

TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance

Department of Law

Olga Alekseeva

**IMPACTS OF BREXIT ON THE UNITED KINGDOM'S TRADE
AND ECONOMY**

Bachelor's thesis

Programme International Relations

Supervisor: Javad Keypour, MA.

Co-supervisor: Simona Ferraro, Ph.D.

Tallinn 2020

I hereby declare that I have compiled the thesis/paper independently and all works, important standpoints and data by other authors have been properly referenced and the same paper has not been previously presented for grading.

The document length is 10,512 words from the introduction to the end of the conclusion.

Olga Alekseeva

(signature, date)

Student code: 166274TASB

Student e-mail address: olya98@inbox.ru

Supervisor: Javad Keypour, MA.

The paper conforms to requirements in force

.....

(signature, date)

Co-supervisor: Simona Ferraro, Ph.D.

The paper conforms to requirements in force

.....

(signature, date)

Chairman of the Defence Committee:

Permitted to the defence

..... (name, signature, date)

TABLE OF CONTENTS

ABSTRACT	4
LIST OF ABBREVIATIONS	5
INTRODUCTION	7
1. RESULTS.....	12
1.1. 47 years of the United Kingdom and European Union relations	12
1.2. Brexit scenarios of the United Kingdom’s trade relationships with the European Union..	16
1.3. The UK’s trade flow in pre-Brexit era.....	21
2. DISCUSSION.....	24
2.1. Uncertainty	24
2.2. Trade decline in the triple post-Brexit scenarios	25
2.3. Inevitable Gross Domestic Product decline	28
CONCLUSION.....	30
LIST OF REFERENCES	32
APPENDICES	37
Appendix 1. Non-exclusive license.....	37

ABSTRACT

This paper provides an analysis of the impact of Brexit (British Exit) on the United Kingdom (UK)-European Union (EU) trade relationships and the consequences of Brexit for the UK's economy. Qualitative method has been applied to analyze the outcomes of Brexit. This is important to be analyzed as one of the main goals of the Brexit was announced the economic and trade benefits, although official reports of the Treasury of the UK had shown the opposite in April 2016. The results of this study also show that the long-term economic impacts for the UK to remain as a member of the EU are higher compared to the alternatives of post-Brexit relationships with the EU. Moreover, by applying the means of comparative analysis for a number of academic studies about Brexit, it showed that the UK will be worse off outside the EU in any of the post-Brexit scenarios. The economic openness of the UK after Brexit will be reduced and such a frictionless trade between UK and EU member states will no longer exist. Eventually, the trade flows will be reduced, the UK's Gross Domestic Product (GDP) will face the recession, which will result in the UK to be permanently poorer. It has been proved that the costs of Brexit for the UK substantially outweigh any potential benefit of leaving the EU.

Keywords: United Kingdom; European Union; Brexit; trade; economy.

LIST OF ABBREVIATIONS

Benelux - Belgium, Netherlands, Luxembourg

Brexit - British exit

CETA - Comprehensive Economic and Trade Agreement

ECSC - European Coal and Steel Community

EEA - European Economic Area

EEC - European Economic Community

EFTA - European Free Trade Association

EMS - European Monetary System

EU - European Union

EU-27 - the 27 European Union countries after the UK left the EU

FTA – Free Trade Agreement

GDP - Gross Domestic Product

HM - Her Majesty's

IMF- International Monetary Fund

ITA - Information Technology Agreement

NAFTA - North American Free Trade Agreement

OECD - The Organization for Economic Co-operation and Development

PTA - Preferential Trade Agreements

TTIP - Transatlantic Trade and Investment Partnership

UK – United Kingdom

UKIP - UK Independence Party

US /USA – United States of America

WTO - World Trade Organization

SEA - Single European Act

INTRODUCTION

On 23 June 2016, the EU referendum occurred and the people of the UK voted to leave the EU (GOV.UK 2016). Such a decision of the UK's citizens was called 'Brexit'. The referendum on UK membership in the EU was a turning point on the path of European integration at the present stage. It should be noted that the UK has been a member of the European Economic Community (EEC) since 1973 and it joined the EU in 1992, by signing the Maastricht Treaty on February 7, 1992 in Maastricht. Within the referendum, held in the UK, the British expressed support for disintegration with the EU, namely: out of 33.57 million voters, 51.9% supported the withdrawal from the EU (Statista Research Department 2016). The British government formally announced the country's withdrawal from the EU in March 2017. This decision was confirmed by an official letter from the 76th Prime Minister of UK - Theresa May, to the President of the European Council, Donald Tusk, on March 29, 2017, in which she informed the EU about the official start of the process of UK leaving the EU within the framework of Article 50 of the Lisbon Treaty (Prime Minister's Office, 10 Downing Street, Department for Exiting the European Union, and The Rt Hon Theresa May MP 2017).

The existing number of factors that influenced the results of the referendum is a combination of political and socio-economic aspects such as delegation of a part of state sovereignty to EU governance, high UK contribution to the union budget, as of 2018 the UK net contribution to the EU accounted for 11 billion pounds (Office for National Statistics 2019); low economic growth and high unemployment percentage, that reached up to 8.1% between 2008 and 2019 (Clark 2020), as well as the migration situation in the UK, aggravated in the context of the European migration crisis (Pellegata 2018). Speaking about the consequences of Brexit, trade and economy decrease can be noted as the key ones. The model of trade and economic interaction between the UK and the EU will become the reason for discussions within the framework of building post-Brexit relations between the UK and EU.

A special role in this context is played by the UK's post-Brexit trade policy concerning the EU. On the other hand, in the run-up to the referendum on the UK's membership in the EU bloc, the issue of the future trade relations of the UK and EU was not in the spotlight of Eurosceptics¹. For

¹ Eurosceptic - a person who is critical of the EU and European integration, generally on grounds of the EU having too much control, which they argue compromises the power of individual countries to make their own rules and decide their own destiny. Eurosceptics range from those who oppose some EU institutions and/or policies and seek

example, the British former secretary of state for Exiting the European Union, David Davis, who was known for his Eurosceptic opinions, talked about the possibility of creating a new trading zone. This trade zone was supposed to be ten times bigger than EU and it was expected to strengthen trade and economic relations of UK with the member states of the Commonwealth of Nations², allegedly (Davis 2016). Moreover, in April 2017, during the ninth financial and economic dialogue between India and the UK, the Chancellor of the Exchequer of UK, Philip Hammond, and Minister of Finance of India, Arun Jaitley, discussed the possibility of creating a free trade area between the two states, formal negotiations on which could begin after the formal exit of the UK from EU (ET Bureau 2017).

The Brexit referendum will forever remain in history, because for the first time during the existence of European integration, one of the participating countries decided to withdraw from it. The will of the British people to withdraw from the EU shocked not only the world community but also most of the British themselves, due to the fact that rather a big percentage (48.1%) of UK citizens voted to stay in the EU (Statista Research Department 2016). The victory of the Eurosceptics, apparently, came as a surprise to themselves, since even ardent supporters of independence from Brussels did not expect that they would prevail. The results of the referendum can be considered as a ‘call to motivation’ for the leadership of a united Europe, whose ideals of integration are finding less and less support among the EU member states; and, if to talk about the UK itself, then there is no doubt that the consequences of Brexit for the UK will be significant. Particularly relevant against this background is the question of the prospects for the impact of the referendum on economic and trade relations of the UK, because the UK, being both a member of the EU, is also highly integrated into international economic relations.

In this thesis, the work will be held mostly on analyzing the UK-EU post-Brexit trade relationships and defining the consequences of their change for the UK. Eventually, this thesis will prove if the Brexit decision either becomes beneficial for the UK trade and economy or not. At this stage, the following hypothesis is being raised - the Brexit will create a negative impact on the UK’s trade and hence its economy. This thesis is devoted to the analysis of the impacts of Brexit on the UK’s future trade relations with the EU and the effect of Brexit on the UK’s economy. Such a vivid and memorable twist in the EU history, as Brexit, brings scientists from different disciplines together

reform to those who oppose EU membership outright and wish their country to leave (The UK in a Changing Europe, 2020).

² The Commonwealth of Nations is a voluntary association of 54 sovereign states and almost all of them are former British colonies or dependencies of those colonies.

to try to identify its impacts on the EU and the UK, placing their assessments in the context of a long-term evolution of relations between the UK and the EU. Many ideas and facts of this thesis are based on the leading academic publications about Brexit and its potential impact on the trade and economy of the UK. Among them are academic literature and researches conducted by Schweiger (2007), Magee (2008), Oberhofer and Pfaffermayr (2018).

Schweiger (2007) has written a book called “The Reluctant European: Britain and European Integration Since 1945”. In this book the history of the UK’s relationships with the EU were analyzed, and it was proved that their relationships have never been easy and the UK has never fully been a part of the EU, always seeking to gain some more independence and avoid deep European Integration. Magee (2008) analyzed the effect of the regional agreements for the trade flows by applying the gravity model and found out that regional agreements tend to raise the trade amount between two countries in a long-term trade relationship. Oberhofer and Pfaffermayr (2018) by the means of gravity model estimated that establishing of the new FTAs and expanding the trade flows, for the UK will not be able to compensate the free trade with the EU countries fully and finally the estimations of a Brexit impact on the UK’s GDP were provided. A wide range of other academic studies will be presented in this thesis, which also have applied the gravity model in order to estimate the impact of different trade agreements on the trade effectiveness and economic boost. Among them are studies conducted by HM Treasury, OECD, IMF, etc. This literature is just a highlight of the full number of academic sources that will be used in the ‘Results’ and ‘Discussion’ sections of this thesis.

The main purpose of this thesis will be to come up with an understanding if Brexit was a reasonable and effective solution for the UK in terms of trade and economy. This is important because Brexit is attributed to the far-right wave in the EU and since this wave has just raised, understanding the phenomena in the UK can be helpful for the same goal in the EU (Dunin-Wasowicz 2019). Nowadays when the UK and the whole EU had faced such a radical decision as Brexit, this action is very important to estimate, analyze and understand. Due to the fact, that Eurosceptics won in the Brexit referendum of 2016, many international corporations will face drastically reduced profits, according to the Harvard Business Review Brexit creates high level of uncertainty for many UK businesses; it was estimated that uncertainty has caused a 6% reduction in investment during 2016-2017 (Bloom, et al. 2019). Due to the broad influence and large size of UK corporations and other international corporations that invest in the UK, it is reasonable to assume that the world market can also be impacted due to the Brexit. The EU economy is evaluated as from the first to the third largest economy in the world and in terms of trade, the bloc easily

exceeded the US and China in both imports and exports (European Commission 2019). That is why a slowdown in the economic growth of UK means a global slowdown and global changes in the world trade and economy. Such a radical decision as Brexit is simply impossible to ignore and all the countries in the world should analyze and evaluate the consequences of the Brexit decision made by the UK.

Qualitative methodology, and more precisely, the content analysis method has been applied to study the resources and to extract the required data. Primary and secondary sources are going to be used for basing all the claims and theories of the research. Primary sources include historical and legal documents, statistical data, speeches of politicians, scientists, economists, etc. Scholar articles, magazines, researches and reports are mostly referred to as secondary sources for conducting research.

Since the referendum of 2016 on UK's membership in the EU occurred, many analyses and researches were conducted in order to determine whether the UK's trade and economy will be better off outside the EU or worse off. In this thesis a number of academic researchers is considered and comparatively analyzed. Major part of the mentioned researches applied the gravity model in order to estimate and compare the trade effectiveness in the EU membership and in other various trade agreements. The data presented in this thesis will be mainly based on the statistics and results of the academic researches. The comparative analysis of all these studies will follow, justifying the stated research hypothesis of this thesis and defining the most reasonable and reliable facts regarding the future impacts of Brexit for the UK's trade and economy.

The selection of the literature was influenced by its ponderability, broad level of distribution and application, and also the reliability of the data sources, which were used for the study. Hence, in the list of examined resources there are plenty of studies conducted either by UK governmental departments, international financial organizations, intergovernmental economic organization or the academics, whose researches' results are widely spread and used for the gravity model estimations.

In order to prove the stated research question in a more structured and logical way, the main body of the thesis will be divided into several parts. First of all, starting with the results part, which will be subdivided into several parts. The first part of the results section will provide the analysis of the history of the UK and the EU, then it will be followed by the post-Brexit scenarios of the UK's trade relationships with the EU. Eventually, third part of the results section is devoted to an overview of the results of the academic studies, which applied the gravity model for estimating the

trade effectiveness. Thirdly, the last part of the main body is the discussion, in which by the means of a comparative analysis the main results of this thesis will be provided. Eventually, the conclusion part will summarize the model, methodology and main findings of this thesis.

1. RESULTS

1.1. 47 years of the United Kingdom and European Union relations

Brexit is one of the most striking results of the aggravation of contradictions among supporters and opponents of economic integration (Waldie 2016). The split in the ruling circles of the UK on the issue of attitude towards the EU forced Prime Minister D. Cameron to turn to a form of direct democracy - a referendum, and address a difficult question of whether UK should remain the EU member or leave the Union, to the ordinary Britons, offering them a simple answer: "Yes" or "No". The referendum split the whole society, generated sharp disagreements, domestic political instability as well as economic and trade instability and future uncertainty. One of the first to come up with a concrete initiative for European unification was a member of the British Parliament, former Prime Minister Winston Churchill.

The British Prime Minister on September 19, 1946, in Zurich, introduced the idea of reforming Europe so that people live in peace and security. "There is a remedy which ... would in a few years make all Europe ... free and ... happy. It is to recreate the European fabric, or as much of it as we can, and to provide it with a structure under which it can dwell in peace, safety, and freedom. We must build a kind of United States of Europe." (Churchill 1946). At the same time, Churchill assigned the UK the role of a patron rather than an active participant in this structure, although UK was one of the first to propose the idea of integration, UK itself was not included in the list of countries - founders of the EEC. The EEC arose as a result of the signing of the Rome Treaty in 1957 by France, West Germany, Italy, Belgium, the Netherlands and Luxembourg without the participation of the UK, in which most politicians advocated national identity and complete independence.

After the end of World War II, the British foreign policy was aimed at maintaining leadership both in the countries of the British Commonwealth and in Western Europe. However, after some time it became clear that this was an erroneous position. UK began to gradually change the vector of its development and focus on the countries of Western Europe, which turned out to be more beneficial for the UK in the economic and political sense (Crafts 2016). January 22, 1972, UK becomes a member of the EEC. This procedure was long and included a transition period during which UK had to take a number of measures. Speaking about the peculiarities of the position of the UK in the EU, it is worth mentioning that the indisputable merit of the UK lies in the fact that it was UK

who sent the project of European integration to the practical plane. As previously written, the British Politician W. Churchill managed to move Europe to concrete actions, calling on European leaders to build the United States of Europe on the basis of four freedoms, which were previously introduced by Franklin D. Roosevelt, namely: the freedom of speech, the freedom of worship, the freedom from want (ensuring peace and health), the freedom from fear (Roosevelt 1941).

The fragile relationship between the UK and the EU is nearly half a century old. One of the reasons for UK's reluctant relation to the European integration is geography: the fact that UK is an island nation in the northwest of continental Europe and this inherent sense of superiority that UK continues to feel over its European neighbors is a relic of the time when it was the largest empire; in any case, UK has always seemed a reluctant participant in European projects and unification, forever uncertain whether to leave EU or stay (Schweiger 2007). Seeking the goal to tie European nations closer together to reduce the possibility of repeating the war and damage to each other, the formation of the EU began after 1945. As mentioned earlier, Winston Churchill fully supported this idea by offering Europe a structure under which it can live in peace, security, and freedom, calling it a kind of 'United States of Europe'.

In 1948, UK signed the Treaty of Economic, Social and Cultural Collaboration and Collective Self-Defense with France, Belgium, the Netherlands, Luxembourg (Benelux countries) (CVCE 2015). However, in 1951, when France, Italy, Germany and the Benelux countries founded the European Coal and Steel Community (ECSC), UK did not join. At that time, London considered closer ties with the continent to be contrary to the pursuit of its own economic and political goals. For this reason, Prime Minister Clement Attlee (leader of the Labor Party) declined the invitation. However, gradually the economy of the UK began to yield to the fast-growing economy of Germany and France. It became obvious that the process of unification on the continent will contribute to a significant restoration of the main branches of the heavy industry of the UK (Schweiger 2007).

However, UK decided again to stand aside in 1957 when the Treaty of Rome was signed (Troitiño, et al. 2018). France, West Germany, Belgium, Italy, Luxembourg and the Netherlands signed this agreement, according to which the EEC, the predecessor of the modern EU, was created. This was the last of several attempts to stimulate economic cooperation between European countries after the Second World War. It was believed that nations that traded together were less likely to initiate a war with each other (Pruitt 2019). In the 1960s, among conservative Eurosceptics, some did not accept the 'socialist' essence of the EU. However, most of them reacted negatively to the EU,

because they loved the already destroying Empire, and not without reason believed that joining the EU threatened the country's national sovereignty.

In the second half of the 1960s, in light of the external trade deficit and the weak economic dynamics, EU accession was necessary for the UK more than ever, so the government justified its decision basing on economic arguments (Troitiño, et al. 2018). As a result, UK joined the European Free Trade Association (EFTA) in 1960. Together with the UK, the members were Austria, Norway, Sweden, Denmark, Switzerland, and Portugal. This association was conceived as an alternative to the EEC. Since it required a much smaller degree of political integration and, therefore, was attractive to states that could not or did not want to join the EEC and considered the Community plans to be excessively ambitious.

Former French President, Charles de Gaulle, blocked the UK accession to the EEC twice, in 1961 and 1967, due to the fact that UK had a strong links with US and was posing potential threat to the French hegemony in EEC (Troitiño, et al. 2018). Only in 1969, after de Gaulle's resignation, negotiations regarding the UK joining the EEC were resumed and as the result on January 1, 1973, UK became a member of the EEC. Almost two years after the UK became a member of the EEC, the opposition Labourist Party put forward a common election platform that promised a referendum on this membership. Even though at the time of joining the EEC, the UK economy lagged significantly behind the pace of development of France, Germany or Italy, but sought to maintain the highest possible independence in resolving economic and political issues significant to it (Giles 2017). In particular, UK boycotted important European integration initiatives: it did not join the Schengen zone (1985), it did not sign the EEC Charter on Fundamental Social Rights (1989), and it exited the exchange rate mechanism of the European Monetary System (EMS) (1992). In March 2012, at the EU summit, the UK did not sign the Budget Pact, which was lobbied by Berlin and Paris and introduced a strict framework of financial discipline.

Despite Thatcher's serious cautions and defense of the British sovereignty, in 1986, the UK signed the Single European Act (SEA) and it seemed that things in British-European relations were starting to improve (Troitiño, et al. 2018). A month later, Thatcher resigned as prime minister due to disagreements that, at least partially, were caused by her party's increasingly polarized views on Europe. In September 1992, Eurosceptics turned out to be probably right when the UK left the European exchange rate mechanism after the government was unable to stop the pound from

falling below its agreed lower value limit, that was a day known as ‘Black Wednesday’³ (Inman 2012). Over the next 25 years, the debate on UK membership in the EU will interfere with the conservatives, and the European question will determine most of the party’s internal politics. Ironically, given the events of the 1970s and 80s, the Labourites united in the European question, although Euroscepticism remained among its more radical leftist ranks. Tony Blair’s Labourist Government sought closer integration with the EU, however, things have changed on the European question after conservative David Cameron became prime minister. Initially rejecting calls for a referendum on leaving the EU, the politician soon changed his mind.

In 2013, David Cameron announced that the EU failed to agree on the new terms for UK’s membership, what is provoking the UK rather leave the union; considering this fact Cameron and his government have promised to conduct the survey if he is re-elected in 2015 (The Irish Times 2014). But right-wing conservatives were not the only Eurosceptics who were present in the UK. In the early 90s, the UK Independence Party (UKIP) began to develop in the UK. During the European Parliament elections in 2005, the UKIP takes only third place, in 2009 - the second, but in 2014 it becomes the leader, gaining 27.5% of the total number of votes in national elections (Hunt 2014). For the first time since 1910, another party, except for the Labourites and Conservatives, was able to get the largest share of the vote in the national election. According to the British Social Attitudes Studies, Euroscepticism and desire of Britons to leave the EU was slowly growing from the period of 1992 up to 2015, so that Euroscepticism increased from 10% in 1992 to 22% in 2015 (Curtice 2016). Already in 2016, the UK’s authorities officially announced the irrelevance of the EU as such and the UK needed to resolve this problem as soon as possible by withdrawing from the union. In order to support their allegations, the authorities initiated a national referendum on the UK withdrawal from the EU.

After 43 years of UK and EU relations, on June 23, 2016, a referendum was held in the UK and Gibraltar on the question: “Should UK remain a member of the EU or leave it?” (GOV.UK 2016). Citizens of the UK, Ireland and the countries of the Commonwealth participated in the vote. According to the report of the election commission, more than 46.5 million people participated in the referendum; most of the British (51.9%) who participated in the referendum voted in favor of leaving the EU, 48.1% spoke out against (Commission 2016). The main result of the referendum

³ Black Wednesday - occurred in the UK on 16 September 1992, when the British government was forced to withdraw the pound sterling from the European Exchange Rate Mechanism (ERM) after a failed attempt to keep the pound above the lower currency exchange limit mandated by the ERM (Inman, 2012). At that time, the UK held the Presidency of the European Communities.

is the beginning of a long and difficult ‘divorce’ process of the UK and the EU, or simply called Brexit. Such a historic and radical decision of UK to break off the 43 years old relationship with the EU will highly likely become a decisive moment in British history along with two world wars of the 20th century.

Summing everything up, it is worth noting that relations between the UK and the EU have never been simple and are unlikely to become such. There are many reasons that make UK membership problematic:

1. As a former imperial power, the UK is particularly difficult to adapt and narrow its political interest only to Europe.
2. As a newcomer to the EEC, UK had to adapt to the already established policies and rules, some of which were directly contrary to the basic principles on which UK’s policy was based.
3. Antagonism with France and belonging to America are the causes of additional problems.
4. The fact that the UK joined the Community only for economic reasons during economically difficult times caused discontent among the country population. However, not only the population was dissatisfied, but the political elite also did not hide their doubts on this issue.

While most of the states of Europe were moving towards closer integration, UK has always been skeptical of this approach. The Euroskeptic mood of the UK led to the referendum of 2016, in which the inhabitants of the country voted with a slight margin to leave the EU. Nowadays the results and consequences of the referendum are not straightforward. Everything will depend on the diplomatic steps of the UK, the decisions of the EU and the countries of the Eurozone. Thus, the new political and economic position of the UK in the world will form in the first years after the Brexit, and already now we can consider how effective the new trade policy of the UK will be for its economy.

1.2. Brexit scenarios of the United Kingdom’s trade relationships with the European Union

The British Prime Minister, Theresa May, in her speech delivered on January 17, 2017, and dedicated to the country's exit from the EU, proclaimed a course on the creation of “Global Britain”, which implies the strengthening of trade and economic cooperation of the UK with both

old and new partners and the formation of the state in the post-integration period as one of the largest trading powers in the world (May 2017). Moreover, Teresa May in her speech delivered two days later at the World Economic Forum in Davos, also emphasized the strengthening of the UK's position in world trade as one of the key conditions for the post-integration period of the country, mentioning the word "global" 17 times in her speech (Cohen 2017). In general, these statements of Teresa May are confirmed in the eighth chapter of the White Paper on UK's exit from the EU. This document proclaims the UK's intention to maintain deeply integrated trade and economic relations with EU, ensuring the free trade with European markets, however at the same time creating and securing the new trade agreements with non-EU countries (Department for Exiting the European Union, The Rt Hon David Davis MP 2017). So, due to the UK's intentions regarding their trade policy after Brexit, they are aimed to find a solution for creating new mutually profitable free trade and customs agreements with the EU countries. Moreover, while preserving the similar trade relation with EU, UK is aimed to forge ambitious free trade relationships across the world (Department for Exiting the European Union, The Rt Hon David Davis MP 2017).

The decision to withdraw UK from the EU will necessitate trade negotiations with all the EU member states that were the UK partners in the EU (International Monetary Fund 2016). These negotiations are vital for the island nation – UK, since about half of the UK merchandise trade is carried out with EU member states; so that, according to the statistics presented by the researcher, Matthew Ward, in 2018, 45% of UK exports were made in EU, as well as 53% of UK imports have come from the EU (Ward 2019). The upcoming international trade negotiations on maintaining the free trade relations of UK and EU will be extremely difficult, as they will concern the hottest issues for both of them. Like the requirements for preventing unfair competition, which the EU considers as an integral part of the generous Free Trade Agreement (FTA), but also other controversial issues including access to British fishing grounds, trade in financial services, data protection and security co-operation (The Economist 2020); and one of the most critical fact is that UK and EU negotiations within the transition period are very strictly limited in the time frames, what eventually can result in the poor-quality elaboration of some important details in the post-Brexit trade policy of UK and EU.

In general, negotiations that include so many participants, like now the trade negotiations between EU and UK have never happened fast. It must be remembered that only a discussion of the terms of duty-free trade in information technology goods (Information Technology Agreement - ITA) took almost two decades of negotiations, starting from 1996 and continuing till 2015 when the expansion of the information technology products within the ITA was proclaimed (European

Commission 2016). This agreement on mutual trade in information technology products now covers more than 82 countries and revising such an agreement will certainly take a long time, much efforts and patience. Thus, it is unlikely that all the post-Brexit trade policy issues between the UK and EU will be discussed and entered into power till the end of the transition period, which ends on December 31, 2020.

When it comes to the consideration of the new UK's trade partners and the conclusion of the agreements with them, it will also require new negotiations and plenty of time (International Monetary Fund 2016). Due to the validity of the rules of the EU Customs Union and the existence of a common trade policy, the UK cannot (while it is a member of the EU) negotiate and conclude its own trade agreements with non-member countries, but it can only be done within the EU (García 2016). The UK will be able to initiate new trade agreements with non-member countries from the day after leaving the EU or also the process of creating the new trade agreements can be started 2 years after notification of withdrawal before the date of the actual exit of the country from the EU (García 2016). This can be done to put the new FTAs into effect shortly after the date of exit.

According to statistics provided by the European Commission, the UK is the third largest market for EU member states (European Commission 2020); in 2018 the total export from the EU to the UK amounted to 319,9 billion Euros (European Commission 2018). Moreover, the share of British imports in the union market in 2018 amounted to 196,6 billion Euros (European Commission 2018). It indicates the entry of the UK into the six largest importing states in the EU domestic market. It should be noted that over the year, from 2015 to 2016, the export of British goods increased by 13%, and the volume of imports at a given time interval increased by 16%, despite the results of the referendum on UK membership in the EU (HM Revenue & Customs 2017). It is important to note that the leading positions in the export of British goods to the EU market are occupied by motor vehicles (12%), mineral fuels and mechanical appliances (11% each), electronic equipment and pharmaceutical products (8% each) (HM Revenue & Customs 2017).

Considering the differentiation of imported goods, from the EU member states, it is worth noting that in 2015-2016, Germany is the key importer in the UK among all states, both EU members and non-member states. Moreover, at the end of 2016, imports in the UK from Germany accounted for 4.9 million pounds, which is 12.5% higher than the previous year (HM Revenue & Customs 2017). On the other hand, speaking of other non-EU importing states, it should be mentioned that, for example, from November to December 2016, imports of goods from Australia increased by 38%,

from the Republic of South Africa by 24 % (HM Revenue & Customs 2017). For the year from 2015 to 2016, the volume of imports from Norway also increased by 59%, from the United States (US) by 26% (HM Revenue & Customs 2017), which are not members of the union. On the contrary, a decrease is noted in the reduction of imports from the following countries: from Hong Kong - by 37%, from China - by 5.1% (HM Revenue & Customs 2017).

Table1. UK imports from top 10 countries, December 2016

Partner Country	December 2016 Total (£ millions)	Change from November 2016 (%)	Change from December 2015 (%)	Rank November 2016	Rank December 2015
Germany	4,913	-18.7	12.5	1	1
China	3,597	-5.1	26.0	2	2
USA	3,175	-6.8	25.9	3	3
Netherlands	2,972	-7.7	19.2	4	4
Belgium	2,155	-5.9	32.0	5	6
France	2,129	-6.8	15.4	6	5
Italy	1,572	-3.8	24.3	7	8
Norway	1,517	-4.7	59.3	8	10
Spain	1,134	-22.4	7.2	10	9
Irish Republic	1,095	-31.0	-13.9	9	7
Others	13,691	-9.6	27.3	-	-
Total Non-EU	18,110	-8.1	29.1	-	-
Total EU	19,838	-12.8	16.8	-	-
Total Imports	37,949	-10.6	22.4	-	-

Source: HM Revenue & Customs 2017

Consequently, it can be concluded that during the year before and after the vote on the UK's membership in the EU, there was a tendency to maintain Germany's leadership among the importers of goods to the UK with an increase in imports from non-EU countries. Thus, based on the identified trends in the UK international trade, the following hypotheses can be formulated regarding the development of trade and economic ties of the UK after the Brexit. The UK's expert community is considering several options for the country's exit from the EU.

Firstly, UK, after leaving the bloc, can choose a model of bilateral trade with the member states of the World Trade Organization (WTO), of which it has been a member since 1995. Moreover, the vast majority of the former colonies and dominions of the UK are already members of the WTO. It will greatly facilitate the conclusion of trade-economic relations with these states to a new level. Despite the fact that already now, in the wake of the growth of Euro-skepticism, the UK is

witnessing an increase in trade volumes with states that are not EU members (Ward 2019). The model of bilateral trade of UK with the member states of the WTO is considered to be a 'hard Brexit' option, which means that UK leaves the EU single market and trades according to the rules of the WTO (Ries, et al. 2017). In accordance with the rules of the WTO, each member state of this organization undertakes to provide another market access regime (including tariffs) as favorable as any third state. Under these circumstances, a long-term fall in trade volumes by 20.7-29.2% will occur, GDP decline by 2030 according to a forecast will be between 1.5-3.7%, the impact on households will become even stronger, namely, a predicted decrease in real wages by 2.2-6.3%, as well as a decrease in consumption by 2.4-5.4% (Ebell & Warren 2016). Despite the fact that the regulation of economic relations between the UK and the EU by WTO rules can most negatively affect the country's economy, the WTO scenario still has an advantage, since it excludes the free movement of EU citizens throughout the UK, which is one of the prerequisites of UK exit from the EU block.

Secondly, after the Brexit procedure is completed, the UK may begin to strive to expand the volume of transactions with 48 developing countries, which guarantees its duty-free import of goods (Hoekman, et al. 2016). The list of developing countries compiled by the United Nations includes countries such as Bangladesh, Ethiopia, Kenya and others. For example, Kenya is a leading exporter of tea to UK, representing 43.3% of all tea imports (CBI 2016). The second country in terms of tea exports is India. In turn, UK itself is an exporter of tea, which is shipped primarily to EU member states. Consequently, one of the likely scenarios of the UK's trade and economic development after leaving the EU could be the creation of a free trade zone with developing countries in order to obtain an access to the import of goods without barriers, as well as the use of inexpensive labor.

Another direction for the development of trade and economic ties of the UK may be the country's accession to the North American Free Trade Agreement (NAFTA) - a free trade agreement between Canada, the United States of America (USA) and Mexico (Taylor 2017). Moreover, it should be noted that the UK GDP in 2018 according to the World Bank data is higher than the two member states of the agreement, namely: UK GDP in 2016 amounted to 2.8 million dollars, the US to 20,5 million, Canada to 1.7 million, Mexico to 1,2 million dollars, this data confirms that UK will definitely become a powerful player in NAFTA (The World Bank 2018). In addition, NAFTA today is an established mechanism for removing barriers to trade and investment between signatory states, so the UK in this case will not have to build a fundamentally new free trade zone, taking into account both its own interests and those of developing countries.

When it comes to the future solution that will be applied for the post-Brexit trade relations between UK and EU, there are several solutions presented. As the ‘soft Brexit’ options are considered the so called ‘Norway’ and ‘Swiss’ scenarios; ‘soft Brexit’ implies the ability to remain within the framework of a single market (Ries, et al. 2017). As a member of the European Economic Area (EEA), Norway has a FTA with the EU. However, Norway does not have the right to participate in the development of laws and regulations for regulating the single market, although it must adopt new rules and pay annual fees for the right to participate in EU activities (Ries, et al. 2017).

Along with the ‘Norway’ scenario even more softer scenario was proposed, called ‘Norway plus’, which is considered to make the trade relations between UK and EU as much frictionless as it is possible. ‘Norway plus’ scenario takes the agreement that Norway has with the EU for the participation in single market, but also the customs union membership is added to this scenario, thus this post-Brexit solution will make the least possible impact on the UK trade and economy (Carswell 2018). The so called ‘Swiss’ scenario implies that the UK stays in single market, but only for goods and not services, as well as being outside of the customs union and economic area (Ries, et al. 2017).

One more post-Brexit option implies the Canada-style agreement, which is also called ‘The Comprehensive Economic and Trade Agreement’ (CETA). So UK will not have the free movement, the right to stay in such EU organizations as Europol, European Medicines Agency. In other words, it will be obliged to have the customs checks on goods, however this scenario will apply almost tariff-free trade in goods, being more precise CETA removes duties on 98% of products that the EU trades with Canada (Moens & Courea 2020). When it comes to the services, CETA between EU and Canada covers only trade in goods and not services.

1.3. The UK’s trade flow in pre-Brexit era

Statistics show that despite the claims of pro-Brexit politicians, the UK has perfectly taken advantage of its membership in the EU from an economic perspective. There are numbers of existing analysis, which investigated the general impact of EU membership and other different trade agreements, as for example FTA or EEC membership, on the amount of the trade between countries and their economic growth. Among such analyses conducted before Brexit, the Organization for Economic Co-operation and Development (OECD) (2015), Magee (2008), Baier et al (2008), Hufbauer and Schott (2007), Carrere (2006), Eicher and Henn (2009), Head and

Mayer (2013) are the most cited ones. In all mentioned above analyses the gravity model was applied, in order to estimate the change of the trade effectiveness within the FTA and EU membership. These studies are describing the common rules of the trade development under certain trade agreements and, hence, can be applied for analyzing the most recent issue of Brexit.

The gravity model is one of the most effective and robust methods to analyze an international trade in empirical economics (Anderson & Wincoop 2003). The gravity model has a strong theoretical background and initially the idea of this model comes from Newton's Universal Law of Gravitation, which states that all the particles of matter in the universe attract each other through the force of gravity, so that the force between two objects is proportional to their masses and inversely proportional to the distance between them (Sink 2010). The gravity model for cities, countries or unions works the same way, so that the amount of interaction between two countries is proportional to the size of their economies or size of their GDP and inversely proportional to the distance between them. The trade policy of the countries worldwide is not random and this model is widely used to explain and analyze the trade relations between them. In order to provide the likeliness of two countries to trade with each other and to estimate a level of success of their trade, the gravity model is considering three main factors:

1. The size (GDP) of the exporting home economy,
2. The size of the recipient economy,
3. The distance between them.

According to this model, the countries with the relative economic size and rather small distance between them will have the most profitable and successful trade relations, than the countries with the same economic size but with a greater distance between each other. So, as an example, the successful trade relations of the UK and Germany can be considered. Germany is the country that the UK trades the most in the EU; according to the gravity model the fact of such big amount of trade between these two countries can be explained by the relative economic size of the UK and Germany, as they have the highest GDP levels in Europe (2.9 million dollars and 3,9 million dollars respectively) and the distance between them is insignificant (The World Bank 2018). Altogether the facts of the similar economic size of the UK and Germany and a relatively small distance between them, make their trade relations highly profitable.

According to OECD (2015), the implicit regulatory barriers in the EU single market and the single market had a positive impact on the trade flows between countries, including the economic relation between the UK and other EU-member states, and by removing the implicit regulatory barriers the trade flow will increase (Fournier, et al. 2015). The same result was proved by Christopher Magee, who has conducted the research on the effect of regional agreements for the trade flows and applied the gravity model. Magee has used the trade data of 133 countries from 1980 to 1993, and the estimated results suggest, that the FTA cause the raise in the intra-bloc trade by 89% in the long-term (Magee 2008).

Baier et al (2008) conducted research on the influence of the EU membership for the member states' trade flows. The results showed that EU membership increases intra-EU trade by 92%, while at the same time FTA and EEA membership influence the trade flows intensity less, namely by 58% and 21% respectively (Baier, et al. 2008). One more research on the influence of various trade agreements on countries' trade, was conducted by Hufbauer and Schott in 2007. In the conclusion, they came up with the results, proving that EU membership increases the trade flows up to 31%, however at the same time EFTA membership has no significant effect on trade (Hufbauer & Schott 2007).

Carrere (2006) estimated the effectiveness of regional trade agreements for the trade among countries, by applying the gravity model. Eventually, Carrere's research confirmed that regional agreements have increased the trade amount between countries and EU membership has boosted the intra-EU trade by around 104% over the period from 1962 to 1996 (Carrère 2006). Also one more research follows, Eicher and Henn (2009) estimated the WTO and Preferential Trade Agreements (PTA) impact on the bilateral trade between countries. By the means of the gravity model it was estimated that the EU membership increases the trade by 37% and EEA increases trade by 34%, so these two trade models are considered as the most beneficial for boosting the trade amount between countries (Eicher & Henn 2009). Finally, comes the research of Head and Mayer (2013), which provided the estimation and interpretation of the gravity model for bilateral trade. This research presented the overview of the gravity model and searched for the "best-practice methods" (Head & Mayer 2013).

2. DISCUSSION

In the previous section of this research a number of studies, which applied the gravity model to estimate the impact of Brexit on the UK's trade and economy, has been examined. Most of the mentioned studies were aimed to provide the long-term analysis for the Brexit effects. There are several evident points that can be highlighted in the discussion part and considered as the most reliable ones, due to the fact that exactly these long-term effects are clearly defined in major part of the academic researches. Hence, the Brexit main consequences are as follows.

2.1. Uncertainty

Uncertainty is the main driving factor for the Brexit's impacts on the UK and EU trade relations and economic situation, due to the fact that Brexit is an unprecedented issue (International Monetary Fund 2016). Thus, uncertainty is the first factor that has already started to hit the UK, as was claimed by OECD research, by 2020 Brexit has resulted in the loss of 3% for the UK's GDP, which could be avoided if the UK continued with the EU membership (Kierzenkowski, et al. 2016). Uncertainty accompanies Brexit from the referendum of 2016 and till nowadays, starting from 2016 a vote for Brexit itself and a number of plausible alternative post-Brexit scenarios generated the first flow of uncertainty; even though in 2020 Brexit has been finalized and the transition period started, it is still not possible to define any clarity on the future of UK in terms of trade and economy (International Monetary Fund 2016). It is clearly visible from the mentioned researches that uncertainty follows Brexit from the very beginning, nevertheless the negotiations between the UK and the EU within the framework of the transition period have brought some clarity in the choice of the post-Brexit scenario, it can be assumed that the uncertainty level will not decrease. It is because with the new flow of the negotiations the new ambiguous issues arise, for example, now UK and EU are considering the 'Canada' scenario as the one to implement after transition period, however both sides defined that the standard Canadian FTA needs to be supplemented, here come the issues for the next uncertainty and further negotiations (Shipman & Smyth 2020).

Hence, this thesis assumes that uncertainty is the major driving factor of the Brexit's negative effects on the UK's trade and economy. On the assumption of the results presented by a range of the mentioned researches, a growing level of uncertainty weakens the UK's trade and economic

growth and tends to become a long-term effect of the Brexit (Kierzenkowski, et al. 2016). Moreover, uncertainty is unlikely to be decreased in the nearest time, due to the fact that within the transition period UK is required to settle the new trade agreements not only with the EU-27, but also with a large number of its trade partners outside the EU and obviously such negotiations cannot happen fast (International Monetary Fund 2016).

2.2. Trade decline in the triple post-Brexit scenarios

As the soft Brexit solutions for the trade relations between UK and EU, there are two scenarios presented, which are ‘Norway’ and ‘Swiss’ scenarios. Norway is both inside and outside the EU, because it has the agreement with the EU to be able to participate in the single market within the EEA; however, Norway is outside the customs union and that is why it still has the customs checks of goods in the EU (Ries, et al. 2017). Hence, in the ‘Norway’ scenario UK will have a possibility to continue with its membership in single market through EEA, but the trade between the UK and EU will not be that frictionless as it used to, because now customs checks will be applied to the UK’s goods. If the UK follows the path of Norway, all its banks and financial institutions will also receive mutual recognition (Ries, et al. 2017).

The ‘Swiss’ scenario also implies the possibility for the UK to stay in single market, but only for goods and not services, as well as being outside of the customs union and economic area. The fact that this scenario does not include the single market for services makes it rather unprofitable for the UK, especially considering the financial services, which are extremely important for the UK, simply due to the fact that London is the financial capital of Europe (Clarence-Smith 2017). The statistics showed that ‘most of the financial activities carried out in the EU are either directly or indirectly performed through London, for instance, 87% of US investment banks’ EU staff are employed in London’ (Clarence-Smith 2017).

Eventually, all the presented scenarios imply the single market participation for the UK, which will involve the rule of the EU ‘Four Freedoms’: free movement of goods, capital, services and labor. According to the UK’s ‘red-line’⁴, which for them is the end of the freedom of movement between the UK and the EU, these scenarios will already transgress the UK's red line (Moens &

⁴ ‘Red lines’ in negotiations are areas that one side states cannot compromise on, due to some fundamental interest.

Courea 2020). Thus, if to put aside all the scenarios of post-Brexit trade of the UK and EU that transgress the UK's red line, the 'Canada' scenario is left.

Boris Johnson has many times emphasized that the UK will seek the post-Brexit deal similar to the FTA that the EU has with Canada, or the so-called 'super Canada-plus' scenario (supplemented 'Canada' scenario) (Moens & Courea 2020). This is also preferred by the EU. Under the 'Canada' scenario the UK will not have the free movement, the right to stay in such EU organizations as Europol, European Medicines Agency and will be obliged to have the customs checks on goods, however this scenario will apply almost tariff-free trade in goods, but again not in services. Considering the high importance of services and especially financial services for the UK, Boris Johnson stated the need for supplementing the 'Canada' scenario in a way that the tariff-free trade in services will be in power for the post-Brexit trade between the UK and EU (Moens & Courea 2020).

The biggest concern about the implementation of the 'super Canada-plus' deal is the time. If to consider the FTA of the EU and Canada, only the negotiations have lasted for seven years, then the agreement entered into force in 2016 and ratification process continued up to 2017 (Moens & Courea 2020). David Henig, the director of the UK Trade Policy Project at the European Centre for International Political Economy, admitted that for both sides UK and EU it will be very difficult and unlikely to finish the negotiations on 'super Canada-plus' deal by the end of the transition period (Moens & Courea 2020). Despite the expectations of the UK to have a frictionless post-Brexit trade relations with the EU, the 'Canada' option is still far from this objective and needs to be supplemented within the negotiation process between UK and EU.

Considering the intention of the UK to reorient its trade policy after Brexit and devote its attention to the trade with China. Relying on the gravity model, and the 5,000 miles distance between the UK and China, by the UK's trade with China or by new FTAs with other non-EU countries, the UK will not be able to compensate the free trade with the EU countries fully. It is predicted that by 2023 UKs GDP will face a decrease of 3.5% (Oberhofer & Pfaffermayr 2018).

According to the HM Treasury economic analysis, all the alternative post-Brexit options will result in high economic losses of the UK. First of all, because UK will face much more obstacles to trade with the EU and the whole world and secondly, because the reduced access to the EU single market will make UK less attractive and stable destination for the foreign investments (HM Treasury; Prime Minister's Office; The Rt Hon George Osborne 2016).

As demonstrated in Table 2, the highest indicators of trade growth are for the EU member states, which can vary from 68% up to 84%; then follows the EEA membership, which can increase the trade amount from 35% up to 53%, and finally, the FTA membership, within which the countries will face the increase in trade from 14% up to 21% (HM Treasury; Prime Minister's Office; The Rt Hon George Osborne 2016).

Table 2. The effect of different memberships on the trade growth between countries, April 2016

Membership type	Trade growth increase (%)
EU	68 - 84
EEA	35 - 53
FTA	14 - 21

Source: HM Treasury; Prime Minister's Office; The Rt Hon George Osborne 2016

The application of the gravity model showed that ‘hard’ Brexit or WTO scenario will make the worst impact on the UK’s trade with the EU and will reduce it from 22% up to 25% (Table3); under the FTA scenario, which UK is more likely to create with the EU; there is a risk for UK to face the decrease in the trade volume with the EU up to 19%, and as the consequence the 4.6-11.8% loss in its GDP (Table3) (HM Treasury; Prime Minister's Office; The Rt Hon George Osborne 2016). Finally, EEA perspective is likely to cause the less negative decline for the UK’s trade, which equals 10% (Table3) (HM Treasury; Prime Minister's Office; The Rt Hon George Osborne 2016).

Table 3. UK’s trade and GDP growth decrease under various post-Brexit scenarios, April 2016

Membership type	Trade growth decrease (%)	GDP growth decrease (%)
WTO	22 - 25	5.4 – 13.5
FTA	19	4.6 – 11.8
EEA	10	3.4 – 8.3

Source: HM Treasury; Prime Minister's Office; The Rt Hon George Osborne 2016

OECD (2016) research on Brexit’s impacts, has also concluded that all post-Brexit scenarios will negatively impact UK’s trade and economy growth, both in short and long-terms. OECD (2016) especially emphasized the role of the uncertainty as the factor for the negative consequences of Brexit (Kierzenkowski, et al. 2016). Eventually, OECD research has claimed that by 2020 UK’s GDP growth will be 3% less than it could be in the EU membership, and already by 2030 this indicator will be 5% less (Kierzenkowski, et al. 2016).

IMF (2016), referred to the studies that assumed the possible net gains and potential for rapid expansion of trade from the new FTAs of the UK after Brexit. Analysis proclaimed that, nevertheless the positive scenarios are theoretically possible, but in practice new FTAs effects on output will not be large enough to make the net economic impact of exiting the EU positive for the UK (International Monetary Fund 2016). IMF (2016) as well made an accent on the post-Brexit political and trade uncertainty of the UK, which will result in reduced trade flows, investments, business reorientation and lower output of UK in a long-run (International Monetary Fund 2016).

Vandenbussche, Garcia and Simons (2017) have also came up with the results, which deny the possibility of any positive outcome for the UK and EU after Brexit. By implying the gravity model estimations, they achieved results of the 1.54% and 4.47% of GDP loss for the EU and the UK, respectively (Vandenbussche, et al. 2017).

RAND Europe⁵ (2017) assessed the effects of Brexit on trade and the UK economy, depending on the scenarios that the UK will adhere to after the exit from the EU. Their research estimated ‘the UK’s GDP loss of 1.3–4.2 % for optimistic and pessimistic scenarios, respectively, which correspond to an income loss of UK between 33 and 109 billion euros’ (Ries, et al. 2017).

2.3. Inevitable Gross Domestic Product decline

Regardless of the possible adopted trade regime, it is widely expected to see a decline in the UK's trade and therefore its GDP. Even before referendum on Brexit in 2016, researches by the means of the gravity model showed that the most profitable trade membership is the EU, which raises the trade flows and boost the economic growth of the countries significantly (Magee 2008) (Baier, et al. 2008) (Hufbauer & Schott 2007). The mentioned studies can be considered as the base for the international trade functioning and when considering the potential impacts of Brexit on UK trade it is crucial to rely on the findings of these studies. Moreover, the gravity model application in these researches indicated that the EU membership increases intra-EU trade by 92%, while at the same time FTA and EEA membership only by 58% and 21% respectively, which confirms that the country that leaves the EU will face the negative impact for its trade and consequently economy (Baier, et al. 2008).

⁵ RAND Europe is a not-for-profit research organisation that helps to improve policy and decision making through research and analysis.

The results of the mentioned studies and their relevance for the Brexit issue, is confirmed by the most recent researches, which already assessed the impact of Brexit. According to the HM Treasury (2016), Oberhofer and Pfaffermayr (2018), OECD (2016), IMF (2016), Vandenbussche, Garcia and Simons (2017) and their assessment of the losses that Brexit will cause for the UK, it is once again confirmed that the GDP losses for the UK are inevitable in case of Brexit. The level of GDP loss varies on the post-Brexit scenario in trade, to which the UK will stick, however the results are always negative. Hence, Brexit will lead to a decline in GDP, which is expected as 4.6-11.8% (HM Treasury, Cabinet Office, Prime Minister's Office, 10 Downing Street, and The Rt Hon George Osborne 2016). Eventually, it is important to highlight that both kinds of studies (made before Brexit and after it) came up with the similar results, namely the long-term fall of trade size and GDP level. The long-term GDP decrease of the UK outside the EU will be inevitable and the emergence of the new trade agreements with the third countries will not offset the consequences of the fact that UK will no longer have the free trade access to the EU single market (Oberhofer & Pfaffermayr 2018).

In the context when the Brexit has just happened and the transition period negotiations have started, it is impossible to accurately determine the future scenario for trade and economic policies of the UK. Both the UK and EU are interested in the conclusion of negotiations most beneficial for them, and while negotiations are still in process, this fact creates a high and long-term uncertainty. Brexit will be more successful with the soft Brexit scenarios, such as the agreement in the Norwegian or Swiss style with full or partial access to the single market for Goods and Services, however as it was already mentioned the scenarios of 'Norway' and 'Swiss' are transgressing the 'red-line' of UK and for that reason they are unlikely to be implemented as the post-Brexit trade solution between UK and EU.

The UK will benefit more from a deep and comprehensive FTA with the EU, thus the UK is now aimed to move the process of negotiations of post-Brexit trade between UK and EU, seeking the so called 'super Canada-plus' deal with EU. Despite the different approaches and methods of the researchers that were used to assess the consequences for the UK economy after Brexit, numerous UK costs are predicted for Brexit. For the UK's economy, Brexit will definitely entail financial losses and an inevitable drop in GDP, but it is also important to note that Brexit will have such an impact not only on the UK.

CONCLUSION

Brexit is unprecedented issue that requires attentive analysis and long-term forecast in order to understand its consequences and to implement the most profitable post-Brexit solutions. This thesis was aimed to provide the evidence that prove the negative impact of the Brexit on trade and economy of the UK. With the view of proving the posed research hypothesis - the Brexit will create a negative impact on the UK's trade and hence its economy, the academic literature and researches which used gravity model approach were considered. The methodology of this thesis is qualitative, more precisely, the method of content analysis was used and results of this research were derived by the means of a comparative analysis of the academic literature, which were mainly based on the gravity model. This thesis covers a wide range of academic studies and researches, starting from the ones that were concluded before the issue of Brexit, analyzing the general impact of different trade agreements on the trade effectiveness and also the studies that examined already the specific issue of Brexit since 2016.

By the means of the comparative analysis of a wide range of academic studies, it was proved that Brexit will cause a negative impact on the UK's trade and economy. The analysis of academic studies allowed to derive three the most apparent impacts and consequences of Brexit.

The first and the major impact of Brexit is uncertainty, which in its turn cause a number of the negative consequences for the UK, namely weakens the UK's trade and economic growth. Uncertainty has been present since 2016, from the day when the referendum results on Brexit were published. Nowadays, when the outcome of the transition period negotiations is not known yet, uncertainty tends to become a long-term effect of Brexit.

Secondly, follows the most possible Brexit scenario, the so called 'Canada' solution, which will exclude the membership in the EU single market, hence the free movement freedom, and will grant the UK almost tariff-free trade in goods, but again not in services. This scenario will require to be supplemented within the negotiations of transition period, in order to create extensive solution on the tariff-free trade in services, as those are extremely important for such a financial center as the UK. 'Canada' solution for the post-Brexit UK-EU trade relationships was proved to make the trade losses not that large as WTO scenario will, however at the same time, UK will avoid joining the single market and sticking to its four freedoms, as these are the most ineligible options for the UK.

Thirdly, UK will face an inevitable GDP decrease from Brexit. There are no existing scenarios of the post-Brexit trade agreement between the UK and EU that will not cause the negative impacts

for the UK's trade and economy. The scenarios only vary in the level of the possible UK's GDP losses, starting from 4.6 up to 11.8%. Eventually, the aims of the UK to substitute the trade with the EU by new trade agreements with the third countries were dispelled, and a wide range of academic studies proved that the new trade agreements will not offset the losses that the end of the frictionless trade with the EU will bring.

LIST OF REFERENCES

- Statista Research Department, 2016. *Should the United Kingdom remain a member of the European Union or leave the European Union?*. [Online]
Available at: <https://www.statista.com/statistics/570118/eu-referendum-results/>
- Anderson, J. E. & Wincoop, E. v., 2003. Gravity with Gravitas: A Solution to the Border Puzzle. *American Economic Review*, 170.
- Anon., n.d. [Online]
Available at: <https://www.fdrlibrary.org/four-freedoms>
- Baier, S. L., Bergstrand, J. H., Egger, P. & McLaughlin, P. A., 2008. *Do Economic Integration Agreements Actually Work? Issues in Understanding the Causes and Consequences of the Growth of Regionalism*. [Online]
Available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9701.2008.01092.x>
- Bloom, N. et al., 2019. Brexit Is Already Affecting UK Businesses — Here's How. *Harvard Business Review*.
- Carrère, C., 2006. *Revisiting the effects of regional trade agreements on trade flows with proper specification of the gravity model*. [Online]
Available at: <https://www.sciencedirect.com/science/article/pii/S0014292104000583>
- Carswell, S., 2018. Brexit explained: What is the Norway model and is it an option for the UK?. *The Irish Times*, 27 November.
- CBI, 2016. *CBI Product Factsheet: Tea in the United Kingdom*. [Online]
Available at: <https://www.cbi.eu/market-information/tea/united-kingdom/>
- Churchill, W., 1946. *United States of Europe*. [Online]
Available at: <https://winstonchurchill.org/resources/speeches/1946-1963-elder-statesman/united-states-of-europe/>
- Clarence-Smith, T., 2017. The Impact of Brexit on the Financial Services Sector. *Finance*, 1-2.
- Clark, D., 2020. *Unemployment rate in the United Kingdom (UK) from 2000 to 2019*. [Online]
Available at: <https://www.statista.com/statistics/279898/unemployment-rate-in-the-united-kingdom-uk/>
- Cohen, R., 2017. Theresa May's 'Global Britain' Is Baloney. *The New York Times*, 20 January.
- Commission, E., 2016. *EU Referendum Results*, London: s.n.
- Crafts, N., 2016. *The Growth Effects of EU Membership for the UK: Review of the evidence*. [Online]
Available at: <http://www.smf.co.uk/publications/the-growth-effects-of-eu-membership-for-the-uk-a-review-of-the-evidence/>
- Curtice, J., 2016. *How deeply does Britain's Euroscepticism run?*, London: NatCen.
- CVCE, 2015. *The Brussels Treaty (17 March 1948)*. [Online]
Available at: <https://www.cvce.eu/en/obj/the-brussels-treaty-17-march-1948-en-3467de5e-9802-4b65-8076-778bc7d164d3.html>

Davis, D., 2016. *David Davis' speech on Brexit at the Institute of Chartered Engineers*. [Online] Available at: <http://www.daviddavismp.com/david-davis-speech-on-brexit-at-the-institute-of-chartered-engineers/>

Department for Exiting the European Union, The Rt Hon David Davis MP, 2017. *The United Kingdom's exit from and new partnership with the European Union White Paper*. [Online] Available at: <https://www.gov.uk/government/publications/the-united-kingdoms-exit-from-and-new-partnership-with-the-european-union-white-paper>

Dunin-Wasowicz, R., 2019. Few populist radical right parties want to leave the EU anymore. *LSE*, 1-3.

Ebell, M. & Warren, J., 2016. The Long-Term Economic Impact of Leaving the EU. *Sage journals*, 121-129.

Eicher, T. S. & Henn, C., 2009. *In Search of WTO Trade Effects: Preferential Trade Agreements Promote Trade Strongly, But Unevenly*. [Online] Available at: <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/In-Search-of-WTO-Trade-Effects-Preferential-Trade-Agreements-Promote-Trade-Strongly-But-22666>

Estrin, S., Cote, C. & Shapiro, D., 2018. *Can Brexit defy gravity? It is still much cheaper to trade with neighbouring countries..* [Online] Available at: <http://eprints.lse.ac.uk/91289/>

ET Bureau, 2017. India, UK to consider free trade pact after Brexit. *The Economic Times*, 5 April, <https://economictimes.indiatimes.com/news/economy/foreign-trade/india-uk-to-consider-free-trade-pact-after-brexit/articleshow/58017788.cms>.

European Commission, 2016. *The Expansion of the Information Technology Agreement: An Economic Assessment*, Luxembourg: Publications Office of the European Union.

European Commission, 2018. *Statistics*. [Online] Available at: <https://trade.ec.europa.eu/tradehelp/statistics>

European Commission, 2019. *EU position in world trade*. [Online] Available at: <https://ec.europa.eu/trade/policy/eu-position-in-world-trade/>

European Commission, 2020. *Trade Agreements: Geography and trade intensity*. [Online] Available at: https://ec.europa.eu/info/sites/info/files/cwp-20200218-trade-geography_en_0.pdf

Fournier, J.-M. et al., 2015. *Implicit Regulatory Barriers in the EU Single Market: New Empirical Evidence from Gravity Models*. [Online] Available at: https://www.oecd-ilibrary.org/economics/implicit-regulatory-barriers-in-the-eu-single-market_5js7xj0xckf6-en

García, L. G., 2016. Brexit: What trade agreements can the UK negotiate whilst being a part of the EU?. *Matrix Chambers*, 1-2.

Giles, C., 2017. What has the EU done for the UK?. *Financial Times*, 31 March.

Global Trade Review, 2018. *UK: Trade briefing*. [Online] Available at: <https://www.gtreview.com/supplements/gtr-uk-2018/uk-trade-briefing/>

GOV.UK, 2016. *EU referendum*. [Online] Available at: <https://www.gov.uk/government/topical-events/eu-referendum>

Head, K. & Mayer, T., 2013. *Gravity Equations: Workhorse, Toolkit, and Cookbook*. [Online] Available at: http://www.cepii.fr/pdf_pub/wp/2013/wp2013-27.pdf

HM Revenue & Customs, 2017. *UK overseas trade statistics: December 2016*. [Online] Available at: <https://www.gov.uk/government/statistics/uk-overseas-trade-statistics-december-2016>

HM Treasury, Cabinet Office, Prime Minister's Office, 10 Downing Street, and The Rt Hon George Osborne, 2016. *HM Treasury analysis: the long-term economic impact of EU membership and the alternatives*, London: HM Government.

HM Treasury; Prime Minister's Office; The Rt Hon George Osborne, 2016. *HM Treasury analysis: the long-term economic impact of EU membership and the alternatives*. [Online] Available at: <https://www.gov.uk/government/publications/hm-treasury-analysis-the-long-term-economic-impact-of-eu-membership-and-the-alternatives>

Hoekman, B., Rollo, J., Wilkinson, R. & Winters, L. A., 2016. *UK trade with developing countries after Brexit*, s.l.: University of Sussex.

Hufbauer, G. C. & Schott, J. J., 2007. *Fitting Asia-Pacific Agreements into the WTO System*. [Online] Available at: <https://www.piie.com/commentary/speeches-papers/fitting-asia-pacific-agreements-wto-system>

Hunt, A., 2014. UKIP: The story of the UK Independence Party's rise. *BBC News*, 21 November.

Inman, P., 2012. Black Wednesday 20 years on: how the day unfolded. *The Guardian*, 13 September.

International Monetary Fund, 2016. *United Kingdom : Selected Issues*, Washington, D.C.: International Monetary Fund.

International Monetary Fund, 2016. *UNITED KINGDOM: SELECTED ISSUES*, Washington, D.C.: International Monetary Fund.

International Monetary Fund, 2016. *UNITED KINGDOM: SELECTED ISSUES*, Washington, D.C.: International Monetary Fund.

International Monetary Fund, 2016. *UNITED KINGDOM: SELECTED ISSUES*, Washington, D.C.: International Monetary Fund.

Kierzenkowski, R., Pain, N., Rusticelli, E. & Zwart, S., 2016. *The Economic Consequences of Brexit: A Taxing Decision*, s.l.: OECDpublishing.

Kishore G Kulkarni, K. S., 2016. The Gravity Model of International Trade, a Case Study: The United Kingdom and her Trading Partners. *Research Gate*, 4.

Magee, C. S., 2008. *New measures of trade creation and trade diversion*. [Online] Available at: https://econpapers.repec.org/article/eeeinecon/v_3a75_3ay_3a2008_3ai_3a2_3ap_3a349-362.htm

May, T., 2017. Theresa May's Brexit speech in full: Prime Minister outlines her 12 objectives for negotiations. *Independent*, 17 January.

Moens, B. & Courea, E., 2020. What would a Canada-style trade deal with the UK look like?. *Politico*, 31 January, 1.

Oberhofer, H. & Pfaffermayr, M., 2018. *Estimating the Trade and Welfare Effects of Brexit: A Panel Data Structural Gravity Model*. [Online] Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3129951

Office for National Statistics, 2019. *The UK contribution to the EU budget*, London: Office for National Statistics.

Outhwaite, W., 2017. *Brexit : sociological responses*. London: Anthem Press.

Pellegata, A., 2018. *These factors explain why British citizens left the EU*. [Online] Available at: <http://www.euvisions.eu/factors-explain-citizens/>

Prime Minister's Office, 10 Downing Street, Department for Exiting the European Union, and The Rt Hon Theresa May MP, 2017. *Prime Minister's letter to Donald Tusk triggering Article 50*. [Online] Available at: <https://www.gov.uk/government/publications/prime-ministers-letter-to-donald-tusk-triggering-article-50>

Pruitt, S., 2019. The History Behind Brexit. *History*, 20 June.

Ries, C. P. et al., 2017. *Alternate forms of Brexit and their implications for the United Kingdom, the European Union and the United States*. [Online] Available at: https://www.rand.org/pubs/research_reports/RR2200.html

Ries, C. P. et al., 2017. *Alternate forms of Brexit and their implications for the United Kingdom, the European Union and the United States*, Santa Monica: RAND Europe.

Roosevelt, F. D., 1941. *FDR and the Four Freedoms Speech*. [Online] Available at: <https://www.fdrlibrary.org/four-freedoms>

Schweiger, C., 2007. The Reluctant European: Britain and European Integration Since 1945. In: *The Reluctant European: Britain and European Integration Since 1945*. London: Palgrave Macmillan, 14-15.

Shipman, T. & Smyth, C., 2020. UK diplomats told to spurn old EU allies. *The Times*, 2 February.

Sink, T., 2010. *Gravity Model*. s.l.:SAGE Publications.

Smith, M. & Colliver, C., 2016. *The impact of Brexit on far-right groups in the UK: Research Briefing*, London: The Institute for Strategic Dialogue.

Taylor, R., 2017. Could the UK join NAFTA? There are considerable downsides. *LSE*.

The Economist, 2020. The EU and Britain start negotiating a post-Brexit trade deal. *The Economist*, 1.

The Irish Times, 2014. Cameron appoints three more women to cabinet in reshuffle. *The Irish Times*, 15 July.

The UK in a Changing Europe, 2020. What is a Eurosceptic?. *The UK in a Changing Europe*.

The World Bank, 2018. *GDP (current US\$)*. [Online] Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?name_desc=false

The World Bank, 2018. *GDP (current US\$) - European Union*. [Online] Available at: <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=EU>

- Troitiño, D. R., Kerikmäe, T. & Chochia, A., 2018. The Empty Chair Crisis. In: *Brexit: History, Reasoning and Perspectives*. s.l.:Springer, Cham, 93.
- Troitiño, D. R., Kerikmäe, T. & Chochia, A., 2018. The Enlargement to the United Kingdom. In: *Brexit: History, Reasoning and Perspectives*. s.l.:Springer, Cham, 89.
- Vandenbussche, H., Garcia, W. C. & Simons, W., 2017. *Global Value Chains, Trade Shocks and Jobs: An Application to Brexit*. [Online] Available at: https://www.researchgate.net/publication/320793568_Global_Value_Chains_Trade_Shocks_and_Jobs_An_Application_to_Brexit
- Waldie, P., 2016. Brexit sparks unprecedented and unexpected strife within Labour Party. *The Globe and Mail*, 1 July, <https://www.theglobeandmail.com/news/world/brexit-sparks-unprecedented-and-unexpected-strife-within-labour-party/article30731242/>.
- Walsh, K., 2006. *Trade in Services: Does Gravity Hold? A Gravity Model Approach to Estimating Barriers to Services Trade*, s.l.: The Institute for International Integration Studies Discussion Paper Series.
- Ward, M., 2019. *Statistics on UK-EU trade*, London: House of Commons Library.
- Webb, D. & Ward, M., 2019. *Geographical pattern of UK trade*, London: House of Commons Library.

APPENDICES

Appendix 1. Non-exclusive license

A non-exclusive license for reproduction and for granting public access to the graduation thesis⁶.

I, Olga Alekseeva,

1. Give Tallinn University of Technology a permission (non-exclusive license) to use free of charge my creation “IMPACTS OF BREXIT ON THE UNITED KINGDOM’S TRADE AND ECONOMY”,

Supervised by Javad Keypour, and co-supervised by Simona Ferraro,

1.1. to reproduce with the purpose of keeping and publishing electronically, including for the purpose of supplementing the digital collection of TUT library until the copyright expires;

1.2. to make available to the public through the web environment of Tallinn University of Technology, including through the digital collection of TUT library until the copyright expires.

2. I am aware that the author will also retain the rights provided in Section 1.

3. I confirm that by granting the non-exclusive license no infringement is committed to the third persons’ intellectual property rights or to the rights arising from the personal data protection act and other legislation.

⁶ The non-exclusive licence is not valid during the access restriction period with the exception of the right of the university to reproduce the graduation thesis only for the purposes of preservation.