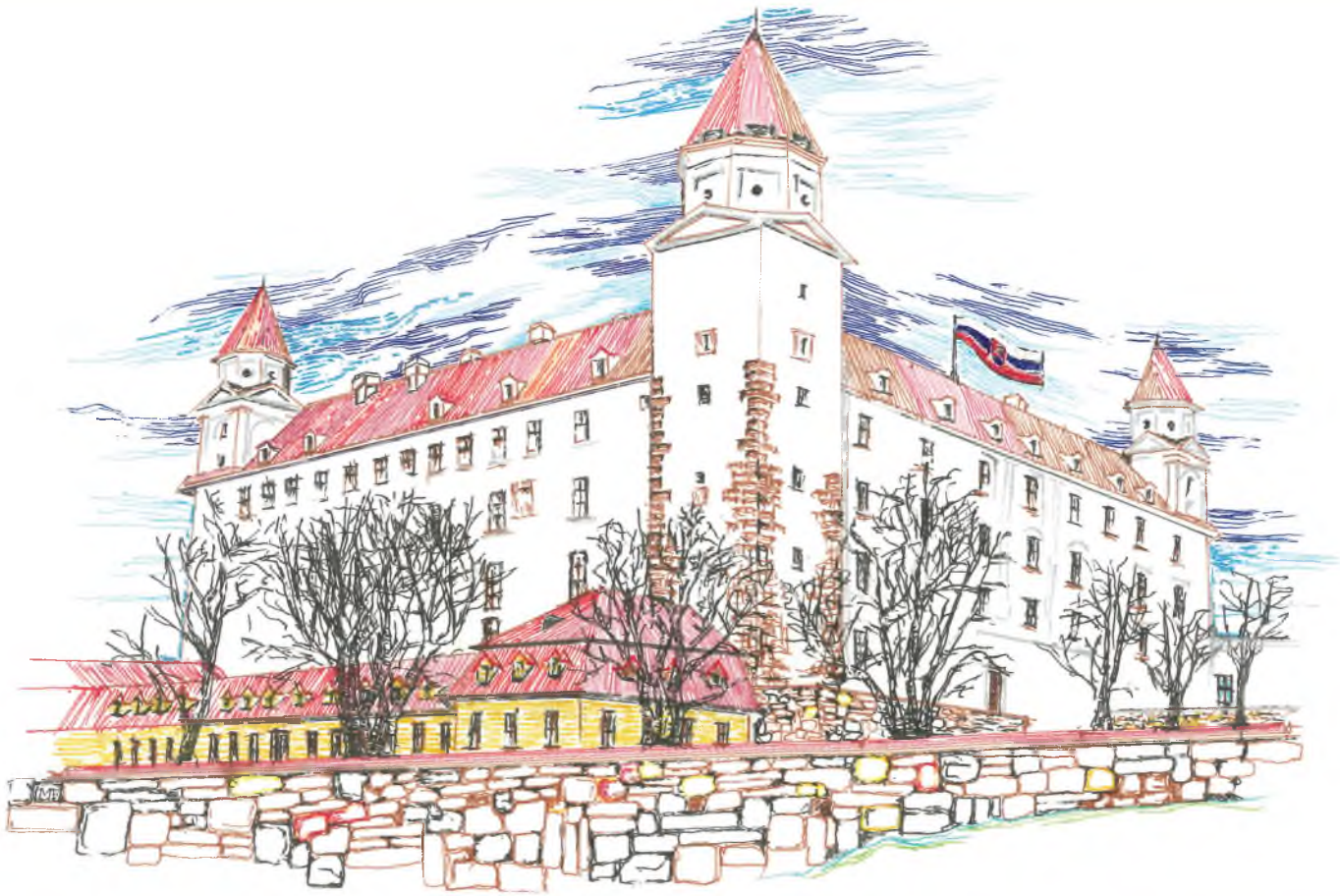
ISSN 2585-7738



EV 5691/18

EURÓPSKA VEDA
Vedecký časopis



EUROPEAN SCIENCE
Scientific journal

4/2019
Ročník/Year III.

Podhájska 2019



Founder
Európsky inštitút ďalšieho vzdelávania
European institute of further education
Lviv University of Business and Law, Ukraine

Zat'ko Jozef,
Dr.h.c., mult., JUDr., PhD., LLM, MBA, Honor., Prof., mult., President of European institute of further education, Slovensko

Yankovska Larysa,
Prof., DSc., Lviv University of Business and Law, Ukraine

Editor in chief
Angelė Lileikienė, Prof., dr., Lithuania Business University of Apllied Sciences, Klaipéda, Lithuania

www.european-science.sk
E-mail: europska.veda@eidv.eu

Editorial Office Address
Európsky inštitút ďalšieho vzdelávania
Za Humnami č. 508/28
941 48 Podhájska
Slovakia

Phone: +421 905 450 765

IČO: 42334390
DIČ: 2023768912

Bank Connection
Československá obchodná banka, a.s.
Pobočka M.R. Štefánika 19
940 01 Nové Zámky

Bank Account: 4022107085/7500
IBAN: SK43 7500 0000 0040 22107085
SWIFT: CEKOSKBX

Publication of article with one author (up to 12 pages): 50€
Publication of article with two authors: 70€

European Science is an interdisciplinary applied research journal focused on Law, Economy, Sociology, Pedagogy and allied disciplines. Based on the Journal's policy, all articles are peer-reviewed. The Journal is publishes four issues per year, with a an option to publish additional issues. All rights reserved.

© Európsky inštitút ďalšieho vzdelávania,
European institute of further education, 2019

ISSN 2585-7738
Ministry of Culture: EV 5691/18
Dátum vydania: 30.12.2019
Date of Issue: 30.12.2019

EURÓPSKA VEDA

Vedecký časopis

EUROPEAN SCIENCE

Scientific journal

4/2019

Ročník 3
Year 3

Podhájska 2019

EURÓPSKY INŠTITÚT ĎALŠIEHO VZDELÁVANIA
EUROPEAN INSTITUTE OF FURTHER EDUCATION

Editorial Council

Founder:

European institute of further education

Zat'ko Jozef, Dr.h.c., mult., JUDr., PhD., LLM., MBA., Honor., Prof., mult., President of the European institute of further education, Slovakia

Lviv University of Business and Law, Ukraine

Yankovska Larysa, Prof., DSc., Lviv University of Business and Law, Ukraine

Editor in chief:

Lileikienė Angelė, Prof., dr., Lithuania Business University of Apllied Sciences, Klaipéda, Lithuania

Associate and managing editor:

Robert Jeyakumar Nathan, Dr., PhD., M.Phil., Guest profesor EIDV Slovakia, Faculty of Business, Multimedia University, Melaka, Malaysia

Scientific secretary:

Bukoros Tetiana, Assoc. Prof., PhD., MBA., Honor. Prof., State Higher Educational Institution «University of Educational Management», Kyiv, Ukraine

Lukáš Varhol, ThLic., PhD., MBA., European institute of further education, Slovakia

Beschastnyi Victor	Prof., DrSc., rector Donetsk Law Institute of the Ministry of Internal Affairs of Ukraine, Ukraine
Bock Thomas	Prof., h.c.dr. Ing., University Tokio, TU Muenchen, Germany
Dadak Casimir	Prof., PhD., Hollins University Virginia, USA
Drusa Marian	Prof., PhD., Ing., Faculty of Civil Engineering University Žilina, Slovakia
Hajdu Miklós	Prof., DrSc., Budapest University of Technology and Economics, Budapest, Hungaria
Horska Elena	Prof., Dr., Ing., Dr.h.c., Faculty of Economics and Management, Slovak University of Agriculture in Nitra, Slovakia
Hraško Juraj	Prof., dipl. Ing., DrSc., academ. SAV, Slovakia
Hvozd Viktor	DrSc., Lieutenant General of the Reserve, Independent Analytical Center for Geopolitical Studies, «Borysfen Intel», Kyiv, Ukraine
Kaminska Tetiana	Prof., DrSc., Kyiv Cooperative Institute of Business and Law, Kyiv, Ukraine
Kopotun Igor	Prof., DrSc., European institute of further education, Slovakia
Kostenko Oleksandr	Prof., DrSc., Head of the Criminal law, criminology and judicial system issues department, Koretsky Institute of state and law of National Academy of Sciences of Ukraine, Ukraine

Kostytsky Vasyl	Prof., DrSc., Academician of the National Academy of Legal Sciences Sciences of Ukraine, Honored Lawyer of Ukraine, Ukraine
Lazarenko Dmitry	Prof., DrSc., University of the State Fiscal Service of Ukraine, Slovyansk Scientific Educational Institute Ukraine
Mesároš Marián	Dr.h.c., prof.h.c., prof., Ing., DrSc., MBA., LL.M. The University of Security Management in Kosice, Slovakia
Mykhaylyshyn Ulyana	Prof., DrSc., Uzhhorod National University, Uzhhorod, Ukraine
Navickas Valentinas	Prof., DrSc., Kaunas University of Technology, Lithuania
Oberuč Jaroslav	Prof., PhDr,. CSc., MBA., LL.M, Institute of Technology in Dubnica nad Vahom, Slovakia
Olak Antoni	Prof., nadzw., dr hab., dr.h.c., Honor. Prof., Apeiron Academy of Security of Public and Individual, Krakow, Poland
Paliszkiewicz Joanna	Prof., nadzw. SGGW., dr. hab., Warsaw University of Life Sciences, Warsaw, Poland
Piwowarski Julius	Doc., PhD., Apeiron Academy of Security of Public and Individual, Krakow, Poland
Popova Svitlana	Prof., DrSc., Kharkiv National University of Internal Affairs, Ukraine
Semchuk Zhanna	Prof., DSc., Lviv University of Business and Law, Ukraine
Sharashenidze Anzor	Prof., Tbilisi University named after David Agmashenebeli, Tbilisi, Georgia
Shmygol Nadiia	Prof., DrSc., Zaporizhzhya National University, Ukraine
Skibniewski Miroslaw	Prof., PhD., Dr.h.c., University of Maryland, College Park, USA
Sopilko Iryna	Prof., DrSc., Faculty of Law in National Aviation University, Ukraine
Sopilnyk Lyubomyr	Prof., DSc., Lviv University of Business and Law, Ukraine
Telovata Mariia	Prof., DrSc. National Academy of Statistics, Accounting and Audit, Kyiv, Ukraine
Ternovyk Nataliia	Assoc. Prof., PhD., Academician Stepan Demianchuk International University of Economics and Humanities, Rivne Ukraine,
Ulyanchenko Oleksndr	Prof., DrSc., V.V. Dokuchayev Kharkiv National Agrarian University, Ukraine
Yankovska Larysa	Prof., DSc., Lviv University of Business and Law, Ukraine

Reviewers

Armash Nadiia	Prof., DrSc., National Aviation University Kiev, Ukraine
Dychko Vladyslav	Prof., DrSc., Donbas State Pedagogical University, Slaviansk, Ukraine
Martinkiené Jurgita	Assoc. Prof., dr., Lithuania Business University of Applied Sciences, Klaipéda, Lithuania
Skrynkovskyy Ruslan	Assoc. Prof., PhD., Lviv University of Business and Law, Ukraine
Sobol Evgen	Prof., DrSc., Kirovohrad V. Vynnychenko State Pedagogical Universiti, Ukraine
Sopilnyk Rostyslav	Prof., DSc., Lviv University of Business and Law, Ukraine
Stezhko Nadiia	Assoc. Prof., DrSc., University of the State Fiscal Service of Ukraine, Ukraine

Partners of the scientific journal







































Content

Biological Sciences

Dychko Elena, Kushakova Irina
EFFECTIVENESS OF INFLUENCE OF PHYSICAL REHABILITATION MEASURES
ON INDICATORS OF PSYCHO-PHYSIOLOGICAL STATUS OF CHILDREN WITH SCOLIOSIS 20

Civil Defence

Komjáthy László, Kós György
THERMOGRAPHIC CAMERAS IN THE SERVICE OF FIRE DEPARTMENTS 27

Economy

Kalyta Tetiana, Ivanyuk Igor
PROSPECTS OF FINANCING OF PUBLIC-PRIVATE PARTNERSHIPS
IN UKRAINE BY INTERNATIOTAL ORGANIZATIONS 32

Mynchynska Iryna
BUSINESS DEMOGRAPHY STATISTICS AS AN INDICATOR OF BUSINESS ENVIRONMENT
OPPORTUNENESS: COMPARATIVE ANALYSIS OF UKRAINE AND EU MEMBER STATES. 39

Romanchukevych Vitalii
GROSS DOMESTIC PRODUCT LEVEL OF UKRAINE: ANALYSIS AND IMPACT FACTORS 45

Tkachenko Olena, Tanchyk Olena
CONCEPTUAL FOUNDATIONS FOR THE FOREIGN ECONOMIC SPHERE
OF THE NATIONAL ECONOMY DEVELOPMENT 53

Education

Telovata Maria, Tkachenko Mykhailo
HUMANITARIZATION OF EDUCATION AS ONE OF THE PRIORITY
PRINCIPLES IN THE FORMATION OF THE EDUCATIONAL CONTENT 58

Law

Kostytsky Vasyl
SCIENTIFIC IDEAS, LEGAL PROGRESS AND SCIENTIFIC LEGAL DOCTRINE:
SEARCHING FOR THE OPTIMAL POWER MODEL IN THE MODERN STATE 63

Nalutsyshyn Volodymyr
REGULATION OF CRIMINAL LIABILITY FOR NON-ENFORCEMENT OF A JUDICIAL ACT
UNDER THE LEGISLATION OF THE EUROPEAN UNION COUNTRIES 68

Shcherbyna Victor
LEGAL INSTRUMENTS OF INTERNATIONAL LABOUR ORGANIZATION AND UKRAINIAN LABOR LEGISLATION: COMPARATIVE AND LEGAL ANALYSIS OF NORMS AND STANDARDS 74

Tymoshenko Maksym
THE REVISITED LEGAL ORGANIZATIONAL FORM OF HIGHER EDUCATION INSTITUTIONS AS ECONOMIC ENTITIES IN UKRAINE 87

Pedagogy

Voityuk Irina
NON-TRADITIONAL TECHNIQUE OF MULTIPLE ACTIVITIES AS A MEANS OF CORRECTION OF THE THOUGHT OF OLDER PRESCHOOLS 95

Philosophy

Butko Yuliia
THE PROBLEMS OF MODERN HERMENEUTICS. 101

Psychology

Vicen Vlastimil, Hoschek Miloslav
POST TRAUMATIC STRESS DISORDER AND MILITARY VETERANS MENTAL HEALTH PROBLEMS . . 104

Sociology

Lazarenko Dmitriy, Mozgovoy Leonid
CURRENT TRENDS OF SOCIO-ECONOMIC STRATIFICATION OF THE SOCIETY. 113

Technology

Bahrii Mariia, Levchenko Larysa
DEVELOPMENT AND RESEARCH OF TEXTILE MATERIALS WITH SPECIFIED SHIELDING PROPERTIES FOR PROTECTION AGAINST ELECTROMAGNETIC INFLUENCES. 118

BUSINESS DEMOGRAPHY STATISTICS AS AN INDICATOR OF BUSINESS ENVIRONMENT OPPORTUNENESS: COMPARATIVE ANALYSIS OF UKRAINE AND EU MEMBER STATES



Iryna Mynchynska
Senior Lecturer, Educational and Research Institute of Economics, Taxation and Customs, University of the State Fiscal Service of Ukraine, Kyiv region, Irpin, Ukraine

JEL Classification: M13; M21; G28; G33

Abstract. Most often, information about the state of the business environment in a particular region or country is obtained through a survey of respondents. However, a certain degree of subjectivity is inherent in this method of obtaining information. Therefore, using official statistics as a source of information avoids this.

The purpose of this article is to evaluate the degree to which the business environment of enterprises in Ukraine is operating on the basis of indicators of business demography statistics by conducting a comparative analysis with similar indicators of EU countries.

The object of the study is the business demographics of enterprises in Ukraine and the EU as a source of objective information on the state of the business environment. In the analysis of the main statistical indicators of statistics of business demography of enterprises, such methods as comparison and comparison were used.

The study found that despite the significant deterioration of the economic situation in Ukraine, the number of economic entities in 2012-2015 tended to increase. At the same time, there was a tendency to increase the share of natural persons-entrepreneurs from 77.16% to 83.57% during 2012-2018. In 2014-2016, there was a negative trend in the growth of the indicator of the total number of active enterprises in Ukraine, due to the worsening economic situation. The share of births in the total number of active enterprises in Ukraine during 2012-2018 is lower than the average in Europe and, despite the slightly better figures for the share of deceased enterprises, it can be generally concluded that the environment for doing business in Ukraine is unfavorable.

Keywords: *assessment of the business environment, business demography statistics, population of active enterprises, births of enterprises, deaths of enterprises.*

Introduction

The business environment, as a set of factors that significantly affects the activities of business entities and are beyond their control, is extremely important for the development of entrepreneurship in any country. Therefore, the business environment is subject to scrutiny by public authorities, and assessing the degree of its favorability serves as a guide when deciding on economic and institutional reform priorities.

Most often, the business climate is estimated on the basis of a survey of respondents, so it has a certain degree of subjectivity, since it depends on the composition, size and parameters of the statistical sample, etc. Against this background, an assessment of the business environment's propriety based on official data from state statistical authorities will be more objective, which makes the topic chosen for research relevant.

The analysis of recent research and publications. Mainly relates to the coverage of methodological aspects of the evaluation of business demographics, such as in the works of Grierson K., Allen A. (2008) [3]. The works of some authors refer to defining a system of

business demographics in order to be able to compare them across countries – Ahmad N. (2008) [1], including alternative methods for assessing business demographics, such as in the works of Ron J., Miranda J., Sandusky K. (2003) [7] or Takahashi M., Sato-Ilic M., Okamoto M. (2019) [9]. Identifying the factors that determine the creation of new businesses, their survival and duration of operation in individual countries are considered in the works of Lopez-Garcia P., Puente S. (2006) [4]; Yarkova Y., Toneva K., Markov N. (2017) [10]; and Shinkarenko K. (2017) [8]. The works of some authors are dedicated to the comparative analysis of the state of business demographics of individual countries with other EU or OECD countries based on Eurostat data and publications, such as Poland's Business Demographics Assessment, conducted by Ptak-Chmielewska A. (2009) [6]. However, the comparative analysis of the business demographics of Ukraine and EU Member States has not yet been conducted.

Formulating the goals of the article. Given the relevance of this research topic and its lack of elaboration, it is advisable to study the state and trends of business environment in Ukraine in comparison with EU countries on the basis of indicators of business demography of enterprises.

Research results. Due to the events that took place in Ukraine in 2013-2014, the number of economic entities in the Ukrainian economy during the period indicated an upward trend, which has been observed since 2012 (Fig. 1).

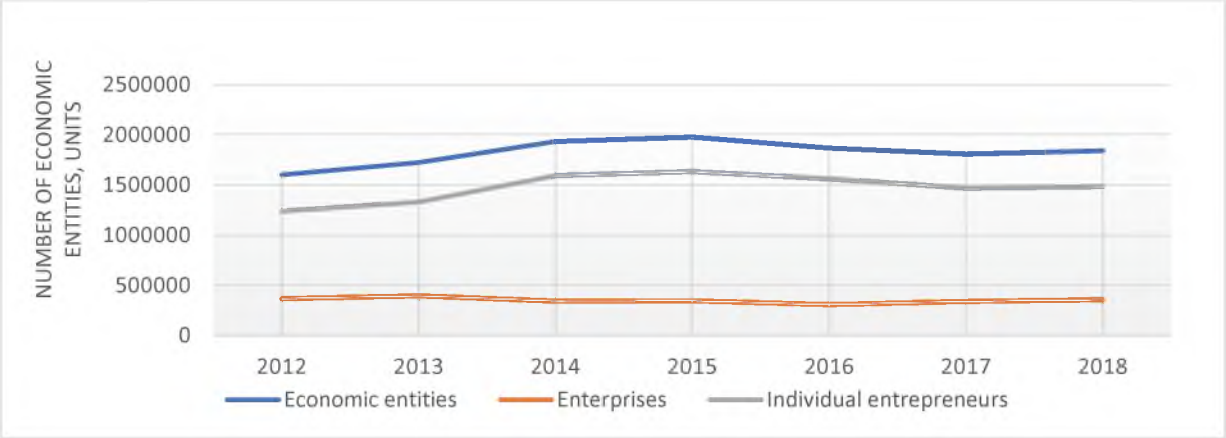


Fig. 1. Number of economic entities in the Ukrainian economy in 2012-2018 [1, 2]
Source: compiled and calculated by author based on [14]

Overall, the analysis of the dynamics of registered economic entities in the economy of Ukraine in 2012-2018 indicates a systematic increase in their numbers during 2012-2015. The trend line of the total number of economic entities in 2012-2018 corresponds to the trend of the dynamics of the number of natural persons-entrepreneurs during the specified period, since their share in the total number of economic entities ranges from 77.16% to 83.57% depending on from the year.

However, it should be noted that the analysis of the dynamics of the number of registered business entities does not allow to objectively estimate the number of business entities engaged in economic activities, and therefore to draw on this basis the conclusions about the favorable business environment created in a country. This is due to the fact that the registered business entities may not carry out economic activities. To this end, it is necessary to analyze the dynamics of business demography statistics indicators. Consider such an indicator as the number of economically active enterprises in Ukraine (Fig. 2).

[1] Data is presented without banks, budgetary institutions and taking into account the statistical information on individual entrepreneurs, formed on the basis of data of the State Tax Service of Ukraine

[2] For the years 2014-2018, the data are given without taking into account the results of the activities of banks, budgetary institutions, the temporarily occupied territory of the Autonomous Republic of Crimea, Sevastopol and parts of the area of anti-terrorist operation

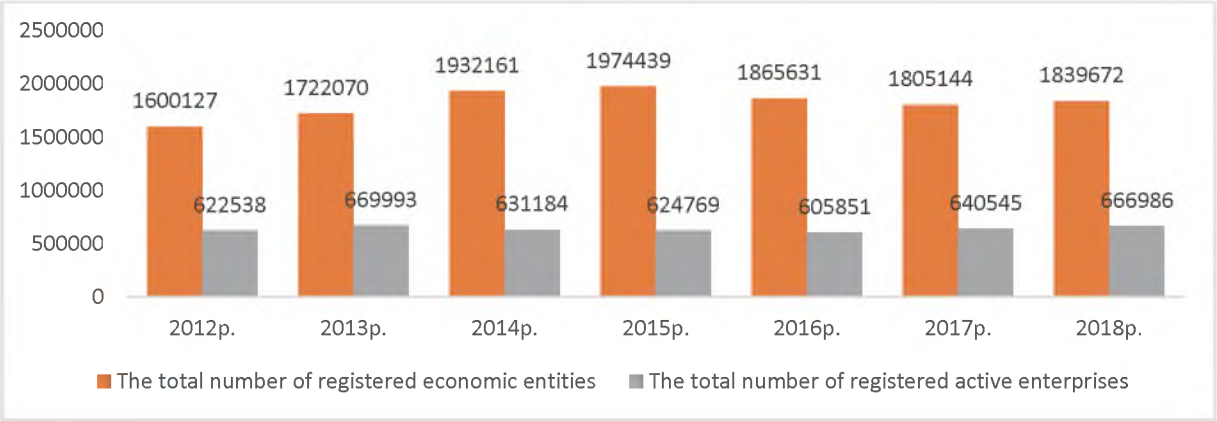


Fig. 2. The total number of registered economic entities and active enterprises in Ukraine in 2012-2018
Source: compiled and calculated by author based on [13]

Analyzing statistics on the number of registered economic entities and the number of economically active enterprises in the economy of Ukraine in 2012-2018 (Fig. 2), we conclude that only about one third of the registered enterprises are active, that is, carry out economic activities. It should also be noted that with the increase in the total number of registered enterprises during 2012-2015, the total number of active enterprises is decreasing (2013-2016). This confirms once again that the business demography of enterprises more objectively reflects the state of entrepreneurship.

Consider the number of active enterprises in Ukraine and the EU Member States (Fig. 3).

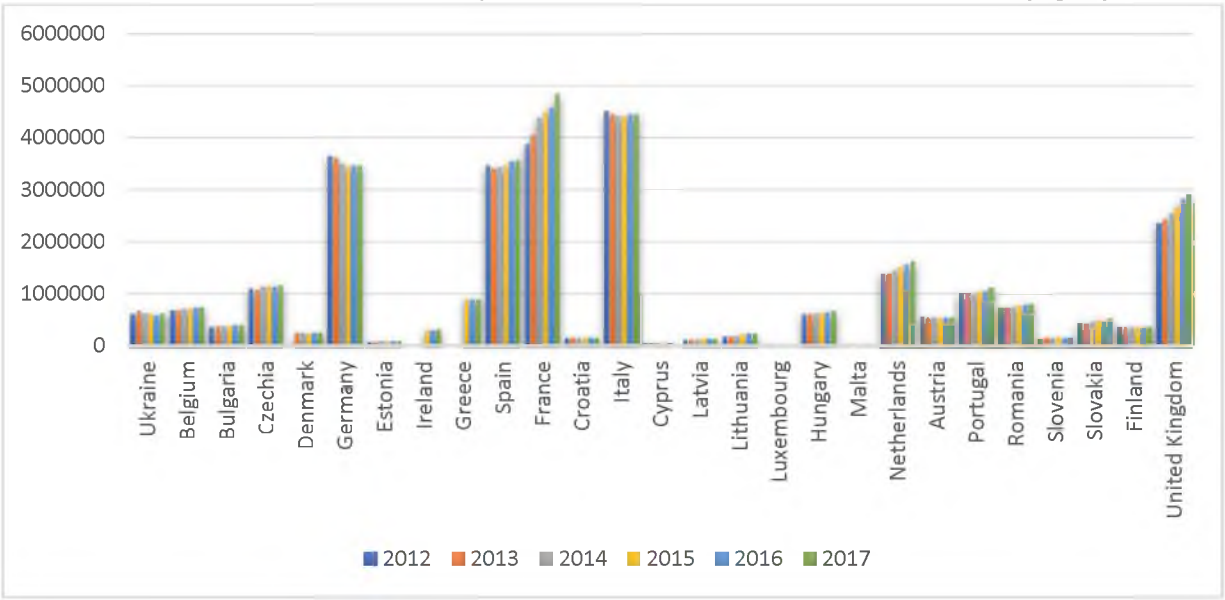


Fig. 3. Population of active enterprises of Ukraine and the EU Member States in 2012-2018 [3, 4]
Source: compiled by author based on [2, 13]

The dynamics of growth in the total number of economically active enterprises in the EU Member States in 2012-2018 differed by country. The dynamics of indicators of the number of economically active enterprises shows that due to the economic crisis of 2008-2009 in 12 EU countries, such as Czechia, Germany, Spain, Croatia, Italy, Cyprus, Hungary, Malta, Austria, Austria, Portugal, Slovakia and Finland until 2013. there was a decrease in the number of active enterprises, while in Germany, Croatia, Italy and Austria this decrease occurred until 2015, and in Finland - 2016.

In fact, in almost all Eurozone countries, in 2008-2014, there has been a decline in the number of businesses due to the financial crisis. The number of insolvent and bankrupt enterprises reached a

[3] For EU Member States, the data are given by economic activities such as industry, construction and services except insurance activities of holding companies

[4] Poland, Sweden – were not logged in due to lack of statistics on the Eurostat website

critical level at that time. Small and medium-sized enterprises have suffered the most from the crisis, the number of which has declined much faster than micro and large enterprises. This is a negative phenomenon for the economy, because the activity of small and medium-sized enterprises plays an important role for the economies of European countries, since their share in the total number of economic entities is huge: in 2012, about 99.8% of companies in the EU were classified as small and medium-sized businesses, the share of micro-enterprises reached 92.1%; such companies created from 52.4% (UK) to 80% (Italy) jobs in the economy, and their share in value added averaged 57.6% [11].

Taking into account the different sizes of the countries for which the comparative analysis is carried out, for the purposes of researching the dynamics of the total number of active enterprises in Ukraine and the EU countries, their number should be considered per 10,000 available population. Indicators point to extremely low values of the total number of active enterprises per 10,000 population in Ukraine compared to EU countries, and its positive dynamics over the period, despite the growth of the total number of active enterprises in 2013 and 2017, occurred only due to the significant annual decrease in the population in Ukraine.

Another important group of business demographic statistics is birth rate indicators (Fig. 4).

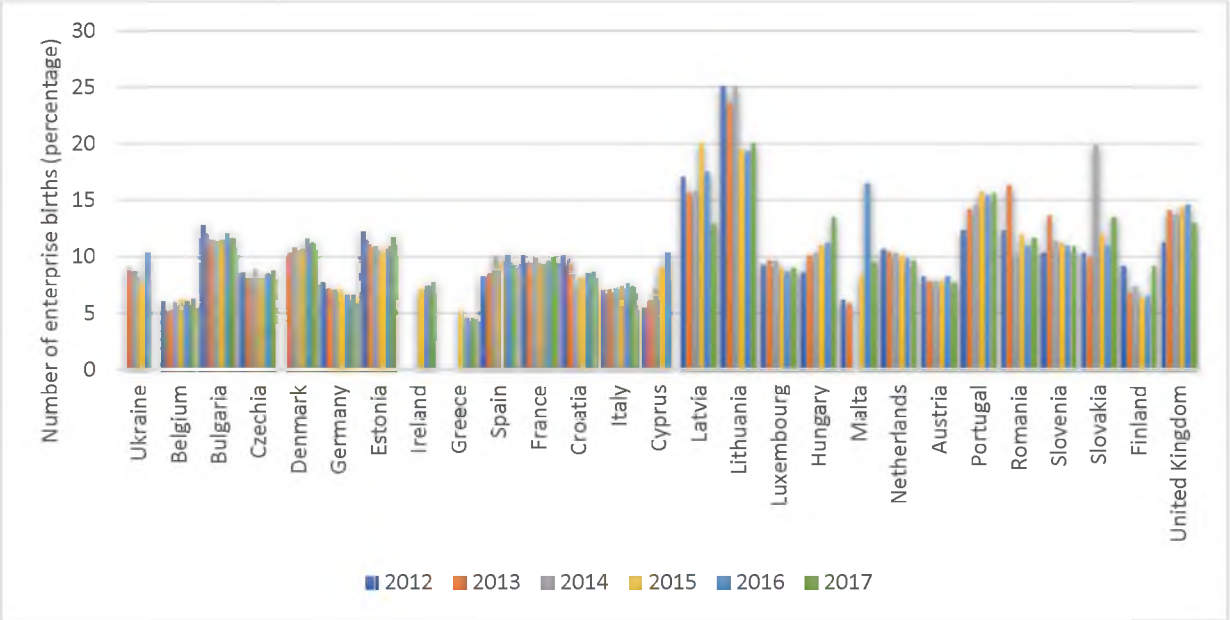


Fig. 4. Number of enterprise births divided by the number of enterprises active (birth rate) of Ukraine and the EU Member States in 2012-2018 (percentage) [5, 6]
Source: compiled and calculated by author based on [2, 15]

Overall, the share of births in the total number of active enterprises in Ukraine during 2012-2018 (in 2013 - 9.1%; 2014 - 8.8%; 2015 - 7.7%; 2016) - 10.4%) is below the European average (in 2012 the average was 10.02%; in 2013 - 10.15%; in 2014 - 10.63%; in 2015 - 9.94% ; 2016 - 10.24%; 2017 - 10.08%), except for 2016 [2]. This indicates the unfavorable environment for doing business in Ukraine. The value of this indicator across the EU countries does not have such wide variation as the indicator of the total number of active enterprises, which is explained by the units of its measurement, but among the EU countries there are those whose value is 1.5-2.5 times higher than the average European level (average value of the indicator in 2012-2018 - 10.18%) - Latvia (average 16.54%), Lithuania (average 22.15%) and Portugal (average 14.68%). It should also be noted that the value of the Population of active enterprises division by population (in 10000) for Latvia and Lithuania was lower than the European average, which created the conditions for an increase in the number of start-ups, but this is also evidence of a favorable business climate in these countries created in these countries.

[5] For EU Member States, the data are given by economic activities such as industry, construction and services except insurance activities of holding companies

[6] Poland, Sweden – were not logged in due to lack of statistics on the Eurostat website

Indicators of births should be considered in conjunction with indicators of deaths (Fig. 5).

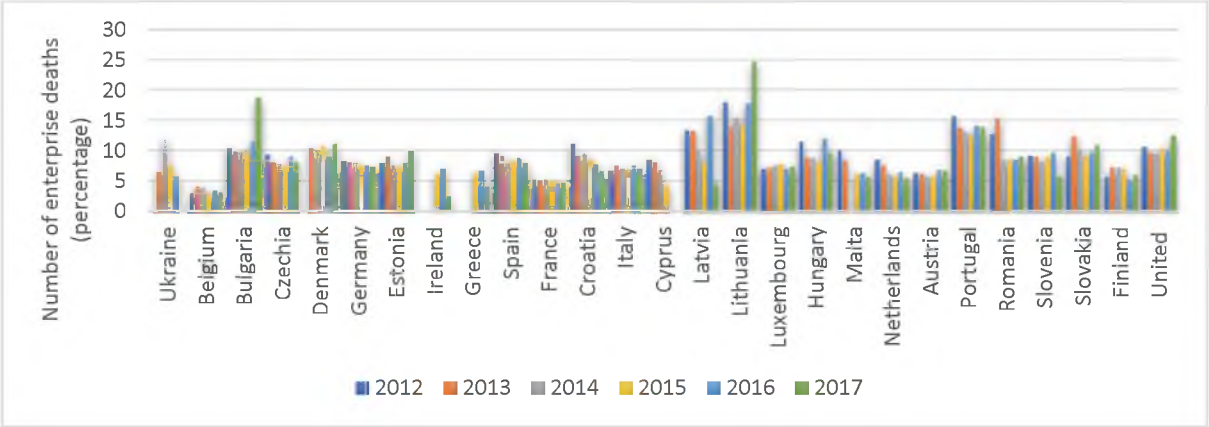


Fig. 5. Number of enterprise deaths divided by the number of enterprises active (deaths rate) of Ukraine and the EU Member States in 2012-2018 [7, 8]
Source: compiled and calculated by author based on [2, 15]

It should be noted that in spite of the fact that on the average for the EU countries during 2012-2017 there was an excess of the share of born enterprises over the dead at the level of 1.5-2 pp. are countries that had a higher proportion of deceased enterprises than births during or over the entire period or individual years. For example, Germany showed a slight steady increase in the share of deceased enterprises over births during 2012-2017 within 1 pp. without a tendency to increase, a similar situation was observed in Greece in 2015-2017 (data for 2012-2014 is missing). Also in countries such as Czechia, Denmark, Spain, Croatia, Cyprus, Hungary, Malta, over the years (from 2 to 4), the share of deceased enterprises over births exceeded. In countries such as Italy, Luxembourg, Slovenia, Austria almost the same level of the share of births and deaths was observed in the total number of active enterprises, with a slight predominance of the share of births within 1-2 pp. Interesting are the indicators of France, which during the whole period had an excess of the share of births of enterprises over deaths by 2 times and Lithuania, where in 2012-2015 this increase was 1.3-1.7 times. That is, in general, the European countries are characterized by heterogeneity in the number and share of births and deaths of enterprises.

Conclusions

In Ukraine, only about one-third of the registered enterprises are active, that is, carry out economic activities, so the use of such an indicator as the total number of registered enterprises does not reflect the real state of favorable business environment. In addition, with the increase in the total number of registered enterprises during 2012-2015, there was a decrease in the total number of active enterprises.

Compared to EU countries, Ukraine has a very low level of active enterprises per 10,000 population, and its positive dynamics during 2012-2017 are due, to a large extent, not to an increase in the total number of active enterprises, but to an annual significant decrease in population.

The share of births in the total number of active enterprises in Ukraine is generally lower than the average in the EU countries, which also confirms the thesis that the environment for doing business in Ukraine is unfavorable, despite the lower average of the share of deceased enterprises.

References

1. Ahmad N. (2008) A Proposed Framework for Business Demography Statistics. In: Congregado E. (eds) Measuring Entrepreneurship. International Studies In Entrepreneurship, vol 16. Springer, Boston, MA

[7] For EU Member States, the data are given by economic activities such as industry, construction and services except insurance activities of holding companies

[8] Poland, Sweden – were not logged in due to lack of statistics on the Eurostat website

2. Business demography by size class (from 2004 onwards, NACE Rev. 2) [Digital resource] : [Eurostat – Data Explorer (bd_9bd_sz_cl_r2)]. – Digital Data. – Luxembourg : Eurostat, 2019. – [Online]. URL: https://appsso.eurostat.ec.europa.eu/nui/show.do (Accessed on: November 5, 2019). – Screen Title
3. Grierson K. & Allen A. "Introducing the new business demography statistics", Econ Lab Market Rev (2008) 2: 53. https://doi.org/10.1057/elmr.2008.187
4. Lopez-Garcia, Paloma and Puente, Sergio, Business Demography in Spain: Determinants of Firm Survival (April 10, 2006). Banco de Espana Research Paper No. WP-0608. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=901153 or http://dx.doi.org/10.2139/ssrn.901153
5. Population change - Demographic balance and crude rates at national level [Digital resource] : [Eurostat – Data Explorer (bd_9bd_sz_cl_r2)]. – Digital Data. – Luxembourg : Eurostat, 2019. – [Online]. URL: https://appsso.eurostat.ec.europa.eu/nui/show.do (Accessed on: November 5, 2019). – Screen Title
6. Ptak-Chmielewska A. (2009). Business demography–apllication for Poland. In *XXVI-IUSSP International Population Conference*
7. Ron J., Miranda J., & Sandusky K. (2003). *Alternative Measures of Business Entry and Exit ", paper presented at the OECD Workshop on Improving statistics on SMEs and Entrepreneurship, 2003: COM*. STD/NAES/DSTI/EAS (2003) 12
8. Shinkarenko K. (2017). *National, regional or industrial explanation for business demography in the European Union since 2010 until 2014: a shift-share application* (Doctoral dissertation)
9. Takahashi M., Sato-Ilic M., Okamoto M. (2019) Estimation of Business Demography Statistics: A Method for Analyzing Job Creation and Destruction. In: Czarnowski I., Howlett R., Jain L., Vlacic L. (eds) Intelligent Decision Technologies 2018. KES-IDT 2018 2018. Smart Innovation, Systems and Technologies, vol 97. Springer, Cham
10. Yarkova Y., Toneva K., & Markov N. (2017). REGIONAL DISPROPORTIONS-BUSINESS DEMOGRAPHY AND ECONOMIC GROWTH (EXAMPLE OF BULGARIA). *Economic Studies*, *26*(6)
11. Biznes-demografiya v Evrope: kto perezhil krizis [Elektronnij resurs] // Setevoe izdanie "Vesti. E`konomika (vestifinance.ru)". – Elektronny`e danny`e. – [Moskva : Uchreditel` : Federal`noe gosudarstvennoe unitarnoe predpriyatie "Vserossijskaya gosudarstvennaya televizionnaya i radioveshhatel`naya kompaniya" (VGTRK), 2017]. – Rezhim dostupa: https://www.vestifinance.ru/articles/41835 (data obrashheniya 5.11.2019 r.). – Nazvanie s e`krana
12. Demohrafichna ta sotsialna statystyka / Naselennia ta mihratsiia / Chyselnist naselennia [Elektronnyi resurs] : [publykatsiia dokumentiv Derzhavnoi Sluzhby Statystyky Ukrainy]. – Elektronni dani. – Kyiv : Derzhstat Ukrainy, 1998-2019. – Rezhym dostupu: http://www.ukrstat.gov.ua/ (data zvernennia: 10.11.2019). – Nazva z ekrana
13. Kilkist aktyvnykh pidpryiemstv za rehionamy Ukrainy ta vydamy ekonomichnoi diialnosti [Elektronnyi resurs] : [publykatsiia dokumentiv Derzhavnoi Sluzhby Statystyky Ukrainy]. – Elektronni dani. – Kyiv : Derzhstat Ukrainy, 1998-2019. – Rezhym dostupu: https://ukrstat.org/uk/operativ/operativ2014/kap/kap_u/arh_kap_u.html (data zvernennia: 01.11.2019). – Nazva z ekrana
14. Kilkist subiektiv hospodariuvannia za vydamy ekonomichnoi diialnosti [Elektronnyi resurs] : [arkhiv danykh Derzhavnoi Sluzhby Statystyky Ukrainy]. – Elektronni dani. – Kyiv : Derzhstat Ukrainy, 1998-2019. – Rezhym dostupu: https://ukrstat.org/uk/operativ/operativ2012/fin/osp/ksg/ksg_u/arch_ksg_u.htm (data zvernennia: 20.10.2019). – Nazva z ekrana
15. Osnovni pokaznyky statystyky demohrafii pidpryiemstv [Elektronnyi resurs] // Derzhavna sluzhba statystyky Ukrainy : [sait]. – Rezhym dostupu: http://www.ukrstat.gov.ua/, vilnyi. – Nazva z ekranu