# ANALYSIS OF THE INFLUENCE INTERNATIONAL TRADE ON ECONOMIC GROWTH IN THE EUROPEAN UNION

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#### **Abstract**

In this article, the authors sought to analyze the correlation between international trade and economic growth. Based on Eurostat data series on GDP per capita, import, export and export coverage, the correlation between these statistical variables was analyzed. The analysis was made on the whole of the European Union, but also on each country. Existing correlations and hierarchy of the Member States of the European Union were highlighted by the value of the mentioned indicators. The Eurostat data series on these indicators are set out in the annexes. Finally, we used the simple and multiple regression model to deepen the analysis. **Keywords:** international trade, economic growth, export, import, correlation

**JEL Classification:** F44, P33

#### Introduction

In this article, it started from the fact that a surplus in the production of goods and services implies an export that is beneficial for the country in question. It is also considered that the restriction of material and financial resources in the attempt of macroeconomic harmonization requires import. Of course, the difference between exports and imports is the net export, which may be negative and is a deficit or may be positive and expresses a surplus. The authors present broadly the actual economic activity and then focus on analyzing prospecting, forecasting of macroeconomic activity. In all these situations, we analyze the concrete elements that they synthesize in mathematical functions, starting from the system of balances existing between the structural elements of the national economy. On this basis, we analyze material balances, trade balance and external balance of payments, formalizing the mathematical equations that make sense to these analyzes and interpretations. The balance of links between branches is an important model, which, in the structure of the synthetic table with the four quadrants, also includes the elements of import and export. These can be used

to establish the static elements on which to predict the international economic relations of the country. In the context, the econometric-mathematical relations underlying these analyzes and interpretations are presented. In order to further highlight the situation, for each state, but especially for Romania, because this is the objective of the analysis, we have resorted to some econometric models to highlight in the case of Romania and some other states, which is the evolution and Chosen, which will be the trend of evolution in the future. These econometric models, mainly simple or multiple linear regression, give regression parameters that are usable in forecasting the outlook for the evolution of macroeconomic indicators that we discussed in a country for all countries, ie the 28/27 states. In the present case, we have more to summarize what is Romania's share and perspective as a member of the European Union.

#### Literature review

Amiti and Weinstein (2011) develop on the correlation exports and financial shocks. Amiti, Itskhoki, Konings (2014) analyze the exchange rate as influenced by importers and exporters. Staiger and Sykes (2011) discuss on the regulation of international commerce. Anghel, Manole, Stoica (2016) evaluate, by econometric methods, the interdependence between direct foreign investments and import. Anghelache and Anghel (2016) is a reference work in econometrics. Harrison, McLaren and McMillan (2011) analyze the perspectives on trade and inequity. Konya (2006) present a study based on Granger causality between exports and economic growth. Anghelache, Anghelache, Anghel (2016) study the evolution of Romania's foreign trade, studies on the same topic, but for different time horizons, were presented by Anghelache, Manole, Sacală (2014), Anghelache, Anghelache, Panait and Jweida (2016), Anghelache et.al. (2014), Anghelache and Manole (2012). Karacaovalia and Limão (2008) develop on trade liberalization in the European Union. Melitz (2003) studies the influence of trade on aggregate productivity of the industry. Nguyen (2012) develops on uncertainty related to demand within the foreign commerce process. Soderbery (2015) discusses on import supply and elasticity of demand. Chor and Manova (2012) have evaluated the international trade during the recent economic crisis, Eaton, Kortum, Neiman and Romalis (2016) approach a close topic. Anghelache, Anghelache and Dumbravă (2009) present a structural analysis of the international commerce. Hummels (2007) develops on the impact of globalization on transportation costs and international trade. Anghelache and Anghel (2014) present the instruments and concepts of modeling in economics. Bernard, Jensen, Redding and Schott (2012) study the correlation of the firm heterogeneity with the international trade. Hill and Smith (2011) describe the international relations in the European context. Kehoea, Pujolàsd, Ruhle (2016)

analyze the topic of the opportunity costs in foreign trade activity. Büthe and Milner (2008) discuss on attracting foreign investments by encouraging trade agreements, as a policy issue in developing countries. Anghelache (2008) discusses on the international trade statistics. Fajgelbaum, Grossman and Helpman (2011) analyze the correlation between income distribution and international trade. Caron, Fally and Markusen (2014) analyze the match between production and preferences in the international trade activity. Goos, Manning and Salomons (2009) analyze the polarization of jobs in Europe.

#### Methodology research and data

The authors note that the import-export and cooperation exchanges within the European Union place some countries down the rankings down by this synthetic indicator of the most tangible results, and because national economies have been disorganized and reorganized more heavily, financial resources are Limited, and the industrial development standard provides them with much less participation in European economic cooperation. Interesting in the study based on this indicator, gross domestic product / capita is how these countries evolved from 2004 to 2015. However, European Union member states have had positive results for this indicator, although they have been experiencing a decline in this indicator since 2007. Thus, Ireland with a gross domestic product / capita of 41,700 euro in 2008 had a declining trend in 2009, 2010, 2011 when gross domestic product growth per capita was resumed, but at a slower pace until 2013. Norway also has a resource with financial capacity and especially with the large oil and gas resources In the North Sea, has stagnated and decreased in the period 2008-2010 as well as the other countries, Switzerland and Luxembourg.

In order to be enlightening, we conducted the study based on the share of exports in gross domestic product as well as imports made in these markets. Finally, it is not to be neglected that the EU Member States must carefully analyze the relationship between exports and imports or, more precisely, the way they cover their exports through exports.

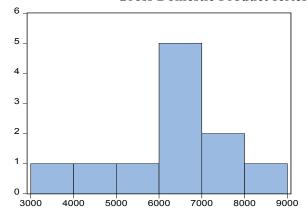
In this situation there are even countries with remarkable results such as: Luxembourg, Malta, Ireland, Slovakia, the great economic and industrial powers, Germany, France, Great Britain, but especially countries with lower economic potential such as Turkey, Albania. Interesting is Britain's slightly unexpected position, which accounts for only 27.6% of total exports of Gross Domestic Product.

We find that these states are those with a lower population, have resources and are primarily involved in the multinationals they have in their territory or in which they participate to carry out cooperative, service or exchange work Active in the case of imports for exports.

Therefore, based on export / import indicators, we can assess whether a country consumes more than it produces or produces more than its consumption, or, in other words, the way in which that country participates in intra-Community trade in goods and services. Others who are less involved in European cooperation and exchanges as producers / exporters will feel this lesser participation in intra-Community trade in goods and services. That is why, from the synthesizing tables as well as from some graphical representations, it is very clear how Romania as well as other EU member states were at the center of attention from this point of view or suffered from Many causes.

In order to deepen the study based on the analysis of the macroeconomic indicators of the European Union member states, we also used the econometric models to highlight the evolution of the economy of these states in the next period. For example, we used straight-line regression, for which we calculated the ratio between gross domestic product and export. The function used is that of the straight line, which finally revealed that the statistical tests used give some results. The model used was not for the calculation of the macroeconomic results indicators, but also for the analysis of the outlook of the macroeconomic evolution trend. We also used a multiple regression where gross domestic product correlated with imports, exports, and export import coverage. The data showed a positive influence of all three factors on gross domestic product growth and consequently on gross domestic product per capita. Data are presented in a linear linear analysis and multiple linear regression. All in all, it points out that intra-Community trade is a growth factor for the gross domestic product of each member country of the European Union.

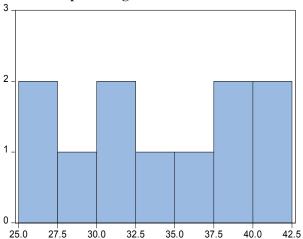
#### **Gross Domestic Product series statistics**



Series: GDPC Sample 2005 Observations	2015
Mean	6336.364
Median	6600.000
Maximum	8100.000
Minimum	3800.000
Std. Dev.	1254.012
Skewness	-0.706302
Kurtosis	2.821429
Jarque-Bera	0.929198
Probability	0.628387

The series statistics show that the Gross Domestic Product per capita of Romania has oscillated between a minimum of 3800 euro and a maximum of 8100 euro. The median value is 6600 for the interval analyzed. EWGDP series statistics.

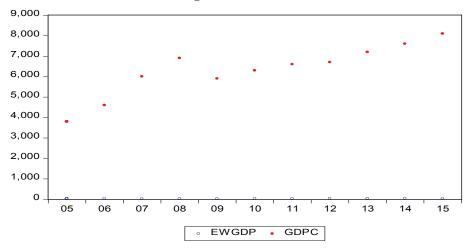
The export weight in the Gross Domestic Product series statistics



DP							
Sample 2005 2015							
11							
34.27273							
32.90000							
41.20000							
26.90000							
5.288684							
-0.017052							
1.607823							
0.888854							
0.641191							

The export weight in the Gross Domestic Product is characterized by a minimum value of 26.9%, while the maximum leve lis 41,2%. The median recorded was 32,9% for the 11 observations included in our study.

Correlogram EWGDP - GDP



#### Parameter estimation regression model

Dependent Variable: GDPC

Method: Least Squares (Gauss-Newton / Marquardt steps)

Date: 04/24/17 Time: 13:31 Sample: 2005 2015 Included observations: 11 GDPC =C(1) + C(2) \* EWGDP

	Coefficient	Std. Error t-Statistic		Prob.
C(1) C(2)	2019.412 125.9588	2319.718 66.96316	0.870542 1.881016	0.4066 0.0927
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.282195 0.202439 1119.911 11287811 -91.73569 3.538223 0.092656	Mean depend S.D. depende Akaike info cri Schwarz criter Hannan-Quin Durbin-Watso	nt var terion rion n criter.	6336.364 1254.012 17.04285 17.11520 16.99725 0.616880

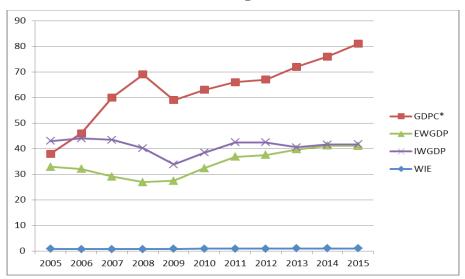
The estimation of the regression model shows a relatively weak link between the independent variable and the GDP/capita. The low values of *R-squared* and *Adjusted R-squared* tests show that the model can explain the variation of GDP/capita through the evolution of export weight in GDP in an amount of 20%. The increase by 1 percentage point of the export weight should lead to a growth of GDP/capita by almost 126 euro. To be noted, the elevated value of the free term, referring the influence of other factors not included at this stage in the model, this value is some 15 times greater than the regression coefficient C(2).

**Evolution of indicators during 2005-2015** 

YEAR	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GDPC	3800	4600	6000	6900	5900	6300	6600	6700	7200	7600	8100
EWGDP	32,9	32,1	29,1	26,9	27,4	32,3	36,8	37,5	39,7	41,2	41,1
IWGDP	43	44	43,4	40,2	33,8	38,4	42,4	42,4	40,5	41,6	41,7
WIE	0,76	0,73	0,68	0,7	0,84	0,86	0,88	0,9	0,99	0,98	1,01

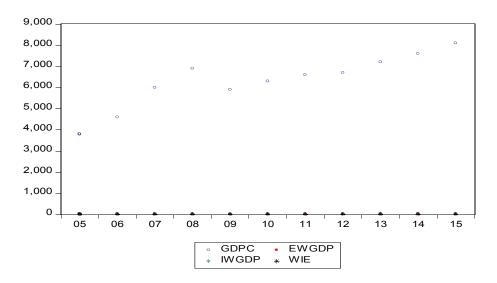
Dataset for the Romanian economy

# Evolution of the Gross Domestic per capita and its factorial variables, in Romania, during 2005-2015



<sup>\*</sup> in hundred of euro per capita

# Correlation between the dependent variable and the independent ones



#### Parameter estimation regression model

Dependent Variable: GDPC

Method: Least Squares (Gauss-Newton / Marguardt steps)

Date: 04/24/17 Time: 13:53

Sample: 2005 2015 Included observations: 11

GDPC = C(1) + C(2)\*EWGDP + C(3)\*IWGDP + C(4)\*WIE

	Coefficient	Std. Error	t-Statistic	Prob.
C(1) C(2) C(3)	-44963.99 -1185.379 1062.107	26846.74 676.0788 627.7116	-1.674840 -1.753315 1.692031	0.1379 0.1230 0.1345
C(4)	56957.99	28545.02	1.995374	0.0862
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.630059 0.471513 911.6300 5817485. -88.08998 3.973985 0.060445	Mean depende S.D. depende Akaike info cr Schwarz crite Hannan-Quin Durbin-Watso	ent var iterion rion n criter.	6336.364 1254.012 16.74363 16.88832 16.65243 1.688268

The multiple regression model reveals that all factors have a significant influence on the Gross Domestic Product per capita. The statistical tests of the model provide a moderate level of confidence in the estimation, as the variation of the dependent variable can be explained through the evolutions of the three regressors in some 50% manner. The weight of export in the GDP has a negative influence, which is also sizable in the scope of our analysis. The increase of export contribution measured through this variable by 1 percentage point will produce a decrease of GDP/capita by 1185 euros. We can observe that the other two factors have a positive influence, with the coverage of imports by exports being the most significant.

However, the positive impact posed by the modification of the last two factors is counterbalanced by the influence of other factors, not included in this study, which have a major and negative effect on the modification of GDP per capita, as indicated by the level of the C(1) coefficient.

#### Conclusion

In this article, the authors emphasized the establishment of external economic and financial relations and the way in which they resist macroeconomic outcomes. From this point of view, the activity of forecasting (forecasting)

external economic relations has a special aspect. There has been a discussion on the content of the forecasting activity of the international economic relations as well as on the requirements of the prospecting and forecasting activity of the economic and social activity. The way in which the aspects in this article are presented clearly show the possibility to analyze and interpret the effect of a country's imports and exports on the final results, materialized in gross domestic product, as the indicator of the broadest and most complex presentation of the results Macroeconomic developments over a period of time. By trying to systematise the conditions for achieving this international economic activity, we meet the quality criterion of a national economy. It is commonly known that only specialization in production and research requires wider international cooperation. Of course, in the European Union 27/28 there are areas in which exchanges or cooperation in economic community projects can be deepened. The exchanges are governed by the Directive of the European Economic Union on the free movement of goods and services. In this context, without the unilateral will of a member country, they are divided into two groups of countries.

In this article, we interpret the existing databases provided by Eurostat, but in order to clarify the role of intra-Community trade in goods and services, we have recourse to econometric models that are suitable for use in this respect. The authors consider that the study, limited, of course, can be deepened, and not only on the basis of the example presented in this article, but also by the possibility of studying econometric models on each country, complex studies using statistical and econometric methods Indices, chronological series method, graphical representation method) or using analytical econometric-mathematical models that quantify the evolution, the influence of the factors and in this way it is possible that by extrapolation one can predict the trend of evolution of the European Union mainly as the trend of evolution of each country. Of course, in this study, it was efficient to make an analysis based on the econometric model used and on the evolution of the European Union as a whole, taking into account the three indicators (export, import and export coverage of exports) at European level and Then comparing the regression parameters resulting from the analysis of the Eropean Union, we can determine what was and is the evolution trend of Romania or any other state.

#### References

- 1. Amiti, M., Weinstein, D. (2011). *Exports and Financial Shocks*, Quarterly Journal of Economics, 126 (4), pp.1841-1877
- 2. Amiti, M., Itskhoki, O., Konings, J. (2014). *Importers, Exporters, and Exchange Rate Disconnect*, American Economic Review, American Economic Association, vol. 104(7), pages 1942-1978
- 3. Anghel, M.G., Manole, A., Stoica, R. (2016). Correlation between direct foreign investments and import cantitative model of analyse, Romanian Statistical

- Review, Supplement, no. 10, pp. 106-109
- 4. Anghelache, C., Anghel, M.G. (2016). *Econometrie generală. Concepte, teorie și studii de caz*, Editura Artifex, București
- 5. Anghelache, C., Anghelache, G.V., Anghel, M.G. (2016). *Analysis of the Evolution of Romanian Foreign Commercial Exchange*, Romanian Statistical Review Supplement, Issue 3/2016, pp. 82-90
- Anghelache, C., Anghelache, G., Panait, M., Jweida, I.J. (2016). The Analysis of International Trade of Romania, Romanian Statistical Review Supplement, no. 12, pp. 91-98
- 7. Anghelache, C., Anghel, M.G. (2014). *Modelare economică. Concepte, teorie și studii de caz*, Editura Economică, București
- 8. Anghelache, C., Manole, A., Sacală, C. (2014). *Romanian International Trade Evolution*, Romanian Statistical Review, Supplement, no. 7, pp. 17-24
- 9. Anghelache, C., Anghelache, G.V., Anghel, M.G., Bardaşu, G., Sacală, C. (2014). *The International Trade Evolution*, Romanian Statistical Review Supplement, Issue 1, pp. 84-87
- Anghelache, C., Manole, A. (2012). Analysis Models of Romania's Foreign Trade, Economic Computation and Economic Cybernetics Studies And Research, nr. 2/2012, pp. 23-36
- Anghelache, C., Anghelache, C.S., Dumbravă, M. (2009). The foreign trade activity structural analysis, Metalurgia Internațional Vol. XIV, nr. 14 Special Issue, Editura ştiințifică F.M.R., pp. 71-74
- 12. Anghelache, C. (2008). *Tratat de statistică teoretică și economică*, Editura Economică, București
- Bernard, A.B., Jensen, J.B., Redding, S.J., Schott, P.K. (2012) The Empirics of Firm Heterogeneity and International Trade, Annual Review of Economics, 4, 1, pp. 283-313
- 14. Büthe, T., Milner, H. (2008). *The Politics of Foreign Direct Investment into Developing Countries: Increasing FDI through International Trade Agreements?*, American Journal of Political Science, Volume 52, Issue 4, pp. 741–762
- Caron, J., Fally, T., Markusen, J.R. (2014). *International trade puzzles: A solution linking production and preferences*, Quarterly Journal of Economics, 129(3), pp.1501-1552
- 16. Chor, D., Manova, K. (2012). "Off the Cliff and Back? Credit Conditions and international trade during the global financial crisis." Journal of International Economics, 87(1), pp. 117-133
- 17. Eaton, J., Kortum, S., Neiman, B., Romalis, J. (2016). Trade and the Global Recession, American Economic Review, 106(11), pp. 3401-3438
- Fajgelbaum, P., Grossman, G., Helpman, E. (2011). *Income Distribution, Product Quality, and International Trade*, Journal of Political Economy, vol. 119, no. 4, pp. 721-765
- 19. Goos, M., Manning, A., Salomons, A. (2009). *Job Polarization in Europe*, American Economic Review, Papers and Proceedings, 99(2), pp. 58-63
- 20. Hill, C., Smith, M. (2011). *International relations and the European Union*, Second Edition, Oxford University Press
- 21. Harrison, A., McLaren, J., McMillan, M. (2011). *Recent Perspectives on Trade and Inequality*, Annual Review of Economics, Vol 3, pp 261-289

- 22. Hummels, D. (2007). *Transportation Costs and International Trade in the Second Era of Globalization*, Journal of Economic Perspectives, Summer 2007, vol. 21, no.3, pp. 131–154
- 23. Karacaovalia, B., Limão, N. (2008). *The clash of liberalizations: Preferential vs. multilateral trade liberalization in the European Union*, Journal of International Economics, Volume 74, Issue 2, pp. 299–327
- Kehoea, T., Pujolàsd, P., Ruhle, K. (2016). The opportunity costs of entrepreneurs in international trade, NBER Working Paper Series, Cambridge, August 2016, Working Paper No. 22514
- 25. Konya, L. (2006). Exports and growth: Granger causality analysis on OECD countries with a panel data approach, Economic Modelling, 23, pp. 978-992
- Melitz, M. J. (2003). The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity, Econometrica, 71(6), 1695–1725
- 27. Nguyen, D.X. (2012). Demand uncertainty: Exporting delays and exporting failures, Journal of International Economics, 86, pp.336-344
- 28. Soderbery, A. (2015). *Estimating import supply and demand elasticities: Analysis and implications*, Journal of International Economics, 96(1), pp.1-17
- 29. Staiger, R., Sykes, A. (2011). *International trade, national treatment, and domestic regulation*, Journal of Legal Studies, 40(1), pp. 149-203

Annex no. 1

# Gross domestic product at market prices

# At current prices

# Current prices, euro per capita

geo\time	2004	2007	2010	2013		2014		2015	
EU (28 countries)	22500		25500	26700		27600		28900	
Euro area (changing composition)	25900	29100	28900	29700		30100		30800	
Euro area (19 countries)	25000	28400	28500	29500		30000		30800	
Belgium	28700		33500	35300		35900		36600	
Bulgaria	2700	4300	5200	5800		5900	(p)	6300	(p)
Czech Republic	9400		14900	15000		14900	(P)	15800	(P)
Denmark	37500		43800	46100		47000		47800	
Germany	27900			35000		36100		37100	
Estonia	7100			14300		15000		15400	
Ireland	38400			39200		41900		55100	
Greece	17700		20300	16500	(p)	16300	(p)	16200	(p)
Spain	20100		23200	22000		22300	(p)	23200	(p)
France	27300	30400	30800			32300	(p)	32800	(p)
Croatia	7800		10500	10200		10200	(F)	10400	(F)
Italy	25000	27400	26800	26500		26700		27000	
Cyprus	19100	22900	23300	21000		20600		20800	(p)
Latvia	5200	10300		11300		11800		12300	U-7
Lithuania	5400	9000		11800		12500		12900	
Luxembourg	60300	76500	78700	85000		88300		89900	
Hungary	8300	10100		10300		10600		11100	
Malta	12100	14200	15900	18000		19700		21400	
Netherlands	32200	37400	38000	38900		39300	(p)	40000	(p)
Austria	29600		35200	38000		38700	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	39400	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Poland	5400	8200	9400	10300	(e)	10700	(e)	11200	(e)
Portugal	14500	16600	17000	16300	(-)	16600		17300	(e)
Romania	2900	6000	6300	7200		7600		8100	(g)
Slovenia	13900	17400	17700	17400		18100		18700	
Slovakia	6400	10400	12400	13700		14000		14500	
Finland	30300		34900	37400		37600		38200	
Sweden	34200	39000	39400	45400		44600		45600	
United Kingdom	32100	36500	29200	32000		35000		39600	
Iceland	37700	50000	31500	36000		39600		45700	
Liechtenstein	:	:	:	:		:		:	
Norway	46400		66200	77400		73200		67100	
Switzerland	42600	46000	55900	63700		64700	(p)	73000	(p)
Montenegro	:	:	:	:		:	T.	:	
Former Yugoslav Republic of Macedonia, the	2300	3000	3500	3900	(e)	:		:	
Albania	:	:	:	:		:		:	
Serbia	2700	4000	4100	4800		4700		4700	
Turkey	:	:	:	:		:		:	
Kosovo (under United Nations Security			:	:					
Council Resolution 1244/99)	•	<u> </u>		•		•		•	

<sup>:=</sup>not available p=provisional e=estimated b=break in time series

Source of Data: Eurostat; Last update: 27.01.2017; Date of extraction: 30 Jan 2017 17:25:08 CET Hyperlink to the table: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00001

General Disclaimer of the EC website: <a href="http://ec.europa.eu/geninfo/legal\_notices\_en.htm">http://ec.europa.eu/geninfo/legal\_notices\_en.htm</a> Short Description: GDP (gross domestic product) is an indicator for a nation's economic situation. It reflects the total value of all goods and services produced less the value of goods and services used for intermediate consumption in their production. Expressing GDP in PPS (purchasing power standards) eliminates differences in price levels between countries, and calculations on a per head basis allows for the comparison of economies significantly different in absolute size. Code: tec00001

Annex no. 2 Exports of goods and services in % of GDP

Exports of goods and services in 76 of GDF										
geo\time	2005	2007	2010	2013	2014	2015				
EU (28 countries)	35,1	37,9	38,6	42,8	43,1	44				
Euro area (changing composition)	35,8	39,1	38,9	43,8	44,6	46,2				
Euro area (19 countries)	36,2	39,5	39	44	44,7	46,2				
Belgium	73,5	77,5	76,4	81,8	83,2	82,9				
Bulgaria	42,9	52,4	50,2	64,7	65	64,1				
Czech Republic	62,3	66,6	66,2	76,9	82,5	83				
Denmark	47,5	51,5	50,5	54,8	54,5	55,2				
Germany	37,7	43	42,3	45,5	45,7	46,8				
Estonia	65,9	63,2	75,1	84,5	83,1	79,3				
Ireland	79,6	80,7	103,4	106	114	124				
Greece	21,3	22,5	22,1	30,4	32,5	31,9				
Spain	24,7	25,7	25,5	32,2	32,7	33,2				
France	26,4	27,1	26	28,6	28,9	30				
Croatia	39,3	39	37,7	43	46,4	50				
Italy	24,7	27,4	25,2	28,9	29,3	30,1				
Cyprus	55,7	53,3	50,2	58,7	62,2	61,2				
Latvia	43,2	38,5	53,7	60,3	59,6	59				
Lithuania	53,8	50,4	65,3	84	80,9	75,9				
Luxembourg	161	184,2	175,1	192	209	236				
Hungary	62,8	78,3	82.2	86	88,7	90,7				
Malta	104	129,5	153,3	157	149	143				
Netherlands	66,6	70,3	72	82	82,6	82.5				
Austria	48,6	52,5	51	53,2	53	53,1				
Poland	34,6	38,6	40,1	46,3	47,6	49,6				
Portugal	26,7	31	29.9	39,5	40.1	40,6				
Romania	32,9	29,1	32,3	39,7	41,2	41,1				
Slovenia	59,6	67,6	64,3	75,2	76,4	77,9				
Slovakia	72	83,3	76,3	93,8	91,8	93,5				
Finland	40,3	44	38,7	38,8	37,7	36,6				
Sweden	45,9	48,3	46,2	43,8	45	45,6				
United Kingdom	24,7	24,9	28,3	29,8	28,1	27,6				
Iceland	30,6	33,4	53,7	55,4	53,3	53,7				
Liechtenstein	:	:	:	:	:	:				
Norway	43,4	43,3	39,8	39,2	38,9	37,4				
Switzerland	53,9	61,6	64,2	72,3	64,9	62,9				
Montenegro	:	:	37	41,3	40,1	42,5				
Former Yugoslav Republic of	24.0	44.1	20.9		- í					
Macedonia, the	34,8	44,1	39,8	43,4	47,7	48,8				
Albania	23	28,2	32,4	28,7	28,2	27,3				
Serbia	27,1	28,4	32,9	41,2	43,4	46,7				
Turkey	21	21,2	20,4	22,3	23,8	23,3				

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Source of Data: Eurostat; Last update: 27.01.2017;

Date of extraction: 30 Jan 2017 17:28:17 CET

Hyperlink to the table:http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&1 anguage=en&pcode=tet0000

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Short Description: This indicator is the value of exports of goods and services divided by the GDP in current prices.

Code: tet00003

Annex no. 3 Imports of goods and services in % of GDP

			700				
geo\time	2005	2007	2009	2011	2013	2014	2015
EU (28 countries)	34,4	37,4	34	40	40,3	40,4	41
Euro area (changing composition)	34,3	37,5	33	40	40,5	41,1	42
Euro area (19 countries)	34,8	38,1	34	41	40,7	41,2	42
Belgium	69,9	73,7	67	81	80,7	82,3	81
Bulgaria	57,6	71,2	51	59	65,1	66	64
Czech Republic	60	64,1	55	68	71,1	76,2	77
Denmark	41,9	48,6	43	47	48,2	47,6	48
Germany	32,7	36,4	33	40	39,5	39,1	39
Estonia	71	72,1	56	81	82,5	79,5	75
Ireland	68,7	72,5	80	84	87,3	95,9	92
Greece	29,6	35	29	32	33,2	34,9	32
Spain	29,7	31,7	24	29	29	30,2	31
France	26,8	28,4	26	30	30,5	30,9	31
Croatia	45,4	46,3	38	41	42,6	44,4	47
Italy	24,8	27,8	23	29	26,6	26,5	27
Cyprus	56,2	58	54	56	56,9	60,1	61
Latvia	57,7	57,5	44	63	63,5	61,5	60
Lithuania	61,1	63,5	54	78	82,7	79	77
Luxembourg	137	152	137	147	161	177	203
Hungary	65,1	77,6	71	81	79	81,7	82
Malta	107	129	149	158	150	136	136
Netherlands	57,9	61,4	56	69	71,3	71,7	72
Austria	45,5	48,3	42	51	50,6	49,7	49
Poland	35,7	42,1	38	45	44,4	46,1	47
Portugal	35,8	38,6	34	39	38,5	39,9	40
Romania	43	43,4	34	42	40,5	41,6	42
Slovenia	60,2	68,9	55	69	69,6	68,9	69
Slovakia	76,6	84,4	69	86	89,6	88,2	91
Finland	36,4	39,2	34	40	39,7	38,6	37
Sweden	38,7	41,3	39	42	39,3	40,7	41
United Kingdom	27,4	27,5	29	32	32	30,1	29
Iceland	42,5	42,5	41	49	47,5	47	46
Liechtenstein	:	:	:	:	:	:	:
Norway	27,4	29,9	28	29	28,5	30	32
Switzerland	46,7	50,3	50	57	60,2	53,1	51
Montenegro	:	:	:	64	61,4	60	61
Former Yugoslav Republic of Macedonia, the	51	62	54	66	61,5	64,9	65
Albania	47,9	55	54	57	47	47,2	45
Serbia	47,1	52,7	43	49	51,9	54,2	56
Turkey	24,4	26,1	23	30	28,1	27,6	26
Kosovo (under United Nations Security Council Resolution 1244/99)	:	:	52	57	49	50,6	50

:=not available p=provisional e=estimated

Source of Data: Eurostat Last update: 27.01.2017

Date of extraction: 30 Jan 2017 17:29:21 CET

Hyperlink to the table: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tet00004

General Disclaimer of the EC website: http://ec.europa.eu/geninfo/legal\_notices\_en.htmShort Description: This indicator is the value of imports of goods and services divided by the GDP in current prices.

Code: tet00004

#### Annex no. 4

### **Export to import ratio**

Export to	Export to import ratio									
geo\time	2002	2004	2006	2008	2010	2012	2013			
EU (28 countries)	1,04	1,03	1,01	1,01	1,02	1,05	1,07			
EU (27 countries)	1,04	1,03	1,01	1,01	1,02	1,05	1,07			
Belgium	1,08	1,07	1,05	1,01	1,03	1,01	1,02			
Bulgaria	0,85	0,82	0,78	0,74	0,97	0,96	0,99			
Czech Republic	0,98	1,01	1,05	1,04	1,05	1,08	1,09			
Denmark	1,14	1,12	1,07	1,06	1,12	1,1	1,11			
Germany	1,14	1,15	1,14	1,15	1,13	1,13	1,14			
Estonia	0,91	0,91	0,88	0,95	1,09	0,99	1,01			
Ireland	1,22	1,22	1,14	1,12	1,23	1,29	1,28			
Greece	0,61	0,69	0,67	0,62	0,71	0,85	0,92			
Spain	0,93	0,87	0,81	0,82	0,93	1,02	1,08			
France	1,06	1,02	0,96	0,93	0,92	0,93	0,93			
Croatia	0,83	0,87	0,86	0,84	0,99	1,01	1,02			
Italy	1,04	1,03	0,97	0,97	0,93	1,04	1,09			
Cyprus	0.97	0,95	0,93	0,8	0,87	0,93	1,03			
Latvia	0,81	0,74	0,68	0,76	0,98	0,94	0,97			
Lithuania	0,9	0,88	0,85	0,83	0,97	1,01	1,01			
Luxembourg	1.16	1.19	1,22	1,2	1.22	1,2	1,23			
Hungary	0.97	0,95	0,99	1.01	1.07	1,08	1.09			
Malta	1.05	0.97	0,95	0,98	0,99	1,05	1,06			
Netherlands	1.11	1.12	1,12	1.12	1.11	1.11	1.13			
Austria	1,11	1,08	1,1	1,11	1,09	1,06	1,09			
Poland	0,89	0,94	0,96	0,91	0,97	1,01	1,05			
Portugal	0,77	0,77	0,78	0,76	0,8	0,98	1,03			
Romania	0,86	0,8	0,73	0,7	0,86	0,9	0,99			
Slovenia	1.02	0.98	0,99	0.96	1,02	1.07	1,09			
Slovakia	0,91	0,96	0,95	0,97	1	1,06	1,07			
Finland	1,3	1,2	1,12	1,09	1,03	0,98	1			
Sweden	1,18	1,22	1,19	1,14	1,14	1,14	1,14			
United Kingdom	0,91	0,9	0,92	0,93	0,93	0,94	0.95			
Iceland	1 :	:	:	:	:	:	:			
Liechtenstein	:	:	:	:	:	:	:			
Norway	1,48	1,47	1,61	1,58	1,42	1,48	1,38			
Switzerland	1.17	1.18	1,19	1,26	1,26	1,25	1,24			
Montenegro	1 :	:	:	:	:	:	:			
Former Yugoslav Republic of Macedonia, the		:	:	:	:	:	:			
Albania	1 :	:	:	:	:	:				
Serbia	1 :	<u> </u>	<u> </u>	:	:	:				
Turkey	1 :	:	:	:	:	:	:			
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Source of Data: Eurostat Last update: 24.11.2016

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Short Description: This indicator is the value of export of goods and services divided by the imports of goods and services. Values higher than one indicate a positive trade balance whereas values smaller than one indicate a negative trade balance.

Code: tet00011