



GDAŃSK UNIVERSITY OF TECHNOLOGY

FACULTY OF MANAGEMENT AND ECONOMICS

HOW TO DEFINE AND MEASURE INFORMAL EMPLOYMENT IN DEVELOPED COUNTRIES? A CASE OF POLAND.

Dagmara Nikulin*

GUT Faculty of Management and Economics

Working Paper Series A (Economics, Management, Statistics)

No 5/2016 (35)

June 2016

* Gdansk University of Technology, Faculty of Management and Economics,

dnikulin@zie.pg.gda.pl



How to define and measure informal employment in developed countries? A case of Poland.

Dagmara Nikulin¹

Abstract

The main aim of this article is to point out the possible measures of how to improve the study of informal employment in developed countries. We choose the case of Poland to examine whether the existing definitions and measurement methods are suitable for indicating the prevalence of informal employment. Firstly, we present the most popular definitions of informal employment, secondly we show the existing research on informal employment in Poland, and thirdly we assess the previous estimations of informal employment in Poland with regard to the definition's scope. Finally, we propose some improvements that would help in studying this phenomenon in Poland. Through a critical analysis of existing research on informal employment we contribute to the existing literature in two ways: (i) by constructing the definitional frames of informal employment in Poland; and (ii) by pointing out the possible extensions of surveys devoted to informal employment in developed countries.

JEL: E26 J46 O17

Keywords: informal employment, Poland, undeclared work, shadow economy

¹ Gdańsk University of Technology, Faculty of Management and Economics, Narutowicza 11/12, 80-233 Gdańsk, dnikulin@zie.pg.gda.pl

Introduction

In order to understand the whole economy, it is necessary to investigate its two aspects: the recorded (official) one and the hidden economy (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 estimations (ILO, 2003). It is necessary to underline that the term “informal employment” includes several descriptions, such as: unrecorded employment, shadow employment, hidden employment, unofficial employment and undeclared work. The existing literature focuses on the differences between definitions of informal employment in the developed and developing countries. It is clear that in the case of developing countries the structure and nature of informal employment are different to those in developed ones. In developed countries, “partial” forms of informality (e.g. enveloped wages) occur more frequently, while in developing countries purely informal jobs are more significant². Moreover, in developing or less developed countries statistical

² In developing countries often the majority of workers are engaged in the informal sector, which means that the instruments of labour market policy, such as employment regulation and social security, do not exist (OECD, 2004).

estimates may include purely informal work, which is unregistered but also not hidden, due to no effective requirement to be declared (OECD, 2004). The opposite situation is typical for developed countries: the informal employment is always hidden, therefore hard to indicate and measure. That's why both the definition and measuring methods must be different in the case of developing and developed countries. Therefore, if we, for instance, apply a definition that only takes into account the size of the company or the obligation to register (which is sufficient in the case of developing countries), we can omit a significant proportion of informal jobs while measuring the informal employment in developed countries (Venn, 2008). However, the distinction between developed and developing countries seems to be too general. Taking into account CEE countries, which in general may be described as developed, we observe both a significant diversification in the nature of informal employment and important changes since the transformation period. Therefore, we use the case of only one country, Poland, to underline the importance of the national context, such as the nature of labour relations, while constructing the methodological frameworks of informal employment.

This article aims to provide a review of existing definitions and methods of measurement of informal work in developed countries in order to assess their utility in the context of the Polish economy. Moreover, we aim to stimulate further discussion on the definition and measurement of informal employment in developed economies.

We compare the definitions proposed by the European Commission, International Labour Organization and OECD with the measuring methods and definitions used by studying informal employment in Poland. We focus on direct methods, in particular on survey methods as the most appropriate in such research. Our main findings are related to some improvements in the definition scope and construction of these surveys. In general, we propose including envelope wage workers (which is used in the Eurobarometer Special Survey) and non-standard workers without social coverage in the informal workforce. We underline that the definition of informal employment used in Polish informal employment surveys is not sufficient.

The structure of the article is as follows: in the first section we present some common definitions of informal employment. Then, in the second section we discuss recent research on informal employment in Poland. In the third section we point out the difficulties in defining and measuring informal employment in Poland. Moreover, we present some suggestions on how to improve the measurement of informal activities. The last section concludes the article.

1. Definitions of informal employment

The meaning of the notion “informal employment” is very wide. 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 tackle this issue in order to explore their nature and to formulate appropriate policy measures. In this section we provide an overview of the existing definitions of informal employment proposed by the European Commission, International Labour Organization and OECD in order to test their utility by exploring the informal employment in Poland.

The first of the listed definitions, proposed by the European Commission, assumes that undeclared work means³: “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 assumes that criminal activities and work that does not have to be declared are excluded. Since this definition is quite wide-ranging, it can lead to confusion over the measurement. Moreover, because of legal differences in the regulatory systems in each country, it results in difficulties in making international comparisons. In particular, this definition does not address the problem of social security, which should also be one of the indicators of informality, or underestimations of income in the form of tax evasion or envelope wages. On the other hand, since the capacity of the proposed definition is very large, it could be interpreted in different ways. It may thus be a kind of basic definition, which should be developed and expanded according to specific national circumstances.

³ Note that in documents prepared by the European Commission the term *undeclared work* rather than *informal employment* is used.

In turn, in the publications provided by the International Labour Organization (ILO), the difference between employment in the informal sector and informal employment is strongly emphasized. Each of these two concepts should be defined and measured in a different way since they concern different aspects of the informality of employment and require a different policy approach (Husmanns, 2004). At the same time, it should be noted that informal employment is a broader concept than employment in the informal sector. In defining the term “employment in the informal sector” we use an enterprise approach, while in the case of 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 enterprise⁴, 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 activities⁵. Therefore a broader definition of informal

⁴ Informal sector enterprises are described as “private unincorporated enterprises (...) i.e. enterprises owned by individuals or households that are not constituted as separate legal entities independently of their owners, and for which no complete accounts are available that would permit a financial separation of the production activities of the enterprise from the other activities of its owner(s)” (Husmanns 2004, p. 3). A detailed description of this term can be found in Husmanns (2004).

⁵ Please note that in an *enterprise approach* the attention is devoted to the main job, while often employees engaged in the formal sector have a second informal job.

activities has been introduced. The definition of “informal employment”, in contrast to the term “employment in the informal sector”, is based on a job approach and thereby takes into account all types of jobs that are informal, both in the formal and the informal sector (secondary jobs as well). In detail, the term “informal employment” includes six types of jobs (Hussmanns, 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 o final use by their household.

Comparing the enterprise and job approach in defining informal employment, a significant difference is observed. Moreover, in the case of the enterprise approach the extent of informal activities is substantially narrowed, which does not reflect the real economic circumstances. Therefore, it is recommended to use a job approach instead of an enterprise approach to investigate the phenomenon in a more complex way. Furthermore, the conceptual framework of informal employment proposed by the International Labour Organization may vary among countries. Thus, it is advised to take into account the national circumstances and priorities when defining

the term “informal employment” (Hussmanns, 2004). It is important to note that the proposed definition emphasizes the fact that informality concerns not only informal sector enterprises but is also extremely widespread in registered entities. However, the demarcation of the definition’s boundaries of informal sector enterprises could be problematic, especially in cross-country comparisons. Moreover, the proposed definition of informal employment lacks the issue of underestimations of income, which is dominant in developed countries.

The definition of informal employment proposed by the Organization for Economic Co-operation and Development (OECD) concerns only the OECD member countries and hence cannot be used in the case of developing countries. The OECD definition of informal employment considers it as employment related to the production of legal goods or services, if 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 it is required),
- employees and self-employed who hide or understate their income,
- unregistered firms and their employees,
- “false self-employed”⁶.

⁶ False self-employed is defined as activity that has the same characteristics as dependent employment but is declared as a purchase of services from a self-employed person (OECD, 2004).

The above definition builds a framework for measuring and analysing informal employment mostly in developed countries. The variety of definitions confirms that the description of the phenomenon of informal employment is very complicated. Admittedly, the definition of informal employment is imprecise (OECD, 2004). There are many doubts over whether some activity is informal or not. For example, the case of declared employment with concealed hours worked is very problematic both from the definition and the measurement perspective. The proposed definition seems to be most appropriate and useful in measuring informal employment, especially in developed countries. In contrast to ILO definitional frameworks the definition proposed by the OECD includes the issue of underestimation of income, “false” self-employed and the obligation of social security. With regard to the various forms of informality in developed countries, this definition meets the challenges of its prevalence.

In summing up the definitional framework of informal employment, the following conclusions can be drawn. First of all, it is important to note that informal employment is a broader problem. Thus, the initial approach to defining informal work in terms of unit production does not cover the whole phenomenon. Therefore, taking into account informal workers outside the informal sector enables a broader understanding of the informal employment issue. It should be remembered that in developed countries the informal employment has often only been of a partial nature, which enforces the use of a broader

definition. Otherwise, the estimates of informal employment tend to be understated.

Moreover, it should be noticed that whichever definition is chosen, the term “informal employment” covers many different types of workers, from marginal 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). And that’s why the analysis related to informal employment seems to be extremely complex and demanding.

2. Research on informal employment in Poland

Having a basic knowledge on existing definitions of informal employment, we then take a closer look at studies on informal employment in Poland. We decided to focus on the analysis of the definitional side of informal employment in only one country, rather than in a region (such as CEE), due to the significant diversity of this phenomenon across European countries. Research on 11 central and eastern European countries conducted by Williams (Williams & Horodnic, 2015) shows that participation in the informal economy in the year 2013 differed from 3% in Romania and Poland to 11% in Estonia and Latvia. Moreover, the authors indicate no significant correlation between the level of participation in informal economy and the level of GDP, which means that poorer CEE countries do not show higher levels of informal work. In turn, the study base for the 2007 Special Eurobarometer Survey showed that the variations in the

prevalence of informal employment were even higher: the share of informal employment in all reported employment varied from 7- to 8 % in the Czech Republic and Slovenia to 35.7% in Romania (Williams, 2015b). Moreover, research on envelope wages in CEE countries also showed high variations in the prevalence of envelope wage workers. That's why we aim to analyse first the case of Poland to explore the national circumstances and to provide a proper definitional and measuring frames.

First of all we briefly summarize the main sources of data on informal employment in Poland. As the first source, the Central Statistical Office publishes yearly the estimates of workers in the shadow economy in Statistical Yearbooks of the Republic of Poland. These estimates comprise only those workers for whom informal work is their main work. These statistics are based on several sources, i.e. studies of work in officially registered enterprises and public budget entities, studies of registered unemployment (number of people registered as unemployed in labour offices), the Labour Force Survey (LFS) (the results of this study provide information about all types of work, including those in the informal sector) and the Special Labour Force Survey on informal work. According to the estimations from the year 2014, the number of people employed in the "hidden economy" totalled 1009 thousand⁷ (CSO 2015, p. 241), which is 6.93% of total employment. However, it should be underlined that these estimations are very general and indicate only the lower boundary of working

⁷ In 2005 — 101035 thous., in 2010 — 1074 thous., in 2013 — 1078 thous. people.

informally. Therefore, these numbers should be interpreted with caution.

The second important and more detailed source of informal employment data is the cyclical survey on informal employment in Poland⁸ conducted by the Central Statistical Office (CSO). Unregistered work is herein understood as employment without any employment relationship⁹ (contract, order agreement, contract for particular task/work or any other written agreement between the employer and employee) in all types of sectors and without social security. Moreover, the duration of unregistered work is not counted as a contribution from the viewpoint of the Social Insurance Institution, the employer does not contribute to the Social Insurance Institution or the Labour Fund and income taxes are not deducted. The definition also includes self-employment if the performed economic activity does not meet financial obligations (e.g. taxes) (CSO 2015b). Due to the variety of informal activities, unregistered employment was divided into main job and additional job. Following the newest wave of this survey (2014), unregistered work amounted to 4.5% of total employment.

Recognizing the problem of informal employment, in 2007 the European Commission conducted a pilot survey Special Eurobarometer No. 284, and in 2013 Special Eurobarometer No. 402,

⁸ So far, the survey has been conducted in the years 1995, 1998, 2004, 2009, 2010 and 2014.

⁹ The work cannot be also performed on the basis of call, appointment, or election.

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) conducted any informal activities, 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 (Williams, 2015a), 11%¹⁰ of formal employees in Poland had 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 undeclared activities (European Commission 2014, p. T31). One undoubted advantage of the EU survey is drawing attention to such issues as envelope wages and second or additional informal activities, which are prevalent in Poland.

On reviewing the relevant literature it can be seen that the problem of informal employment in Poland has not been widely explored. The biggest limitation of deeper analysis is the data

¹⁰ At the same time 49% (median) of gross income was received as envelope wages.

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 those who are registered as unemployed and at the same time work. They used the same definition of working informally by evaluating the propensity to do work informally (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 the survey show that the propensity to take up illegal work is high. Some 70% of people under 25 years of age and 80% of respondents aged 26–35 years choose to work informally in the absence of employment (Pasternak-Malicka, 2014).

Theoretical studies that try to describe the nature of informal employment in Poland are more widespread. Bednarski (Bednarski, 2013) argues that the informal economy in Poland is diversified and therefore policy measurements must be selective and clearly addressed to the different groups of participants in the shadow economy. Moreover, it is crucial to distinguish between those who work informally by choice and those who have no other option. Another, comprehensive study on the nature of informality is comprised by the publications of the Central Statistical Office (CSO), which are issued cyclically with the survey on unregistered work. So far four publications have been made available (CSO 2005; CSO 2011a; CSO 2011b; CSO 2015b). An interesting study on unregistered work in

Poland was published by the Institute of Labour and Social Affairs and CASE – the Centre for Social and Economic Research. These two independent institutions conducted, in 2007, a research on undeclared work in Poland, using the survey method.

In addition, it is important to mention that 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 of the fact that our article is devoted to methodological issues regarding informal employment and not the whole informal economy, the above papers are not discussed here.

3. Difficulties in defining and measuring informal employment in Poland

In this section we evaluate the existing definitional frameworks with regard to the nature of employment in Poland. We also focus on the measuring methods used and ways of improving them.

Estimates of the size of the shadow economy are mostly based on proxy variables, such as currency demand and electricity consumption. In the case of measurement of the prevalence of

informal employment such estimates are of little use. Therefore among the available methods for measuring informal employment the most appropriate seems to be the use of labour force surveys (Venn, 2008). Measures derived from household surveys bring a variety of detailed information about people involved in informal activities¹¹. Moreover, questionnaire surveys and national accounting procedures provide reliable characteristics of the phenomenon of informal employment (OECD, 2004).

However, aggregate methods are still popular, and these enable international comparisons. The lack of household data, mostly in developed countries, leads to the use of proxy measures. For instance, some of the research conducted by the OECD on informal employment has been based on registration for/contribution to mandatory social security or having a written contract. Both approaches show some weaknesses. Assuming that the vast majority of employees in developed countries are registered for social security or that only in central and eastern European countries is the written contract a legal requirement, the above methods may provide unrealistic estimates of informal employment (Venn, 2008).

Another indirect measure, called the “residual method”, assumes that informal employment means the difference between the entire active population and the number of formal jobs. Moreover,

¹¹ Some researchers (e.g. Venn 2008) argue that from the policymakers’ viewpoint, more important than the extent of informal employment is clarification of the nature of this phenomenon.

some researchers use the working poor as a proxy for informal employment (Jütting et al., 2008).

Analysing the existing sources and studies on informal employment in Poland mentioned in the previous section, we notice several important lacks and weaknesses in previous research. In general, it is important to note that all estimates, both direct and indirect, set only the lower border of the analysed phenomenon. Moreover, in the case of yearly estimates of working in the shadow economy made by the Central Statistical Office (CSO) in Poland, which are based partially on indirect methods, only the main job is taken into account. Such limitations additionally cause underestimations of the scale of informal employment, since many workers hold a second informal job, or receive envelope wages in a formal job¹².

Therefore we are convinced that the direct methods (survey), despite their weaknesses, are a more appropriate measure of informal employment. Comparing the definitions proposed by the European Commission, International Labour Organization and OECD with the labour relations observed in Poland, they seem to be too general. They are based overall on the assumption that “informal” means “not declared to the relevant authority”. But it is important to note that in the developed countries the informality has a partial nature, rather than a pure one. One significant challenge is therefore to measure the

¹² For 44.3% of the total number of illegally employed the unregistered employment constitutes the additional job (CSO 2015b, p. 36).

under-declared income and the additional informal work. This problem concerns workers whose main activities are declared, but the hours of work are concealed or they conduct additional informal activities. The same issue occurs when only the earnings are concealed, while the employment is registered (OECD 2004; Venn 2008). In this field, good practice is shown, for example, by the European Commission, by conducting the Eurobarometer survey with questions about enveloped wages or cash-in-hand payments (European Commission, 2014).

Another difficulty that occurs when defining informal employment is associated with the self-employed, who also constitute a part of informal employment, which is underlined in the definition proposed by the OECD. It is important to mention that some studies indicate a correlation between self-employment prevalence and other measures of informal production¹³ (Loayza & Rigolini, 2006). Thus, the authors have proposed to the use of the self-employed share as a proxy for informal employment, due to its measurement simplicity and data availability. On the other hand, the heterogeneous group of self-employed seems to be rather problematic, while only some of them can be classified as “false” self-employed. “False” self-employed refers to people who work for just one company and the way in which

¹³ The correlation coefficient is 0.75 for non-eastern European countries. Countries from 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 employment was related only to state enterprises (Loayza & Rigolini, 2006).

the firms reduce total taxes. In general, the working conditions of “false” self-employed are worse than other employees doing similar work (OECD, 2000). The survey-based research conducted by the Central Statistical Office in Poland revealed that most self-employed want to work under other conditions (GUS, 2016). Therefore, it seems to be necessary to consider this part of the labour force in surveys on informal employment. To overcome the difficulty connected with informal and formal self-employed, it is proposed to ask whether a person primarily works for one customer and/or in a workplace other than their own office. Moreover, in the case of newly self-employed, it is important to ask whether in their previous work he or she did the same work as an employee (Venn, 2008).

The problem of “false” self-employment is only the tip of the iceberg, which is the phenomenon of non-standard¹⁴ forms of employment. 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 conceptions of “non-standard” and “informal” employment are not the same. However, the non-standard forms of employment are often associated with a lower level of social and regulatory protection, resulting in being, in fact, “informal” (Carré & Heintz, 2013). Therefore, the authors suggest another set of markers in order to describe informality.

¹⁴ The term “non-standard employment” is also described as atypical employment, contingent employment and precarious employment.

They propose the use of access to basic health care, pensions, paid leave, maternity/paternity benefits or legal protection as the determinants of informality (Carré & Heintz, 2013). This approach sheds new light on the perception of informal employment.

In reference to the Polish labour market, in recent years new forms of employment have started to spread rapidly. According to the recent estimations made by the Central Statistical Office (GUS, 2016), 6.9% of total employment constitutes workers who have other than typical forms of employment relationships. The non-standard forms of employment include order agreements, contracts for a particular task/work, self-employment and other civic contracts. The survey reveals that in the case of 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. It is important to note that in terms of the degree of economic risk, atypical forms of employment are frequently associated with a lower level (or even lack) of social and health security. To some extent, jobs without social security should be considered informal. So far, the informal employment surveys in Poland have not reflected this point of view. In addition, it is worth noting that in the definition proposed by the OECD, the lack of registration for mandatory social security is mentioned as one of the indicators of informal work. Therefore, we are of the opinion that a question on social/health and pension security should be added to the surveys, thereby improving the indication of the prevalence of informal employment.

Taking into account the only direct source of informal employment in Poland delivered by the CSO (cyclical Survey on Informal Employment conducted in 1995, 1998, 2004, 2009, 2010 and 2014), several remarks can be made. The last estimates from 2014 indicate that the level of informal working was 4.5% of total employment (CSO, 2015b). Looking at the reality, it is obvious that the extent of informality is much higher. First of all, the definition used by the CSO assumes that informality means working without any type of contract or self-employment while hiding the income from the authorities. Measuring informal employment in this way, a significant part of it is omitted. Two important issues seem to be ignored. Firstly, if we consider a significant proportion of workers with non-standard working arrangements (6.9% of total employment in 2014) who are mainly forced to work under such conditions (including both “false” self-employed and people with civil contracts), it seems to be desirable to treat at least some of them as working informally. As mentioned before, frequently these types of workers are not covered by social, health and pension security. Therefore, the use of a definition based only on the need for a contract seems to be insufficient. Secondly, the big problem of envelope wages and the associated black hours worked is also omitted. According to the results of the Special Eurobarometer survey, the envelope wages represent a significant proportion of the informality in the labour market. The question of additional informal wages in the form of envelope wages is crucial for estimating the prevalence of informal employment in developed countries.

The last proposal is related to the voluntariness of informal activities. It is important to note that for some people (students, women with young children), non-standard employment arrangements are very useful, while for other workers they are a necessity because of the lack of alternatives. Asking the question “Would you prefer to work more hours?” may be helpful in identifying voluntary and involuntary groups of non-standard workers.

Summarizing 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 thorough analysis and therefore appropriate policy decisions. Primarily regular updating and monitoring of an informal employment database is missing (Jütting et al., 2008).

Conclusions

The main purpose of this paper was to provide a review of existing definitions and measurement methods for informal work in developed countries in order to assess their utility in the context of the Polish economy. Moreover, we aimed to stimulate further discussion on the definition and measurement of informal employment in developed economies. We compared the definitions proposed by the European Commission, International Labour Organization and OECD with the measuring methods and definitions used by studying informal employment in Poland. We pointed out the main weaknesses of the survey methods used and suggested some improvements for the definition scope related to the construction of this survey.

First of all, we are convinced that direct methods (survey), despite their weaknesses, are a more appropriate measure of informal employment. At the same time, the distinction between developed and developing countries in terms of defining informal employment seems to be too general. Taking into account CEE countries, which in general may be described as developed, we observe a significant diversification in the nature of informal employment. Therefore, an analysis of the national background with regard to the nature of labour relations appears to be highly desirable. Our analysis of definitional and measuring frames of informal employment in Poland indicates the following issues. In general, we refer to the survey studies as being the most relevant in indicating informal employment. Therefore, our remarks are focused on improvement of the study methods by using only direct methods.

Firstly, there is a need to expand the definition scope with the partial forms of informality. Bearing in mind that in the developed countries informality has a partial nature, rather than a pure one, one significant challenge is therefore to measure the under-declared income and the additional informal work. The measure of informal employment conducted by the Central Statistical Office does not address the issue of under-declared income, e.g. in the form of envelope wages. At the same time, another study performed by the European Commission shows that envelope wage workers are prevalent in European countries. In this field, good practice shows the Eurobarometer survey with questions about envelope wages or cash-

in-hand payments (European Commission, 2014). This leads therefore to the conclusion about the need to consider this element of informal activities.

Secondly, the definition used by measuring informal employment in the Polish Labour Force survey skips the important issue of “false” self-employed. Since “false” self-employed consists of people who are working for just one company and the way in which the firms reduce total taxes, it seems to be necessary to consider this part of the labour force in surveys on informal employment. However, the group of self-employed is heterogeneous and thus the demarcation between “real” self-employment and “false” self-employment could be problematic. Therefore, to overcome the difficulty connected with informal and formal self-employed, it is proposed that it should be asked whether a person primarily works for one customer and/or in a workplace other than their own office. Moreover, in the case of newly self-employed it is important to ask whether, in their previous work, he or she did the same work as an employee (Venn, 2008). Such an extension would help in improved identification of the informal part of self-employed.

Thirdly, we argue that greater attention should be given to the non-standard forms of employment when studying informality. Bearing in mind that in terms of the degree of economic risk, atypical forms of employment are frequently associated with a lower level (or even lack) of social and health security, it is meaningful to consider some them as informal activities. Therefore, besides the typical

demarcation between formal and informal jobs on the basis of type of employment relations, the division could be made with the use of access to basic health care, pensions, paid leave, maternity/paternity benefits or legal protection. In practice, the survey questionnaire could be extended by a question on social/health and pension security and thus improve the indication of the prevalence of informal employment. Moreover, a simple question on preferring to work more hours would help in identifying the voluntary and involuntary groups of non-standard workers.

In our article we aimed to prove that the definition used by the measurement of informal employment in Poland is not sufficient and causes a significant underestimation of the prevalence of this phenomenon. We hope to stimulate further discussion on the definition and measurement of informal employment in Poland and other developed economies with similar labour market relations. Moreover, we managed to build definitional frames of informal employment in Poland and to point out the possible extensions of surveys devoted to informal employment in developed countries.

Bibliography

- Bednarski, M. (2010). Wykluczenie społeczne a szara strefa w gospodarce. *Polityka Społeczna*, (9), 24–29.
- Bednarski, M. (2013). Szara strefa-rynek pracy-integracja społeczna. *Optimum. Studia Ekonomiczne*, 6, 45–55.
- 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 nieskiej koniunktury gospodarczej. *Gospodarka Narodowa*, 3(235).
- CSO. (2005). *Unregistered employment in Poland in 2004*.
- CSO. (2011a). *Unregistered Employment in Poland in 2009*.
- CSO. (2011b). *Unregistered employment in Poland in 2010*.
- 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. Truszkowska (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.
- 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.
- 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.
- 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. (2015a). 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. (2015b). Explaining Cross-National Variations in the Informalisation of Employment. Some lessons from Central and Eastern Europe. *European Societies*, 17(4), 492–512. <http://doi.org/10.1080/14616696.2015.1051073>
- 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>

Original citation: Nikulin D. (2016). How to define and measure informal employment in developed countries? A case of Poland. GUT FME Working Papers Series A, No 5/2016(35). Gdansk (Poland): Gdansk University of Technology, Faculty of Management and Economics.

All GUT Working Papers are downloadable at:
<http://zie.pg.edu.pl/working-papers>

GUT Working Papers are listed in Repec/Ideas
<https://ideas.repec.org/s/gdk/wpaper.html>



GUT FME Working Paper Series A jest objęty licencją [Creative Commons](https://creativecommons.org/licenses/by-nc-nd/3.0/)
[Uznanie autorstwa-Użycie niekomercyjne-Bez utworów zależnych 3.0](https://creativecommons.org/licenses/by-nc-nd/3.0/)
[Unported](https://creativecommons.org/licenses/by-nc-nd/3.0/).



GUT FME Working Paper Series A is licensed under a [Creative Commons](https://creativecommons.org/licenses/by-nc-nd/3.0/)
[Attribution-NonCommercial-NoDerivs 3.0 Unported License](https://creativecommons.org/licenses/by-nc-nd/3.0/).

Gdańsk University of Technology, Faculty of Management and Economics
Narutowicza 11/12, (premises at ul. Traugutta 79)
80-233 Gdańsk, phone: 58 347-18-99 Fax 58 347-18-61
www.zie.pg.edu.pl

