries

Since the focus is on CEE countries which mostly are also post-transformation countries, in this section the main characteristics of informal employment in this part of Europe are provided. The review of existing literature shows that among multiple causes of informal work (e.g. poverty, high taxes and social-security payments), the role of the "sovietal" factor is underestimated (Renooy, Ivarsson, van der Wusten-Gritsai, & Meijer, 2004). It is argued that there are some typical attitudes in post-Soviet economies, such as a negative perception of the role of the state, lack of trust in public institutions, and a lack of understanding of the relation between paying taxes and social services, which influence the decision to take an informal job (Renooy et al., 2004). Wolf argues that employment relations in the new market economies of post-communism have a common, pervasive feature — informality, which results in a "low-trust" social environment (Woolfson, 2007). Also, the trade union density in former socialist countries is lower than it is in the West, and lower than the EU-average¹, which also results in more informal industrial relations. In small and medium-size enterprises typical of post-communist economies, the coverage of trade unions is limited, and there is a large space for unregulated forms of employment.

Previous studies on informal employment in CEE countries indicate that, though activity in the informal sector in CEE countries is not evenly spread (Colin C Williams & Horodnic, 2015), some types of informal activities are common to all. Table 1 presents cross-national variations in informal activities.

Table 1. Informal employment in CEE countries

Country	Engaged in informal economy (% dependent employees) in 2013	Percent of dependent employees getting "envelope wages" in 2013
All CEE countries (average)	4.22	6.36
Estonia	11	5
Latvia	11	11
Lithuania	8	6
Slovenia	7	4
Croatia	7	8
Slovakia	5	7
Bulgaria	5	6
Czech Republic	4	5

¹ According to the worker-participation.eu portal, the proportion of unionised employees in the years 2010-2012 amounted to 17% in Slovakia, 13% in Latvia, 12% in Hungary, 12% in Poland, 10% in Lithuania and Estonia, while the EU average was 23%. Source <http://www.worker-participation.eu/National-Industrial-Relations/Across-Europe/Trade-Unions2>, retrieved on 21 September 2016.

Country	Engaged in informal economy (% dependent employees) in 2013	Percent of dependent employees getting "envelope wages" in 2013
Hungary	4	6
Poland	3	5
Romania	3	7

Source: (Colin C Williams & Horodnic, 2015), (European Commission, 2014)

According to another source of shadow economy estimates provided by Sauka & Putniņš (SSE Riga Shadow Economy Index), it accounts for around 14.9% of GDP in Estonia, 15% of GDP in Lithuania, and 21.3% of GDP in Latvia in 2015 (Sauka & Putniņš, 2016). Moreover, an analysis of the components of the shadow economy in the Baltic countries indicates that "envelope wages" are very prevalent in Estonia (59% of the shadow economy), Lithuania (42.3% of the shadow economy) and Latvia (34.9% of the shadow economy). Williams and Horodnic assert on the basis of the Eurobarometer survey in CEE countries that employers' practice of paying an official salary and additional — undeclared — wage in order to avoid taxes and social security obligations is prominent in CEE countries (C.C. Williams & Horodnic, 2015). Also the literature suggests the prevalence of envelope wages, as reported for Estonia, Latvia and Lithuania in i.a. (Meriküll & Staehr, 2010), Latvia (Sedlenieks, 2003) and Lithuania (Woolfson, 2007). In consideration of the above, it seems reasonable to make an analysis for CEE countries in common, but to choose one of them as a representative example. Since the goal of our article is to propose the most inclusive measurement of the scale of informal employment, we argue that the methods used for the Polish economy could also be relevant to measures of informal employment in all CEE countries.

2. Research on informal employment in Poland

This section first presents the available data sources on informal employment in Poland, and secondly, a relevant literature review. An overview of available sources of data shows the current state of measurement methods, and a further step proposes a more inclusive measurement of the scale of this phenomenon. In general there are two cyclical sources of data on informal employment in Poland. The first is indirect estimates provided yearly by the Polish Central Statistical Office (CSO), while the second source is labour force surveys conducted every four years.

The CSO publishes yearly estimates of the number of workers in the shadow economy in the "Republic of Poland Statistical Yearbooks". These indirect estimates include only those workers for whom informal work is their main work, and are based on several sources such as work statistics in officially registered enterprises and public budgeted entities, statistics on registered unemployment (the number of unemployed registered in labour offices), the Labour Force Survey (LFS) (about all types of work including the informal sector) and the "Special Labour Force Survey" on informal work. According to estimates for 2014, the number of people employed in the "hidden economy" totalled 1.009 million² (CSO 2015, p. 241), which was 6.93% of total employment. However, these estimates are very general and indicate only the minimum number of informal workers, and should be interpreted with caution.

The second important and more detailed source of informal employment data is the cyclical survey on informal employment in Poland³ conducted also by the CSO. In it unregistered work is understood as employment without any formal employment relationship (i.e. no contract, order agreement, contract for a particular task/work or any other written agreement between the employer and employee) in all types of sectors and without social

² In 2005 — 1.035 million, in 2010 — 1.074 million, in 2013 — 1.078 million people.

³ Thus far the survey has been conducted in the years 1995, 1998, 2004, 2009, 2010 and 2014.

security contributions. Moreover, income taxes are not paid. The definition also includes self-employment if the income from the informal activity is not declared (CSO 2015b). Because of the great variety of informal activities, unregistered employment is divided into a main job and an additional job. In the newest wave of this survey (2014), unregistered work is 4.5% of total employment. An interesting study on unregistered work in Poland using the survey method was published by the independent "Institute of Labour and Social Affairs" and CASE, the "Centre for Social and Economic Research" in 2007.

Recognising the problem of informal employment, in 2007 the European Commission conducted a pilot survey, the "Special Eurobarometer No. 284", and in 2013 the "Special Eurobarometer No. 402", based on face-to-face interviews (5769 participants in 10 European countries in the 2007 wave, and 26563 interviews in the 27 European Union countries in the 2013 wave). The respondents were asked whether in the past 12 months they had (i) acquired any goods or services that stemmed from informal work, (ii) did any kind of informal work or (iii) received "envelope wages" as a part of their regular wage in a formal job (European Commission, 2014). The unreported work was described in this survey as "all remunerated activities which are in principle legal but circumvent declarations to tax authorities or social security institutions" (European Commission 2014, p.8). According to the Eurobarometer Survey 2007 (Colin C Williams, 2015), 11%⁴ of formal employees in Poland received "envelope wages" in the 12 months prior to the survey, whereas in 2013 this was 5% of dependent employees (European Commission, 2014). Moreover, the 2013 survey shows that 3% of employees, apart from regular employment, carried out additional paid but undeclared activities (European Commission 2014, p.T31). One undoubted advantage of the EU survey is that it draws attention to envelope wages and second or additional informal activities which are prevalent in Poland.

In the relevant literature the problem of informal employment in Poland has not been widely explored. The biggest limitation to a deeper analysis is data availability. Among the few empirical studies, Cichocki and Tyrowicz (Tyrowicz & Cichocki, 2011) examined the wage differential between the formally and informally employed using the authors' definition of unregistered employment as the condition of those who are registered as unemployed and, at the same time, take up work for pay. The same definition of informal work was used to evaluate the probability to work in shadow (Cichocki & Tyrowicz, 2011). Moreover, a survey study on a non-representative group of respondents was conducted (Pasternak-Malicka, 2013) in the years 2007–2013. The results of this survey show that the tendency to take up illegal work is high: Some 70% of people under 25 and 80% of respondents aged 26–35 choose to work informally in the absence of employment (Pasternak-Malicka, 2014).

In the literature greater attention is devoted to the informal economy as a whole than to informal employment in particular. Thus, there are several both theoretical (Bednarski, 2010; Cichocki, 2006; Drabek, 2012; Galor, 2011; Górka, 2011; Kubiczek, 2010; Łapiński, Peterlik, & Wyżnikiewicz, 2015; Mróz, 2002; Peterlik, 2014; Raczkowski, 2013; Schneider & Raczkowski, 2013) and empirical studies (Gardes & Starzec, 2009; Łapiński et al., 2015; Peterlik, 2014; Schneider & Buehn, 2012; Schneider & Enste, 2000; Schneider, 2011; Szulc, 2013) on the "shadow economy" in Poland. Because we deal here with methodological issues of informal employment and not with the whole informal economy, the above papers are not discussed.

3. Difficulties in defining and measuring informal employment in Poland

Focussing on the conceptual issues regarding informal employment, we first briefly review three approaches used by international institutions to construct an inclusive definition of informal employment in Poland, then discuss existing difficulties in defining informal

⁴ At the same time 49% (median) of gross income was received as envelope wages.

employment in Poland, and finally propose some improvements to the currently used definitions.

The meaning of "informal employment" is very broad. In order to conduct any research related to informal economy, despite the obvious obstacles it is necessary to set the theoretical boundaries of this phenomenon. Since an informal economy occurs in different forms in all economies irrespective of their level of development, many institutions try to deal with the issue in order to formulate appropriate policy measures. In this section we overview the existing definitions of informal employment used by the European Commission, International Labour Organization and OECD, and then test their utility by applying them to informal employment in Poland, and finally propose a more inclusive measurement approach.

The first of the definitions listed by the European Commission says that *undeclared work* means⁵: "any paid activities that are lawful as regards their nature but not declared to the public authorities, taking into account differences in the regulatory systems of Member States" (EU, 1998, p.2). The above approach excludes criminal activities and work that does not have to be declared. In turn, the International Labour Organization (ILO) strongly emphasises the difference between "employment in the informal sector" and "informal employment". These two concepts should be defined and measured in different ways since they concern different aspects of the informality of employment and require a different policy approach (Husmanns, 2004). "Informal employment" is a broader concept than "employment in the informal sector", and its definition, in contrast to the latter⁶, is based on a job approach that takes into account all types of jobs (secondary jobs as well) that are informal, both in the formal and the informal sector. In detail, the term "informal employment" comprises six types of jobs (Husmanns, 2004):

- own-account workers and employers in informal sector enterprises;
- contributing family workers, both in formal and informal sector enterprises;
- members of informal producers' cooperatives;
- employees holding informal jobs in formal sector enterprises or in informal sector enterprises, or employed by households;
- own-account workers who are engaged in the production of goods exclusively for final use by their household.

The OECD definition of considers informal employment to be employment in the production of legal goods or services, in which one of the legal requirements is not met. Thus the term "informal employment" covers (Venn, 2008):

- employees unregistered for mandatory social security;
- employees paid less than the minimum wage;
- employees without a written contract (if such is required);
- employees and self-employed who hide or understate their income;
- unregistered firms and their employees;
- "false self-employed" persons⁷.

Since the main goal of this article is to propose the most inclusive measure of the scale of informal employment in the national context, we evaluate below the existing definitional

⁵ Note that in documents of the European Commission the term *undeclared work* rather than *informal employment* is used.

⁶ In defining the term "employment in the informal sector" we use an "enterprise approach", while for the term "informal employment" a "job approach" is required. Unfortunately, despite the significant differences, the above notions are often used interchangeably, which creates confusion. The term "employment in the informal sector" means "all jobs in informal sector enterprises, or all persons who, during a given reference period, were employed in at least one informal sector enterprise, irrespective of their status in employment and whether it was their main or a secondary job" (Husmanns 2004, p. 3). As mentioned above, the definition of employment in the informal sector does not include all types of informal activities. Therefore a broader definition of informal activities has been introduced.

⁷ "False self-employment" is defined as activity that has the same characteristics as dependent employment but is declared [by the employer] as a purchase of services from a self-employed person (OECD, 2004).

frameworks while taking into account the nature of employment relations in Poland, and review the definitional approaches in order to indicate the most comprehensive measure of the extent of the analysed phenomenon. Each of the mentioned three definitions contributes to a better understanding of informal activities. Firstly, the approach of the European Commission is a general definition of informal activities. The main characteristics of informal employment are: an activity which is paid, lawful but not declared. Further, in the ILO definition, informality concerns not only informal sector enterprises but is also extremely widespread in registered entities. This leads to the conclusion however that the definition's boundaries of informal sector enterprises could be problematic, so that it is crucial to take into account informal workers outside the informal sector. Finally, the OECD definition includes most of the detailed types of informal activities, such as the underestimation of income, "false" self-employment, and workers without social security. Since indeed informal activities often have a partial nature and cover many different types of workers, from the marginally self-employed, own-account workers to well-off entrepreneurs who employ others, and from informal employees of informal or formal firms to contributing family workers (Jütting, Parlevliet, & Xenogiani, 2008), the boundaries set by the above definitions seem to help define informal employment in Poland and other CEE countries.

After analysing the existing sources and studies on informal employment in Poland mentioned in the previous section and comparing them with the common definitions summarised above, we propose some improvements in order to measure the scale of Polish informal employment more inclusively.

Among the available methods the most appropriate seems to be labour force surveys (Venn, 2008). Measures derived from household surveys bring forth a variety of details about people involved in informal activities⁸. Moreover, questionnaire surveys and national accounting procedures provide reliable characteristics of informal employment (OECD, 2004). On the other hand, with direct methods the analysed phenomenon tends to be underestimated.

As described previously, there are two main data sources on Polish informal employment: the CSO's yearly indirect estimates, and cyclical labour force surveys. Additionally, the 2013 Eurobarometer survey gives information on informal activities in European countries. Importantly, each of these estimates sets only the lower borderline level of the phenomenon. The reason for this seems complex: In the yearly CSO estimates of work in the shadow economy in Poland, based partly on indirect methods, only the main job is taken into account. Such a limitation obviously causes an underestimation of the scale of informal employment, since many workers hold a second informal job or receive envelope wages in a formal job⁹. A significant challenge in case of Poland and other CEE countries is to measure underdeclared income and additional partial forms of informal work. This concerns workers whose main activities are declared but the actual hours of work are concealed, or who carry out additional informal activities. The same issue occurs when only the earnings are concealed, while the employment is registered (OECD 2004; Venn 2008). A better practice, as in the Eurobarometer survey, is to pose additional questions about "enveloped" wages or cash-in-hand payments¹⁰ (European Commission, 2014).

The direct source of informal employment data in Poland delivered by the CSO (the cyclical Survey on Informal Employment from 1995, 1998, 2004, 2009, 2010 and 2014) estimates for 2014 a level of informal work at 4.5% of total employment (CSO, 2015b). However, since first of all the definition used by the CSO assumes that informality means working without any type of contract, or self-employment that conceals the income from the

⁸ Some researchers (e.g. Venn 2008) argue that, from the policy-makers' viewpoint, more important than the extent of informal employment is clarification of the nature of this phenomenon.

⁹ For 44.3% of the total number of illegally employed, the unregistered employment is an additional job (CSO 2015b, p. 36).

¹⁰ In the Eurobarometer survey the biggest weakness is the limited sample, which amounted to 1000 respondents in each country.

authorities, measuring informal employment only this way omits a significant part of it, as other forms of partial informal activities are left out. Therefore a definition based only on the obligation to have a contract seems insufficient to the task. An important source of envelope wages and the associated black hours is omitted. In the Special Eurobarometer survey, envelope wages represent a significant proportion of informal work in the labour market in CEE countries¹¹. For estimating the prevalence of informal employment in countries like Poland therefore, determining the level of additional informal wages — i.e. envelope wages — paid in the country is crucial.

Another difficulty in defining informal employment is associated with the self-employed, who also constitute a part of informal employment in the OECD definition. Some studies indicate a correlation between self-employment prevalence and other measures of informal production¹² (Loayza & Rigolini, 2006), and thus their authors propose the self-employment level as a proxy for informal employment, for its measurement simplicity and data availability. On the other hand the heterogeneous group of self-employed persons seems to be rather problematic, since only some of them can be classified as “false self-employed”. The “false self-employed” are persons who work for just one client, who in this way reduces labour costs. In general, the working conditions of the “false self-employed” are worse than those of regular employees doing similar work (OECD, 2000). The survey-based research of Poland's CSO reveals that most self-employed would prefer to work under regular conditions (GUS, 2016). Therefore, it seems it would be useful to include this part of the labour force in overall surveys on informal employment. To overcome the difficulty connected with the categories of the informally and formally self-employed, the survey question might be asked whether a person works primarily for one customer, and/or in a workplace other than their own office. Moreover, in the case of newly self-employed, it would be important to ask whether in their previous job he or she did the same work as a regular employee (Venn, 2008).

The problem of “false” self-employment, i.e. non-standard¹³ forms of employment, is only the tip of the informal employment iceberg. Experts from WIEGO (“Women in Informal Employment: Globalizing and Organizing”) argue that in developed countries “non-standard” or “atypical” forms of employment are becoming more and more common. In general the concepts “non-standard” and “informal” employment are not the same. However, non-standard forms of employment are often associated with a lower level of social and regulatory protection, resulting in their being, in fact, “informal” (Carré & Heintz, 2013). Therefore these authors suggest another set of parameters to describe informality. They propose access to basic health care, pensions, paid leave, maternity/paternity benefits, or legal protection[s] as the determiners of informality (Carré & Heintz, 2013). However, since the main objective of this paper is to find the most comprehensive measure possible of the scale of informal employment in CEE countries, we do not include other forms of non-standard employment. Despite the importance of the new forms of employment¹⁴, the focus here cannot be on the

¹¹ Please compare this with the results of Special Eurobarometer survey presented in section 2.

¹² The correlation coefficient is 0.75 for non-Eastern European countries. Countries of Eastern Europe have been dropped, as self-employment in these countries has remained substantially lower than in non-Eastern European countries. This gap results from the socialist past, when most people were employed only in state enterprises (Loayza & Rigolini, 2006).

¹³ The term “non-standard employment” is also described as “atypical”, “contingent” or also “precarious” employment.

¹⁴ According to recent estimates by the Central Statistical Office (GUS, 2016), 6.9% of total employment is constituted by employment relationships in other than typical forms. The non-standard forms of employment include order agreements, contracts for a particular task/work, self-employment and other civil contracts. The survey reveals that for most atypical workers, non-standard work arrangements are a compulsion rather than a choice. Moreover, for two-thirds of them, non-standard employment is the main job. In terms of the degree of economic risk, atypical forms of employment are frequently associated with a lower level (or even total lack) of social and health insurance.

risky aspects of unprotected jobs. However, the inclusion of jobs without social security as informal would be reasonable in further analyses of the social consequences of informal activities.

Beyond the proposed changes to the definition and measurement of informal employment, a further improvement in data collection is needed. The poor state of informal labour market statistics hinders a thorough analysis and therefore, appropriate policy decisions. Primarily, the regular updating and monitoring of an informal employment database is lacking (Jütting et al., 2008).

Conclusion

This article aims to provide a review of existing definitions of and methods for measuring informal work. The example of Poland serves to revise the different approaches to defining and measuring informal employment in a country and to propose more inclusive ones. Moreover, in our analysis of existing research on informal employment in CEE countries, we argue that it is reasonable to make a common analysis of CEE countries by choosing one of them as a typical case. In this way, the conclusions for the Polish economy may be expanded to the other countries of Central and Eastern Europe.

The definitions proposed by the European Commission, the International Labour Organization and the OECD suggest definitional frames for the Polish context. Previous research on informal employment in Poland point to the main weaknesses of the methods used, and this suggests improvements in the scope of the definition in relation to the construction of an improved survey.

Firstly, there is a need to expand the scope of the definition of the partial forms of informality. In the CEE countries informality has also a partial nature, rather than a pure one, so that one significant challenge is to measure underdeclared income and the [types of] additional informal work. The measures of informal employment by Poland's Central Statistical Office do not address the issue of underdeclared income, for instance in the form of "envelope wages", yet at the same time another study by the European Commission shows that envelope wage workers are prevalent in European countries. On this issue good practice is demonstrated by the Eurobarometer survey with its questions about envelope wages or cash-in-hand payments (European Commission, 2014). Thus there is a definite need to take also these elements of informal activities into account.

Secondly, the definition used to measure informal employment in the Labour Force Survey in Poland omits the important issue of the "false self-employed". Since "false" self-employed are people who work for just one company and in this way the firms can reduce labour costs, this part of the labour force should be included in surveys on informal employment. However, since the group of self-employed is heterogeneous, the demarcation between "real" and "false" self-employment can be problematic. To overcome this difficulty it should be asked whether a person works primarily for one customer and/or in a workplace other than their own office. Moreover, in the case of the newly self-employed, it would be important to ask whether, in their previous job, he or she did the (same) work as a regular employee (Venn, 2008). Such an extension would improve the identification of the informal group of the self-employed.

To answer the title question – how to define and measure informal employment in CEE countries – we draw [particular] attention to the partial forms of informal activities. Underdeclared incomes, second or additional informal jobs, and false self-employment are typical forms of tax evasion in CEE countries. Therefore measurement methods that consider only whether the main job is formal or not result in a significant underestimation of the phenomenon in question. To take a more comprehensive measurement of the scale of informal employment in CEE countries, we propose plausible improvements. Above all, additional questions in survey questionnaires will help better capture the real extent of informal work activities.

Bibliography

- Bednarski, M. (2010). Wykluczenie społeczne a szara strefa w gospodarce. *Polityka Społeczna*, (9), 24–29.
- Carré, F., & Heintz, J. (2013). Toward a Common Framework for Informal Employment across Developed and Developing Countries. *WIEGO Working Paper*, 26.
- Cichocki, S. (2006). Metody pomiaru szarej strefy. *Gospodarka Narodowa*, 1-2.
- Cichocki, S., & Tyrowicz, J. (2011). Determinanty zatrudnienia nierejestrowanego w Polsce w okresach wysokiej i niskiej koniunktury gospodarczej. *Gospodarka Narodowa*, 3(235).
- CSO. (2015a). *Statistical Yearbook of the Republic of Poland*. Warsaw.
- CSO. (2015b). *Unregistered Employment in Poland in 2014*. Central Statistical Office, Demographic and Labour Market Surveys Department.
- Dixon, H. (1999). Controversy: on the use of the “hidden economy” estimates. *Economic Journal*, 109(456), F335–F337. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=3323565&site=eds-live>
- Drabek, A. (2012). *Nielegalne zatrudnienie w prawie polskim*. Wolters Kluwer Polska.
- EU. (1998). *Communication from the commission on undeclared work*.
- European Commission. (2014). *Undeclared work in the European Union*. Special Eurobarometer 402.
- Galor, Z. (2011). Gospodarka formalna i nieformalna a zróżnicowanie społeczne. In L. K & J. Truskowska (Eds.), *Uwarunkowania różnic społeczno-ekonomicznych* (pp. 87–106). Wyd. PWSiIP.
- Gardes, F., & Starzec, C. (2009). Polish Households’ Behavior in the Regular and Informal Economies. *Revue économique*, 60(5), 1181. <http://doi.org/10.3917/reco.605.1181>
- Górka, K. (2011). Kierunki zmian gospodarki nieformalnej w Polsce. *Zeszyty Naukowe Uniwersytetu Ekonomicznego W Krakowie*, (860).
- GUS. (2016). *Pracujący w nietypowych formach zatrudnienia*. Notatka informacyjna.
- Husmanns, R. (2004). *Measuring the informal economy: From employment in the informal sector to informal employment*. Working Paper ILO.
- ILO. (2003). Measurement of the Informal Economy: Addressing Statistical Challenges, 1–20.
- Jütting, J., Parlevliet, J., & Xenogiani, T. (2008). Informal Employment Re-loaded. *OECD Development Centre Working Paper No. 266*.
- Kubiczek, A. (2010). Gospodarka nieformalna jako wyraz zawodności państwa. *Ekonomia I Prawo*, VI.
- Loayza, N., & Rigolini, J. (2006). Informality trends and cycles. *Policy Research Working Paper*, 37 p. <http://doi.org/10.1596/1813-9450-4078>
- Łapiński, K., Peterlik, M., & Wyżnikiewicz, B. (2015). Szara strefa w polskiej gospodarce w 2015 roku.
- Meriküll, J., & Staehr, K. (2010). Unreported Employment and Envelope Wages in Mid-Transition: Comparing Developments and Causes in the Baltic Countries. *Comparative Economic Studies*, 52(4), 637–670. <http://doi.org/10.1057/ces.2010.17>
- Mróz, B. (2002). *Gospodarka nieoficjalna w systemie ekonomicznym*. Warszawa: Oficyna Wydawnicza SGH.
- OECD. (2000). *OECD Employment Outlook 2000*. Employment Outlook.
- OECD. (2004). Informal Employment and Promoting the Transition to a Salaried Economy. In *Employment Outlook* (pp. 225–289).
- Pasternak-Malicka, M. (2013). Zatrudnienie nierejestrowane w kontekście problematyki bezrobocia w Polsce. *Studia BAS*, 4(36), 27–56.
- Pasternak-Malicka, M. (2014). Aktywność zawodowa młodych osób na rynku pracy i ich skłonność do podejmowania nieformalnego zatrudnienia. *Economics and Management*, 3,

- 127–143. <http://doi.org/10.12846/j.em.2014.03.09>
- Peterlik, M. (2014). Szara strefa w polskiej gospodarce.
- Raczkowski, K. (2013). Gospodarka nieoficjalna w systemie zarządzania państwem. *Przedsiębiorczość I Zarządzanie*, XIV(8), 347–363.
- Renooy, P., Ivarsson, S., van der Wusten-Gritsai, O., & Meijer, E. (2004). Employment & European Social Fund UNDECLARED WORK IN, 1–242.
- Sauka, A., & Putniņš, T. (2016). *Shadow Economy Index for the Baltic Countries 2009-2015*. Riga: Stockholm School of Economics. <http://doi.org/10.1017/CBO9781107415324.004>
- Schneider, F. (2011). The Shadow Economy and Shadow Economy Labor Force : What Do We (Not) Know ? *IZA DP No. 6423*.
- Schneider, F., & Buehn, A. (2012). Shadow Economies in highly developed OECD countries : What are the driving forces? *IZA DP*, 6891, 1–32.
- Schneider, F., & Enste, D. H. (2000). Shadow Economies : Size , Causes , and Consequences. *Journal of Economic Literature*, XXXVIII(March), 77–114.
- Schneider, F., & Raczkowski, K. (2013). Sfera nieoficjalna w gospodarce. *BAS Zagadnienia Społeczno-Gospodarcze*, 21(21), 25–28.
- Sedlenieks, K. (2003). Cash in an Envelope: Corruption and Tax Avoidance as an Economic Strategy in Contemporary Riga. In I. A. K.-O. and B. T (Ed.), *Everyday Economy in Russia, Poland and Latvia* (pp. 37–52). Stockholm.
- Szulc, A. (2013). *Przyczyny i skutki zatrudnienia nierejestrowanego w Polsce*. CeDeWu.pl.
- Tyrowicz, J., & Cichocki, S. (2011). Employed unemployed? On shadow employment in transition. *Empirica*, 38(2), 259–281. <http://doi.org/10.1007/s10663-010-9135-2>
- Venn, D. (2008). *Measuring Informal Employment in OECD Countries*. WIEGO.
- Williams, C. C. (2015). Evaluating cross-national variations in envelope wage payments in East-Central Europe. *Economic and Industrial Democracy*, 36(2), 283–303. <http://doi.org/10.1177/0143831X13505120>
- Williams, C. C., & Horodnic, I. (2015). Marginalisation and participation in the informal economy in Central and Eastern European nations. *Post-Communist Economies*, 27(2). <http://doi.org/10.1080/14631377.2015.1026686>
- Williams, C. C., & Horodnic, I. A. (2015). 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. <http://doi.org/10.1177/0143831X14568835>
- Williams, C. C., & Martínez, Á. (2014). Explaining cross-national variations in tax morality in the European Union: An exploratory analysis. *Studies of Transition States and Societies*, 6(1), 5–18.
- Woolfson, C. (2007). Pushing the envelope: the `informalization' of labour in post-communist new EU member states. *Work, Employment & Society*, 21(3), 551–564. <http://doi.org/10.1177/0950017007080016>