

FACULTY OF ECONOMICS IN OSIJEK  
POSTGRADUATE STUDY MANAGEMENT  
JOSIP JURAJ STROSSMAYER UNIVERSITY OF OSIJEK  
HOCHSCHULE PFORZHEIM UNIVERSITY

**INTERDISCIPLINARY MANAGEMENT RESEARCH XIII**  
**INTERDISZIPLINÄRE MANAGEMENTFORSCHUNG XIII**

Dražen Barković Bodo Runzheimer

***Published by:***

Josip Juraj Strossmayer University of Osijek, Faculty of Economics in Osijek Croatia,  
Postgraduate Doctoral Study Program in Management  
Hochschule Pforzheim University

***For the Publisher:***

Ulrich Jautz, Ph.D., Dean, Germany  
Vladimir Cini, Ph.D., Dean, Croatia

***Editors:***

Urban Bacher, Ph.D., Pforzheim University, Business School, Germany  
Dražen Barković, Ph.D., Faculty of Economics in Osijek, Croatia  
Karl – Heinz Dernoscheg, Ph.D., International Business School Styria, Austria  
Maja Lamza - Maronić, Ph.D., Faculty of Economics in Osijek, Croatia  
Branko Matić, Ph.D., Faculty of Economics in Osijek, Croatia  
Norbert Pap, Ph.D., University of Pecs, Hungary  
Bodo Runzheimer, Ph.D., Pforzheim University, Business School, Germany

***Technical editor:***

Jerko Glavaš, Ph.D., Editor, Faculty of Economics in Osijek, Croatia

***Design and print:***

Krešimir Rezo, graf.ing.  
Krešendo, Osijek

ISSN 1847-0408

Previous proceedings are indexed in: Web of Science, EBSCOhost, RePEc, EconPapers, Socionet

***Program Committee:***

Mate Babić, Ph.D., University of Zagreb, Faculty of Economics in Zagreb, Croatia

Heinrich Badura, Ph.D., President, Schlesischen Universität Katowice, Poland

Luka Burilović, President of Croatian Chamber of Economic

Firouz Gahvari, Ph.D., University of Illinois at Urbana-Campaign, Department of Economics, USA

Gunther Gottlieb, Ph.D., University of Augsburg, Germany

Rupert Huth, Ph.D., Pforzheim University, Business School, Germany

Zoran Jašić, Ph.D., Former Ambassador of the Republic of Croatia to the Republic of Austria

Zlatko Kramarić, Ph.D., Ambassador of the Republic of Croatia to the Republic of Macedonia

Ulrich Jautz, Ph.D., Pforzheim University, Business School, Germany

Željko Turkalj, Ph.D., Rector, University of Osijek, Croatia

Mladen Vedriš, Ph.D., University of Zagreb, Faculty of Law, Croatia

***Organizational Committee:***

Ivana Barković Bojanić, Ph.D., President

Jerko Glavaš, Ph.D., Vice President

Antun Biloš, Ph.D.

Boris Crnković, Ph.D.

Nataša Drvenkar, Ph.D.

Aleksandar Erceg, Ph.D.

Ivan Kelić, Ph.D.

Davorin Turkalj, Ph.D.

Tin Horvatin, mag.oec.

# SELF-EMPLOYMENT: PERSONAL CHARACTERISTICS OF THE SELF-EMPLOYED AND IMPACT ON ECONOMIC GROWTH

**Dunja ŠKALAMERA–ALILOVIĆ**, Ph.D.

Associate Professor, Faculty of Economics,  
University of Rijeka, Croatia

dunja.skalamera-alilovic@efri.hr

**Andrea ARBULA BLECICH**, Ph.D.

Postdoctoral Research Assistant, Faculty of Economics,  
University of Rijeka, Croatia

andrea.arbula.blecich@efri.hr

**Kristijan BLAŽEKOVIĆ**, mag.oec.

Faculty of Economics, University of Rijeka, Croatia

kblaze41@net.hr

## **Abstract**

*Self-employment is one of the key elements for the restructuring of the labor market and the economic recovery. This paper observes self-employed persons as part of the labor force with the aim to determine their similarity with entrepreneurs and employed persons, but also their specifics that make them a distinctive category. Self-employment is analyzed at the level of an individual based on its personal characteristics as well as a macroeconomic phenomenon. Self-employment is influenced by two groups of factors: “push” (self-employment as an escape from unemployment) and “pull” (self-employment, which resembles the entrepreneurship). The results indicate that self-employment is more common among older people, men, in agriculture and among people without the necessary qualifications for running a sustainable business. While*

\* This work has been supported by the University of Rijeka under the project number 13.02.1.2.09.

*the EU underlines self-employment as a driver of the economy and as solution for unemployment in the vulnerable groups of the labor market, the paper shows that self-employment decreases at the EU level. In most countries, the dynamics of self-employment is influenced by the “push” factors, especially during the recession, which greatly affects unemployment. It is concluded that self-employment, in most EU countries, is a result of the discrimination in the labor market and the inability to create new jobs, rather than being a voluntary decision based on a perceived business opportunity. The analysis has shown that self-employment does not have a positive impact on macroeconomic indicators. Furthermore, it has a weak role in the creation of jobs due to the low share of self-employed who act as employers.*

**Keywords:** *self-employment, unemployment, business cycle, “push” and “pull” factors*

JEL Classification: J21, J71

## 1. INTRODUCTION

Global trends such as globalization, technology advancement and global recession led to the disappearance of demand for certain professions with simultaneous problems in the private sector for the creation of new ones. The resulting disturbances in the labor market caused high levels of unemployment. Therefore, the policy makers of the labor market emphasize the need for its recovery and adjustment to the new requirements. The promotion of entrepreneurship and self-employment is an important part of European, regional and national policies because of the belief in their potential to create jobs, increase innovation, provide opportunities to unemployed and encourage vulnerable groups of the society to participate in the labor market. The single market of capital, goods and services in the EU as well as the digital market have significant roles in the development of entrepreneurship and self-employment. Nevertheless, the question is to what extent the labor market and social policies contribute to job creation and economic growth through self-employment and entrepreneurship. The high unemployment rate is a major economic and social concern, both in the EU, and in Croatia. This study observes the dynamics and characteristics of self-employment in the EU as well as the success of self-employment as a measure for reducing unemployment. According to the economic theory, more entrepreneurship and self-employment have positive effects on the economic

growth through new jobs and a positive competition environment. The aim of this paper is to explore the characteristics of the self-employed and determine the connections of self-employment to the macroeconomic business cycle.

## 2. PERSONAL CHARACTERISTICS OF THE SELF-EMPLOYED

### 2.1. THE FUNDAMENTAL DETERMINANTS OF SELF-EMPLOYMENT

Measuring self-employment is very difficult because the boundaries between self-employment and employment as well as between paid and unpaid work are still unclear. Simply put, there are two types of employees, and two types of contracts: employees and self-employed. The main difference between them is that employees earn by working for the employer, while self-employed work on their own, for their own account, and they also can employ.

In the modern empirical research of self-employment, business ownership and entrepreneurship are used as synonyms for defining people who work on their own account and risk. Such a definition of self-employment makes it very heterogeneous, which creates difficulties in monitoring its dynamics through time and comparing the data between the countries (Toivanen, Mellner and Vinberg, 2014: 22).

Despite all the national differences in defining and understanding of self-employment at the EU level, further dimensions of self-employment are defined as (Eurofound, 2010: 15):

1. Investment of own capital
2. Autonomy in the labor market
3. Responsibility and control over its own work
4. Presence of the employee.

Based on these four criteria, it is possible to identify five basic categories of self-employed (Eurofound, 2010: 15):

1. Entrepreneurs - they operate their business with the help of their workers.
2. Traditional freelancers - they must meet certain requirements, regulations and mandatory rules of the profession and often take an exam in order to be listed in public registers and carry out their activities independently or in cooperation with other professionals or limited number of employees.

3. Craft workers, traders and farmers - traditional forms of self-employment in which the self-employed help family members and may have a small number of employees.
4. Self-employed workers in skilled but unregulated occupations.
5. Self-employed in occupations that require low qualifications - they run business without the help of employees, but sometimes family members help them.

While self-employment is generally associated with running a business, a professional practice or an agricultural farm, entrepreneurship is based on the risk-taking and innovation of individuals who actively and positively affect the economy. Unlike businesses that are associated with taking advantage of good business opportunities, practice shows that self-employment often has very little to do with entrepreneurial activity and often occurs as a response to unfavorable circumstances in the labor market.

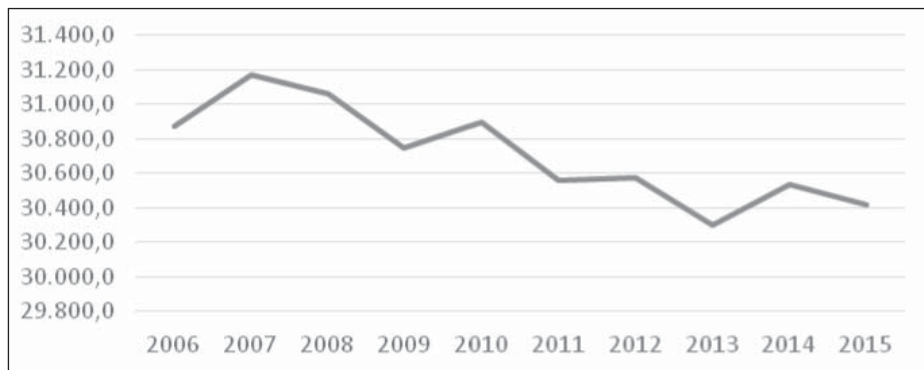
Self-employed who do not employ are common in traditional sectors such as agriculture, forestry and fisheries, trade and crafts, construction, transport and freelancers. However, with the development of the service sector and new technologies, independent work has become a main feature of the media sector, including press and the film industry. The growth of information and communication technologies (ICT) has pushed self-employment to expand into activities such as graphic design and entertainment due to the Internet. In addition, the restructuring of companies under the influence of ICT has increased the use of subcontracting, including micro-enterprises and self-employed.

## 2.2. TENDENCY TOWARDS SELF-EMPLOYMENT

There are different reasons why someone wants to be self-employed. Theoretically, there are two reasons why a person would choose self-employment. The first case assumes a person who, before becoming self-employed, had high income, enjoyed job security and career advancement opportunities and became self-employed in order to be its own boss. These people are the most appropriate description of entrepreneurs able to recognize good business opportunities and have all the necessary knowledge and skill. The second case assumes a person who, before becoming self-employed, had limited job opportunities and self-employment is the only way to participate in the economy and society. These people do not have the necessary knowledge and skill; they are often

discriminated and have little chance to succeed in the paid sector. For these reasons, they choose low-paying jobs without advancement opportunities. Self-employed persons in this category start new businesses primarily in industries with low entry barriers and strong competition that leads to low profits and high probability of failure. Between these two extremes, there are many combinations of factors that affect the person decision to be self-employed (Bögenhold, Staber 1991: 226). Based on an analysis of the existing literature, it is possible to observe certain regularity in the dynamics of self-employment. At the EU level, the number of self-employed do not show significant variations. The research of Blanchflower (2000, 2004) on a sample of seventy countries have confirmed that in the EU (European Commission, 2012, 2016) the rate of self-employment continuously decreases. Thus, although the number of self-employed in individual countries grows or reduces, there are no significant changes at the EU average level. Throughout the observed period certain countries have high shares of self-employed, while other have low shares, which leads to the fact that there are no major changes at the average level.

**Graph 1:** Dynamics of self-employment in the EU between 2006 and 2015 (in thousands)



Source: author based on Eurostat database (2017), Self-employment by sex, age and educational attainment level, ([http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\\_esgaed&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_esgaed&lang=en), 15.01.2017)

Graph 1 shows that in the observed period self-employment decreases at the EU level. Despite the negative trend, the change is not significant since the base index shows that between 2006 and 2015, self-employment was reduced by 1.29%. The highest number of self-employed was recorded in 2007. In section 2.3. the influence of personal characteristics on self-employment is analyzed.



### 2.3. AGE, GENDER AND EDUCATIONAL STRUCTURE OF SELF-EMPLOYED

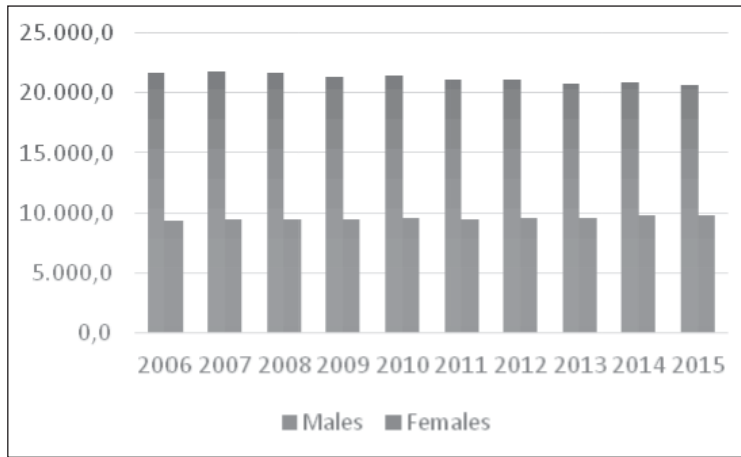
The personal characteristics of age, gender and education level affect an individual's decision to become a self-employed.

Analyzing the age of self-employed, the highest share (55,7%) of self-employed European workers is in the age group between 25 and 49 years. Only 2,3% of the self-employed in Europe enters the age group between 15 and 24 years while 42% of the European self-employed are over 50 years of age (Eurostat, 2017). Although the largest share of European self-employed are in the age group from 25 to 49 years, the self-employment rate in the age group over 50 years, observing the total number of employees, is considerably higher than in the other age groups. The reason for that is the labor market discrimination. The job deficiency caused by the global recession generated higher rates of self-employment, especially among vulnerable groups, including older workers. In order to ensure an existence, they had no choice but to become self-employed. The highest self-employment rates in the groups of older workers are recorded in Poland and Spain, with negative tendency, while positive self-employment rates of older workers are recorded in the UK and the Netherlands. For comparison, in Sweden, France and Germany, these rates are low and do not show significant changes in the observed period between 2005 and 2014. Unlike older workers, the share of young self-employed workers is very low throughout the EU and ranges between 1% in Slovenia and 6% in Malta. Poland recorded a decrease of self-employment among young workers, unlike Spain and the Netherlands, which have seen significant increases of self-employed young workers. The increase in self-employment in Spain is explained with the high unemployment rate among young people. High rates of self-employment among young workers have been also recorded in Greece and Italy (Hartfield, 2015: 13).

The data for 2009 shows that 69.6% of the self-employed were men. However, when looking at the age group above 50 years of age, their proportion was only 37.5% (European Commission, 2010: 7). Although self-employment is more common for male workers, growth of self-employment of women in the recent years can indicate the presence of barriers in the labor market. The highest gender imbalance was recorded in Ireland, Sweden and Denmark, and the lowest in Luxembourg, Switzerland and Portugal. Furthermore, it is seen that self-employment of women is higher in the countries of South-East Europe. This can be explained by institutional factors, i.e. marginalized groups are forced to seek

alternative employment in countries where the social security system is less developed. In those countries, self-employment is affected by high unemployment levels and nonexistent unemployment benefits. The largest shares of women among the self-employed in 2013 were seen in Lithuania (41.6%), Luxembourg (40.3%) and Latvia (38%) and the lowest in Malta (19.6%) and Ireland (20.8%) (European Commission, 2016: 43). The comparison between countries shows that more than 5% of the women in Cyprus who were unemployed in 2013 have become self-employed in 2014, while in Hungary, Croatia, Greece, Bulgaria and Germany this was less than 1%. For contrast, more than 5% of unemployed men become self-employed in the UK, while this share was less than 1% in Hungary (European Commission, 2016: 42). Hartfield (2015) in his study concludes that for working men is 90% more likely to become self-employed than for working women, with the exception of the UK where the number of self-employed women grew faster than the number of self-employed men. A high proportion of self-employed women is recorded particularly in two sectors: administrative services and support services as well as work related to human health and social work. Self-employment of women has increased in Germany and Romania in the period 2004-2007 and in countries where self-employment of men decreased such as Malta, Denmark and Sweden. In contrast, the share of self-employed women decreased in Finland, Netherlands, Slovakia and Slovenia (European Commission, 2010: 9). Graph 2 shows the dynamics of self-employed workers by gender from 2006 to 2015 at the EU level.

**Graph 2:** Dynamics of self-employed workers by gender between 2006 and 2015 (in thousands)



Source: author based on Eurostat database, Self-employment by sex, age and educational attainment level, ([http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\\_esgaed&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_esgaed&lang=en), 15.01.2017)

The share of men is significantly higher in total self-employed workers compared to women whose share is around one-third. The growth of self-employment among women in the observed period may indicate the existence of barriers for labor market participation (European Commission, 2016: 43).

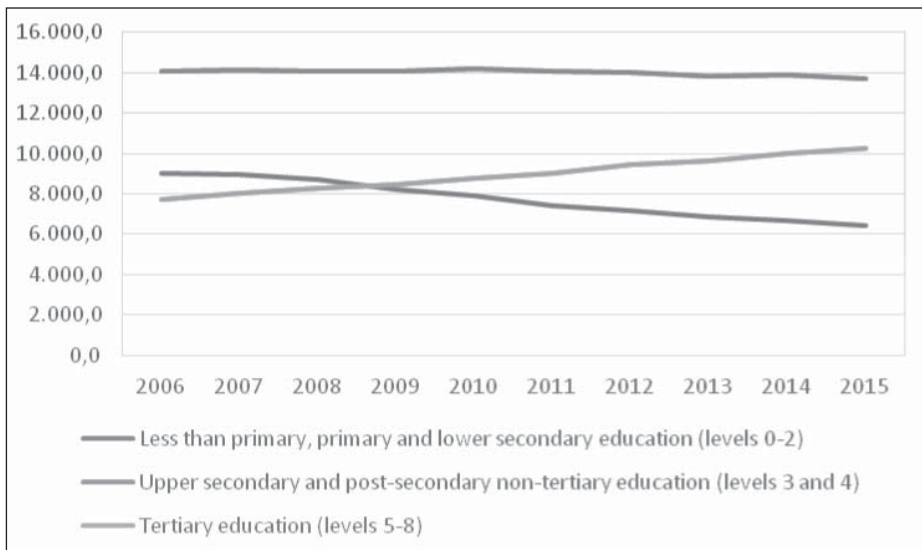
The dynamics of self-employment, looking at age and gender, varies among countries, which indicates that their decisions are influenced by many factors specific to the cultural and business environment in which they live.

Blachflower (2004: 2) studied self-employment in 70 countries and concluded that higher levels of education reduce the likelihood for self-employment in Europe and increase it in the United States. Based on this he concludes that people have unrealistically high expectations toward self-employment, which confirms the high proportion of employees who would rather be self-employed, however, relatively few of them become self-employed because they prefer the safety of employment for salary.

Research of self-employment in the EU has shown that the proportion of highly educated self-employed in the UK is growing since 2007 indicating a change in the population. In Europe, during the period 2005-2014, and especially in Western and Nordic countries self-employment is prevalent in occu-

pations that require higher levels of education. In the countries of South-East Europe, due to large shares of agriculture and trade, self-employment is dominated by occupations with lower levels of education. Germany had the largest share of highly educated self-employed, with over 50%. Germany is followed by France, and Netherlands, where the highly educated workforce is more likely to become self-employed. In contrast, United Kingdom had 38% of highly educated among the self-employed (Hartfield, 2015: 22-24). Graph 3 shows the dynamics of educational structure of self-employed in EU countries

**Graph 3** Dynamics of educational structure of self-employed in EU countries between 2006 and 2015 (in thousands)



Source: author based on Eurostat database, Self-employment by sex, age and educational attainment level, ([http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\\_esgaed&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_esgaed&lang=en) , 15.01.2017)

Analysis of educational structure of self-employed at the EU-28 level shows that self-employed with upper secondary and post-secondary non-tertiary education are the dominant categories among the self-employed, but with a negative trend. Self-employment with tertiary education in the observed period has constant growth unlike self-employed with less than primary, primary and lower secondary education, which exhibit continuous decrease over the observed period. Table 1 shows the dynamics of self-employed with employees and self-employed without employees in the total self-employment by educational level.

**Table 1:** Dynamics of self-employed with employees (employers) and self-employed without employees (own-account workers) in self-employment by educational level between 2006 and 2015 (EU-28, in %)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Levels 0-2, employers	7,3	7,3	7,2	6,7	6,3	5,9	5,5	5,2	5,0	5,0
Levels 0-2, own-account workers	22	21,5	20,8	20,0	19,4	18,4	17,9	17,3	16,8	16,1
Levels 3-4, employers	13,8	13,7	13,8	13,7	13,3	13,0	12,6	12,8	12,7	12,6
Levels 3-4, own-account workers	31,9	31,7	31,6	32,1	32,7	33,1	33,2	32,8	32,8	32,6
Levels 5-8, employers	9,7	9,9	10,2	10,4	10,3	10,5	10,7	10,8	10,9	11,0
Levels 5-8, own-account workers	15,4	16,0	16,5	17,2	18,1	19,1	20,2	20,9	21,9	22,7

Source: author based on Eurostat database, Self-employment by sex, age and educational attainment level, ([http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\\_esgaed&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_esgaed&lang=en), 15.01.2017)

The previous table shows the dynamics of self-employed with and without employees based on educational level. The level of education strongly influence the self-employed on his decision whether to employ or not. The share of self-employed with the lowest levels of education who are also employers is the lowest and showing negative tendency. Self-employed with upper secondary and post-secondary education have the highest share in employing but also with negative tendency. This highest share is expected since this group is dominant among the self-employed. Self-employed with tertiary education, although are not being the dominant group of employers, have constant increase in employing.

The next chapter analyzes the impact of self-employment on the economic growth since self-employment is mentioned in the strategic documents of many countries as one of the key factors that influence the economic growth.

### 3. IMPACT OF SELF-EMPLOYMENT ON ECONOMIC GROWTH

At the micro level, self-employment is affected by two types of factors: that push (“push”) and that pull (“pull”) in self-employment. If the connection between unemployment and self-employment is strong, the “push” factors are dominant. The “pull” factors are present when entrepreneurs encourage growth of new jobs and innovation, while the “push” factors are present when workers choose a self-employment due to limited opportunities in the private or public

sector or become self-employed as an alternative to unemployment (Franjković, Šebalj, Živković, 2015: 282)..

### 3.1. THE RELATIONSHIP OF THE BUSINESS CYCLE AND SELF-EMPLOYMENT

All countries are affected by business cycles and economic fluctuations caused by economic disorders. While there is consensus about the impact of the business cycle on the employment, the impact on self-employment is not completely clear. The business cycle has an important effect on self-employment and it is explained by the “push” and “pull” factors depending on the phase of the business cycle. “Push” factors are related to the phase of recession with high levels of unemployment without business opportunities. In contrast, the “pull” factors occur when macroeconomic conditions are good (phase of expansion). In those circumstances, people with entrepreneurial skills voluntarily choose independence, knowing that if the venture fails, they will easily find another job, which can result from the “unrealistically rosy view” on self-employment. (Blanchflower, 2004: 25). “Push” and “pull” factors have an impact on self-employment, but their relationship varies between countries. The assumption is that self-employment is present in sectors that are sensitive to dynamics in the business cycle. If self-employment serves as an escape from unemployment, then the self-employment is contra-cyclical. On the other hand, when it is associated with entrepreneurship and risk-taking, it is pro-cyclical (Constant, Zimmermann, 2014: 5).

The literature on the impact of the business cycle on the self-employment offers contradictory results. Research of Blanchflower (2000) and of Koellinger and Thurik (2012) indicates that the connection between unemployment and self-employment varies between countries. High unemployment rates have led to an increase in self-employment in the UK, Germany and Sweden, but to a decrease in Austria, while in France there is no connection between these two phenomena. Kumar (2012: 1069) confirms that unemployed are more likely to become self-employed compared to the employed. It also notes that better unemployment benefits reduce the rate of self-employment and self-employment among unemployed, which confirmed the results of a study conducted in Spain (Carrasco 1999) and in the OECD countries (Parker, Robson 2000).

Data show that the crisis of 2008 led to an increase of self-employment in the EU (European Commission, 2012: 8). However, there are significant variations between countries. The highest growth of self-employment during the global recession was recorded in Slovenia, Slovakia and Netherlands, and the highest decrease in Portugal, Cyprus and Latvia. Belgium recorded an increase of bankruptcy, in Ireland the number of self-employed decreased, as well as in Spain and Portugal. In Germany, the number of self-employed workers during the crisis remained relatively stable and there was no significant increase in self-employment caused by increasing unemployment. In Ireland, the crisis had no influence on the self-employment of women, while there was a reduction of 17% in the self-employment of men, which can be explained by the decrease of self-employment in agriculture and construction. In Greece and Turkey, during the crisis, there was an increase in self-employment of women caused by reduced household incomes. Similar evidence was found in the research from 2010. After the start of the crisis there was an increase of self-employment in some countries (e.g. Czech Republic, Greece, Latvia, United Kingdom), while the Netherlands and Croatia, after the initial increase, have experienced a decline (growth of the unofficial economy) (European Commission, 2010: 8).

### 3.2. SELF-EMPLOYMENT AND JOB CREATION

Governments of different countries often highlight self-employment as a way to reduce poverty and to fight against unequal opportunities. Consequently, they offer a variety of assistance to small businesses. The assumption is that a larger number of firms increases competition and leads to invention, innovation, consumer benefits and new jobs. It is also assumed that self-employment has a positive effect on the self-confidence of workers. EU policies are based on the economic theory stating that self-employment is important for job creation because it reduces unemployment. However, there is not much evidence for this assumption in practice. Studies have shown that small businesses have higher rates of job creation, but also higher rates of job losses, which leads to the conclusion that larger companies characterize job sustainability (Davis, Haltiwanger, Schuh (1996:170) in Blanchflower, 2004: 12).

In order to be able to expand the business and create new job positions, self-employed workers must first ensure their own survival. Studies have shown that the probability of survival increases with the age of the company (Evans 1987:

567), the age of the owner (Storey and Wynarczyk 1996) and the owner's age and education (Bates, 1990). The study of Evans (1987: 567) has also proved a positive relationship between the size of the company and the survival of self-employment businesses. It is possible that entrepreneurs with greater human capital face less uncertainty and are able to adapt more quickly to the market conditions, thereby increasing the probability of its survival. Better education enables self-employed to identify profitable market opportunities and the ability for better utilization of information for its efficient exploitation. The source of financing has an important role in the survival of self-employment businesses. A research for Bosnia and Herzegovina between 2001 and 2004 (Demirgüç– Kunt, Klapper; Panos, 2007: 25) showed that the higher possibility of self-financing is key for sustainable self-employment. This proves a positive correlation between survival of self-employment and banking loans. Banking loans do not have significant impact on starting self-employment businesses, but have positive effects on their sustainability. The study showed that wealthier households are more likely to start a business and for this business to survive. This highlights the important role of self-financing regarding self-employment.

#### 4. SELF-EMPLOYMENT IN CROATIA

In Croatia, self-employment is not defined as a specific group of the workforce, with employees and unemployed, but it is observed in the context of labor market policy. Here, self-employed are identified as entrepreneurs. Measures for self-employment focus on vulnerable groups defined in the European documents, primarily on women, young people and long-term unemployed.

Despite the measures aimed at facilitating self-financing the starting business ventures, people in Croatia consider that the business circumstances do not allow running successful and sustainable businesses and have negative attitude towards entrepreneurship. Although Croatia is investing in entrepreneurial infrastructure, there are a number of limiting factors including: the governmental policy towards the regulatory framework, the presence of significant market entry barriers, the low level of transfer of research to the business sector, cultural and social norms and insufficient contribution of education in creating entrepreneurial competencies of young people. Consequently, the environment for entrepreneurial activities in Croatia is more restrictive than stimulating. In order for changes to happen, it is necessary to coordinate between government



policies (which contribute the entrepreneurial culture and environment by removing administrative barriers), educational institutions (which teach young people entrepreneurial knowledge and skills), business sector (whose competitiveness is based on innovation and growth) and individuals (that run businesses based on perceived opportunities).

Table 2 presents the dynamics of GDP, employment, self-employment and unemployment from 2010 to 2015 taking 2010 as the base year.

**Table 2:** GDP, employment, self-employment and unemployment dynamics (base year: 2010)

	2010	2011	2012	2013	2014	2015
GDP	100	99,34	97,62	96,63	95,50	97,43
Employment	100	96,06	92,69	90,59	93,52	94,84
Self-employment	100	95,17	83,30	78,03	70,38	68,48
Unemployment	100	115,77	133,78	143,24	147,30	139,19

Source: author based on Eurostat database, Self-employment by sex, age and educational attainment level, ([http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\\_esgaed&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_esgaed&lang=en), 15.01.2017)

Self-employment in Croatia had sustained major decline. Although the other selected categories experienced slight recovery in 2015 after the fall caused by the crisis, self-employment continued its negative trend.

After the liberalization of legislation regarding temporary employment in 2003, a decline of self-employment was expected, but it did not happen. Also, contrary to expectations, the favorable tax system reform of 2000 coincided with the period of self-employment decline, which shows that other factors can overshadow these effects (Matković, 2004: 22). Matković concluded that the implemented employment programs, tax framework reform and labor legislation reform did not lead to significant changes in self-employment. He also argues that GDP growth did not lead to increase in self-employment. Franjković, Šebalj and Živković (2013: 254) explain this with difficulties of the unemployed to access capital and lacking skills required for the job places. An analysis of the educational structure of the self-employed in Croatia has also confirmed that the self-employed in Croatia are less educated compared to employees and cannot contribute to the future economic development. The self-employed are more educated than the average only in the City of Zagreb, in Istria and Pri-

morsko-goranska County because in these areas self-employment is prevalent in the service sector. In addition to that, the self-employed make less income than employees do. Exceptions exist only in the three aforementioned counties where the proportion of self-employed is higher in the service sector. It can be concluded that self-employment in Croatia is a result of necessity, not exploitation of risky opportunities that lead to high profits. It was found that older workers prevail among self-employed and that self-employment of young people (16-25 years) is less likely. Self-employment is less common among women as in other countries. It is interesting that people in Croatia, both with low and higher education are less prone to self-employment, which corresponds to the results for countries in the European Union. (Botrić, 2012: 257). All three studies conducted in Croatia have failed to prove a link between unemployment and self-employment. Furthermore, no connection was found between the dynamics of self-employment and GDP.

The Government of the Republic of Croatia, in order to increase economic growth, on 2 March 2017 adopted a new package of measures of active employment policy called "From measures to career". Nine measures of active employment policy aim to train the unemployed to find a job or acquire additional skills. The emphasis in respect of employment is placed on the most vulnerable, long-term unemployed and people with disabilities. These measures include also the measures for self-employment. They consist of an increase in incentive from 25,000 to 35,000 HRK, and the possibility of pooling more young people in startups (Government of the Republic of Croatia, 2017). Given the target population, the prevalence of "push" factors is expected and the achievement of the set goals is questionable. Policy measures for self-employment should be based on "pull" factors that encourage economic growth, creation of new jobs and innovation.

## 5. CONCLUSION

The term self-employment covers a variety of situations in which the socio-economic status of employers, workers on own account and employees partially overlap. Inconsistent statistical and legal regulations of different countries increase the number of situations that are considered to be self-employment. This leads to difficulties in determining the employment status. For this reason, it is necessary to create a framework for collecting uniform and high-quality data

and unique analytical and statistical tools for their processing at the national and international level.

Analysis of previous studies shows that among the self-employed men predominate over women, older workers over younger, agriculture over other sectors and middle or low levels of education over the highly educated.

Observing the business cycle, during the recession, unemployed people who cannot find paid work, become self-employed. According to this claim, the rate of self-employment during the recession is expected to increase because self-employment appears a way to avoid unemployment. During the expansion phase, unemployed individuals can easily find jobs, but it is more likely that people will choose the security of paid employments rather than self-employment.

The reviewed literature suggests that public policy can reduce unemployment by stimulating self-employment, but this does not necessarily encourage economic growth. On the other hand, other economic schools argue that, economic growth through self-employment and entrepreneurship reduce unemployment. These two points of view have resulted in unclear implications for public policy regarding self-employment. Economic theory suggests that increased unemployment leads to an increase in the number of new companies because the cost of starting a business reduces. However, the unemployed do not have the entrepreneurial skills and capital necessary to start and sustain a new company. This means that high unemployment may be associated with lower levels of entrepreneurial activity. In addition, high rates of unemployment may reduce the level of personal wealth, which reduces the likelihood of an individual to become self-employed.

The results of previous empirical studies are unclear when self-employment and unemployment are observed regarding the business cycle. On the one hand, studies suggest positive impact of the economic crisis to self-employment because it encourages the unemployed to become self-employed. On the other hand, some studies suggest the positive impact of economic growth on self-employment because growth of opportunities causes an increase in entrepreneurial activity. The unemployed workers do not enjoy the benefits of paid employment, which they tend to seek. This means that people are pushed into self-employment. However, it is likely that low unemployment will coincide with the dynamic demand for products and services and will draw unemployed into self-employment.

Prevalence of self-employed in the agricultural sector and among less educated population as well as the relationships between unemployment, self-employment and economic growth show that self-employment does not necessarily mean less unemployment and economic growth. Although there are common characteristics among self-employed workers and the dynamics of above mentioned, each country is specific and self-employment differs between countries and regions.

Future research should focus on individual countries and on the development of empirical models able to analyze the connections between self-employment and unemployment, with the aim of bringing public policies closer to the actual national and European labor market.

## REFERENCES

- Bates, T. (1990). Entrepreneur human capital inputs and small business longevity. *Review of Economics and Statistics*, 72(4), 551–559.
- Blanchflower, D.G. (2000). Self-employment in OECD countries, *Labour Economics* No. 7, 471–505, <http://www.dartmouth.edu/~blnchflr/papers/sdarticle.pdf> (19.12.2016)
- Blanchflower, D.G. (2004). Self-Employment: More may not be better, NBER Working Paper No. 10286, NBER Program(s): LS, available at: <http://www.nber.org/papers/w10286> (19-12-2016)
- Bögenhold, D., Staber, U. (1991). The decline and rise of self-employment, *Work, Employment & Society*, 5(2), 223-239.
- Botrić, V. (2012). Regional differences in self – employment: Evidence from Croatia, *Economic research*, Vol. Special Issue No.1 October 2012.
- Carrasco, R. (1997). Transitions to and From Self-employment in Spain: An Empirical Analysis, *Oxford Bulletin of Economics & Statistics*, Working Paper No. 9710
- Constant, A., Zimmermann, K., 2014, Self-employment against employment or unemployment: Markov transitions across the business cycle, *Eurasian Business Review*, 4(1), 51-87.
- Davis, S.J., Haltiwanger, J.C., Schuh, S. (1996). *Job creation and destruction*, MIT Press, Cambridge, MA.
- Blanchflower, D.G. (2004). Self-Employment: More may not be better NBER Working Paper No. 10286, NBER Program(s): LS, available at: <http://www.nber.org/papers/w10286> (19-12-2016)
- Demirgüç – Kunt, F. Klapper, A. Panos, 2007, *The Origins of Self-Employment*, <http://siteresources.worldbank.org/INTFR/Resources/BosniaFeb07Klapperetal.pdf> (18-1-2017)
- Eurofound (European Foundation for the Improvement of Living and Working Conditions) (2009). Self-employed workers: industrial relations and working conditions, available at: <https://www.eurofound.europa.eu/observatories/eurwork/comparative-information/self-employed-workers-industrial-relations-and-working-conditions> (13-1-2017)

- European Commission (2010). European Employment Observatory Review: Self-employment in Europe 2010, available at: <http://ec.europa.eu/social/BlobServlet?docId=6137&langId=en> (10-01-2017)
- European Commission (2012). Entrepreneurship in the EU and beyond, [http://ec.europa.eu/public\\_opinion/flash/fl\\_354\\_en.pdf](http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf) (17-12-2016)
- European Commission (2016). Employment and Social Developments in Europe 2015, ISSN 2315-2540, available at: <http://ec.europa.eu/social/main.jsp?catId=113#ESDE> (17-12-2016)
- Eurostat database, Self-employment by sex, age and educational attainment level, <http://appsso.eurostat.ec.europa.eu/nui/setupDownloads.do> (15-1-2017)
- Evans, D.S. (1987). The Relationship Between Firm Growth, Size, and Age: Estimates for 100 Manufacturing Industries, *The Journal of Industrial Economics*, 35(4) The Empirical Renaissance in Industrial Economics, 567-581
- Franjković, J., Šebalj, D., Živković, A. (2015). Youth: does unemployment lead to self-employment?, *Interdisciplinary Management Research*, Faculty of Economics in Osijek, 1, 247-257, available at: <http://www.efos.unios.hr/repec/osi/journal/PDF/InterdisciplinaryManagementResearchXI/IMR11a21.pdf> (17-01-2017)
- Government of the Republic of Croatia (2017). Predstavljen novi paket mjera aktivne politike zapošljavanja – „Od mjere do karijere“, available at: <https://vlada.gov.hr/vijesti/predsjednik-vlade-plenkovic-u-proracunu-smo-za-mjere-aktivne-politike-zaposljavanja-osigur-ali-1-5-milijardu-kuna/20234> (22-03-2017)
- Hatfield, I. (2015). Self-employment in Europe, Institute for Public Policy Research, London, available at: [http://hatf.ippr.org/assets/media/publications/pdf/self\\_employment-Europe\\_Jan2015.pdf](http://hatf.ippr.org/assets/media/publications/pdf/self_employment-Europe_Jan2015.pdf) (19-12-2017)
- Koellinger, P, Thurik, R. (2012). Entrepreneurship and the Business Cycle, *The Review of Economics and Statistics*, 94(4), 1143-1156.
- Kumar, A. (2012). Self-Employment, Efficiency Wage, and Public Policies, *Economic Inquiry*, 50(4), 1069-1079.
- Matković, T. (2004). Different Ways of Being One's Own Boss: Patterns of Self-Employment in Croatia, Oxford: Nuffield College, available at: <https://bib.irb.hr/datoteka/284677.Matkovic.pdf> (12-01-2017)
- Parker, S.C., Robson, M.T. (2000). „Explaining International Variations in Self-Employment: Evidence from a Panel of OECD countries.“ Working Paper, No. 2008, Department of Economics and Finance, University of Durham.
- Storey, D.J., Wynarczyk, P. (1996). The survival and non-survival of micro firms in the UK, *Review of Industrial Organization*, 11(2), 211–229.
- Toivanen, S., Mellner, C., Vinberg, S. (2014). Self-employed persons in Sweden - mortality differentials by industrial sector and enterprise legal form: a five-year follow-up study, *American journal of industrial medicine*, 58, 21–32.