ECONOMIC PROSPECTS IN THE CONTEXT OF GROWING REGIONAL INTERDEPENDENCIES: THE EUROPEAN UNION AND THE EASTERN PARTNERSHIP

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Abstract. *The paper deals with the European Union programme devoted to the eastern neighboring states. Through its European Neighbourhood Policy (ENP), the EU works with its southern and eastern neighbours to achieve the closest possible political association and the greatest possible degree of economic integration. This goal builds on common interests and values — democracy, the rule of law, respect for human rights, and social cohesion. The EU is concerned that, despite sufficient funding and support from the EU, the targeted states did not raise to the EU targets for the programme or at least to a relevant one. We assume that such fact happened mostly because, although having very diverse economic and reform pasts emerged from the post-soviet period, they were considered and approached as a single group. The main hypothesis: has the umbrella of the EU funds in terms of the EaP provided for the six targeted states to intensify the growth of regional interdependencies as well as political cooperation and progressive economic integration? The main goal of the paper is to assess, by means of the statistical and comparison approach, the development and the economic sustainability of six targeted states (Belarus, Moldova, Ukraine, Armenia, Azerbaijan, and Georgia) in the period before and after the programme launching – the degree of regional interdependence and economic integration. The research was conducted using the methods of empirical (regression) analysis, theoretical explanations, descriptive analysis, and the Granger causality test.*

Key words: *the EU, Easter Neighborhood Partnership, correlation, convergence, causality*

1. Introduction

One goal of strategic importance for the EU has been to reinforce relationships with the neighbor border states since the 1990s. The EU's Eastern and North-Eastern neighbors include six post-soviet countries – Belarus, Moldova, Ukraine and the three countries of the South Caucasus (Armenia, Azerbaijan, and Georgia). The Eastern Partnership (EaP) is the European Union's leading policy initiative to forge closer ties with six countries in Eastern Europe and the South Caucasus. Established in 2009, the partnership seeks to promote regional stability through trade agreements and democratic institution-building. The financing relations that the EU maintains with these member countries has been

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known as the Eastern Neighborhood Partnership (ENP) and is structured around bilateral and multilateral strategies aimed at establishing durable political, economic, and cultural ties. Closer cooperation between the EU and its six target Eastern European partners is very important for the EU's external relations. For the EU, it is extremely in its focus to ensure that these six states in the process of emerging from the soviet period (post-soviet development) become stable, predictable and synergetic to the EU, because the instability of any border state can have a damaging impact on the EU. The EU has invested in this idea, presuming that if the ENP programme actions are effective, close neighbors of the EU would emerge from the post-soviet tendencies so that their security, stability, and prosperity increasingly affect the EU in a positive manner. Providing incentives and rewarding best performers, as well as offering funds in a faster and more flexible manner, are the two main principles underlying the European Neighborhood Instrument (ENI) which came into force in 2014 (Regulation (EU) No 232/2014). The ENI programme continues the 2007–2013 European Neighborhood and Partnership Instrument (ENPI) and aims at promoting an enhanced political cooperation and progressive economic integration between the EU and the partner countries. This initiative has a budget of €15.4 billion and provides the bulk of funding through a number of programmes.

So the ENI, effective from 2014 to 2020, replaces the ENPI mostly because the ENP initiative was not deemed successful. The major concern for the EU's foreign policy towards these six targeted states includes the establishment of a democratic government, human rights, the rule of law and socio-economic stability in the region. The other recurring issues pertain to a good governance, migration and mobility, trade, sustainability, and energy security. Overall, political and socio-economic transition processes in this complex region have been rather slow. The potential reasons for this fact relate to internal problems and uneven developments in the six countries, but also to historical legacies, culture and the geostrategic context in which the partnership evolves. All these factors need to be understood and accounted for in order to design the policies that durably support transition processes in these six targeted states.

2. Literature review

The browsing of the Google Scholar (a broad and famous depository of scientific papers in Open Access) provides about 103 thousand research papers linked to "the EU and the Eastern partnership" word combinations, and there are only 45 papers that contain these word combinations exactly. This is a rather miserable amount given the significance of this policy. But most interesting is the "temperature / attitude" of researches on the topic – which mostly look concerned, doubtful and uncertain as to the ability of the EU to make the policy effective and legitimate in the region (Korosteleva, 2012). The timeline

of scientific thoughts about the topic is also rather demonstrative. Thus, up to the year 2008 when the idea of EaP had been presented by the foreign ministers of Poland and Sweden in Brussels, only about 40% of the current scientific collection on the topic had been published in the Google Scholar depository. It should be particularly emphasized that all papers in the indicated period considered mostly the EU partnership with some particular states or the aspects of integration / expansion of the EU to the East, as well as the possibilities of enlarging strategies and looking for buffer zones between the EU and Russia. Only after the political decision (2008) this combination of words – "EU & EaP" – appeared in the titles and texts of scientific papers, as well as further ENP / ENPI.

Taking into account that the Google Scholar contains and offers only 45 published papers, particularly after 2009, which have the "EU & EaP (ENP)" combination in the title or in the body text, we considered those most cited for this analysis (Table 1).

As it is clear from Table 1, most scientists came to express deep concern about the successful realization of such policy. However, a detailed analysis of fragmentation motives that appeal and provide a full understanding of "groundwater flows" in the six target countries on their way to the absorption and realization of reforms. The establishment of the EaP in 2009 can be considered as a central element of the new European diplomacy in the eastern borderlands where the means of the neighborhood policy become a target (Lapenko, Arshinov, 2010). The funds for supporting this effort are notably massive, i.e. overall 2.5 billion euro available for the European Neighborhood Instrument in the following quotas for 2011–2013 (eeas.europe.eu): Armenia – € 182 million; Azerbaijan – € 75.5 million; Belarus – € 41.5 million; Georgia – € 208 million; Moldova – € 308 million; Ukraine – € 389 million, as well as some funds on flagship initiatives.

Even a slight look at these numbers can catch quite obviously the lack of statistical analysis to explain the choice of sums and proportions; at least it is not open for the majority. Also, the literature review revealed the absence of *statistical* researches on the topic. However, there are some statistical researches of the EU & ENP that are concentrated on migration tendencies (Barbone et al., 2013).

The aim of our research is not to glance at the source of the programme steps for the six target countries in 2008–2014, and not even to consider the exact funds and their effectiveness in particular metrics, but to consider the realization of the main aim of the EaP (and following ENP / ENPI) at promoting an enhanced political cooperation and progressive economic integration between the EU and the six countries from the position of grounded statistical results and the tracing of main tendencies.

The main hypothesis: does the umbrella of the EU funds in terms of the EaP provide for the six targeted states to intensify the regional interdependencies as well as political cooperation and progressive economic integration?

TABLE 1. **Literature analysis of the recent 10-year researches on the topic**

Author	Paper's "emotion" state	Analytics/statistical analyses	Main discussion	Focus on
Delcour Laure (2011)	Concern	No data analysis	A discrepancy between the levels of cooperation; the current lack of synergies among various institutional formats under the multilateral track	Institutional framework
Coll Ewa (2013)	Quite optimistic	The study presents the classification of the EU member states and the ENP with regard to the economic potential illustrated by the GDP per capita value in a dynamic perspective (covering the period of 1995–2009)	The similarities between EU and ENP in macroeconomic development	Macroeconomics
Kasciunas Laurynas (2012)	Rather negative, and non-optimistic	No data analyses	Commitments of CIS members under these agreements were very limited	Transnational development
Marchetti Sabrina; Piazzalunga Daniela; Venturini Alessandra (2013)	Negative	Deep statistical analyses of migrants from Ukraine and Moldova in Italy	Migration at the national and European levels, effective improvement of the conditions of ENP migrants	Characteristics of work migrants in Italy
Boonstra Jos, Shapovalova Natalia (2010)	Concern in leverage for the EU	No statistical analysis	It appears that the EU efforts to encourage reforms in the region will continue to be unsuccessful. The incentives offered by the Eastern Partnership are insufficient	Reflect upon the EU performance and its potential as a transformative power in the region, as perceived by the partner countries themselves
Łapczynski Marcin (2009)	Careful approach	No statistical analysis	The EU should stress that the ENP initiative is not directed against Russia and that partner countries need to maintain good relations with this country as well. The EU should continue its efforts in finding solutions of the frozen conflicts in Transnistria, Abkhazia, South Ossetia, and Nagorno-Karabakh	Reactions, positions, and the critique of the EU policy in ENP
Kaca Elżbieta, Kaźmierkiewicz Piotr (2013)	Concern, optimistic	No statistical analysis	Reviews the experience of implementing the EU assistance in the region of the Eastern Partnership in the current financial perspective (2007–2013), suggesting ways in which it can be made into a more effective instrument for realizing the political priorities of cooperation	Excessive thematic fragmentation, inconsistent application of the "more for more" principle, and the insufficient volume of aid to civil society

Source: author's compilation.

We claim that the EU implemented funds and policy tools unified all the six targeted states without considering the unequal levels of civil society and economic development at the time of the Programme establishment. This was not quite appropriate. So, the process of integration and the EU standards' diffusion remained diverse and slow in the target states as could be expected without any funding. Also, the reflection of old, post-soviet tendencies is so strong in these states that an "individual" approach should be used first by the EU based not only on the political point of view and assumptions, but mostly on the results of a complex survey of the six target economies on their way to the EU (preferably economic-mathematical one).

Main methods: to achieve our goal, we use the knowledge of general scientific methods (analysis and synthesis, comparative, historical, and logical) and statistical approach (empirical (regression) analysis, descriptive analysis, and the Granger causality test), which seems to be the best possible approach to analyze trends for the development of six targeted states during the EU programme funding and before it. The choice of these methods is due to the logic of the study as today the application of mathematical methods is a prerequisite for a complex analysis of economic processes, ensuring high requirements to the validity, effectiveness and feasibility of the model forecasts for economic processes. This, in turn, makes it possible to avoid random one-sided conclusions and increases the reliability and validity of the final results of the statistical analysis.

Practical outcome: understanding the macro-economic trends in the six targeted states will help to develop the policies whose target is not to make these states part of the EU, but first of all to make them predictable, synergetic and a reliable buffer for the EU.

3. Statistics and empirical assessment

The EU has allocated 175 million Euros in 2011–2013 to the programs related to the institutional development and reforms in the countries of the EaP. What do these funds represent for the recipient states? For the post-soviet "Eastern Partnership" republics, this is a way to get funding from the EU, which can cause some concern for Brussels: a country applying for the EU membership in advance behaves as a subsidized member but does not reflect the EU standards and interests. The EU is challenging this approach by asking – "Eastern Partnership" versus European integration: *with or instead of?*

When we consider these six countries from the position of their reforms and their internal macroeconomic development (Table 2), it seems that the situation is entirely stable in the worsening direction: 24 positions have shown a deterioration in the period of the EaP funding fulfilment, and only 14 positions show an improvement. Also, a negative signal for the targeted group of countries is that the scores evaluated by the Freedom House, despite some changes, remained in the negative limit level during the whole period of 2005–2014 without any sign of improvement.

TABLE 2. **Dynamics of democratic performance of six targeted countries in 2005–2008 (marked 0), and 2009–2014 (marked 1) (↓ – deteriorated, ↑- improved, 0 – no change)**

Country	Democracy (overall)	Electoral process	Civil society	Independent media	National democratic governance	Local democratic governance	Judiciary	Corruption
Armenia (ARM)	$\downarrow^0\uparrow^1$	$0^0 0^1$	$0^0 0^1$	$\downarrow^0\uparrow^1$	$\downarrow^0 0^1$	$0^0\downarrow^1$	$\downarrow^0 0^1$	$0^0\uparrow^1$
Azerbaijan (AZE)	$\downarrow^0\downarrow^1$	$\downarrow^0\downarrow^1$	$\downarrow^0\downarrow^1$	$\downarrow^0 0^1$	$0^0\downarrow^1$	$0^0\downarrow^1$	$0^0\downarrow^1$	$0^0\downarrow^1$
Belarus (BLR)	$\downarrow 0\downarrow^1$	$\uparrow^0\downarrow^1$	$\uparrow^0\downarrow^1$	$0^0 0^1$	$\uparrow^0 0^1$	$\downarrow^0 0^1$	$0^0\downarrow^1$	$\uparrow^0\downarrow^1$
Georgia (GEO)	$\downarrow^0\uparrow^1$	$\downarrow^0\uparrow^1$	$\downarrow^0 0^1$	$\downarrow 0\uparrow^1$	$\downarrow^0\uparrow^1$	$\uparrow^0 0^1$	$\uparrow^0\downarrow^1$	$\uparrow^0\uparrow^1$
Moldova (MDA)	$\downarrow^0\uparrow^1$	$\uparrow^0 0^1$	$\uparrow^0\uparrow^1$	$\downarrow^0\uparrow^1$	$0^0\uparrow^1$	$0^0 0^1$	$\uparrow^0\downarrow^1$	$\uparrow^0\uparrow^1$
Ukraine (UKR)	$\downarrow^0\downarrow^1$	$\downarrow^0\downarrow^1$	$0^0\uparrow^1$	$\uparrow^0\downarrow^1$	$\downarrow^0\downarrow^1$	$0^0\downarrow^1$	$\downarrow^0\downarrow^1$	$0^0\downarrow^1$

Source: author's compilation based on the scores of the Freedom House 'Nations in Transit' surveys 2006–2014. https://www.freedomhouse.org/report-types/nations-transit#.VMz70y6NvVo

Table 2 demonstrates that the targeted countries, being unequal in the democratic performance until engaging in the EaP (further ENP / ENPI), still kept the same unequal performance even after receiving the first funds and launching the projects of action. Thus, the most improved scores are presented by Georgia and Moldova; only their judiciary system is still getting worse, but the other main positions are better or at least the same. This fact is an evidence that the correspondingly higher support of the EU to these two states has stimulated civil society and democratic reforms in them. As to the other states, there is an evidence that the funding of the projects of action and other initiatives have been productive at a rather low level and mostly kept the situation at the same milestone or were a stimulus to worsening (possibly caused by corruption and the non-transparent use of funds). As for Ukraine, despite the rather high sum of funding in comparison with the other targeted states (actually the largest level), the country suffers the internal and border conflicts. The situation and scale of Ukrainian society is not reflected correspondingly in the sum and structure of the EU projects. Even during 2013–2014 the situation was still deteriorating (Table 2). The most likely reason is that, first of all, the internal climate and features of business climate in such a large country were not analyzed enough and taken into account when the sum and the drivers for its delivery were considered by the EU.

As the next step of our research we use a descriptive statistical analysis to describe quantitatively the main features of collecting information on the main macroeconomic indicators of dynamics for the six targeted states and the EU before, during, and after

the Programme launching. Figures 1–5 are demonstrative for the following conclusions:

1) the economic growth of the states was quite diverse (Fig. 1). There is no synergy / convergence in the stripes of the correspondent indicators. The crisis years in the 1990s and in 2009 were highly dramatic for the states, what shows that the EU integration direction did not support the economic consistency and robustness to shocks of the target states. The joining of Azerbaijan to this programme seems a bit unclear, as the macroeconomic development as well as the democratic progress (Figs. 1 and 2, Table 2) are absolutely different in this state in comparison to the EU and the rest of targeted states. However, some macroeconomic stability was established in the analyzed region during the first half of the 1990s and has been maintained since then;
2) the GNI (current US$) values for the EU and the targeted states are incomparable as the EU level is 100 times higher than for the lead indicator value in the analyzed group for the period 1990–2013 and after 2008 (the year of the programme launch) the situation just depreciated. But as to GDP and GNI per capita growth (annual %), it is possible to see the same average level and appearance of a convergence in the dynamics after 2008 (Figs. 2–3);
3) the trends of trade of the EU (in its part of GDP) are synergetic in its dynamics with the targeted states' trends for the period until and after the programme launch. However, trade volumes (as % of GDP) are higher in the six states than in the EU itself (Fig. 4). This fact puts under consideration the necessity of establishing the project in action of the ENP initiative "Deep and Comprehensive Free Trade Area (DCFTA)";
4) Most positive tendencies that accompanied the programme are noted in the aspect of taming the inflation in the region (Fig. 5). Despite the existing internal challenges, all the six states (beside Belarus) managed to harmonize their inflation rates and bring them close to the European standard; at least the volatility of rates kept quasi-equal.

Summing up the results of the main macroeconomic indicators in dynamics, we can conclude that the comparison analysis proved the general possibility of the targeted states to integrate into the EU in unison to the EU dynamics. Most politicians and economists find that the unison dynamics of the main indicators of a country's health is the first positive sign – litmus – that reforms are effective (the best known case of Poland and the Baltic states in the years of their integration to the EU). But there is quite a high diversity inside the target group itself. The evidence is quite obvious that these six states have been chosen not from the economic point of view but from the political one. As from the economic point of view, it would be better to separate the same programme projects in action into two different blocks or better to consider and fund states separately, according to their particular needs and unstableness. However, there is still a tendency of keeping the same idea and the same aims.

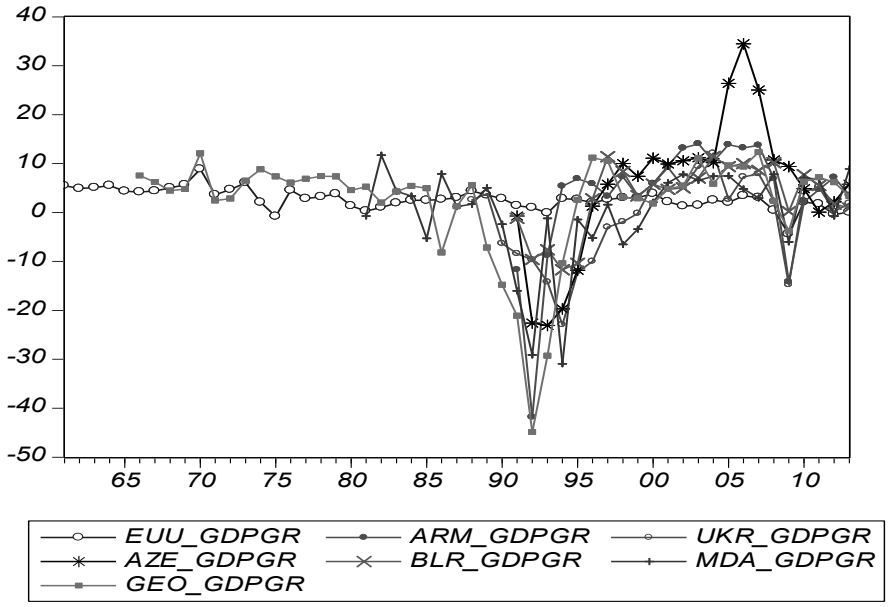

FIG. 1. **Dynamics of GDP growth (annual %) in the EU and the targeted states (1961–2014)**

Source: author's calculations on the base of the World Bank data. http://data.worldbank.org/country

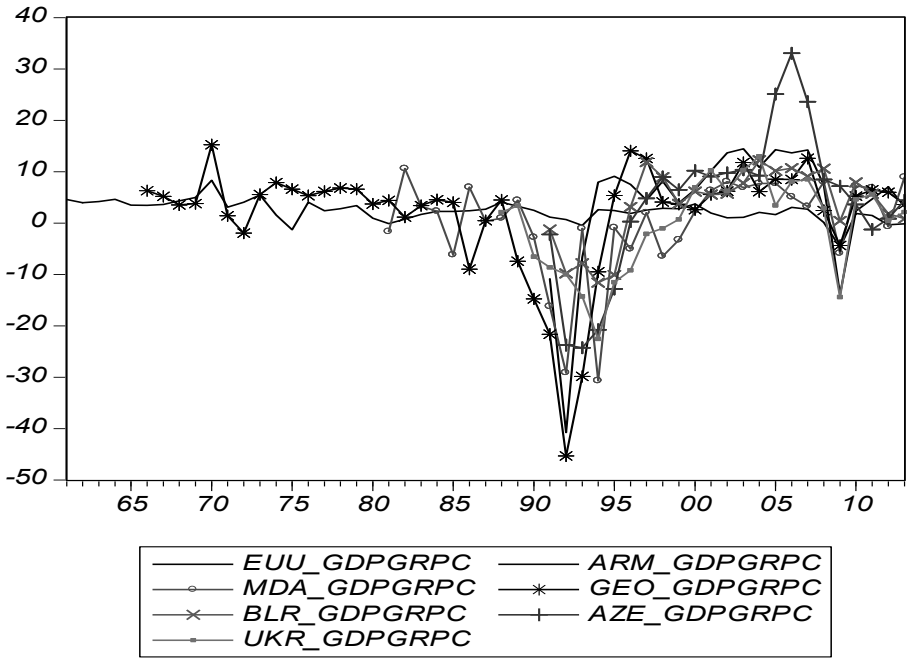

FIG. 2. **Dynamics of GDP per capita growth (annual %) in the EU and the targeted states (2000–2013)**

Source: author's compilation on the base of the World Bank data. http://data.worldbank.org/country

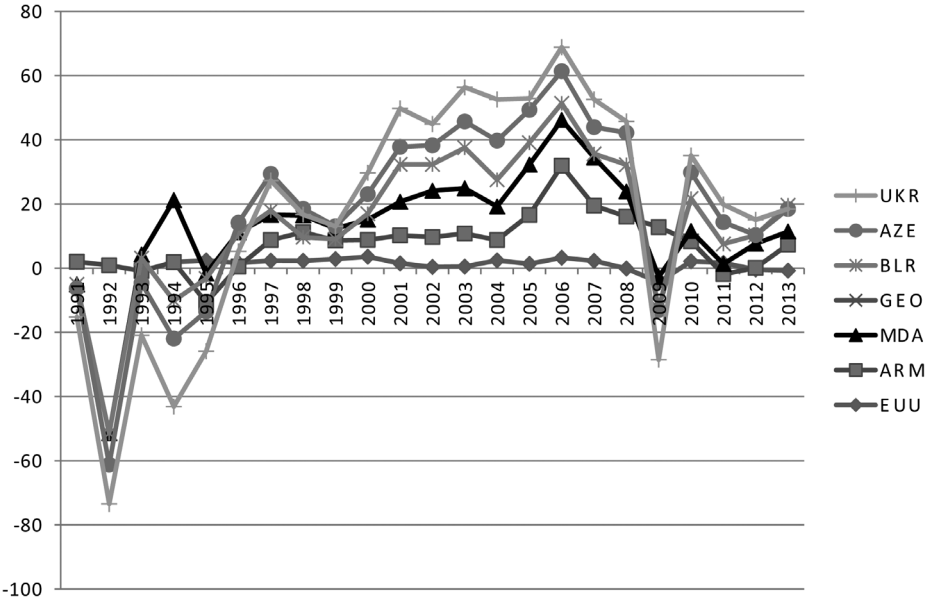

FIG. 3. **Dynamics of GNI per capita growth (annual %) in the EU and the targeted states (1991–2013)**

Source: author's compilation on the base of the World Bank data. http://data.worldbank.org/country

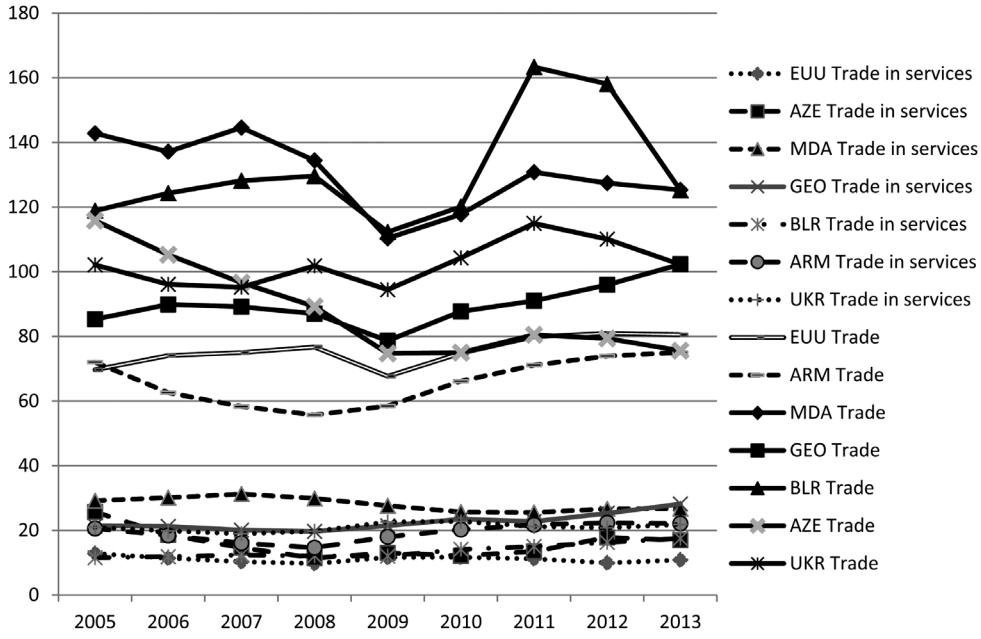

FIG. 4. **Dynamics of trade (% of GDP) in the EU and the targeted states (2005–2013)**

Source: author's compilation on the base of World Bank data. http://data.worldbank.org/country

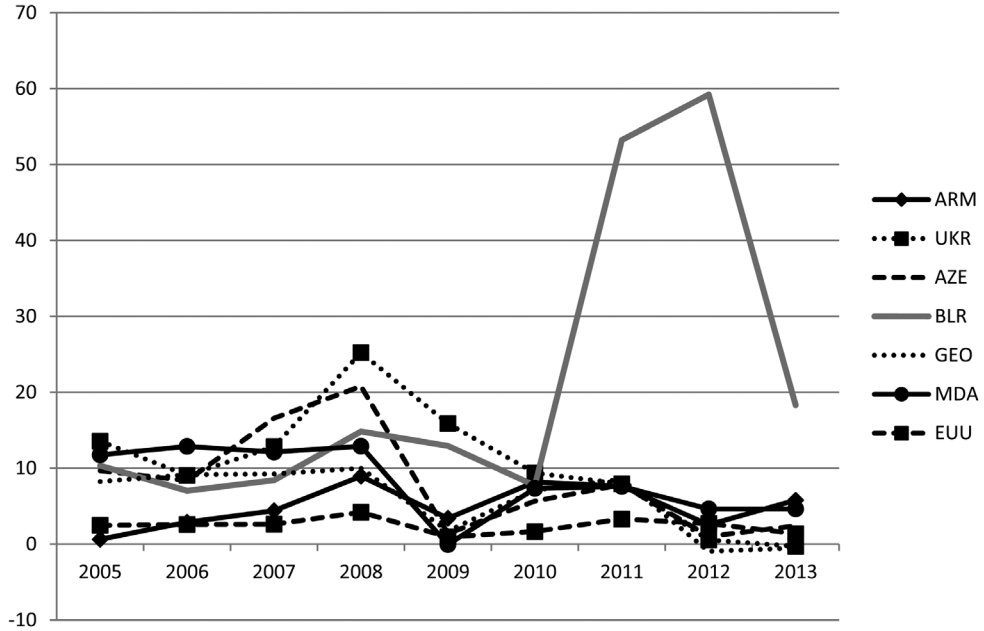

FIG. 5. **Dynamics of the inflation rate, consumer prices (annual %) in the EU and the targeted states (2005–2013)**

Source: author's compilation on the base of the World Bank data. http://data.worldbank.org/country

The ENP Multilateral Platforms (European Commission Memorandum, 2012) are considered in terms of the four main directions:

- Platform 1 – "Democracy, Good Governance and Stability"
- Platform 2 – "Economic Integration and Convergence with EU Policies"
- Platform 3 – "Energy Security"
- Platform 4 – "Contacts among people".

Our next step is to trace the dynamics of the main world-known representative indexes for these six targeted states, which we believe can reflect each of the platform ideas:

- Platform 1: global democracy ranking (http://democracyranking.org/), Worldwide Governance Indicators (http://info.worldbank.org/governance/wgi/index.aspx#home); the Fragile States Index (The Fund for Peace) (http://library.fundforpeace.org/fsi);
- Platform 2: the European Integration Index for the Eastern Partnership countries (http://www.eap-index.eu/);
- Platform 3: the Energy Sustainability Index (as a compound of the Environmental Performance index) (http://epi.yale.edu/indicators-in-practice/energy-sustainability-index);

- Platform 4: the Global Peace Index (Vision of Humanity) (http://www.visionofhumanity.org/#/page/indexes/global-peace-index), DIGITAL ACCESS INDEX – DAI (http://www.internetworldstats.com/list3.htm), the Press Freedom Index (http://en.wikipedia.org/wiki/Press_Freedom_Index).

Thus, in the mirror of the representative indices (according to the four highlighted platforms) for the period 2008–2014, we can see a clear tendency to improve for Armenia and Georgia after the programme platforms have come into force.

TABLE 3. **Dynamics of Multilateral Platforms performance indicators of six targeted countries in 2008–2014 (↓ – deteriorated, ↑ – improved, 0 – no change)**

Country	Global democracy ranking	Worldwide Governance Indicators (Government Effectiveness)	Worldwide Governance Indicators (Rule of law)	Worldwide Governance Indicators (Political Stability and Absence of Violence)	Fragile States Index	EII for EPC	Energy Sustainability Index	Global Peace Index	DAI	Press Freedom Index	WTO
Armenia	↑	↑	↑	↑	↑	↑	↓	↑	↑	↑	Yes
Azerbaijan	–	↑	↑	↑	↑	0	↑	↓	↑	↓	No
Belarus	–	↑	↓	↑	↑	↑	–	↓	↑	↓	No
Georgia	↓	↑	↑	↑	↑	↑	0	↑	↑	↑	Yes
Moldova	↓	↓	↓	↑	↑	↑	0	↑	↑	↑	Yes
Ukraine	↑	↑	↑	↓	↓	0	0	↓	↑	↓	Yes

Source: author's compilation.

Thus, the statistical and analytical analysis of the performance indexes and data of the main targeted objectives of the EU project in the direction to integrate / close six targeted eastern neighbor states to the EU standards and values provides the evidence that the programme is unbalanced.

The next step is implemented by us to depict the understanding of internal nets and levers for the development and integration of the six states to the EU. The usage of powerful statistical tools for the evaluation of statistical relationships, involving dependence, is supposed as most appropriate for this aim. We try to indicate by means of the correlation analysis the predictive relationships that can be exploited in practice – to trace economic prospects in the context of growing regional interdependencies for the EU and the eastern partnership of the six states. Note that a correlation coefficient is a measure of the strength and direction of the linear relationship between the two variables, which is

defined as the (sample) covariance of the variables divided by the product of their (sample) standard deviations (Green, 1993). The correlation analysis cannot be interpreted as establishing cause-and-effect relationships. The correlation coefficient measures only the degree of linear association between the two variables. It can indicate only how, or to what extent, the variables are associated with each other; this is appropriate to reach the declared goal of the paper – *does the macroeconomic level of the six states associate in its dynamics with the EU*? The programme efficiency is based to some extent on reaching this result.

The large data base was used for the research: 2157 statistical data on 1960–2013 for the EU and the six targeted states in the cutaway of such indicators that represent 14 main tendencies of the states' development as it is considered below:

Variable	Units	Symbol	Variable	Units	Symbol	Variable	Units	Symbol
GDP growth	Annual %	_GDPgr	GDP per capita growth	annual %	_GDPgrpc	GNI growth	annual %	_GNI
Variable	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**
GNI per capita growth	Annual %	_GNIgrpc	Current account balance	% of GDP	_CAB	Short-term debt	% of total reserves	_STD
Variable	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**
Real interest rate	%	_RIR	Military expenditure	% of GDP	_M	Gross national expenditure	% of GDP	_GNE
Variable	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**
Exports of goods and services	% of GDP	_Exp	Trade	% of GDP	_trade	Poverty gap at $2 a day	(PPP) (%)	_pov
Variable	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**	**Variable**	**Units**	**Symbol**
Unemployment, total, modelled ILO estimate	(% of total labor force	_unp	Inflation, consumer prices	Annual %	_infl			

Our article has intended to show that there are a lot of relationship analyses but quite nothing is said (as the literature analyses show) on the mathematical point of view on the topic. Thus, we used a correlation that refers to any of a broad class of statistical relationships involving dependence. We would like to supplement the known thoughts and opinions by the objective results of the mathematical approach as a sober look at the problem. A correlation analysis proves at the significance level of 0.05 that there are some associated relationships (Table 4) for the analyzed period (on the average).

TABLE 4. **Significant high correlations among the states' indicators*(we avoided intentionally the correlations among indicators of the same state)**

	EU	ARM	AZE	BLR	GEO	MDA	UKR
EU							
ARM	M_{eu} – Pov_{arm}						
AZE	M_{eu} – Pov_{aze}	GDP_{aze} – $Trade_{arm}$ (-), CAB_{arm} – Pov_{aze} (-), M_{arm} – $Trade_{aze}$ (-), Infl					
BLR		CAB_{arm} – Pov_{blr}, Infl	GDP, GDP–GNI, GDP_{blr} – Pov_{aze} (-), GNI_{blr} – Pov_{aze} (-), CAB_{blr} – $Trade_{aze}$, CAB_{blr} – Pov_{aze}				
GEO		GDP, GNI, CAB_{arm} – $Unep_{geo}$ (-), M_{geo} – $Trade_{arm}$ (-), Infl	CAB_{geo} – Exp_{aze} (-), CAB_{geo} – Pov_{aze} (-), CAB_{geo} – $Infl_{aze}$ (-), Pov_{geo} – Pov_{aze}				
MDA	GNE_{mda} – Exp_{eu}, GNE_{mda} – $Trade_{eu}$	GDP_{mda} – $Infl_{arm}$ (-), GNI_{mda} – $Infl_{arm}$ (-), CAB_{arm} – Exp_{mda}, Trade (-), Pov_{arm} – Pov_{mda}	GDP_{aze} – $Trade_{mol}$, GDP_{mda} – STD_{aze} (-), GDP_{mda} – Pov_{aze} (-), CAB_{aze} – Pov_{mda} (-), CAB_{mda} – Exp_{aze} (-), CAB_{mda} – Pov_{aze} (-), CAB_{mda} – $Infl_{aze}$ (-)	GDP_{mda} – $Infl_{blr}$ (-), CAB_{aze} – Pov_{blr} (-), CAB_{blr} – Exp_{mda}, CAB_{blr} – Pov_{mda}	GDP_{geo} – $Trade_{mda}$, CAB_{geo} – CAB_{mda}, CAB_{geo} – M_{mda} (-), CAB_{geo} – GNE_{mda} (-), CAB_{mda} – M_{geo} (-), CAB_{mda} – GNE_{geo} (-)		
UKR	CAB_{ukr} – Exp_{eu} (-), CAB_{ukr} – $Trade_{eu}$ (-), M_{eu} – $Trade_{ukr}$ (-)	Pov_{arm} – Pov_{ukr}	GDP_{ukr} – Pov_{aze} (-), CAB_{ukr} – M_{aze} (-), CAB_{ukr} – Pov_{aze} (-)	GDP, GNI, CAB_{ukr} – Pov_{blr}, CAB_{ukr} – Unp_{blr},	GDP_{geo} – $Trade_{ukr}$, GDP_{geo} – $Infl_{ukr}$ (-), CAB_{ukr} – STD_{geo} (-)	GDP, GNI, CAB_{ukr} – STD_{mda}, CAB_{mda} – Pov_{ukr}, Trade, $Trade_{mda}$ – $Infl_{ukr}$ (-), Infl	

Source: author's calculations and compilation.

* (-) – means the opposite direction of indicators, as increasing one indicator can be accompanied with decreasing another factor (in linear dependence).

The most unexpected result of Table 4 is the fact that the EU variables are in a minor correlation with the six states' indicators. Thus, we interpret this as the evidence that in general during the analyzed period the EU and the targeted group were not in convergence. The country that has appeared to be most synergetic to the EU is Ukraine. It is quite an unexpected result, as for the programme to be successful we should consider rather high values of correlation at least for the main indicators of the EU and targeted states.

Despite compiling Table 4 on the correlation matrix analogue, we do not consider the direction of the impact as it is unclear in the capacity of the correlation analysis. The correlation coefficient just shows us the density and effective communication among the factor variables for their linear dependence. By means of correlation we can detect only a strong interdependence in the time series of representative indexes, but we cannot be deep as to the nature of such dependency. The direction of the dependency remains unclear. The causes preceding the correlation, if any, may be indirect and unknown. High correlations also overlap with identity relations (tautologies) where no causal process exists. For depicting the main causes and sequences in tendencies in the analysis, we propose to use the Granger causality test. We have pushed off the assumptions that the correlation does not necessarily imply causation in any meaningful sense of the word. The econometric graveyard is full of magnificent correlations which are simply spurious or meaningless. The Granger approach (1969) to the question of whether X (independent variable) causes Y (depended variable) is to see how much of the current Y can be explained by the past values of Y and then to see whether adding the lagged values of X can improve the explanation (Green, 1993). This approach helps us to understand which main development indicator and of which state can cause the integration / development tendencies and can be the best indicator of its happening. Before the application of the Granger test we had clarified each of the time-series to determine their order of integration – involved a test (such as the ADF test) for which the null hypothesis is non-stationarity. The implementation of the Granger causality test in EViews provided us with the following resulting claims (at the appropriate level of F-stat) about link directions for considered data and states (Annex 2):

1) as to GDP growth: there is the mutual Granger causality for the six targeted states and the EU; besides, there are one-way directions for: AZE_GDPGR → EUU_GDPGR, ARM_GDPGR→ AZE_GDPGR, ARM_GDPGR→BLR_GDPGR, AZE_GDPGR → UKR_GDPGR, MDA_GDPGR → UKR_GDPGR, GEO_GDPGR → UKR_GDPGR, GEO_GDPGR → BLR_GDPGR, GEO_GDPGR → MDA_GDPGR;
2) as to GDP growth per capita, the case is a bit similar, but there are mutual causality pairs for Armenia and Azerbaijan, and Moldova vs Ukraine; however, there are one-way directionsfor AZE_GDPGRPC → GEO_GDPGRPC, AZE_GDPGRPC → BLR_GDPGRPC;

3) as to the GNI growth, we can considerate the mutual Granger causality only for Ukraine and the EU, as to the other five states there is only one-way Granger causality from the EU to a state;
4) as to GNI per capita growth, we consider the mutual Granger causality for the six states and the EU in the analyzed period;
5) in the aspect of the most representative indicator of security – military expenditure (% of GDP), we have detected a mutual causality for the EU with Azerbaijan and Belarus and the one-way run from the EU to Armenia, Moldova, Georgia. As to Ukraine, we received a statistically insignificant result;
6) as to the gross national expenditure (% of GDP), we can consider the existence of the mutual Granger causality between the EU and the targeted states;
7) as to exports of goods and services (% of GDP), the result is quite diverse, thus, there is mutual causality on Granger for the EU and Armenia, Azerbaijan and Ukraine. But there is one way from the EU to Moldova, Georgia and Belarus, and not the other way;
8) as to trade (% of GDP), there is the mutual Granger causality for the EU and targeted states – that is a very exciting result and litmus that the Free Trade Action works properly; however, there is one-way run from Belarus to the EU, by which some period in the international status of Belarus can be explained;
9) as to the unemployment indicator, it demonstrates quite predictable results: there is the mutual Granger causality for the EU and Moldova, Armenia, but the one-way: AZE → EU, BLR → EU, GEO → EU, and for Ukraine one way from the EU.

Note that we considered the following indicators only for the interregional level, because these indicators demonstrate exclusively the internal process and the way of emerging the targeted state:

1) as to the current account balance as the % to GDP, the mutual Granger causality was detected among all the targeted states;
2) as to a short-term debt (% of total reserves), for the analyzed states we saw the one-way Granger causality for pairs: GEO → ARM, ARM → AZE, ARM → UKR, MDA → GEO, UKR → GEO, BLR → UKR;
3) as to the real interest rate, it is the mutually Granger causal besides one-way for MDA → ARM, MDA → GEO, UKR → MDA, BLR → GEO, AZE → GEO;
4) in the level of poverty, the states demonstrate the full mutual Granger causality;
5) as to the causality in minimizing the inflation rates, we detect mutual causality for most of the combinations of states in the target group but a one-way run for UKR → ARM, AZE → ARM, ARM → MDA, UKR → MDA, AZE → MDA;

(i.e. the result

"Null hypothesis	Probability
GEO_EXP does not Granger Cause EUU_EXP	0.6389
EUU_EXP does not Granger Cause GEO_EXP	0.0022

says us that having such probability values we cannot reject the hypothesis that the GEO_EXP does not Granger cause EUU_EXP, but we do reject the hypothesis that EUU_EXP does not Granger cause GEO_EXP. Therefore, it appears that the Granger causality runs one-way from EUU_EXP to GEO_EXP and not the other way.)

Not venturing in the causes and sources of found results that are quite clear and repeat the known agenda, we can conclude that mostly in trade and social aspects the programme works rather optimistically. However, the direction of macroeconomic growth and security requires enhancing the actions. Also, the group is not yet homogeneous. The economic position of the states has been quite diverse and unequal at the starting point. This gives no hope for the further smooth and efficient parallel integration of the six states to the EU. Quite a definite proposal is to separate the states in this policy and provide for a unique action, specific for each state. Such actions can bring a more expected positive result for the EU.

4. Conclusions and discussion

The Eastern Neighborhood European Partnership seems to be an up-to-date and necessary objective aimed at: promoting democracy and good governance; strengthening energy security; promoting sector reform and environment protection; encouraging people-to-people contacts; supporting the economic and social development; providing an additional funding for projects to reduce social inequality and to increase stability; implementation of the Integrated Border Management Programme, as well as the SME Flagship Initiative; defending the regional energy markets and energy efficiency besides the diversification of energy supply (like the Southern Energy Corridor); common prevention of, preparedness for, and response to natural and man-made disasters. However, this idea could be considered as fully political and standing on a very fragile economic basis and no socio-economic reasons for choosing the six targeted states. The targeted six Eastern neighborhood states appeared to be quite diverse in the statistical sense of their economic development. A mathematically based research proved a rather high diversity of inter-state tendencies and development trends before and after the EU programme launching, which can minimize or neglect / eliminate all the EU attempts involved to spread the EU policy and standards through its borders to the centers of interest.

One can argue that **the** research methods used in the article are not sufficient as it is not enough to draw pictures and, based on the difference in trends of the GDP and similar macroeconomic indicators for the EU and the analyzed countries to conclude that the EU funds are not efficiently distributed. One can say that such difference could be explained by many reasons (internal and external); besides, the period (2009–2013) was very heterogeneous and cannot be treated not mostly by the EU funds. This is the attitude we try to overcome. First of all, for the analysis we have used only the classic methods that are always instruments for any economic analysis. Our research sets a goal to highlight

the problem (it is a novel idea as the literature review proves), to make the first steps in indicating the possible reasons why the EU is still concerned with slow reforms despite the large funding of the targeted states. We avoided repeating the political reasons that are widely known. These reasons are explained, funds are delivered, but their effectiveness is not as high as expected. The demonstration, the most obvious proof of it is exactly the dynamics and convergence of macroeconomic trends, the fact that the targeted states have experienced this heterogeneous period, that they are still heterogeneous in most of the main indicators. However, having an efficient absorption of the incoming funds should maintain the resistant and robus economies in the states that have much less reacted to the external and internal challenges and, according to the synergetic law, mirror the dynamics of the EU economy.

One can argue as well that we have not consider one exact factor – the EU funding – in our research. Our argumentation is that we considered it as an umbrella, as a climate in which countries developed during the period. Also, the analyzed indicators are considered according to the main platforms the funding was targeted, thus they can be a reflection of the funding effectiveness in the region.

The findings that contribute to the literature are that the paper highlights the fact that, despite emerging from the same system, the six states of the Eastern partnership are different in their way of transformation and development, which is the main reason for the EU in its policies to consider the states as unique subjects of the programmes but not to apply a universal approach that can have a great probability to fail in its effectiveness. However, in the aspects of trade we have received the evidence of positive results of the EU actions.

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ANNEX 1

Descriptive statistics of variables

	EUGDPgr	*Argdpgr*	*ukrgdpgr*	*azergdpgr*	*belgdpgr*	*molgdpgr*	*gegdpgr*	*eugdpgrpc*	*argdpgrpc*	*molgdpgrpc*	*gegdpgrpc*	*belgdpgrpc*
Mean	2.7909497	3.221782	-0.91535	5.158653	3.21191	0.120537	2.093474	2.3755319	3.9766724	-0.02443446	1.8363566	3,5563317
SE	0.2873783	2.596094	1.74159	2.980354	1.47578	1.685639	1.539202	0.2701562	2.5727855	1.678726786	1.5665766	1,5213406
StDev	2.0921459	12.45043	8.8804	14.29327	7.07759	9.683258	10.6639	1.9667671	12.338646	9.64355119	10.853561	7,2960934
Dispersion	4.3770743	155.0132	78.86151	204.2977	50.09229	93.76548	113.7189	3.8681727	152.24218	92.99807955	117.799787	53,232979
Min	-4.414166	-41.8	-22.934	-23.1	-11.7	-30.9	-44.9	-4.695981	-40.74694	-30.6942341	-45.325107	-11,596392
Max	8.8770186	14.0408	12.1	34.5	11.44974	11.73091	12.344	8.3077666	14.452855	10.60199081	15.2291572	12,217177
Total	53	23	26	23	23	33	48	53	23	33	48	23
	azergdpgrpc	ukrgdpgrpc	eugnigr	argnigr	molgnigr	belgnigr	azergnigr	ukrgnigr	eugnigrpc	azergnigrpc	argnigrpc	molgnigrpc
Mean	3.92874157	-0.44490236	216232	4.113393	1.64017	2.980932	9.266956	-1.14374	1.836987	8.031668	4.88729	1,838946
SE	2.96780293	1.776882148	0.27961	3.023367	2.104565	1.488408	2.113962	2.115298	0.272439	2.066447	3.03724	2,106792
StDev	14.2330828	9.060356747	1.83353	14.49956	9.644327	7.138153	9.214545	9.921625	1.786502	9.007435	14.56609	9,654534
Dispersion	202.580647	82.09006437	3.36183	210.2372	93.01305	50.95323	84.90784	98.43864	3.191591	81.13388	212.1711	93,21002
Min	-24.2593992	-22.5508475	-4.05779	-53.1705	-31.5532	-11.9158	-12.1048	-21.5608	-4.34066	-13.1113	-52.3232	-31,3494
Max	33.0304873	12.95365583	6.0653	16.4981	12.34525	11.41622	30.10356	11.9898	5.447857	28.68208	19.32137	12,66205
Total	23	26	43	23	21	23	19	22	43	19	23	21
	ukrgnipc	arcab	ukrcab	azercab	belcab	gecab	molcab	arstd	molstd	gestd	belstd	azerstd
Mean	-0.54384	-10.2119	-4.08011	21.74631	-7.39663	-13.1898	-9.93325	29.19682	79.82862	37.90983	236.6248	33,7038
SE	2.162717	1.672718	1.311744	3.11739	1.704223	1.672246	1.262441	5.065189	14.85377	4.990523	22.52167	21,99457
StDev	10.14404	5.018153	3.935232	9.352171	5.11267	5.016739	3.787323	23.21161	69.67036	21.75319	100,72	100,7918
Dispersion	102.9015	25.18186	15.48605	87.4631	26.1394	25.16767	14.34382	538.779	4853.96	473.2011	10144.52	10158,98
Min	-21.1708	-17.5815	-9.30955	1.263191	-14.9945	-21.9567	-16.1123	0.147201	0	4.847471	29.15651	0,329959
Max	12.84262	-2.52834	2.941654	33.67854	1.518036	-5.71929	-5.00137	80.48177	219.5988	83.91077	445.2098	472,6608
Total	22	9	9	9	9	9	9	21	22	19	20	21

	ukrstd	arrir	molrir	gerir	belrir	azerrir	ukrrir	eum	armm	molm	geom	belm
Mean	88.005	18.105	8.911674	15.08928	-24.0406	10.23008	-2.05769	2.015385	3.334594	0.519574	3.052033	1,599097
SE	13.59223	3.070207	1.655152	2.04643	6.323037	3.349365	6.95431	0.0768	0.14126	0.044146	0.609617	0,11082
StDev	63.75322	13.38272	7.022216	8.682269	28.9758	12.97203	31.86865	0.391604	0.647335	0.202303	2.586386	0,519793
Dispersion	4064.473	179.0973	49.31152	75.38179	839.5968	168.2737	1015.611	0.153354	0.419042	0.040927	6.689395	0,270184
Min	19.82241	-18.8795	-6.44925	5.041729	-87.849	-6.26122	-91.7244	1.6	2.09549	0.306026	0.615582	1,198064
Max	277.0122	39.10517	23.889	40.5833	5.668975	48.05572	37.92865	2.9	4.277206	0.925969	9.156292	3,372075
Total	22	19	18	18	21	15	21	26	21	21	18	22
	azerm	ukrm	molgne	armgne	geogne	belgne	azergne	ukrgne	euexp	arexp	molexp	geoexp
Mean	3.05171	2.804186	126.3666	123.6331	118.0065	104.3852	94.97821	101.1079	27.06542	26.97639	45.35735	32,37972
SE	0.20154	0.145301	3.250748	1.570974	2.0252	1.060811	4.878786	0.866439	0.91944	1.709258	1.635102	1,976281
StDev	0.945305	0.665853	15.92535	7.69617	10.52325	5.196894	23.90107	4.332195	6.756477	8.373618	8.010332	10,26906
Dispersion	0.893601	0.44336	253.6167	59.23104	110.7388	27.0077	571.2613	18.76791	45.64998	70.11749	64.16543	105,4535
Min	2.074646	0.465358	101.5444	111.3298	99.29577	95.38602	57.69062	92.48652	18.49904	15.0471	21.12308	13,32629
Max	5.092881	4.124672	152.7845	138.259	151.3584	115.7299	131.8289	108.5065	41.52147	47.21898	55.26713	57,7721
Total	22	21	24	24	27	24	24	25	54	24	24	27
	belexp	azerexp	ukrexp	eutrade	artrade	moltrade	getrade	beltrade	azertrade	ukrtrade	arpov	molpov
Mean	60.70522	47.36184	45.24632	54.14888	77.58587	117.0813	82.76595	125.7957	89.70188	91.60049	7.524286	9,12125
SE	2.117129	3.265912	2.230114	1.740054	3.053173	5.029403	4.594017	4.426684	4.303229	4.40308	1.349474	2,013655
StDev	10.37177	15.99963	11.15057	12.78673	14.95743	24.63894	23.87121	21.68623	21.08143	22.0154	5.049269	8,054621
Dispersion	107.5736	255.9883	124.3352	163.5005	223.7248	607.0775	569.8347	470.2927	444.4267	484.6778	25.49512	64,87692
Min	36.85419	22.70232	23.98091	37.78627	55.70286	50.84718	45.69684	70.26406	55.35266	45.97085	2.18	0,48
Max	81.34082	86.20361	62.44488	80.9312	112.4288	144.5933	166.9026	163.3368	140.8	119.8583	15.77	26,73
Total	24	24	25	54	24	24	27	24	24	25	14	16

	geopov	belpov	azerpov	ukrpov	euunp	azunp	belunp	molunp	geunp	ukrunp	arunp	arinfl
Mean	12.04	0.197647	3.88	0.802143	9.354545	7.195652	6.221739	6.9	13.49565	8.334783	22.16957	182,5483
SE	0.575813	0.055681	2.782561	0.299845	0.251982	0.428781	0.039741	0.296555	0.339232	0.358555	1.21285	168,1619
StDev	2.374139	0.229579	7.361965	1.121916	1.181898	2.05636	0.190589	1.422226	1.626898	1.719569	5.816625	752,0427
Dispersion	5.636537	0.052707	54.19853	1.258695	1.396883	4.228617	0.036324	2.022728	2.646798	2.956917	33,83312	565568,2
Min	3.98	0	0	0	6.9	4.7	5.8	4	10.8	5.6	16,2	-0,79088
Max	14.68	0.68	19.61	2.83	11.3	11.8	6.5	11.1	16.9	11.6	35.9	3373,474
Total	17	17	7	14	22	23	23	23	23	23	23	20

	ukrinfl	*azerinfl*	*belinfl*	*geinfl*	*molinfl*	*euinfl*
Mean	299.1301	149.7446	243.5555	16.27578	13.48056	5.027976
SE	226.1814	89.65066	116.9852	8.379414	2.34266	0.428934
StDev	1036.493	420.4989	536.0935	36.52502	10.21142	3.12269
Dispersion	1074318	176819.3	287396.3	1334.077	104.2731	9.751192
Min	-0.27624	-10.6301	7.033029	-0.94367	-0.05869	0.950366
Max	4734.914	1662.216	2221.017	162.7172	39.17012	13.64932
Total	21	22	21	19	19	53

Source: author's calculations.

ANNEX 2

Granger analysis result: test on causality for 6ENP and the EU time series, 1960-2013

Pairwise Granger Causality Tests (*only significant results*)

Sample: 1961 2013

Lags: 2

Null Hypothesis:	Prob.	Null Hypothesis:	Prob.	Null Hypothesis:	Prob.
ARM_GDPGR does not Granger Cause EUU_GDPGR	0.7741	**ARM_GNI does not Granger Cause EUU_GNI**	0.5654	UKR_CAB does not Granger Cause ARM_CAB	0.7605
EUU_GDPGR does not Granger Cause ARM_GDPGR	0.8401	EUU_GNI does not Granger Cause ARM_GNI	0.0140	ARM_CAB does not Granger Cause UKR_CAB	0.3439
UKR_GDPGR does not Granger Cause EUU_GDPGR	0.5786	**MDA_GNI does not Granger Cause EUU_GNI**	0.6141	AZE_CAB does not Granger Cause ARM_CAB	0.4207
EUU_GDPGR does not Granger Cause UKR_GDPGR	0.4704	EUU_GNI does not Granger Cause MDA_GNI	0.0179	**ARM_CAB does not Granger Cause AZE_CAB**	0.1461
AZE_GDPGR does not Granger Cause EUU_GDPGR	0.0068	**GEO_GNI does not Granger Cause EUU_GNI**	0.7988	BLR_CAB does not Granger Cause ARM_CAB	0.0941
EUU_GDPGR does not Granger Cause AZE_GDPGR	0.6865	EUU_GNI does not Granger Cause GEO_GNI	0.0264	ARM_CAB does not Granger Cause BLR_CAB	0.1126
BLR_GDPGR does not Granger Cause EUU_GDPGR	0.8983	BLR_GNI does not Granger Cause EUU_GNI	0.6715	GEO_CAB does not Granger Cause ARM_CAB	0.1914
EUU_GDPGR does not Granger Cause BLR_GDPGR	0.6834	EUU_GNI does not Granger Cause BLR_GNI	0.0349	ARM_CAB does not Granger Cause GEO_CAB	0.2296
MDA_GDPGR does not Granger Cause EUU_GDPGR	0.9847	**AZE_GNI does not Granger Cause EUU_GNI**	0.2979	MDA_CAB does not Granger Cause ARM_CAB	0.5245
EUU_GDPGR does not Granger Cause MDA_GDPGR	0.4072	EUU_GNI does not Granger Cause AZE_GNI	0.0426	ARM_CAB does not Granger Cause MDA_CAB	0.4023
GEO_GDPGR does not Granger Cause EUU_GDPGR	0.6315	**UKR_GNI does not Granger Cause EUU_GNI**	0.6212	AZE_CAB does not Granger Cause UKR_CAB	0.4717
EUU_GDPGR does not Granger Cause GEO_GDPGR	0.6106	EUU_GNI does not Granger Cause UKR_GNI	0.1836	UKR_CAB does not Granger Cause AZE_CAB	0.1978
UKR_GDPGR does not Granger Cause ARM_GDPGR	0.7407	MDA_GNI does not Granger Cause ARM_GNI	0.4623	BLR_CAB does not Granger Cause UKR_CAB	0.6639
ARM_GDPGR does not Granger Cause UKR_GDPGR	0.1941	ARM_GNI does not Granger Cause MDA_GNI	0.1932	UKR_CAB does not Granger Cause BLR_CAB	0.5462
AZE_GDPGR does not Granger Cause ARM_GDPGR	0.1395	GEO_GNI does not Granger Cause ARM_GNI	0.7881	GEO_CAB does not Granger Cause UKR_CAB	0.8689
ARM_GDPGR does not Granger Cause AZE_GDPGR	0.0830	ARM_GNI does not Granger Cause GEO_GNI	0.2038	UKR_CAB does not Granger Cause GEO_CAB	0.4836
BLR_GDPGR does not Granger Cause ARM_GDPGR	0.8940	BLR_GNI does not Granger Cause ARM_GNI	0.2361	MDA_CAB does not Granger Cause UKR_CAB	0.1412
ARM_GDPGR does not Granger Cause BLR_GDPGR	0.0074	ARM_GNI does not Granger Cause BLR_GNI	0.2202	UKR_CAB does not Granger Cause MDA_CAB	0.5244
MDA_GDPGR does not Granger Cause ARM_GDPGR	0.9002	AZE_GNI does not Granger Cause ARM_GNI	0.0853	BLR_CAB does not Granger Cause AZE_CAB	0.2282
ARM_GDPGR does not Granger Cause MDA_GDPGR	0.1138	ARM_GNI does not Granger Cause AZE_GNI	0.0297	AZE_CAB does not Granger Cause BLR_CAB	0.4110
GEO_GDPGR does not Granger Cause ARM_GDPGR	0.7445	UKR_GNI does not Granger Cause ARM_GNI	0.6707	GEO_CAB does not Granger Cause AZE_CAB	0.0583
ARM_GDPGR does not Granger Cause GEO_GDPGR	0.6002	ARM_GNI does not Granger Cause UKR_GNI	0.2830	AZE_CAB does not Granger Cause GEO_CAB	0.1753
AZE_GDPGR does not Granger Cause UKR_GDPGR	0.0286	GEO_GNI does not Granger Cause MDA_GNI	0.2092	MDA_CAB does not Granger Cause AZE_CAB	0.8557
UKR_GDPGR does not Granger Cause AZE_GDPGR	0.0899	MDA_GNI does not Granger Cause GEO_GNI	0.3795	AZE_CAB does not Granger Cause MDA_CAB	0.6014
BLR_GDPGR does not Granger Cause UKR_GDPGR	0.4363	BLR_GNI does not Granger Cause MDA_GNI	0.1720	GEO_CAB does not Granger Cause BLR_CAB	0.2713
UKR_GDPGR does not Granger Cause BLR_GDPGR	0.9624	MDA_GNI does not Granger Cause BLR_GNI	0.8261	BLR_CAB does not Granger Cause GEO_CAB	0.3636
MDA_GDPGR does not Granger Cause UKR_GDPGR	0.0483	AZE_GNI does not Granger Cause MDA_GNI	0.9966	MDA_CAB does not Granger Cause BLR_CAB	0.2272
UKR_GDPGR does not Granger Cause MDA_GDPGR	0.2127	MDA_GNI does not Granger Cause AZE_GNI	0.2174	BLR_CAB does not Granger Cause MDA_CAB	0.3167
GEO_GDPGR does not Granger Cause UKR_GDPGR	0.0292	UKR_GNI does not Granger Cause MDA_GNI	0.4395	MDA_CAB does not Granger Cause GEO_CAB	0.1027
UKR_GDPGR does not Granger Cause GEO_GDPGR	0.9408	MDA_GNI does not Granger Cause UKR_GNI	0.1817	**GEO_CAB does not Granger Cause MDA_CAB**	0.2484

Null Hypothesis:	Prob.	Null Hypothesis:	Prob.	Null Hypothesis:	Prob.
BLR_GDPGR does not Granger Cause AZE_GDPGR	0.3065	BLR_GNI does not Granger Cause GEO_GNI	0.0422		
AZE_GDPGR does not Granger Cause BLR_GDPGR	0.0203	GEO_GNI does not Granger Cause BLR_GNI	0.3492	MDA_STD does not Granger Cause ARM_STD	0.5762
MDA_GDPGR does not Granger Cause AZE_GDPGR	0.3785	AZE_GNI does not Granger Cause GEO_GNI	0.9717	ARM_STD does not Granger Cause MDA_STD	0.7307
AZE_GDPGR does not Granger Cause MDA_GDPGR	0.6170	GEO_GNI does not Granger Cause AZE_GNI	0.1195	GEO_STD does not Granger Cause ARM_STD	0.0311
GEO_GDPGR does not Granger Cause AZE_GDPGR	0.1994	UKR_GNI does not Granger Cause GEO_GNI	0.5775	ARM_STD does not Granger Cause GEO_STD	0.4643
AZE_GDPGR does not Granger Cause GEO_GDPGR	0.0834	GEO_GNI does not Granger Cause UKR_GNI	0.1873	BLR_STD does not Granger Cause ARM_STD	0.6152
MDA_GDPGR does not Granger Cause BLR_GDPGR	0.4760	AZE_GNI does not Granger Cause BLR_GNI	0.4301	ARM_STD does not Granger Cause BLR_STD	0.3267
BLR_GDPGR does not Granger Cause MDA_GDPGR	0.9012	BLR_GNI does not Granger Cause AZE_GNI	0.0963	AZE_STD does not Granger Cause ARM_STD	0.9864
GEO_GDPGR does not Granger Cause BLR_GDPGR	0.0084	**UKR_GNI does not Granger Cause BLR_GNI**	0.0830	ARM_STD does not Granger Cause AZE_STD	3.E-06
BLR_GDPGR does not Granger Cause GEO_GDPGR	0.5640	BLR_GNI does not Granger Cause UKR_GNI	0.0310	**UKR_STD does not Granger Cause ARM_STD**	0.1787
GEO_GDPGR does not Granger Cause MDA_GDPGR	0.0179	UKR_GNI does not Granger Cause AZE_GNI	0.4146	ARM_STD does not Granger Cause UKR_STD	0.0146
MDA_GDPGR does not Granger Cause GEO_GDPGR	0.5321	AZE_GNI does not Granger Cause UKR_GNI	0.5743	**GEO_STD does not Granger Cause MDA_STD**	0.8366
				MDA_STD does not Granger Cause GEO_STD	0.0190
ARM_GDPGRPC does not Granger Cause EUU_GDPGRPC	0.7576	AZE_GNIGRPC does not Granger Cause EUU_GNIGRPC	0.2714	BLR_STD does not Granger Cause MDA_STD	0.0520
EUU_GDPGRPC does not Granger Cause ARM_GDPGRPC	0.8191	EUU_GNIGRPC does not Granger Cause AZE_GNIGRPC	0.1658	MDA_STD does not Granger Cause BLR_STD	0.3095
MDA_GDPGRPC does not Granger Cause EUU_GDPGRPC	0.9551	MDA_GNIGRPC does not Granger Cause EUU_GNIGRPC	0.7336	AZE_STD does not Granger Cause MDA_STD	0.3424
EUU_GDPGRPC does not Granger Cause MDA_GDPGRPC	0.4273	EUU_GNIGRPC does not Granger Cause MDA_GNIGRPC	0.5545	MDA_STD does not Granger Cause AZE_STD	0.2663
GEO_GDPGRPC does not Granger Cause EUU_GDPGRPC	0.8430	ARM_GNIGRPC does not Granger Cause EUU_GNIGRPC	0.4281	UKR_STD does not Granger Cause MDA_STD	0.6946
EUU_GDPGRPC does not Granger Cause GEO_GDPGRPC	0.4727	EUU_GNIGRPC does not Granger Cause ARM_GNIGRPC	0.7607	MDA_STD does not Granger Cause UKR_STD	0.9066
BLR_GDPGRPC does not Granger Cause EUU_GDPGRPC	0.8804	GEO_GNIGRPC does not Granger Cause EUU_GNIGRPC	0.9693	BLR_STD does not Granger Cause GEO_STD	0.2363
EUU_GDPGRPC does not Granger Cause BLR_GDPGRPC	0.6857	EUU_GNIGRPC does not Granger Cause GEO_GNIGRPC	0.9367	GEO_STD does not Granger Cause BLR_STD	0.0779
AZE_GDPGRPC does not Granger Cause EUU_GDPGRPC	0.0049	BLR_GNIGRPC does not Granger Cause EUU_GNIGRPC	0.4826	AZE_STD does not Granger Cause GEO_STD	0.4513
EUU_GDPGRPC does not Granger Cause AZE_GDPGRPC	0.7094	EUU_GNIGRPC does not Granger Cause BLR_GNIGRPC	0.6767	GEO_STD does not Granger Cause AZE_STD	0.2009
UKR_GDPGRPC does not Granger Cause EUU_GDPGRPC	0.5538	UKR_GNIGRPC does not Granger Cause EUU_GNIGRPC	0.3104	UKR_STD does not Granger Cause GEO_STD	0.0253
EUU_GDPGRPC does not Granger Cause UKR_GDPGRPC	0.4950	EUU_GNIGRPC does not Granger Cause UKR_GNIGRPC	0.3852	GEO_STD does not Granger Cause UKR_STD	0.2083
MDA_GDPGRPC does not Granger Cause ARM_GDPGRPC	0.9656	MDA_GNIGRPC does not Granger Cause AZE_GNIGRPC	0.0540	AZE_STD does not Granger Cause BLR_STD	0.6688
ARM_GDPGRPC does not Granger Cause MDA_GDPGRPC	0.1257	AZE_GNIGRPC does not Granger Cause MDA_GNIGRPC	0.8279	BLR_STD does not Granger Cause AZE_STD	0.5689
GEO_GDPGRPC does not Granger Cause ARM_GDPGRPC	0.7256	ARM_GNIGRPC does not Granger Cause AZE_GNIGRPC	0.2984	UKR_STD does not Granger Cause BLR_STD	0.5744
ARM_GDPGRPC does not Granger Cause GEO_GDPGRPC	0.6071	AZE_GNIGRPC does not Granger Cause ARM_GNIGRPC	0.6206	BLR_STD does not Granger Cause UKR_STD	0.0421
BLR_GDPGRPC does not Granger Cause ARM_GDPGRPC	0.9144	GEO_GNIGRPC does not Granger Cause AZE_GNIGRPC	0.1725	UKR_STD does not Granger Cause AZE_STD	0.6813
ARM_GDPGRPC does not Granger Cause BLR_GDPGRPC	0.0088	AZE_GNIGRPC does not Granger Cause GEO_GNIGRPC	0.2709	AZE_STD does not Granger Cause UKR_STD	0.6515
AZE_GDPGRPC does not Granger Cause ARM_GDPGRPC	0.1067	BLR_GNIGRPC does not Granger Cause AZE_GNIGRPC	0.0438		
ARM_GDPGRPC does not Granger Cause AZE_GDPGRPC	0.1009	**AZE_GNIGRPC does not Granger Cause BLR_GNIGRPC**	0.9675	MDA_RIR does not Granger Cause ARM_RIR	0.0430
UKR_GDPGRPC does not Granger Cause ARM_GDPGRPC	0.8159	UKR_GNIGRPC does not Granger Cause AZE_GNIGRPC	0.0062	ARM_RIR does not Granger Cause MDA_RIR	0.8109
ARM_GDPGRPC does not Granger Cause UKR_GDPGRPC	0.2279	AZE_GNIGRPC does not Granger Cause UKR_GNIGRPC	0.2673	GEO_RIR does not Granger Cause ARM_RIR	0.4631
GEO_GDPGRPC does not Granger Cause MDA_GDPGRPC	0.0281	ARM_GNIGRPC does not Granger Cause GNIGRPC	0.8910	ARM_RIR does not Granger Cause GEO_RIR	0.0692

Null Hypothesis:	Prob.	Null Hypothesis:	Prob.	Null Hypothesis:	Prob.
MDA_GDPGRPC does not Granger Cause GEO_GDPGRPC	0.5689	MDA_GNIGRPC does not Granger Cause ARM_GNIGRPC	0.5918	BLR_RIR does not Granger Cause ARM_RIR	0.5947
BLR_GDPGRPC does not Granger Cause MDA_GDPGRPC	0.9140	GEO_GNIGRPC does not Granger Cause MDA_GNIGRPC	0.8236	ARM_RIR does not Granger Cause BLR_RIR	0.3448
MDA_GDPGRPC does not Granger Cause BLR_GDPGRPC	0.5029	MDA_GNIGRPC does not Granger Cause GEO_GNIGRPC	0.0417	AZE_RIR does not Granger Cause ARM_RIR	0.9208
AZE_GDPGRPC does not Granger Cause MDA_GDPGRPC	0.5925	BLR_GNIGRPC does not Granger Cause MDA_GNIGRPC	0.9142	ARM_RIR does not Granger Cause AZE_RIR	0.2842
MDA_GDPGRPC does not Granger Cause AZE_GDPGRPC	0.3763	MDA_GNIGRPC does not Granger Cause BLR_GNIGRPC	0.5006	UKR_RIR does not Granger Cause ARM_RIR	0.1726
UKR_GDPGRPC does not Granger Cause MDA_GDPGRPC	0.2056	UKR_GNIGRPC does not Granger Cause MDA_GNIGRPC	0.0848	ARM_RIR does not Granger Cause UKR_RIR	0.0568
MDA_GDPGRPC does not Granger Cause UKR_GDPGRPC	0.0669	MDA_GNIGRPC does not Granger Cause UKR_GNIGRPC	0.8556	GEO_RIR does not Granger Cause MDA_RIR	0.1294
BLR_GDPGRPC does not Granger Cause GEO_GDPGRPC	0.5247	GEO_GNIGRPC does not Granger Cause ARM_GNIGRPC	0.1076	MDA_RIR does not Granger Cause GEO_RIR	0.0032
GEO_GDPGRPC does not Granger Cause BLR_GDPGRPC	0.0101	ARM_GNIGRPC does not Granger Cause GEO_GNIGRPC	0.6027	BLR_RIR does not Granger Cause MDA_RIR	0.1628
AZE_GDPGRPC does not Granger Cause GEO_GDPGRPC	0.0485	BLR_GNIGRPC does not Granger Cause ARM_GNIGRPC	0.8234	MDA_RIR does not Granger Cause BLR_RIR	0.5616
GEO_GDPGRPC does not Granger Cause AZE_GDPGRPC	0.1980	ARM_GNIGRPC does not Granger Cause BLR_GNIGRPC	0.7481	AZE_RIR does not Granger Cause MDA_RIR	0.1821
UKR_GDPGRPC does not Granger Cause GEO_GDPGRPC	0.9369	UKR_GNIGRPC does not Granger Cause ARM_GNIGRPC	0.2754	MDA_RIR does not Granger Cause AZE_RIR	0.1629
GEO_GDPGRPC does not Granger Cause UKR_GDPGRPC	0.0356	ARM_GNIGRPC does not Granger Cause UKR_GNIGRPC	0.8360	UKR_RIR does not Granger Cause MDA_RIR	0.0309
AZE_GDPGRPC does not Granger Cause BLR_GDPGRPC	0.0192	BLR_GNIGRPC does not Granger Cause GEO_GNIGRPC	0.9692	**MDA_RIR does not Granger Cause UKR_RIR**	0.6317
BLR_GDPGRPC does not Granger Cause AZE_GDPGRPC	0.2601	GEO_GNIGRPC does not Granger Cause BLR_GNIGRPC	0.5689	BLR_RIR does not Granger Cause GEO_RIR	0.0073
UKR_GDPGRPC does not Granger Cause BLR_GDPGRPC	0.9651	UKR_GNIGRPC does not Granger Cause GEO_GNIGRPC	0.9526	**GEO_RIR does not Granger Cause BLR_RIR**	0.5508
BLR_GDPGRPC does not Granger Cause UKR_GDPGRPC	0.4654	GEO_GNIGRPC does not Granger Cause UKR_GNIGRPC	0.2805	AZE_RIR does not Granger Cause GEO_RIR	0.0425
UKR_GDPGRPC does not Granger Cause AZE_GDPGRPC	0.0860	UKR_GNIGRPC does not Granger Cause BLR_GNIGRPC	0.4136	GEO_RIR does not Granger Cause AZE_RIR	0.6264
AZE_GDPGRPC does not Granger Cause UKR_GDPGRPC	0.0230	BLR_GNIGRPC does not Granger Cause UKR_GNIGRPC	0.4280	UKR_RIR does not Granger Cause GEO_RIR	0.2563
				GEO_RIR does not Granger Cause UKR_RIR	0.6224
ARM_M does not Granger Cause EUU_M	0.3624	MDA_GNE does not Granger Cause EUU_GNE	0.7004	AZE_RIR does not Granger Cause BLR_RIR	0.6529
EUU_M does not Granger Cause ARM_M	0.0450	EUU_GNE does not Granger Cause MDA_GNE	0.6141	BLR_RIR does not Granger Cause AZE_RIR	0.4006
MDA_M does not Granger Cause EUU_M	0.6156	ARM_GNE does not Granger Cause EUU_GNE	0.8035	UKR_RIR does not Granger Cause BLR_RIR	0.2962
EUU_M does not Granger Cause MDA_M	0.0011	EUU_GNE does not Granger Cause ARM_GNE	0.2298	BLR_RIR does not Granger Cause UKR_RIR	0.3576
GEO_M does not Granger Cause EUU_M	0.4053	GEO_GNE does not Granger Cause EUU_GNE	0.7265	UKR_RIR does not Granger Cause AZE_RIR	0.6224
EUU_M does not Granger Cause GEO_M	0.0058	EUU_GNE does not Granger Cause GEO_GNE	0.8253	AZE_RIR does not Granger Cause UKR_RIR	0.5665
BLR_M does not Granger Cause EUU_M	0.2042	BLR_GNE does not Granger Cause EUU_GNE	0.1676		
EUU_M does not Granger Cause BLR_M	0.7269	EUU_GNE does not Granger Cause BLR_GNE	0.1489	MDA_POV does not Granger Cause ARM_POV	0.9784
AZE_M does not Granger Cause EUU_M	0.4926	AZE_GNE does not Granger Cause EUU_GNE	0.1650	ARM_POV does not Granger Cause MDA_POV	0.8070
EUU_M does not Granger Cause AZE_M	0.4084	EUU_GNE does not Granger Cause AZE_GNE	0.7109	GEO_POV does not Granger Cause ARM_POV	0.0938
MDA_M does not Granger Cause ARM_M	7.E-05	UKR_GNE does not Granger Cause EUU_GNE	0.5340	ARM_POV does not Granger Cause GEO_POV	0.5466
ARM_M does not Granger Cause MDA_M	0.6750	EUU_GNE does not Granger Cause UKR_GNE	0.3411	AZE_POV does not Granger Cause ARM_POV	0.2705
GEO_M does not Granger Cause ARM_M	0.1875	ARM_GNE does not Granger Cause MDA_GNE	0.0625	ARM_POV does not Granger Cause AZE_POV	0.1228
ARM_M does not Granger Cause GEO_M	0.1668	MDA_GNE does not Granger Cause ARM_GNE	0.1129	UKR_POV does not Granger Cause ARM_POV	0.8044
BLR_M does not Granger Cause ARM_M	0.0762	GEO_GNE does not Granger Cause MDA_GNE	0.0309	ARM_POV does not Granger Cause UKR_POV	0.5198
ARM_M does not Granger Cause BLR_M	0.1495	**MDA_GNE does not Granger Cause GEO_GNE**	0.4692	GEO_POV does not Granger Cause MDA_POV	0.2103
AZE_M does not Granger Cause ARM_M	0.3284	BLR_GNE does not Granger Cause MDA_GNE	0.0423	MDA_POV does not Granger Cause GEO_POV	0.1244

Null Hypothesis:	Prob.	Null Hypothesis:	Prob.	Null Hypothesis:	Prob.
ARM_M does not Granger Cause AZE_M	0.0235	MDA_GNE does not Granger Cause BLR_GNE	0.3221	AZE_POV does not Granger Cause MDA_POV	0.6364
GEO_M does not Granger Cause MDA_M	0.2436	AZE_GNE does not Granger Cause MDA_GNE	0.3496	MDA_POV does not Granger Cause AZE_POV	0.5843
MDA_M does not Granger Cause GEO_M	0.2371	MDA_GNE does not Granger Cause AZE_GNE	0.3576	UKR_POV does not Granger Cause MDA_POV	0.1784
BLR_M does not Granger Cause MDA_M	0.4742	UKR_GNE does not Granger Cause MDA_GNE	0.5258	MDA_POV does not Granger Cause UKR_POV	0.7998
MDA_M does not Granger Cause BLR_M	0.9741	MDA_GNE does not Granger Cause UKR_GNE	0.8070	AZE_POV does not Granger Cause GEO_POV	0.7550
AZE_M does not Granger Cause MDA_M	0.5070	GEO_GNE does not Granger Cause ARM_GNE	0.0134	GEO_POV does not Granger Cause AZE_POV	0.8872
MDA_M does not Granger Cause AZE_M	0.8915	ARM_GNE does not Granger Cause GEO_GNE	0.0302	UKR_POV does not Granger Cause GEO_POV	0.9527
BLR_M does not Granger Cause GEO_M	0.0270	BLR_GNE does not Granger Cause ARM_GNE	0.1587	GEO_POV does not Granger Cause UKR_POV	0.3594
GEO_M does not Granger Cause BLR_M	0.0407	ARM_GNE does not Granger Cause BLR_GNE	0.3133	UKR_POV does not Granger Cause AZE_POV	0.5231
AZE_M does not Granger Cause GEO_M	0.4264	AZE_GNE does not Granger Cause ARM_GNE	0.7799	AZE_POV does not Granger Cause UKR_POV	0.4372
GEO_M does not Granger Cause AZE_M	0.2235	ARM_GNE does not Granger Cause AZE_GNE	0.8430		
AZE_M does not Granger Cause BLR_M	0.4534	UKR_GNE does not Granger Cause ARM_GNE	0.8416	AZE_UNP does not Granger Cause EUU_UNP	0.0419
BLR_M does not Granger Cause AZE_M	0.9565	ARM_GNE does not Granger Cause UKR_GNE	0.8995	**EUU_UNP does not Granger Cause AZE_UNP**	0.5720
		BLR_GNE does not Granger Cause GEO_GNE	0.3656	BLR_UNP does not Granger Cause EUU_UNP	0.0025
ARM_EXP does not Granger Cause EUU_EXP	0.9684	GEO_GNE does not Granger Cause BLR_GNE	0.9397	EUU_UNP does not Granger Cause BLR_UNP	0.0711
EUU_EXP does not Granger Cause ARM_EXP	0.9146	AZE_GNE does not Granger Cause GEO_GNE	0.4446	MDA_UNP does not Granger Cause EUU_UNP	0.1673
MDA_EXP does not Granger Cause EUU_EXP	0.3317	GEO_GNE does not Granger Cause AZE_GNE	0.9404	EUU_UNP does not Granger Cause MDA_UNP	0.5639
EUU_EXP does not Granger Cause MDA_EXP	0.0052	UKR_GNE does not Granger Cause GEO_GNE	0.1316	GEO_UNP does not Granger Cause EUU_UNP	0.0258
GEO_EXP does not Granger Cause EUU_EXP	0.6389	GEO_GNE does not Granger Cause UKR_GNE	0.4225	EUU_UNP does not Granger Cause GEO_UNP	0.5201
EUU_EXP does not Granger Cause GEO_EXP	0.0022	AZE_GNE does not Granger Cause BLR_GNE	0.7842	UKR_UNP does not Granger Cause EUU_UNP	0.4628
BLR_EXP does not Granger Cause EUU_EXP	0.8052	BLR_GNE does not Granger Cause AZE_GNE	0.2019	EUU_UNP does not Granger Cause UKR_UNP	0.0130
EUU_EXP does not Granger Cause BLR_EXP	0.0405	UKR_GNE does not Granger Cause BLR_GNE	0.4027	ARM_UNP does not Granger Cause EUU_UNP	0.5210
AZE_EXP does not Granger Cause EUU_EXP	0.9528	BLR_GNE does not Granger Cause UKR_GNE	0.7640	EUU_UNP does not Granger Cause ARM_UNP	0.3188
EUU_EXP does not Granger Cause AZE_EXP	0.4755	UKR_GNE does not Granger Cause AZE_GNE	0.1610	BLR_UNP does not Granger Cause AZE_UNP	0.5499
UKR_EXP does not Granger Cause EUU_EXP	0.5843	AZE_GNE does not Granger Cause UKR_GNE	0.4159	AZE_UNP does not Granger Cause BLR_UNP	0.0435
EUU_EXP does not Granger Cause UKR_EXP	0.7683			MDA_UNP does not Granger Cause AZE_UNP	0.4323
MDA_EXP does not Granger Cause ARM_EXP	0.4085	ARM_TRADE does not Granger Cause EUU_TRADE	0.0387	AZE_UNP does not Granger Cause MDA_UNP	0.1281
ARM_EXP does not Granger Cause MDA_EXP	0.0062	EUU_TRADE does not Granger Cause ARM_TRADE	0.7292	GEO_UNP does not Granger Cause AZE_UNP	0.3692
GEO_EXP does not Granger Cause ARM_EXP	0.0462	MDA_TRADE does not Granger Cause EUU_TRADE	0.2532	AZE_UNP does not Granger Cause GEO_UNP	0.6586
ARM_EXP does not Granger Cause GEO_EXP	0.7113	EUU_TRADE does not Granger Cause MDA_TRADE	0.1797	UKR_UNP does not Granger Cause AZE_UNP	0.2955
BLR_EXP does not Granger Cause ARM_EXP	4.E-05	GEO_TRADE does not Granger Cause EUU_TRADE	0.2187	AZE_UNP does not Granger Cause UKR_UNP	0.0037
ARM_EXP does not Granger Cause BLR_EXP	0.5365	EUU_TRADE does not Granger Cause GEO_TRADE	0.2367	ARM_UNP does not Granger Cause AZE_UNP	0.1025
AZE_EXP does not Granger Cause ARM_EXP	0.1495	BLR_TRADE does not Granger Cause EUU_TRADE	0.0027	AZE_UNP does not Granger Cause ARM_UNP	0.2099
ARM_EXP does not Granger Cause AZE_EXP	0.9724	EUU_TRADE does not Granger Cause BLR_TRADE	0.3903	MDA_UNP does not Granger Cause BLR_UNP	0.5463
UKR_EXP does not Granger Cause ARM_EXP	0.7115	AZE_TRADE does not Granger Cause EUU_TRADE	0.3214	BLR_UNP does not Granger Cause MDA_UNP	0.0067
ARM_EXP does not Granger Cause UKR_EXP	0.6153	EUU_TRADE does not Granger Cause AZE_TRADE	0.5142	GEO_UNP does not Granger Cause BLR_UNP	0.0169
GEO_EXP does not Granger Cause MDA_EXP	0.6652	UKR_TRADE does not Granger Cause EUU_TRADE	0.6031	BLR_UNP does not Granger Cause GEO_UNP	0.9517

Null Hypothesis:	Prob.	Null Hypothesis:	Prob.	Null Hypothesis:	Prob.
MDA_EXP does not Granger Cause GEO_EXP	0.7003	EUU_TRADE does not Granger Cause UKR_TRADE	0.4992	UKR_UNP does not Granger Cause BLR_UNP	0.8562
BLR_EXP does not Granger Cause MDA_EXP	0.0084	MDA_TRADE does not Granger Cause ARM_TRADE	0.1610	BLR_UNP does not Granger Cause UKR_UNP	0.0138
MDA_EXP does not Granger Cause BLR_EXP	0.5467	ARM_TRADE does not Granger Cause MDA_TRADE	0.0041	ARM_UNP does not Granger Cause BLR_UNP	0.9752
AZE_EXP does not Granger Cause MDA_EXP	0.4268	GEO_TRADE does not Granger Cause ARM_TRADE	0.0199	BLR_UNP does not Granger Cause ARM_UNP	0.5408
MDA_EXP does not Granger Cause AZE_EXP	0.0445	ARM_TRADE does not Granger Cause GEO_TRADE	0.8627	GEO_UNP does not Granger Cause MDA_UNP	0.3482
UKR_EXP does not Granger Cause MDA_EXP	0.5205	BLR_TRADE does not Granger Cause ARM_TRADE	0.1029	MDA_UNP does not Granger Cause GEO_UNP	0.5395
MDA_EXP does not Granger Cause UKR_EXP	0.8258	ARM_TRADE does not Granger Cause BLR_TRADE	0.9601	UKR_UNP does not Granger Cause MDA_UNP	0.4746
BLR_EXP does not Granger Cause GEO_EXP	0.8734	AZE_TRADE does not Granger Cause ARM_TRADE	0.0518	MDA_UNP does not Granger Cause UKR_UNP	0.0906
GEO_EXP does not Granger Cause BLR_EXP	0.1797	ARM_TRADE does not Granger Cause AZE_TRADE	0.9233	ARM_UNP does not Granger Cause MDA_UNP	0.2186
AZE_EXP does not Granger Cause GEO_EXP	0.2671	UKR_TRADE does not Granger Cause ARM_TRADE	0.5309	MDA_UNP does not Granger Cause ARM_UNP	0.1357
GEO_EXP does not Granger Cause AZE_EXP	0.6196	ARM_TRADE does not Granger Cause UKR_TRADE	0.3954	UKR_UNP does not Granger Cause GEO_UNP	0.3171
UKR_EXP does not Granger Cause GEO_EXP	0.4273	GEO_TRADE does not Granger Cause MDA_TRADE	0.2011	GEO_UNP does not Granger Cause UKR_UNP	0.0317
GEO_EXP does not Granger Cause UKR_EXP	0.9315	MDA_TRADE does not Granger Cause GEO_TRADE	0.6399	ARM_UNP does not Granger Cause GEO_UNP	0.0703
AZE_EXP does not Granger Cause BLR_EXP	0.7333	BLR_TRADE does not Granger Cause MDA_TRADE	0.0049	GEO_UNP does not Granger Cause ARM_UNP	0.0981
BLR_EXP does not Granger Cause AZE_EXP	0.1205	MDA_TRADE does not Granger Cause BLR_TRADE	0.9959	ARM_UNP does not Granger Cause UKR_UNP	0.1928
UKR_EXP does not Granger Cause BLR_EXP	0.6265	AZE_TRADE does not Granger Cause MDA_TRADE	0.2824	UKR_UNP does not Granger Cause ARM_UNP	0.6922
BLR_EXP does not Granger Cause UKR_EXP	0.7322	MDA_TRADE does not Granger Cause AZE_TRADE	0.1611		
UKR_EXP does not Granger Cause AZE_EXP	0.2729	UKR_TRADE does not Granger Cause MDA_TRADE	0.5942	UKR_INFL does not Granger Cause ARM_INFL	0.0071
AZE_EXP does not Granger Cause UKR_EXP	0.4538	MDA_TRADE does not Granger Cause UKR_TRADE	0.3029	**ARM_INFL does not Granger Cause UKR_INFL**	0.0816
		BLR_TRADE does not Granger Cause GEO_TRADE	0.3071	AZE_INFL does not Granger Cause ARM_INFL	0.0016
MDA_INFL does not Granger Cause ARM_INFL	0.1955	GEO_TRADE does not Granger Cause BLR_TRADE	0.1436	ARM_INFL does not Granger Cause AZE_INFL	0.3835
ARM_INFL does not Granger Cause MDA_INFL	0.0195	AZE_TRADE does not Granger Cause GEO_TRADE	0.4271	BLR_INFL does not Granger Cause ARM_INFL	0.2467
AZE_INFL does not Granger Cause UKR_INFL	0.4032	GEO_TRADE does not Granger Cause AZE_TRADE	0.3479	ARM_INFL does not Granger Cause BLR_INFL	0.6845
UKR_INFL does not Granger Cause AZE_INFL	0.6647	UKR_TRADE does not Granger Cause GEO_TRADE	0.3886	GEO_INFL does not Granger Cause ARM_INFL	0.2226
BLR_INFL does not Granger Cause UKR_INFL	0.6075	GEO_TRADE does not Granger Cause UKR_TRADE	0.7172	ARM_INFL does not Granger Cause GEO_INFL	0.8400
UKR_INFL does not Granger Cause BLR_INFL	0.7965	AZE_TRADE does not Granger Cause BLR_TRADE	0.6123	GEO_INFL does not Granger Cause UKR_INFL	0.7066
MDA_INFL does not Granger Cause UKR_INFL	0.0771	BLR_TRADE does not Granger Cause AZE_TRADE	0.1347	UKR_INFL does not Granger Cause GEO_INFL	0.2123
UKR_INFL does not Granger Cause MDA_INFL	0.0374	UKR_TRADE does not Granger Cause BLR_TRADE	0.0343	BLR_INFL does not Granger Cause AZE_INFL	0.8596
GEO_INFL does not Granger Cause AZE_INFL	0.4345	**BLR_TRADE does not Granger Cause UKR_TRADE**	0.0725	AZE_INFL does not Granger Cause BLR_INFL	0.6775
AZE_INFL does not Granger Cause GEO_INFL	0.4142	UKR_TRADE does not Granger Cause AZE_TRADE	0.0084	GEO_INFL does not Granger Cause BLR_INFL	0.8882
MDA_INFL does not Granger Cause AZE_INFL	0.9909	**AZE_TRADE does not Granger Cause UKR_TRADE**	0.7523	BLR_INFL does not Granger Cause GEO_INFL	0.9789
AZE_INFL does not Granger Cause MDA_INFL	0.0095			MDA_INFL does not Granger Cause BLR_INFL	0.3653
MDA_INFL does not Granger Cause GEO_INFL	0.4156			BLR_INFL does not Granger Cause MDA_INFL	0.1600
GEO_INFL does not Granger Cause MDA_INFL	0.1039				

Source: calculated and compiled by authors.