

University of Economics, Prague
Faculty of Economics

Major: Economic policy



**THE ANALYSIS OF MACROECONOMIC
DEVELOPMENT OF THE UNITED
KINGDOM FROM 2000 TO 2018 AND
ECONOMIC CONSEQUENCES OF BREXIT**

Master's Thesis

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Year: 2019

Declaration

I hereby declare that this master's thesis is entirely my own work, and all the sources used are listed.

Mikuláš Zeman

Prague, 12th December 2019

Acknowledgment

I would like to express my gratitude to my supervisor, doc. Ing. Slavoj Czesaný, DrSc, for his valuable guidance, and to my family for their support.



ZADÁNÍ DIPLOMOVÉ PRÁCE

Zpracovatel : **Bc. Mikuláš Zeman**
Studijní program: **Ekonomie a hospodářská správa**
Obor: **Hospodářská politika**
Název tématu: **The analysis of macroeconomic development of the United Kingdom from 2000 to 2018**

Zásady pro vypracování:

1. The aim of thesis:
The objective of master thesis is to analyze the macroeconomic development of British economy from 2000 to 2018. The main aim of thesis will be the evaluation of strong and weak sides of the economy. The thesis will predict the future development as well. It will evaluate potential risks and strong factors of British economy. Another aim of thesis is the analysis of Brexit. The thesis will evaluate possible scenarios of Brexit and whether Brexit brings more positive or negative consequences for the United Kingdom.
2. The main importance and timeliness:
The topic is truly current and important, especially considering the current situation when the United Kingdom is about to leave the European Union, and it remains unclear whether the United Kingdom and the EU will reach an agreement regarding the common trade. However, the thesis will provide even a greater benefit which is the analysis of a whole picture of British economy. The United Kingdom is one of the largest economies in the world; thus, its analysis has a great level of importance as its development influences the rest of the world as well.
3. Characteristics of theoretical part:
The theoretical part of thesis will describe economic environment in the United Kingdom, mainly in terms of which institutions execute monetary and fiscal policy. Subsequently, the thesis will explain theories of economic integration, and provide the summary of advantages and disadvantages of broader integration. The hypothesis will be whether Brexit causes rather positive or negative impacts on British economy.
4. Characteristics of practical part:
The practical part of thesis will define and analyze weak and strong sides of British economy. A comparison with other members of OECD and the EU will be used as the main method of research. The comparison will focus on key macroeconomic fundamentals, such as economic growth, unemployment, balance of payments, price development, or competitiveness. The thesis will also evaluate monetary and fiscal policies executed over the monitored period. The last chapter of practical part will evaluate Brexit and its consequences. That chapter will apply the theories of economic integration on the case of Brexit and will predict future development.
5. Key words:
Competitiveness, GDP, Brexit, balance of payments


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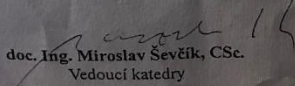
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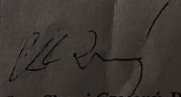
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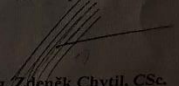
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Abstract

The master's thesis analyzes strengths, weaknesses, opportunities and threats of the UK's economy from 2000 to 2018. The method of research is the comparison with the average of OECD and Eurozone members. Results of the analysis are stated in SWOT matrix. The master's thesis also evaluates economic consequences of the Brexit referendum. The analysis shows that the referendum had no important impact on the UK's macroeconomic fundamentals. The thesis predicts future impacts of Brexit as well. The UK will remain a strong international economy despite its withdrawal from the EU.

Keywords: competitiveness, Brexit, SWOT analysis, United Kingdom, European Union

JEL Classification: E6, J3, H3, F1

Abstrakt

Diplomová práce analyzuje přednosti, slabiny, příležitosti a hrozby Britské ekonomiky v období 2000 až 2018. Metodou výzkumu je porovnání s průměrem OECD a Eurozóny. Výsledky analýzy jsou uvedeny ve SWOT matici. Diplomová práce také hodnotí ekonomické dopady referenda o Brexitu. Analýza ukázala, že referendum nemělo zásadní dopad na makroekonomické ukazatele Velké Británie. Diplomová práce rovněž predikuje budoucí dopady Brexitu. Velká Británie zůstane silnou mezinárodní ekonomikou navzdory jejímu odchodu z EU.

Klíčová slova: konkurenceschopnost, Brexit, SWOT analýza, Velká Británie, Evropská Unie

JEL Klasifikace: E6, J3, H3, F1

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Introduction

The master's thesis analyzes the macroeconomic development of the United Kingdom (hereafter "UK") in the period from 2000 to 2018. The author has chosen for the analysis the UK as this economy is one of the largest in the world and its development influences other economies as well. Another reason for choosing the UK is a current situation when the UK is close to leave the European Union (hereafter "EU") which has induced lively discussions whether consequences for the UK's economy will be rather positive, or negative. These days Brexit is the fiercest topic around the world; thus, the author considers being desirable to provide its analysis. The aim of the master's thesis is to evaluate the performance of the British economy based on SWOT analysis which evaluates strengths, weaknesses, threats and opportunities for the UK's economy. Another contribution of the thesis will be the evaluation of Brexit and its possible consequences.

The Theoretical Part of the thesis is divided into eight chapters. The first chapter deals with indicators of inner equilibrium. This chapter contains several subchapters which describe following indicators of inner equilibrium: gross domestic product, inflation, labor market, government debt as well as savings and investments. The second chapter puts forward indicators of outer equilibrium, mainly the balance of payments. The third chapter explains the concept of an economic policy. This chapter includes two subchapters dealing with a monetary and fiscal policy. The fourth chapter focuses on competitiveness as a crucial determinant for economic growth. The fifth chapter explains principles of SWOT analysis and its use in economy. A summary of integration theories and possible forms of integration is provided in the sixth chapter. The seventh chapter briefly describes history of integration between the UK and the EU. The eighth chapter provides crucial facts regarding Brexit.

The Practical Part of the thesis contains eight chapters too. They are elaborated to be corresponding to the chapters in the Theoretical Part. The first one analyzes the performance of the UK's economy regarding the indicators of inner equilibrium. For this purpose, this chapter is divided into several subchapters, each of them analyzing in detail a particular indicator of inner equilibrium. The comparison with the average of OECD and Eurozone is used as a research method. In occasional cases, the UK is also compared with the average of

the EU. Indicators are also evaluated on the base of the author's own view. The second chapter analyzes the British performance with regards to indicators of outer equilibrium. The same method of research is used there. Both chapters also evaluate the effect of the Brexit referendum on particular indicators. The third chapter analyzes economic policies conducted during the analyzed period. This chapter includes two subchapters on a fiscal policy and monetary policy, respectively. The subchapter Fiscal Policy mainly focuses on taxes. The most important tax rates in the UK are compared with the average of OECD, Eurozone, the EU and the USA. The thesis evaluates appropriateness of fiscal policies conducted over the observed period as well. The subchapter Monetary Policy focuses on monetary policies conducted over the observed period and their appropriateness. The fourth chapter analyzes competitiveness of the UK's economy. The analysis is based on the competitiveness ranking which is annually published by the World Economic Forum. The fifth chapter provides the SWOT analysis. In other words, it sums up strengths, weaknesses, threats and opportunities of the British economy. The sixth chapter provides an overview of possible integration forms between the UK and the EU after Brexit. Each form of integration is evaluated, and its advantages and disadvantages are analyzed. The seventh chapter provides a summary of impacts of the Brexit referendum on British macroeconomic fundamentals. The impacts are analyzed in previous chapters. The last chapter of the Practical Part relates to Brexit and its effects. It provides opinions of prominent economists regarding the effects of Brexit on the UK's economy. Their opinions are subsequently analyzed.

The main objective of the master's thesis is the evaluation of strengths, weaknesses, threats and opportunities of the UK's economy and a general evaluation of its performance. Moreover, the master's thesis analyzes Brexit and its consequences. The aim is to assess the effects of the referendum on the UK's economic development as it is supposed that the result of the referendum could already influence the UK's economy. Another objective is to evaluate possible impacts of Brexit on the British economy. At the same time, the thesis analyzes benefits and drawbacks of particular forms of possible integration between the UK and the EU.

1.Theoretical Part

1.1. Indicators of Inner Equilibrium

1.1.1. Gross Domestic Product

Gross domestic product (hereafter “GDP”) represents the market value of all final goods and services produced within a country in a given period of time. GDP captures merely new goods and services and does not capture services which were performed out of the market. GDP also excludes most items produced and sold illicitly (Mankiw & Taylor, 2006). Economic growth/ decrease illustrates the changes of GDP.

We use three approaches to calculate GDP – the production approach, the income approach and the expenditure approach. The production approach calculates GDP as the sum of gross value added which represents the difference between gross value of output and value of intermediate consumption. The income approach measures GDP as the sum of all incomes that include wages, interests, rents and profits. The expenditure approach computes GDP as the sum of aggregate expenditures. These expenditures include consumption, investment, government spending and net exports.

The difference between actual and potential GDP is a fundamental indicator of inner equilibrium. This difference is called the output gap. A negative output gap means that an actual product is lower than a potential product. In this case of the recession gap, the increase of GDP should not cause pressure on growth in inflation and interest rates. Thus, expansive economic policies could have a positive effect on economic growth. A positive output gap means that an actual product is higher than a potential product. Providing an economy is in this inflation gap, there is pressure on growth in inflation, interest rates and appreciation of currency. Therefore, the aim of economic policies is to “cool down” the economy (Czesaný, 2006).

1.1.2. Inflation

Inflation is defined as a general increase in the prices of goods and services over time. We usually talk about annual inflation (FED, 2019b). There are several ways to measure inflation. The most frequent way to measure inflation is using the consumer prices index (hereafter “CPI”). Other ways to estimate inflation is using the GDP deflator, producer prices indices (hereafter “PPI”), commodity price indices or core prices indices. Inasmuch as these methods are used rather rarely and the United Kingdom uses the CPI, we will handle only this method. CPI is a measure of the overall prices of the goods and services bought by a typical consumer (Mankiw & Taylor, 2006). An institution responsible for measuring inflation in the UK is the Office for National Statistics (hereafter “ONS”). Each month, the ONS collects around 180,000 prices of about 700 items (BOE, 2019).

According to Czesany (2006) it is slightly difficult to answer the question which level of inflation ensures the equilibrium. Nevertheless, the inflation rate above 10% harms and causes lower economic growth. Inflation should be predictable and stable too. A significant difference between an inflation target and actual inflation also harms economic growth.

An inflation rate is a significant indicator of inner equilibrium. High and instable inflation in any economy induces a wide range of issues. The author argues that the most serious problems for an economy are the outflow of investors and lower competitiveness of domestic goods and services. The former is fairly clear. Investors are cautious of purchasing government bonds of economy that suffers high and instable inflation.

Firstly, investors are afraid that the trend will continue; thus, the value of their bonds will decrease. Secondly, instable inflation causes that investors are unable to forecast the development of economy and therefore, they rather invest their savings in different economies. Furthermore, high and instable inflation also leads to poor evaluation of rating agencies. Poor rating of agencies influences decisions of investors as well. Accordingly, an economy experiences lack of foreign investments.

The second issue of high inflation is that it influences the real exchange rate. Domestic goods and services become relatively less competitive to goods and services from abroad. That causes a drop in exports and likely an increase in imports too. Nevertheless, the effect on imports is ambiguous; on the one hand, the volume of imports increases, as domestic consumers purchase a larger amount of relatively cheaper goods and services from abroad. That is called as a volume or quantity effect. On the other hand, the value of imports is lower, as the prices of foreign goods and services are relatively lower. Thus, the total value of imports increases. It is called as a valuation effect (Rivera-Batiz & Rivera-Batiz, 1994).

The final effect on the level of imports is given by a demand elasticity for imports. In the short run, we can rather expect that the valuation effect exceeds the volume effect, since domestic consumers are not willing to change the type of goods and services which they consume immediately. In addition, a great number of individuals do not even notice that there is a change in prices; therefore, they continue to consume the same sort of goods and services despite of price changes. For these reasons, there is usually rather a low elasticity of demand for imports in the short run. On the contrary, we can expect that the volume effect exceeds the valuation effect in the long run, for individuals have a larger number of alternatives to substitute consumed goods and services. Furthermore, almost every person realizes changes in prices in the long run. Hence, there is a high elasticity of demand for imports.

1.1.3. Labor Market

The most important indicator for the labor market is an unemployment rate. This indicator shows the number of unemployed people as a percentage of the labor force, where the latter comprises the unemployed plus those in paid or self-employment (OECD, 2019i). A high unemployment rate means that the labor supply exceeds the labor demand and vice versa.

A high unemployment rate, especially a long-term unemployment rate, has a wide range of negative social consequences. The costs of unemployment are significant expenditure for the government budget too (Czesaný, 2006).

The relationship between real wages and labor productivity is an important indicator for inner equilibrium. Growth in real wages which is higher than growth in labor productivity causes a decrease in a firm's profit. Accordingly, firms are pushed to increase prices. That means

growth in inflation. Higher growth in real wages compared to labor productivity also induces that the domestic production lags behind the domestic demand. That could generate outer imbalance. Consequently, it is desirable for an economy that growth in real wages is covered by growth in labor productivity (Czesaný, 2006).

1.1.4. Government Debt

“When a government spends more than it collects in taxes, it borrows from the private sector to finance the budget deficit. The government debt is the accumulation of past borrowing”(Mankiw & Taylor, 2014).

The government debt, measured as a percentage of the GDP, is an important indicator of inner equilibrium. The government debt should not exceed the Maastricht criteria which were set as 60% of GDP. Furthermore, growth in the government debt should be slow and stable as it may negatively influence interest rates and decisions of investors. The size of the government debt is influenced both by a country's economic policy and by growth in the GDP. When the GDP is growing, the government debt will decline, for income from taxes is growing too (Czesaný, 2006).

1.1.5. Savings and Investments

A rate of national savings and a rate of investments are crucial indicators of macroeconomic equilibrium. These rates are frequently considered being the indicators of outer equilibrium; nevertheless, we will include them in inner equilibrium. The gross domestic savings are defined as a part of national disposable income which is not consumed and therefore creates domestic sources for investments. The gross national savings rate is published as a ratio of gross national savings either on gross disposable income or on GDP (Czesaný, 2006).

The gross investment rate is defined as a ratio of gross fixed capital formation + the change in the stock of inventories + net acquisition of valuables on GDP. Thus, the gross investment rate shows a part of GDP that is not consumed in a current year and is postponed until next years. Investments generate the base for future production and consumption; accordingly, they may anticipate growth of product in the long run(Czesaný, 2006).

The difference between the savings rate and the investment rate spills over into outer imbalance as a deficit of the current account of the balance of payments. There is not the equilibrium rate of savings or investments (Czesaný, 2006).

1.2. Indicators of Outer Equilibrium

1.2.1. Balance of Payments

The balance of payments (hereafter “BOP”) is a statement of all transactions made between entities in one country and the rest of the world over a given period of time, such as a month or a year. BOP consists of the current account, the financial account and the capital account. The current account includes the value of trade in merchandise (tangible commodities), services, income (from investments) and unilateral transfers (Husted & Melvin, 2010). It is basically the difference between sales of goods and services to foreigners and purchases of goods and services from them.

The financial account reveals the difference between sales of assets to foreigners and purchases of assets located abroad (Krugman, Obstfeld, & Melitz, 2018). The capital account comprises transfers of capital character connected with remission of debts, ownership rights to fixed assets and transfers of not manufactured, non-financial tangible assets (ONS, 2019a). However, the size of the capital account is not significant.

The following formula is valid:

$$\text{Current account} + \text{financial account} + \text{capital account} = 0$$

The current account balance of the balance of payments in percentage of GDP is a vital indicator of outer equilibrium. The current account balance is equal to the difference between the gross investments rate and the gross savings rate. Factors influencing the current account balance are mainly the exchange rate, phase of the business cycle in a domestic economy and abroad, and other microeconomic factors, such as, customs or legislation. The deficit 5% and above of the current account is considered being precarious (Czesaný, 2006).

1.2.2 Other Indicators of Outer Equilibrium

Another indicator of outer equilibrium is foreign debt. Foreign debt is usually presented in the percentage of GDP. Neither direct investments nor portfolio investments are included in foreign debt. A natural value of this indicator is approximately 40%; accordingly, equilibrium is around this boundary (Czesaný, 2006).

A ratio of short-term debt to aggregate foreign debt is another indicator of outer equilibrium. The ratio should not exceed 40%. A higher ratio causes instability toward foreign countries and investors consider the economy being unsecure (Czesaný, 2006).

1.3. Economic Policy

We can define an economic policy as a set of tools which are used to influence an economy. Economic policies are normally executed by a country's government aside from a monetary policy which is usually performed by a country's central bank. The most general goals of any economic policy are economic growth, price stability and full employment.

We distinguish between a discretionary policy and policy rules. Policy rules present a given set of rules and policymakers are obliged to comply with those rules. Examples of monetary policy rules are the rule of stable monetary growth, product targeting or fixed exchange rates. Examples of fiscal policy rules are progressive tax systems, subsidies for farmers or social transfers. They are called automatic stabilizers because they work automatically.

According to the author's opinion, the greatest advantage of rules is that an economic policy cannot be influenced by political cycles. Another advantage is that the rules work automatically; thus, policymakers do not need to intervene in a large extent. Clear rules also support business environment owing to the economic stability. The most famous supporter of monetary policy rules was Milton Friedman, who recommended to target the money supply (Friedman, 1953). A drawback of rules is that they leave little free room for policymakers to respond to a specific situation in an economy as they have to keep a given target.

Discretion policies enable a higher level of freedom for policymakers. Examples of discretionary fiscal policies include changes in government spending or changes in tax rates.

Instances of discretionary monetary policies are changes in interest rates or changes in reserve requirements.

An advantage of discretions lies in the fact that policymakers are not tied by rules and therefore are able to adjust their policies to a particular economic situation. However, the issue is timeliness. At first, policymakers need time to assess which economic policy is appropriate to use. Subsequently, implementation of a policy takes additional time, especially in case of a fiscal policy when the approval of the government is needed. At last, the effect of a chosen economic policy starts to act with some delay. Thus, the whole process might last considerably long. Eventually, an economy might need a completely different economic policy than the policymakers decided to implement. Another issue is a peril of a close relationship with politics which creates room for opportunism.

In practice, most of economies use rules rather than discretions. According to a great number of economists (R. J. Barro & Gordon, 1983; Kydland & Prescott, 1977; Woodford, 1999), rule-based policy making boosts welfare. Advocates of discretions are mainly the members of the New Keynesian school (Blanchard & Galí, 2010; Sauer, 2007). They emphasize positive effects of discretions in the short run.

In general, it seems rather difficult to conclusively assess which sort of policy is more efficient. That also depends on specific circumstances.

The author of the thesis argues that it is important whether we focus on the short run or on the long run. A discretionary economic policy is beneficial for the short run but results in negative consequences in the long run. A rule-based economic policy is efficient for the long run but leads to short run costs. The question is whether under a rule-based economic policy long run gains exceed the short run losses. Another important matter is whether we accept the premise that economic agents are rational. Discretion policies appear to be inefficient provided that expectations are rational.

1.3.1. Monetary Policy

Monetary policy influences the amount of money in the economy and how much it costs to borrow. Monetary policy is usually executed by a country's central bank or ,rarely, by a country's government (Bank of England, 2019b).

The aims of monetary policy could slightly differ across countries. However, the main aim remains the same for any country – to keep a low and stable inflation rate. For example, the Federal Reserve System, the central bank of the United States, also defines maximum employment as an explicit goal (FED, 2019a).

The Bank of England, the central bank of the United Kingdom, defines price stability as the only explicit aim; nonetheless, it is also obliged to support other government's economic targets, such as sufficient economic growth and maximum employment (Bank of England, 2019b).

A central bank usually carries out their monetary policy within some monetary regime. The most common regimes are the following (CNB, 2011) :

- a regime without mentioning an explicit target,
- a regime with an implicit nominal anchor,
- money targeting,
- exchange rate targeting and
- inflation targeting.

Most of the central banks have adopted inflation targeting as their monetary regime. The first economy that started to target inflation was New Zealand in 1990. The United Kingdom introduced inflation targeting as their monetary regime in October 1992. An inflation target is set by the UK's government and the Bank of England is only responsible for keeping that target. The first direct inflation target was set as a range of 1% - 4% for annual inflation (Benati, 2006). A current inflation target is 2%.

Inflation targeting is fairly straightforward monetary regime. A country's central bank or government sets an inflation target either as range around a midpoint or as a direct target rate. Some countries also set an upper limit to inflation (Jahan, 2017). The advantage of inflation targeting is the combination of both “rules” and “discretion” in monetary policy (Hammond, 2011).

Central banks use a wide range of tools in order to ensure their objectives. We will divide these instruments into direct and indirect. The most popular direct instruments are the following:

- Open market operations
- Reserve requirements
- The discount rates
- FX interventions
- Standing facilities

Indirect instruments are macroprudential policies which are recently becoming more and more popular among monetary policy makers.

We can divide instruments into conventional and unconventional too. Examples of unconventional instruments are reserve requirements or discount rates. FX interventions or quantitative easing are instances of unconventional instruments.

The Bank of England mainly uses two instruments – quantitative easing and discount rates (Bank of England, 2019b).

1.3.2. Fiscal Policy

The main goal of fiscal policy is to ensure stable economic growth and a low unemployment rate. However, other aims should be satisfied as well, namely low and stable inflation (Žák, 2007). Fiscal policy has the following functions in the economy:

- Allocating and distributing resources
- Short- term stabilization

- Longer-term development
- Maximizing employment

Fiscal policy is usually performed by a country's government. The tools which the government uses to influence economy are taxation and government spending. The government could perform neutral fiscal policy, expansionary fiscal policy or contractionary fiscal policy.

Expansionary fiscal policy is usually carried out during recession. Typical instances of this policy are increase of government spending or tax cuts. Contractionary fiscal policy is usually undertaken when the economy experiences a high inflation rate. Examples of contractionary fiscal policy are increasing of tax rates or decreasing of government spending.

1.4. Competitiveness

There is a wide range of indicators which define the condition of an economy. Apart from traditional indicators, such as economic growth, the unemployment rate or inflation, there are alternative indicators which are becoming more and more popular. One of these indicators is competitiveness.

Competitiveness ranking is annually published by the World Economic Forum based in Switzerland. The World Economic Forum defines competitiveness as *“the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be reached by an economy.”* (The World Economic Forum, 2013). Individual components which determine productivity are grouped into twelve pillars:

A, Institutions

B, Infrastructure

C, Macroeconomic environment

D, Health and primary education

E, Higher education and training

F, Goods market efficiency

G, Labor market efficiency

H, Financial market development

I, Technological readiness

J, Market size

K, Business sophistication

L, Innovation

The author of the thesis considers competitiveness ranking being a useful tool for the evaluation of economic condition of the UK. For this reason, competitiveness ranking will serve as an important indicator for our analysis.

1.5. SWOT Analysis

A SWOT analysis or a SWOT matrix is a widespread business strategy. The aim of this technique is the identification of strengths, weaknesses, opportunities, and threats related to business. This strategy is not only valid for businesses but also for individuals or states. This thesis will use a SWOT analysis to determine strengths, weaknesses, opportunities, and threats of the British economy.

1.6. Theory of Economic Integration

1.6.1 Definition and the Stages of Economic Integration

Economic integration is usually defined as the elimination of economic frontiers between two or more economies. That should ensure free mobility of goods, services and production factors. A crucial role of economic integration is a raise in actual and potential competition. Competition is engendered both by market participants within a country and by market participants beyond the confines of the country. It is very probable that competition by market participants causes a decline in prices for similar goods and services. Growth of competition is also likely to lead to greater variation and wider choice of goods and services (Pelkmans, 2006).

According to Balassa (2011), there five stages of economic integration:

- Free trade union
 - tariffs and quotas abolished from imports from area members
 - area members retain national tariffs and quotas against third countries
- Customs union
 - Suppressing discrimination for customs union members in product markets
 - Equalization of tariffs and no or common quotas in trade with non-members
- Common market
 - A customs union which also abolishes restrictions on factor movement
- Economic union
 - A customs union with “some degree of harmonization of national economic policies in order to remove discrimination due to disparities in these politics”
- Total economic integration
 - Unification of monetary, fiscal, social and counter cyclical policies
 - Setting up of a supranational authority where decisions are binding for the member states

The author of this master’s thesis considers a higher level of competitiveness to be the main benefit of wider integration. Wider integration also allows that an economy can specialize on activities in which has a comparative advantage (Ricardo, 1912).

In general, there is no doubt that economic integration stimulates economic growth. Nonetheless, the question is which level of integration is the most efficient. For example, a monetary union, which is a sort of an economic union, means that a country loses its ability to influence economy by its own monetary policy. That presents a significant issue, especially in case when the members of a monetary union do not create an optimal currency area (Mundell, 1961) and experience different business cycles. We can recently observe that issue in Eurozone.

We also need to keep in mind that total economic integration means that states lose their sovereignty, which creates not only an economic problem but also political and social problems.

1.7 History of Integration between the United Kingdom and the European Union

This chapter will describe the relationship between the United Kingdom and the EU. The UK was not present at the birth of the European Union. Countries which signed on 25 March 1957 the Treaty of Rome, which can be considered as the beginning of the EU, were Belgium, the Netherlands, Luxembourg, France, Italy and West Germany. For better understanding, we will use the names EU and the European Economic Community as a synonym, although the European Union was officially established in 1993.

The first talks between the UK and the EU regarding the possibility of joining EU started in 1961 (Tognina, 2019). The British accession was almost successful in 1963 and then 1967; nevertheless, Charles de Gaulle, that time the president of France, vetoed the British application. He claimed that the UK was incompatible with Europe. He emphasized the differences in terms of working practices and in agriculture. He provided right points as the British economy truly differed to other economies, but he was likely influenced by his animosity against the United Kingdom as well.

The third attempt to join the EU was successful since Charles de Gaulle had relinquished the French presidency in 1969. Thus, the United Kingdom eventually became the member of EU in 1973. The British membership had lasted merely two years, when the UK decided to call a referendum on the choice whether to leave the EU or remain its member. The referendum was held by the governing Labor party (Butler, Kizinger, 1996). Results were fairly persuasive. 67,2% of electorate voted in favor of remaining; accordingly, the UK stayed in the European community. The turnout was approximately 65%. The Shetland Islands and Outer Hebrides were the only regions voting to leave (Miller, 2015). According to a significant number of analyses (S. Becker, Fetzer, & Novy, 2016; S. O. Becker & Fetzer, 2017), there is no connection between the referendum in 1975 and the following one held 41 years later. In other words, it does not seem that the decision of British citizens to leave the EU in 2016 was somehow influenced by the previous referendum.

In 1979, European monetary system, that we can consider being the precursor of a monetary union, was established. The European exchange rate mechanism (hereafter “ERM”) was

introduced as a part of the system in order to prevent high volatility of exchange rates; for example, an average annual volatility for Germany and France was 20%. That caused serious harms for these economies (Jílek, 2013). The United Kingdom gained the opt-out and therefore, did not enter the European monetary system. However, the UK joined the European exchange rate mechanism in 1990 which meant that the pound sterling was pegged to the deutsche mark within a fluctuation band $\pm 2.25\%$. The Bank of England was obliged to keep the pound sterling in this band.

Complications of ERM began in 1989 when the West and the East Germany were unified. Germany had to invest a great amount of money in east regions. To avoid high inflation, the Bundesbank decided to increase short-term interest rates. High interest rates lured foreign investors since higher interest rates provided them higher revenues. Thus, foreign investors were purchasing a huge amount of the deutsche mark which caused rapid appreciation of that currency.

Other members of ERM responded by increasing their interest rates too, but that was not enough to prevent the pressure on depreciation of their currencies toward the deutsche mark. Consequently, their central banks had to intervene in order to keep currencies in a fluctuation band and start buying their local currencies. An Italian central bank eventually decided to quit rescuing the lira and devalued it by 7% (Jílek, 2013).

The United Kingdom became a victim of speculators, specifically of George Soros. Soros predicted that the pound sterling will not remain in ERM. Therefore, he borrowed a great amount of the pound sterling and subsequently exchanged them for the deutsche mark. That caused a high pressure on depreciation of British currency. The Bank of England was forced to buy the pound sterling in exchange for the deutsche mark or the US dollar. The United Kingdom also rapidly increased short-term interest rates to attract foreign investors. Interest rates reached 15 %. That caused dramatic social issues in the UK. The UK eventually lost its fight against Soros and abandoned ERM on 16 September 1992. The pound sterling devalued toward the deutsche mark and interest rates were decreased. In total, the UK spent 14mld. USD on interventions (Jílek, 2013).

1.8 Brexit

This chapter is going to briefly describe the development after the British decision to leave the European Union. Despite the result of the referendum in 2016, up to now the United Kingdom is still remaining in the EU.¹

The British referendum regarding its membership in the EU occurred in June 2016. The turnout was vastly high – more than 72 % and the result was clear – British people wanted to leave, specifically 51.9% voted in favor of Brexit. That means 17 410 742 votes. The referendum was non-binding; however, the British government had promised to implement the result.

The withdrawal process was initiated on 29 March 2017 and the UK should have left the EU before 29 March 2019. Nonetheless, the withdrawal process has been extended twice. A current date when the UK should definitely leave the EU is 31 October 2019 even though no one can be sure whether that truly occurs. There might be another postponement.

A crucial question is what kind of integration will be created between the UK and the EU. The answer to the question depends on a common agreement. We need to keep in mind that it is mainly the EU who influences the form of deal. Its current approach indicates that it is trying to punish the UK to the greatest degree and negotiate favorable terms for itself. In the author's view, the EU chose that approach in order to prevent the situation that another member state decides to leave.

This thesis will analyze the effect of the referendum on the British economy. That decision has already influenced acts of individuals. Take for example investors who have begun to speculate on currency or companies that decided to transfer their production abroad. For these reasons, we can expect an impact on the development of macroeconomic fundamentals as well. The master's thesis will also attempt to forecast consequences of actual withdrawal. The practical part of the thesis will present and evaluate possible scenarios of future integration. The thesis will also provide and challenge opinions of prominent economists regarding the impacts of Brexit.

¹ The master's thesis is being written in 2019.

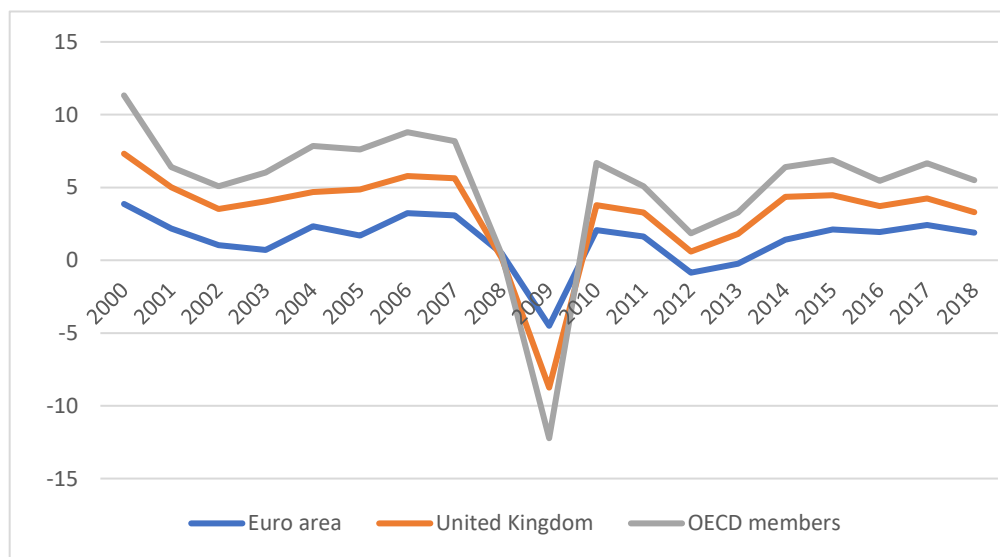
2. Practical Part

2.1. Indicators of Inner Equilibrium

2.1.1 Gross Domestic Product

The graph below shows economic growth in the United Kingdom in comparison with the members of Eurozone and OECD.

Graph 1 - The development of GDP growth (annual %) in the United Kingdom and the average of OECD members and the members of Eurozone between 2000 and 2018



The source of data: own processing (World Bank, 2019c)

As we can see from the graph, the British economy experienced quite stable economic growth over the period. The exception is a sharp decline in the middle of the period due to the global financial crisis which hit mainly the American economy and European economies. The UK experienced an economic drop of 3.4%. Highest growth occurred in 2000 when the British economy experienced 3.4% economic growth. Until the global financial crisis, economic growth was around 2.5%. After the financial crisis, the UK economy's performance has been again rather solid.

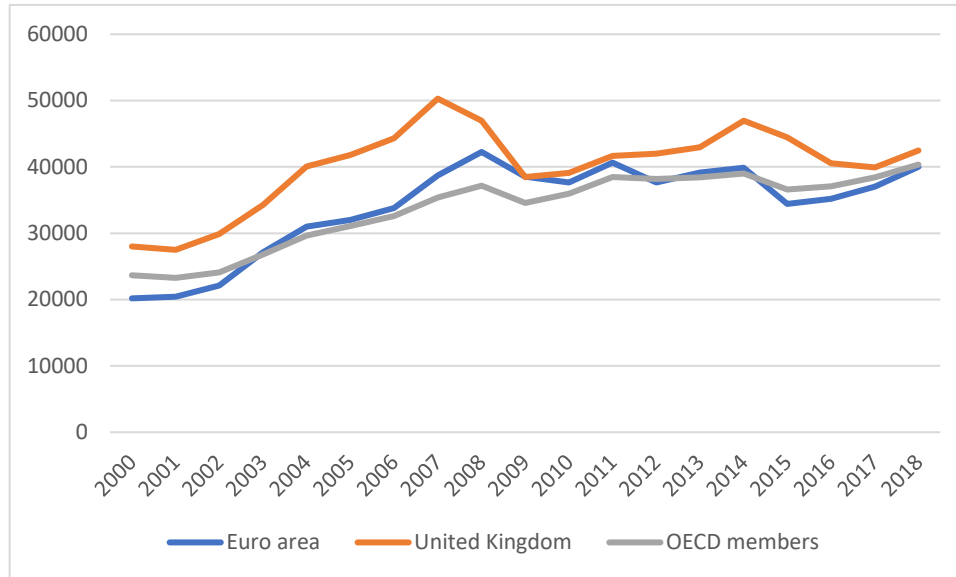
The British economy lagged behind OECD members which experienced greater economic growth in most of the period. We can notice that the British economy had almost the same business cycles as OECD members. Euro area had also similar business cycles. We can see that Eurozone economic performance was much worse than economic performance of the UK as well. Explanation of that phenomenon may be the fact that the UK obtained opt-out and therefore, was not obliged to accept euro as its currency. Its own monetary policy allows to execute a more suitable economic policy.

If we focus on the impact of the referendum on economic growth, we will see that there was slower economic growth after the British decision to leave the European union. However, it seems to be unfair to claim that the reason was the result of the British referendum regarding Brexit. We can see that not only the UK experienced slower growth but also the EU and OECD members. Moreover, the decline is not significant.

According to OECD economic survey (OECD, 2017), recent British growth is mostly stimulated by a strong business- friendly environment, extremely supportive and reactive monetary policy, and a flexible approach in fiscal goals. OECD predicts a potential decline of GDP owing to the planned exit of the EU at the end of October 2019 (OECD, 2017). According to the author of this master's thesis, the effect of Brexit on economic growth depends on the agreement with the EU with regards to the common trade. Furthermore, for the present no one is sure whether the UK will actually leave the EU.

The graph number two illustrates the development of GDP in US dollars.

Graph 2 – The development of GDP per capita (current US\$) in the United Kingdom and the average of OECD members and the members of Eurozone between 2000 and 2018



The source of data: own processing (World Bank, 2019d)

We can see that the British GDP per capita is significantly larger than the average of OECD and Eurozone. The size of British GDP per capita reached the peak in 2007 when it was more than 50 thousand of US dollars. The graph also shows how strong was the effect of the financial crisis for the UK. The drop was over 12 thousand of US dollars. We need to emphasize that the UK still has not reached the level of GDP per capita before the crisis erupted.

2.1.2 The Development of Public Finance and Government Debt

This chapter will deal with the development of public finance and government debt. That indicator is extremely important. Everyone still remembers the debt crisis which paralyzed Europe. The EU is trying to prevent similar events. The stability and growth pact (hereafter “SGP”) is the best-known precaution to prevent that other countries will continue to enlarge their debt. The EU has determined the boundary of the total government gross debt as a 60

% of GDP. That boundary should not be exceeded. The second rule with regards to financial stability is that each country should remain within the limits on government deficit which was set as 3% of GDP (the European Council, 1997).

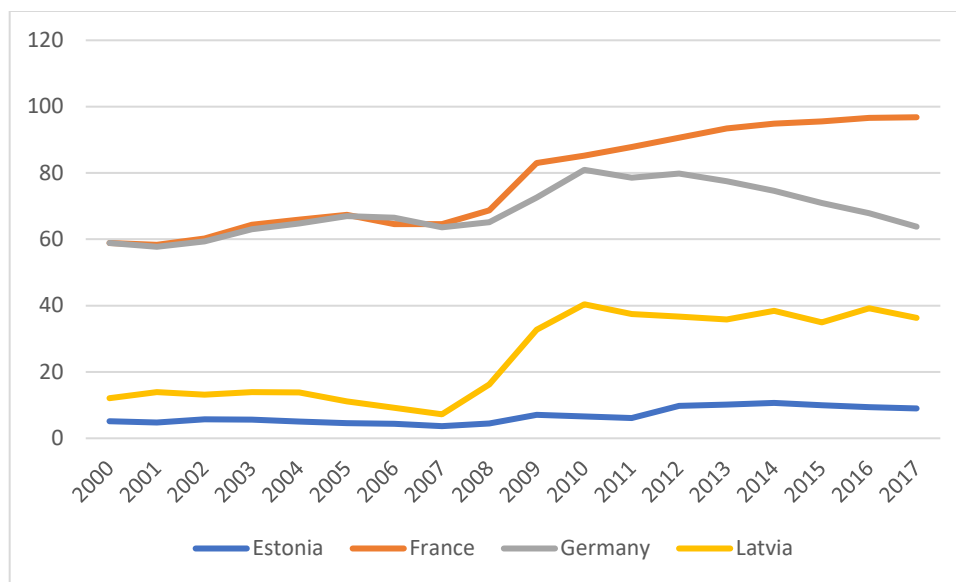
In the author's view, the issue of these rules is that there is no efficient tool how to force countries to reduce their debt. Although there is legislation to enforce the rules stipulating that countries which infringe that rules will be sanctioned (the European Commission, 2019), in reality, such a situation has never occurred so far. A large number of economies have breached that rules without serious consequences. Thus, effectiveness of SGP is rather doubtful.

Another problem with these financial rules is that they completely ignore business cycles. In general, an economy should create budgetary surpluses if there is positive economic growth. Whereas if an economy experiences recession, it is natural that an economy creates budgetary deficits, as there is a decrease in tax revenues. The SGP neglects this fact and sets a 3 % limit regardless circumstances.

Despite facts mentioned above, the author infers that SGP has partially improved the situation. That is specifically true for smaller economies; conversely, it seems that large economies, such as Germany or France, are disregarding these rules. It is probable that they are aware of being too large and powerful to be punished.

The comparison of two small economies with two large economies is provided by the following graph N. 3.

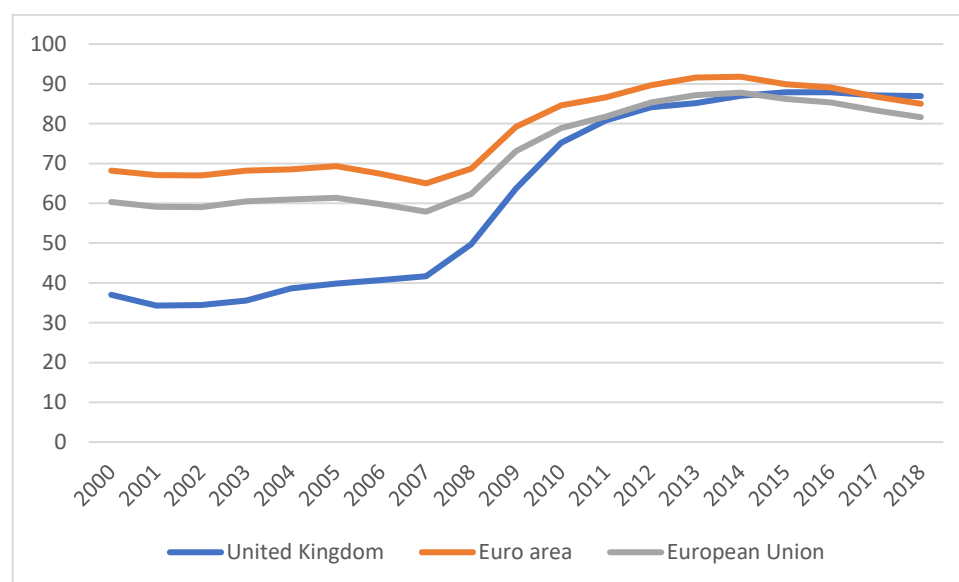
Graph 3 - General Government Debt (Percent of GDP) in Estonia, France, Germany and Latvia



The source of data: own processing (IMF, 2019a)

The following graph shows the development of general government gross debt in the UK in comparison with the average of Eurozone and the European Union. We can notice that there was rather stable growth of debt until the financial crisis. However, the crisis caused a dramatic increase of the government debt. The British government debt increased from 41.7 % to 81.8% between 2007 and 2012. That is a tremendous and anomalous increase. Currently, the debt represents 86.9 % of GDP.

Graph 4– General government gross debt in the United Kingdom, Euro area and European Union (percent of GDP)



The source of data: own processing (IMF, 2019b)

Accordingly, the UK government debt is considerably larger than the Maastricht criteria determine (60%). This size generates instable environment within the British economy and can discourage investors. Despite of modest recent growth of GDP in the UK, there should have been higher pressure on the decrease of the government debt.

Eurozone and the EU experienced growth in the government debt due to the financial crisis as well; nevertheless, the impact was not so significant as it was for the UK. It is mainly given by a closer relationship between the UK and the US.

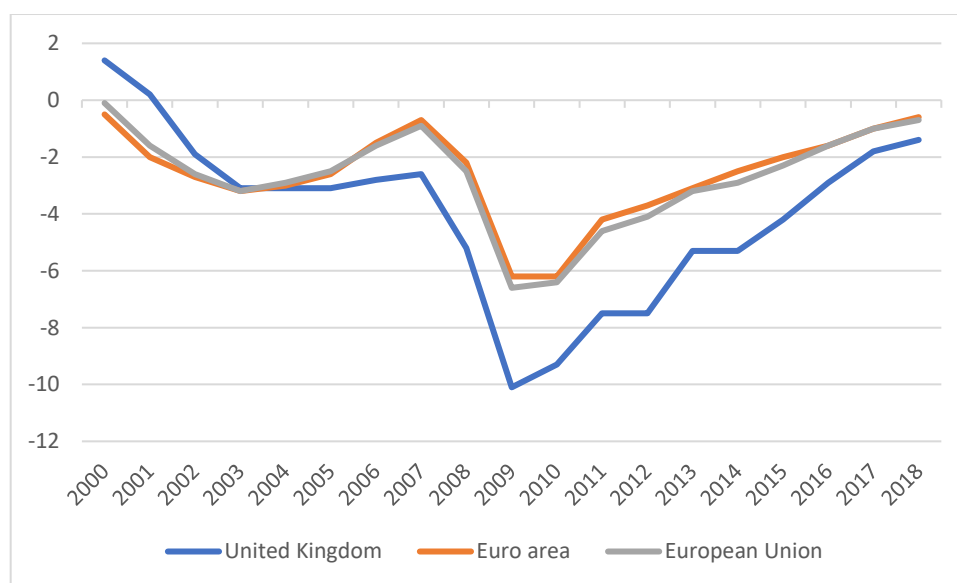
In general, the graph shows a clear trend that European countries are slightly decreasing their debt in average. The reason is little economic growth which slightly exceeded interest rates from government debts.

However, the author considers the rate of decreasing government debts being insufficient. A majority of countries are still contravening the 60% rule. Despite decent economic growth, countries do not tend to reduce their debts. That could cause other debt crises in near future.

The effect of the Brexit referendum on the government debt seems to be rather vague. There is no clear evidence that the referendum somehow influenced the size of the government debt.

The next graph illustrates likely even more important data which is the information whether the UK created budgetary surpluses or deficits. As in the previous graph, the UK is compared with the average of Eurozone and the EU.

Graph 5 - General government net lending/borrowing in the United Kingdom, Euro area and European Union (percent of GDP)



The source of data: own processing (IMF, 2019c)

The UK recorded surpluses in first two years of the period. After that, it created slight deficits until the financial crisis when the UK's deficits were vast and reached the peak of -10.1 % in 2009. Subsequently, deficits were lower but still significant. The graph provides a remarkable picture for recent years. The UK sustains a stable level of a total government debt even though it regularly creates budgetary deficits. That clearly shows that an economy can successfully reduce a ratio of the government debt on GDP despite of budgetary deficits if there is enough economic growth.

It is clear from the graph that the UK was affected by the financial crisis in much larger degree than the rest of Europe. Therefore, other members of Europe were not forced to prepare so tremendous deficits as the UK over the period of the crisis.

If we focus on Maastricht criteria, we will see that the UK did not accomplish a 3% limit of a budgetary deficit in most of the period. Specifically, the UK achieved the limit merely five times in the period from 2000 to 2018. The rest of the EU did not have considerably better results. The EU members stayed within the limit for nine times in average. Eurozone attained the limit for eight times. As we can see, breaching the limit is fairly frequent.

Nevertheless, there is a trend to produce smaller deficits. For example, the UK created a deficit of -1.4% , which seems to be insignificant, but the author is persuaded that a country should produce a surplus if it experiences positive economic growth. The UK has breached this unofficial rule for a great part of the period.

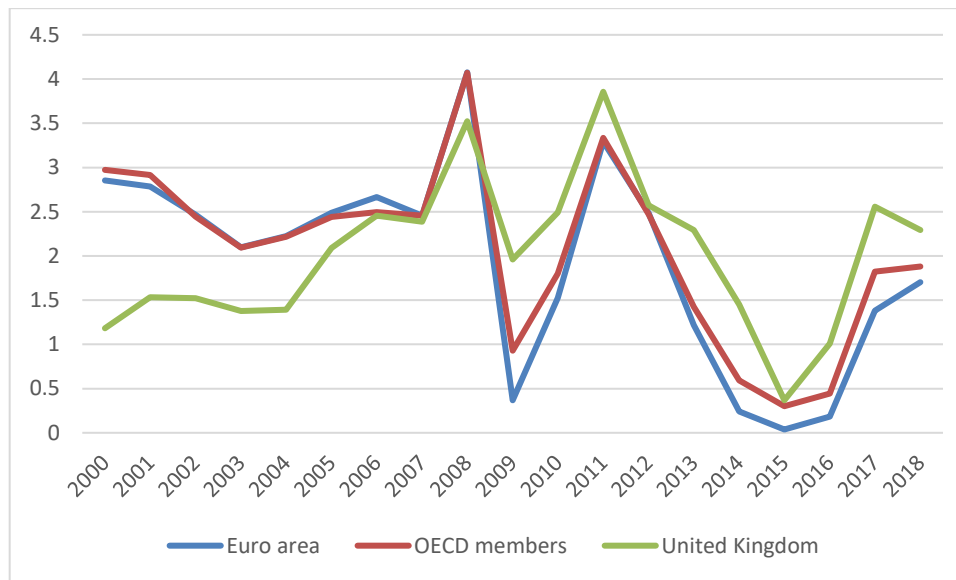
After the referendum, the UK produced rather small budgetary deficits, especially in comparison with previous years. That could imply that the government tried to reconcile the voters for remaining in Europe, as it is probable that this electorate preferred a low government debt. On the other hand, the position of the British government was fairly weak which would have rather led to high budgetary deficits, since the government deliberately overlooked the long-term consequences.

However, according to the author, the reason is plain enough. The UK experienced stable economic growth and this enabled to create lower deficits. Moreover, the development in Eurozone and the EU displayed practically the same trends. For these reasons, the effect of referendum on the public finance is negligible.

2.1.3 Inflation

This chapter is going to focus on inflation. As we discussed in the theoretical part of the thesis, inflation significantly influences condition of any economy. The graph below displays time series of inflation in the UK, the average of OECD members and the average of Eurozone.

Graph 6 – Inflation, consumer prices in the United Kingdom, the average of OECD members and Euro area members (annual %)



The source of data: own processing (World Bank, 2019f)

We can see that the development was quite similar in the UK, Eurozone and OECD countries. At the beginning of the period, the UK experienced a slightly lower inflation than Eurozone and OECD countries. Conversely, after the financial crisis, the UK experienced slightly higher inflation.

In general, the author of the thesis considers an inflation development in the UK being stable and without potential risks. The inflation rate in the UK has slightly deviated from the stipulated inflation target; however, that does not seem to be a significant issue. The UK provides stable inflation environment for investors.

The price level in the UK not considerably differs to other economies; thus, the current account of the balance of payments is not substantially affected by British inflation.

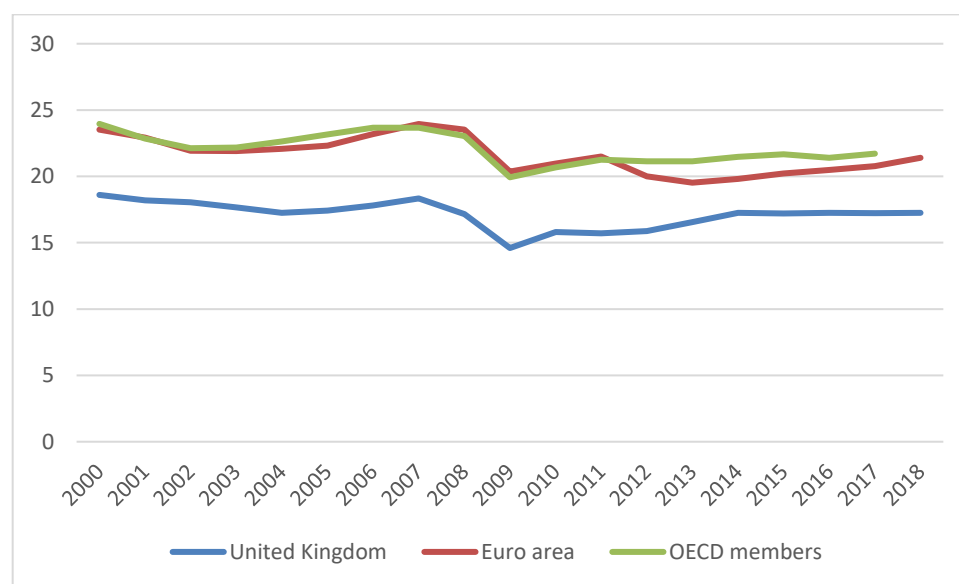
In the period from 2014 to 2016, economies faced low inflation and were seriously afraid of deflation. For that reason, the UK has carried out a huge quantitative easing and eventually reached growth of inflation. The author does not consider deflation being a real issue and is rather cautious regarding the long-term consequences of this monetary policy.

The effect of the referendum appears to be minor. The British economic policy was rather expansive which could indicate the effort of policy makers to satisfy citizens and divert attention from Brexit; nevertheless, the UK's economic policy is in line with economic policies of other economies. In addition, the effect of expansive economic policy is seen with delay and not instantly. Consequently, there is no direct connection between the referendum and inflation in the UK.

2.1.4 Savings and Investments

The next graph provides interesting comparison of gross capital formation in the UK with Eurozone and OECD.

Graph 7 – Gross capital formation (% of GDP) in the United Kingdom, the average of OECD members and Euro area members



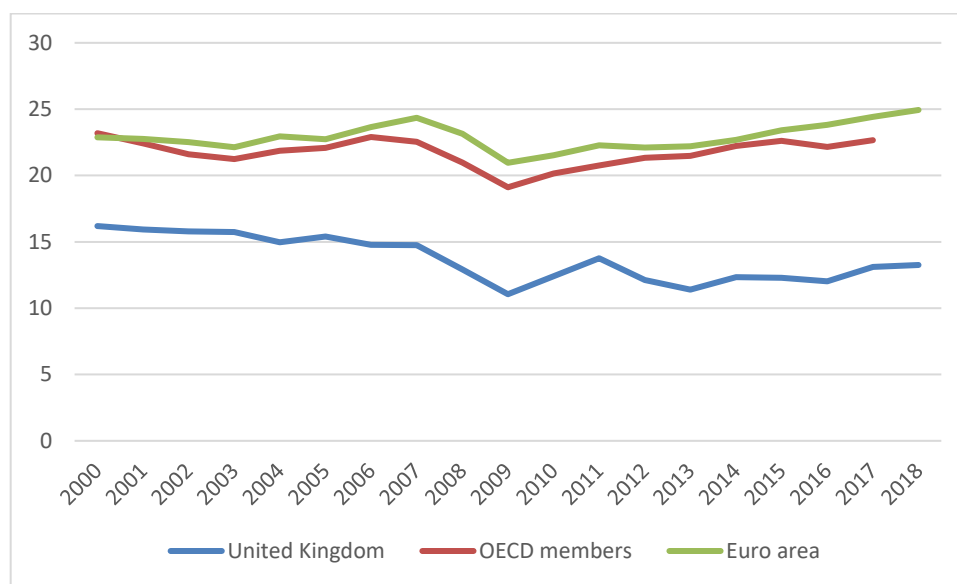
The source of data: own processing (World Bank, 2019g)

The graph shows that the development in Eurozone and OECD was nearly the same. The UK had a lower level of investments for the whole period. Generally, the development was

remarkably stable. The graph also shows a negative effect of the financial crisis on the level of investments. The UK still has a lower ratio of investments that it had before the crisis.

The following graph displays time series of gross savings.

Graph 8 – Gross savings (% of GDP) in the United Kingdom, the average of OECD members and Euro area members



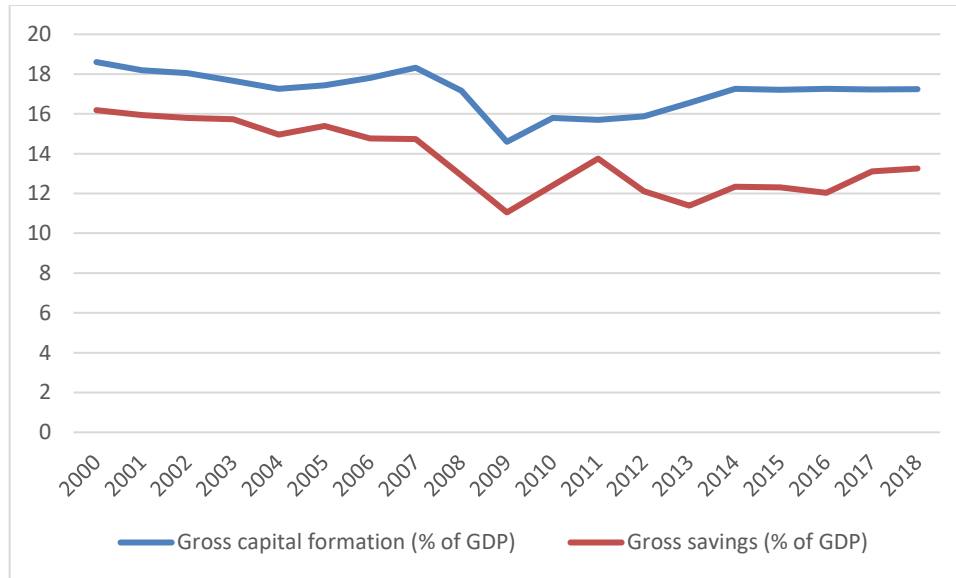
The source of data: own processing (World Bank, 2019j)

Eurozone and OECD had a higher ratio of savings on GDP than the UK for the whole period. The development was again fairly stable. The only one remarkable change occurred due to the financial crisis which caused the decrease of savings in all examined groups.

The UK experienced slight growth in savings after 2016. That could be caused by the referendum. A part of individuals might be concerned over Brexit and therefore, increase their savings. However, the increase is not significant and may be also caused by other factors.

The most beneficial graph for our analysis is the next one as it illustrates the comparison of gross savings and gross capital formation in the UK as a percentage of GDP.

Graph 9 – The development of gross savings (% of GDP) and gross capital formation (% of GDP) in the United Kingdom



The source of data: own processing (World Bank, 2019g, 2019j)

The graph clearly shows that the level of investments exceeds the level of savings. In other words, the UK is a net debtor. However, that does not mean anything harmful for the British economy. That simply means that the UK provides more investment opportunities than it can afford itself. Thus, it needs to borrow from abroad. That causes capital inflow into the British economy, as foreign investors are purchasing the British securities.

The imbalance between the rate of savings and rate of investments spills over into the imbalance of the current account of the balance of payments (hereafter “BoP”). Thus, that creates the outer imbalance as well. It is crucial to realize that the deficit of the current account of the BoP is driven by the financial account of the BoP.

As long as the UK stays attractive for foreign investors, there is no need to be concerned by the imbalance between the savings rate and the investments rate. In the author’s view, the British currency should remain attractive despite of current circumstances.

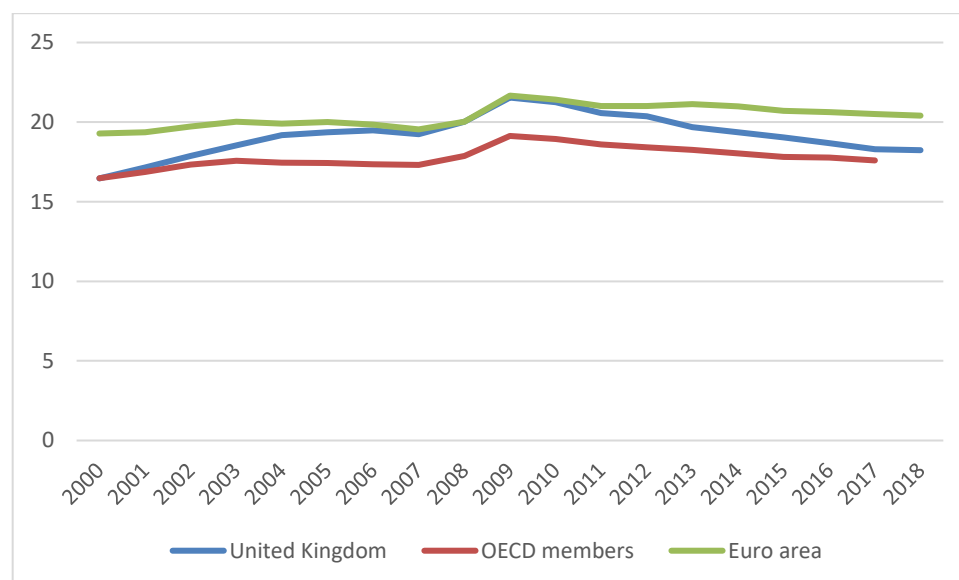
It does not seem that the Brexit referendum has somehow influenced the rate of savings or the rate of investments in country. The rate of savings slightly increased but there is no cogent argument that this increase was caused by the result of the referendum.

2.1.5 Consumption

Consumption has the largest share on GDP in most of economies. It is important for any economy to keep a stable level of consumption. A dramatic decrease of consumption usually results in economic recession. We need to distinguish between government consumption and private consumption. Whereas the government consumption has rather short term effects because it squeezes out investments and private consumption (Friedman, 1953), the private consumption is absolutely vital for economic growth.

The following graph shows government consumption as a ration of GDP in the UK, Eurozone and OECD.

Graph 10 - General government final consumption expenditure (% of GDP) in the United Kingdom and the average of OECD members and Euro area members



The source of data: own processing (World Bank, 2019i)

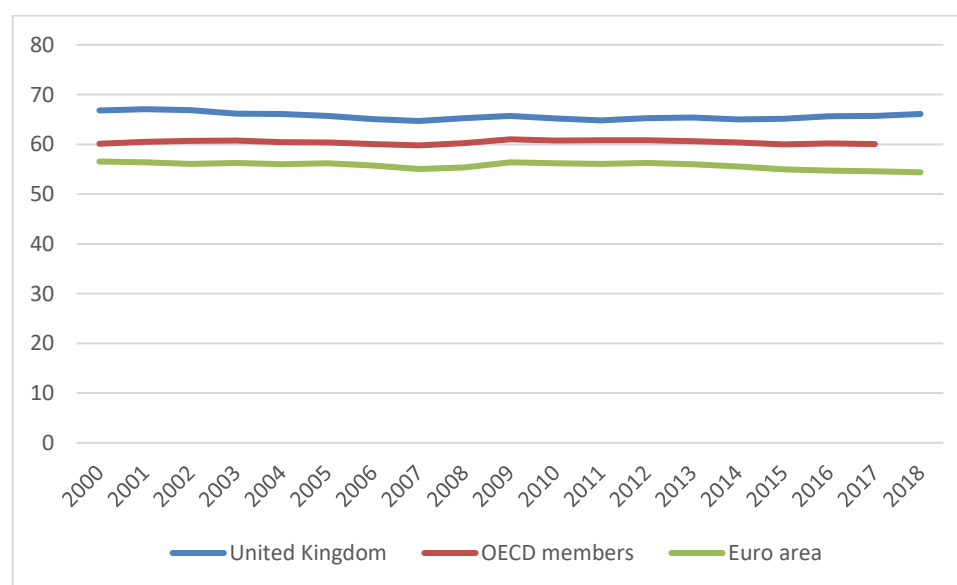
As we can see from the graph, the UK has a slightly lower level of government spending than Eurozone. The average of government expenditures in OECD countries is lower than in the UK and Eurozone.

Until the financial crisis, UK's government spending tended to increase. During the crisis, the UK government did not dramatically decrease its expenditure and due to a sharp decrease of the British GDP, the ratio of government spending on GDP accelerated. After the crisis, there was again a decreasing tendency.

Government spending decreased after 2016. A ratio of government expenditures on the GDP declined from 18.68 % to 18.23 % between 2016 and 2018. We can see that this is a negligible change and the author does not attribute that change to the referendum.

The next graph displays time series of final consumption of households and NPIHs as a ratio of GDP. NPIH's is an abbreviation of non-profit institutions serving households. These institutions are not mainly financed and controlled by government. Instances include trade unions, churches and religious societies, sports and other clubs, and political parties (Eurostat, 2019).

Graph 11 - Households and NPISHs final consumption expenditure (% of GDP) in the United Kingdom and the average of OECD members and Euro area members



The source of data: own processing (World Bank, 2019k)

The graph confirms a generally accepted theory that consumption is an extremely stable variable (FRIEDMAN & SCHWARTZ, 1963; Kuznets, 1955). At the beginning of the period, the ratio of consumption on the British GDP created 66.83%. At the end of the period, it was 66.11 %. Eurozone and OECD members experienced stable development as well.

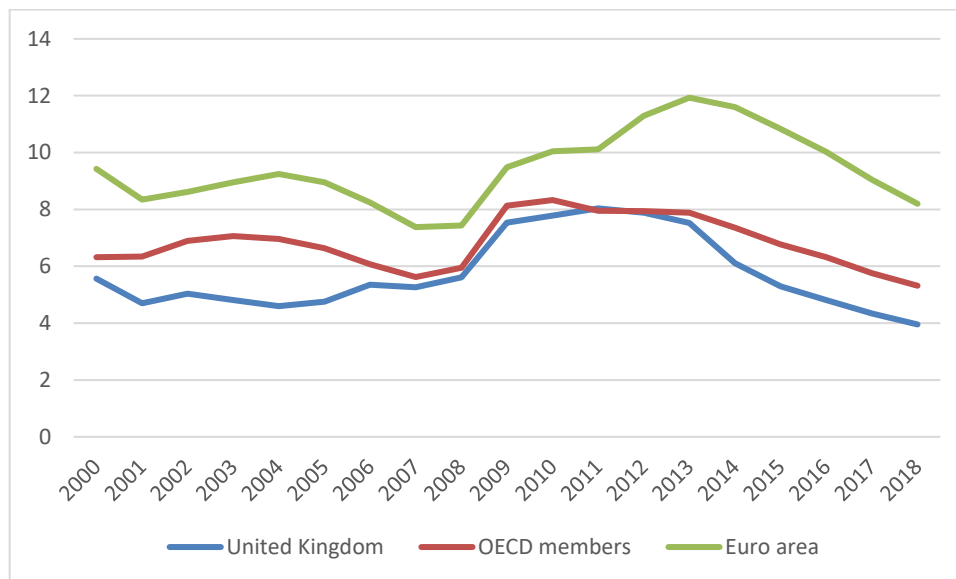
A ratio of consumption on the GDP in the UK was considerably higher than in Eurozone and even higher than the average of OECD members. The author of the thesis affirms that consumption is a crucial draught - horse of British economy.

Changes in British consumption are such insignificant from 2016 that we cannot observe any relationships between the referendum and the development of consumption.

2.1.6 Labor Market

This chapter will focus on the situation in the labor market. The next graph shows a development of a total unemployment rate in the UK, Eurozone and OECD.

Graph 12 - Unemployment, total (% of total labor force) in the United Kingdom and the average of OECD members and Euro area members



The source of data: own processing (World Bank, 2019m)

The graph provides valuable data. We will start with the development in the UK. Time series shows that an unemployment rate was quite stable. The financial crisis resulted in an increase

of unemployment; however, that increase was not so remarkable. After the crisis, the UK successfully decreased an unemployment rate.

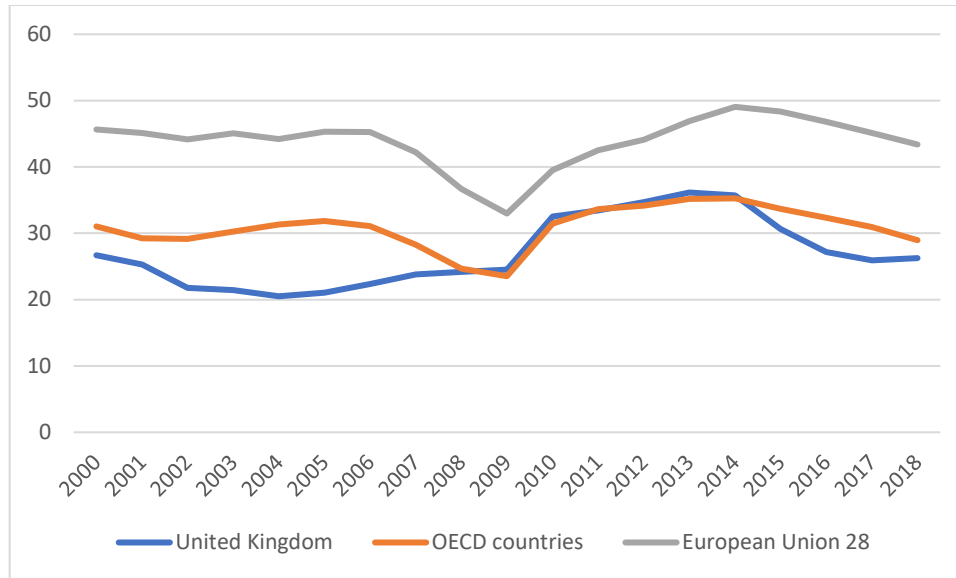
Eurozone suffered a considerably higher unemployment rate reaching a peak in 2013, when the unemployment rate was 11.93 %. That level means serious harms for economy, as a crucial production factor is not utilized. OECD experienced a slightly higher unemployment rate than the UK.

In general, the author of the master's thesis considers a level of the British unemployment rate being rather low. A current level is 3.93 %, which is a natural level without any harms for the British economy. That fact is also confirmed if we compare the UK' unemployment rate with the unemployment rate of OECD and Eurozone.

The effect of the Brexit referendum is negligible, since the development in the UK is in line with the development in other countries. In author's view, the UK is going to experience a slight decrease in its unemployment rate in the long run despite of Brexit. The reason is digitalization and robotization. That should help to successfully replace uneducated labor force from different countries that will miss due to stricter restrictions on mobility of people.

The next graph shows a ratio of the long – term unemployment rate on the total unemployment rate.

Graph 13 – Long- term unemployment rate (% of total labor force) in the United Kingdom, the average of OECD members and European Union members



Source of data: own processing (OECD, 2019a)

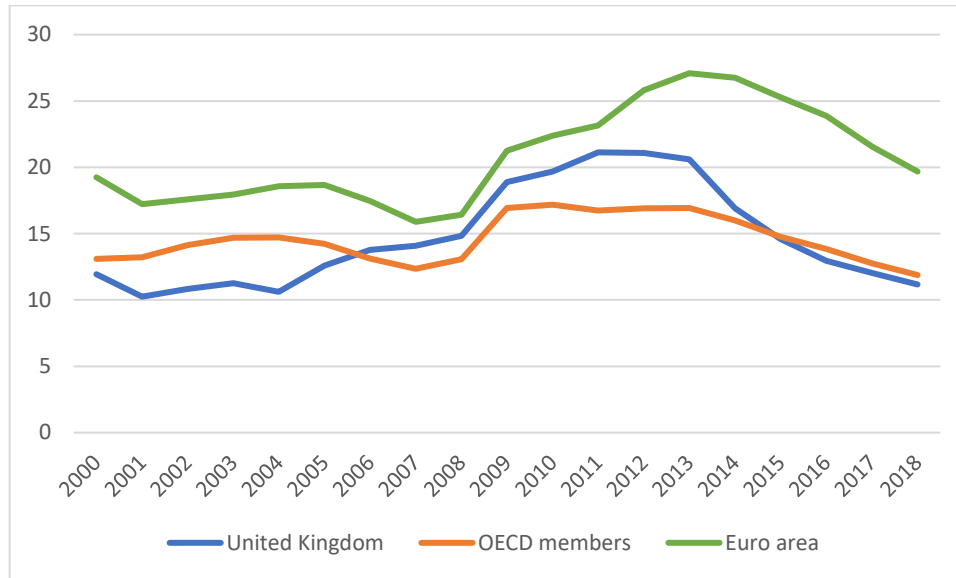
The long - term unemployment rate is defined as the percentage of people that have been unemployed for twelve months or more from the total unemployment rate (OECD, 2019h).

The long-term unemployment rate usually remains persistent as these people are low - motivated to find a job. They often lost their working habits or became disable to cooperate with other people.

We can see that the UK had a low ratio of the long - term unemployment rate on the total unemployment rate. That indicates that the UK should be able to even decrease its already low level of an unemployment rate. Conversely, the average of the EU is remarkably high and intimates that a high unemployment rate will persist in the EU as it is difficult to reduce the long-term unemployment rate.

The following graph shows the unemployment rate of young people.

Graph 14 - Unemployment, youth total (% of total labor force ages 15-24) in the United Kingdom, the average of OECD members and Euro area members



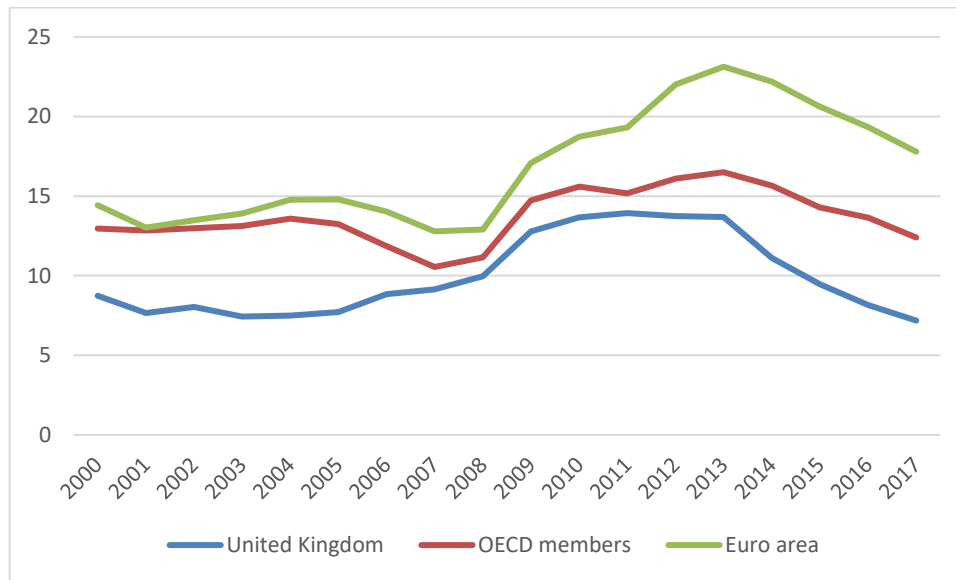
The source of data: own processing (World Bank, 2019o)

The UK successfully reduced a youth unemployment rate over the period and it currently amounts 11.88 %. That implies efficient cooperation between the education system and the labor market in the UK. On the contrary, Eurozone suffered a significantly high youth unemployment rate reached a peak in 2013 with 27.09 %.

In author's view, the unemployment rate of young people in the UK is low. It is obvious that this rate will always exceed a general unemployment rate, for the expectations of youth regarding their wages are often unrealistic.

The next graph illustrates the unemployment rate of people with basic education.

Graph 15 - Unemployment with basic education (% of total labor force with basic education) in the United Kingdom, the average of OECD members and Euro area members



The source of data: own processing (World Bank, 2019n)

This graph was picked due to Brexit. We can see that the unemployment rate of uneducated people in the UK is currently 7.18 %, which exceeds a general unemployment rate in the UK.

It has been often argued that low skilled workers who move to the UK help to reduce the unemployment as they are willing to work in industries which are not attractive for British citizens. However, that argument seems to be anecdotal. As we can prove from the data, the UK does not need a higher number of unskilled migrants as it has its own sources of unskilled workers. There is no reason to think that these workers will not be willing to perform some kinds of jobs.

Furthermore, unskilled workers will not be needed in near future due to progress in technologies and an arrival of artificial intelligence. Thus, massive inflow of low skilled workers will eventually cause serious harms for the British economy as these workers will become unemployed and the UK's government will be obliged to pay them social benefits.

The last graph in this section relates to growth in real wages and growth in labor productivity. As it was explained in the theoretical part, the relationship between real wages and labor

productivity is vital for the evaluation of inner equilibrium. It is important for economic growth so that growth in real wages was covered by growth in labor productivity. In other words, growth in labor productivity should exceed growth in real wages.

Graph 16 – Growth in real wages and growth in labor productivity



The source of data: own processing and calculation (ONS, 2019c, 2019b; World Bank, 2019g)

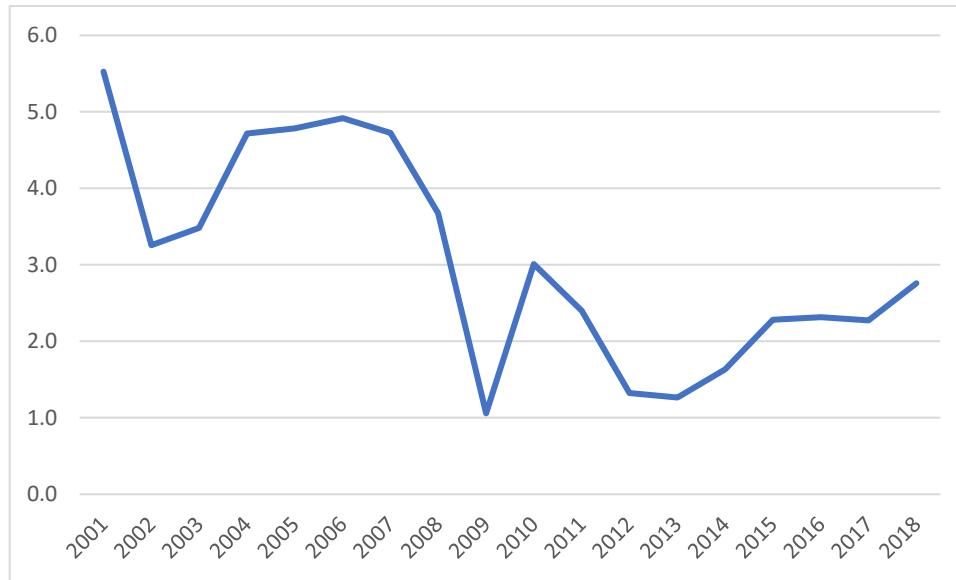
The graph shows that growth in real wages dramatically exceeded growth in labor productivity until the financial crisis. The author is persuaded that such unrestrained growth in real wages significantly contributed to the extent of the financial crisis in the UK.

After the financial crisis, growth in labor productivity exceeded growth in real wages. This is a positive precondition for future economic growth. The difference was 0.6 % in 2018. However, growth in labor productivity was rather poor over last years; for example, labor productivity growth reached only 1.1 % in 2018 which is rather slow growth.

The graph displays notable fluctuations in real wages in both directions. It is surprising that real wages decreased in several years.

Changes in nominal wages are displayed in the following graph.

Graph 17 – Growth in nominal wages in the UK



The source of data: ow processing (ONS, 2019c)

The graph shows that the rate of growth strongly varied over the period. There was a huge drop in the rate of growth after the financial crisis occurred. We can observe a growing tendency in recent years.

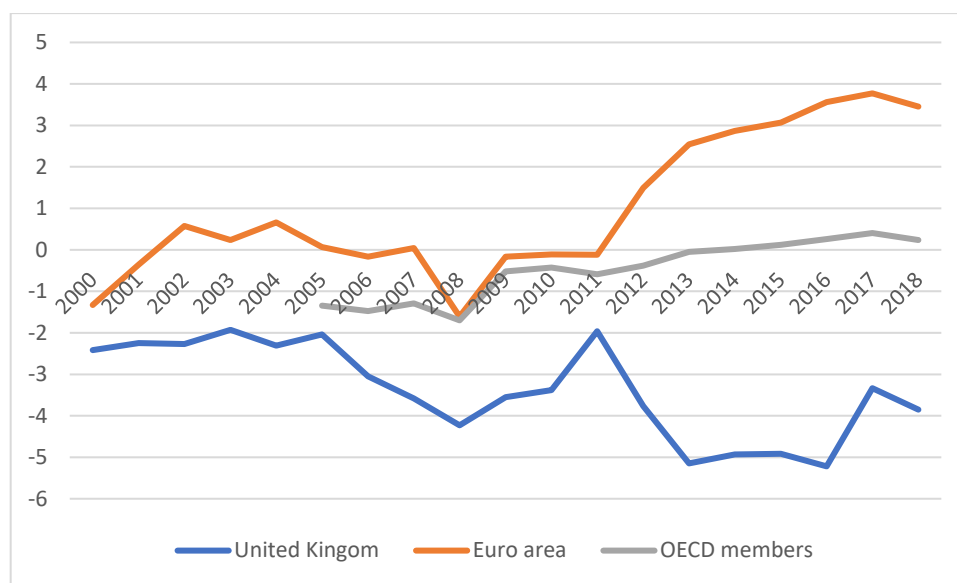
A generally accepted new Keynesian theory claims that wages are sticky-down, at least in the short run (Dixon & Hansen, 1999; Hall, 2005). In other words, deflation should not lead to a decrease in wages. We cannot confirm that from our data as the UK did not experience deflation. Nevertheless, we can conclude from the data that wages are definitely not sticky-up as their growth exceeded inflation in a great part of the period. We can also observe that lower growth of inflation leads to lower growth of wages. In general, wages in the UK do not seem to be really rigid. A case in point is a drop in the rate of wages growth during the financial crisis.

2.2.1 Indicators of Outer Equilibrium

2.2.2 Balance of Payments

This chapter is going to focus on outer equilibrium. The first graph in that chapter shows current account balance as a percentage of GDP.

Graph 18 – Current account balance, total % of GDP in the United Kingdom, the average of OECD members and Euro area members



The source of data: own processing (OECD, 2019b)

The graph illustrates a large difference between the UK and Eurozone. Whereas Eurozone has experienced a positive balance of the current account (hereafter “CA”) in most of the period, the UK has experienced the deficit of the CA during the whole period. OECD has recorded the balance of CA around zero.

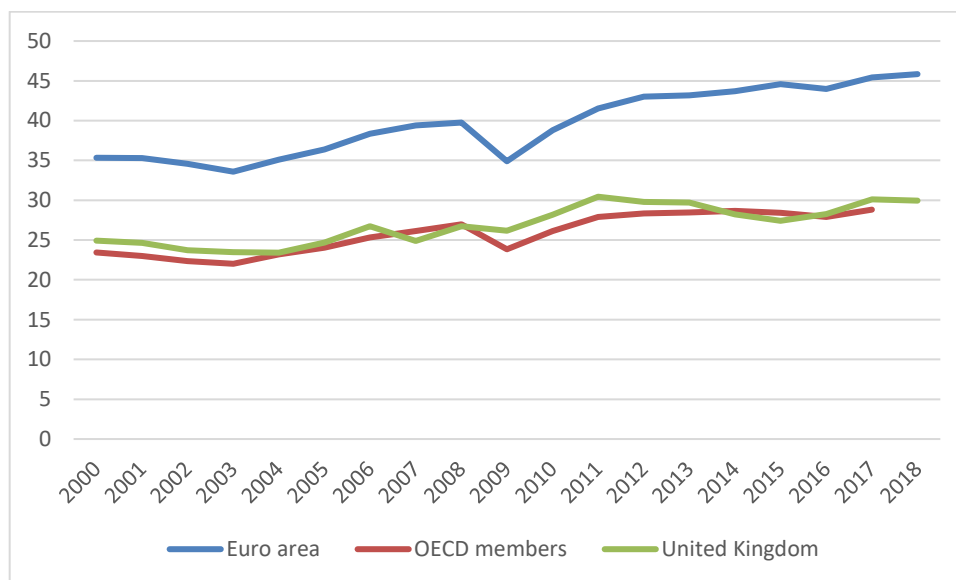
At the first sight, it seems that the UK’s deficit indicates something harmful. According to the author, the UK does not need to be worried by this deficit. The CA of the BoP is driven by the financial account of BoP and the surplus of the financial account infers that the British securities are attractive for investors.

A high demand for the British currency causes its appreciation; accordingly, British goods and services become relatively less competitive which leads to a general decrease in imports.

In addition, the UK's deficit is insignificant. It has not exceeded the boundary of 5 % which is considered being harmful for economy (Czesaný, 2006).

The next indicators to be analyzed are exports and imports of goods and services as a percentage of GDP.

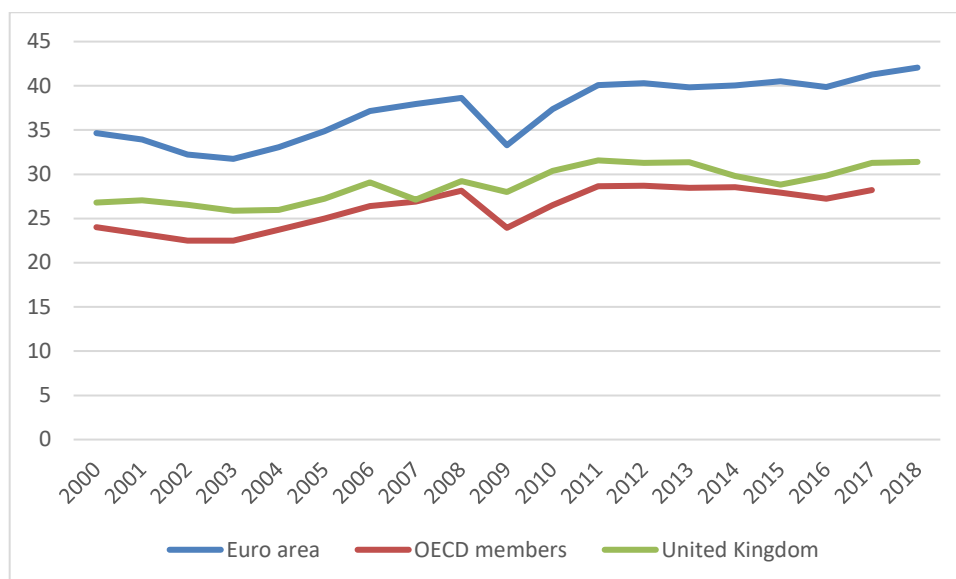
Graph 19 - Exports of goods and services (% of GDP) in the United Kingdom, the average of OECD members and Euro area members



The source of data: own processing(World Bank, 2019h)

A rate of exports was without significant fluctuations in the UK. A ratio of exports on the GDP has been around 25 % in a great part of the period. The development in the UK has almost copied the development in OECD countries. Eurozone has experienced a larger ratio of exports.

Graph 20 – Imports of goods and services (% of GDP) in the United Kingdom, the average of OECD members and Euro area members



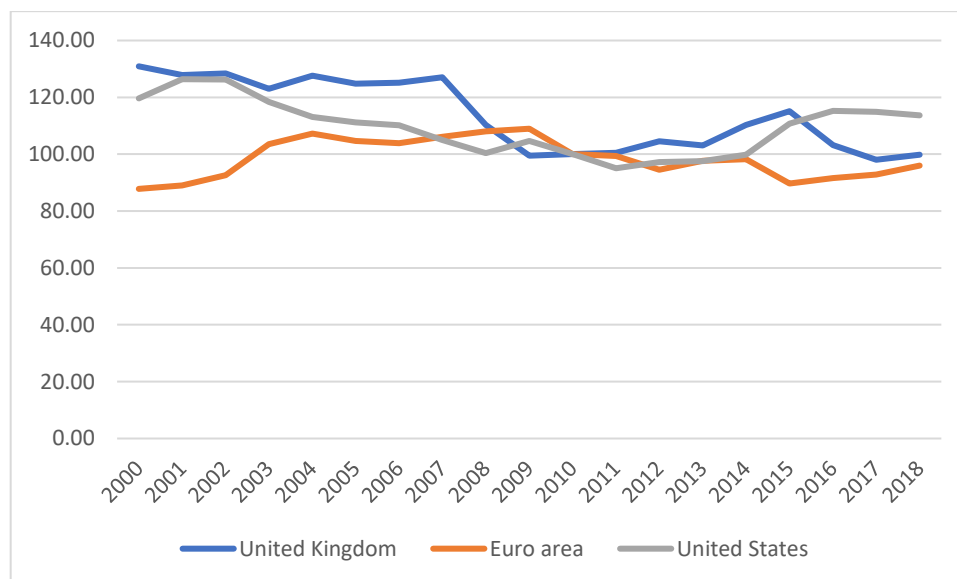
The source of data: own processing(World Bank, 2019l)

A ratio of imports on the GDP is similar as a ratio of exports on the GDP. Imports in the UK were slightly higher than exports; accordingly, the UK has experienced a minor deficit of trade balance.

British imports have exceeded the average of OECD members, but were lower than the average of Eurozone.

The graph below shows a real broad effective exchange rate for the UK, Eurozone and the US. *Real effective exchange rates are calculated as weighted averages of bilateral exchange rates adjusted by relative consumer prices* (Bank for International Settlements, 1994).

Graph 21 - Real Broad Effective Exchange Rate, Index 2010=100 for the United Kingdom, Euro area and the United States



The source of data: own processing (Bank for International Settlements, 2019)

This indicator is important for the evaluation of competitiveness of a particular economy. A real broad effective exchange rate which is higher than 100 % indicates higher competitiveness of an economy. On the contrary, a real broad effective exchange rate lower than 100 % implies lower competitiveness (ČSÚ, 2019).

As we can see from the graph, the UK's effective exchange rate has varied over the period. In 2018, an effective exchange rate was almost 100 %. It is a slightly higher than the Eurozone's average but lower than an effective exchange rate in the US.

The Brexit referendum does not appear to somehow affect the development of any indicator of outer equilibrium.

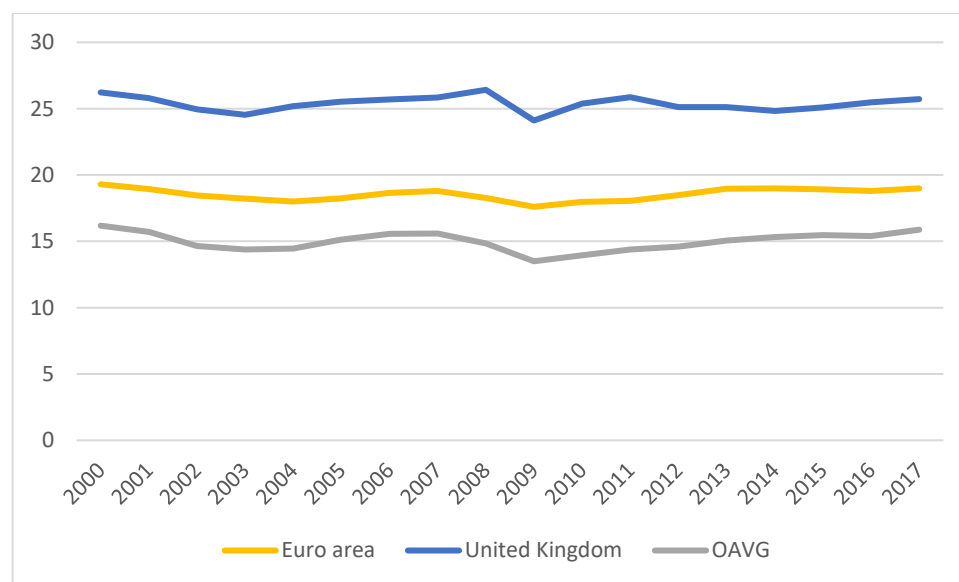
2.3 Economic Policy

2.3.1 Fiscal Policy

A fiscal policy is conducted by the UK's government. We have already analyzed financial indicators in the text on public finance contained in the previous chapters, where we have dealt with the government debt and government budgets. We have also analyzed public spending in the chapter Consumption. This chapter will mainly focus on a tax policy.

The next graph shows the development of tax revenue as a percentage of the GDP. Tax revenue refers to mandatory transfers to the central government for public purposes. Certain mandatory transfers, for example fines, penalties, and most of social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue (World Bank, 2019e).

Graph 22 - Tax revenue (% of GDP) - United Kingdom, OECD members, Euro area



The source of data: own processing (World Bank, 2019e)

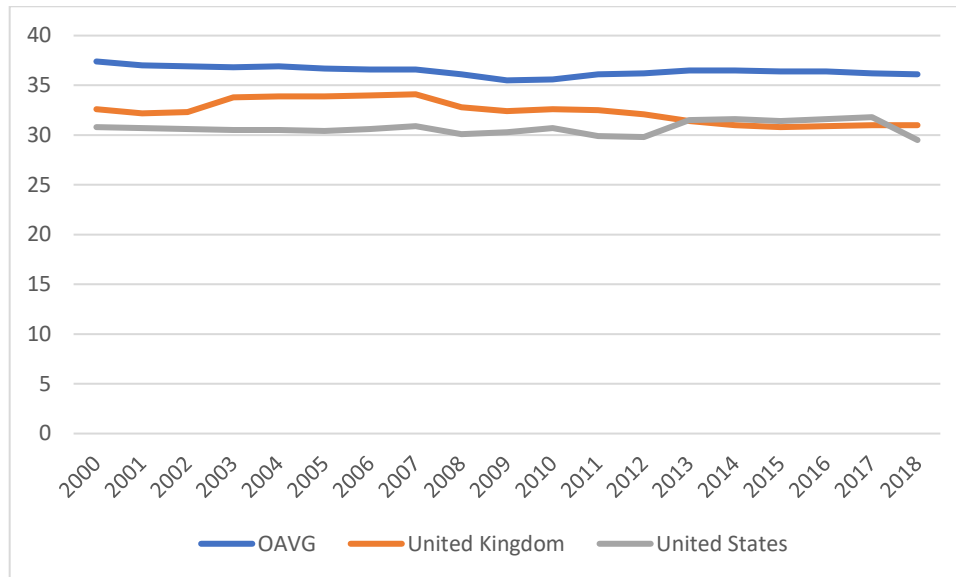
The data show that the UK collected a stable percentage of tax revenues during the period, slightly fluctuating around 25% of GDP. The highest percentage was collected in 2008, particularly 26.42 %. The lowest point was reached in 2009 due to the financial crisis. Tax revenues dropped to 24.10 % of the GDP.

The British tax revenues considerably exceeded the average of Eurozone and the average of OECD members. That could be caused by two factors. The first reason might be that the UK set significantly higher tax rates than other countries. We will investigate particular tax rates in next paragraphs, and we will observe that there are not large differences between tax rates of particular economies. Thus, the author does not consider that to be an important factor. Moreover, higher tax rates do not necessarily mean higher tax revenues as it was proved by the Laffer curve (Wanniski, 1978).

The second reason, which is, according to the author, valid, is that the UK is more efficient in collecting taxes. In the author's opinion, it is given by an advanced level of E- governance in the UK.

Another graph displays average tax wedges. The UK is compared with the US and with the average of OECD. OECD describes tax wedge in the following way *“Tax wedge is defined as the ratio between the amount of taxes paid by an average single worker (a single person at 100% of average earnings) without children and the corresponding total labor cost for the employer. The average tax wedge measures the extent to which tax on labor income discourages employment. This indicator is measured in percentage of labor cost “* (OECD, 2019g). As we can see from the description, this indicator provides valuable information. Countries with significantly high tax wedge might suffer a higher unemployment rate since firms might be discouraged to employ workers due to high labor costs.

Graph 23 - Average tax wedge - single person, % - United Kingdom, OECD members, United States



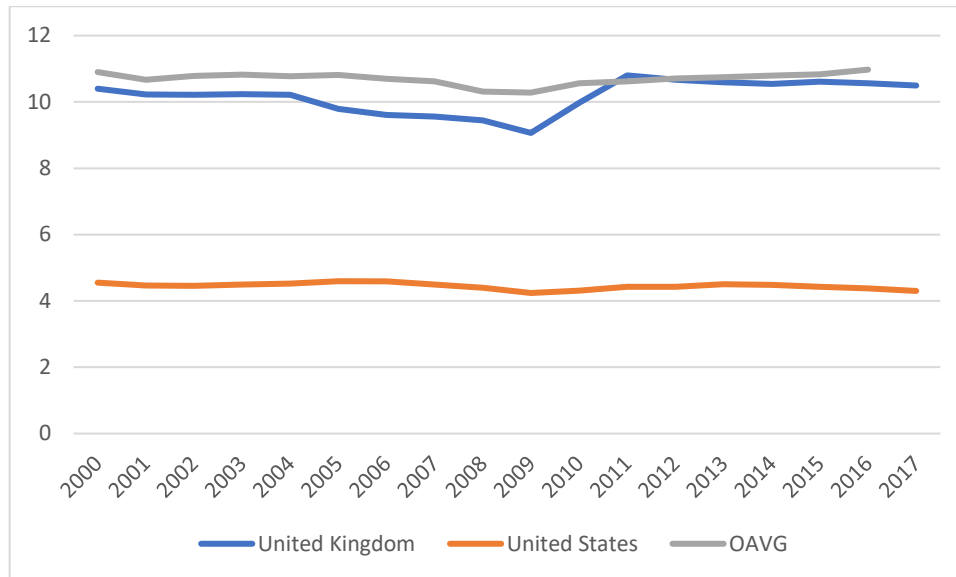
The source of data: own processing (OECD, 2019g)

The UK maintained tax wedge under the average of OECD in the whole period. A rather low tax wedge in the UK contributes to keep a low unemployment rate. We can also see from the graph that there is a deteriorating tendency in the British tax wedge. The UK recorded a slightly higher tax wedge than the US in a great part of the period; however, the difference was not significant.

The next graph focuses on taxes imposed on goods and services. The author argues that this tax rate is crucial as it affects final consumption of households which is the most significant component of the GDP. Thus, this tax rate directly affects economic growth.

In practice, the most common examples of taxes on goods and services are value added taxes and sales taxes (OECD, 2019d). Value added taxes are usually levied on goods and services in European countries. Sales taxes are used in the USA. The author claims that sales taxes are more efficient than VAT, mainly for their simplicity. That helps to easily track any transaction; therefore, there should be a lower rate of tax evasion in economies with sales taxes.

Graph 24 – Tax on goods and services – Total, % of GDP – United Kingdom, OECD members, United States

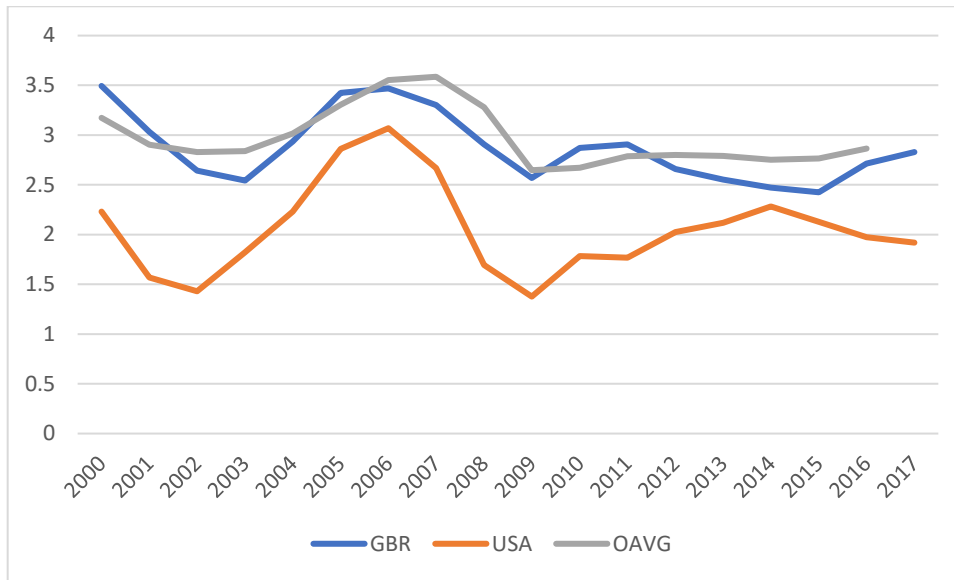


The source of data: own processing (OECD, 2019d)

The graph reveals that the UK had a slightly lower level of a tax rate than the average of the OECD. If we compare the UK with the US, we will see that the US set its tax rate significantly lower than the UK. Nevertheless, the author needs to emphasize that there are considerable differences in sales taxes among particular states in the US. An average rate of sales taxes in the US is also given by the fact that some US states, for example Oregon or Montana, have a zero sales tax (FRED, 2019). That significantly affects the average. For this reason, the author focuses mainly on the comparison with the average of the OECD where the UK reached a positive result.

The next graph displays a tax rate on corporate profits. This tax rate is crucial as well, since it affects the level of production in an economy. If a country sets high corporate taxes, companies might transfer their production abroad or even close their production. High corporate taxes also lead to tax evasion.

Graph 25 - Tax on corporate profits – Total % of GDP – United Kingdom, OECD members, United States



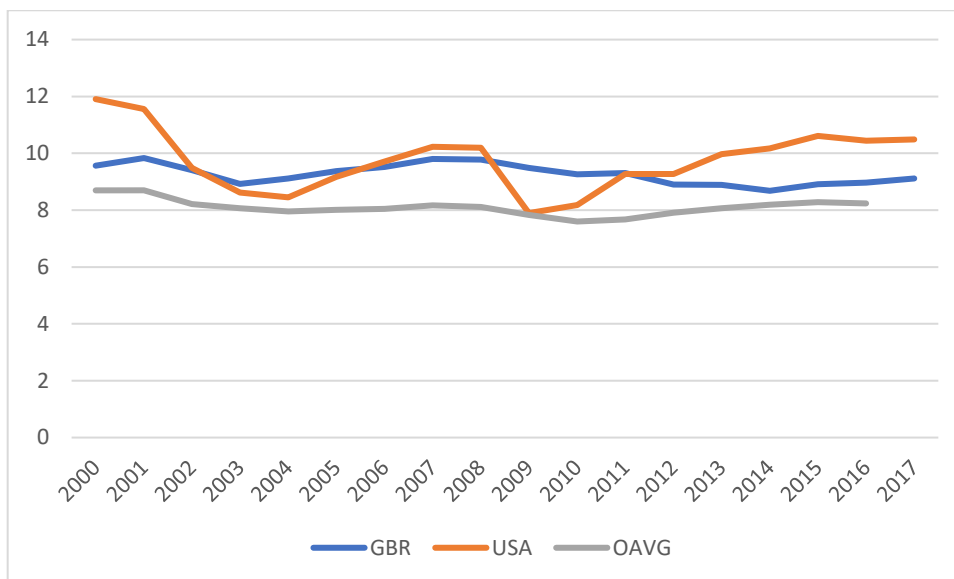
The source of data: own processing (OECD, 2019c)

The data shows similar results for the UK and the average of OECD members. The UK had a slightly lower ratio of corporate taxes on the GDP than the average of OECD. The USA attained a lower ratio than the UK.

The author of the master's thesis considers the tax on corporate profits being rather low in the UK, thus not giving British firms reasons to look for locations with lower corporate tax rates. Lower taxes on corporate profits in the USA are given by differences between these economies. The author asserts that there is still room for cutting corporate taxes in the UK; however, he should focus on cuts in taxes levied on consumption instead of income taxes.

Another graph displays taxes on personal income. Tax on personal income includes taxes levied on the net income and capital gains of individuals (OECD, 2019e). That indicator is important too as it affects consumption of individuals. Personal income taxes decrease disposable income of individuals; consequently, they could afford to spend less on goods and services.

Graph 26 – Tax on personal income – total % of GDP – United Kingdom, OECD members, United States



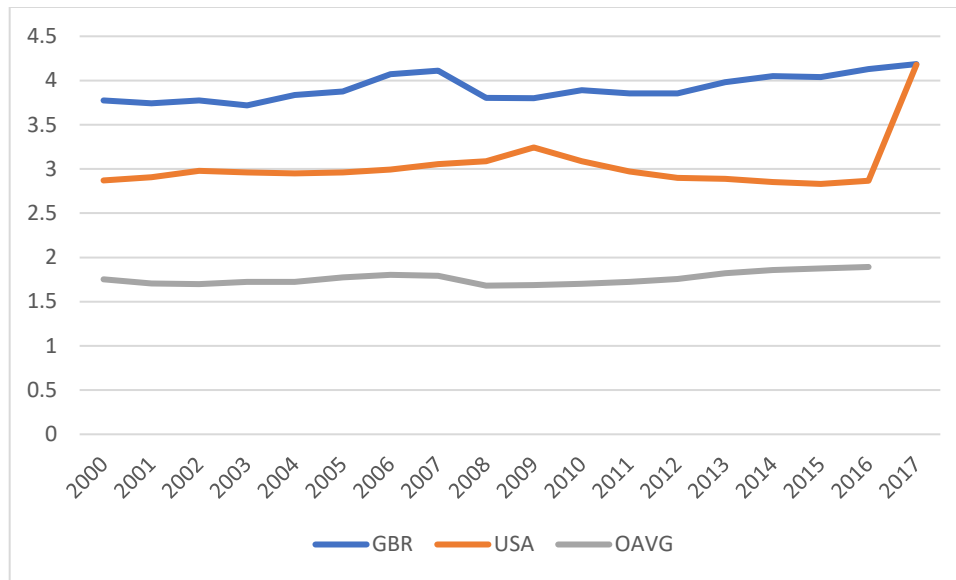
The source of data: own processing (OECD, 2019e)

The graph illustrates that a ratio of tax on personal income on the GDP in the UK was fairly stable over the period. The UK reached a higher ratio than the average of OECD, but a lower ratio than the USA in most of the period. The USA had higher personal income taxes, for it uses sales taxes instead of VAT. Sales taxes were lower in average as we examined earlier in the thesis. Thus, the total tax on personal consumption is lower in the USA.

The author argues that a tax rate on personal income in the UK is not considerably large. He would prefer imposing this tax to direct taxes on consumption. Consumption taxes usually have different rates for particular goods which cause distortions in the market as individuals are influenced in their decisions regarding what sort of goods they purchase.

The next graph illustrates taxation of properties. This indicator measures taxes on the use, ownership or transfer of property.

Graph 27 – Tax on property – total % of GDP – United Kingdom, OECD members, United States



The source of data: own processing (OECD, 2019f)

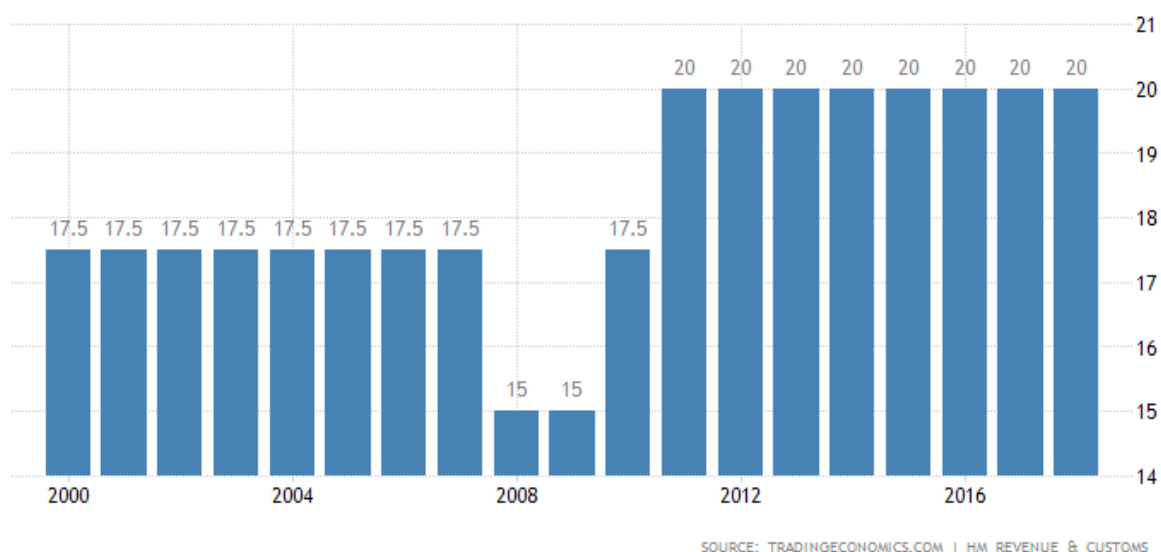
The graph presents that the UK experienced a higher ratio of tax on property than the USA and the OECD members average.

At the first sight, the effect on economic growth seems to be rather marginal as property tax rates are usually insignificant. However, the author does not agree. Taxation of property might significantly influence a number of transactions. A large number of individuals might make their decisions of purchasing property on the base of property tax rate. As we analyzed earlier, the number of transactions is crucial for stable economic growth. High property taxes could also lead to unwillingness of individuals to own properties which would cause a decline in investments and production. This would lead to both a decline in the GDP and an increase in prices. A general increase in prices would cause that individuals would have lower income to spend; thus, there would be an additional decrease in the GDP.

The author of the thesis is persuaded that abolition of property taxes would support economic growth. The UK should, at least, decrease the level of property taxes on the level of OECD average.

The last part of the chapter will analyze particular tax rates in relation with an executed fiscal policy. The following graph shows consumption tax rates.

Graph 28 – Value added tax rate in the UK



The source of data: (TRADINGECONOMICS, 2019c)

At first, we need to mention this VAT rate is not levied on all goods and services. The UK applies VAT rates of 0% and 5% to a number of goods and services. The British government uses reduced rates mainly for children's food and clothes (GOV.UK, 2019c).

A VAT rate in the UK remained stable until the financial crisis. After that, the UK government decided to reduce the rate to 15% in order to boost consumption and overcome recession. When the British economy recovered, the UK's government increased the rate to the preceding level. In 2011 the rate was increased again, up to the current 20%.

In the author's view, the government made a right decision during the financial crisis when it performed an expansive fiscal policy. In order to overcome the crisis, the UK needed to cease a sharp drop in household consumption. If the UK had decided to increase tax rates on consumption in order to collect additional revenue, the economy would have been paralyzed by recession for a significantly longer period.

It was also crucial that fiscal and monetary policies were conducted in a close relationship. Both policies were strongly expansive.

The next graph displays the development of corporate tax rates. The UK uses progressive taxation. There are two corporate tax rates. The first one is for companies with annual profits above £300,000. The second one is for companies with annual profits below £300,000. The difference between those tax rates is significant; for example, a current rate for companies with profits above £300,000 is 30% whereas a current rate for companies with profits below £300,000 is 19% (GOV.UK, 2019b). The author considers the latter being more important as there are more firms with profits under £300,000; therefore, we will focus on this rate.

Graph 29 – Corporate tax rate in the UK



The source of data: (TRADINGECONOMICS, 2019a)

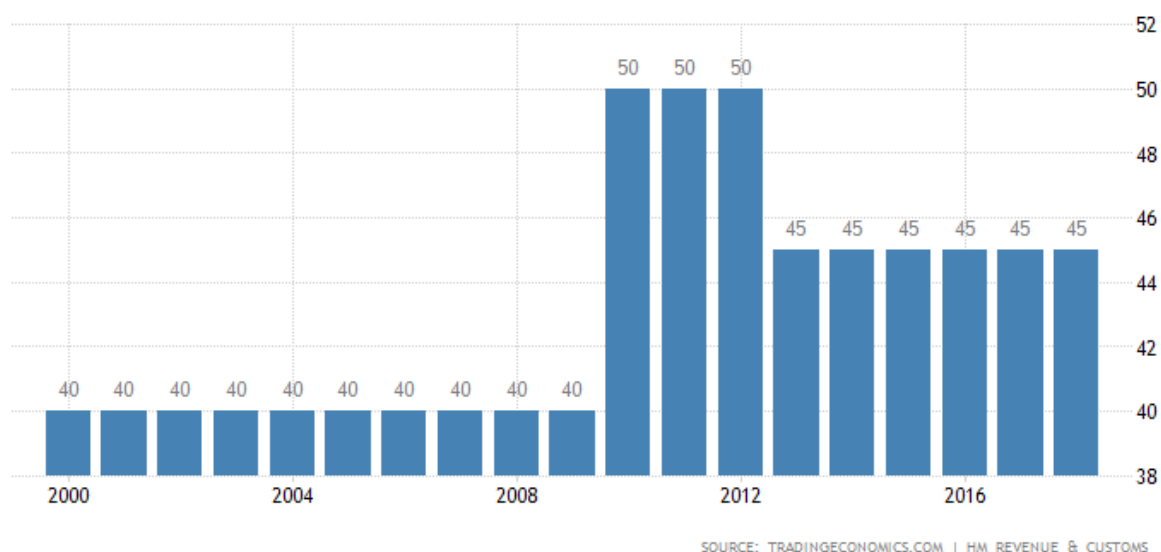
There is an obvious declining tendency in corporate tax rates since 2008. It appears to be clear that the government has been trying to support production by reducing corporate taxes. Low corporate tax rates also lure foreign companies to move their production to the UK.

The author agrees with the reduction of corporate taxes and considers a current level of 19 % being appropriate for economic environment. However, he would be against another reduction of corporate taxes as that might result in budget deficits due to the lack of tax revenues. He is also skeptical that another reduction would boost the economy.

The last graph in this part of the chapter illustrates a personal income tax rate in the UK. The UK uses progressive taxation also for personal income taxes. There are currently four bands.

Personal allowance, which relates to yearly income up to £12,500, is taxed by 0% rate. A basic rate, which relates to income from £12,501 to £50,000, is taxed by 20 % rate. A higher rate, which is used for income from £50,001 to £150,000, is taxed by 40% rate. An additional rate, which relates to income over £150,000, is taxed by 45% (GOV.UK, 2019a). We will examine the additional rate as this rate has gone through major changes over last decades.

Graph 30 – Personal income tax rate in the UK



The source of data: (TRADINGECONOMICS, 2019b)

As we can see from the graph, an additional tax rate remained unchanged until 2010. Subsequently, the government needed additional tax revenues due to a decline in the GDP; thus, the rate was increased to 50%. The rate was decreased in 2013 to the current rate of 45%.

The author understands the necessity to gain additional revenues for the government budget; accordingly, he would agree with the government's decision to temporary increase the highest band of a personal income tax rate. There are two reasons for that. Firstly, the UK had already overcome the worst period of the crisis. Secondly, the government increased income taxes for the richest individuals. Consumption of the richest is usually fairly stable; thus, there was not threat of deepening the crisis. However, the author claims that the government should have returned a tax rate to 40% after 2012 and not only decreased the rate to 45%.

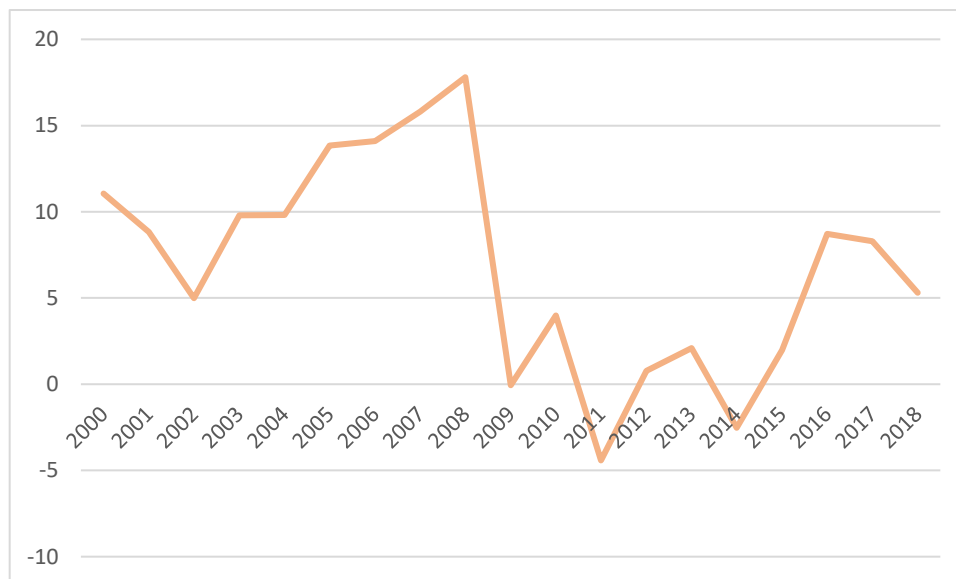
2.3.2 Monetary Policy

As we have already mentioned in the theoretical part of the thesis, a monetary policy of the United Kingdom is conducted by the Bank of England. However, the inflation target is stipulated by the UK's government, while the BoE is only responsible to keep that target (Bank of England, 2019b).

The first monetary indicator which will be analyzed is annual broad money growth. Broad money includes the sum of currency, demand deposits, time deposits, savings deposits, foreign currency deposits, bank checks, travelers checks and securities, such as certificates of deposit or commercial paper (World Bank, 2019a).

The next graph shows annual growth in broad money in the UK between 2000 and 2018.

Graph 31 - Broad Money Growth (Annual %) in the United Kingdom



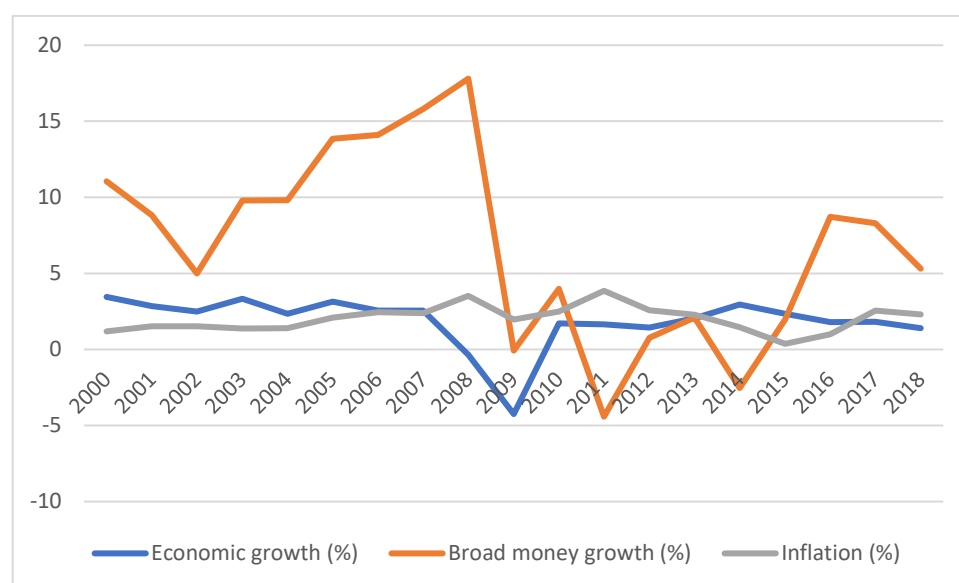
The source of data: own processing (World Bank, 2019b)

The graph illustrates that growth in broad money varies over the period. The highest growth was recorded in 2008 when growth reached 17.80 %. After the financial crisis, broad money growth was noticeably lower and reached even negative values in 2009, 2011 and 2014. Nevertheless, growth in broad money was again fairly high after 2014 and reached even 8.71 % in 2016.

In the author's view, it is difficult to define optimal growth of money. It is necessary to create new money in order to boost economic growth; however, excessive growth of money eventually merely leads to high inflation (Friedman, 1956).

The graph below compares growth in broad money with growth in the GDP and with growth in inflation.

Graph 32 – Economic growth (%), broad money growth (%) and inflation (%) in the UK



The source of data : own processing (World Bank, 2019b, 2019c)

Growth of money dramatically exceeded growth of the British GDP and growth in inflation in a great part of the period. In general, growth of money should be equal to the sum of economic growth, inflation growth and velocity of money² (Keynes, 1935).

The UK carried out an expansive monetary policy between 2000 and 2008. There was huge creation of new money. However, this massive amount of new money did not really stimulate economic growth which remained rather stable. In the author's view, excessive creation of money also helped to deepen economic recession in the UK. The BoE should have increased an official bank rate in the period before the financial crisis. That would have prevented such

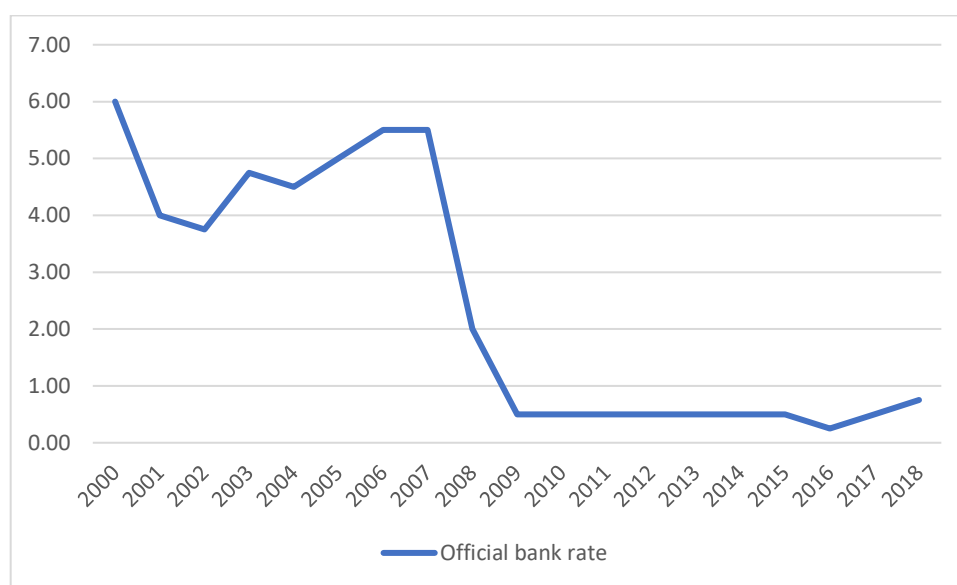
² The velocity of money is the number of times one British pound is spent to buy goods and services per unit of time. An increase in the velocity of money means that the number of transactions in an economy is increasing (Federal Reserve Bank of St. Louis, 2019).

expansive creation of money which were caused by high number of loans granted. Another option was to establish a stricter regulation on the amount of loans. That would have also prevented such enormous money creation.

A decrease in money creation after 2008 is given by the financial crisis. This is caused by a decrease in the number of loans granted as people decreased their consumption.

The graph below shows the development of an official bank rate in the UK. An official bank rate, previously called a repo rate, is the interest rate which a central bank pays to commercial banks which hold money with the central bank. This is the vital rate as it influences the rates which commercial banks charge individuals to borrow money or pay on their savings (Bank of England, 2019a).

Graph 33 – The development of an official bank rate in the UK



The source of data: own processing (Bank of England, 2019a)

The graph supports arguments mentioned above. People cut their spending when the financial crisis occurred. The BoE promptly responded by reducing an official bank rate from 5.50 % to 0.50 % in order to boost consumption and investments. However, that was not enough. The British economy was remaining in recession. The BoE did not have any other conventional tool to boost the economy; thus, it decided to use an extremely unconventional instrument called quantitative easing (hereafter “QE”) (Bank of England, 2019c).

The UK launched huge QE in November 2009. The BoE purchased government bonds in the amount of £200 billion (Bank of England, 2019c). This huge liquidity injection helped to stimulate economic growth which reached 2.49 % in 2010 (World Bank, 2019c) and the UK raised out of a negative economic growth.

The author agrees with the first wave of QE in the UK. The UK needed to use an expansive economic policy to overcome the recession and it did not have many other options to do that.

The UK continued with QE in other years. The second wave of QE was announced in 2012 and the UK decided to purchase government bonds in the amount of £375 billion (Bank of England, 2019c). The reason remained the same. An official interest rate was already at the level of 0.50 % and the BoE refused to use a negative official interest rate. However, the effect of the second QE is fairly doubtful. Growth in the money supply did not have a significant impact on economic growth.

Despite an ambiguous effect of the second wave of QE, the UK decided to launch the third wave. That time it determined to purchase government bonds in the amount of £435 billion which significantly exceeded the previous QE (Bank of England, 2019c). The BoE also decided to decrease an official interest rate to 0.25 % (Bank of England, 2019a).

In the author's view, the third wave of QE did not bring any positive effect to the British economy. Economic growth even decreased from 1.79 % to 1.39% between 2016 and 2018 (World Bank, 2019c). Growth of the money supply caused that inflation exceeded the stipulated target in 2017 when reached 2.55 %. However, a real issue is excess liquidity. There is a huge amount of liquidity in the British economy. Furthermore, people are not willing to spend their savings.

In the theory, an expansive monetary policy, such as cuts in repo rates or QE, should lead to an increase in economic growth in the short run and an increase in inflation in the long run (Holman, 2010; Mankiw & Taylor, 2014). Nonetheless, we cannot observe that from the British data. Although there was a huge increase in the British money supply, economic growth did not appear to be significantly influenced. An exception occurred in 2009 when QE helped to overcome recession. If we focus on the relationship between the money supply and inflation, we will not notice correlation.

The quantitative theory of money claims that an increase in the money supply eventually leads to an increase in the price level (Fisher, 1920; Friedman, 1968). However, the data for the UK showed a different picture. Even though there was a high increase in the money supply, an inflation rate remained fairly stable for the whole period.

The explanation of this phenomenon could be given by the fact that people prefer to keep cash on hands. QE causes growth in liquidity; however, it does not ensure that people increase their spending. Moreover, the surplus of liquidity in the banking system might cause serious problems in the future since banks do not know how to use their liquidity.

A low interest rate also not necessary persuade individuals to increase their consumption. John Maynard Keynes asserted in his famous work - *The General Theory of Employment, Interest, and Money* – that there is the possibility that the interest rate has fallen to a certain level when almost everyone prefers to hold cash and avoids purchasing bonds. The reason is that he/she expects an increase in interest rates in future and therefore, a decrease in bond prices as there is an inverse relationship between bond yields and bond prices (Keynes, 1935).

In this case, a monetary authority would have lost its ability to influence interest rates. If we focus on the case of the UK, the liquidity trap could explain inefficiency of QE. The BoE purchases a large amount of government bonds. That causes a decrease in yields of these bonds. That decrease pushes down the interest rates offered on mortgages or business loans, since interest rates on government bonds affect other interest rates in the economy. That should motivate households and businesses to borrow money as it is cheaper for them (Bank of England, 2019c). If they do that, new money will be created in the British economy. This creation of new money will stimulate consumption and investments which ensures growth in the British GDP.

However, as we found out previously, the last wave of QE did not support economic growth at all. The liquidity trap could provide an explanation. It is interesting that Keynes explicitly mentioned in his book that he never experienced an example of it hitherto (Keynes, 1935).

Milton Friedman criticized Keynes' theory. Friedman claimed that Keynes had omitted that people have more options where to invest their income. It is actually a great deal of options,

such as properties, currencies, obligations, shares or human capital. Thus, interest rates have a limited effect on the demand for money (FRIEDMAN & SCHWARTZ, 1963).

In the author's view, the demand for money depends on several variables, such as income, wealth, transaction costs of holding money or interest rates. The British might prefer to keep their money on current accounts as they are risk - averse. Low economic growth could also indicate that the British are afraid of borrowing money as they still keep in mind the root of the financial crisis.

The solution could be to abolish deposit insurance. That would motivate people to increase their spending and investments as they would lose their certainty that their deposits are in safe.

In general, the author of the master's thesis is against unconventional economic policies as they usually create imbalances and distortions in an economy. Furthermore, it is difficult to predict the long-term consequences of these policies. Despite that, he understands the necessity to conduct the first wave of QE during the recession. However, he considers the other waves of QE being rather unsuccessful and is concerned regarding the long-term impacts of QE on economic indicators, mainly on inflation.

2.4 Competitiveness

As we have already mentioned in the theoretical part of the master's thesis, competitiveness is a crucial indicator which strongly influences the development of an economy. This chapter will analyze competitiveness of the UK.

The table below shows competitiveness ranking for 2019.

Table 1 -Competitiveness ranking for 2019

			diff from 2018	
Rank	Economy	Score	Rank	Score
1	Singapore	84.8	+1	1.3
2	United States	83.7	-1	-2
3	Hong Kong	83.1	+4	0.9
4	Netherlands	82.4	+2	—
5	Switzerland	82.3	-1	-0.3
6	Japan	82.3	-1	-0.2
7	Germany	81.8	-4	-1.0
8	Sweden	81.2	+1	-0.4
9	United Kingdom	81.2	-1	-0.8
10	Denmark	81.2	—	0.6
11	Finland	80.2	—	—
12	Taiwan,	80.2	+1	1
13	Korea, Rep.	79.6	+2	0.8
14	Canada	79.6	-2	-0.3
15	France	78.8	+2	0.8
16	Australia	78.7	-2	-0.1
17	Norway	78.1	-1	-0.1
18	Luxembourg	77	+1	0.4
19	New Zealand	76.7	-1	-0.8
20	Israel	76.7	—	0.1
21	Austria	76.6	+1	0.3

22	Belgium	76.4	-1	-0.2
23	Spain	75.3	+3	1.1
24	Ireland	75.1	-1	-0.6
25	United Arab Emirates	75	+2	1.6
26	Iceland	74.7	-2	0.2
27	Malaysia	74.6	-2	0.2
28	China	73.9	—	1.3
29	Qatar	72.9	+1	1.9
30	Italy	71.5	+1	0.8

The source of data: own processing (World Economic Forum, 2019a)

The table displays that the UK occupies the ninth position in the ranking in 2019. The UK has lost 0.8 points in comparison with the previous year and lost one position in the table. However, there are slight differences between leading economies; for instance, the UK is losing only 3.6 points on Singapore that leads the ranking.

If we focus merely on European economies, the UK places the fifth behind the Netherlands, Switzerland, Germany and Sweden.

Overall competitiveness ranking clearly shows that the UK belongs to the strongest economies and there is an unambiguous precondition for stable economic growth in the UK.

We will examine particular pillars of competitiveness now. As it was explained in the theoretical part of the master's thesis, overall competitiveness comprises twelve pillars : Institutions, Infrastructure, Macroeconomic environment, Health and primary education, Higher education and training, Goods market efficiency, Labor market efficiency, Financial market development, Technological readiness, Market size, Business sophistication, Innovation (World Economic Forum, 2019b).

We can divide these pillars in four categories (World Economic Forum, 2019b) :

A, Enabling environment (Institutions, Infrastructure, ICT adoption, Macroeconomic stability)

B, Human Capital (Health, Skills)

C, Markets (Product market, Labor market, Financial system, Market size)

D, Innovation Ecosystem (Business dynamism, Innovation capability)

2.4.1 Institutions

An appropriate institutional environment is absolutely vital for economic growth. According to a large number of economists (Acemoglu & Johnson, 2005; Easterly & Levine, 1997; Rodrik, Subramanian, & Trebbi, 2004; Sala-i-Martin & Subramanian, 2003), the quality of institutions is a cornerstone for a positive economic development. For example, the majority of investors evaluate legal environment in a certain economy when they consider whether to invest in the economy or not.

Individuals are not willing to spend their resources on the improvement and upkeep of their property in case that their property rights are not protected and it does not matter if they own land, intellectual rights or corporate shares (Soto, 2000).

In the author's view, a crucial role of government institutions lies in guaranteed law enforcement. If there is not sufficient protection of property, individuals will be restrained to conduct transactions. That causes a decline of consumption and investments which leads to a general decrease of the GDP.


However, it is not only the legal framework what influences economic environment. Another crucial role of institutions is to ensure a fluent flow of economy. Government institutions should create friendly business environment and ensure efficiency of the market. Obstacles to positive business environment and economic growth are (World Economic Forum, 2019b) : corruption, overregulation, lack of transparency and trustworthiness, inability to provide appropriate services for the business sector, dishonesty with dealing with public contracts, political dependence on the judicial system and excessive bureaucracy and red tape (De Soto & Abbot, 1990).

Anyhow, the author asserts that the government should ensure only basic services which are unprofitable and thus, it is inconvenient for private companies to provide these services.

An economic development is not only influenced by behavior of public institutions but also by behavior of private institutions. The financial crisis revealed how important is to keep trustworthy and credible financial statements of companies. It is important that companies follow accounting and reporting standards and therefore, provide relevant financial information for stakeholders. That should be ensured by auditing (Kaufmann & Vishwanath, 2008).

The table number 2 shows the position of the UK in the ranking which evaluates the quality of institutions in an economy.

Table 2: Institutions ranking

Index Component	Value	Score *	Rank/141	Best Performer
 1st pillar: Institutions 0–100	-	74.4 ↓	11	Finland
Security 0–100	-	79.4 ↓	54	Finland
1.01 Organized crime 1–7 (best)	4.7	61.7 ↓	70	Finland
1.02 Homicide rate per 100,000 pop.	1.2	97.6 ↑	40	Multiple (14)
1.03 Terrorism incidence 0 (very high) -100 (no incidence)	88.3	88.3 =	125	Multiple (25)
1.04 Reliability of police services 1–7 (best)	5.2	69.8 ↓	37	Finland
Social capital 0–100	-	64.4 ↑	8	New Zealand
1.05 Social capital 0–100 (best)	64.4	64.4 ↑	8	New Zealand
Checks and balances 0–100	-	70.1 ↓	19	Finland
1.06 Budget transparency 0–100 (best)	74	74.0	10	Multiple (2)
1.07 Judicial independence 1–7 (best)	5.2	69.5 ↓	26	Finland
1.08 Efficiency of legal framework in challenging regulations 1–7 (best)	4.5	59.1 ↓	16	Finland
1.09 Freedom of the press 0–100 (worst)	22.2	77.8 ↑	30	Norway
Public-sector performance 0–100	-	74.0 ↑	10	Singapore
1.10 Burden of government regulation 1–7 (best)	4.3	55.6 ↑	21	Singapore
1.11 Efficiency of legal framework in settling disputes 1–7 (best)	5.1	68.1 ↓	19	Singapore
1.12 E-Participation 0–1 (best)	0.98	98.3 =	5	Multiple (3)
Transparency 0–100	-	80.0 ↓	11	Denmark
1.13 Incidence of corruption 0–100 (best)	80.0	80.0 ↓	11	Denmark
Property rights 0–100	-	78.5 ↓	17	Finland
1.14 Property rights 1–7 (best)	5.5	74.9 ↓	25	Finland
1.15 Intellectual property protection 1–7 (best)	5.5	75.5 ↓	21	Finland
1.16 Quality of land administration 0–30 (best)	25.5	85.0 ↑	17	Multiple (5)
Corporate governance 0–100	-	74.5 ↓	13	New Zealand
1.17 Strength of auditing and accounting standards 1–7 (best)	5.4	73.4 ↓	31	Finland
1.18 Conflict of interest regulation 0–10 (best)	8.3	83.0 =	8	Kenya
1.19 Shareholder governance 0–10 (best)	6.7	67.0 =	37	Kazakhstan
Future orientation of government 0–100	-	74.5	7	Luxembourg
1.20 Government ensuring policy stability 1–7 (best)	4.6	60.1	39	Switzerland
1.21 Government's responsiveness to change 1–7 (best)	4.5	58.4	25	Singapore
1.22 Legal framework's adaptability to digital business models 1–7 (best)	4.9	64.8	15	United States
1.23 Government long-term vision 1–7 (best)	4.1	51.4	61	Singapore
1.24 Energy efficiency regulation 0–100 (best)	84.2	84.2	8	Italy
1.25 Renewable energy regulation 0–100 (best)	90.6	90.6	2	Germany

The source of data: (World Economic Forum, 2019a)

The UK is in 11th position in institutional ranking. The Finnish economy is the leader of the ranking. It is noticeable that Finland performed the best results in most of the categories.

The pillar is divided in several categories. The first category is security. Security in the UK is quite low and there was a decline in security since the last year. As the table shows, the security indicator is the worst from all indicators of the first pillar for the UK. In particular, the British economy suffers a significantly high rate of organized crime. The UK is placed in the 73th position in the international comparison.

A rate of terrorism incidence provides interesting information. We can see that the UK is in the 125th position in this indicator. That is an extremely alarming result.

In the author's opinion, a noticeably high rate of crime and terrorism incidence is closely related to migration.

The author considers being necessary to reduce such a high rate of organized crime and terrorism incidence. Both factors have devastating effects on competitiveness of the British economy as citizens feel uncomfortable which leads to a lower number of transactions in the economy and therefore, that causes a general decrease in the GDP.

There are not available data which would show conclusively what percentage of crimes are committed by foreigners, but the author of the master's thesis reckons that it is probably more than 50%. It seems to be necessary to reduce a rate of immigration. The author emphasizes that crimes are committed both by immigrants who came from Europe and immigrants who came from non- EU countries. He also considers the question of safety to be a crucial topic for leaving the EU. Possible withdrawal from the EU might help to reduce a rate of immigration in the UK and therefore, help to decrease a rate of crime and terrorism.

The author has two explanations for his opinion. The first reason is that a great deal of crimes is likely committed by immigrants who moved to the UK from the EU countries. Brexit would successfully reduce their amount. The second reason is that the UK would decide on its own whether to accept immigrant from non-EU countries and those immigrants would not freely move to the UK from other EU countries as the UK could create its own immigration policy. Thus, the UK would be able to take control over immigrants. The British electorate was also afraid of enlarging process in the EU. The EU negotiates with new potential

members, such as Turkey. It is probable that if Turkey enters the EU, a mass of Turkish citizens would move to the UK.

The UK also recorded a decline in reliability of police services. That is also an important indicator. Conversely, a homicide rate dropped which could be explained by an increase in people income. A rate of homicide usually correlates with a business cycle.

The UK performed a remarkable result in the category social capital where it is placed in the 8th position.

Another indicator of the quality of institutions is called checks and balances. The UK recorded a small decline in this category. The British economy can boost by positive results in budget transparency and efficiency of legal framework in challenging regulations. On the contrary, there is room for the improvement in judicial independence and freedom of the press. The UK places the 30th position in the category freedom of the press which is rather a poor result for a such developed economy.

In the author's view, a public sector performance provides one of the most valuable information for evaluating competitiveness of an economy. It includes three sub-categories: burden of government regulation, efficiency of legal framework in settings disputes and E-participation. All these three sub-categories significantly affect economic growth. The leading country in this category is Singapore. The author considers the UK being extensively overregulated and legal disputes last significantly long time there. Conversely, the UK, as one of the leading countries in E-participation, is currently placed in the 5th position.

The UK reached successful results in the evaluation of transparency. There is fairly low rate of corruption in the UK. The author considers that level of corruption being natural and do not see much room for an improvement.

Property rights present another category. As it was mentioned earlier, the law enforcement is vital for positive economic growth. The UK occupies the 17th position in this category; accordingly, there is an opportunity for improving the results. Finland is on the 1st position. The category contains three sub-categories: property right, intellectual property protection and quality of land administration.

The UK performs similarly in all the three subcategories. The author would recommend that the UK should focus on this indicator as it is a crucial one.

Another indicator which evaluates the quality of institution is called corporate governance. It mainly focuses on the quality of accounting and auditing standards. These standards might significantly influence economic growth as they affect decisions of companies. The UK performed in the category corporate governance quite well, being placed in the 13th position. The British economy reached particularly successful results in a sub-category the conflict of interest regulation.

The last category of institution ranking is the future orientation of government. There are several sub-categories in this category and the UK reached different results. In general, the UK achieved the 7th place which is a truly positive outcome. If we focus on particular sub-categories, we will see that the UK is extremely strong in renewable energy regulation and energy efficiency regulation. That should significantly support the long- term economic growth in the UK. On the other hand, the UK reached remarkably poor results in categories relating to the government. The UK suffers political instability. There is a great number of changes in the British government. We can see no vision of a current government as well. That facts lead to instability in the economy. People are not sure regarding future development. This uncertainty often causes a drop in spending and investments. The author sees political instability and a weak position of the government to be a significant threat for the future.


2.4.2 Infrastructure

Infrastructure is an important indicator of competitiveness too. Efficient and extensive infrastructure ensures effective allocation of production factors. A developed system of infrastructure also reduces differences between regions which leads to a decrease in income inequality and poverty (Aschauer, 1989; Gramlich, 1994). A high unemployment rate and a high rate of poverty in some region means a burden for the government budget. In the author's view, it is more effective to invest in infrastructure than spend money on social benefits or subsidies for poor regions.

Developed modes of transportation boost competitiveness of economy in several ways. This helps to ensure electricity for companies and households, enables to deliver goods and services to customers as well as free flow of information (World Economic Forum, 2019a).

The table n.3 provides a picture of infrastructure ranking.

Table 3: Infrastructure ranking

 2nd pillar: Infrastructure 0–100	-	88.9 ↓	11	Singapore
Transport Infrastructure 0–100	-	81.0 ↑	11	Singapore
2.01 Road connectivity 0–100 (best)	91.3	91.3 ↑	20	Multiple (3)
2.02 Quality of road infrastructure 1–7 (best)	4.9	64.4 ↓	36	Singapore
2.03 Railroad density km/1,000 km ²	67.2	100.0 =	12	Multiple (24)
2.04 Efficiency of train services 1–7 (best)	4.3	55.2 ↓	31	Japan
2.05 Airport connectivity score	901,365.0	100.0 =	6	Multiple (8)
2.06 Efficiency of air transport services 1–7 (best)	5.3	72.2 ↓	36	Singapore
2.07 Liner shipping connectivity 0–100 (best)	95.6	95.6 ↑	9	Multiple (5)
2.08 Efficiency of seaport services 1–7 (best)	5.2	69.2 ↓	21	Singapore
Utility Infrastructure 0–100	-	96.8 ↓	21	Iceland
2.09 Electricity access % of population	100.0	100.0 =	2	Multiple (67)
2.10 Electricity supply quality % of output	7.4	96.4 ↑	46	Multiple (10)
2.11 Exposure to unsafe drinking water % of population	0.3	100.0 =	16	Multiple (28)
2.12 Reliability of water supply 1–7 (best)	6.4	90.7 ↓	21	Iceland

The source of data: (World Economic Forum, 2019a)

The UK attained the 11th place in infrastructure ranking. The first place reached Singapore. The first category is called transport infrastructure. That category contains many subcategories. Each subcategory deals with a particular mode of transportation. The UK reached the best result in Airport connectivity. There are a large number of flights from and into the UK which ensures a great connectivity with the rest of the world. On the other hand, the UK recorded rather a poor score in efficiency of air transport services. The UK should also improve quality of road infrastructure.

The second category is the utility infrastructure. The UK places the 21th position in this category. There is room for an improvement in the sub-category reliability of water supply. All British citizens have access to electricity.

2.4.3 ICT Adoption

ICT adoption or in other words technological readiness is the 3rd pillar of the competitiveness ranking. That pillar evaluates the agility with which a country adopts existing technologies

to enhance the productivity of industries in the country, with specific emphasis on its capability to fully leverage information and communication technologies (ICTs) in daily activities and production processes for increased efficiency and enabling innovation for competitiveness (Aghion & Howitt, 1992; R. Barro & SALA-I.-MARTIN, 2003).

The author of the master's thesis considers this pillar to be specifically important for less-developed economies. High-developed economies should mainly focus on research and development of new technologies and innovation.

Table n. 4 shows ICT adoption ranking. The UK places 31th. The leader of this ranking is the Republic of Korea.

Table 4: ICT adoption ranking

 3rd pillar: ICT adoption 0–100	-	73.0 ↑	31	Korea, Rep.
3.01 Mobile-cellular telephone subscriptions per 100 pop.	117.5	98.0 ↓	70	Multiple (63)
3.02 Mobile-broadband subscriptions per 100 pop.	96.9	N/Apl.	34	United Arab Emirates
3.03 Fixed-broadband Internet subscriptions per 100 pop.	39.6	79.2 ↑	10	Switzerland
3.04 Fibre internet subscriptions per 100 pop.	0.5	N/Apl.	79	Korea, Rep.
3.05 Internet users % of adult population	94.9	94.9 ↑	10	Qatar

The source of data: (World Economic Forum, 2019a)

ICT adoption has several categories. The UK reached successful results in all of them. There are small differences in scores. The author does not consider this pillar to be such important as the UK is a high-developed economy which should mainly focus on the development of new technologies and innovation.

2.4.4 Macroeconomic Stability

Macroeconomic stability is crucial for a country's competitiveness for several reasons. Even though stable macroeconomic environment does not directly increase productivity of an economy, it significantly helps to increase competitiveness (Fischer, 1993). Economies which suffer large debts are unable to respond to business cycles as they do not own needed resources for this action. Furthermore, a government that has to pay high interest rates from a government debt is unable to provide efficient services to citizens.

Harmful effects of high and unstable inflation were already explained in the theoretical part of the thesis.

The table n. 5 shows macroeconomic stability ranking for the UK.

Table 5: Macroeconomic stability ranking

% 4th pillar: Macroeconomic stability 0–100	-	100.0 =	1	Multiple (33)
4.01 Inflation %	2.6	100.0 =	1	Multiple (88)
4.02 Debt dynamics 0–100 (best)	100.0	100.0 =	1	Multiple (34)

The source of data: (World Economic Forum, 2019a)

The UK reached outstanding outcomes for this pillar. The British economy provides ample macroeconomic stability which is precondition for economic growth.


2.4.5 Health Ranking

Health indicator provides valuable information for competitiveness of an economy. Companies need healthy workers who are able to effectively perform their working tasks. Workers who suffer from illnesses are unable to perform their duties. That leads to a decrease in profit of companies as, without missing employees, a smaller product is created, and firms also have to pay sickness to their workers. Even if workers decide to come to work despite their illnesses, the product will be lower as their productivity decreased due to illnesses. It is also a question of morality to allow ill workers to stay at home (J. Sachs, Mellinger, & Gallup, 2001).

It would be a question for a broader analysis whether it is efficient for the government to subsidy health system or leave it to the private sector. Generally, the author is in favor of a fund system of the health care which was implemented in Singapore.

The table below displays a health ranking. We can see that this pillar includes one indicator which is healthy life expectancy. A current life expectancy is 69,3 years in the UK. The author has to mention that this indicator is influenced by several variables, for example by a rate of smokers in a country. It also takes long time to make changes in this indicator. In general, the UK should and could perform slightly better.

Table 6: Health ranking

 5th pillar: Health 0–100	-	91.6 ↓	33	Multiple (4)
5.01 Healthy life expectancy years	69.3	91.6 ↓	32	Multiple (4)


The source of data: (World Economic Forum, 2019a)

2.4.6 Skills

The next indicator of competitiveness is called the skills ranking or higher education and trainings ranking. The impact of this indicator on competitiveness was analyzed by many famous economists (G. Becker, 1993; Kremer, 1993; Lucas, 1988; Schultz, 1961). Skilled labor force is a crucial precondition for economic growth. Every developed economy needs skilled labor force for producing more complex products and services.

The table n. 7 shows skills ranking in the UK. The UK occupies the 11th position. The leader of this ranking is Switzerland.

Table 7: Skills ranking

 6th pillar: Skills 0–100	-	81.9 ↑	11	Switzerland
Current workforce 0–100	-	76.1 ↑	12	Switzerland
6.01 Mean years of schooling years	13.2	87.7 ↑	11	Germany
Skills of current workforce 0–100	-	64.6 ↓	22	Switzerland
6.02 Extent of staff training 1–7 (best)	4.8	62.7 ↓	29	Switzerland
6.03 Quality of vocational training 1–7 (best)	4.9	64.7 ↑	20	Switzerland
6.04 Skillset of graduates 1–7 (best)	4.7	62.3 ↓	29	Switzerland
6.05 Digital skills among active population 1–7 (best)	4.9	65.6 ↑	29	Finland
6.06 Ease of finding skilled employees 1–7 (best)	5.1	67.5 ↓	12	United States
Future workforce 0–100	-	87.7 ↑	10	Denmark
6.07 School life expectancy years	19.0	100.0 ↑	6	Multiple (11)
Skills of future workforce 0–100	-	75.4 ↑	20	Denmark
6.08 Critical thinking in teaching 1–7 (best)	4.8	63.4 ↓	14	Finland
6.09 Pupil-to-teacher ratio in primary education ratio	15.1	87.4 ↑	47	Multiple (5)

The source of data: (World Economic Forum, 2019a)

As the table displays, skill ranking is divided in four categories. The first category is called current workforce and it shows that the average number of schooling in the UK is 13,2 years. This figure signifies the 11th position for the UK in the ranking. That is a successful result.

The second category focuses on skills of current workforce. The UK should perform slightly better in that category. The UK especially lags behind other countries in skillset of graduates

and in extent of staff training. On the other hand, the British economy performed excellently in a subcategory ease of finding skilled employees. That subcategory is considerably important as firms can easily find skilled workers.

Another category is future workforce. We can see that the UK is supposed to extend the years of schooling in future and become a leader in this category.


The last category is called skills of future workforce and contains two subcategories. The first one is critical thinking in teaching and the UK performed quite a positive result in that subcategory. However, the author considers a low ratio of pupil-to-teacher in primary education being a problem as there will be a low number of workers in future. That problem can be resolved by robotization as robots can partially replace, especially manual, workers.

2.4.7 Product Market

The next pillar of competitiveness is goods market efficiency. An efficient production market is vital for economic growth. Distortions in the market are mainly created by government regulations. Goods market can be distorted by high taxes, lack of competitiveness, subsidies or trade tariffs.

The table n. 8 displays product market ranking. The UK occupies the 21th position; thus, there is definitely room for an improvement. The 1st position belongs to Hong Kong.

Table 8: Product market ranking

 7th pillar: Product market 0–100	-	64.6 ↓	21	Hong Kong SAR
Domestic competition 0–100	-	64.3 ↓	18	Hong Kong SAR
7.01 Distortive effect of taxes and subsidies on competition 1–7 (best)	4.5	58.9 ↓	23	Singapore
7.02 Extent of market dominance 1–7 (best)	4.6	60.2 ↓	23	Switzerland
7.03 Competition in services 1–7 (best)	5.4	73.8 ↓	23	Hong Kong SAR
Trade openness 0–100	-	64.9 ↓	25	Singapore
7.04 Prevalence of non-tariff barriers 1–7 (best)	5.0	66.2 ↓	27	Singapore
7.05 Trade tariffs %	1.12	92.5 ↑	7	Hong Kong SAR
7.06 Complexity of tariffs 1–7 (best)	2.9	31.6 ↓	113	Hong Kong SAR
7.07 Border clearance efficiency 1–5 (best)	3.8	69.3 =	11	Germany

The source of data: (World Economic Forum, 2019a)

The pillar comprises two categories domestic consumption and trade openness. Domestic competition includes three subcategories. The UK reached the highest score in competition in services and the lowest score in distortive effect of taxes and subsidies on competition.

The UK attained the 25th position in the category trade openness. The British economy performed especially well in subcategory trade tariffs. Trade tariffs in the UK creates only 1.12 % of the total value of trades. That is a strong side of the UK's economy. However, the author considers Brexit to be a significant threat for a trade openness indicator. New trade barriers will lead to a decrease in trade openness. That decrease will subsequently cause a decline of competitiveness and therefore, a decline in economic growth.

2.4.8 Labor Market

The British labor market has been already analyzed in detail in a separate chapter of the thesis. The labor market is also a crucial pillar of competitiveness ranking. Only a flexible and efficient labor market can ensure effective allocation of workers which supports economic growth (Almeida & Carneiro, 2009; Amin, 2009; Kaplan, 2009).

The table n. 9 displays labor market ranking. The UK is situated on the 9th position. Singapore occupies the 1st position.

Table 9: Labor market ranking

 8th pillar: Labour market 0–100	-	75.0 ↓	9	Singapore
Flexibility 0–100	-	69.2 ↓	14	Singapore
8.01 Redundancy costs weeks of salary	9.3	89.0 ↑	25	Multiple (8)
8.02 Hiring and firing practices 1–7 (best)	5.0	66.4 ↓	11	Hong Kong SAR
8.03 Cooperation in labour-employer relations 1–7 (best)	5.0	66.1 ↓	33	Singapore
8.04 Flexibility of wage determination 1–7 (best)	5.4	74.0 ↓	30	Estonia
8.05 Active labour market policies 1–7 (best)	4.3	55.1 ↑	38	Switzerland
8.06 Workers' rights 0–100 (best)	80.0	80.0 ↓	40	Multiple (2)
8.07 Ease of hiring foreign labour 1–7 (best)	4.6	59.9 ↑	30	Albania
8.08 Internal labour mobility 1–7 (best)	4.8	63.0 ↑	49	United States
Meritocracy and Incentivization 0–100	-	80.8 ↓	11	Denmark
8.09 Reliance on professional management 1–7 (best)	5.3	71.7 ↓	26	Finland
8.10 Pay and productivity 1–7 (best)	4.7	62.2 ↓	20	Hong Kong SAR
8.11 Ratio of wage and salaried female workers to male workers %	0.94	93.0 ↑	12	Multiple (4)
8.12 Labour tax rate %	10.8	96.1 ↑	33	Multiple (24)

The source of data: (World Economic Forum, 2019a)

This pillar of competitiveness has two main indicators – flexibility and meritocracy and incentivization. The British performance is sufficient in both indicators. The British labor market is fairly flexible. The author considers an indicator of hiring and firing practices being probably the best indicator of flexibility. The UK recorded a good result in this category.

The British economy is placed in the 11th position in the indicator of meritocracy and incentivization. This category includes multiple subcategories. The most important ones are labor tax rate % and pay and productivity. A labor tax rate in the UK is low in comparison with other countries. That significantly improves competitiveness of the British economy.

2.4.9 Financial System

The financial system represents the 9th pillar of competitiveness. An efficient financial system ensures effective allocation of financial resources from borrowers to investors. A smooth flow of financial capital contributes to economic growth. The financial crisis revealed how important is to keep a health and transparent financial market. In the author's view, it is necessary that a central bank regulates a number of loans granted; otherwise, there will emerge an excessive amount of bad loans in an economy.

The table below displays financial system ranking. The British economy places the 7th. Hong Kong reached the best result.

Table 10: Financial system ranking

 9th pillar: Financial system 0–100	-	88.1 ↑	7	Hong Kong SAR
Depth 0–100	-	84.1 ↑	7	United States
9.01 Domestic credit to private sector % GDP	134.4	100.0 =	16	Multiple (30)
9.02 Financing of SMEs 1–7 (best)	4.8	62.6 ↑	16	Finland
9.03 Venture capital availability 1–7 (best)	4.5	57.9 ↑	10	United States
9.04 Market capitalization % GDP	111.7	100.0 =	12	Multiple (15)
9.05 Insurance premium volume to GDP	10.8	100.0 =	5	Multiple (17)
Stability 0–100	-	93.2 ↓	27	Finland
9.06 Soundness of banks 1–7 (best)	5.4	73.2 ↓	52	Finland
9.07 Non-performing loans % of gross total loans	0.7	99.5 ↑	8	Multiple (3)
9.08 Credit gap %	-15.3	100.0 =	1	Multiple (98)
9.09 Banks' regulatory capital ratio % of total risk-weighted assets	20.3	100.0 =	35	Multiple (74)

The source of data: (World Economic Forum, 2019a)

The quality evaluation of financial system contains two main categories – depth and stability. We can consider the British financial market being stable and health. The UK attained successful score in all categories apart from a subcategory soundness of bank. That is a challenge for the UK to improve the image of British banks.

2.4.10 Market Size

The market size has a large impact on productivity as large markets allow firms to exploit economies of scale (World Economic Forum, 2019a). There are a large number of empirical evidence that trade openness contributes to higher economic growth. This is particularly true for economies with small domestic markets (Frankel & Romer, 1999; J. D. Sachs & Warner, 1995).

The table n. 11 displays market size ranking. The UK occupies the 9th position. The largest market size has China.

Table 11: Market size ranking

10th pillar: Market size 0–100		-	81.8 ↑	8	China
10.01	Gross domestic product PPP \$ billions	2,700	N/Appl.	9	China
10.02	Imports of goods and services % GDP	31.9	N/Appl.	104	Hong Kong SAR

The source of data: (World Economic Forum, 2019a)


The market size pillar includes two categories – total GDP and imports of goods and service. Both indicators have been already discussed in this thesis. The author of the master thesis considers the British withdrawal from the EU to be a potential threat for its economy. That could reduce the market size as we can expect a decrease in imports. A decrease in the market size will lead to a decrease in economic growth.

2.4.11 Business Dynamism

The 11th pillar is business dynamism or business sophistication. The author is persuaded that this pillar is significantly important for economic growth. There are two elements of that pillar – the quality of a country’s overall business networks and the quality of individual firm’s operations and strategies (World Economic Forum, 2019a).

The table n. 12 shows business dynamism ranking. The UK is in the 9th position. The leading county is the USA.

Table 12: Business dynamism ranking

 11th pillar: Business dynamism 0–100	-	77.0 ↓	9	United States
Administrative requirements 0–100	-	89.1 ↑	11	United States
11.01 Cost of starting a business % of GNI per capita	0.0	100.0 =	1	Multiple (2)
11.02 Time to start a business days	4.5	96.0 =	21	New Zealand
11.03 Insolvency recovery rate cents to the dollar	85.3	91.8 ↑	12	Japan
11.04 Insolvency regulatory framework 0–16 (best)	11.0	68.8 =	49	Multiple (6)
Entrepreneurial culture 0–100	-	64.9 ↓	14	Israel
11.05 Attitudes towards entrepreneurial risk 1–7 (best)	4.9	65.3 ↓	10	Israel
11.06 Willingness to delegate authority 1–7 (best)	5.2	69.5 ↓	22	Denmark
11.07 Growth of innovative companies 1–7 (best)	4.9	65.4 ↓	19	Israel
11.08 Companies embracing disruptive ideas 1–7 (best)	4.6	59.3 ↓	16	Israel

The source of data: (World Economic Forum, 2019a)

In general, the UK offers friendly administrative environment and positive entrepreneurial culture. For example, the UK reached the best result in terms of cost of starting a business. This category is important as it leads to a higher number of companies in economy.

The UK performed well in a subcategory attitude toward entrepreneur culture. This element is very important to increase a number of investments. On the contrary, the UK should improve growth of innovative companies. These companies are crucial for a high economic growth.


2.4.12 Innovation Capability

The last pillar relates to innovation capability. This pillar focuses on technological innovation. All improvements in the already analyzed pillars– institutions, infrastructure, macroeconomic stability, human capital, labor market, financial market or goods market – eventually run into diminishing returns. In the long run, standards of living can be enhanced only by technological innovation (World Economic Forum, 2019a).

This pillar is particularly crucial for highly developed economies which have already reached the level of innovation development that is no longer sufficient for an increase in productivity (Aghion & Howitt, 1992; Grossman & Helpman, 1991; Romer, 1990). Less- developed economies can adopt existing technologies in order to increase their productivity. The UK is a highly developed country; thus, innovation capability is a key indicator for its future economic growth.

The table n. 13 illustrates innovation capability ranking. The UK reached the 8th place in the ranking.

Table 13: Innovation capability ranking

 12th pillar: Innovation capability 0–100	-	78.2 ↓	8	Germany
Interaction and diversity 0–100	-	70.9 ↓	15	Singapore
12.01 Diversity of workforce 1–7 (best)	5.3	72.4 ↓	14	Singapore
12.02 State of cluster development 1–7 (best)	5.0	65.9 ↓	15	Italy
12.03 International co-inventions per million pop.	12.44	79.8 ↓	18	Multiple (5)
12.04 Multi-stakeholder collaboration 1–7 (best)	4.9	65.5 ↓	14	Israel
Research and development 0–100	-	85.3 ↓	6	Japan
12.05 Scientific publications score	1,289.0	100.0 =	2	Multiple (9)
12.06 Patent applications per million pop.	101.76	85.1 ↑	19	Multiple (8)
12.07 R&D expenditures % GDP	1.7	56.3 ↓	21	Multiple (7)
12.08 Research institutions prominence 0–100 (best)	0.66	100.0 =	5	Multiple (7)
Commercialization 0–100	-	78.3 ↑	8	Luxembourg
12.09 Buyer sophistication 1–7 (best)	4.7	62.1 ↑	14	Korea, Rep.
12.10 Trademark applications per million pop.	6,560.11	94.5 ↓	16	Multiple (7)

The source of data: (World Economic Forum, 2019a)

The pillar comprises three main categories. The first category is interaction and diversity. The UK performed a rather average score in this category. The second category is research

and development. The UK belongs to the strongest economies in that category, currently reaching the 6th position. The strong side of the British economy is particularly subcategory scientific publications where the UK attacks the first place. The UK has also a fairly strong level of commercialization.

2.5 SWOT Analysis

This chapter is going to summarize strong sides, weak sides, opportunities and threats of the British economy. In the thesis all important aspects influencing recent economic development of the UK has been already analyzed. Attention has been paid to indicators of inner equilibrium, such as the GDP, inflation, labor market, government debt, saving, investments and consumption. Subsequently, indicators of outer equilibrium have been examined. Monetary and fiscal policies executed through the relevant period have been analyzed afterwards. Specific attention has been paid to competitiveness indicator which serves as an efficient tool for evaluating any economy.

Thus, a prime aim of this chapter is to remind these factors, not to repeatedly analyze them in detail. The following picture shows an overview of the analysis in SWOT matrix.

Table 14: SWOT matrix

Strengths	Weaknesses
Stable and attractive currency	Low security rate
High final consumption of households and NPISH's	Quality of road infrastructure
Low unemployment rate	Low number of innovative companies
Macroeconomic stability	High tax on personal income
Large market size	High tax on property
Low corruption rate	Slow growth in labor productivity
Responsive fiscal and monetary policy	Large government debt
Effectiveness in collecting taxes	
Growth in labor productivity exceeds growth in real wages	
Opportunities	Threats
Decreasing tendency in government budgets	Political instability
Decreasing tendency in government spending	Excess liquidity
Decreasing administrative requirements	Declining freedom of press
Increasing quality of research and development	Decrease in trade openness
Improvement of security	Increase in trade barriers
	Decrease in market size
	Low pupil- to- teacher ratio in primary education

The source of data: own processing

2.5.1 Strengths

The strong side of the UK's economy is a high demand for the UK's currency which causes inflow of foreign capital. That leads to higher economic growth. Another strong side of the British economy is enormous private consumption. Private consumption is a key factor for economic growth.

The UK experiences a fairly low and stable unemployment rate. That means that the UK is able to utilize a crucial production factor. That also saves government budget and ensures tranquility in society. All these factors stimulate economic growth.

The UK has been evaluated as a leader in the macroeconomic stability ranking. The UK reached that result mainly due to a low inflation rate and a tendency to recently create lower budgetary deficits. Macroeconomic stability does not directly contribute to economic growth, but it is a key precondition for growth in the GDP.

Another strong side of the British economy is a large market size. The UK has a large domestic market and, so far, has simultaneously taken advantage of being a member of the EU market. Both facts lead to a higher level of competitiveness in the UK.

The UK's economy keeps a low corruption rate. That aids to trustworthiness in society which eventually leads to a higher number of transactions in the economy. Thus, that factor boosts economic growth.

An important factor stimulating positive economic growth is a responsive economic policy. The author considers the decisions of the British policy makers being appropriate. He especially appreciates suitable responses to economic recession which helped to overcome it.

The UK is efficient in collecting taxes due to an advanced level of E-government. That is a further strong side of the UK's economy.

Another important strength of the British economy is the fact that labor productivity has been raised faster than real wages. If real wages rise faster than labor productivity, there will be a pressure on growth in inflation which would endanger economic stability.

2.5.2 Weaknesses

The UK suffers a high rate of organized crime and terrorism incidence. Both creates insecure environment in society which results in lower economic growth. The UK should also improve the quality of road infrastructure which lags behind other developed countries.

The UK does not have many innovative companies in comparison with other developed countries. The number of innovative companies is important for competitiveness of economy.

The British taxes on personal income and on property are relatively high. Rates of these taxes significantly affect economic growth; thus, the UK should keep them low.

The UK has recently experienced low growth in labor productivity. An increase in labor productivity should be reached by an increase in human capital of workers.

Another weakness of the UK's economy is a large government debt. A current ratio of general government debt on the GDP is 86.9%. That causes problems for policy makers as they have limited options for conducting an appropriate economic policy. The UK's government should carry out more dramatical cuts in government spending.

2.5.3 Opportunities

The UK is successful in reducing the size of budgetary deficits which should eventually lead to a decrease in the size of the government debt. Another factor which contributes to a decrease in the government debt is that British economic growth was higher than interest rates of government bonds. A low government debt enables to conduct a responsive fiscal policy as the government is not limited by its debt; thus, it is important for the ability to conduct an appropriate fiscal policy.

The author considers a decreasing tendency in government spending being the opportunity of the UK's economy. That creates more room for private investments and contributes to a decrease in the size of the government debt.

The author sees the opportunity in a decreasing level of administrative requirements. That helps to improve British competitiveness. For example, the UK has the lowest cost of starting a business from all countries. British economic growth will be also stimulated by permanent growth in the quality of R&D.

Another opportunity is an increase in security. If the UK actually leaves the EU, it will be able to carry out its own security policy which should reduce crime and terrorism in the country. The UK will be also able to conduct its own migration policy and perform more

reasonable approach to migration. These factors should lead to higher security in the country and therefore, would boost economic growth.

2.5.4 Threats

The British economy is currently facing several threats. There is extremely unstable political environment. Recently, the UK has experienced several prime ministers and a great number of changes in the government. Stable political environment is especially important for foreign investments. Otherwise, foreign investors might be discouraged to invest their capital in UK's securities.

Another threat is extreme excess liquidity caused by QE. The author asserts that it will reduce the effectiveness of monetary policy on controlling inflation.

Other identified threats are declining freedom of press and decreasing low pupil- to- teacher ratio in primary education. The former might discourage foreign investors. The latter might lead to a lack of workers in future.

The last three threats relate to Brexit. The British withdrawal from the EU would cause a dramatic reduction of trade openness, increased trade barriers and a major decrease in market size. All these factors would significantly harm the British economic growth.

2.6 Types of Possible Integration with the EU

This chapter will reveal possible forms of integration between the UK and the EU after the UK definitely leaves the EU. The possibilities are following (HM Treasury, 2016) :

- membership of the European Economic Area (hereafter “EEA”), like Norway
- a negotiated bilateral agreement, such as that between the EU and Switzerland, Turkey or Canada
- World Trade Organization (hereafter “WTO”) membership without any form of specific agreement with the EU, like Russia or Brazil

According to HM Treasury, the government’s economic and finance ministry, the UK will suffer significant economic losses regardless which model of integration will be adopted. Its analysis claims that a decrease in the British GDP per household under particular models would be after 15 years following (HM Treasury, 2016) :

- £2,600 in the case of EEA membership
- £4,300 in the case of a negotiated bilateral agreement
- £5,200 in the case of WTO membership

The table below illustrates all possible forms of integration which can be reached between the UK and the EU. The table shows particular conditions of each form.

Table 15: Possible forms of integration between the UK and the EU

		Access to the single market in goods & services			Obligations	Influence	
		Tariff-free trade	Customs union & external trade	Level playing field/ non-tariff barriers	Other policy & regulation	Financial contributions	Votes on EU rules
EU membership		Full	Full. No customs costs. Access to EU FTAs	Full	Full	Full EU budget contributions	Full
The UK's special status		Full	Full. No customs costs. Access to EU FTAs	Full	UK is not a member of the single currency	UK receives rebate on EU budget contribution	Full
EEA (Norway)		Some tariffs remain on agriculture & fisheries	None. Customs costs apply. No access to EU FTAs	Agriculture & fisheries not substantively covered by the EEA agreement	Accepts most EU rules, including market/product standards, free movement of people, environment, energy, climate & social policy	Pays for EEA Grants, Norway Grants, admin costs & programme costs	None
Bilateral agreements	Switzerland	Some tariffs remain on agriculture	None. Customs costs apply. No access to EU FTAs	Minimises non-tariff barriers in sectors covered. Limited coverage for services. No financial services passport	Adopts EU rules in sectors covered. Participates in free movement of people & EU rules on e.g. environment, energy, climate & social policy	Gives grants to new EU member states. Pays admin & programme costs	None
	Turkey	Only applies to manufactured goods & processed agricultural goods	No customs costs for manufactured goods. Obligation to align external trade policy with EU	Removes most other barriers to trade in goods. No special access for services. No financial services passport	Adopts EU product standards, committed to equivalent rules on competition, state aid etc. & complies with environmental standards linked to goods trade	Turkey is in receipt of some EU funding	None
	Canada	Some tariffs remain on agriculture. Some tariffs on manufactured goods remain for a transitional period	None. Customs costs apply. No access to EU FTAs	Partial liberalisation of services. No financial services passport	Firms trading into EU conform to EU standards. International agreements & standards apply	None	None
WTO membership		EU external tariffs apply	None. Customs costs apply. No access to EU FTAs	International agreements and standards apply. No financial services passport	Firms trading into EU conform to EU standards. International agreements & standards apply	None	None

The source of data: (HM Treasury, 2016)

2.6.1 Membership in the EU

The first possibility is that the UK will eventually decide to remain a member of the EU. We should not neglect this scenario. The current political situation is truly unstable in the UK. It is possible that there will be an early parliamentary election where a pro-European party can win. That party might announce a new referendum regarding Brexit and the British electorate might change their minds.

The advantage of this scenario is an opportunity to fully participate in the EU market. That enables to maintain a large size of the market which supports competitiveness. This form of integration also means no trade tariffs or customs. That would lead to a higher level of competitiveness as well.

Disadvantages of remaining in the EU are that the UK would continue to contribute to the EU budget. The UK would be obliged to follow EU regulations too.

Nevertheless, the UK would maintain the right to vote on EU rules; thus, it could partially influence these rules.

The author of the master's thesis does not see this scenario being realistic. The British government may decide to launch a new referendum; nevertheless, there is no reason to expect that the result of the referendum will be different from the previous one.

2.6.2 The UK's Special Status

Another option is that the UK will reach an agreement with EU regarding their common trade on the base of a special status. This scenario seems to be realistic. The UK is a large economy with a strong international position; therefore, it should be able to reach individual agreement, such as Canada or Switzerland did.

The question is what the terms of such an agreement will be. The UK requires full access to the single market in goods and services and no customs. The UK would also like to keep the possibility to vote on EU rules. The UK is willing to financially contribute to the EU budget in return but insists on receiving a rebate.

In the author's view, these terms seem to be the most efficient for both sides of the agreement and therefore, he is in favor of this agreement. However, that agreement is not likely to be signed. We can expect that the EU will insist on punishing the UK and will refuse the mentioned terms.

It is likely that there will be eventually a special trade status between the UK and the EU, but the UK will probably lose full access to the EU market.

2.6.3 Membership in the European Economic Area

The next scenario is that the UK enters EEA and will reach the same kind of agreement as Norway has with the EU.

An advantage is that the UK can retain access to the single market. The EU would probably impose tariffs on particular British goods, as it did in case of Norway³, but that should not dramatically harm the UK's economy. Otherwise, there will be no customs.

A drawback of this form of integration is that the UK would continue to pay to the EU budget. Amount of contributions will be less, but still significant. Another disadvantage is that Norway has to accept most of EU regulations and policies, although it has no rights to vote on EU rules.

This form of agreement seems to be utopian. The UK decided to leave the EU as it does not want to obey EU rules. With this kind of agreement, the UK would be still obliged to obey EU rules and even without option to vote about them.

2.6.4 WTO Membership

An agreement based on World Trade Organization membership is another possible scenario. In other words, this agreement means that the UK would reach no agreement with the EU. Business trades between the UK and the EU would have the same terms as business with any other member of WTO, for example with China.

³ The EU imposed high tariffs on Norway's fisheries

An advantage of the scenario is that the UK would not have to contribute to the EU budget. The UK would also not to be obliged to obey EU policies and regulations.

There are clear disadvantages of that scenario. The EU would impose tariffs and customs on British goods and services and vice versa. There would be also obstacles for a free capital flow

The author is worried regarding the consequences of this scenario. The British economy would lose a significant portion of the market which would lead to a decline in economic growth in the long run.

2.7. Effects of Brexit Referendum on Macroeconomic Fundamentals

This chapter will summarize partial conclusions from previous chapters regarding the impacts of the Brexit referendum on macroeconomic fundamentals. The author emphasizes that it is only the evaluation of the impacts which were caused by the referendum. An actual withdrawal of the UK from the EU is still in process.

We will begin with the impact on the GDP. After the referendum, the UK experienced slightly slower economic growth, but we proved that the development of the British GDP would have been almost the same if the referendum had never occurred. That was proved by the comparison of the development of the British GDP with the average of OECD members and Eurozone members. Trends were similar for the entire time series and we did not notice any sharp change after 2016.

The analysis of the effect of the referendum on public finance and the government debt showed a similar picture. The data revealed that the UK decreased the size of the government debt after the referendum. The UK's government also created smaller budgetary deficits after 2016. Although this could indicate that the referendum positively influenced public finance, clear evidence was not found. For this reason, the author of the master's thesis argues that changes in public finance were caused by different factors.

The UK experienced a slightly higher inflation rate after 2016. The author tried to explain that by an expansive economic policy made in order to satisfy British citizens who were disappointed by Brexit. Nevertheless, that was not verified, mainly since an expansive economic policy always works with a delay. Thus, inflation was not influenced by the result of the Brexit referendum.

Neither the savings rate nor the investments rate was significantly influenced by the referendum. The effect of the referendum seems to be only marginal.

There were almost no changes in government spending and household's consumption after the referendum. Private consumption is a stable variable and does not succumb to changes in economic environment.

The British labor market was not affected by the referendum as well. An unemployment rate in the UK, which had been already fairly low, decreased by 1 percentage point. It was also shown that the UK successfully decreased an unemployment rate of persons with basic education. In general, the author of the thesis asserts that the development in the labor market would have been similar if the referendum had not occurred.

Indicators of outer equilibrium were not dramatically influenced by the referendum too. The UK started to largely participate in the international trade which could be caused by the UK's effort to find new trade partners after the withdrawal from the EU.

The macroeconomic data conclusively demonstrated that the Brexit referendum had almost no impact on the British macroeconomic indicators. There were probably changes on the microeconomic level; for example, due to the movement of several factories. However, those changes did not influence the aggregate level.

2.8 Effects of Brexit in Views of Economists

This chapter will deal with economic consequences of Brexit on the British economy. There is general consensus among economists that Brexit harms the British economy. The European IGM economic experts panel conducted a survey and asked prominent economists the following question: *“Because of the Brexit vote's outcome, the UK's real per-capita income level is likely to be lower a decade from now than it would have been otherwise “*. The survey was carried out with two groups of economists. The results were clear. The first group of economists answered in the following way (IGM forum, 2016a) :

36 % strongly agree

44 % agree

12 % uncertain

2% disagree

The results of the second group are following (IGM forum, 2016b) :

7% strongly agree

64% agree

14% uncertain

5% disagree

5% strongly disagree

Now, we will examine comments of particular economists.

Franklin Allen, the former president of the American Finance Association, claims that effects of Brexit depend on the outcome of negotiations between the EU and the UK. Thus, he argues that benefits of being outside the EU are unclear (Allen, 2016).

The author of this master's thesis agrees with this opinion. He also expects that the EU will use an extremely aggressive way of negotiating in order to punish the UK for leaving the EU.

Pol Antras (2016), the professor of economics from Harvard, argues that the UK will experience lower economic growth due to Brexit. He emphasizes the importance of

negotiations with the EU. He also mentions the British attitude toward immigrants. In his opinion, a stricter immigration policy will deteriorate the British economic output.

The author of this master's thesis refuses Antras' opinion regarding migration. Conversely, stricter limits on immigrants will be beneficial for the UK. The first reason is that the UK's labor market does not need more immigrants. The second reason is that a higher number of immigrants is usually accompanied by an increase in criminality. Both facts will cause an increase in government expenditure.

Olivier Blanchard, a former chief economist of International Monetary Fund, asserts that Brexit brings more losses than gains for the UK. His argument is based on fact that the UK will lose the opportunity to participate in the EU market (Blanchard, 2016).

It is certainly true; however, the possibility to participate in the EU market is unclear. That again depends on results of the negotiation between the EU and the UK. Therefore, Blanchard's argument is fairly vague.

Oliver Hart, a receiver of the Nobel prize in economic sciences in 2016, is persuaded that the UK will suffer. He expects that there will be trade barriers between the UK and the EU which reduce the British gains from trade (Hart, 2016).

Trade barriers virtually cause economic losses; nonetheless, we cannot be sure how strict the barriers will be.

Generally, the majority of economists agree that the negotiations between the EU and the UK are crucial for the evaluation of economic consequences of Brexit. The author of the thesis agrees as well. He expects the existence of trade barriers which lead to slower British economic growth in the short run. However, it is probable that the UK will deepen its cooperation with the US in the long run, which could boost economic growth in the UK.

Conclusion

The United Kingdom belongs to the most developed economies in the world and its development affects the rest of the world. That was confirmed in the thesis. The thesis provided a comprehensive overview of the UK's economic performance. The thesis also analyzed Brexit and its impacts. This is a highly topical issue nowadays, which is a special value added of this thesis.

The theoretical part of the thesis has provided a theoretical background for the practical part. The theoretical part has explained indicators of outer and inner equilibrium, described monetary and fiscal policies, explained the competitiveness ranking and its significance for economic growth. The evaluation of these indicators is crucial for the assessment of the British economy. The theoretical part has described SWOT analysis as well. SWOT analysis has been used for the evaluation of the UK's economy. There have been also explained theories of economic integration in order to understand the British alternatives after leaving the EU. For better understanding of the relationship between the UK and the EU, a special chapter has focused on historical development of the UK's international relationships. The last chapter has dealt with Brexit and described every detail of the referendum. This chapter has enabled to understand the topic in broader perspective.

The Practical Part of the thesis provides an in-depth analysis of the corresponding subject matters described in its Theoretical Part.

The thesis has showed that the UK experienced stable and solid economic growth over the observed period with a massive decline in 2009 due to the financial crisis. In a great part of the examined period, the UK's economic growth exceeded the average economic growth in Eurozone but was lower than the average economic growth in OECD.

The UK's government debt has increased dramatically since the financial crisis, currently reaching 86.9% of GDP. High government debts represent a problem for the majority of European countries which create a threat of another severe debt crisis in Europe. On the other hand, the UK was quite successful in creating lower budgetary deficits. Moreover,

UK's economic growth has been exceeding costs of debt. For these reasons, there is a postulate for a future decrease of the British government debt.

The UK's currency is fairly attractive for foreign investors and the UK is a safety place where to invest savings. These merits help to stimulate an inflow of foreign capital in the UK which helps to equalize the difference between gross capital formation and gross savings in the UK. That also causes the deficit of the current account. In the author's view, the deficit of the current account means nothing harmful for the UK unless there is a decline in demand for British securities.

The UK has slightly decreased the level of government expenditure since the financial crisis. The author acknowledges that it is usually politically sensitive issue to reduce government spending; thus, he appreciates this trend in the UK. However, he would cut government spending more dramatically in order to substantially reduce the government debt.

A crucial strong side of the UK's economy is a huge and stable private consumption which largely contributes to economic growth. Households and NPISHs final consumption has exceeded the average of OECD and Eurozone during the whole observed period.

The UK has one of the lowest unemployment rates in Europe, in 2018 reaching 3.93%. That is an important determinant for economic growth since a key production factor is utilized. A low unemployment rate also saves the government budget as there is no need to pay unemployment benefits. The UK has a low long-term unemployment rate as well which indicates that the UK is able to even decrease its general unemployment rate because a significant part of the general unemployment rate is only frictional.

The UK also has a low youth unemployment rate in comparison with the average of OECD and Eurozone. That implies an efficient relationship between the British labor market and the British school system. The UK has recorded a rather high unemployment rate of unskilled labor force which indicates a decreasing number of job vacancies for low-skilled workers and therefore, that leads to the idea that the UK should regulate a number of low-skilled immigrants.

Growth in real wages in the UK has been covered by growth in labor productivity in most of the observed period. This is an important indicator for inner equilibrium. However, the author argues that growth in labor productivity should be slightly better.

The UK experienced the deficit of the current account of the balance of payments over the whole period. That simply means that there has been a high demand for British securities. The UK performed average results in other indicators of outer equilibrium without any special threats.

The UK is efficient in collecting taxes which has been considered being the strength of the UK's economy. On the contrary, the UK's current taxes on property were evaluated as a weakness of its economy. Monetary and fiscal policies conducted over the period were evaluated to be rather appropriate and responsive, which were considered being a strong side of the UK's economy. Nevertheless, the author disagrees with the second and the third wave of quantitative easing as that has not boosted the UK's economy and creates significant excess liquidity which might lead to serious harms for the UK.

The Theoretical Part has analyzed the competitiveness ranking where the UK reached the ninth position. The ranking contains a wide range of indicators where the UK attained different results. The British results in particular categories were used as a cornerstone for the SWOT analysis.

The fifth chapter has summarized strengths, weaknesses, opportunities and threats into the SWOT matrix. As the strong sides of the UK's economy were identified : stable and attractive currency, high final consumption of households and NPISH's, low unemployment rate, macroeconomic stability, large market size, low corruption rate, responsive fiscal and monetary policy, effectiveness in collecting taxes, growth in labor productivity exceeds growth in real wages. As the weak sides of the UK's economy were identified: low security rate, quality of road infrastructure, low number of innovative companies, high tax on personal income, high tax on property, slow growth in labor productivity, large government debt. Opportunities of the UK's economy are decreasing tendency in government budgets, decreasing tendency in government spending, decreasing administrative requirements, increasing quality of research and development, improvement of security. Threats of the

British economy are political instability, excess liquidity, declining freedom of press, decrease in trade openness, increase in trade barriers, decrease in market size, low pupil- to-teacher ratio in primary education.

The Practical Part has also evaluated advantages and disadvantages of potential integration forms between the UK and the EU. The analysis has showed that the most efficient form would be a special status between the UK and the EU when the UK would remain a member of the European Economic Area. However, that scenario does not seem to be realistic as the EU most likely would oppose it.

The seventh chapter has analyzed the effects of the Brexit referendum on the UK's economy. No significant impacts, which would influence the whole economy, have been identified.

The last chapter has focused on the consequences of Brexit. In other words, it has attempted to forecast what is going to occur after the UK leaves the EU. Most of economists are persuaded that the UK will experience a severe decrease in economic growth. The main arguments are usually a decrease in the market size or an increase in trade barriers. Nevertheless, they neglect other important factors which might, on the contrary, leads to an increase in the GDP in the long term. Examples are an increase in security or a lower level of regulation. Moreover, it remains unclear what will be the final form of the agreement between the UK and the EU. Still, there is a possibility that the UK will somehow participate in the EU market.

The master's thesis has set several objectives. The main aim was the evaluation of strengths, weaknesses, opportunities and threats of the UK's economy. That goal has been unambiguously fulfilled. Another aim was the analysis of Brexit and its consequences on the UK's economy. The master's thesis has distinguished between effects of the referendum and possible effects of Brexit. The thesis has provided a clear conclusion for both questions. The last goal was the evaluation of possible scenarios after Brexit. That goal has been also attained, and the author has recommended the most effective form of future integration.

The hypothesis was whether Brexit brings more positive, or negative consequences for the UK's economy. The author considers that question being extremely complex for a clear answer. However, he argues that most economists exaggerate negative impacts of Brexit and focus only on one aspect of Brexit. In the author's view, in its rich history the UK has already experienced life beyond the EU without serious harms and undoubtedly will remain one of the strongest economies in the world regardless of the membership in the EU. Surely, there will be short-term costs; however, in the long run, the UK might take advantage of not being a member of the EU.

The master's thesis dealt with several different topics; thus, there is room for future authors to analyze particular aspects in detail. The thesis is being written under the situation when it is not clear whether indeed Brexit occurs. Thus, the future authors might examine impacts of real Brexit.

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