Ukraine in the European arena: a two-dimensional analysis based on macroeconomic criteria

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Abstract

This comparative analysis deals with the data on the GDP per capita and the external debt per capita in the European countries. It investigates the interdependence of these macroeconomic criteria, introducing a two-dimensional approach aimed at defining the relation between the debt liabilities of the country and its socio-economic development. The results are then extrapolated to the current geopolitical situation in Europe with the main focus on Ukraine - the Eastern European player within the framework of the EU Eastern Partnership Programme.

Keywords: GDP, external debt, EU, Ukraine, Eastern Partnership, integration

1. Introduction

The Eastern European arena is experiencing rough times. Yet, the Eastern Partnership Programme has been launched and progress towards EU integration is deemed to become the motto of future prospects. The current challenging geopolitical situation that these countries are facing is emphasised by the lingering crisis in Ukraine, which causes economic, social and political instability in the region. Since the end of 2013, events happening in Ukraine have gained a worldwide attention. For instance, the case of Ukraine within the the Eastern European Partnership was investigated by Laurynas Kasčiūnas, Vilius Ivanauskas, Vytautas Keršanskas, Linas Kojala in a study entitled *Eastern Partnership in a Changed Security Environment: New Incentives for Reform* (2014) published by the Eastern European Study Centre (EESC). In the *European Policy Paper* 3/2014 entitled “Regional Repercussions of the Ukraine Crisis: Challenges for the Six Eastern Partnership Countries” (2014), edited by Alina Inayeh, Daniela Schwarzer and Joerg Forbrig, the attention is entirely devoted to the current situation in Ukraine and its influence on the Eastern

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European countries. Steven Woehrel, an American scholar investigates the issue in connection with the US policy, “Ukraine: Current Issues and U.S. Policy” (2015). Sir Lawrence Freedman developed his ideas regarding the topic in his article “Ukraine and the Art of Crisis Management” (2014) etc.

2. Features of the current socio-economic development

The preliminary study investigates the relation between external debt and the GDP, introducing the ratio of interdependence between them. The ratio indicates if the amount of external debt per capita is higher or lower than the GDP per capita illustrating the dependence of the country on external financial investment, and showing whether the total value of goods and services produced in the country (which is expressed in terms of GDP) is sufficient to repay its liabilities. The compound table below compares two macroeconomic indicators. Firstly, it lists the bottom ten European countries in terms of the GDP per capita in 2014; secondly, it represents the ten European countries with the smallest amount of external debt per capita in the same year. Finally, it illustrates the list of countries with the lowest ratio of external debt per capita to the GDP per capita.

As we can clearly see, the majority in all three groups (in bold) is represented by the non-EU countries. With the lowest GDP per capita in Europe, they also have the lowest distribution of external debt among the population and do not face the situation in which the amount of the external debt per person would be bigger than the total GDP per capita. The relationship between indicators, defined by dividing the external debt per person by the GDP per person, is positive and less than 1 in all of the countries under investigation, thus demonstrating that the outstanding and current liabilities of each country do not exceed the value of goods and services produced in the country. That is, the countries are less dependent on foreign investment and the debt can be theoretically fully repaid within the course of the year.

By far, in 2014, Belarus had the lowest external debt equal to 126.72 USD per capita, and this implies that the socio-economic development of the country is characterised by a rather little prevalence of external debt in the GDP structure, as the ratio amounted to 1.5% at the beginning of 2015. Belarus is the only Eastern European country which appears in all three rankings. Nevertheless, the country is a member of the Customs Union, which excludes any DCFTA with the EU (Eastern Partnership Civil Society Forum, 2014, p. 8).

The Balkan countries – Bosnia and Herzegovina, Montenegro, Macedonia, and Albania – demonstrate similar patterns of socioeconomic development. With low indexes of both GDP per capita and external debt, the correlation between the indicators in these countries does not exceed 67%, while such ratios in Albania and Montenegro are considerably lower: of a 24% and 37% respectively. Three more states worth special attention are Moldova, Serbia and Ukraine. With the lowest indexes of GDP per capita in Europe, Ukraine and

Moldova face a relatively higher level of external debt per capita and, therefore, are not listed on the third ranking chart. At the beginning of 2015, the ratio of the external debt per capita to the GDP per capita in Moldova amounted to 78%, and reached a peak of 105% in Ukraine[1]. In the meantime, the GDP per capita in Serbia in 2014 was twice as big as the GDP in Ukraine or Moldova, but with the amount of debt equal to more than 4,712.86 USD per capita, the correlation between the indicators (0.77) is way too high for the country to be included in the ranking chart[2].

Table 1. Comparison of the European countries with the lowest levels of the GDP per capita, the external debt per capita and the interdependence ratio between the given indicators, 2014

GDP per capita			External debt per capita			Ratio of External debt per capita to GDP per capita		
Position in the ranking	Country	USD	Position in the ranking	Country	USD	Position in the ranking	Country	%
31	**Belarus**	8040.0	31	Russian Federation	4,965.9	31	Romania	0.661
32	Bulgaria	7712.7	32	Turkey	4,734.4	32	**Macedonia, FYR**	0.658
33	**Montenegro**	7370.8	33	***Serbia***	4,712.8	33	Lithuania	0.613
34	***Serbia***	6152.8	34	**Macedonia, FYR**	3,589.2	34	**Bosnia and Herzegovina**	0.607
35	Macedonia, FYR	5455.5	35	***Ukraine***	3,048.7	35	Czech Republic	0.497
36	**Bosnia and Herzegovina**	4805.2	36	**Bosnia and Herzegovina**	2,918.1	36	Turkey	0.449
37	**Albania**	4619.2	37	**Montenegro**	2,734.0	37	Russian Federation	0.384
38	Kosovo	3989.7	38	***Moldova***	1,748.9	38	**Montenegro**	0.371
39	***Ukraine***	2905.5	39	**Albania**	1,109.0	39	**Albania**	0.240
40	***Moldova***	2233.7	40	**Belarus**	126.7	40	**Belarus**	0.015

Source: own representation[3]

According to the World Bank, the Ukraine crisis is characterised by two opposite trends: a slight growth of the external debt and a significant slump of the GDP, as presented in the table 2. As a result, we observe a 28% decrease in the GDP per capita and a 3% increase in the external debt per capita, which leads to the negative significant change of 42% in the correlation (interdependence ratio) of external debt and GDP between 2013 and 2014.

[1] See Annex 1.

[2] See Annex 1.

[3] The calculations represented in the table are based on the data on population and the GDP retrieved from the World Bank official website (World Bank, 2013-2014) and the data on external debt retrieved from the Index Mundi official website (Index Mundi, 2013-2014). For more information, see Annex 1.

Table 2. Changes in the socio-economic development in Ukraine during the crisis, 2013-2014

GDP per capita, USD			External debt per capita, USD			Ratio of the ED to GDP, %		
2013	2014	%	2013	2014	%	2013	2014	%
4029.72	2905.57	-0.28	2967.71	3048.74	0.03	0.74	1.05	0.42

Source: own representation[4]

The current crisis in Ukraine is, obviously, the main lever of the above trends. On the one hand, military actions in the East decelerate industrial performance in the country in general. Before the military actions took place, Donetsk and Lugansk regions (these are the very regions of Ukraine where the military actions are taking place), commonly known as Donbas region, were among the main contributors to the country's GDP due to the developed manufacturing, chemical, metallurgy and coal mining industries. Now, ruined and devastated, under specific conditions of governing they do not make any contribution to the GDP of the country.

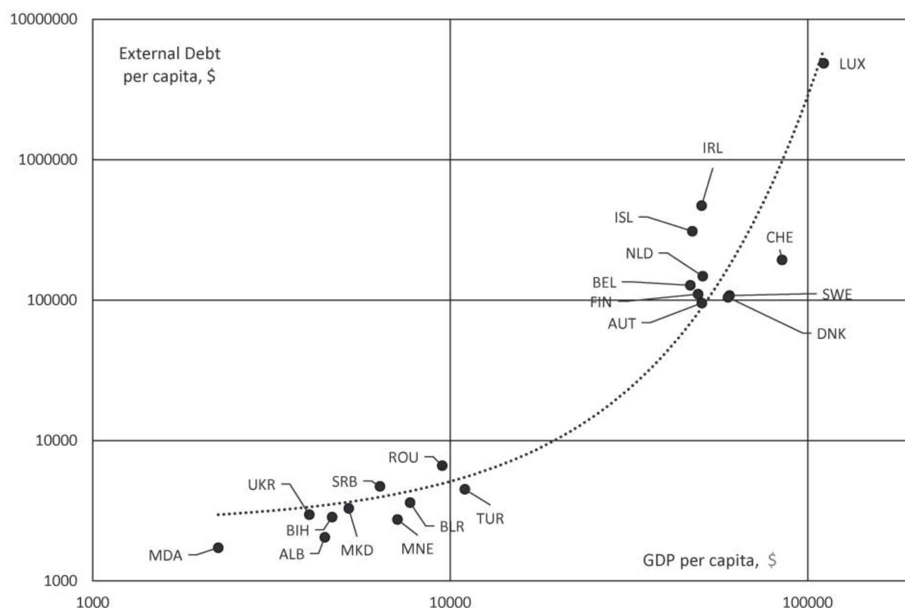
On the other hand, in order to maintain the country's mechanism operating in such challenging times, the government is trying to attract external funding in the form of interest loans from international organisations (i.e. IMF), the EU and other countries. In addition, the exclusion of Crimea from the Ukrainian administrative map adds up to the current performance patterns because it implies changes in the number of population in the country and the GDP as well – indicators which have been included into the official data of Russian Federation since 2014 (National Bank of Ukraine, 2015). Therefore, a sharp change in the ratio of interdependence between the external debt and the GDP per capita in Ukraine can serve as a universal numerical illustration of how internal issues determine the growing dependence of the country on external factors, expressed in terms of external debt.

The graph below (Figure 1) illustrates the current situation in Europe. It is a graphical description of the linear connection between the GDP per capita and the external debt of the country. It demonstrates the situation in the ten countries with the highest ratio of interdependence, the ten countries with the lowest ratio of interdependence and three separate countries – Ukraine, Moldova and Serbia – which are partners of the EU, but do not have the interdependence ratio low enough to be included in the first group (see Table 1). The trend line on the diagram points out the general pattern of performance in the countries: the higher the GDP per capita, i.e. the richer the country, the larger the amount of the external

[4] The calculations represented in the table are based on the data on population and the GDP retrieved from the World Bank official website (World Bank, 2013-2014) and the data on external debt retrieved from the Index Mundi official website (Index Mundi, 2013-2014). For more information, see Annex 1.

debt they have in their structure and the more dependent on external financial means they are. This can be exemplified by Luxembourg which, according to the GDP per capita ratio, turns out to be the richest country in the EU[5]; at the same time, in 2013, the amount of external debt per person in Luxembourg was 50 times higher than the GDP per capita. Luxembourg is the smallest country in the EU and even though its financial system has a world-famous reputation of being reliable and proving one of the highest levels of personal data protection in the world, it alone is not sufficient to bridge all the gaps the country has in its mechanisms; therefore, the external debt is treated as a catalyser for a profitable financial performance and welfare growth. In 2013, the amount of the GDP per capita was equal to 110,664.84 USD, whereas the sum of debt distributed per every citizen amounted to just under 5 million USD[6].

Figure 1. Two-dimensional characteristics of the current socio-economic development, 2013



Source: own representation[7]

[5] See Annex 1.
[6] See Annex 1.
[7] The graph is built on the basis of the data on population and the GDP retrieved from the World Bank official website (World Bank, 2013-2014) and the data on external debt retrieved from the Index Mundi official website (Index Mundi, 2013-2014). For more information, see Annex 1.

The case of Iceland may serve as another example, internal factors playing a crucial role in their external dependence on the help of others. Moreover, with the relatively small amount of population (World Bank, 2015), which amounted to 329 thousand citizens at the beginning of 2015, the country is experiencing a burden of external debt, which was equal to just over 311,000 USD per capita at the end of 2014.

On the other side, for 2013, the countries with the lowest interdependence ratio in Europe were below the value of 1 on the graph; this shows they are among those where the amount of GDP per capita is sufficient to repay external liabilities in one year, i.e. it can, in theory, fully cover the cost of debt. Despite the fact that, compared to other European countries, they currently cannot boast a high GDP, which is mainly determined by historical peculiarities of development, they are not as dependent on external levers as others and can thus, in theory, be regarded as stable players in the international arena.

As we can see, Ukraine is the last but one country on the list of European countries in terms of GDP per capita, with Moldova taking the last position with 2,243.98 USD in 2013. Yet, despite the rough situation in the East, which is the core concern for a state trying to protect its citizens, the Ukrainian government's policy is directed towards meeting the requirements of the EU on the avenue of closer cooperation and actual implementation of the DCFTA (Deep and Comprehensive Free Trade Area).

As the European Integration Index for Eastern Partnership Countries reveals, the performance of Ukraine within the integration process is estimated in terms of three dimensions: linkage, approximation and management. In general, they characterise the extent to which the ties between the 6 countries of the Eastern Partnership are developed, how the legislative standards are being transformed in order to meet the EU requirements, and characterises the policies and management bodies directed towards integration. Overall, the reforms introduced by the Ukrainian government led to positive changes in 2014, with the ratios of linkage and approximation growing and reaching 66% and 60% respectively, but met a 50% decrease in management (Eastern Partnership Civil Society Forum, 2014).

The unstable situation in the country, which, since 2013, has gradually degenerated into war actions in the East, hampers positive socio-economic development by posing security risks and endangering democracy prospects. These internal reasons evoke a vital need for external catalysers. To put it in simple terms, external debt is used as an instrument to cope with the war actions in the East and stimulate reforms towards integration and to prevent inner conditions (crisis in Ukraine) from hampering socio-economic development and from causing losses in the people's welfare. Moreover, because of the post-Soviet relations with the Russian Federation and its role in neighbourhood areas,

namely in Transnistria and Donbas, the crisis poses a potential threat to other countries in the region (Kasčiūnas et al., 2014).

3. Conclusions

The current situation in the European arena is characterised by a prevalence of the external debt in the financial structure of its countries. The distribution of debt is rather unequal; still, there is a clear pattern according to which countries with the lowest GDP per capita ratio have the smallest amount of external debt to be paid and hence, are less dependent on external factors. This category mainly comprises East European and Balkan countries with which further integration processes are currently being fostered.

The data clearly illustrates how the situation in Ukraine has changed as a result of the crisis and military actions in the country. The 28% reduction in the GDP per capita throughout one year between 2013 and 2014 illustrates the negative impact of the current situation on the socio-economic development. Moreover, the increase in the value of the interdependence ratio between the external debt and the GDP per capita demonstrates how the internal situation causes a need for external financial assistance as an emergency mechanism to be used.

The two-dimensional analysis on the diagram describes the current situation in Europe. Due to its comparative nature, we can clearly see a striking difference between the levels of socio-economic development in EU and non-EU member countries. Nevertheless, taking into account a prevalence of external debt in the GDP structure in the EU-countries, we can conclude that the relatively low prevalence of external debt in Eastern European partner countries is a positive feature in the integration process because it proves a possibility of a stable tendency in socio-economic development, not prone to external factors. Yet, the domestic issues, as backed with the example of Ukraine, are crucial and set the direction for any possible shifts in the country's performance.

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Annex 1

Table 1. Value of the GDP per capita, external debt per capita and the interdependence ratio between them in the European countries in 2013-2014*

	Country Name	Country Code	GDP per capita, USD, 2013	External debt per capita, USD, 2013	Ratio ED/GDP, 2013	GDP per capita, USD, 2014	External debt per capita, USD, 2014	Ratio ED/GDP, 2014
1	Andorra	AND	42,806.52	-	-	-	-	-
2	Albania	ALB	4,458.07	2043.23	0.46	4,619.21	1109.00	0.24
3	Austria	AUT	50,513.39	95301.83	1.89	51,127.08	95143.33	1.86
4	Belgium	BEL	46,927.25	127338.21	2.71	47,516.52	126857.35	2.67
5	Bulgaria	BGR	7,498.83	6956.53	0.93	7,712.76	5237.81	0.68
6	Bosnia and Herzegovina	BIH	4,668.80	2842.92	0.61	4,805.24	2918.09	0.61
7	Belarus	BLR	7,722.12	3604.479	0.47	8,040.05	126.71	0.02
8	Switzerland	CHE	84,732.96	193217.10	2.28	N/D	188517.32	-
9	Cyprus	CYP	21,072.32	N/D	-	20,132.62	N/D	-
10	Czech Republic	CZE	19,858.34	9411.01	0.47	19,553.93	9714.03	0.50
11	Germany	DEU	46,254.98	70915.20	1.53	47,627.39	70676.65	1.48
12	Denmark	DNK	59,818.63	104649.53	1.75	60,634.39	104032.85	1.72
13	Spain	ESP	29,880.71	49570.95	1.66	30,262.23	49089.959	1.62
14	Estonia	EST	18,877.33	19385.47	1.03	19,719.84	20355.5	1.03
15	European Union	EUU	35,435.49	30598.66	0.86	36,317.34	31378.18	0.86
16	Finland	FIN	49,310.23	110186.26	2.23	49,541.29	107420.09	2.17
17	France	FRA	42,627.65	78346.01	1.84	42,732.57	81124.43	1.90
18	United Kingdom	GBR	41,776.76	157393.65	3.77	45,603.29	148456.7	3.26
19	Georgia	GEO	3,596.91	2977.35	0.83	3,669.98	2606.51	0.71
20	Greece	GRC	21,965.96	52287.23	2.38	21,682.60	51899.38	2.39
21	Croatia	HRV	13,597.92	15327.67	1.13	13,507.36	14273.91	1.06
22	Hungary	HUN	13,486.59	20418.30	1.51	13,902.70	17268.87	1.24
23	Ireland	IRL	50,470.32	470391.8	9.32	53,313.61	469137.6	8.80
24	Iceland	ISL	47,548.69	309484.68	6.51	52,111.04	311365.7	5.98
25	Italy	ITA	35,477.47	41388.62	1.17	34,960.30	42454.40	1.21
26	Kosovo	KSV	3,890.30	N/D	-	3,989.72	N/D	-
27	Liechtenstein	LIE	N/D	N/D	-	N/D	N/D	-
28	Lithuania	LTU	15,689.00	11103.26	0.71	16,444.84	10087.65	0.61

29	Luxembourg	LUX	110,664.84	4864178.4	43.95	N/D	5278074.5	-
30	Latvia	LVA	15,357.27	19779.92	1.29	16,037.78	20031.64	1.25
31	Monaco	MCO	N/D	N/D	-	N/D	N/D	-
32	Moldova	MDA	2,243.98	1722.60	0.77	2,233.77	1748.95	0.78
33	Macedonia, FYR	MKD	5,195.28	3285.81	0.63	5,455.59	3589.28	0.66
34	Malta	MLT	22,776.19	108107.72	4.75	N/D	119512.2	-
35	Montenegro	MNE	7,110.76	2736.60	0.38	7,370.86	2733.99	0.37
36	Netherlands	NLD	50,792.51	147996.67	2.91	51,590.05	139253.26	2.70
37	Norway	NOR	102,832.26	129753.72	1.26	97,363.09	140290.76	1.44
38	Poland	POL	13,829.16	9574.08	0.69	14,422.84	9611.65	0.67
39	Portugal	PRT	21,507.71	48607.21	2.26	22,080.89	48887.25	2.21
40	Romania	ROU	9,489.69	6610.38	0.70	9,996.67	6609.41	0.66
41	Russian Federation	RUS	14,487.28	4402.57	0.30	12,937.03	4965.94	0.38
42	San Marino	SMR	N/D	N/D	-	N/D	N/D	-
43	Serbia	SRB	6,353.83	4702.59	0.74	6,152.87	4712.86	0.77
44	Slovak Republic	SVK	18,050.17	12642.71	0.70	18,416.54	12630.78	0.69
45	Slovenia	SVN	23,296.58	26155.93	1.12	23,962.58	25472.57	1.06
46	Sweden	SWE	60,364.91	107704.08	1.78	58,887.25	107228.87	1.82
47	Turkey	TUR	10,975.07	4491.38	0.41	10,529.57	4734.4776	0.45
48	Ukraine	UKR	4,029.72	2967.71	0.74	2,905.57	3048.74	1.05

Source: self-representation on the basis of data (World Bank, 2013-2014), (Index Mundi, 2013-2014)