

CONDITIONS AND PERSPECTIVES FOR INCREASING THE BIRTH RATE IN EUROPEAN UNION, BOSNIA AND HERZEGOVINA AND MACEDONIA¹

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Abstract

The purpose of this paper is to analyze the past and current movement of birth rate, to predict the future movement of this variable and to identify the factors of influence on the basis of what will be proposed measures that will help policy makers in struggle to increase the birth rate, as is the aim of every country.

The paper will be presented empirical research and theoretical aspects about various economic, social, political and psychological factors that have influence on the birth rate. Also, the movement of this variable in EU, Bosnia and Herzegovina and Macedonia for the period 1980-2012 year, as well the forecasts for its future movement will be shown tabular and graphical.

The results will show that the changes in the birth rate in the EU, Bosnia and Herzegovina and Macedonia led to reduction in the number of live births in the last three decades. The birth rate in these countries i.e. community of countries shows a trend of continuous decline, which is a serious problem.

Presented information and conducted analysis within this paper will show that the situation with the birth rate in the analyzed countries is worrying. To this problem should be given more attention in order to prevent the trend of gradual extinction of the population.

Keywords: birth rate, declining trend, factors, perspectives, measures

JEL classification: A1, J1

¹ Paper submitted for the International Scientific Conference 'European Union-Challenges of Enlargement and Western Balkans' 29 May 2014, Banja Luka College

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USLOVI I PERSPEKTIVE ZA POVEĆANJE NATALITETA EVROPSKE UNIJE, BOSNE I HERCGOVINE I MAKEDONIJE¹

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Sažetak

Svrha ovog rada je da analizira prošlost i trenutno kretanje živorođenih, da predvidi buduće kretanje ove promenljive i da identifikuje faktore uticaja na čiji osnov će biti predložene mere koje će pomoći kreatorima politike u bore da se poveća natalitet, kao cilj svake zemlje.

U ovom radu će biti predstavljene neka empirijska istraživanja i teorijski aspekti različitih ekonomskih, društvenih, političkih i psiholoških faktora koji utiču na nataliteta. Takođe, kretanje ove promjenjive u EU, Bosni i Hercegovini i Makedoniji za period 1980-2012 godine, i predviđanja njegovog budućeg kretanja će biti predstavljeno kroz tabele i grafikone.

Analiza će pokazati da su promene u stopi nataliteta u EU, Bosni i Hercegovini i Makedoniji dovela do smanjenja broja živorođenih u poslednje tri decenije. Stopa nataliteta u ovim zemljama/ zajednica zemalja pokazuje trend postojanog pada, što je ozbiljan problem.

Predstavljene informacije i sprovedena analiza u ovom radu će pokazati da je situacija sa stopom nataliteta u analiziranim zemljama zabrinjavajuća. Ovom problemu treba dati više pažnje kako bi se sprečio trend postepenog izumiranja stanovništva.

Ključne reči: živorođeni, opadajući trend, faktori, perspektive, mere
JEL klasifikacija: A1, J1

1 Rad dostavljen za Međunarodnu naučnu konferenciju 'Evropska unija-izazovi proširenja i Zapadni Balkan', 29. maj 2014., Banja Luka College

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INTRODUCTION

Statistical data about natural movement of population show gradual decrease in the number of live births in almost every country in the world. Part from this global trend are Macedonia, Bosnia and Herzegovina and the European Union as well. Numerous economic, social, technological and psychological factors that have influence on birth rate appear as result of modern living. With other words, the economic, cultural and social human development increases the need for professional accomplishment, personal satisfaction and leisure time, on one hand, but also decreases the desire for marriage or having a child, on the other hand.

MOVEMENT OF THE BIRTH RATE IN BOSNIA HERZEGOVINA, MACEDONIA AND EUROPEAN UNION

The birth rate shows the number of live births per thousand of population per year⁴. This variable is showing a trend of declining in Macedonia, Bosnia and Herzegovina and the EU countries in the last three decades. With other words, there is a reduction in the number of live births per woman as a result of the impact of many factors which can be classified into three groups: economic (living standard, woman participation on labor market, employment, income), social (family, community) and psychological (attitude about marriage, career orientation, personal satisfaction)⁵.

The development tendency of this demographic variable for each country i.e. community of nations, is presented tabular and graphic.

Table 1. The movement of birth rate in Bosnia Herzegovina, Macedonia and European Union in the period 1980-2012⁶

Year	Bosnia and Herzegovina	Macedonia	European Union
1980	18,8	21,6	13,9
1981	18,6	21,3	13,5
1982	18,4	21,0	13,4
1983	18,3	20,7	13,1
1984	18,1	20,3	13,0
1985	17,9	19,9	12,8
1986	17,5	19,4	12,7
1987	17,1	19,0	12,8
1988	16,5	18,6	12,7

4 Free Merriam-Webster Dictionary, *Birthrate – Definition and More*, Merriam-webster.com, 03.06.2014

5 Jacobsen , Joyce P : *The economics of gender*; Government translation, University Goce Delcev, Macedonia, 2010

6 World Bank, 2014. World Development Indicators, <http://databank.worldbank.org/data/views/reports/tableview.aspx>, 04.06.2014

1989	15,8	18,3	12,4
1990	15,0	17,9	12,4
1991	14,2	17,4	12,0
1992	13,6	17,0	11,7
1993	13,0	16,5	11,4
1994	12,6	15,9	11,1
1995	12,3	15,3	10,8
1996	12,0	14,7	10,8
1997	11,7	14,1	10,7
1998	11,3	13,5	10,5
1999	10,8	13,0	10,5
2000	10,2	12,6	10,6
2001	9,6	12,3	10,4
2002	9,1	12,0	10,3
2003	8,7	11,8	10,3
2004	8,5	11,6	10,5
2005	8,3	11,4	10,4
2006	8,3	11,3	10,6
2007	8,3	11,2	10,6
2008	8,4	11,1	10,9
2009	8,5	11,0	10,7
2010	8,6	10,9	10,7
2011	8,7	10,9	10,4
2012	8,8	10,8	10,4



Picture 1. The movement of birth rate in Bosnia and Herzegovina, Macedonia and European Union in the period 1980-2012

From tabular and graphic display we can notice that there is a reduction in the birth rate in 2012 compared to 1980. What we can first notice from the figure above is the trend of rapidly declining birth rate in Macedonia and Bosnia and Herzegovina in the beginning of the analyzed period, than its slower decline in the second decade and minimal decline in Macedonia, i.e. increase in Bosnia and Herzegovina in recent years. In terms of the European Union, there is small decline in the first two decades and relatively same birth rate in the last decade. Even though the declining birth rate is a common trend, the percentage of change is different for each country. Thus, the percentage of decline in the birth rate is 50% in Macedonia, 53.2% in Bosnia and Herzegovina and 25.2% in the EU.

THE PERSPECTIVES OF THE BIRTH RATE IN BOSNIA AND HERZEGOVINA, MACEDONIA AND THE EUROPEAN UNION

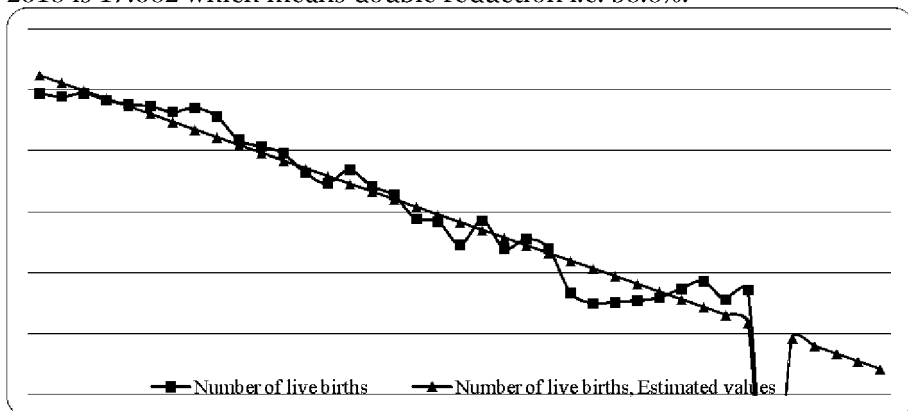
Statistical data about the number of live births in Macedonia also confirm the declining trend in the period from 1980 to 2012. Prediction for the next years (2014-2018) show that the number of live births will continue to decline if appropriate activities to overcome such conditions would not be taken. Past, current and future movement of the number of live births in Macedonia is shown tabular and graphic.

Table 2. The trend of birth rate in Macedonia and prediction for the future

Year	Number of live births	Number of live births, Estimated values
1980	39.784	41.233,7
1981	39.488	40.597,6
1982	39.789	39.961,5
1983	39.210	39.325,4
1984	38.861	38.689,3
1985	38.722	38.053,2
1986	38.234	37.417,1
1987	38.572	36.781,0
1988	37.879	36.144,9
1989	35.927	35.508,8
1990	35.401	34.872,7
1991	34.830	34.236,6
1992	33.238	33.600,5
1993	32.374	32.964,4
1994	33.487	32.328,3
1995	32.154	31.692,2

1996	31.403	31.056,2
1997	29.478	30.420,1
1998	29.244	29.784,0
1999	27.309	29.147,9
2000	29.308	28.511,8
2001	27.010	27.875,7
2002	27.761	27.239,6
2003	27.011	26.603,5
2004	23.361	25.967,4
2005	22.482	25.331,3
2006	22.585	24.695,2
2007	22.688	24.059,1
2008	22.945	23.423,0
2009	23.684	22.786,9
2010	24.296	22.150,8
2011	22.770	21.514,7
2012	23.568	20.878,6
Prediction		
2014		19.606,4
2015		18.970,3
2016		18.334,2
2017		17.698,1
2018		17.062,0

The number of live births was 41.233 in 1980, while the prediction for 2018 is 17.062 which means double reduction i.e. 58.6%.



Picture 2. The trend of birth rate in Macedonia and prediction for the future

Statistical data about the number of live births in Bosnia and Herzegovina also confirm the declining trend in the period from 1980 to 2012. Pre-

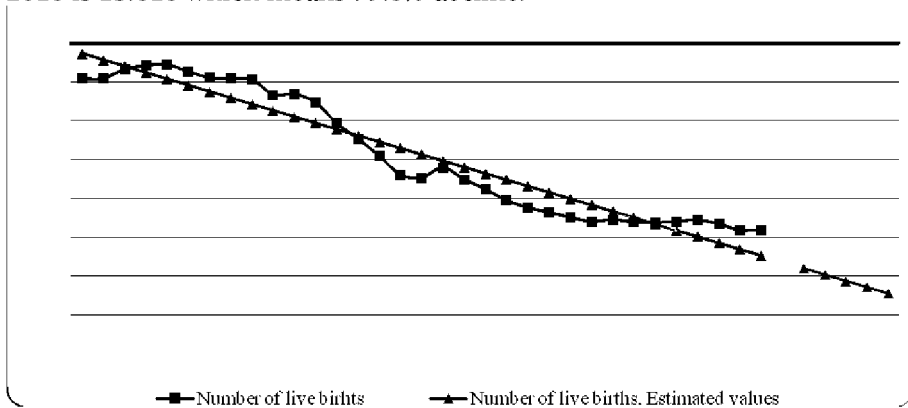
diction for the next years (2014-2018) show that the number of live births will continue to decline if appropriate activities to overcome such conditions would not be taken. Past, current and future movement of the number of live births in Bosnia and Herzegovina is shown tabular and graphic.

Table 3. The trend of birth rate in Bosnia and Herzegovina and prediction for the future

Year	Number of live births	Number of live births, Estimated values
1980	70.928	77.264,78
1981	71.031	75.642,49
1982	73.375	74.020,19
1983	74.296	72.397,90
1984	74.539	70.775,61
1985	72.722	69.153,32
1986	71.203	67.531,02
1987	70.898	65.908,73
1988	70.711	64.286,44
1989	66.809	62.664,14
1990	66.952	61.041,85
1991	64.769	59.419,56
1992	59.428	57.797,26
1993	55.456	56.174,97
1994	51.022	54.552,68
1995	46.213	52.930,38
1996	45.421	51.308,09
1997	48.061	49.685,80
1998	45.007	48.063,50
1999	42.464	46.441,21
2000	39.563	44.818,92
2001	37.717	43.196,63
2002	36.485	41.574,33
2003	35.234	39.952,04
2004	34.167	38.329,75
2005	34.627	36.707,45
2006	34.033	35.085,16
2007	33.835	33.462,87
2008	34.176	31.840,57
2009	34.550	30.218,28
2010	33.528	28.595,99
2011	31.875	26.973,69
2012	32.072	25.351,40
Prediction		
2014		22.106,81

2015		20.484,52
2016		18.862,23
2017		17.239,94
2018		15.617,64

The number of live births was 77.265 in 1980, while the prediction for 2018 is 15.618 which means 79.8% decline.



Picture 3. The trend of birth rate in Bosnia and Herzegovina and prediction for the future

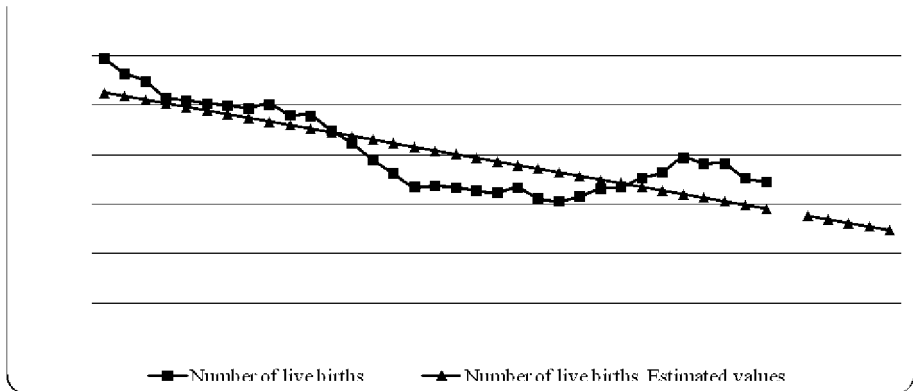
Statistical data about the number of live births in the European Union also confirm the declining trend in the period from 1980 to 2012. Prediction for the next years (2014-2018) show that the number of live births will continue to decline if appropriate activities to overcome such conditions would not be taken. Past, current and future movement of the number of live births in the European Union is shown tabular and graphic.

Table 4. The trend of birth rate in European Union and prediction for the future

Year	Number of live births	Number of live births, Estimated values
1980	6.474.003	6.127.601,67
1981	6.321.793	6.091.079,59
1982	6.242.340	6.054.557,51
1983	6.076.702	6.018.035,43
1984	6.047.951	5.981.513,35
1985	6.015.020	5.944.991,27
1986	5.998.040	5.908.469,19
1987	5.968.572	5.871.947,11
1988	6.008.463	5.835.425,03
1989	5.900.294	5.798.902,95

1990	5.893.526	5.762.380,87
1991	5.742.705	5.725.858,79
1992	5.618.148	5.689.336,71
1993	5.452.768	5.652.814,63
1994	5.312.733	5.616.292,55
1995	5.180.511	5.579.770,47
1996	5.186.641	5.543.248,39
1997	5.173.265	5.506.726,31
1998	5.139.115	5.470.204,23
1999	5.118.595	5.433.682,15
2000	5.166.879	5.397.160,07
2001	5.062.948	5.360.637,99
2002	5.033.705	5.324.115,91
2003	5.080.465	5.287.593,83
2004	5.157.177	5.251.071,75
2005	5.176.852	5.214.549,68
2006	5.264.100	5.178.027,60
2007	5.323.425	5.141.505,52
2008	5.469.434	5.104.983,44
2009	5.412.572	5.068.461,36
2010	5.411.129	5.031.939,28
2011	5.266.184	4.995.417,20
2012	5.231.142	4.958.895,12
Prediction		
2014		4.885.850,96
2015		4.849.328,88
2016		4.812.806,80
2017		4.776.284,72
2018		4.739.762,64

The number of live births was 6.127.602 in 1980, while the prediction for 2018 is 4.739.763 which means 22.6% decline.



Picture 4. The trend of birth rate in European Union and prediction for the future

According to the Population Reference Bureau's list of the fastest-shrinking countries in the world, Macedonia is on 21st place, Bosnia and Herzegovina is on 5th place, while Bulgaria (4th place), Latvia (6th place) and Lithuania (7th place) are the countries from European Union which are ranked on the top on this list. In details, the population in Macedonia was 2.054.000 in 2010 and it is expected to be 1.867.000 in 2050 which means 9.1% decrease. The population in Bosnia and Herzegovina was 3.843.000 in 2010 and it is expected to be 2050 is 3.075.000 in 2050 according to the forecast, which means 20% decrease. From EU countries, Bulgaria is the country with the fastest percentage of decrease (21.9%) ranked on the 4th place on this list⁷.

CONCLUSION

From the conducted analysis, we can conclude that the situation with the birth rate in analyzed countries, especially in Macedonia and Bosnia and Herzegovina is worrying. Thus, the information show that Macedonia had and still has the highest birth rate of 10.8 live births per 1,000 inhabitants. On the second place is EU with 10.4 live births per 1,000 inhabitants, while Bosnia and Herzegovina with 8.8 live births per 1,000 inhabitants is in the end.

The continuing trend of declining birth rate indicates the need for urgent measures at state level. These measures include greater financial support for young parents, changes in labor law towards better mother's protection, job for every mother, public propaganda about the positive effects of having a child and the negative effects of an abortion.

⁷ Population Reference Bureau, <http://www.prb.org/>, 03.06.2014

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