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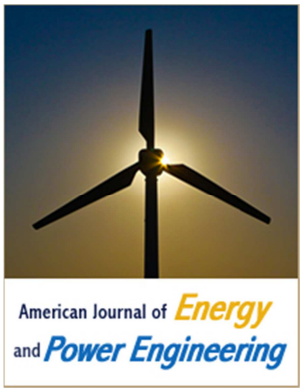

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Energy Security: European Union *versus* Russia

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Abstract
The aim of this article is to analyse the energy consumption and productivity, including the years of crisis. The use of energy is dependent industry, construction, transport and other sectors of work, but also in non-production and household activities. Resources underpin the functioning of global economy and our quality of life. The majority of European Union (EU) countries are energy poor of region. Energy security is always one of the most important problems in the EU. With regard to acute political and economic situation in Eastern Europe, with the European Union and Russia on mutual economic partial blockade, has become very topical, what is the position of energy in the European countries. What are the prospects for a partial boycott of resources? What you can expect from Russia? How are you doing Russian foreign trade? Have it has affected the boycott? That's what we look at on the basis of the European Union and Russia. That's why we look at the beginning of the whole economy, and then the energy production and consumption. By comparison, we analyze and Russia, which has the EU's largest energy suppliers. How far is the use of resource, including the economic crisis? What were the lessons from the use of resources?

1. Introduction

The *European Union* was established on 1 November 1993, when the Maastricht Treaty came into force. The treaty also gave the name *European community* to the EEC, even if it was referred as such before the treaty. The EU is a politico-economic union of 28 member states that are located primarily in Europe. If it were a country, the EU would come first in nominal GDP and second in GDP (PPP) in the world. 19 member states have also joined a monetary union known as the Euro area, which uses the Euro as a single currency. Additionally, 26 out of 28 EU countries have a very high Human Development Index. [1,2]

Russian Federation (Russia) is a country in northern Eurasia**.** Following the dissolution of the Soviet Union in 1991, the Russian SFSR reconstituted itself as the Russian Federation and is recognized as the continuing legal personality of the Union state. At 17 million km^2, Russia is the largest country in the world**.** Russian economy ranks as the ninth largest by nominal GDP and sixth largest by PPP in 2014. http://en.wikipedia.org/wiki/Russia -cite_note-data.worldbank.org-21#cite_note-data.worldbank.org-21"-delete, Russian extensive mineral and energy resources, the largest reserves in the world, have made it one of the largest producers of oil and natural gas globally. Russia has the largest stockpile of nuclear weapons in the world. It has the second largest fleet of ballistic missile submarines and is the only country apart from the United States with a modern strategic bomber force. [3]

The growth of the entire economy, measured using gross domestic product (GDP), will be viewed as background.

2. Methodology

The techniques and labour market survey definitions used by the authors have been specified in OECD [4] and Eurostat [5]. Definitions are presented by tables and figures. All *figures* are the authors' illustration.

3. Analyses of Gross Domestic Product

The growth of the entire economy, measured using GDP, will be viewed at first. We look at the EU, United States, China, Russia and the development of other countries economic development.

One of the priorities of the "Europe 2020" strategy is to increase the competitiveness of Europe. The competitors are in addition to the USA with a growing economy, China, India and other BRICS countries. The impacts of the economic crisis have been far reaching on the ability of the EU economy. The EU has proposed a new growth strategy 'Europe 2020' which aims at tackling common European challenges and boosting economic growth and quality employment through smart, sustainable and inclusive growth. [6] The real long-term economic analysis of the results by passing the Chinese economy more world leaders at the USA GDP in purchasing power parity as already the 2020th and the exchange rates of the 2030th year. The problem is also that part of today's still a relatively poor developing countries resolve of Western Europe, Japan, Canada and other wealthy countries in the world in terms of their economic level. This will directly affect the financial situation of the labour market and living standards. In turn, depends on the economic potential of the country as well as the political and military influence. [7]

Thus, the focus of Western civilization focus on competition in Asia, especially China, India and other emerging economies of developing countries, the fact that today's developed economies of Western civilization are not left in the future subordinate, economically, and politically highly dependent on China, India and other developing countries of today. The economic science come a new concept - from 2011th *BRICS* year to celebrate the emerging economies of Brazil, Russia, India, China and South Africa.

As follows we look at the world's and EU economic power of GDP.

Figures show that the EU's status is modest based on the GDP (PPP) and USD. Inevitably, with this evolution EU shall cease also to China. However, the EU-28 and the euro area emerged from the crisis, as evidenced by the positive GDP growth.

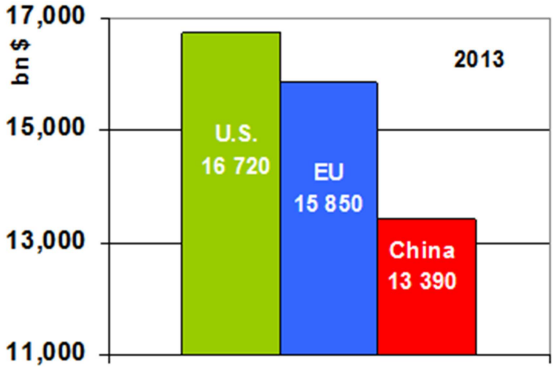

Figure 1. *GDP (purchasing power parity) [8]*

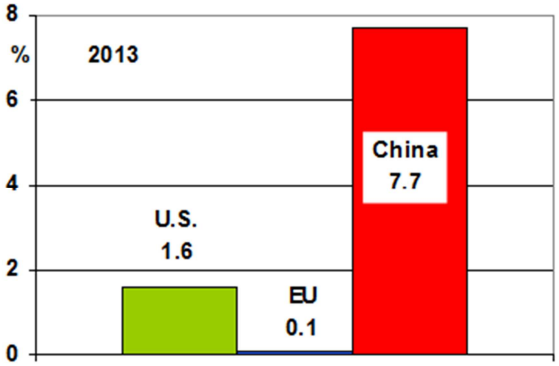

Figure 2. *GDP - real growth rate [9]*

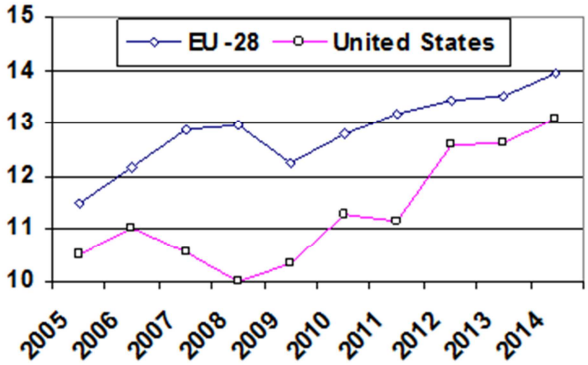

Figure 3. *GDP current prices, million euro [10]*

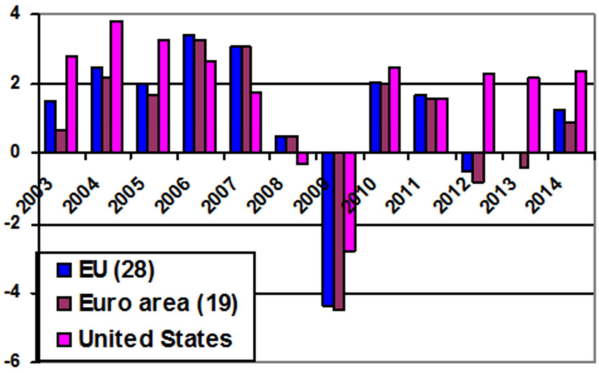

Figure 4. *Real GDP growth rate, % [11]*

Based on current prices and exchange rates of the euro, the EU is still low superiority in front the United States.

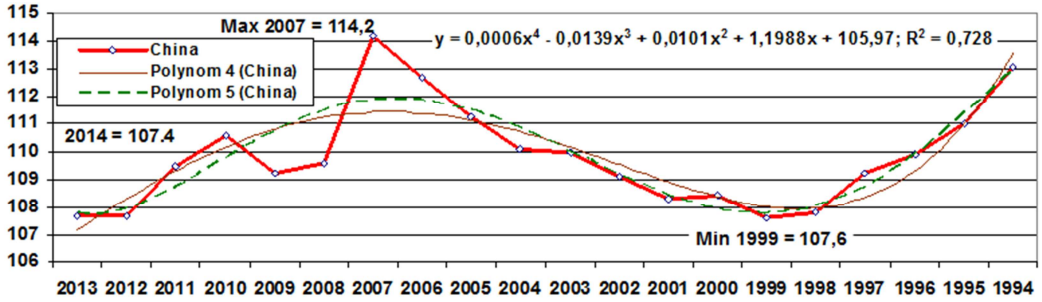

Figure 5. *Indices of Gross Domestic Product (preceding year = 100) [12]*

The polynomials (4-, 5- and 6-degree):

$$y\ (6) = -2E\text{-}06x^6 + 8E\text{-}06x^5 + 0{,}0036x^4 - 0{,}0927x^3 + 0{,}7427x^2 - 1{,}3944x + 108{,}49;\ R^2 = 0{,}7778 \quad (1)$$

$$y\ (5) = -0{,}0001x^5 + 0{,}0065x^4 - 0{,}1266x^3 + 0{,}933x^2 - 1{,}8587x + 108{,}84;\ R^2 = 0{,}7774 \quad (2)$$

$$y\ (4) = 0{,}0006x^4 - 0{,}0139x^3 + 0{,}0101x^2 + 1{,}1988x + 105{,}97;\ R^2 = 0{,}728 \quad (3)$$

Very little different is from the trend line of the four-degree as 5- and 6-degree of trend lines. R^2 difference between was 6.8% in both.

Theoretical trend lines converge very well with the curve of practical analysis of 20 years, except for four years. Therefore, it is theoretically justified by the high economic growth of China.

This shows that the economic boom years of high real trend line grew by more than a theoretical and onto the boom opposite: the real trend line grew fewer than the theoretical. Hence, the effects the world economy felt of China. Therefore, it is only a short-term issue, when the Chinese economy passes from the USA and the EU.

Table 1. *GDP growth of Russia (2005 = 100) [13]*

2006	2007	2008	2009	2010	2011	2012
108,2	117,4	123,5	113,9	119,0	124,1	128,4

Table 2. *GDP growth of Russia, % change year over year [9, 14]*

2011	2012	2013	2014
4.3	3.4	1.30	0.6

GDP (purchasing power parity) Russia was in 2013 $2.553 trillion; country comparison to the world: 7. [14]

In this context, we look world economic development and its projections.

Table 3. *Overview of the World Economic Outlook Projections. Percent change. Year over Year [15]*

	Projections			
	2013	2014	2015	2016
World Output	3.3	3.3	3.5	3.7
Advanced Economies	1.3	1.8	2.4	2.4
United States	2.2	2.4	3.6	3.3
Euro Area	-0.5	0.8	1.2	1.4
Germany	0.2	1.5	1.3	1.5
Russia	1.3	0.6	-3.0	-1.0
China	7.8	7.4	6.8	6.3
India	5.0	5.8	6.3	6.5

Russian economy (GDP) almost stopped in 2014 (+ 0.6%) and decreases strongly in the following years.

The world political situation is tense: EU-Russia mutual sanctions, the situation in Ukraine and the expansion of international terrorism.

Next, we look the EU and Russia's foreign trade, with an emphasis on energy resources.

4. International trade of European Union

Resource-efficient Europe under the Europe 2020 strategy supports the shift towards a resource-efficient, low-carbon economy to achieve sustainable growth. It provides a framework for actions in many policy areas, supporting policy agendas for energy, transport, industry, raw materials, agriculture and regional development. This will provide for economic and employment growth for Europe. It will bring major economic opportunities, improve productivity, drive down costs and boost competitiveness. [16]

The EU has five points in its energy policy: increase competition in the internal market, encourage investment and boost interconnections between electricity grids; diversify energy resources with better systems to respond to a crisis; establish a new treaty framework for energy cooperation with Russia while improving relations with energy-rich countries of Central Asia and North Africa; use existing energy supplies more efficiently while increasing renewable energy commercialisation; and finally increase funding for new energy technologies. [17]

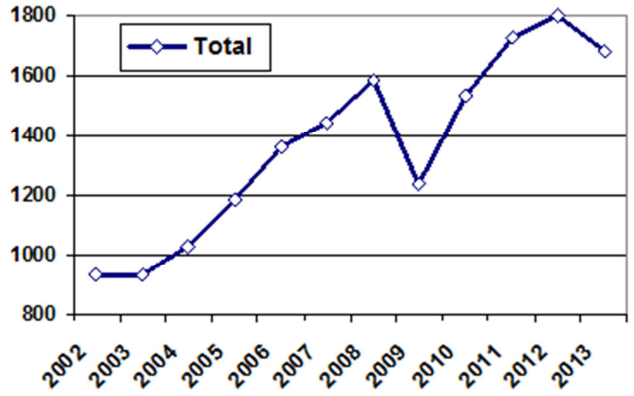

Figure 6. *Total Extra-EU27 trade. Billon euro [18]*

With 11 years, from 2002 to 2013, extra-EU27 imports (all products) increased from 937 bn to 1682 bn euro or 1.8 times. However, there were also decreases: 2003 = -2 bn and 2013 = -116 bn, but particularly strongly in 2009 = -349 billon euro. Even in 2010 had not yet reached 2008 level.

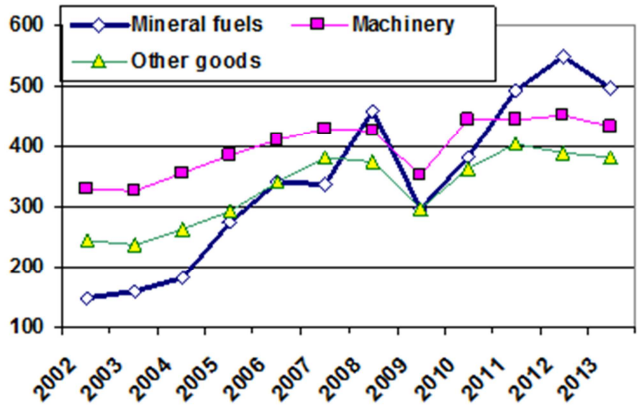

Figure 7. *Total extra-EU27 trade. Billion euro [18]*

In 2009, the three major groups of extra-imports declined. In 2009 mineral fuels (mineral fuels, lubricants and related materials) = -160 bn; machinery (machinery and transport equipment) -72 bn and other goods (other manufactured goods) -79 bn euro. When declined in 2013 mineral fuels -50 billon euro.

The one hand, it is natural that the economic downturn is also required fewer imports of goods. Also, the crisis will force companies to greater savings. So declined of raw materials extra-import in 2009 37%.

Table 4. *Extra-EU27 imports trade, by product group. Million euro [18]*

	2002	2008	2009	2012	2013
Food, drinks	58,124	80,820	73,755	92,994	93,418
Raw materials	44,543	75,542	47,534	81,102	76,391
Mineral fuels	149,112	458,038	298,445	547,113	497,293
Chemicals	80,757	124,299	112,523	163,165	157,602
Machinery	329,057	425,435	352,810	452,353	434,297
Other goods	244,268	375,019	296,500	388,172	382,307

The table shows the share of extra-EU27 trade by product group (SITC1), expressed in value terms and in % of the total flow [18]. In 2009 increased share of imports by product (%) almost all product group, except raw materials and mineral fuels.

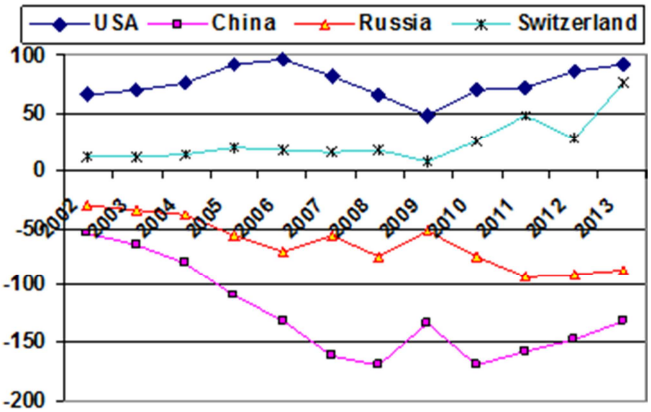

Figure 8. *Extra-EU28 trade balance by main partners, total product. Million euro [19]*

It shows the 20 main partners of the EU28 (according to the sum imports + exports), expressed in value terms and in % of the total flow [19].

In 2013 was trade balance with United States 92,250 mln, with China (except Hong Kong) -131,786 mln, with Russia -86,702 mln and with Switzerland 75,325 million EUR.

In 2013 was trade exports to United States 288,239 mln, to Switzerland 169,591 mln, to China (except Hong Kong) 148,269 mln, and to Russia 119,775 million EUR. From 2002 to 2013 share of exports of USA declined from 28% to 16.6%, then China share increased from 4% to 8.5%, and Russia share from 3.9% to 6.9%. Share of extra-EU28 exports to USA in 2013 was 16.6%. [19]

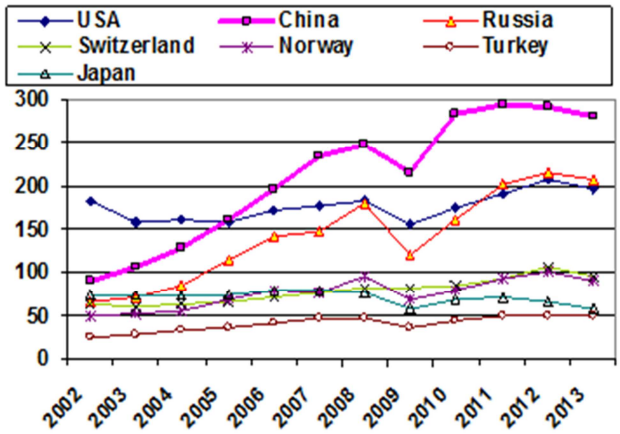

Figure 9. *Extra-EU28 imports by main partners. Million euro [19]*

In 2013 was trade imports from China (except Hong Kong) 280,055mln, from United States 195,989 mln, and from Russia 206,478 million EUR. From 2002 to 2013 share of extra-EU28 imports of USA declined from 19.5% to 11.6% and of Japan from 7.9% to 3.4%, then China share increased from 9.6% to 16.6%, and Russia share from 7% to 12.3%. [19]

5. External Trade of the European Union

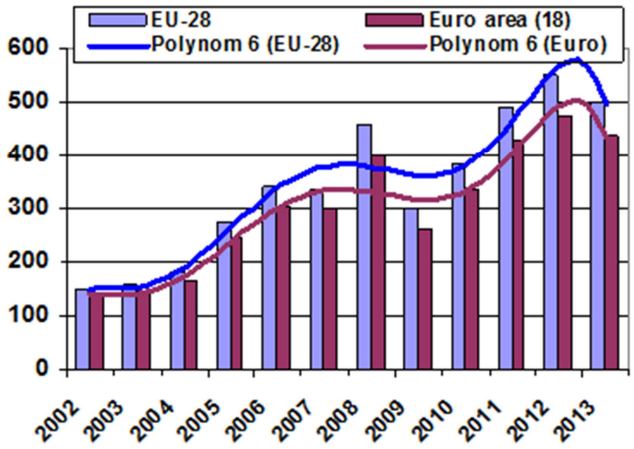

Figure 10. *International imports of mineral fuels, lubricants and related materials (SITC 3), Million euro [20]*

International imports of mineral fuels, lubricants and related materials (SITC 3), by reporting country

Imports are expressed in value terms and measured cif (cost, insurance, freight). Exports are expressed in value terms and measured fob (free on board). Balance = export - import. [20]

The biggest fall of EU-28 imports of mineral fuels was in 2009 year - 160 286 million EUR or 34.8%. But in 2013 decline was EUR 49,820 million or 9.1% compared to the previous year.

6-degree trend lines:

$$\text{EU-28: } y(6) = -0{,}029x6 + 1{,}006x5 - 12{,}926x4 + 75{,}381x3 - 195{,}78x2 + 229{,}24x + 53{,}837; \quad R2 = 0{,}9336 \tag{4}$$

$$\text{Euro: } y(6) = -0{,}0245x6 + 0{,}8453x5 - 10{,}771x4 + 61{,}909x3 - 156{,}31x2 + 174{,}67x + 70{,}878; \quad R2 = 0{,}9335 \tag{5}$$

Both trend lines run almost parallel. Of euro area not subject the superpower the UK buys a little, since it himself can be from the North Sea oil and gas.

Table 5. *Extra-EU28 trade balance of mineral fuels, lubricants and related materials (SITC 3), by main partners. Million euro [21]*

	2002	2004	2006	2007	2008	2009	2010	2011	2012	2013
Russia	-39,084	-51,011	-95,463	-96,542	-125,449	-88,390	-120,581	-152,424	-162,971	-159,483
Norway	-23,879	-30,000	-43,851	-41,422	-54,065	-35,859	-41,807	-52,089	-52,417	-46,636
Algeria	-10,654	-11,055	-16,940	-14,329	-19,512	-16,558	-19,681	-26,259	-29,614	-29,029
Nigeria	-4,035	-3,682	-9,089	-7,282	-11,298	-6,466	-8,932	-17,752	-27,618	-23,329
Saudi Arabia	-9,578	-13,586	-19,667	-15,028	-18,350	-9,194	-12,204	-22,680	-28,769	-23,561
Libya	-8,901	-12,760	-22,843	-23,854	-30,297	-19,459	-27,170	-9,692	-30,539	-20,774
Kazakhstan	-3,323	-5,865	-11,635	-11,045	-15,349	-9,690	-14,228	-20,883	-22,610	-21,831
Azerbaijan	-1,285	-1,222	-5,067	-7,177	-10,530	-7,440	-9,951	-15,365	-14,128	-14,010

The table shows the greater partners of the EU28 for that product group (according to the sum imports + exports). Imports are expressed in value terms and measured cif (cost, insurance, freight). Exports are expressed in value terms and measured fob (free on board). Balance = export - import. [21]

This table shows that the money outflow from the EU is high, particularly in Russia and Norway. In 2002 - 2013 it has risen four times in Russia and in Norway two times.

The biggest extra-EU28 exporter of mineral fuels is United States, in 2013 was 17,331 million euro and share 14.3%. [21]

Table 6. *Extra-EU28 trade imports of mineral fuels, lubricants and related materials (SITC 3), by main partners. Million euro [21]*

	2002	2004	2006	2007	2008	2009	2010	2011	2012	2013
Russia	39,267	51,260	95,888	97,078	126,064	89,002	121,298	153,495	164,369	160,589
Norway	24,782	31,458	45,912	43,631	56,379	37,603	44,821	54,807	55,721	49,540
USA	1,825	2,600	4,249	4,208	10,282	7,807	10,017	17,053	19,705	18,933
Algeria	10,728	11,182	17,166	14,755	20,008	17,047	20,328	27,173	32,023	31,251
Nigeria	4,328	4,535	10,190	9,427	14,975	9,585	13,480	23,237	32,044	27,664
Saudi Arabia	9,608	13,619	19,895	15,263	18,838	9,460	12,567	23,993	29,983	25,181
Libya	9,212	13,165	23,477	24,763	31,770	20,565	28,800	10,269	32,722	22,900
Kazakhstan	3,331	5,880	11,674	11,088	15,403	9,735	14,285	20,959	22,693	21,920
Azerbaijan	1,290	1,228	5,078	7,194	10,555	7,458	9,971	15,381	14,152	14,034
Iraq	2,748	2,530	5,015	6,800	9,163	6,364	7,124	9,703	12,719	10,592

In 2013 was share of mineral fuels imports of Russia 32.2%, of Norway 9.9%, of Algeria 6.3%, of Nigeria 5.5%, of Saudi Arabia 5%, of Libya 4.6%, and of Kazakhstan 4.4%. [21]

Energy Intensity of the Economy

Table 7. *Gross inland consumption of energy divided by GDP (kg of oil equivalent per 1 000 EUR) [22]*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU-28	168.3	169.2	166.9	164	159.3	152	151	149	151.7	143.9	143.4	141.6

Energy intensity of the economy is the ratio between the gross inland consumption of energy and the GDP for a given calendar year. It measures the energy consumption of an economy and its overall energy efficiency. The gross inland consumption of energy is calculated as the sum of the gross inland consumption of five energy types: coal, electricity, oil, natural gas and renewable energy sources. The GDP figures are taken at chain linked volumes with reference year 2005. The energy intensity ratio is determined by dividing the gross inland consumption by the GDP. Since gross inland consumption is measured in kgoe (kilogram of oil equivalent) and GDP in 1 000 EUR, this ratio is measured in kgoe per 1 000 EUR. [22]

The trend is decrease in consumption, savings.

Table 8. *Primary production of energy by resource of EU-28 countries. 1 000 tonnes of oil equivalent [23]*

	2002	2004	2007	2008	2009	2010	2011	2012	2013
All products	941,947	929,783	856,640	850,778	815,937	831,344	800,763	795,313	789,672
Solid fuels	209,420	200,425	184,631	176,833	166,196	164,005	166,643	166,053	155,822
Crude oil	151,313	132,336	108,183	100,289	94,985	88,771	78,030	70,383	66,206
Natural gas	205,971	204,866	171,289	172,158	157,132	159,774	141,681	133,190	131,754
Nuclear heat	255,556	260,286	241,409	241,908	230,767	236,562	234,006	227,718	226,286

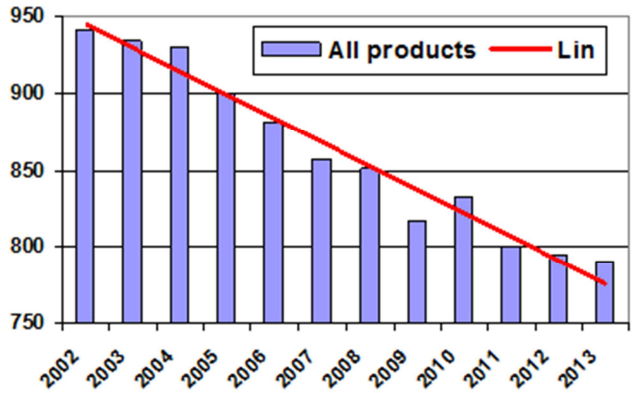

Figure 11. *Primary production of energy by resource of EU-28 countries. 1 000 tonnes of oil equivalent [23]*

Any kind of extraction of energy products from natural sources to a usable form is called primary production. Primary production takes place when the natural sources are exploited, for example in coal mines, crude oil fields, hydro power plants or fabrication of biofuels. Transformation of energy from one form to another, like electricity or heat generation in thermal power plants or coke production in coke ovens is not primary production. [23]

There has been a linear ($y = -15{,}285x + 960$; $R^2 = 0{,}9654$) decrease of production, especially in 2009.

Of crude oil production of EU has declined during the period 2002 - 2013 2.3 times and the natural gas 1.7 times.

Table 9. *Primary production of EU by energy type, 2013*

	Total primary production, in Mtoe	of which (shares):					
		Solid fuels	Oil	Gas	Nuclear	Renewable Sources *	Wastes (nonrenewable)
EU-28	789.7	19.7%	9.1%	16.7%	28.7%	24.3%	1.5%

* Renewable energy production includes biomass, hydropower, geothermal energy, wind energy and solar energy.

Table 10. *Gross inland energy consumption in the EU*

	Gross inland energy consumption, in Mtoe						Energy dependency, 2013
	1990	2000	2006	2011	2012	2013	
EU-28	1 667.3	1 726.9	1 832.2	1 698.0	1 685.8	1 666.2	53.2%

The EU energy security, especially in times of crisis, it is important imports of mineral fuels. The key here is Russia. If there is a partial economic blockade of Russia, it may be said that 2013 is face of history. Now, it is important information the last months. Now is the important information latest months.

Table 11. *Imports of goods - mineral fuels. Trade value - million euro and percentage change m/m-12 [24]*

EU-28	2014											2015
	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M01
Mln EUR	38,606	37,615	37,359	40,866	37,818	38,118	36,821	36,562	35,653	32,360	31,003	26,319
% change m/m-12	-12.9	-9.3	-10.8	-2.9	-8.4	-9	-14.4	-8.3	-15.2	-19.9	-18.1	-37.1

International trade statistics cover any movements of goods between the EU Member States and non-member countries (extra-EU trade), and from one Member State to another (intra-EU trade). 'Goods' means all movable property, including electric current. The product breakdowns available in Newcronos/Euro-indicators are based on aggregates derived from the BEC classification and the SITC. [24]

Conclusion - past few months is significantly reduced imports of mineral fuels compared to the same month last year.

6. External Trade of the Russian Federation

Table 12. *External trade of the Russia. Billion US dollars [25]*

	2000	2005	2008	2009	2010	2011	2012	2013
Export	103,1	241,5	467,6	301,7	397,1	516,7	524,7	526,4
Import	33,9	98,7	267,1	167,3	228,9	305,8	317,2	317,8

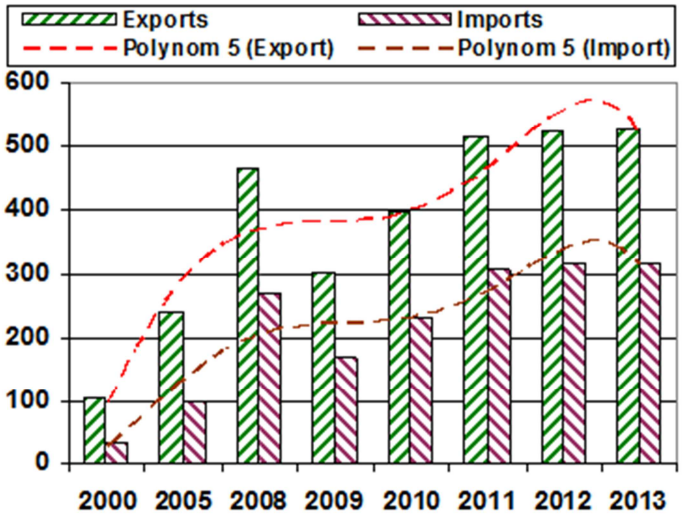

Figure 12. *External trade of the Russia. Billion US dollars [25]*

Trend line of 5- degree and 6-degree polynomials

$$Y_6 \text{ (export)} = 1{,}5022x^6 - 40{,}972x5 + 435{,}98x^4 - 2279{,}8x^3 + 6038{,}4x^2 - 7373x + 3320;\ R^2 = 0{,}9745 \quad (6)$$

$$Y_5 \text{ (export)} = -0{,}4118x^5 + 7{,}1652x^4 - 36{,}749x^3 + 20{,}054x^2 + 298{,}95x - 195{,}22;\ R^2 = 0{,}8707 \quad (7)$$

$$Y_6 \text{ (import)} = 1{,}0051x^6 - 27{,}604x^5 + 296{,}36x^4 - 1568{,}1x^3 + 4219{,}3x^2 - 5263{,}7x + 2375{,}8;\ R^2 = 0{,}9758 \quad (8)$$

$$Y_5 \text{ (import)} = -0{,}4668x^5 + 9{,}4627x^4 - 67{,}309x^3 + 192{,}7x^2 - 130{,}67x + 23{,}95;\ R^2 = 0{,}8775 \quad (9)$$

Both have very high R^2, but the simplest is a 5-degree polynomial. They polynomials characterize theoretically well Russian foreign trade development, but also a decrease in the coming years (2014-2015). This is confirmed by the results of the last few months, we will analyze later.

Table 13. *Exports of the Russia. Billion US dollars [25]*

	2000	2005	2008	2009	2010	2011	2012	2013
Total	103,1	241,5	467,6	301,7	397,1	516,7	524,7	526,4
other countries	89,3	208,8	397,9	254,9	337,5	437,3	445,5	452,9
CIS countries	13,8	32,6	69,7	46,8	59,6	79,4	79,2	73,5

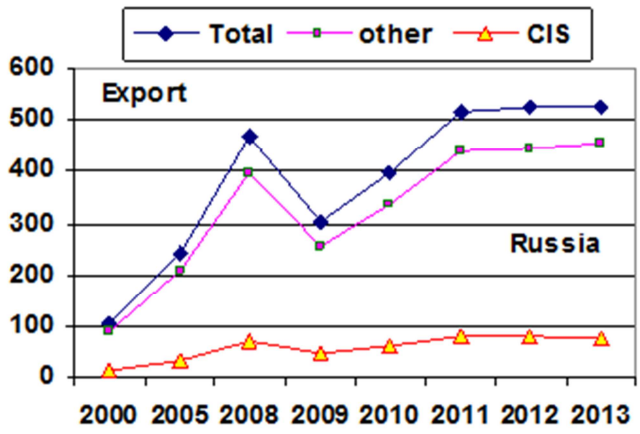

Figure 13. *Exports of the Russian Federation [25]*

In 2013 of export of Russia was 86,0% to other countries and only 14,0% to CIS countries (of which with to EurAsEC 7,6%).

External trade of the Russia with other countries, 2013 (at actual price ; mln US dollars) [26]

Exports: including by countries: Germany 37028, Italy 39315, Netherlands 70126, Poland 19582, United Kingdom 16449, Finland 13308, France 9203, Belgium 7727, Denmark 1480, Sweden 4476, Norway 808;

China 35631, Switzerland 8878, Republic of Korea 14868, India 6886, USA 11196, Turkey 25500, Japan 19649 mln US dollars.

Imports: Germany 37916, Italy 14554, France 13012, Poland 8334, United Kingdom 8106, Denmark 2177, Finland 5409, Sweden 3917, Norway 1754;

China 53212, USA 16537, Japan 13563, Republic of Korea 10315 mln US dollars.

In total volume of exports of Russia the largest share accounted for the other countries: the Netherlands - 13.3%, Italy - 7.5%, Germany - 7.0%, China - 6.8%, Turkey - 4.8%, Japan - 3.7%, Poland - 3.7%, United Kingdom - 3.1%, Republic of Korea - 2.8%, Finland - 2.5%, USA - 2.1%, France - 1.7% and Switzerland - 1.7%.

Shipments from the following countries predominated in imports: from China - 16.7%, Germany - 11.9%, USA - 5.2%, Italy - 4.6%, Japan - 4.3%, France - 4.1%, Republic of Korea - 3.2%, Poland - 2.6%, United Kingdom - 2.6%, Turkey - 2.3%, the Netherlands - 1.8% and Finland - 1.7%. [26]

Table 14. *Commodity structure of exports of the Russian Federation to other countries [27]*

	2000	2005	2008	2009	2010	2011	2012	2013	2013
Exports	**Billion US dollars (at actual prices)**								**%**
Total:	89.3	209	398	255	337	437	445	453	100
mineral products	48.7	141	293	179	242	323	330	341	75.3
chemical products	6.0	11.4	23.7	14.5	19.7	25.2	24.9	23.1	5.1
metals	21.0	36.5	52.6	33.5	44.6	50.8	50.6	47.1	10.4
machinery	6.7	7.6	11.3	11.8	14.3	15.9	15.7	16.4	3.6

The major part of Russian exports account for fuels (75.3%) and other raw materials. Share of machinery, equipment and transport means is very small (3.6%) and it is twice the period under review decreased.

Consequently, it is vital for Russia fuel and other raw materials exports.

For oil and gas production requires knowledge of other, and in particular the equipment.

Ranking place of Russia in 2012 in the world by crude oil (including gas condensate), natural and associated gas was two. [28] Consequently, it is essential to other countries.

Dynamics of Russian foreign trade in recent months (Nov 2014 - Jan 2015) [29]

Exports to the corresponding period of the previous year: Nov 2014 = 78.3; Dec 2014 = 75.9; Jan 2015 = 69.5 mln US$.

Foreign trade turnover to the corresponding period of the previous year: Nov 2014 = 78.3; Dec 2014 = 75.9; Jan 2015 = 66.0.

When January 2014 was foreign trade turnover 60522 mln US$ and exports 39600 mln US$, but in January 2015 was according to 39973 mln (66.0%) and 27510 mln US$ (69.5%).

Table 15. *Dynamics of exports and imports to the corresponding period of the previous year [29]*

	non-CIS (other) countries				**CIS member states**			
	Exports		**Imports**		**Exports**		**Imports**	
	mln US$	**growth %**	**mln US$**	**growth %**	**mln US$**	**growth %**	**mln US$**	**growth %**
Jan 2014	34162	104,1	18356	99,2	5438	90,3	2566	79,9
Jan 2015	24136	70,7	10888	59,3	3374	62,0	1575	61,4

Foreign trade turnover in January 2015 amounted to 39.0 billion US$. Exports amounted to 27.6 billion dollars, including the non-CIS countries - 24.5 billion dollars and in the CIS member states - 3.2 billion dollars. Imports amounted to 11.4 billion dollars, including from foreign countries - 9.9 billion dollars, of the CIS member states - 1.5 billion dollars.

Table 16. *Average export prices for basic products (US dollars per ton) [30]*

	2000	2005	2008	2009	2010	2011	2012	2013
Coal	26.3	47.2	79.6	70.1	79.4	103	100	85.1
Crude oil	175	330	663	407	546	744	754	734
Petroleum products	174	348	676	387	529	727	750	721
Natural gas, per 1000 cu. m.	85.9	151	354	249	273	343	346	342

Very high price increase of raw material, particular crude oil price rise is strongly increased volumes of Russian export financing. Thus, the cash flow the country and its economic rise.

When January 2014 was average export price of the Russian oil 743.9 USD / ton, but in January 2015 was 399.9 USD / ton. [31]

Taking into account this publication and the previous work of the authors [32 - 50] have made the following conclusions and suggestions.

7. Discussion & Conclusions

- The economy (GDP) of the USA has generally developed quicker than that of the EU. The EU would come first in nominal GDP and second in GDP (PPP) in the world. Inevitably, with this evolution EU shall cease also to China.
- The EU-28 and the euro area emerged from the crisis, as evidenced by the positive GDP growth.
- It is only a short-term issue, when the Chinese economy passes from the USA and the EU. Russian economy (GDP) almost stopped in 2014 (+ 0.6%) and decreases strongly in the following years.
- In energy policy of the EU: establish a new treaty framework for energy cooperation with Russia while improving relations with energy-rich countries of Central Asia and North Africa.
- With 11 years, extra-EU27 imports (all products) increased 1.8 times.
- In 2009 increased share of imports by product (%) almost all product group, except raw materials and mineral fuels.
- In 2013 was trade balance with United States +92,250 mln and with Switzerland +75,325 mln, but with China -131,786 mln, and with Russia -86,702 million EUR.
- In 2013 were trade imports from China 280,055 mln, from United States 195,989 mln, and from Russia 206,478 million EUR. From 2002 to 2013 share of extra-EU28 imports of USA declined from 19.5% to 11.6%, then China share increased from 9.6% to 16.6%, and Russia share from 7% to 12.3%.
- The biggest fall of EU-28 imports of mineral fuels was in 2009 year 34.8%. But in 2013 decline was 9.1% compared to the previous year.
- The money outflow from the EU is high, particularly in Russia and Norway. In 2002 - 2013 it has risen four times in Russia and in Norway two times.
- In 2013 was share of mineral fuels imports of Russia 32.2%, of Norway 9.9%, of Algeria 6.3%, of Nigeria 5.5%, of Saudi Arabia 5%, of Libya 4.6%, and of Kazakhstan 4.4%.
- In 2013 of export of Russia was 86% to other countries and only 14% to CIS countries.
- Of crude oil production of EU has declined during the period 2002 - 2013 2.3 times and the natural gas 1.7 times.
- The EU energy security, especially in times of crisis, it is important imports of mineral fuels. The key here is Russia.
- They characterize theoretically well Russian foreign trade development, but also a decrease in the coming years (2014-2015).
- They polynomials characterize theoretically well Russian foreign trade development, but also a decrease in the coming years (2014-2015).
- Russian main export partners in 2013 were the Netherlands, Italy and Germany, and import partners China, Germany and USA.
- The major part of Russian exports account for fuels (75.3%) and other raw materials. Share of machinery, equipment and transport means is very small (3.6%) and it is twice the period under review decreased.
- Consequently, it is vital for Russia fuel and other raw materials exports. For oil and gas production requires knowledge of other, and in particular the equipment.
- In recent months (Nov 2014 - Jan 2015) were Russian foreign trade decreased by one third compared to the same months last year.
- In Jan 2015 decreased imports of mineral fuels of EU-28 37.1% compared to the same months last year.
- Consequently, the EU and Russia need each other. Disturbances of commerce (boycotts) resonate both badly.

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