

European Union Versus United Kingdom Based on the Economy

Lembo Tanning^{1*}, Toivo Tanning¹

¹ Independent Researcher, Tallinn, Estonia

Email Address

lembo.tanning@gmail.com (Lembo Tanning), toivo.tanning@gmail.com (Toivo Tanning)

*Correspondence: lembo.tanning@gmail.com

Received: 13 December 2017; **Accepted:** 2 February 2018; **Published:** 26 February 2018

Abstract:

The aim of the article is to analyze the role of the United Kingdom (UK) based on the economy and its impact on the European Union (EU). Brexit is the most important event of this decade in the EU history. Which strongly affects not only the UK, but also whole the EU economy and politics. In order to assess the economic strength of the UK, we will conduct a comparative analysis with other major the EU powers, in particular Germany. It shows how much the EU loses as the UK leaves. The emphasis is on the analysis of economic reasons. The main reason for Brexit was the deterioration of the economic situation in the UK in recent years. In particular, it seems that after years. However, the evaluation of political impact is more complex and subjective.

Keywords:

European Union, United Kingdom, Brexit, Economic Analysis, and Scientific Novelty, Study the Impact of Brexit on the EU Economy and Its Consequences Forecast

1. Introduction

1.1. What is the Brexit?

Brexit is a portmanteau of "British" and "exit". In the UK referendum on 23 June 2016, 51.89% (17,410,742) voted to leave the EU. On 29 March 2017, the British government invoked §50 of the Treaty on the European Union; although revoking this might be legally possible, the UK is thus on course to leave the EU in March 2019. [1]

1.2. Economic Analysis

Economic analysis of the reasons of the UK leaving from the EU is controversial. It needs a SWOT analysis and cannot be viewed solely in black and white. It is strongly influenced by a series political and a number of other causes.

1.3. Historical Background of the United Kingdom

In order to better understand the reasons for leaving the UK, there needs to be an extensive back view, historical background. For centuries, the UK was the most influential and strongest country in the world. During the breaks, wars were

overwhelmed with other major European powers. At the time of *Queen Victoria*, began industrial revolution, which was crucial for the whole of Europe. However, over the course of time, the UK's influence has weakened and their role in world (European) affairs has diminished. The British Empire has broken down.

After WW II, economic and political integration of European countries took place. In 1951 was formed the European Coal and Steel Community, to which the UK was also called. The British refused, it was unthinkable for them, that Germans are going to check their coal and steel industries. In 1957 was establishing the European Economic Community and the European Atomic Energy Community. In 1967, these became known as the European Communities (EC). The UK applied to join in 1963 and 1967, but was vetoed by the French President. Later the UK successfully applied for membership and the UK became a member of the EC on 1 January 1973. The EC became the European Union on 1 November 1993, reflecting the evolution of the organisation from an economic union into a political union. However, the UK did not join the Eurozone. [2 - 4]

2. Materials and Methods

Source or basic data and methodology is based on international organizations (Eurostat, IMF, WB, CIA), and in particular the authors in previous publications [1-19] (see links). The total volume of three authors' books [2 - 4] is over a thousand pages, including the volume of the English-language "The Economic Crisis Lessons of Europe" [2] is 540 pages. There are shown in detail in the European economic correlation trends and regularities. Here's an assessment, we will analyze GDP, foreign trade and others key indicators of economy.

3. Impact Brexit to economy of the United Kingdom, the EU and the world

3.1. Net Contributions of EU

Table 1. Largest net contributions in 2015 [20].

Billion EUR		% / GDP		EUR per capita	
Germany	14.3	Netherlands	0.54	Sweden	226
UK	11.5	Sweden	0.48	Netherlands	219
France	5.5	Germany	0.46	UK	178
Netherlands	3.7	UK	0.46	Germany	176

In absolute volumes were the largest net contributors Germany and UK, but in relative terms the Netherlands and Sweden in 2015. The largest beneficiaries were Poland (9.5 billion), Czech Republic (5.7 billion), Romania (5.2 billion) and Greece (4.9 billion EUR).

The fact that Britain is a net contributor means that, in theory, the UK could stand to gain money after it leaves the EU. However, this does not account for any potential economic fluctuations as a result of Brexit - if the economy suffers then any gains from not paying into the budget could easily be wiped out by falling tax receipts. There is also a very real possibility that the UK may have to keep paying into the EU budget if it wants to maintain access to the EU Single Market. The UK will also have to continue paying into the EU budget until it formally leaves the EU and senior European negotiators have signaled they will try and make Britain pay up to 60 billion

EUR to leave, to cover previous budget commitments, pension liabilities, and other costs. While on paper it might look like leaving the EU will give Britain more money for inward investment, Brexit could end up costing UK just as much as EU membership or worse, more. [21]

3.2. Gross Domestic Product at Market Prices

A detailed analysis of all Brexit causes is very large. As the rule of the economy most of all affects political decisions, here is briefly Brexit's impact to national economy of UK and EU. At first, we will analyze the GDP (gross domestic product) at market prices.

GDP 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. [22]

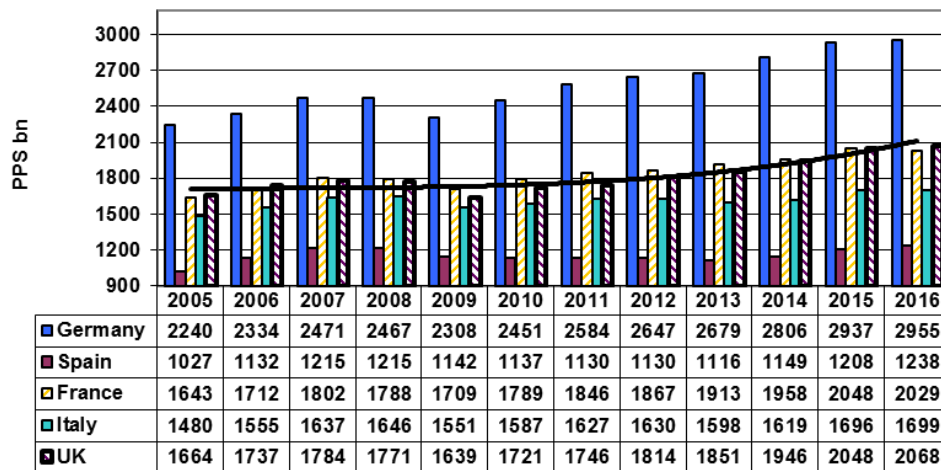


Figure 1. GDP at market prices, current prices, billion PPS [22].

Germany is by GDP (PPS) 1.5 times stronger than the UK. In the years 2007-2014 France was stronger than the UK, but the difference between UK and France in 2015 was 59 million euros (0.003%) and in 2016 = 39.33 billion euros (1.902%).

According to GDP by PPS, the UK has already exceeded 2007 levels in 2012. GDP by PPS has led to a steady increase in the UK economy and in 2016 France has passed, with France falling from 2007 to 2015. UK GDP by PPS is from Germany only 69.4%. The UK share of GDP by PPS was 13.8% in EU-28 in 2016. Here, the 4-grade strong correlation line of UK ($R^2 = 0.9516$) allows for small, but steady GDP growth.

Table 2. GDP at market prices, at current prices, billion EUR [22].

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Germany	2,300	2,393	2,513	2,561	2,460	2,580	2,703	2,758	2,826	2,932	3,043	3,144
Spain	930	1,007	1,080	1,116	1,079	1,080	1,070	1,039	1,025	1,037	1,079	1,118
France	1,771	1,853	1,945	1,995	1,939	1,998	2,059	2,086	2,115	2,147	2,194	2,228
Italy	1,489	1,548	1,609	1,632	1,572	1,604	1,637	1,613	1,604	1,621	1,652	1,680
UK	2,027	2,146	2,245	1,974	1,716	1,841	1,883	2,078	2,063	2,278	2,602	2,393

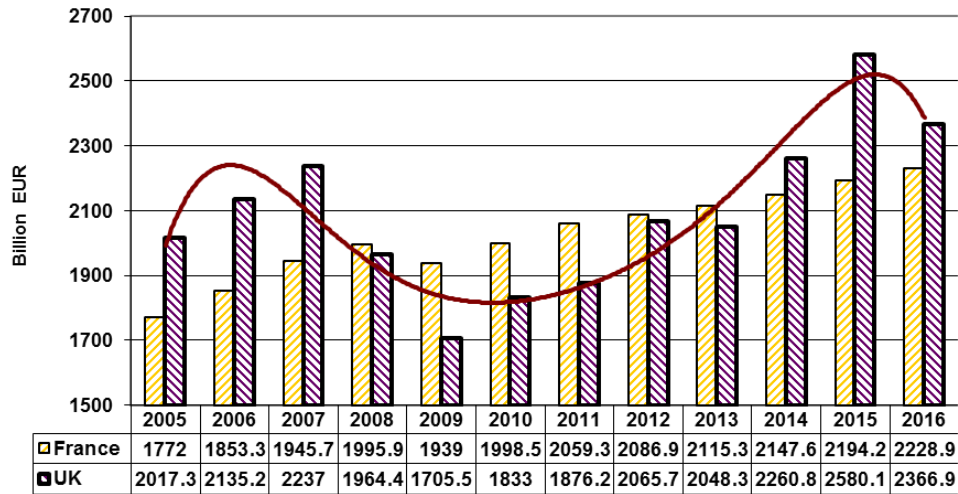


Figure 2. Gross domestic product at market current prices, billion EUR [22].

The economic crisis was in both years 2008 - 2009. When Germany and France already exceeded the crisis level in 2010 and Italy in 2011, then the UK started to decline already a year earlier, the pre-crisis level was exceeded only in 2014. On the other countries after a crisis the economy continued to the share in current prices of the UK in 2016 was 16.1% of the EU-28 total. 6-grade strong correlation trend curve ($R^2 = 0.8893$) of UK permits a decrease. [22]

On the other countries after a crisis the economy continued to grow, but in 2016 the GDP of the UK decreased again by EUR 213 billion. While in the years 2008 - 2013 France was stronger than in the UK economy, with the UK GDP accounted for only 75.5% from the Germany.

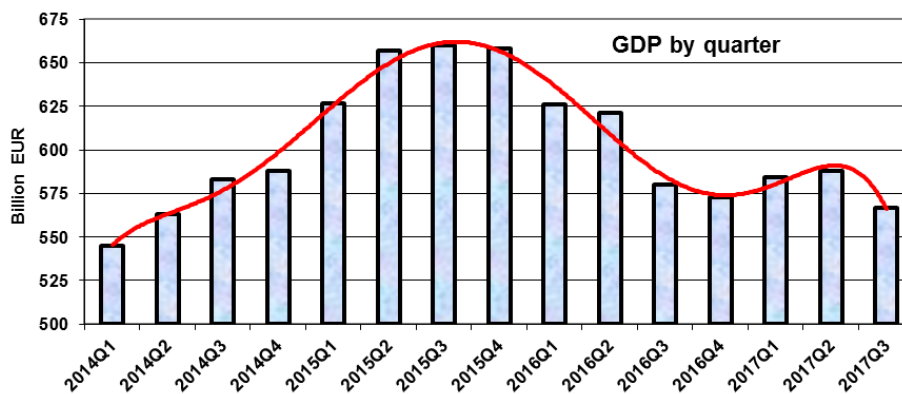


Figure 3. GDP in current prices (seasonally and calendar adjusted data) by Quarter to Quarter growth of UK [23].

The 2015Q3 was 76.497 billion euros or 13.33% higher than the 2017Q3. 2017Q3 was GDP lower than in 2014Q3 and almost at the level of 2014Q2. Over the past two years economy (GDP by current prices) of the UK was considerably go back.

But GDP by PPS there was an increase.

If in 2014-2017 the UK best quarters were Q2-Q4 2015 (2015Q3 = 660,167.3 million euros), then 2017Q3 = 567,447.8 is only 86% of it. 2017 quarters are almost equal to 2014 levels. The sharp decline started as early as 2016Q3. A complex of 6-degree of the trend line, with $R^2 = 0.9736$, well characterized by the dynamics of GDP.

GDP in current prices of **national currency** by quarter to quarter of UK was linear growth from 451,293 GBP in 2014Q1 to 509,449 GBP in 2017Q3 ($R^2 = 0.9847$). [23]

Euro Per Capita

Table 3. GDP at market prices. Current prices, euro per capita [24].

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Germany	28,300	29,500	31,000	31,700	30,600	32,100	33,700	34,300	35,000	36,200	37,300	38,100
Spain	21,300	22,700	23,900	24,300	23,300	23,200	22,900	22,200	22,000	22,300	23,300	24,100
France	28,100	29,200	30,400	31,000	30,000	30,800	31,500	31,800	32,100	32,400	33,000	33,300
Italy	25,600	26,500	27,400	27,600	26,400	26,800	27,300	26,700	26,500	26,700	27,200	27,700
UK	33,600	35,300	36,600	31,900	27,600	29,300	29,800	32,600	32,200	35,300	40,000	36,500

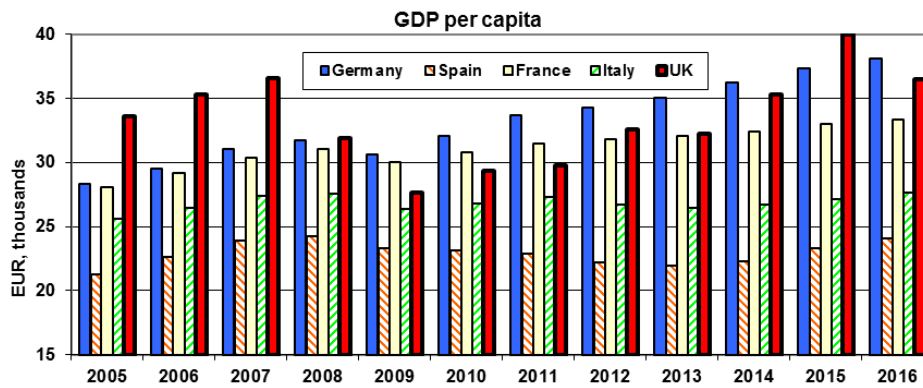


Figure 4. GDP at market current prices, euro per capita [24].

In the case of the EU's big powers, UK GDP per capita was the largest in the years 2005 - 2008 and 2015. In other years, Germany was superior to the great powers.

Figure 5. GDP at market prices, euro per capita, 2016 [24]

GDP per capita of UK (36,500) is larger than France, Italy and Spain, but less than Germany, other Central European and Nordic countries; 1.6 times smaller than Ireland. The average of the new EU member states and the EU-28 (29.100) GDP per capita is lower than the UK. The UK was ranked 10th in the 2016 EU ranking GDP per capita.

In 2016 GDP per capita of the UK decreased by 3500 euros or 9%.

Table 4. Real GDP growth rate – volume, percentage change on previous year [24].

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EU (28)	2.1	3.3	3	0.4	-4.3	2.1	1.7	-0.4	0.3	1.8	2.3	1.9
Germany	0.7	3.7	3.3	1.1	-5.6	4.1	3.7	0.5	0.5	1.9	1.7	1.9
Spain	3.7	4.2	3.8	1.1	-3.6	0	-1	-2.9	-1.7	1.4	3.4	3.3
France	1.6	2.4	2.4	0.2	-2.9	2	2.1	0.2	0.6	0.9	1.1	1.2
Italy	0.9	2	1.5	-1.1	-5.5	1.7	0.6	-2.8	-1.7	0.1	1	0.9
UK	3.1	2.5	2.4	-0.5	-4.2	1.7	1.5	1.5	2.1	3.1	2.3	1.8

As a whole, the UK economy (GDP) shares with France the second-third place in the EU, with in 2016 the UK was better than France.

On the basis of the GDP the UK is not decisive for the EU. The share of the UK in the EU-28 (UK/EU): by PPS = 13.9% or 1/7 and at current prices 16.06% or 1/6 (2016). [22]

Press release 186/2017 - 7 December 2017 of Eurostat: GDP growth rates percentage change compared with the same quarter of the previous year in 2017 of United Kingdom were Q1 = +1.8%, Q2 = +1.5% and Q3 = +1.5%. [25]

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.

For comparison, look at the global ranking economy (PPP) in millions of international dollars.

Table 5. GDP 2014 - 2016, PPP (Millions of Int\$) [28].

<i>Rank</i>	<i>Country</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>
1	China	18336	19812	21417
	European Union	-	-	19722
2	United States	17393	18037	18569
3	India	7346	8020	8703
4	Japan	5013	5173	5266
5	Germany	3811	3921	4028
6	Russia	3722	3470	3397
7	Brazil	3307	3216	3141
8	Indonesia	2688	2850	3032
9	United Kingdom	2630	2720	2797
10	France	2668	2743	2774
11	Italy	2206	2263	2313

This table shows the situation of global economy in recent years. What the superpowers has lost its leadership position and no longer the United States and Japan. The EU's major powers states have lost their leading position no longer to the United States and Japan, but also to India, Russia, Brazil and Indonesia. At the same time, however, the UK was the second economic power in the EC. Think about, whether a fragmented Europe can stand alone against the new global economic powers?

Presently the UK economy (GDP) is on the ninth place in the world.

3.3. Euro versus Pound sterling (EUR vs GBP)

What is the reason why, according to one, the GDP of the UK is decreasing and by the second increasing?

We can find the answer by analyzing at exchange rates. For clarity, we look at changes in the currency. To last look *pound sterling* (**GBP**) exchange reference rates to EUR and USD.

In 2000 were average for of each year **1 USD = 0.6609 £** and **1 EUR = 0.6099 £** ; in 2010 **USD = 0.6474 £** and **EUR = 0.8586 £** ; in 2015 **USD = 0.6810 £** and **EUR 0.7262**. [26]

Change from **8 Dec 2015** to **9 Dec 2017**: min (11 Dec 2015) **1 EUR = 0.72240 £** ; max (29 Aug 2017) = **0.92965 £** ; average = **0.84318 £** . In 19 Jan 2018 **1 EUR** was 0.88365 £ .

They show how big the GBP dropped in USD and EUR, after Brexit's decision.

EUR vs GBP



Figure 6. GBP/EUR chart [26].

From 04-01-1999 to 09-12-2017: min (29 Dec 2008) GBP =**1.0219 EUR**; max (3 May 2000) GBP =**1.7510**; average = **1.3568**. [26]

Following the UK's decision in June 2016 to leave the European Union, commonly known as Brexit, the pound sterling fell to a 31-year low against the USD. [27]

Pound sterling vs United States dollar performance in the last 2 years by GBP/USD chart: Dec 2015=1.51, Oct 2016=1.21, Jan 2017=1.20, Dec 2017=1.34. [27]

The pound sterling (GBP) value has fallen heavily in recent years, particularly in relation to EUR, compared to the UK improved over the years.

These graphs also give an answer to why the UK's economy is falling and rising on the basis of GBP. For a deep analysis, we should also look at PPS at the same time.

3.4. Impact foreign trade of the United Kingdom to the European Union

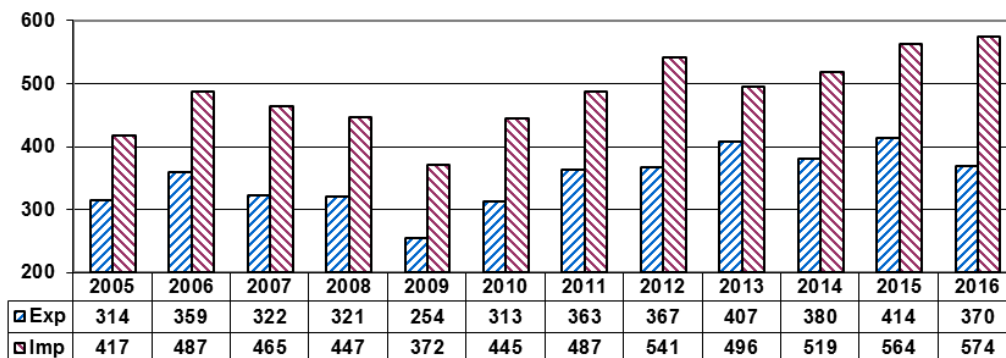


Figure 7. Foreign trade of UK, billion EUR [29]

Exports of Germany are 3.27 times larger than the UK, which is the fifth by exports EU countries, barely surpassing Belgium. In 2016 was big exports fall of the UK.

Imports, that bring the money out of the country, reached in 2016 record highs.



Figure 8. Trade balance of goods of UK [29]

In 2016 the UK imports from EU were 290,558 million; exports to EU 175,564 million and trade balance with EU -114,994 million EUR. The UK share of imports by member state of EU was 9.6% and share of exports by Member State EU was 5.6%. [30]

The deficit in the trade balance of goods in the UK is steadily increasing.

Table 6. Total trade (intra-EU + extra-EU) of UK in 2017, bn € [31]

	Total exports			Total imports			Trade balance		
	Total	Intra-EU	Extra-EU	Total	Intra-EU	Extra-EU	Total	Intra-EU	Extra-EU
UK	293.1	140.3	152.8	425.3	220.0	205.3	-132.2	-79.6	-52.5

Total exports of UK growth in Jan-Sep 2017 +9% and total imports were decreased -2%. Even, trade balance deficit was decreased by 34 billion EUR. Intra-EU exports growth 7% and imports 1%, however, extra-EU imports decreased 6%. Ka total trade balance deficit decreased 34 million and intra-EU trade balance deficit decreased 6.8 million. [31]

A negative trade balance (exports – imports) means a cash outflow from a country.

UK foreign trade in October 2017 [32]

Total trade in goods **exports** for October 2017 was £ 29.8 billion. This was an increase an increase of £ 3.1 billion (11%) compared with October 2016. Total trade in goods **imports** for Oct 2017 was £ 44.8 billion. This was an increase of £ 5.0 billion (13%) compared with October 2016. The UK was a net importer this month, with imports exceeding exports by £ 14.9 billion.

Trade of UK in **yearend Q3 2017**: exports: £ 323.6bn (comparison prev. year +15.5%) and imports: £ 461.3bn (+12.1%). [32]

Top partners trading with the UK in October 2017 [32]

Imports: 1. Germany £ 6.0bn (-1.1%), 2. China £ 4.0bn (-2.1%), 3. USA £ 3.6bn (+3.3%).

Exports: 1. USA £ 4.1bn (+17.8%), 2. Germany £ 3.0bn (-4.0%), 3. France £ 2.4bn (+0.8%).

Table 7. UK foreign trade: October 2017, £1000 [32].

	EU Imports:	October 2017	Year to Date 2017
30	Pharmaceutical products	1,698,333	16,865,318
39	Plastics and plastic products	892,743	8,383,409
85	Electrical machinery and equipment	2,196,175	18,314,612
87	Vehicles other than railway or tramway rolling-stock	4,088,747	40,680,145
Total		23,131,391	215,302,404

Chap	Non-EU Imports:	Oct 2017	Year to 2017
27	Mineral fuels, mineral oils and products of their distillation	2,551,805	25,098,178
61	Articles of apparel and clothing accessories, knitted or crocheted	767,479	5,894,436
71	Natural or cultured pearls, precious stones, precious metals, metals clad with precious metal; imitation jewellery; coin	3,134,354	28,552,882
84	Nuclear reactors, boilers, machinery and mechanical appliances	2,708,628	26,566,766
85	Electrical machinery and equipment	2,184,123	19,586,107
Total		21,628,368	199,745,749

Chap	EU Exports:	Oct 2017	Year to 2017
27	Mineral fuels, mineral oils and products of their distillation	1,416,416	14,483,143
30	Pharmaceutical products	1,006,334	10,387,076
84	and others machinery and mechanical appliances	2,035,815	17,041,072
85	Electrical machinery and equipment	964,528	9,057,384
87	Vehicles other than railway or tramway rolling-stock	1,703,798	15,823,220
Total		14,571,326	137,065,001

Chap	Non-EU Exports:	Oct 2017	Year to 2017
30	Pharmaceutical products	1,144,737	10,988,848
84	Nuclear reactors, machinery and mechanical appliances	2,749,820	26,410,737
85	Electrical machinery and equipment	991,739	9,205,899
87	Vehicles other than railway or tramway rolling-stock	2,370,874	18,688,187
Total		15,266,899	148,469,035

Table 8. Total value of UK foreign trade by industry group, £ millions [32].

Industry Group	Exports			Imports		
	2014	2015	2016	2014	2015	2016
Agriculture and Food	16,982	17,947	18,025	20,219	19,646	20,301
Mining, Petroleum products & Waste	27,257	19,943	18,591	36,720	26,360	23,790
Chemicals	13,673	13,449	9,686	9,831	9,387	7,132
Pharmaceuticals	7,876	9,917	6,790	3,306	3,110	5,152
Electronic and Electrical equipment	18,627	18,342	13,476	13,311	13,657	8,273
Machinery and equipment n.e. s	17,504	15,997	18,909	9,716	8,358	11,443
Motor vehicles & transport equipment	26,392	26,060	30,797	24,704	25,016	27,581
Aerospace and related machinery	16,319	19,670	28,464	7,448	8,504	17,273
Other manufacturing	14,768	14,621	14,661	13,500	12,663	12,997
Services	136,537	135,055	133,445	267,304	271,019	322,297
Unknown	10,053	9,632	9,987	9,452	9,003	11,938
Total	305,988	300,634	302,832	415,510	406,723	468,177

Table 9. Trade with EU countries: 2009 to 2016, £ millions [32].

	2009	2010	2011	2012	2013	2014	2015	2016
Exports	124,004	141,153	158,326	149,895	150,561	146,806	133,745	143,296
Imports	160,509	184,016	199,720	204,651	217,254	221,428	219,377	237,152
Balance	-36,505	-42,863	-41,394	-54,757	-66,693	-74,622	-85,631	-93,855

Average Annual Growth Rate of Imports was 5.00, exports 1.82 and balance 12.53.

Table 10. Summary of trade with Non-EU countries: 2009 to 2016 [32].

	2009	2010	2011	2012	2013	2014	2015	2016
Exports	103,619	129,543	160,107	152,879	199,537	163,579	171,270	161,051
Imports	170,174	195,653	219,890	234,840	203,943	199,115	192,074	232,807
Balance	-66,556	-66,110	-59,783	-81,961	-4,406	-35,536	-20,804	-71,756

Average Annual Growth Rate of imports was 4.0 and exports 5.67.

Table 11. Whole world exports - top trading partners [32]

	2009	2010	2011	2012	2013	2014	2015	2016
United States	33,632	37,479	39,054	40,489	39,928	38,887	45,313	45,435
Germany	24,799	28,376	33,161	32,745	30,673	31,578	30,478	32,339
France	17,997	20,261	23,241	22,085	22,392	19,735	17,843	19,580
Netherlands	17,579	20,528	22,863	23,987	23,876	22,311	17,304	18,853
Irish Republic	15,486	16,348	17,332	16,894	18,143	17,805	16,680	16,946
Switzerland	5056	11,041	24,021	10,187	45,435	21,313	22,244	14,624
China	5,129	7,306	8,773	9,894	11,585	15,934	18,072	13,424

Table 12. Whole world imports - top trading partners [32].

	2009	2010	2011	2012	2013	2014	2015	2016
Germany	39,697	45,580	49,388	51,949	55,950	59,898	60,858	64,236
United States	31,042	34,923	35,944	36,384	32,060	32,846	35,291	39,618
China	22,875	28,230	30,158	30,024	31,579	33,891	36,103	39,250
Netherlands	21,514	26,163	28,411	31,195	34,262	32,372	31,059	34,804
France	20548	21,792	23,288	23,451	24,979	25,054	24,053	24,772
Belgium	14,894	17,016	18,842	18,164	20,127	20,623	20,480	23,240
Switzerland	12,455	10,636	7,952	19,172	8,081	8,927	8,895	22,566
Italy	12,148	14,003	14,206	14,397	15,331	16,709	15,820	17,227
Spain	9,119	9,963	10,828	10,402	12,541	13,272	14,005	15,669
Norway	15,085	19,459	25,524	24,080	19,885	17,204	13,040	13,568
IrishRepublic	12,238	12,732	12,982	12,752	11,835	11,757	12,516	13,138
Canada	8,318	10,796	13,306	13,235	10,590	9,888	9,523	10,924

Based on the above and earlier publications [1 - 19], can be said the summary.

4. Conclusions

- ❖ Germany is largest European economy, of EU economic motor, which depends on development of most economic indicators throughout of EU.
- ❖ As a whole, the UK economy (GDP) shares with France the second-third place in the EU, with in 2016 the UK was better than France.
- ❖ Over the past two years (2016 - 2017) was the UK's economy (GDP by current prices) considerably gone back? However, according to the PPS and the national currency (GBP), there was an increase.
- ❖ The UK was ranked 10th in the 2016 the EU ranking GDP per capita.
- ❖ The UK economy (GDP) is on the ninth place in the world.
- ❖ The pound sterling (GBP) value has fallen heavily in recent years, particularly in relation to EUR, compared to UK's better years.
- ❖ Exports of Germany are 3.27 times larger than the UK, which is the fifth by exports EU countries. In 2016 was big exports fall of the UK.
- ❖ UK's major export groups were: motor vehicles, nuclear reactors, aerospace, machinery and equipment, petroleum products and others.
- ❖ UK's major import groups were: motor vehicles, petroleum products, aerospace, agriculture and food and others.

- ❖ Imports of UK, that bring the money out of the country, reached in 2016 record highs.
- ❖ The deficit in the trade balance of goods in the UK is steadily increasing. It means a cash outflow from a country.
- ❖ The UK foreign trade in 2017 was relatively successful.
- ❖ The most important trading partners of the UK were Germany and United States.
- ❖ On the basis of the GDP and the external economy, the UK is not decisive for the EU.
- ❖ Already we can say that Brexit is economically bad for both.
- ❖ The UK, which is still one of the most important countries in the world, the economic downturn is likely to continue along the spiral, which also includes short-term ups.
- ❖ Falling down the brakes depends not on the reduction of mineral resources (oil), but on the maintenance of strong scientific capital, and in particular on its development.
- ❖ On the other hand, Brexit was a logical step: to decide for yourself. Come on the EU's growing inefficient bureaucracy and the accompanying use of budget funds.
- ❖ Brexit is a lesson for the EU, which is needed to make a radical change, however, is in itself a large number of topics.
- ❖ Think about, whether a fragmented Europe can stand alone against the new global economic powers?
- ❖ Inevitably, the EU's global competitiveness will decline.
- ❖ In conclusion, both the UK and EU economies are weakening in the increasingly competitive world with the USA, China, Japan, India and other countries.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

References

- [1] Tanning, Toivo (2017). Correlation between individual and collective needs in the context of the Brexit. GISAP: Economics, Jurisprudence and Management. IASHE. London.
- [2] Tanning, Lembo & Tanning, Toivo (2015). The Economic Crisis Lessons of Europe. LAP. Lambert Academic Publishing. Saarbrücken, Germany, p 540.
- [3] Tanning, Lembo & Tanning, Toivo (2008). Uus Euroopa Liit – 27 (New European Union – 27). Tallinn University of Technology. Tallinn, p 417.
- [4] Tanning, Lembo & Tanning, Toivo (2009). Rahvusvaheline majandus, part I (International economy I), Tallinn University of Technology. Tallinn, 76-83
- [5] Tanning, Toivo (2017). Contradictions are the basis for development. GISAP: Economics, Jurisprudence and Management. IASHE. London.
- [6] Tanning, Toivo (2016). The liberal economic today. GISAP: Economics, Jurisprudence and Management. IASHE. London, 9, 33 - 36.
- [7] Tanning, Toivo (2016). Liberalism – freedom versus responsibility. GISAP: Economics, Jurisprudence and Management. IASHE. London, 23 - 26.
- [8] Tanning, Lembo; Tanning, Toivo (2015). Gross Value Added Analyses of Construction Enterprises in New European Union Member States Before and After Economic Crisis. Journal of Business and Industrial Marketing. American Association for Science and Technology, USA, 1 (3), 53–63.
- [9] Tanning, Lembo & Tanning, Toivo (2014). Labour Productivity Analyses of Gross Value Added and Turnover Per Person Employed of Transportation Companies of European Countries in 2005 – 2011. International Journal of Economic Theory and Application: American Association for Science and Technology, 1, 9–18.
- [10] Tanning, Lembo & Tanning, Toivo (2014). Labour Productivity of Transportation Enterprises by Turnover per Person Employed Before and After the Economic Crisis: Economic Crisis Lessons from Europe. American International Journal of Contemporary Research, 4 (1), 52–76.
- [11] Tanning, Lembo & Tanning, Toivo (2014). The European Competitiveness The Economic Crisis Lessons of Transportation Enterprises in Poland and other Central and Eastern Europe Countries. International Journal of Economics, Finance and Management, 3 (4), 164–176.
- [12] Tanning, Lembo & Tanning, Toivo (2013). An analysis of labour productivity in Central and East European countries. International Journal of Arts and Commerce, 2 (1), 1–18.
- [13] Tanning, Lembo & Tanning, Toivo (2014). How former post-socialist countries have been the economic crisis? SOP Transactions on Economic Research, USA, 15–33.
- [14] Tanning, Toivo; Tanning, Lembo (2014). Material resources flow analysis of former Soviet bloc countries of the European Union in 2000 - 2013. Journal of Multidisciplinary Engineering Science and Technology (JMEST), Berlin, Germany, 1, 456–469.

- [15] Tanning, Toivo; Tanning, Lembo (2014). Material flow efficiency of Central and East European countries of the European Union. *Journal of Multidisciplinary Engineering Science and Technology (JMEST)*, Berlin, Germany, 1, 262–272.
- [16] Tanning, Lembo; Tanning, Toivo (2012). Baltic States Problem - Labour Market; Analysis Employment, Unemployment and Vacancies of Estonia; Improved Beveridge Curve. *International Journal of Business and Social Science (USA)*, 36–56.
- [17] Tanning, T.; Tanning, L. (2013). The analysis of labour productivity in East European countries. *Journal of Technology, Education, Management, Informatics*, 2 (2), 136–141.
- [18] Tanning, Lembo; Tanning, Toivo (2013). Working efficiency before and after the economic crisis in the Baltic states. *Global Business and Economics Research Journal*, Jakarta, Indonesia, Vol 2 (5), 92–101.
- [19] Tanning, T.; Tanning, L. (2013). Why Eastern European wages are several times lower than in Western Europe? *Global Business and Economics Research Journal (Jakarta, Indonesia)*, 2 (1), 22–38.
- [20] European Commission: EU budget 2015 – Financial report. Eurostat cc by-nc-nd/3.0/de/
- [21] Williams-Grut, Oscar (Dec 31, 2016). Here's how much each EU nation puts in and takes out of the EU budget. *Business Insider* <http://uk.businessinsider.com/brexit-eu-members>
- [22] Gross domestic product at current prices, billion PPS. Code: tec00001. Eurostat. 08. Dec 2017.
<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00001&plugin=1>
- [23] Gross domestic product. Code: teina 010. 04. Eurostat. 08. Dec 2017.
<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=teina010&plugin=1>
- [24] Real GDP growth rate – volume. Percentage change on previous year. Code: tec00115. 09. Dec 2017.
<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115>
- [25] Press release 186/2017 -7 December 2017. Eurostat.
<http://ec.europa.eu/eurostat/documents/2995521/8515977/2-07122017-AP-EN.pdf/0ef3dfff-dcfb-4377-aa46-f55569c5b29a>
- [26] Exchange Rate. European Central Bank
http://www.ecb.europa.eu/stats/policy_and_exchange_rates/
- [27] GBP/USD chart. Money Week
<https://moneyweek.com/prices-news-charts/gbpusd/>
- [28] "World Bank GDP PPP PDF 2016" (PDF). Retrieved 18 July 2017.
http://databank.worldbank.org/data/download/GDP_PPP.pdf
- [29] International trade. Code: tet00002. Eurostat. 04 Dec 2017.
<http://ec.europa.eu/eurostat/data/database>

[30] Intra-EU28 trade, by Member State, total product. Code: tet00047. Eurostat. Dec 2017.

<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tet00047&plugin=1>

[31] Press release 172/2017 - 15 November 2017. Eurostat.

[32] Overseas Trade Statistics. HMRC. Date: 08 December 2017

<https://www.uktradeinfo.com/Statistics/OverseasTradeStatistics/Pages/OTS.aspx>



© 2018 by the author(s); licensee International Technology and Science Publications (ITS), this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (<http://creativecommons.org/licenses/by/4.0/>)