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The Self-Employment Rate Index as a Measure of Economic Trends: Impact of Heterogeneity of the Self-Employed on the Quality of Indicators

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Abstract:

Purpose: *The aim of this part of the paper was to examine whether there are any observable trends between the number or percentage of self-employed in the labour market and business climate indicators, and can any conclusions be drawn whether the currently existing methods of monitoring labour are sufficient.*
Approach/Methodology/Design: *In this paper, the hypothesis was tested that the self-employed are not a cohesive group. That is why labour market monitoring structure based on indicators related to "self-employment rate" is not sufficient to observe the trends in changes occurring in the contemporary labour market. Correlations between the business climate and labour market indicators and the various self-employed subgroups tend to be not similar. The group of self-employed is diverse and includes different areas and forms of work, which demonstrate varied tendencies and should be considered separately. Moreover, it includes groups that can now be formally separated, for example individual farmers, traditional and hybrid self-employed, employers.*
Findings: *Our analysis clearly shows that the commonly used indicator "number of self-employed" or "self-employment rate" is inadequate for analysing trends in the labour market as it doesn't showcase the complexity of problems related to changes in this market. This indicator should not be the basis for assessing economic trends, including those in the labour market. It is also insufficient for concluding about the very nature of labour and for monitoring Economy 4.0.*
Practical Implications: *It is necessary to discuss the new classification of people who are active in the labour market. New indicators should be developed, to demonstrate changes in the labour market more accurately.*

Keywords: *Self-employment, entrepreneurship, solo-entrepreneur, hybrid self-employed, labour market, freelancers.*

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1. Introduction

Many economists believe the economy is currently undergoing quite fundamental changes (Leceta *et al.*, 2017; Malik, Janowska, 2018; Rifkin, 2014; Rifkin, 2001; Scholz, 2013; Tapscott, 2014). The changes affect many spheres of human life. Technological revolution, along with its new ways of communication, impact real-world economy changing the way goods are produced, how services are provided, how business is organized and how work is provided and sold. The changes also impact culture, value systems, lifestyle, and leisure time, etc. The transformation is crucial enough for scientists to try to analyse its consequences on an ongoing basis, to find interdependencies and create adequate theories, considering new operating conditions and developing forecasts as to its directions and intensity. The changes in management are also reflected in the change in vocabulary. In articles, the current economy is described with various adjectives: economy 4.0., digital economy, knowledge-based economy, or on-demand economy (De Stefano 2016; Aloisi 2015). Schwab (2016) claims that we are now living in the times of the Fourth Industrial Revolution, which introduces not only changes in management and work, but also in the very nature of these activities. Schwab (2016) gives an example of a new ecosystem of work – the application economy that can be dated from 2008. In 2018, the value of this market was estimated at over USD 100 billion.

The change in the economy, related to the ways of running a business, is accompanied by the transformation of the labour market and its conditions. The first and fundamental condition is the projected decline in global demand for labour. As demand for labour becomes a global one, it will depend on global (and not local) labour costs. Global capital and new technologies, together with the increase of relative labour costs, will cause the tendency to substitute it with technology and capital to increase. The World Bank predicts that as much as 57% of jobs in OECD countries will undergo automation (Acemoglu and Restrepo, 2017). These are no longer Neo-Luddist forecasts, whose views are considered extreme and who anticipated the end of work (Reich 2000; Rifkin 2001). The inevitable decline in the global number of jobs is also recognized by economists and practitioners of economic life (Palacios-Huerta, 2016; Gates, 2017).

Another change in the nature of work is the increase in the importance of universally understood flexible work, or "on-demand" work. According to some economists (Popma, 2013; Smith and Leberstein, 2015; Dwyer, 2016; Katz and Krueger, 2019; Supiot, 2001; De Stefano, 2016) this will involve changing the type of relationship between buyers and sellers of work. In the traditional economy, it was common to establish long-term relationships between employers and employees. Both parties were bound by a contract of employment, which contract was subject to legal regulations (the Labour Code). Under the contract, the employee provided work for the employer, but at the same time they were part of the organization, i.e. the enterprise. The employer co-participated in the employee's professional

development, co-financed or financed their training, set their goals, the path of promotion, etc. The relationship between the employee and the employer was often long-term, often lasting throughout the employee's working life. Currently, such relationships are in decline. What is increasingly important is "work on demand", i.e. obtaining work results in as necessary a scope as for the implementation of the current tasks of the organization.

At the same time, it is difficult to distinguish whether it is the sale of labour (provided by employees) or of services (provided by self-employed entrepreneurs). The fact is that industry 4.0 does not increase the demand for labour, i.e. for formal, full-time jobs, but the demand for the purchase of "projects", "services" or specific tasks. These tasks can be carried out by contractors who are not necessarily related to the client in terms of location, thanks to technological development. Schwab mentions the "human cloud", i.e. people who provide services as independent specialists, often using technology, such as internet platforms. This cloud creates a highly competitive environment, with higher productivity and lower operating costs.

One of the elements of cost reduction in such an economy is the possibility of reducing the social security costs of the service providers, as stated by the labour law. Those working in the "cloud" are not employees, but self-employed, and as such, they are not subject to these provisions. Transformations of management, including the ways of providing labour, raise many questions:

1. are the above-mentioned changes already noticeable, or are they future predictions (if at all successful)?
2. is the number of self-employed, and their share in total job force, increasing?
3. how does the number of self-employed changes along with the change in business climate indicators, especially the unemployment rate and the GDP growth rate?

In addition, there are general questions: are self-employed part of the labour market or part of the universally understood entrepreneurship? Among experts and researchers of self-employment there is no consensus on the nature of this phenomenon and its impact on the economic growth of individual countries. For some, self-employment is a form of entrepreneurship (Norena-Chavez, 2020). Sometimes the terms "self-employment" and "entrepreneurship" are used synonymously. The self-employed are identified as a group of micro-entrepreneurs who run independent business and bear the related risk. What differentiates them from entrepreneurs is only the scale of operation. However, there is a considerable group of researchers for whom self-employment is a flexible form of labour (Szaban and Skrzek-Lubasińska, 2018).

The questions are various. In order to answer them, one needs to constantly monitor the labour market. This need has been noticed by the International Labour

Organization (ILO), which prepares guidelines on key indicators of the labour market. ILO indicators are considered by leading national and international statistical organizations such as Eurostat or OECD (ILO 2015; 2016a; 2016b).

This paper is in line with the trend of monitoring changes in the labour market, with particular emphasis on self-employment. First, the definitions and problems related to the monitoring of self-employment were presented, followed by the ILO guidelines on this statistics and existing methodological doubts. Secondly, a review of the literature and research was conducted on the correlation between business climate indicators (GDP growth rate and unemployment rate) and the number of self-employed. The aim of this part of the paper was to examine whether there are any observable trends between the number or percentage of self-employed in the labour market and business climate indicators, and can any conclusions be drawn whether the currently existing methods of monitoring labour are sufficient. The impact of selected business climate indicators on the number of self-employed persons in Poland was also presented. The data analysed were from the years 2009-2017 when Poland underwent major changes in the labour market. The case of Poland and the study period were selected for several reasons:

1. there was a large volatility of both business climate indicators and labour market indicators in the discussed period.
2. Poland is considered a country with rigid labour law regulations. Poland ranked 30th among 41 EU and OECD countries in the Employment Flexibility Index in terms of flexibility in employment. The following restrictions are mentioned:
    - high minimum wage in relation to labour productivity,
    - rigid regulations regarding working hours,
    - high costs and rigid regulations regarding the dismissal of employees.

At the same time, Poland is a country with one of the lowest indexes of permanent employment per total workforce. This means that a significant percentage of workers is not included in labour law regulations. This allows a conclusion that the flexibility of the Polish labour market is one of the highest in the EU. For the above reasons, the case of Poland may prove interesting with regard to consideration of the impact of business climate indicators and the labour market on self-employment. In summary, the following hypothesis was tested in the paper: The self-employed are not a cohesive group. Labour market monitoring based on indicators related to self-employment is not sufficient to observe the trends in changes occurring in the contemporary labour market. Correlations between the business climate and labour market indicators and the various self-employed subgroups tend to be not similar. Finally, an analysis of labour market indicators was presented, whether the currently collected data are sufficient and suitable for monitoring economic changes on the labour market. Do they adequately reflect the scope of changes in the very nature of

labour? Are they adequate for monitoring Economy 4.0? The results of the conducted analyses can constitute a starting point for creating institutional conditions supporting economic development, including institutional changes in labour relations in Europe.

2. Overview of Literature and Research

When discussing problems related to self-employment, authors use many terms that are considered synonymous (Leighton and Wynn 2011; Phillips and McKeown 2014). The following definitions of the self-employed have been found in various publications:

- Freelancer (Kitching 2015; Mold, Vorley, and Liu 2014)
- Small business owner
- Micro-business owner
- Home-based business
- Contractor, sub-contractor
- Independent contractor
- Consultant
- Free Agent
- Ipro (individual professional) (Leighton and Brown 2013; Leighton 2015; Rapelli, 2012; Syrett, 2015)
- Solo-proprietor
- Solo-entrepreneur
- Solopreneur
- Entrepreneur

Significant freedom of terminology, and the fact that the terms are not synonymous par excellence even in the interpretation of the researchers themselves, makes it difficult to conduct comprehensive analyses of the self-employment phenomenon, to compare the results and to refer to the conclusions of other researchers. The situation is further complicated by the fact that the synonyms used have their own definitions, different than the definition of self-employment. For example, some researchers believe that the concepts of self-employed and freelancer are synonymous, for others they are categories that overlap only partially, as do the terms "entrepreneur" and "self-employed". For some, a self-employed person is an entrepreneur, and a country's level of entrepreneurship can be estimated on the basis of the percentage of self-employed in its economy. Others, however, claim this approach is erroneous (Szaban and Skrzek-Lubasińska, 2019; Skrzek-Lubasińska and Gródek-Szostak, 2019).

According to Blanchflower (2000) self-employment is the simplest form of entrepreneurship. Researchers believe that self-employment can be treated as the

smallest but also the most vital part of entrepreneurship (Demirgüc-Kunt *et al.* 2007). But there are also contrary opinions. Henrekson and Sanandaji (2013) as well as Hurst and Pugsley (2010) even believe that assessing the level of entrepreneurship in a country by the level of self-employment is misleading as self-employment mostly does not refer to entrepreneurship in the Schumpeterian sense. Self-employed people are usually not a source of any innovations (even in the broad sense of the word), and often their goal is not to grow their business (in the market sense). In addition, there are problems in distinguishing between proper and dependent self-employment (Bjuggren *et al.*, 2010). On the other hand, Faggio and Silva (2012) confirmed a positive correlation between the size of the self-employment rate and the level of innovation in the region, based on research in the United Kingdom.

Therefore, it is important to consider the correlation between economic growth and the level of economic development, and the increase in the number of self-employed, or the share of self-employment in the total workforce of a national economy. Blanchflower (2000; 2004) said that "evidence from a series of GDP growth equations presented in did not suggest that the self-employment rate increased the real growth rate of the economy, in fact there was even evidence of the opposite. I have seen no convincing evidence of any kind in the literature that either increasing the proportion of the workforce that is self-employed or having a high level of self-employment produces any positive macroeconomic benefits. Such evidence that does exist suggests quite the reverse. More is not better".

According to Gindling and Newhouse (2012), as per capita GDP increases, workers transition out of self-employment. Other researchers noticed the difference between the impact of entrepreneurship (measured e.g. by the share of self-employment in the national economy) on economic growth at the macroeconomic level in countries with different levels of economic development. Stam and van Stel (2011) pointed that entrepreneurship does not have an effect on economic growth in low income countries, in contrast to transition and high-income countries where especially growth-oriented entrepreneurship seems to contribute strongly to macroeconomic growth.

In summary, self-employment appears as a domain of less-developed countries. Along with the economic growth, the share of self-employment in the national economy is decreasing. The type of entrepreneurship also changes from forced by the lack of options, to innovative. As in the case of economic growth, numerous studies were also related to the impact of the level of unemployment on the level of self-employment. Bögenhold and Staber (1991) demonstrated that the level of self-employment increases at the macroeconomic level when the unemployment rate of a given country is high and the economic growth is low. It decreases, however, when the economic situation of the country improves, and the unemployment rate drops. Among others, Highfield and Smiley (1987) have reached similar conclusions. The

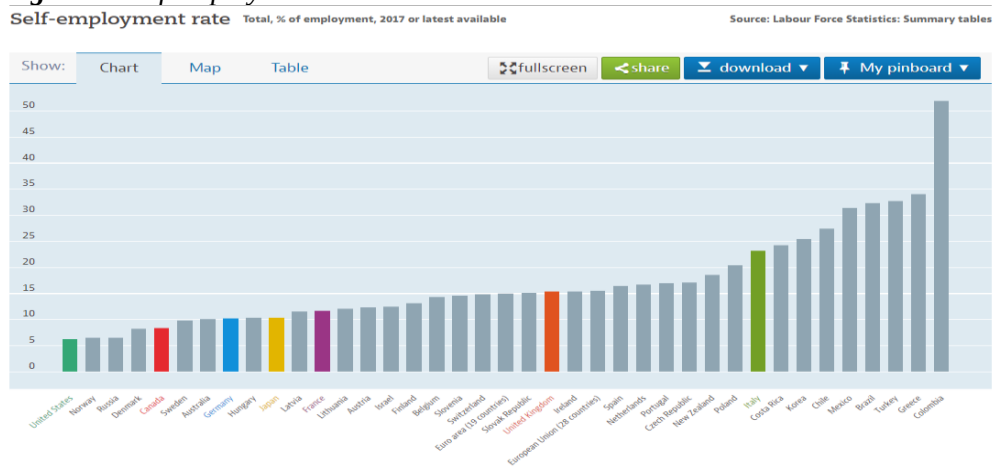
effect of recession and increase in the unemployment rate, which fuels an increase in the number of self-employed, was called the refugee effect.

However, there are also contrary opinions in literature. According to Evans and Leighton (1990) and Thurik *et al.* (2008) the number of self-employed is growing when the situation on the labour market improves, pointing to the so-called entrepreneurial effect (Norena-Chavez and Guevara, 2020). Parker (2004) stated that both effects can be associated with motivation for self-employment. It can be negative motivation, i.e. forcing self-employment, or positive, attracting to self-employment. In the above research, the impact of the economic situation on the level of self-employment was based on international labour market indexes, mainly OECD and Eurostat. The diversity of the group was not considered despite the fact that many researchers have pointed to its heterogeneity (OECD, 2017; van Stel and de Vries, 2015; Rapelli, 2012). In many studies, no answer was found to the question whether considering the heterogeneity of self-employment would change the results of this type of research.

3. Self-Employment Rate vs. Business and Labour Market Indicators

The number of self-employed in an economy is considered to be an important indicator describing the economy and the labour market. For example, the share of self-employed in the total national workforce is analysed. In some publications, it is interpreted as an indicator of entrepreneurship in a given country (OECD, 2014), based on data from the Labour Force Survey. According to these calculations, in 2017 Poland had one of the highest self-employment shares in total workforce, 20.4%, whereas the EU average was 15.5%.

Figure 1. *Self-employment rate*



Source: *OECD (2019) database https://data.oecd.org/emp/self-employment-rate.htm*

Based on these data, far-reaching conclusions are drawn. For example, in *Self-employment in Europe* (Hatfield, 2014) while considering the rate of self-employment in the UK, the author stated: *"If the current growth in self-employment continues in the UK and the Netherlands then in 10 years' time they could have self-employment rates approaching those of Poland, Spain and other South/Eastern European nations. It seems likely that the recent growth in self-employment has, at least to some extent, been a genuine compositional shift rather than merely a cyclical effect"*

Therefore, it is necessary to evaluate whether the quoted indicators reflect trends in the labour market accordingly. To this end, the case of Poland was analysed. It was investigated whether the indicator based on the number of self-employed obtained from the general Labour Force Survey, conducted in accordance with the ILO guidelines, is an indicator that can accurately reflect trends in the labour market.

4. The Case of Poland

The years 2009-2017 saw economic growth in Poland, although different in individual years. First, the Polish economy grew at a rate of around 3% annually until 2012, when the pace of development slowed significantly (to about 1.5% for the next two years). At the time, domestic demand dropped, and net exports was the main growth driver. In 2014, the economy started to accelerate again. The years 2017-2018 saw dynamic economic growth driven by internal demand.

Table 1. *Business climate indicators in Poland in 2009-2017*

	GDP growth	**Increase in gross added value**	**Increase in domestic demand (in fixed prices)**
2009	2.8	3.1	-0.2
2010	3.6	3.5	4.2
2011	5	5	4.2
2012	1.6	1.7	-0.5
2013	1.4	1.5	-0.6
2014	3.3	3.3	4.7
2015	3.8	3.7	3.3
2016	3	2.9	2.2
2017	4.6	4.4	4.7

Source: *Indexes of the Central Statistical Office.*

When analysing the labour market, authors most often present labour statistics (number of employees and employers, the unemployment rate, etc.) in different classifications and configurations. Information on the level of labour market flexibility is less frequently added. In Poland, the situation on the labour market has been subject to significant changes since 2009. First of all, after the financial crisis

of 2008, the unemployment rate was growing until 2012, when it reached 10.1%[3]. Then the trend reversed, and the unemployment rate began to drop to reach 4.5% by late 2017, which some economists consider to be close to natural unemployment. The number of employees in the national economy increased in the years 2009-2017 by 6.71% (from 15.7 to 16.4 million people). At the time, the number of self-employed changed only slightly, by 1%, while the number of employers increased by 11.09%. Based on the data, one could say that the improvement of the labour market situation triggered an increase in the number of entrepreneurs running businesses, which, in turn, led to increased demand for labour and, as a result, an increase in the number of employees and employees in the national economy. Apart from the above, the labour market remained quite stable. Detailed data on the labour market in Poland in the years 2009-2017 are presented in Table 2.

***Table 2**. Situation on the labour market in Poland in the years 2009-2017*

	Number of people working in the national economy (total)	Employees Under Labour Code	Unemployed	Self-employed	Employers	Individual farmers
2009	15,373,000	11,929,600	1,424,600	2,906,000	631,000	1,919,000
2010	15,557,000	12,001,000	1,597,000	2,970,000	642,000	1,862,000
2011	15,613,000	12,074,000	1,682,000	2,969,000	651,000	1,808,000
2012	15,636,000	12,189,000	1,757,000	2,898,000	659,000	1,752,000
2013	15,713,000	12,334,000	1,700,000	2,879,000	659,000	1,699,000
2014	16,018,000	12,612,000	1,410,000	2,972,000	645,000	1,683,000
2015	16,280,000	12,861,000	1,210,000	2,959,000	643,000	1,672,000
2016	16,328,000	12,974,000	958,000	2,934,000	672,000	1,498,000
2017	16,404,000	13,081,000	769,000	239,500	701,000	1,378,000
increase in 2009-2017	6.71	9.65	-46.02	1.00	11.09	-28.19

***Source:** Data of the Central Statistical Office, Labour Force Survey 2009-2017.*

The analysis of the above data demonstrates that the numbers available in official statistics do not accurately reflect the modern labour market trends in Poland. The number of employees in the national economy increased, but not evenly among the various groups. In the years 2009-2017, the number of employees increased by 9.65%. Among self-employed, several groups can be distinguished, e.g. individual and self-employed farmers working outside agriculture, who have employees (are self-employed), or hybrid self-employed (both owning a business and being employed). The number of individual farmers in the discussed period dropped significantly, by 28.19%. The number of entrepreneurs for whom their business was

[3]*Data from the Labour Force Survey conducted by the Central Statistical Office. See: "Economic activity of the Polish population in Q4 2017" Central Statistical Office, Warsaw, 2018.*

the basic source of income increased by 23.3%, and the number of hybrid self-employed, by 14.46%.

All in all, the demand for labour increased along with the improvement of the situation on the labour market, but it is being satisfied in a different way. The number of non-agricultural entrepreneurs increased much more than the number of employees. However, this was not an increase in false self-employment, i.e. forcing self-employment on employees in order to reduce costs resulting from legal provisions (this type of self-employment constitutes approx. 10% of all self-employed). This increase may therefore result from the change in the nature of the labour described above. The share of self-employed outside agricultural production has increased. In 2017, it amounted to 7.6% of all national workforce, while in 2009, only to 5.8%.

The relationship between the number of self-employed representing various groups was examined: traditional (X1) and hybrid (X2), employers (X3) and independent contractors (X4) and universally understood business conditions (Y). Two groups of business climate indicators were adopted:

- reflecting the situation on the labour market, measured by the following:
  - number of people working in the national economy (total)
  - number of employees
  - number of unemployed
- reflecting the general situation of the economy, measured by the following:
  - GDP growth rates
  - growth rates of value added in the economy, and
  - growth rates of internal (domestic) demand

The relationship between the above indicators and the number of self-employed was determined using the r-Pearson correlation coefficient, according to the formula:

$$r(x,y)=\frac{C(x,y)}{s(x)s(y)} \quad (1)$$

wherein:
r (x,y) is the *r*-Pearson correlation coefficient between variables *x* and *y*;
C (x,y) - covariance between x and y variables;
s - standard deviation for x and y.

The strength of the relationship between the variables was determined according to the following criteria for |r|: (Ostasiewicz *et al.*, 1997)
<0.2 - practically no linear relationship between the variables,
0.2 - 0.4 - clear, but low linear dependence,
0.4 - 0.7 - moderate dependence,

0.7-0.9 - significant dependence,
> 0.9 - very strong dependence.

Data from the Social Insurance Institution and the Central Statistical Office for the years 2009-2017 were used (in each case as per December 31st of a given year). Table 3 presents values of correlations between the number of self-employed from selected groups and indicators of the labour market situation and selected business climate indicators.

Table 3. *Values of correlations between the number of self-employed from selected groups and indicators of the labour market situation and selected business climate indicators.*

	Traditional self-employed X1	Hybrid self-employed X2	Employers X3	Self-employed (total) X4
Traditional self-employed	1.00	0.86	0.77	0.25
Hybrid self-employed	0.86	1.00	0.83	0.10
Employers	0.77	0.83	1.00	-0.16
Self-employed (total)	0.25	0.10	-0.16	1.00
Number of people working in the national economy (total)	0.97	0.85	0.65	0.25
Employees under the Labour Code	0.95	0.86	0.68	0.15
Unemployed	-0.80	-0.85	-0.62	-0.19
Gross domestic product (fixed prices)	0.97	0.89	0.80	0.12
Gross value added (fixed prices)	0.97	0.89	0.79	0.11
Domestic demand (fixed prices)	0.79	0.85	0.72	0.47
Investments	0.82	0.74	0.50	0.31

Source: *Database: Labour Force Survey based on ILO Guidelines, the number of self-employed from the Social Insurance Institution.*

A very strong, or strong (significant) dependence was found between the number of self-employed from various groups (traditional and hybrid) and employers, and the indicators of the labour market situation and business climate. On the other hand, the indicator created to analyse independent labour (i.e. the number of self-employed as a total) shows practically no such dependence. This is most likely due to this indicator's construction and assigning workers to this group in a number of different ways, including e.g. individual farmers. It should be emphasized that groups of self-employed include micro-entrepreneurs who provide services only to a single client. They should be treated as employees, and they are referred to as dependent or false self-employed. On the other hand, this group does not include freelancers and independent contractors if they have signed a short-term contract or a contract of mandate (types of contracts covered by the provisions of the Labour Code). This means that the total self-employed group may be underestimated.

The above analysis clearly shows that the commonly used indicator "number of self-employed" or “self-employment rate” is inadequate for analysing trends in the

labour market as it doesn't showcase the complexity of problems related to changes in this market and shouldn't be the basis for assessing economic trends, including those in the labour market. It is also insufficient for concluding about the very nature of labour, as is currently the case.

5. Monitoring Trends in the Labour Market

The need to monitor the labour market is a priority for many international organizations, such as the International Labour Organization (ILO), OECD and Eurostat. Many experts emphasize that currently, in the era of fundamental changes in labour relations, such monitoring is particularly important. ILO's official website states "as economies and societies become more interdependent, the need to enhance our understanding of the world of work becomes increasingly important. Timely and focused information on the world's labour markets is essential; information that can answer such questions as:

- What types of economic activities are countries and people engaged in?
- What are the size and composition of the labour force?
- How is the level of economic development reflected in a national labour market? (…)

Answering these questions requires detailed analysis of a large volume of statistics."[4]

Guidelines on how to monitor the labour market result directly from the adopted institutional classification of the labour market. The 15th International Conference on Labour Statistics[5] in 1993 (ICLS-93) developed definitions related to the labour market, distinguishing the following groups:

1. Employees
2. Employers
3. Own-account workers
4. Members of farmer cooperatives
5. Contributing family workers

This classification had been used thus far in public statistics research. In 2018, during the 20th ICLS Conference, it was deemed insufficient. The General Report[6] states: "… these five categories do not provide sufficient information to adequately

[4] *ILO's official website https://www.ilo.org/empelm/areas/employment-trends/lang--en/index.htm (accessed on 15. March 2019)*

[5] *ILO (1993): Fifteenth International Conference of Labour Statisticians, Report of the Conference. ICLS / 15 / D.6 (Rev. 1). International Labour Office, Geneva 1993.http://Laboursta.ilo.org/applv8/data/icsee.html*

[6] *ILO ICLS (2018b) Report General, 20th International Conference of Labour Statisticians, ICLS/20/2018/1*

monitor the changes in employment arrangements that are taking place in many countries, and are not sufficiently detailed to monitor various forms of non-standard employment. A variety of new, or non-standard, types of employment arrangements that aim to increase flexibility in the labour market have generated a strong demand for statistical information to monitor their impact on workers, on employers and on the functioning of the labour market."

The new classification is not yet fully developed. During the conference, there was much focus on the boundaries between different types of professional activity and different classification criteria were adopted. Among discussed issues were the level of independence and level of risk. These are rather subjective criteria, difficult to operationalize objectively. The following Table 4 shows different classification possibilities of the labour status, depending on the criterion adopted.

Table 4. *Classification of Status in Employment – ILO proposals*

Classification of Status in Employment according to type of authority (ICSE-18-A)	**Classification of Status in Employment according to type of economic risk (ICSE-18-R)**
Independent workers A. Employers 11 – Employers in corporations 12 – Employers in household market enterprises B. Independent workers without employees 21 – Owner-operators of corporations without employees 22 – Own-account workers in household market enterprises without employees **Dependent workers** C. Dependent contractors 30 – Dependent contractors D. Employees 41 – Permanent employees 42 – Fixed-term employees 43 – Short-term and casual employees. 44 – Paid apprentices, trainees and interns E. Contributing family workers 51 – Contributing family workers	**Workers in employment for profit** F. Independent workers in household market enterprises: 12 – Employers in household market enterprises. 22 – Own-account workers in household market enterprises without employees. C. Dependent contractors: 30 – Dependent contractors. E. Contributing family workers: 51 – Contributing family workers. **Workers in employment for pay** G. Owner-operators of corporations: 11 – Employers in corporations. 21 – Owner-operators of corporations without employees. D. Employees: 41 – Permanent employees. 42 – Fixed-term employees. 43 – Casual and short-term employees. 44 – Paid apprentices, trainees and interns.

Source: *ILO ICLS (2018a) Report II Statistics on work relationships, 20th International Conference of Labour Statisticians, ICLS/20/2018/2*

The above subjective criteria are not the only that can be applied. Other that have been identified in the course of a critical literature review (Skrzek-Lubasińska and Szaban 2018) include:

- the degree of independence and risk taking (independence, controlling his/her own work without formal supervision, risk taking versus dependency, lack of autonomy in work- related matters, belaying)
- the motivation to become self-employed: pull-in & push- out factors (voluntary self-employment, individual's own choice of such employment form, without external, pressure versus necessity self-employment due to the labour market situation (no other, satisfying jobs available) or the requirements of the main employer-contractor
- professionalism (individual professionalism, individual talent, knowledge, experiences, skills, and competences; position, a job in which an individual cannot be easily replaced versus lack or low level of professionalism (work can be easily done by others)
- self and social perception regarding one's financial outcome and autonomy (success: gain, esteem versus failure, loss).

All of the above subjective criteria require considerable discussion on how to translate them into the language of statistical surveys. Currently, OECD countries (thus also EU countries) use the Guidelines of the International Labour Organization in labour market research[7]. In the Guidelines, attention is paid to one more type of difficulty with the study of various forms of labour, e.g. due to varying regulations, the lack of precise government guidelines or classification criteria[8]. For this reason, labour providers organized in the same legal form can be considered as employees hired for pay and, at other times, depending on the circumstances, independent contractors working for profit. Legal forms can also be incomparable in separate countries.

As illustrated by the case of Poland, the structure of employees in the labour market is changing. At the same time, however, the ways to monitor these changes do not change, which leads to big misunderstandings and lack of precision in presenting facts. An example of this is the study of labour market flexibility in Poland. According to the OECD (2016), the labour market in Poland is extremely flexible. This is testified by one of the highest shares of people in flexible forms of employment (including temporary or fixed-term work) in OECD countries. In 2016, in Poland it amounted to over 27% compared to 12% of the average for OECD countries. On the other hand, the study "Employment Flexibility Index EU and OECD countries 2019" points to Poland as a country with one of the lowest employment flexibility ratios. Poland ranks 30th out of 41 countries surveyed. The index considers 35 indicators in four areas: regulations related to employment, working time flexibility, dismissal policy and costs related to redundancies. Such a research methodology, based on the guidelines of the World Bank, indicates that the

[7] *ILO (2013) Decent work indicators. Guidelines for producers and users of statistical and legal framework indicators, ILO Manual, Second Version, 2013*
[8] *ILO (2013) p.23.*

labour market in Poland is very inflexible, which means that the economy is slower to adapt to technological progress and economic changes. According to the authors of the study, the reason for this low flexibility is the rigidity of the Polish Labour Code. The conclusions relate to the total flexibility of employment, but the study refers to permanent employees, protected by the Labour Code.

Even these two examples of research conducted by international institutions indicate that the lack of precision in the definitions used and ill-adjustment of the monitoring method to the actual realities of the labour market means that one can't expect information about real directions of changes in the economy. Future research should aim to "make the invisible visible" (ILO 2018c). Research is needed into new ways to measure entrepreneurship and work, including self-employment heterogeneity.

6. Summary and Conclusions

Studies have shown that the commonly used indicator of "number of self-employed" is neither sufficient for analysing trends in the labour market, nor showcases the entire complexity of problems related to changes therein. Thus, the initial hypothesis was verified that the group of self-employed is diverse and includes very different areas and forms of work, which demonstrate varied tendencies and should be considered separately. The article includes groups that can now be formally separated: individual farmers, traditional and hybrid self-employed, employers. However, this classification does not seem sufficient. The group of traditional self-employed includes, e.g. traditional service providers (hairdressers, tailors), freelancers, contractors using internet platforms, or small traders and manufacturers. As can be observed, this group is diverse in terms of skills, investment, productivity and development opportunities. It is necessary to discuss the new classification of people who are active in the labour market. New indicators should be developed, to demonstrate changes in the labour market more accurately.

Regardless of whether one considers changes related to self-employment as changes in the nature of labour (Palacios-Huerta, 2016), or believes this a historically natural phenomenon involving marginal activity on the verge of the mainstream of paid work (Arum, Muller 2004), monitoring this phenomenon (which, incidentally, is becoming less and less marginal) seems necessary, to understand any interdependencies existing on the labour market.

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