Czech University Of Life Sciences in Prague Faculty of Economics and Management

Department of Economics



Bachelor Thesis

Macroeconomic comparison between the economies of Czech and Slovak Republic

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Declaration:

I declare that I have worked on my bachelor thesis titled "Macroeconomic comparison between the economies of Czech and Slovak Republic" by myself and I have used only the sources listed at the end of the thesis.

In Prague on

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signature

Acknowledgement:

I would like to thank to my supervisor, Ing. Mansoor Maitah PhD et PhD for his support and useful advice during my work on this thesis.

Makroekonomické srovnání ekonomik České a Slovenské Republiky

Macroeconomic comparison between the economies of Czech and Slovak Republic

Souhrn:

Tato bakalářská práce obsahuje analytické porovnání ekonomik České a Slovenské Republiky z makroekonomického pohledu v rozmezí let 2004 – 2010, tedy od vstupu obou zemí do Evropské Unie až po současnot. První část práce se zabývá popisem a vysvětlením nejdůležitějších makroekonomických indikátorů, podle kterých se posuzuje výkonnost ekonomiky země.

Ve druhé části této bakalářské práce nalezneme analytické porovnání dat z těchto indikátorů České a Slovenské Republiky za vymezené období.

V závěru bakalářské práce jsou zodpovězeny hypotetické otázky, které byly nastoleny v úvodu práce.

Klíčová slova:

Makroekonomika, srovnání, česká, slovenská, republika

Summary:

This bachelor thesis contains analytic comparison of economies of Czech and Slovak Republic from macroeconomic point of view between years 2004 and 2010 – since both countries joined the European Union until today. First part of the thesis describes and explains most important macroeconomic indicators which are used to assess productivity of country's economy.

Second part contains analytical comparison of actual data from these indicators from Czech and Slovak Republic in the given period of time.

At the end of bachelor thesis are answered hypothetical questions, which were given in the introduction of the thesis.

Keywords:

Macroeconomics, comparison, czech, slovak, republic

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1. Introduction:

Since the 1st January 1993 when the Czechoslovakia fell apart, there are two separate independent states co-existing next to each other: Czech Republic and Slovak Republic. On the 1st may 2004 both countries joined the European Union. It was very important step for Czech and Slovak Republic and especially for their economies.

There were (and still are) two ways how was Slovaks and Czechs thinking about joining the European Union. One part of citizens was skeptical and highlighted the negative effects of integration to the European Union, while the other part was optimistic and saw integration as a positive thing and hope for better future. Times right after the integration showed rather the negative effects like growth of prices and competition from other member countries. But few years later we can see more and more of the positive impacts on our countries and it's economies. For example the free labour market and growth of trade between member countries.

1.1. Short introduction to the European Union

The European Union is political & economic voluntary association with 27 democratic member countries. It has consolidated home and external policy and it presents itself like a complex unit. Decisions for the European Union are negotiated by the member countries.

The European Union is a big global player thanks to it's political powers and very developed economy. The European Union was established in 1993 and since then it admitted new members six times. 1st may 2004 has Czech & Slovak Republic and eight other countries joined the Union.

The European Union has the second most important currency in the world – Euro. "The Euro was launched on 1 January 1999, when it became the currency of more than 300 million people in Europe. Today, euro banknotes and coins are legal tender in 17 of the 27 Member States of the European Union, including the overseas departments, territories and islands which are either part of, or associated with, euro area countries." ¹ The eurozone

¹ http://www.ecb.int/euro/intro/html/index.en.html

(countries) contains 17 countries today – Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovenia, Spain and Slovakian Republic (it joined eurozone on 1st January 2009).

2. Objectives of thesis and methodology

In my bachelor thesis I am going analyze the differences between economies of Czech and Slovak Republic from macroeconomic point of view for the last seven years since the integration to European Union. Based on this analysis I am going to try to answer these hypothetical questions:

- Did joining the European Union affect level of living of Czech and Slovak citizens? And if it did, how?
- Can we see differences in the development of those two economies in last seven years and if yes, what are they?
- Can we decide, from the economical point of view, if joining the European Union was a positive move or not?

My methodology will mainly consist of:

- Data collection
- Data analysis
- Data comparison

3. Literature overview:

In this part I am going to explain basic and most important macroeconomic indicators and how to compare two economies of member countries of European Union in the given period of time.

3.1. Economic Growth

3.1.1. Gross Domestic Product

"Domestic Product is the most used economic aggregate. Statistics creates it, economists analyzes & comments it and politicians bases their careers on it."²

Gross Domestic Product is the most common used economic indicator to show economic productivity of certain country. It is the most monitored and important macroeconomic indicator.

Definition: "Gross Domestic Product is the market value of all final estates and services produced in a given economy in a given time period." ³

Let's have a look at the definition little bit closer:

When we count Gross Domestic Product, we must count in only the final estates (without counting in the intermediate product) – it means estates which are designed for total final consumption, investment or export.

Final estates & services are represented in the market prices – it means in the real prices, which the customer pays. The market prices contains indirect taxes (for example value added tax and consumption taxes) in contrast to the prices which producers sells their goods for.

By expression all final estates we understand all the estates, which we are able to statistically describe. We can't capture the amount of estates traded in the shadow economy for example. Shadow economy is all illegal businesses (drug-traffic, prostitution,...)

² HOLMAN, R.: *Makroekonomie. Středně pokročilý kurz.* 2. edition. Prague, C. H. Beck 2010. ISBN 978-80-7179-861-3

³ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

"Into GDP are counted final estates and services produced by residents and nonresidents of the given country. Crucial for the submission into GDP is that the estate must be produced in territory of the given state."⁴

By "given time period" is usually meaned one year, eventually one quarter. Into GDP aren't added transactions with estates, that was produced in past years or quarters – for example houses, machines, etc. But we add to up-to-date GDP the cost of service of selling the previously built house by real estate agent to customer.

We can get Gross Domestic Product using these three methods – expenditure approach, production approach and earning (income) approach.

"Using the expenditure approach we get the Gross Domestic Product by adding up all expenditures expended on the final estates & services." 5

These total expenditures we can divide into:

- Expenditures of households on consumption. This includes short-time expenditures (groceries, clothing, etc.), long-time expenditures (electronics, cars, etc.) and services (transport, education, etc.)
- 2) Expenditures on investments. We can divide them into investments into fixed capital (expenditures of companies into new equipment, machinery etc.), investments into reserves (it is the difference between size of reserves of final estates designated to sell in the beginning of the given year and the size of reserves at the end of the given year).
- 3) Expenditures of government on estates & services. We differ governments expenditures on estates & services and transfers. First ones are investments for witch the government gets counter-value. For example expenditures on health services, army, educational system, etc. Transfers are investments without counter-value. For example unemployment compensation, social benefits, etc. Important is, that we don't add transfers into the calculation of Gross Domestic Product.

4) Clear export. Clear export we get by subtracting total import from total export.Formula for counting the Gross Domestic Product by the expenditure approach is:

GDP = C + I + G + NX

⁴ PAVELKA, T.: *Makroekonomie. Základní kurz.* 3. edition. Melandrium 2007. ISBN 80-86175-58-4

⁵ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

Where "C" stands for the Expenditures of households on consumption, "I" for Expenditures on investments, "G" for Expenditures of government on estates & services and "NX" for Clear export.

"Using the production approach we get the Gross Domestic Product by adding up all added values from all particular levels of production" ⁶ Because Gross Domestic Product is shown in market prices we have to add to added values indirect taxes and subtract all grants.

"Using the earning approach we get the Gross Domestic Product by adding up wages (and all other expenses incurred of employees), estate rents, interests, profits, devaluation of capital and indirect taxes without all grants." ⁷ When the Gross Domestic Product is measured in market prices it is called "Nominal Gross Domestic Product". When we compare Gross Domestic Product of certain years, we need to ask if the changes in Gross Domestic Product are caused by the change of physical volume of production of estates & services or by the change of prices of these estates & services.

So we need to have Gross Domestic Product that show us just the change of physical volume of production, it is called "Real Gross Domestic Product". It is interpreted in constant prices (or in prices of the basic year).

"For elimination of changes in prices we use Gross Domestic Product Deflator. It is price index and we can define it this way:

GDP Deflator = Nominal GDP / Real GDP x 100" 8

"If we are interested in development of economy, most often we use annual growth rate of Real Gross Domestic Product." ⁹

⁶ PAVELKA, T.: *Makroekonomie. Základní kurz.* 3. edition. Melandrium 2007. ISBN 80-86175-58-4

⁷ MAITAH, M.: *Macroeconomics*. CULS in Prague 2009. ISBN 978-80-213-1904-2

⁸ PAVELKA, T.: *Makroekonomie. Základní kurz.* 3. edition. Melandrium 2007. ISBN 80-86175-58-4

⁹ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

3.1.2. International comparison of Gross Domestic Product

"Real Gross Domestic Product is also most often used indicator for comparison of economic productivity of various countries. If we do such a thing, we need to convert the Real Gross Domestic Product into the same base value, for example dollar. But there is a problem, because exchange rates can change a lot, which would cause a big changes in converted Real Gross Domestic Product. To prevent this case, we need to use the Purchasing Power Parity (PPP), while converting."¹⁰

"In the simplest version Purchasing Power Parity represents rate of prices in national currencies for the same goods in different countries. For example if the same product costs 1,87 euro in France and 0,95 pound in Great Britain, than Purchasing Power Parity for this product between France and Great Britain is 1,97 euro to pound (1,97 = 1,87/0,95). It means, that for each pound in Great Britain the customer can buy the same amount of this product as for 1,97 euro in France." ¹¹

In European Union are all the comparisons done by Eurostat's ECP - European Comparison Program. It is "Eurostat's Comparison Program, which brings objectively comparable about Gross Domestic Product and about components of expenditures on it's use. Another output of European Comparison Program is price comparison for certain groups of goods and services." ¹²

For evaluation of convergence or divergence of economic level of EU countries is used the Purchasing Power Standard (PPS). "Purchasing Power Standard is artificially created unit of currency, which is used in international comparisons for representation of volume of economic aggregates. We get the data in Purchasing Power Standard by dividing the price in national currency by appropriate Purchasing Power Parity. In the European Comparison Program the purchasing power of 1 PPS corresponds to average purchasing power of 1 euro in the EU countries." ¹³

¹⁰ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

¹¹ http://www.czso.cz/csu/redakce.nsf/i/evropsky_srovnavaci_program_vydaju_na_hdp_

¹² http://www.czso.cz/csu/redakce.nsf/i/evropsky_srovnavaci_program_vydaju_na_hdp_

¹³ http://www.czso.cz/csu/redakce.nsf/i/evropsky_srovnavaci_program_vydaju_na_hdp_

3.1.3 Economic Growth

When we talk about Gross Domestic Product, we can't forget about phenomenon of Economic Growth, which is very closely related to GDP.

"Economic growth means growth of potential product."¹⁴

Potential product is defined like a product which is produced, when all sources are fully used. Or we can define it like a maximum production capacity. However, potential product isn't constant, it changes in time. There are several factors, that influence potential product and Economic Growth itself. For example:

- Work (quantity of workers, amount of working hours,...)
- Physical capital (buildings, machinery, infrastructure,...)
- Natural resources (land, soil, raw materials,...)
- Productivity of production factors (al other factors, that influence product for example human capital and technology)

"In the real situations Economic Growth is usually identical as the growth of the actual Real Gross Domestic Product. Economic Growth is than given by following formula:

gGDP = GDPt - GDPt-1 / GDPt-1 x 100

In the formula gGDP stands for rate of growth of the actual Real Gross Domestic Product, GDPt stands for size of the actual Real Gross Domestic Product in the monitored year and GDPt-1 stands for size of the actual Real Gross Domestic Product in the year before. Outcome of the formula is in percents." ¹⁵

3.2 Inner & outer stability of economy

When we follow the development of macroeconomic situation of certain country, we have to take a close look on the indicators of inner & outer stability of the country's economy. They are described in the following part of this bachelor thesis.

¹⁴ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

¹⁵ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

3.2.1 Inner Stability

Inner stability of the economy of the given country mainly depends on the Price Development, Public Budgets and Labour Market & Unemployment.

3.2.1.1. Price Development & Inflation

Very important macroeconomic indicator in market economy is Price Stability. "One of the main causes of it's importance is the fact, that the faster the price level grows, the bigger is the imbalance between aggregate demand and aggregate supply. So the relative Price Stability is very closely connected with macroeconomic stability and because of that it is one the basic goals of economic policy." ¹⁶

"General price level can be described like a average price level in economy." ¹⁷ Repetitive grow of the general price level is called Inflation. "The grow doesn't mean grow of the prices of all products and services. Some of them can stagnate or even drop, but the average prices grow. Inflation means drop of purchasing power of money, if the prices grow, than we can buy less for the same amount of money." ¹⁸

"For determination of general price level are used three basic price indexes:

- Consumer price index (CPI)
- Producer price index (PPI)
- Deflator of Gross Domestic Product"¹⁹

"Consumer price index is the most used price index for determination of inflation. Statisticians every month collect prices of certain basket of products and services. Products and services are placed into the basket according to expenses of average household in certain year. This year is called the basic year." ²⁰ "The procedure for determination of CPI is as follows: as a first step the statisticians divide the price of product (or service) in the tracking period by the price of the same product in the base period and the outcome they multiply by the weigh of this product in the whole consumer basket. They do this for all

¹⁶ TULEJA, P.: Analýza pro ekonomy. 1st edition. Brno, Computer Press 2007. ISBN 978-80-251-1801-6

¹⁷ MAITAH, M.: *Macroeconomics*. CULS in Prague 2009. ISBN 978-80-213-1904-2

¹⁸ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

¹⁹ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

²⁰ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

the products and services in the consumer basket and they summarize the outcomes. This how they get the average price level in the tracking period (year)."²¹

Producer price index contents several more specific indexes. For example: agricultural production price index, industrial production price index, construction works price index, etc. "Producer price index is based on the same principle as Consumer price index, it also contains certain fixed product basket. Although this basket has different constitution than Consumer price index. Producer price index is important, because it shows the competitiveness of producers. Changes in Producer price index also usually influence Consumer price index." ²² Gross Domestic Product Deflator has been already described in this Bachelor Thesis in the section about Gross Domestic Product. "In the Gross Domestic Product Deflator are captured all products and services in produced in the given economy, so it hasn't any fixed basket of products." ²³

"Using the above-mentioned price indexes we determine general price level. Inflation is most often expressed as a rate of inflation – percent change in a given time period. For example if we want to get inflation rate for the year 2004, first we have to determine general price level (using CPI) for year 2003 and 2004. Than we get the inflation rate for year 2004 by this formula:

 $\Pi 04/03 = CPI2004 - CPI2003 \ / \ CPI2003 \ x \ 100$ where Π stands for inflation rate." 24

3.2.1.2. Public Budgets

"Public Budgets includes state budget and local budgets (budgets of municipalities). We can also include public health insurance. Share of Public Budgets on Gross domestic Product in Czech Republic is over 40%."²⁵

²¹ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

²² PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

²³ MAITAH, M.: *Macroeconomics*. CULS in Prague 2009. ISBN 978-80-213-1904-2

²⁴ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

²⁵ HOLMAN, R.: *Makroekonomie. Středně pokročilý kurz.* 2. edition. Prague, C. H. Beck 2010. ISBN 978-80-7179-861-3

The government manage the state budget and redistribute the resources into local budgets. Government's objective is to keep macroeconomic stability (stable economic growth, low unemployment rate, stable price level,...)

"State budget has certain receipts and certain expenses.

Revenues of state budget:

- taxes: direct (income tax, property tax, road tax, inheritance & gift tax, etc.) and indirect (value added tax and consumer taxes)

- duty

- social insurance (retirement insurance, health insurance, etc.)

- receipts from earlier granted credits

- receipts from sale of state property

- grants received
- others

Expenses of state budget:

- transfers to households (retirement pensions, unemployment compensations, social benefits, etc.)

- financial assistance to companies

- common & investment expenses on transportation, educational system, army, police, etc.

- grants
- interests from national debt
- others"²⁶

Another very important term is balance of state budget. "If we subtract the expenses of state budget from it's revenues, we get the balance of state budget. It can be:

- surplus (revenues of state budget are higher than it's expenses)
- neutral (state budget is balanced the revenues accurately covers the expenses)
- deficit (expenses of state budget are higher than it's revenues)"²⁷

²⁶ PAVELKA, T.: *Makroekonomie. Základní kurz.* 3. edition. Melandrium 2007. ISBN 80-86175-58-4

²⁷ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

3.2.1.3. Labour Market & Unemployment

"Labour Market is very heterogeneous market. Work of different professions differentiates in needed qualification, risk and other phenomena, that implicates differences in wages. In a long period appears tendencies to equalize differences in wages, because professions with high wages allures more people and professions with low wages are abandoned. But still differences in wages persists, because professions requiring more human capital and professions with higher risk keeps higher wages." ²⁸

"Labour market is imperfect market mainly because lack of information. People don't know about all free work positions and companies don't know about all people looking for employment. On the labour market companies and possible employees that "fits together" are looking for each other. But before they find each other some people stays unemployed and some work positions stays free. This friction on labour market is called unemployment.

This unemployment is also escalated by unemployment compensations. When people gets the unemployment compensations, they can afford to look for employment longer, they don't have to take first employment which they find." ²⁹

"Rate of unemployment is share of unemployed people of the total number of people willing to work. It can be described by this formula:

$$\mathbf{u} = \mathbf{U} / \mathbf{L} + \mathbf{U}$$

Where "U" is the number of unemployed, "L" is the number of employed and "u" is rate of unemployment.

If we watch labour market for certain amount of time we find out, that certain number of people leaves during this time their work position. This number is called the job separation rate. If we mark job separation rate with "a", than a x L is number of people, that in the given period of time lose or leave their work positions and become unemployed. We can also watch what number of unemployed during the same amount of time finds a work position. This number is called job finding rate. If we mark job finding rate with "b", than b x U is number of people, that in the given period found employment.

²⁸ HOLMAN, R.: *Makroekonomie. Středně pokročilý kurz.* 2. edition. Prague, C. H. Beck 2010. ISBN 978-80-7179-861-3

²⁹ HOLMAN, R.: *Makroekonomie. Středně pokročilý kurz.* 2. edition. Prague, C. H. Beck 2010. ISBN 978-80-7179-861-3



source: HOLMAN, R. Makroekonomie. Středně pokročilý kurz. 2. edition. Prague: C. H. Beck, 2010, ISBN 978-80-7179-861-3

This picture schematically shows us movement of people between employment L and unemployment U.

If a x L > b x U unemployment grows, if a x L < b x U, unemployment drops down and if a x L = b x U, than unemployment doesn't change." ³⁰

3.2.2. Outer stability

"In the term of macroeconomic analysis is the outer economical stability usually defined as stability of foreign-economic relationships, i.e. stability of all autonomous cash flows, which happens between the home economy and foreign economy, which means that home economy subjects don't have to execute operations, which leads to changes in exchange reserves." ³¹ To keep outer economical stability are the most crucial factors stable exchange rate and balance of payments.

³⁰ HOLMAN, R.: Makroekonomie. Středně pokročilý kurz. 2. edition. Prague, C. H. Beck 2010. ISBN 978-80-7179-861-3

³¹ TULEJA, P.: Analýza pro ekonomy. 1st edition. Brno, Computer Press 2007. ISBN 978-80-251-1801-6

3.2.2.1. Balance of payments

"Balance of payments is systematic statistic record, which summarize all economic transactions, which happens between resident and non-resident economical subjects during certain time period." ³² The expression economical transactions comprises all the financial transactions and all the real transactions (exchange of products and services).

"Resident means subject, which has the main center of interest in the given state. In more simply way we can say, that resident of the given country are the inhabitants of the given state, which lives in it for the long-term (longer than one year), government, business companies and non-profit organizations which has in the given state registered office. On the other hand, diplomatists, tourists, students, airplane crews are considered as residents of their home countries. Business companies are residents of the state, where they have their registered office, but their branch offices are considered as residents of the state where are they placed." ³³

"Balance of payments is divided into these parts:

- Current account
 - Balance of trade export and import of products
 - Balance of services export and import of services (for example transportation, insurance, expenditures of tourists,...)
 - o Balance of earnings wages, dividends, interests,...
 - Usual transfers for example contributions to international organizations
- Capital account capital transfers, for example excusing the debts
- Financial account
 - Direct foreign investments (this means, that the investment is at least 10% share of the basic capital)
 - Portfolio investments low investments (less than 10% of the basic capital), obligations.
 - Other investments for example bank deposits, bank loans, business credit,...

 ³² TULEJA, P.: Analýza pro ekonomy. 1st edition. Brno, Computer Press 2007. ISBN 978-80-251-1801-6
³³ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

- Errors and Omissions it appears as a result of methodic and statistic imperfections
- Reserve assets Foreign currency, gold etc. owned by central bank." ³⁴

"As we said, the balance of payments captures all transactions between residents and nonresidents. However, all of these transactions are in the balance of payments captured twice. First as a credit element with the plus sign and second as a debit element with the minus sign. It is called double records and it assures, that from the account aspect the balance of payments will be balanced. Sum of all credit elements has to be equal to sum of all debit elements." ³⁵

3.2.2.2. External Debt

"External Debt is very closely connected with balance of payments. External Debt means, that home subjects (residents) lends money in foreign countries. Most often are the loans made by companies, but in some countries by governments too. Creditors are the foreign subjects. If we take look at the balance of payments, the External Debt would be recorded in financial account mainly in other investments and partly in portfolio investments." ³⁶

We distinguish between Gross External Debt and Absolute External Debt. "Gross External Debt is defined as total value of financial obligations of home economic subjects with previously stated term of expiration, for which the non-residents (creditors) get the interests. ... Investments into property stocks & bonds aren't counted into the External Debt." ³⁷

Absolute External Debt can be determined by subtracting the value of exchange reserves and financial debts of home economic subjects from the value of Gross External Debt.

³⁴ PAVELKA, T.: Makroekonomie. Základní kurz. 3. edition. Melandrium 2007. ISBN 80-86175-58-4

³⁵ PAVELKA, T.: *Makroekonomie. Základní kurz.* 3. edition. Melandrium 2007. ISBN 80-86175-58-4

³⁶ MAITAH, M.: *Macroeconomics*. CULS in Prague 2009. ISBN 978-80-213-1904-2

³⁷ TULEJA, P.: Analýza pro ekonomy. 1st edition. Brno, Computer Press 2007. ISBN 978-80-251-1801-6

"Because the absolute value of Gross External Debt is quite wide, we use these comparative indicators when we need to analyze the outer economical stability more closely:

- The value of Gross External Debt counted at one inhabitant of the given country.
- Share of Gross External Debt on the Gross Domestic Product (This is the most important indicator for foreign investors, when deciding if to invest in the given country. The limit value is 40% of this share.).
- Share of Gross External Debt on the export of products and services (This indicator shows us the needed volume of revenues from export to cover the Gross External Debt of the home economical subjects.).
- Share of the Short-term Gross External Debt on the Total Gross External Debt (According to most economists, value of this indicator shouldn't cross 40%.)." ³⁸

4. Macroeconomic comparison between the economies of Czech and Slovak Republic

In the practical part of my bachelor thesis I am going to analyze the macroeconomic indicators I have described before in the part of Literature overview. I am going to analyze them for the time period from 2004 (the year when Czech Republic and Slovakia joined European Union) to 2010. I am going to analyze macroeconomic indicators for Czech Republic and Slovakia and compare them. The results will be summarized in Conclusion.

4.1. Development of Gross Domestic Product

In this part I am going to follow the development of Gross Domestic Product of Czech and Slovak Republics from the year 2004 until 2010. 2004 was the year, when

³⁸ TULEJA, P.: Analýza pro ekonomy. 1st edition. Brno, Computer Press 2007. ISBN 978-80-251-1801-6

Czech & Slovak Republics and other eight countries joined the European Union and I have also selected this year as a initial point of my bachelor thesis analysis.

In the following graph we can see average growth of real Gross Domestic Product of selected European Union member countries between years 2004 and 2010.



Graph 1 – average growth of Real GDP in selected EU countries between years 2004 and 2010 in %

Source of data: EUROSTAT, own calculations

As we can see in the graph, Slovakia's average growth of GDP has reached the value of 5,1%, which on of the highest growths in European Union between years 2004 and 2010. Average growth of Czech GDP is 3,5%, which is relatively high number, because only three of our selected countries had crossed the line of 3% growth. Growth of Czech and Slovakian GDP is also far higher than average growth of GDP in all 27 European Union countries, which is 1,25%.



Graph 2 - GDP in Purchasing Power Standards (PPS) in Czech Republic and Slovakia

Source of data: Eurostat

Note: Data for year 2010 weren't available at the time of writing this thesis.



Graph 3 – percentual growth of GDP in PPS between years

Note: Data for year 2010 weren't available at the time of writing this thesis.

Source of data: Eurostat

In the graph 2 is described development of GDP expressed in Purchasing Power Standards (PPS). PPS is described in theoretical part of this Bachelor Thesis - it is most usual method in international comparison, it shows us the real development of GDP.

As we can see, Czech GDP was growing slower than Slovakian, but it reached higher overall numbers. On the other hand Slovakian GDP was quite lower, but it was growing faster than Czech.

Graph 3 is extension of graph 4 and it shows us percentual change of GDP in PPS between years. We can see, that the most significant grow of both GDPs was between years 2006 and 2007. However the year after Czech GDP noted no growth and the Slovakian was 1,8% lower. The only case when Czech GDP was growing faster than Slovakian was between years 2008 and 2009.

Table 1 – Real growth of Gross Domestic Product in Czech Republic in %

i	2004	2005	2006	2007	2008	2009	2010
GDP	4,5	6,3	6,8	6,1	2,5	-4,1	2,4
households consumption	2,9	2,5	5,0	4,9	3,6	-0,3	
final consumption expenditure	0,9	2,6	3,9	3,6	2,8	0,6	22
gross capital formation	9,1	-0,8	9,6	9,4	-2,8	-15,8	170
gross fixed capital formation	3,9	1,8	6,0	10,8	-1,5	-7,9	100
export of goods & services	20,7	11,6	15,8	15,0	6,0	-10,8	070
import of goods & services	17,9	5,0	14,3	14,3	4,7	-10,6	(3)

Source: Czech Statistical Office Note – table fields marked as "-" means, that data for this year weren't available at the time of writing this thesis

li	2004	2005	2006	2007	2008	2009	2010
GDP	5,4	6,0	8,3	10,2	6,4	-4,7	3,9
households consumption	4,2	6,6	6,3	7,1	6,1	-0,7	14
final consumption expenditure	2,8	5,7	5,6	5,5	5,7	0,1	125
gross capital formation	15,8	16,3	8,2	7,9	8,2	-21,4	
gross fixed capital formation	4,8	17,6	7,3	7,9	6,4	-10,5	
export of goods & services	7.4	10	20,7	16	3,2	-16,5	
import of goods & services	8,3	12,4	17,8	10,4	3,3	-17,6	(*)

Table 2 – Real growth of Gross Domestic Product in Slovakia in %

Source: Slovakian Statistical Office

Note – table fields marked as "-" means, that data for this year weren't available at the time of writing this thesis

Tables 1 and 2 capture real growth of GDP in Czech Republic and Slovakia in %. We can see data for overall GDP and its components. The overall GDP in Czech Republic was slowly growing from 2004 to 2006, but from 2006 to 2009 we can see strong decrease (by 10,2%). Last two data shows us significant grow (by 6,5% between years) of overall GDP.

The situation in Slovakia was quite similar, but its GDP was growing a bit faster and we can see the growing tendencies between years 2004 and 2007. Decrease appears between years 2007 and 2008 and it was much stronger than in Czech Republic (by 14,9%). The last two data (between years 2009 and 2010) shows us growing tendencies again (by 8,6%).

Partial data more or less copy the development of overall GDP in both countries. We can state, that the development tendencies in both countries considering GDP are alike, but the changes in Slovakia are stronger.

4.2 Development of Inflation

Inflation means grow of the price level in economy during certain time period and it is one of the most important indicator of economic level of certain country. Graph 4 shows us annual average inflation rate (HICP) in Czech Republic, Slovakia and European Union. HICP means Harmonised Indices of Consumer Prices. They "are designed for international comparisons of consumer price inflation. HICP is used for example by the European Central Bank for monitoring of inflation in the Economic and Monetary Union and for the assessment of inflation convergence..." ³⁹

³⁹ http://epp.eurostat.ec.europa.eu/tgm/web/table/description.jsp



Graph 4 – Annual average inflation rate (HICP) in Czech Republic, Slovakia & EU27

Source of data: Eurostat

Since year 2005 was Inflation in Czech Republic steadily growing. From 2005's 1,6% to 6,3% in 2008. It is quite high increase – by 4,7%. But in between years 2008 and 2009 appeared strong decrease – by 5,7%. Between years 2009 and 2010 Inflation rate in Czech Republic stayed almost the same.

Inflation rate in Slovakia was changing rapidly between years and it was following certain trend – one year it was very high (for example 7,5% in 2004) and the next year it fell down dramatically (for example 2,8% in 2005). But the overall trend is decreasing, we can see, that the data are lowering. The difference between inflation rates in 2004 (7,5%) and 2010 (0,7%) is very wide.

In 2009 and 2010 the trends of development as well as the inflation rate in Czech Republic and Slovakia was quite similar as in European Union.

4.3 Development of Unemployment

Another very important indicator is unemployment rate. Unemployment rate represents the total number of unemployed people divided by total number of workforce (people able to work – employed and unemployed).



Graph 5 – Unemployment rate in Czech Republic & Slovakia in %

Source: Czech Statistical Office & Slovakian Statistical Office

As we can see in Graph 5, Unemployment rates in Czech Republic and Slovakia was following the same trend. In both countries was unemployment rate decreasing since year 2004 until 2008. But in 2008 the unemployment rate in both countries began to grow. The main difference between unemployment rates in Czech Republic and Slovakia is, that Czech unemployment rate is almost two times lower than Slovakian every year. For example:

2004 (highest data in tracked period):

- Czech Republic: 8,3%
- Slovakia: 18,1%
- Difference: 9,8%

2008 (lowest data in tracked period):

- Czech Republic: 4,4%
- Slovakia: 9,6%
- Difference: 5,2%

4.4. Public Budgets

In this part of this bachelor thesis is analyzed development of components of public budgets of Slovakia and Czech Republic.

4.4.1. State Budget

State budget is a plan of state's financial management for one year. It operates with revenues (from taxes, duties, etc.) and expenses (expenses on running the state). In the following tables 3 and 4 we can see the revenues in the first row, expenditures in the second row and the balance of state budget in the third row. Balance of the state budget is the difference between revenues and expenditures.

Table 3 – Development of State Budget in Czech Republic (in milliards of CZK)

	2004	2005	2006	2007	2008	2009	2010
revenues of the central state budget	769	866	923	949	1 036	974	1000
expenditures of the central state budget	862	922	1 020	1 040	1 107	1167	1156
bilance of central state budget	-93,7	-56,3	-97,6	-66,4	-19,4	-192,4	-156,4

Source: Czech Statistical Office

Table 4 – Develo	nment of State	Budget in	Slovakia	(in milliards	of SKK)
1 abic + - Dcvclo	pinent of state	[,] Duuget m	BIOVARIA	(III IIIIIIaius	UI SIXIX)

	2004	2005	2006	2007	2008	2009	2010
revenues of the central state budget	242	258	291	322	342	10 540	10 900
expenditures of the central state budget	312	292	323	345	363	13 332	15 337
bilance of central state budget	-70	-33	-31	-23	-21	-2 791	-4436

Source: Slovakian Statistical Office

Note: Data for years 2009 & 2010 are in thousands of euros, because Slovakia is member of eurozone since 1st January of 2009.



Graph 6 – Comparison of development of Balances of central state budgets in Czech Republic and Slovakia

Source: Czech Statistical Office & Slovakian Statistical Office

Note: Years 2009 & 2010 aren't included, because Slovakia is member of eurozone since 1^{st} January of 2009.

As we can see in the Graph 6, which compares the balances of state budgets of Czech Republic a Slovakia, all the data are negative. It means, that both countries had higher expenditures than revenues in all years in the tracked period of time. This fact means, that both countries had deficit state budgets.

The worst years for Czech state budget were 2004 and 2006 (balance almost reached -100 in these years). In 2008 the balance of Czech state budget reached -19,4 milliards CZK, but year later it fell down to -192,4 (as we can see in table 3).

The Slovakian balance of state budget was growing since 2004 (- 70 milliards SKK) until 2008 (- 21 milliards SKK). But since 2009, when Slovakia joined Eurozone, balance of it's state budget started to sink.

Both countries followed the same trend again. Both state budget balances were growing since 2004 until 2008 (with one exception – between years 2005 and 2006 the balance of Czech state budget fell down) and since 2009 both of them started to sink.

4.4.2. Public Debt

Public debt of the given country contains total debt of the government and local government units (towns, etc.).

Table 5 – Development of Public Debt in Czech Republic (in milliards of CZK)

Ü	2004	2005	2006	2007	2008	2009
Public debit	847 789	885 381	948 276	1 023 784	1 104 915	1 280 352
Debit at the rate of GDP in %	30,1	29,7	29,4	29,0	30,0	35,3

Source: Czech National Bank

Note: Data for year 2010 weren't available at the time of writing this thesis

Table 6 – Development of Public Debt in Slovakia (in milliards of EUR)

1	2004	2005	2006	2007	2008	2009
Public debit	18 726	16 847	16 799	18 198	18 624	22 330
Debit at the rate of GDP in %	41,5	34,2	30,5	29,6	27,8	35,4

Source: Slovakian Ministry Of Finance

Note: Data for year 2010 weren't available at the time of writing this thesis

In the tables 5 and 6 we can see (in the first rows) the total public debt of the given country and (in the second rows) the debt counted at the rate of GDP in the given country.



Graph 7 – Comparison of Public Debt at the rate of GDP in %

Source: Czech National Bank & Slovakian Ministry Of Finance Note: Data for year 2010 weren't available at the time of writing this thesis

In the graph 7 we can see comparison of public debts of Czech Republic and Slovakia counted at the rate of GDP in %.

At this case situation of both countries was developing differently. In the Czech Republic was the public debt quite stable indicator between years 2004 and 2008. It did change, but no dramatically, it was never more than by 1%. Until 2009, when it grew from 30% to 35%.

At the beginning of tracked period of time (2004) was the public debt in Slovakia 41,5% and it started do decrease annually. It was decreasing until 2008 – to the value of 27,8%. Than it started to grow to the final number of 35,4% in 2009.

In 2004 was Slovakian public debt much higher than the Czech one. Czech public debt was lower by 11,4%. But in 2006 and 2007 the public debt of both countries were almost identical (with differences less than 1%). In 2008 Slovakian debt got lower by 2,2% than Czech public debt. In the final year of our tracked period of time, both debts were almost identical again.

4.4.3. External Debt

This indicator is very closely connected with development of balance of payments. External debt describes debt of residents (home subjects) of the given state.

	2004	2005	2006	2007	2008	2009
Government - total	6754,5	9033,1	11849,5	15178,3	15270,9	19821,3
Government - short-term	149.1	44,8	16.1	316,6	142,8	260,7
Government - long-term	6605,4	8988,3	11832,7	14861,7	15128,1	19560,6
Monetary authorities (CNB) - total	41,9	243	86,5	68,3	92,3	204,1
Monetary authorities (CNB) - short-term	38,7	241	85,2	67,8	92,3	204,1
Monetary authorities (CNB) - long-term	3.1	1.1	1.1	0,5	0	0
Banks - total	11305,3	10901,1	13075,1	21133	24935,5	22341
Banks - short-term	8428,2	8240,5	9414,1	15167	17336,7	14563,5
Banks - long term	2877.1	2660,6	3661	5966	7598,8	7777,5
Other sectors - total	20040,8	19139,5	24059	29170	30437,3	34030
Other sectors - short-term	5519	5102,7	5667,8	7810,2	8765,7	9148,3
Other sectors long-term	14521,8	14036,8	18391,3	21359,8	21671,7	24881,7
Direct investment - intercompany lending	7098,3	7136,1	8109,5	10493,8	12352,3	10152,4
Total	45240,7	46452,8	57179,7	76043,4	83088.3	86548,9

Table 7 – Units of External Debt of Czech Republic (in mil. USD)

Source: Czech National Bank (ARAD data series system)

Note: Data for year 2010 weren't available at the time of writing this thesis

Table 8 – Units of External Debt of Slovakia (in mil. USD)

	2004	2005	2006	2007	2008	2009
Government - total	6 767,10	5 464,60	7 495,50	9 281,40	10 092,90	11211,4
Government - short-term	209,3	4,4	0	0	0	0
Government - long-term	6 557,80	5 460,20	7 495,50	9 281,40	10 092,90	11211,4
Monetary authorities (NBS) - total	133,6	118,1	206,6	221	220,4	21702,5
Monetary authorities (NBS) - short-term	0	0	0	0	0	21507
Monetary authorities (NBS) - long-term	133,6	118,1	206,6	221	220,4	195,5
Banks - total	5 876,50	10 227,10	7 708,00	14 246,50	18 656,20	7765,4
Banks - short-term	5 380,20	9 360,40	6 148,80	12 095,70	15 321,60	3781,7
Banks - long term	496,3	866,7	1 559,20	2 150,80	3 334,60	3983,7
Other sectors - total	7 224,00	6 831,90	8 929,40	9 845,10	10 131,20	9980,3
Other sectors - short-term	3 114,30	3 503,70	4 968,70	5 279,10	4 780,80	4978
Other sectors long-term	4 109,70	3 328,20	3 960,70	4 566,00	5 350,40	5002,3
Direct investment - intercompany lending	3 762,40	4 4 10,90	7 866,60	10 714,80	13 426,00	14654,5
Total	23 763,60	27 052,60	32 206,10	44 308,80	52 526,70	65314,1

Source: Slovakian National Bank

Note: Data for year 2010 weren't available at the time of writing this thesis

Table 7 and 8 describes external debt of Czech Republic and Slovakia. First three rows describes the government debt and it's components, next three rows describes the debt of monetary authorities of the given country, next three rows describes the debt of banks of the given country, next three rows contains data about the debt of other sectors of the given country, next row describes intercompany lending in the given country and finally, the last row shows us the total external debt of the given country.

In table 7 we can see, that external debt of Czech government was constantly growing between years 2004 and 2009. We can also see, that the main part of the government's external debt were long-term debts and the short-term debts represented very small part of the overall government's external debt. External debt of Czech National Bank has risen dramatically between years 2004 and 2005 (from 41,9 to 243 mil. USD), than between 2005 and 2006 it fell down again (from 243 to 86,5 mil. USD). After that it remained more or less constant until 2009, when it grew up to 204,1 mil. USD. We can see, that the main part of Czech National Bank's external debt are the long-term debts. Overall external debt of Czech banks was almost constantly growing between years 2004 and 2008 - from 11305,3 in 2004 to 24935,5 mil. USD in 2008. Between 2008 and 2009 it fell down a bit from 24935,5 to 22341 mil. USD. Bigger part Czech bank's external debt were the short-term debts. Total external debt of other sectors in Czech Republic was also constantly growing - from 20040,8 in 2004 to 34030 mil. USD in 2009. Main part of Czech's other sectors external debt were the long-term debts. Intercompany lending was growing steadily between years 2004 and 2008 - from 7098,3 to 12352 mil. USD. But between 2008 and 2009 it fell down from 12352 to 10152,4 mil. USD.

Slovakian government's overall external debt was growing almost constantly between years 2004 and 2009 (with one exception between years 2004 and 2005) – from 6767,1 to 11211,4 mil. USD. Main part of Slovakia government's external debt were the long-term debts, in fact since year 2006 Slovakia government had no short term external debt. National Bank of Slovakia's external debt is very interesting. The overall external debt was developing relatively normally – from 2004 to 2008 it has grown from 133,6 to 220,4 mil. USD, but between years 2008 and 2009 we can note very significant increase – from 220,4 to 21702,5 mil. USD. It was caused by enormous short-term debt in 2009. Between 2004 and 2008 the short-term external debt of National Bank of Slovakia was 0 and the whole external debt was created by long-term debts. Total external debt of banks in

Slovakia was increasing almost constantly between 2004 and 2008 (again, with one exception between 2004 and 2005) from 5876,5 to 18656,2 mil. USD. Between years 2008 and 2009 the external debt of Slovakia's banks fell down from 18656,2 to 7765,4 mil. USD. Main part of overall external debt of banks in Slovakia was created by short-term debts until 2009, when the short-term and long-term external debts was almost in balance. Overall external debt of other sectors in Slovakia had very small changes between 2004 and 2009 – the difference between overall external debt in 2004 and in 2009 is 2756,3 mil. USD. Also the short-term and long-term debts were almost balanced between years 2004 and 2009. Intercompany lending in Slovakia has been growing constantly between years 2004 and 2009 – from 3762,4 to 14654,5 mil. USD.





Source: Czech National Bank (ARAD data series system) & Slovakian National Bank Note: Data for year 2010 weren't available at the time of writing this thesis

Graph 8 graphically illustrates the development of total external debt of Czech Republic and Slovakia. We can see that both of them were constantly growing between 2004 and 2009 and that the Czech total external debt was always higher than Slovakian total external debt. Czech total external debt has grown from 45240,7 in 2004 to 86548,9 in 2009 and Slovakian total external debt has grown from 23763 in 2004 to 65314,1 in 2009.

4.5. Balance of Payments

In this part we can find collected data concerning Balance of Payments of Czech Republic and Slovakia. In the following tables are captured the developments of both countries Balance of payments, divided into Current account and it's components, Capital account, Financial account and it's components, Errors & Omissions and Reserve assets.

year	2004	2005	2006	2007	2008	2009	2010
Current account	-147 455,7	-39 826,1	-77 193,8	-113 077,2	-22 891,8	-114 795,8	-139 192,1
balance of trade	-13 384,00	59 369,50	65 094,00	120 616,90	102 722,40	81 190,20	53 954,40
balance of services	16 564,40	36 937,10	45 088,40	49 707,10	65 858,70	65 181,20	66 069,00
balance of earnings	-156 637,90	-143 427,60	-166 942,80	-255 652,70	-174 275,50	-251 736,10	-257 704,40
usual transfers	6 001,80	7 294,90	-20 433,40	-27 748,50	-17 197,40	-9 431,10	-1 511,10
Capital account	-14 186,50	4 689,30	8 454,60	19 568,80	30 378,80	41 846,20	34 024,90
Financial account	177 312,00	154 767,40	92 417,90	125 803,90	59 049,70	154 186,70	182 129,30
direct investments	101 776,30	279 630,50	90 261,70	179 064,00	36 326,90	37 693,90	97 006,20
portfolio investments	53 032,50	-81 243,80	-26 882,50	-57 232,10	-9 145,40	158 688,00	157 402,10
other investments	25 711,20	-40 820,70	35 276,60	2 675,70	45 868,90	-34 461,00	-68 174,60
Errors and Omissions	-8 887,60	-26 779,00	-21 604,30	-16 629,00	-26 425,40	-25 590,60	-35 537,00
Reserve assets	-6 782.20	-92 851.60	-2 074.40	-15 666.50	-40 111.30	-60 646.50	-41 425,10

Table 9 - Balance of payments of Czech Republic (in millions of CZK)

Source: Czech National Bank

Table 9 illustrates Balance of payments of Czech Republic between years 2004 and 2009. Balance of payments of Czech Republic had surplus in all monitored years. This situation appears, when surpluses on Capital and Financial accounts together are higher than deficit of Current account. The higher surplus was in year 2005 (92,8 milliards CZK) and the lower surplus was in year 2006 (2 milliards CZK).

Shortly after year 2004 we can very big grow of surplus, which was according to me caused by joining the European Union.

year	2004	2005	2006	2007	2008	2009	2010
Current account	-106 358,1	-126 102,8	-130 031,2	-97 611,1	-132 238,4	-2 264,2	-1 879,3
balance of trade	-49 550,00	-73 992,00	-77 184,30	-21 840,90	-21 506,00	946,10	402,20
balance of services	8 631,20	9 939,90	22 454,50	13 111,60	-14 678,00	-1 246,20	-755,80
balance of earnings	-70 897,40	-62 525,90	-73 685,80	-77 792,00	-69 138,20	-1 287,90	-1 134,70
usual transfers	5 458,10	475,20	-1 615,70	-11 089,80	-26 916,20	-676,20	-391,00
Capital account	4 412,00	-557,40	-1 216,10	11 345,90	24 287,20	463,90	742,50
Financial account	154 853,90	187 504,60	44 900,80	176 797,00	154 852,70	2 958,40	-259,30
direct investments	98 435,30	70 693,30	124 173,10	73 614,60	67 365,70	-346,70	-473,60
portfolio investments	28 885,10	-30 214,80	48 235,40	-17 634,60	50 332,90	-928,00	-1 387,10
other investments	26 987,40	148 094,90	-122 689,90	119 336,50	40 732,90	3 967,20	1 659,40
Errors and Omissions	2 297,30	10 598,00	8 250,60	5 439,20	-50 297,10	-1 724,70	1 395,50
Reserve assets	-55 205,10	-71 442,40	78 095,90	-95 971,00	3 395,60	566,60	0,60

Table 10 - Balance of payments of Slovakia (in millions of SKK)

2009	2010
-68211,3	-56615,8
28502,2	12116,7
-37543	-22769,2
-38799,3	-34183,9
-20371,2	-11779,3
13975,5	22368,6
89124,8	-7811,7
-10444,7	-14267,7
-27956	-41787,8
119515,9	49991,1
-51958,3	42040,8
17069,4	18,1

Source: Slovakian National Bank

Note: The blue part of table for years 2009 & 2010 is in millions of EURO, because on 1^{st} January of 2009 Slovakia became part of eurozone. The grey part of table for years 2009 & 2010 is in SKK, converted using the exchange rate from 1^{st} of January of 2009, which was $1 \in = 30,1260$ SKK.

Table 9 illustrates Balance of payments of Slovakia between years 2004 and 2009. Based on this table we can see, that Slovakian balance of payments had surplus in years 2004, 2005 and 2007. In years 2006, 2008, 2009 and 2010 it had deficit. In this table we can also see significant grow of surplus between years 2004 and 2005.

5. Conclusion

The aim of this bachelor thesis was to analyze and compare the development of economies of Czech and Slovak Republic from macroeconomic point of view after both countries joined the European Union. Based on data of my analysis I would like to try to answer the hypothetical questions, which I stated in the part "Objectives of thesis and methodology".

First question concerned level of living of Czech and Slovak citizens. My answer to this question will be based on my analysis of development of gross domestic product, unemployment and inflation. I believe these are the three most important macroeconomic indicators used to assess the level of living of citizens of certain country.

Gross domestic product in both countries was growing constantly after year 2004, with the exception of years 2008 and 2009, but this decline was mainly caused by global economic crisis. After these two years it started to grow again.

Unemployment rate shows us steady decline between years 2004 and 2008. Between years 2008 and 2010 it was slowly growing, but this is in my opinion also caused by the outbreak of global economic crisis.

Inflation rate in Czech Republic was more or less balanced between years 2004 and 2007. In 2008, with coming of global economic crisis it grew up rapidly, but right next year, in 2009 it fell down significantly. Inflation rate in Slovakia was declining with noticeable ups and downs during the tracked time period. But the values of inflation rate from years 2004 (7,5%) and 2010 (0,7%) speaks for itself.

Based on these facts can be said, that joining the European Union influenced level of living of Czech and Slovak citizens. And that it was positive influence.

Second question was considering the differences in the development of the analyzed countries. In most macroeconomic indicators both economies followed similar trends. They both reacted in similar way to joining the European Union and to the arrival of global economic crisis. After years 2008 and 2009, when the strongest impacts of crisis started to fade away, both economies started to grow again slowly. The biggest difference is, according to my opinion, in the starting position of Slovakia. And by starting position I mean the economic level in 2004, which was lower than in Czech Republic. This fact was mainly given by historical evolution and several other factors, like less industry in Slovakia

than in Czech Republic, Slovakia is smaller country with less inhabitants than Czech Republic etc. In addition to these facts Slovakia almost in the middle of economic crisis joined Eurozone, which I think also unbalanced Slovakian economy.

The last question was aimed at the problem, whether joining the European Union was a positive move or not. Based on the analysis done in the practical part of this thesis I think it can be said that it was a positive move for both countries concerned. The fact that in all the most important macroeconomic indicators in both countries we can see increasing tendencies since 2004 (again, with the exception of years 2008 and 2009, when global economic crisis appeared) until today, supports this conclusion.

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6.2. Internet resources

- Czech Ministry of Finance
 - o <u>http://www.mfcr.cz/cps/rde/xchg/</u>
- Czech National Bank
 - o <u>http://www.cnb.cz/cs/index.html</u>
 - <u>http://www.cnb.cz/docs/ARADY/HTML/index_en.htm</u> (ARAD data series system)
- Czech Statistical Office
 - o <u>http://www.czso.cz/csu/redakce.nsf/i/home</u>
- European Central Bank
 - o <u>http://www.ecb.int/home/html/index.en.html</u>
- EUROSTAT
 - o <u>http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/</u>
- Slovakian Ministry of Finance
 - o <u>http://www.finance.gov.sk/</u>
- Slovakian National Bank
 - o <u>http://www.nbs.sk/sk/titulna-stranka</u>
- Slovakian Statistical Office
 - o http://portal.statistics.sk/showdoc.do?docid=4
 - o <u>http://www.statistics.sk/pls/elisw/vbd</u> (SLOVSTAT database)