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Foreign direct investments and its Impact on Unemployment – Case Study of Libya

Dissertation Thesis

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Declaration

I declare that the doctoral dissertation "Foreign direct investments and its Impact on Unemployment – Case Study of Libya" has been completed by me, without any other outside help and only the defined sources, and study aids were used; they are cited in the doctoral dissertation and provided at the end of the dissertation.

Prague, the 20th September 2015 ……..……..

Osama Eldeeb

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Dedication

I dedicate this research to my family for their time, energy, and assistance which were essential to the completion of my research. I would like to thank all of my family who supported me in completing this thesis. I learned about the enthusiasm, energy, and inspiration that one can acquire from achievement of someone else. I hope to perform this research with me long after current study has expanded our understanding of incidental education.

Obsah

Abstract

Developing countries need to develop their economies and one of the most important issues related to this development is capital accumulation. Capital accumulation is no longer an easy task even for developed countries. Developing Countries have many difficulties with income generation and employment creation. There are two ways how to solve such crucial issues, even borrow finance which is expensive way or attract foreign direct investments. The new Libyan government declared its intention to develop the economy and involve it in the international economy in order to reach entire economic development. This thesis examines and explores the Libyan doing business conditions in relation to foreign direct investments in all economic sectors.

The most important task of this thesis is to quantify the inflow of foreign direct investments and its impact on employment in Libya, their impact on economic growth and the impact of foreign direct investments on exports volumes. The thesis will attempt to evaluate the benefits of foreign direct investments to Libyan economy. The research examines whether they bring benefits such as the transfer of know-how, the transfer of new technologies, the introduction of new procedures and the improvement of labor force. In addition the research attempts to evaluate whether Libyan business environment is appropriate to attract foreign direct investments. The thesis conclusions will contain recommendations regarding the implemented policies and procedures which can be beneficial in improving the business environment which enables the attraction of additional foreign direct investments.

The main aim of this thesis is to examine the impact of foreign direct investments on employment in Libya and to fulfill this aim there is a need to identify the main determinants that determine the evolution of employment and jobs creation in Libyan economy. Based on these calculations and conclusions of the research, certain economic measures and recommendations will be suggested. The contribution of the dissertation should therefore be based on econometric techniques that we will be able to discover the scope and potential opportunities for economic and employment policies in Libya.

The study also revealed that there are many challenges facing policy makers in order to reform the business environment to make it more attractive for foreign direct investments.

Key Words: Libya, Foreign Direct Investment, Unemployment, Crude oil.

Abstrakt

Rozvojové země potřebují rozvíjet své hospodářství a jedena z nejdůležitějších otázek týkajících se tohoto vývoje je akumulace kapitálu. Akumulace kapitálu není snadný úkol ani pro rozvinuté země. Rozvojové země mají velké problémy s vytvářením příjmů a vytvářením pracovních míst. Existují dva způsoby, jak vyřešit tak zásadní otázky, buď si půjčit finance, což je nákladný způsob, nebo přilákat přímé zahraniční investice. Nová libyjská vláda oznámila svůj záměr rozvíjet ekonomiku a zapojit ji do mezinárodního hospodářství, aby bylo dosaženo celý hospodářský rozvoj. Tato doktorská práce zkoumá a analyzuje libyjské obchodní podmínky v souvislosti s přímými zahraničními investicemi ve všech hospodářských odvětvích.

Hlavním cílem této práce je kvantifikovat příliv přímých zahraničních investic a jejich dopad na zaměstnanost v Libyi, jejich dopad na hospodářský růst a vliv přímých zahraničních investic na objem vývozu. Práce se pokusí zhodnotit přínos přímých zahraničních investic do libyjské ekonomiky. Výzkum zkoumá, zda jsou přímé zahraniční investice přínosem. Zda dochází k transferu nových technologií, zavádění nových postupů a zlepšení pracovních sil. Kromě toho výzkum se pokusí vyhodnotit, zda je libyjské podnikatelské prostředí schopno přilákat přímé zahraniční investice. Závěry práce bude obsahovat doporučení ohledně politik prováděných a postupy, které mohou být prospěšné při zlepšování úrovně podnikatelského prostředí, které umožňuje příliv dalších přímých zahraničních investic. Hlavním cílem této práce je prozkoumat vliv přímých zahraničních investic na zaměstnanost v Libyi.

Práce ukazuje, že i přes četné překážky a nedostatků souvisejících s obchodními podmínkami libyjská vláda relativně podařilo přilákat přímé zahraniční investice. Práce též ukazuje, že mnoho zahraničních investorů opustilo libyjský trh kvůli potížím v souvislosti s obchodními podmínkami v této severoafrické země. Studie také ukázala, že existuje mnoho problémů, kterých čelí tvůrci politik s cílem reformovat podnikatelské prostředí tak, aby bylo atraktivní pro přímé zahraniční investice.

Klíčová slova: Libye, přímé zahraniční investice, nezaměstnanost, ropa

Chapter 1 – Introduction

1.1 Introduction

Libya is located in the North African region and has very suitable geographical location to European and Middle Eastern countries. Libya is bordered by the Mediterranean Sea to the north, Algeria and Tunisia to the west, Egypt to the east, Chad and Niger to the south and Sudan to the southeast.[1] Libya with an area of almost 1.8 million square kilometers is the fourth largest country in Africa. Libya has the tenth largest proven oil reserves in the world. The largest city Tripoli is located in the western part of the country and has over one million inhabitants. The largest economic city in Libya is Misurata and this city is located in the north Middle of Libya. The population of Libya in 2005 was estimated by the United Nation almost 6 million and according to the UN the annual population rate of change was expected to be 2.4%. The UN estimated that more than 80% of the population lived in urban areas. The division of economic sectors is as follows; industry 58.3%, services 39.7% and agriculture 2.0%. [2], (Al-Mulali, 1999)

Until the 1960s, Libya was one of the poorest countries in the world. During that time GDP per capita was around USD 40. But after the discovery of crude oil in 1959, the economic situation was dramatically changed. Nowadays, crude oil, crude oil products and natural gas accounted for almost all the value of Libyan exports. Until the 1960s, more than 80% of the population as involved in agriculture and animal husbandry. In 2000, however, only less than 20 % of labor force was engaged in this sector. Currently, agriculture, forestry and fishing represent only 5% of Libyan gross domestic product. Libya is highly dependent on crude oil revenues which contributes as mentioned above to all export earnings and over half of gross domestic product. Since Libya is a small country with huge oil revenues, Libya has the highest nominal per capita GDP in Africa. Libya is an OPEC significant member and holds the largest proven reserves in Africa followed by Nigeria and Algeria. More than 80% of proven reserves are locate in the region Sirte which is responsible for more than 90% of the country's production. The crude oil sector is dominated by the state – owned National Oil Corporation, along

1 www.happytouring.com
2 www.tse.fi

with smaller subsidiaries. Oil income accounts for almost 95% of export earnings, 75% of government revenues and over 50% of GDP. (Alfourjani, 2005)

At the beginning of the 21th century Libya recorded favorable economic growth rate. This growth unfortunately was interrupted by the Libyan civil war which resulted in a decrease of the economy by more than 60% in 2011. The Libyan GDP per capita has experienced many fluctuations mainly associated with crude oil prices. For instant in 1980 it was 104% of USA per capita income while in 2005 it was just 19% of USA per capita income[3]. Mirroring the heritage of command economy, more than 75% of employment is delivered by public sector and the share of private investments is less than 2% of GDP. Libya as the case of many developing countries has a lot of financial and economic difficulties such as the dependency on crude oil sector. However, the potential of crude oil sector can bring huge foreign direct investments which provide high technology. (Jones, 1996)

The opportunities afforded by globalization have revolutionized the global business environment and transformed multinational corporations operations and structures. Foreign direct investments can improve the Libyan economy's competitiveness, productivity and efficiency since local firms has to adopt similar technologies and procedures in order to compete with foreign firms successfully. Libya has experience with foreign direct investments since 1958 when the first law associated with FDI came in force. Another law came in 1968 and was amended by law No. 5 in 1997. In 1998 the Libyan Investment Board (LIB) was established. The aim of this was to encourage the inflow of foreign direct investments. Another amendment was implemented in 2003. This amendment has main targets such as introduction of new technologies, improving the skills of local staff, diversification of income and improving of local products quality to meet international standards. FDI has played significant role in the discovery of crude oil and gas reserves which have the most important contribution for the state. Despite the huge contributions of foreign direct investment to Libyan crude oil sector, FDI failed to bring significant contribution to other economic sectors. Meanwhile most

3 etheses.dur.ac.uk

of the FDI has been directed towards the crude oil sector[4]. In this research I will explain the reasons [obstacles, barriers, difficulties] which inhibit the flow of FDI to the rest sectors in Libyan economy. In this is I will also concentrate on the role of political environment and its impact on inflow of foreign direct investments. The reason of that is very simple. Recently Libya has suffered a lot of lack of foreign direct investments mainly because of unstable political environment. As it will be written in the aim of the research, mainly I will concentrate on the role of foreign direct investments in decreasing unemployment rate in Libyan economy. (Kaminsky, 2004)

Since Arabic is the only official language and due to the lack of reliable information sources. Foreign firms are in most cases dependent on more or less capable local representative, or middlemen, whose abilities and usefulness, however, may take up to several months or years, so businesses can also cause considerable losses.

Obtaining market orientation therefore for the new company will be a long and costly affair. Therefore the advantage may have foreign companies that have in Libya for many years its affiliates. From a business perspective, the market is too risky for the Libyans themselves. In the legislative chaos to disregard the agreed commitments (in particular payment) and to use collusion is a common practice.

According to existing rules fall within far unchanged trade commitments under contracts with state companies and local representatives duly registered under the Libyan jurisdiction. Under a special government approval could be in the "management contracts" invoked arbitration clause. In the case of investment was possible on the basis of bilateral contractual arrangements (eg. An agreement on investment promotion and protection, which the Czech Republic with Libya has signed) achieved by international arbitration mechanisms. Generally, it is suggested and advised to avoid litigation with the state and businesses in Libya registered private companies because of their lengthy, costly and uncertain outcome. (Alfourjani, 2005)

The current situation in Libya in terms of the legal and institutional framework is characterized by paradox which lies in the Starting up a relatively large-scale institutional transformation while preserving the existing rights in all other areas that do

[4] etheses.dur.ac.uk

not affect political institutions. After elections in June 2012, the main task of the new Supreme National Congress and the government appointed by him as the two basic elements of the legislative and executive powers should be the development and adoption of a new Constitution and the related laws. Based on the current development, however, it can be assumed that this process will be very complicated and in the short term with an uncertain outcome, particularly as regards maintaining centralized control over the whole territory of Libya and the associated control of revenues from the oil and gas industry. Already, they are seen separatist and federalist tendencies unspecified especially in the southern and eastern regions of the country. (Al-Mulali, 20012)

1.2 Aim and Objectives

The main aim of this thesis is to examine the impact of foreign direct investments on employment in Libya and to fulfill this aim there is a need to identify the main determinants that determine the evolution of employment and jobs creation in Libyan economy. Based on these calculations and conclusions of the research, certain economic measures and recommendations will be suggested. The contribution of the dissertation should therefore be based on econometric techniques that we will be able to discover the scope and potential opportunities for economic and employment policies in Libya.

The complexity of the economic situation in Libya demonstrates the impossibility of fully applying the traditional tools of economic optimization and investment policy. Therefore, it must be carried out relevant research that reveals what tools are for the Libyan economy optimal and sustainable. OLS model implementation and the results should reveal the mentioned economic determinants and then open a corridor for possible recommendations and economical solutions. Subsequently, it can be specifically focused on the OLS model and the process of its implementation, which can be defined as an intermediate aim of the dissertation.

1.3 Research Questions and Hypotheses

The most important task of this thesis is to quantify the inflow of foreign direct investments and its impact on employment in Libya, their impact on economic growth and the impact of foreign direct investments on exports volumes. The thesis will attempt to evaluate the benefits of foreign direct investments to Libyan economy. The research

examines whether they bring benefits such as the transfer of know-how, the transfer of new technologies, the introduction of new procedures and the improvement of labor force. In addition the research attempts to evaluate whether Libyan business environment is appropriate to attract foreign direct investments. The thesis conclusions will contain recommendations regarding the implemented policies and procedures which can be beneficial in improving the business environment which enables the attraction of additional foreign direct investments.

This research is built to examine the impact of foreign direct investments on employment in Libya by answering the following research questions:

Which factors stand behind the rate of employment in Libya?

Which are the main factors that determine the creation of GDP in Libya?

What is the extent of inflation influence on employment development?

Within the research the following hypotheses will be accepted or rejected by using econometric tests.

H_1: There is a relationship between employment rate in Libya and the formation of gross domestic product.
H_0: There is no relationship between employment rate in Libya and gross domestic product.
H_2: There is a relationship between employment rate in Libya and net foreign investments.
H_0: There is no relationship between employment rate in Libya and net foreign direct investments.
H_3: There is a relationship between employment rate in Libya and inflation rate.
H_0: There is no relationship between employment rate in Libya and inflation rate.

1.4 Research Methodology

This research is based on the annual data of FDI inflow, GDP and employment during the period 1999-2014 in Libya. The database will regard FDI inflow into Libya, GDP

from OECD statistics, data regarding employment from the International Labor Organization's (ILO) database and using database of Index Mundi Database.

In the dissertation is used classical econometric model of least squares, which is called OLS. The analysis is based on the time series, which are the variables that are observed at a certain time. They are arranged with a predetermined time interval. In our analysis is used year period. It is very important to calculate the exact chronological order. In the time series analysis it must therefore not be any shifting of the observed values, for example, it is not possible to arrange monthly or quarterly data to annual data.

The model would then contain a mistake of the first order. In the model we are working with time series, which is stochastic and before we calculate it, we are able to say that it is stationary. This means that if the variance and the mean are constant in time, the value of the covariance between two time variables is dependent on the distance, then, there is a delay between time periods and not and not particular placement in time series . This weak request of stationarity is sufficient for our calculations. In calculation the stationarity test will be used. We will use Dickey-Fuller test. In the OLS model this test will be expressed by calculating the coefficient φ.[5]

$$\Delta y_t = (\varphi - 1) y_{t-1} + \varepsilon_t$$

$$\Delta y_t = \alpha + (\varphi - 1) y_{t-1} + \varepsilon_t$$

$$\Delta y_t = \alpha + \beta . t + (\varphi - 1) y_{t-1} + \varepsilon_t$$

The third equation in testing must include a time trend, which is indicated in the equation as a parameter β.t. coefficient φ contains the appropriate mistake known as the industry standard SE.

$$t = \frac{(\varphi - 1)}{SE(\phi)}$$

[5] http://www.bauer.uh.edu/rsusmel/phd/ec2-5.pdf

Further, in the test the numerical test result of the hypothesis φ-1 is displayed. For the alternative hypothesis it is valid that φ-1 <0. If *t* is greater than the critical value, the null hypothesis is rejected. It means that the time series is stationary.

For the purposes of determining hetrosedascity it will be used White's test. It is a general test of heteroscedasticity and it based on the principle of Lagrange multipliers. We need not to work with any special assumptions about the shape of heteroscedasticity and it which is the range of variance around the plotted function. White's test can be used wherever it is impossible to predict which of the independent variables affect changes in the variance of random components of the model.[6]

The general registration is:

$$\hat{\sigma}^2 = (T-k)^{-1}\left(\sum_{t=1}^{T} e_t^2\right)^{-1}$$

If there is no heteroscedasticity in the model is identical to the equation model. Otherwise, the estimate will vary. White's test is based on the number of observations. For the correct indication of heteroscedasticity it is necessary that the number of observations was higher than 10. The use of the test is possible, in spite that there are small deviations from the normal distribution.[7]

OLS model and tests (DF test and test DW) are used for the reasons of accuracy of results using Gretl. In traditional Western economies almost always there is interdependency between monitored macroeconomic indicators. That is why we can quantify the relationship between employment and GDP growth, foreign direct investments and rising prices (price inflation). It is obvious that GDP growth affects employment since the creation of wealth means creating new jobs, for example in financial sector or IT services. It is a logic economic relationship in traditional western economies. Is this relationship valid also in the Libyan economy?

6 https://www3.nd.edu/~rwilliam/stats2/l25.pdf
7 http://www.afhayes.com/public/BRM2007.pdf

The econometric model – OLS model [8], [9]

The estimation using the least squares is for our purpose is relatively accurate. When in linear regression model for the vector of random disturbances the following equation is valid

$$E(\varepsilon) = 0,$$

have a zero mean value

$$D(\varepsilon) = \sigma^2 I,$$

all have the same variance and are independent. The best impartial linear estimation of vector parameters β_1 to β_3 is the primary estimate using the method of least squares (ordinary least squares), which can be written in the form of a matrix

$$B = (X^{'}X)^{-1}X^{'}y$$

Undistorted estimation variance random failures σ^2 is

$$S_c^2 = \frac{\sum_{i=1}^{n} e_i^2}{n-p}$$

where

$$e_i = y_i - Y_i$$

the deviation of actual and theoretical value

$$Y_i = \sum_{i=0}^{k} b_j x_{i,j}$$

they are theoretical values dependent variable. Scattering parameter vector is

$$D(\beta) = \sigma^2 (X^T X)^{-1}$$

[8] http://kurt.schmidheiny.name/teaching/ols2up.pdf

[9] https://web.stanford.edu/group/fwolak/cgibin/sites/default/files/files/Structural%20Econometric%20Modeling_Rationales%20and%20Examples%20From%20Industrial%20Organization_Reiss,%20Wolak.pdf

From here we can derive the formula for estimating the standard deviations of the parameter estimates

$$S_{\beta_j} = \sigma\sqrt{xx_{jj}}$$

xx_{jj} where is j-th diagonal element of matrix $(X^T X)^{-1}$.

It will also be used variance decomposition, which is a tool for testing the quality of the model. The quality of the model is evaluated by three sums of squares:

$$SS_{tot} = \sum_{i=1}^{n} (y_i - \bar{y})^2$$

The total sum of squares, square deviation of dependent variables characterizing the variance of the dependent variable

$$SS_{reg} = \sum_{i=1}^{n} (Y_i - \bar{y})^2$$

regression sum of squares, called also explained sum of squares,

$$S_{err} = \sum_{i=1}^{n} (y_i - Y_i)^2$$

is residual sum of squares, it is unexplained rest of the sum of the squares. where

$$\bar{y} = \frac{\sum_{i=1}^{n} y_i}{n}$$

is the average value,

$$Y_i = \sum_{j=0}^{k} p_{j,} x_{i,j}$$

are the theoretical values of observations. *n* is the number of observations. In case the estimation by least squares method applies to linear regression model:

$$SS_{tot} = SS_{reg} + SS_{err}$$

Least squares method (OLS) is a mathematical-statistical method to approximate solutions to over determined systems of equations (ie. Systems where there are more equations than unknowns). "Least Squares" indicate that the final solution is to minimize the sum of squared deviations against each equation. The method is in its basic form designed for solving incompatible systems of linear equations (in the form of a general talk about nonlinear least squares method), making it virtually equivalent to so called linear regression.

The simplest application of the method of least squares we see, for example, when striping (approximation) measured one-dimensional line of data. Slightly more complex applications are the fit of the data parabola, general polynomial of predetermined degree, or general linear combination of predetermined basis functions. The fact that a polynomial fit of the data to any predetermined degree but is still linear regression is a frequent source of confusion and terminological confusion. Another simple application is to identify the most likely intersection of several lines (whose mathematical description is encumbered with an error) in the plane. Least squares method has very many other applications in a large range of disciplines in which we meet with inaccurate data from statistics and economics, through surveying to signal processing and control theory.[10]

Generally, least square method is used to eliminate errors that perform optimally relative to the fixedly given unambiguous criteria. Optimally eliminate errors in the data can also be due to other criteria, such a procedure may lead to methods transferable to the least squares method (using different types of weighting, e.g. when it is known that

[10] https://www3.nd.edu/~rwilliam/stats2/l25.pdf

an error of some measurements differ significantly from the rest) or methods generally non-negotiable (transferable or difficult) to the least squares method (eg. the full problem of least squares).

Let us begin by considering a k-variable linear regression model such as:

$$Y_t = \beta_1 + \beta_2 X_{2t} + \beta_3 X_{3t} + \cdots + \beta_k X_{kt} + u_t, \quad u_t \sim nid(0, \sigma^2), \quad t = 1,2, \ldots$$

We aim here to generate efficient estimators of the unknown parameters β_1 to β_k, so that each parameter can be estimated given a set of observations on the dependent and independent variables. We denote the estimators as follows:

$\hat{\beta}_1 \rightarrow$ estimator of $\beta_1 \rightarrow$ a set of observations on Y and $x_1 \ldots x_k \rightarrow \hat{\beta}_1$

$\hat{\beta}_2 \rightarrow$ estimator of $\beta_2 \rightarrow$ a set of observations on Y and $x_1 \ldots x_k \rightarrow \hat{\beta}_2$

...

$\hat{\beta}_k \rightarrow$ estimator of $\beta_k \rightarrow$ a set of observations on Y and $x_1 \ldots x_k \rightarrow \hat{\beta}_k$

The expected value of the dependent variable is given by the following expression:

$$E(Y_t) = \beta_1 + \beta_2 X_{2t} + \beta_3 X_{3t} + \cdots + \beta_k X_{kt}$$

and the estimated expected value is obtained by substitution of the point estimates into the equation above as follows: [11]

$$\hat{Y}_t = \hat{\beta}_1 + \hat{\beta}_2 X_{2t} + \hat{\beta}_3 X_{3t} + \cdots + \hat{\beta}_k X_{kt} \qquad (t = 1, 2, 3, \ldots)$$

where $\hat{Y}_t$ is the estimated expected value of Y or simply fitted values. In the theoretical model the difference between each individual value of the dependent variable and the expected value of the dependent variable is known as the disturbance term i.e.:

$Y_t - E(Y_t) = u_t$, for all $t = 1, 2, 3, \ldots$

[11] http://people.duke.edu/~rnau/notes_on_linear_regression_analysis--robert_nau.pdf

The empirical counterpart of the disturbance term (u_t) is known as the residual and is usually denoted as e_t. It can be obtained as follows:

$$e_t = Y_t - \hat{Y}_t = Y_t - \left(\hat{\beta}_1 + \hat{\beta}_2 X_{2t} + \hat{\beta}_3 X_{3t} + \cdots + \hat{\beta}_k X_{kt}\right) \quad , \quad \text{for} \quad \text{all} \quad t = 1, 2, 3, \ldots$$

Each residual shows the difference between an observed values of Y and the estimated expected value of Y and it is in this sense, that a residual may be considered to be the empirical counterpart/estimate of a disturbance term. The OLS method makes use of the concept of the residuals to obtain parameter estimates. In particular, under the OLS method, the parameter estimates are obtained such that the sum of the squared residuals is minimized. Note that a residual can be positive or negative, depending upon whether or not the estimated expected value of the dependent variable is greater than or less than a particular value of Y. We can square each residual and then sum up the squared residuals to obtain the residual sum of squares (RSS) as follows:

$H_1: \beta_2 > 0$ (imports and GDP are positively related)

We therefore have:

$$H_0: \beta_2 = 0$$

$$H_1: \beta_2 > 0$$

When we use OLS model we proceed also descriptive of characteristics, which are considered as presumption for accurate calculations. In the model and in the calculations there will be used the following selected descriptive characteristics.[12]

The mean is the best known measure of the position in the statistics. Also it is called population average. The mean value of random X is denoted EX, $E(X)$ or $< X >$. The mean is the parameter random variable, which is defined as the weighted average of the distribution. In the language of the theory of measure this is the value

12 www.absoluteastronomy.com

$$EX = \int_R x dP(x),$$

Where P is the probability measure determining the distributions of random variable, denoted by X. If the expression on the right side does not converge absolutely, then we say that the average value does not exist. If the random variable X is a continuous distribution with a density distribution $f(x)$, then

$$EX = \int_R x f(x) dx$$

If the random variable *X* discrete distributions where for $[X = s_i] = p_i$, $i \in$

I Maximum countable set values of different results, then

$$EX = \sum_I S_i p_i$$

Variance[13] is the mean-square deviation, root mean square fluctuation variance or dispersion as well. We use it in probability theory and statistics. It is the second central moment of a random variable. It is a characteristic of variation of the probability distribution of the random variable, which reflects the distribution of population variability of random values around its mean value. The variance of the random variable X is called $\sigma^2(X)$, $S^2(X), D(X)$ *or* $var(X)$. Dispersion is defined as the mean value of the squared deviations from the mean. Deviation from the mean value, which is the same size as a random variable, shows the standard deviation. For a discrete random variable we can define a relationship

$$\sigma^2 = \sum_{i=1}^{n} [x_i - E(X)]^2 p_i = \sum_{i=1}^{n} x_i^2 p_i - [E(X)]^2$$

13 http://www2.gsu.edu/~dscsss/teaching/mgs9920/slides/ch03%20ver3.pdf

where x_i are the values which the random variables X acquire (with probability p_i), and $E(X)$ is the mean value of the variable X. If the probability of discrete values equal, then a previous relationship simplifies to

$$\sigma^2 = \frac{1}{n}\sum_{i=1}^{n}(x_i - E(x))^2$$

where n is the number of elements of the file. For continuous random variable is defined dispersion relation

$$\sigma^2 = \int_{-\infty}^{\infty}[x - E(X)]^2 f(x)\,dx = \int_{-\infty}^{\infty}x^2 f(x)\,dx - [E(X)]^2$$

Where $f(x)$ is the probability density of variable X. For product variance of the random variable X and constants α valid

$$\sigma^2(\alpha X) = \alpha^2\sigma^2(X)$$

The variance of the random variable is invariant to shift b, thus

$$\sigma^2(aX + b) = a^2\sigma^2(X)$$

The variance of the sum and difference of random variables X, Y is equal to

$$\sigma^2(X \pm Y) = \sigma^2(X) + \sigma^2(Y) \pm 2\,Cov(X, Y)$$

$$\sigma^2(aX \pm bY) = a^2\sigma^2(X) + b^2\sigma^2(Y) \pm 2ab\,Cov(X, Y)$$

Where $Cov(X, Y)$ is the covariance parameters X and Y. If the random variables are independent, their covariance is zero, and therefore the variance of the sum (difference) is equal to the sum of the individual variances of random variables. Similar argument also applies to the sum of the dispersion a plurality of random variables. For the calculation of the scattering is often used the following relationship:

$$\sigma^2(\mathrm{X}) = \mathrm{E}(X^2) - [E(X)]^2$$

Arithmetic mean[14] **is** a statistical value, which in a certain sense expresses a value that describes the typical set of multiple values. Arithmetic average usually indicates a horizontal bar over the variable name, respectively. Greek letter μ. Definition of the arithmetic mean is

$$\bar{x} = \frac{1}{n}(x_1 + x_2 + \cdots + x_n) = \frac{1}{n}\sum_{i=1}^{n} x_i$$

Which is the sum of all values divided by their number. In common parlance the word is usually a general average of just thinking arithmetic average. Properties arithmetic mean

$$\sum_{i=1}^{n}(x_i - \bar{x}) = 0$$

$$y_i = ax_i + b \Rightarrow \bar{y} = k\bar{x} + c$$

(linearity diameter), specifically:

$$y_i = x_i + c \Rightarrow \bar{y} = \bar{x} + c$$

$$z_i = kx_i \Rightarrow \bar{z} = k\bar{x}$$

In the calculations it will be used alternative method. As a suitable for comparison with the result of the OLS model it will be used linear regression. It will determine the strength of relationship between a pair of variables, one of which is always dependent variable (employment). To this variable they are assigned to the independent variables. Gradually the variable of GDP will be assigned, followed by inflation and eventually foreign direct investments. Regression function must be identified and called f . Most often it happens so that this function is assumed in a general form dependent on

14 http://www2.gsu.edu/~dscsss/teaching/mgs9920/slides/ch03%20ver3.pdf

unknown parameters of regression or regression coefficient. The coefficients are then estimated based on the observed data. For the calculation we will use the general equation of regression function:

$$\mathbb{E}(Y|X_1, \dots, X_p) = \beta^0 + \sum_{j=1}^{p} \beta^j X_j$$

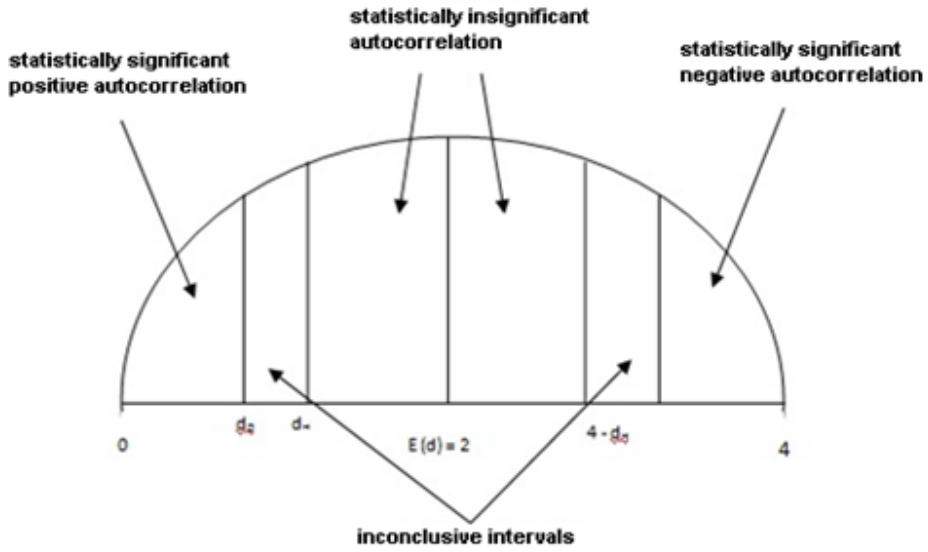
with regression coefficients β.

In or analysis also we will use the **Durbin - Watson test**[15] which detects autocorrelation of 1st order. For the autocorrelation of higher order usually is used advanced screening test called. BG test - higher order autocorrelation, which will not be used. The autocorrelation of random components is a phenomenon which shows a Gauss-Markov breach requirement for estimating the possibility of regression coefficients by least squares method. Therefore, the test was used for our model Covariance matrix $\sum$ which is in the case of uncontrolled of random elements shape: $\sum = \sigma^2 I_n$, when autocorrelation has a nonzero covariance (ie off-diagonal elements are nonzero). The σ is an indicator to us unknown variance of random components and I_n is the unit matrix of order n. This means a loss of power estimation and asymptotic power estimates of regression coefficients ($\beta_1 = 1{,}06;\ \beta_2 = 9{,}34e^{-10};\ \beta_3 = -4{,}56e^{-9}$). σ^2 and standard errors are biased S_{b_j}, R^2 is overvalued, while t-tests are weak and residues are undervalued. Therefore, it is necessary to begin testing the occurrence of autocorrelation of because they do not know the exact shape of the vector of random ingredients in, we work with vectors residues e_i. Therefore, we use the Durbin - Watson test. Assuming the use of the test are : (1) Single-level constant in the model and (2) regressors they are not stochastic variables. The testing statistic is based on an algorithm:

$$d = \frac{\sum_{t=2}^{T} (e_t - e_{t-1})^2}{\sum_{t=1}^{T} e_t^2}$$

15 http://www.math.nsysu.edu.tw/~lomn/homepage/class/92/DurbinWatsonTest.pdf

Figue No. 1.1: Durbin - Watson test



Source: author's own drawing

For the final characteristics it cannot be determine the critical value at which we would reject the hypothesis H_0 (see the methodology) during testing against d-statistics. Evaluation procedure is as follows. It is true that statistics d has an average value $E(d) = 2$ and it is located in the interval $< 0; 4 >$; we determine the table value of d_D (lower limit d) and H (upper limit d) according to the degrees of freedom model; we compare the value d with the following intervals on the basis of the position of d we evaluate the autocorrelation. The interval $< 0; dD >$indicates positive autocorrelation; In the interval $< d_D; d_H >$ we can not decide whether it is a correlation or not; Interval $< d_H; 2 >$ points to a statistically insignificant positive autocorrelation; Interval $< 2; 4 - d_H >$ refers to a statistically insignificant negative autocorrelation; in the interval $< 4 - d_H; 4 - d_D >$ we can not decide whether the correlation or not; Interval $< 4 - d_D; 4 >$ refers to a statistically significant negative autocorrelation.[16]

[16] http://www.math.nsysu.edu.tw/~lomn/homepage/class/92/DurbinWatsonTest.pdf

1.6 The Study structure

The thesis has six chapters. The first chapter is an introduction. This chapter gives an overview regarding Libya as a country and contains the aims and objectives of the thesis. The introduction also contains the research questions and hypotheses. This chapter as well explains the used methodology. This research is based on the annual data of FDI inflow, GDP and employment during the period 1999-2014 in Libya. The database will regard FDI inflow into Libya, GDP from OECD statistics, data regarding employment from the International Labor Organization's (ILO) database and using database of Index Mundi Database. Chapter two analyzes the economic theories which are associated with foreign direct investments. In this part of the research the main focus is devoted to theories such classical macroeconomics, real business theories, gradualist theories, Keynesians theories and theories which deal with foreign direct investments and economic growth. The third chapter deals with the impact of risks on foreign direct investments. This part of the study deals in details with the political risk and its types and the approaches how to avoid this risk and how to predict it. In this chapter the study also deals with motives of foreign direct investments, the effects of foreign direct investments and their impact on host economies and the protection of foreign direct investments. Chapter number four deals with the characteristics of Libyan economy. This part of the research presents the sectors of Libyan economy, the importance of crude oil in this economy, the public finance of this country, explains the external relationships of Libya and explains in details the important factors of Libyan economy. Chapter five is the practical part of the research. This part contains the econometric analysis of the research. This part using the presented methodology deeply analyzes the relationships between economic growth (GDP), inflation, foreign direct investments and their impact on employment in Libya. The last part of the research presents the conclusion and recommendations. This doctoral thesis contains supplements and references.

Chapter 2 – Foreign Direct Investment and Economic Theories

2.1 Economic Theories Related to the Research

2.1.1 The Classical Macroeconomics

New classical macroeconomics has started to develop in the 70s of the 20th century in the United States concurrently with monetarism, especially in connection with new phenomena in the economy (stagflation), which could then dominant Keynesian theory to explain. Comparing with monetarism, however, this new theoretical approach based on a more rigorous neoclassical foundations. Unlike the concept of adaptive expectations, this school concentrates on of dynamic models of general economic equilibrium of perfectly flexible pricing.[17] This implies an understanding of the market economy as a completely stable system that could collapse just because of outside interference. New classical macroeconomics takes many considerations of Friedman's monetarism, but they differ in view of the neutrality of money. If businesses make good rational expectations, money is neutral in the short term. Successors of new classical macroeconomics (advocates of real business cycle theory) even claim that money is neutral at all times. Monetary policy and according to this theory does not have the slightest effect on real variables. From monetarism this theory also differs by rigorous foundation to the overall balance, sophisticated methodologies and more extreme conclusions. The new classical macroeconomics operates on the principles of two known facts, the first on is that markets clear themselves and the second one is the fact that actors in markets behave rationally. The classical macroeconomics assumes that prices are flexible and wages are flexible as well to reach potential gross domestic product and full employment. This analysis is new because it expects that price flexibility and wage is almost promptly. In many cases the implemented fiscal or monetary policy can highly influence the composition of aggregate demand. The aimed

[17] http://wps.aw.com/wps/media/objects/11/11640/rohlf_keynes_and_classical.pdf

target of unemployment is the natural rate of unemployment in economies (full employment). (Jonas, 2009)

The first significant insight on macroeconomic issues is contained in classical economics (A. Smith, D. Ricardo et al.), which is characterized by the idea of freely functioning markets and, therefore, in the macroeconomic dimension (in modern terminology) is automatically maintained in the position of full employment. Figuratively expresses self-regulating market system as the effect of "invisible hand" of the market (statement A. Smith, 1776). It lies in the fact that individuals pursue only their own interests, yet, thanks to market forces (rather than central control), producers meet the needs of buyers, while there is a necessary division of labor which leads to efficient use of resources. This operation of the market has also resulted in a general harmony of interests of individuals and society. The position of the individual to the government is characterized by the slogan "laissez - faire" (let us act).

Since the last third of the 19th century, the neoclassical economics began to dominate, gradually deepening macroeconomic analysis with a liberal orientation (except for the foundations of the standard economic analysis to create a series of partial macroeconomic concepts - A. Marshall, later, AC Pigou, I. Fisher et al.). The new conservative economics as a follower of neoclassical economics was embodied in the 60s and 70s of the 20th century as a new conservative economics (Neoconservatism), especially in the form of monetarist theory (with representatives such as M. Friedman, further especially AH Meltzer, K. Brunner, PD Cagan et al.). The central role of macroeconomic processes is attributed to money and monetary policy, the role of government in other ways to be minimal.

2.1.2 Gradualist Monetarists

The term Gradualist derives from the implication of this analysis for a government that inherits a high rate of money growth and inflation and wishes to reduce inflation considerably in the long run. [18] Under the New Classical analysis, immediately slashing the rate of money growth might lead to a very temporary increase in unemployment

[18] http://www.jec.senate.gov/reports/97th%20Congress/Monetarism%20in%20the%20United%20States%20and%20the%20United%20Kingdom%20%281102%29.pdf

until existing wages could be renegotiated, but that is all. Since the Gradualists believe that wage adjustment is more sluggish, they believe that a very large reduction in the money supply might lead to quite a large Keynesian slump because a large adjustment in wages and prices would be required. Thus, even though the economy would return to full employment within two or three years, it would make sense to obtain the eventual benefits of slower inflation without incurring the worst of the severe recession in the short run. By reducing the rate of money growth more slowly, the problems of wages and price adjustment could be eased and the recession would be much less severe.

2.1.3 Monetarism

Monetarism is a theory that is related to emphasizing the importance of money, including their self-regulatory functions and rejecting state intervention in the economy (around 1968). Monetarism is clearly a liberal orientations emphasizing laissez faire. From a certain point of view, more specifically it is an Austrian school, but the real liberal philosophy of monetarism is still far away. The most important personality of monetarism is Milton Friedman. Unlike American monetarists, European, especially British monetarists, more focused on the problems of an open economy, especially in foreign exchange rates and monetarists prefer floating rates.[19]

This stream is the oldest and most influential of the neo-conservative theories. The beginnings of this theory fall into the mid-50s, the most elaborated in the 60s and 70s and early 80s has a significant influence on the policy of many countries. Since the second half of the 80s the influence of monetarism has been decreasing, but today it is being used by many of his concepts. Monetarism is largely based on the quantity theory of money. According to Friedman, we can lay between those two things equate. This is actually the major dispute with new Keynesians who advocate fiscals.

Monetarists say that money causes changes in the economy and Keynesians say that money is the result of activity in the economy.

The basic emphasis put monetarists on the money supply - a key factor in the growth and potential instability. The demand for money is a function of several variables and is stable. Control of the monetary aggregate is a prerequisite of stability and economic growth.

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19 http://www.thomaspalley.com/docs/articles/macro_theory/monetarist_counterrevolution.pdf

Money supply growth should be the same as the development of potential GDP. With this control of the monetary aggregate it is necessary to establish long-term stable and transparent rules. Friedman regarded inflation as purely monetary phenomenon and argued that it is necessary to fight with it. Keynesians criticized for causing inflationary pressures. Unlike Keynesians (who as an instrument of monetary policy management considered the interest rate) monetarists prefer to control the quantity of money in circulation.

Monetarists want a small country and highlight the dangers of state interference. If the government increases its spending and finances it by borrowing from local people and only crowds out private spending. The inflation occurs when government spending is financed by increasing the money supply.

Friedman also edited the idea of the Phillips curve. He argued that the Phillips curve as described by Phillips works only in the short term. In the long run, this curve is vertical. This idea advocated the example, when the government using fiscal and monetary tools to stimulate demand in order to reduce the rate of unemployment. In the short term, unemployment will decrease, but after the dissolution of the monetary illusions about 6-9 months, the unemployment rate returns to normal. The money illusion means that people feel that they increased real income and therefore offers more work, which in the long run proves to be a mistake, because people grew only nominal income. On the other hand, inflation expectations people have built into their requirements and created the so-called phenomenon of inertial inflation. Hence the conclusion is that in the long run it is not possible to choose between the size of unemployment and inflation.

2.1.4 New Keynesians

"Keynes's theory marked a major turnaround in macroeconomics and created basic conditions for building a new paradigm in economics. These assumptions have not been fully utilized and in mainstream economics prevailed the neoclassical interpretation of Keynes's theoretical legacy in connection with the advent of neoclassical synthesis, which has become the prevailing tendency in the development of Keynesianism after World War II until the mid-70s.[20], [21]

[20] http://wps.aw.com/wps/media/objects/11/11640/rohlf_keynes_and_classical.pdf

In development of Neokeynesian Economics played a decisive role, in addition to John Hicks, American economists Alvin Hansen, Franco Modigliani, PA Samuelson and James Tobin. The real creators of neoclassical synthesis became A. Hansen and F. Modigliani, because they were able to show that it is possible draw out the Keynesian involuntary unemployment using the neoclassical model. Such a result can be complete, if at least one of the following conditions is valid:

1) Wages are inflexible downwards. Therefore, there can be no clean-up of the labor market, which is otherwise typically modeled on the basis of neoclassical theory: the supply of labor is based on balancing real wages and marginal loss of job and labor demand is based on balancing the real wage and the marginal productivity of labor. However, if wages flexible labor market gets automatically into balance, in which involuntary unemployment can exist.

2) If the economy gets into liquidity trap while existing interest rate exceeds the interest rate which corresponds to full employment. Liquidity trap then prevented further decline in interest rates.

3) Investments are insensitive to interest rates. This can happen in a deep depression when the expectations of entrepreneurs are very pessimistic, so the expected marginal efficiency of investment is very low (if not negative). Then either lowering interest rates can stimulate the growth of investments to the level needed to achieve full employment

If none of these conditions is valid, the economy will behave according to the neoclassical model and comes to full employment (if there is unemployment, it will only be voluntary). In this conception, Keynes's theory becomes a special case of a general neoclassical theory, a case where in the markets exists the above mentioned inflexibility. In doing so, it was considered that these rigidities (except perhaps in a deep depression, as it was in the 30s) have a short-term nature, so that the economy, which in the short term will act according to the Keynesian model, behaves in the long run according to neoclassical model.

[21] https://www0.gsb.columbia.edu/faculty/jstiglitz/download/papers/1987_Keynesian_New_Keynesian_and_New_Classical_Economics.pdf

"Compared to JM Keynes, who stressed that the assumptions upon which it is built neoclassical economics do not correspond to the achieved level of development of market economy, the neoclassical synthesis reached to completely opposite conclusions. Neoclassical synthesis works with the concept of self-regulation, the possibility of a modern market economy, which is potentially able to use available economic resources. The ability of self-regulation, however, is limited by the action of the barriers that stand in the way of automatically restoring the balance. In fact it is the recognition of general validity of neoclassical economics. Keynesian economics force is then in contradiction with Keynes limited to situations connected with the existence of barriers that prevent the automatic restoring the balance in full utilization of available resources.

2.1.5 Post Keynesians

During the 20th century, it has developed several streams of economic theory. The first stream is very important and which is called Keynesians, it is named after the US economist JM Keynes. This direction came in the period of the Great Depression of 1929. The actual direction evolved after this crisis. The basic elements are seen in the unemployment rate, which is unlike in the classical economics considered as involuntary.[22]

Until the early 70s of the 20th century the Keynesian theory has been theory followed by Post Keynesians. In principle, the direction coincides with the basic idea of Keynesianism. It is only enriched by new elements that were not important in the early 20th century - eg. crude oil production, which began to influence significantly the price level and the development of GDP and GNP in economies.

Post Keynesianism has appeared gradually during the 50th to 70th years as a relatively independent stream and independent to new Keynesianism. It was not, however, homogenous stream. Its leaders strive for the completion of the revolution in economic theory, which he started by JM Keynes in the 30s. Unlike new Keynesianism, which is seeking more for continuity between Keynesian and neoclassical economics, the Post Keynesians put particular emphasis on the part of Keynes's work, which represents a

[22] https://www.postkeynesian.net/downloads/Publications/PostKeynesianEconometrics%20BK1.pdf

clear departure from neoclassical economics. According to the Post Keynesians, Keynes's work opens in the economic thinking a new developmental stage. Post Keynesianism economy is based on the Keynes theory as it was developed in the treatise on Money and General Theory. Particularly, it was explained by the interpretation of the General Keynes theory by British economist George LS Shackle. He emphasized that economic agents make decisions not in terms of risk, but under conditions of uncertainty. As a basis of Keynes General Theory Shackle considers uncertainty, which is according to him is the decisive factor causing fluctuations in the market economy and is the main cause of its inherent instability.

Post Keynesianism economics aims to examine contemporary capitalist economy the most realistic form - with imperfect competition in the markets, with a prevalence of oligopolistic structures, developed monetary and credit institutions, trade unions and others. This is based on the distribution of contemporary capitalist society into two classes. The first class is the class of entrepreneurs and the class of workers. (This division since classical political economy was not customary to use).[23]

The followers of this trend can be very rough breakdown divided into European Post Keynesians; among them a very long time played a dominant role the Italian-Cambridge College, and American Post Keynesians. The main differences between them consisted mainly in the subject of interest. Italo-Cambridge school focused attention on the issues of growth and distribution, while American Post Keynesians focused on the theory of money. This difference, however, from the late 70s and 80s of the 20th century gradually disappearing, or have not been absolute. [24]

2.1.6 Keynes versus the Classics

The basic difference between the various approaches is not only a difference of more than a century, but also it is different attitudes toward economic policy. While classical economists considered the economic policy makers as creators of market environment where the market runs free, only on the basis of the confrontation of supply and demand, the proponents of the theory of JM Keynes attributed the presence of

[23] http://www.boeckler.de/pdf/v_2009_08_03_lavoie_lecture_part1.pdf
[24] https://www.postkeynesian.net/downloads/Publications/PostKeynesianEconometrics%20BK1.pdf

government in the economy of much greater significance. In addition to determining the "rules of the game" for the economy, expected from the government to stabilize the economy through their spending. They were aware of the ability of government intervention to influence the operation of the economy to a higher power, or, conversely, the ability to cool down it in case of need. And they vary in their understanding of unemployment. While Smith, Malthus and Ricardo considered unemployment as involuntary, Keynes already works with the concept of voluntary unemployment.

2.1.7 The Function of Savings and Investment in the Economy

In classical political economy it is expected the automatic conversion of savings into investments. Even though it was nowhere explicitly stated, this idea is very clearly evident in all parts of classical economists papers. With this idea the classics treat as a matter of course – always valid idea. And all this has to do with their understanding of the unemployment rate as a function of capital. Only if you apply the above premise, the mechanism can operate when the newly accumulated capital turns into wages of workers and help reduce to unemployment. [25]

By contrast, Keynes does not imply that investments and savings are affected by the same factor, namely interest rate, which would operate on the money market as the price of both savings and investments. The economist of the twentieth century has derived the size of the savings mainly from the size of the income. Keynes meant by the disposal income or in other word income after taxation. This is the income which can be consumed or saved. Consumption Keynes divided to autonomous consumption and induced consumption. Autonomous consumption is the consumption which is not affected by income. The second one is induced consumption is the consumption which strongly affected by income. According to Keynes interest rate thus does not play a major role, and it is not even in the case of investments. The size of investments is the result of different factors, and one of them is the interest rate but not the only factor. Investment decisions to a large extent by Keynes also depend on expectations of return

[25] http://www.treasury.govt.nz/publications/research-policy/wp/2001/01-32/twp01-32.pdf

on investment and other environmental effects, such as political stability. The rate of return is the most important factor regarding investments. Thus Keynes in his work denies one of the basic assumptions of functioning unemployment rate as a function of capital. So he has thoroughly disrupted until that time a highly respected economic theory and brought his own theory, where the unemployment rate is not only dependent on the accumulation of capital, but the role is played by other actors. Despite the above-mentioned conflict of the two theories, in some parts they have similar or identical features in understanding the mechanism of unemployment. Already Smith in his "Wealth of Nations" means that the unemployment rate is derived from the demand for labor, which is dependent on the demand for goods and services. And in another part of his work he characterized that capital is able to reduce unemployment, since the employee demands goods and service s and he buys them by his wage. Smith does not link these two ideas, but the numerator knowledgeable of his work and the work of Keynes could see connections that JM Keynes in his work expresses explicitly and connects them to draw further conclusions for unemployment. Perhaps that is why in the beginning of Keynes' General Theory, "he points out that he is not going to come up with a completely new and revolutionary idea, difficult for understanding but with a new look to it, differentiating it from what is existing, mostly classical understanding. Today's students of economics and management meet this issue throughout their studies. They are learning about various theories of unemployment and its importance for society and for the economy or politics, and awareness of concepts such as the natural rate of unemployment or the resolution of unemployment to structural, cyclical and friction are considered almost for granted. In the past, but it was not as it is now. While unemployment has been an integral part of every economy, but none of the economists considered it as something that would need to be further explored in economic terms. And so it is devoted just by marginal stories in the works of the greatest economists.[26]

[26] http://www.treasury.govt.nz/publications/research-policy/wp/2001/01-32/twp01-32.pdf

Table No. 2.1: Economic theories

	New Classical	**Gradualist monetarist**	**Moderate Keynesian**	**Extreme Keynesian**
Market clearing	Very fast	Quite fast	Quite slow	Very slow
Expectations	Rational adjust quickly	Adjust more slowly	Could be fast or slow to adjust	Adjust slowly
Long run / short run	Not much difference since fast adjustment	Long run more important	Don't neglect short run	Short run very important
Full employment	Always close	Never too far away	Could be far away	Could stay away
Hysteresis	No problem	No problem	Might be big problem	Not a big problem
Policy conclusion	Demand management supply side needed	Supply side more important; Avoid wild swings in demand	Demand management important too	Demand management what counts

Source: Own processing

2.2 Typology of Foreign Investments

Portfolio investments can be classified as short term, unstable and highly volatile. Their purpose is to assess the deposited amount and profit from the interest rate differential. In this case the investor interest is to control and manage the company. Portfolio investments are characterized by letting you divide the total amount of investments in individual shares, while each part is invested with a specific goal and a specific risk. This investment makes it possible to divide the risk that arises from the effects of future achievement. Due to the nature of portfolio investments, they are financial transactions with a speculative motive, because of their positive impact on economic growth is not provable. For this reason, I will not consider portfolio investments as part of foreign investments, which hypothetically have a positive impact on the economic performance of the country. (Haddad, 1993)

In contrast, foreign direct investments are by their nature long-term, non-debt and relatively more stable than portfolio investments. Under direct foreign investments it can be thought of not only investment in the basic of a company capital and its increase, but also as reinvested earnings and other capital. Specifically, it can be a purchase of securities such as stocks or shares in a company to gain its profits, and share its

management and control or as an acquisition, joint - ventures or to build a new plant. In the latter case, the investment is a physical investment or it is called "greenfield investment or brownfield". Under the name of Greenfield investment we can imagine the construction of new or expansion of an existing plant. (Gorg, 2000)

In the case of brownfield investment, the investor does not build a new plant, but he buys or takes into rent an existing factory, which is not utilized efficiently. In both cases it is establishing of a new production, which is involved in the creation of domestic product and increase employment in the region. Investments through acquisitions include activities aimed at obtaining sufficient proportion necessary to take control and ownership of the company.

This is obvious that there is a change in the ownership of assets. Direct foreign investment is realized through the modernization of existing production facilities and by increasing production efficiency. The entry of foreign capital in this form usually prevailed at the beginning of the transformation and during the period of privatization, when the foreign owner decides to restructure the plant itself. This form is usually associated with "lean-society," it is necessary in the context of streamlining production to accede to the dismissal of employees. The joint venture is a form of cross-border cooperation between two companies - domestic and foreign, who undertake to create a joint venture, which will enable them to maximize the benefits. This cooperation will contribute to a better understanding of both companies in export markets. (Gorg, 2000)

To be considered as a foreign direct investment, the investor must obtain a certain ownership share of the company. According to the IMF there is foreign direct investment if the foreign investor acquires a share of ownership of at least 10% of the ordinary shares or voting rights. This criterion is known as the ten percent rule - "The 10 percent rule".

From foreign direct investment is expected to result in new, expanding or acquiring existing companies that will create new jobs and new economic opportunities that will have a positive impact on the national economy. In addition, it is also expected to increase tax revenues from companies with foreign participation.

2.2.1 Foreign Direct Investments Theories

The transfer of capital between countries is often referred to as foreign investment. Traditionally, there is a distinction between foreign direct, portfolio and other investments (sometime it is called short term investments related fluctuations of currencies). The latter may take the form of foreign loans and long-term loans. The inflows and outflows investments are recorded in the balance of payments. Investments are recorded in the financial account. The balance of investments has a huge impact on the foreign exchange rate and on the whole economy. Decision makers always attempt to implement economic policies with aim to let the current account of the economy matches the financial account. Economic policies such as monetary policy, fiscal policy and trade policy should be implemented according to the economic situation and external balance of the economy. [27] There are four cases (see the chart of Swan diagram). The first case when the economy suffers from recession and it has an external surplus in trade. The second case the economy suffers from recession but it has a deficit in trade with the rest of the world. The third case is when the economy fights with inflation and has a surplus in trade. The last case is when the economy fights with inflation and has a deficit in trade. (Balasubramanayam, 1996)

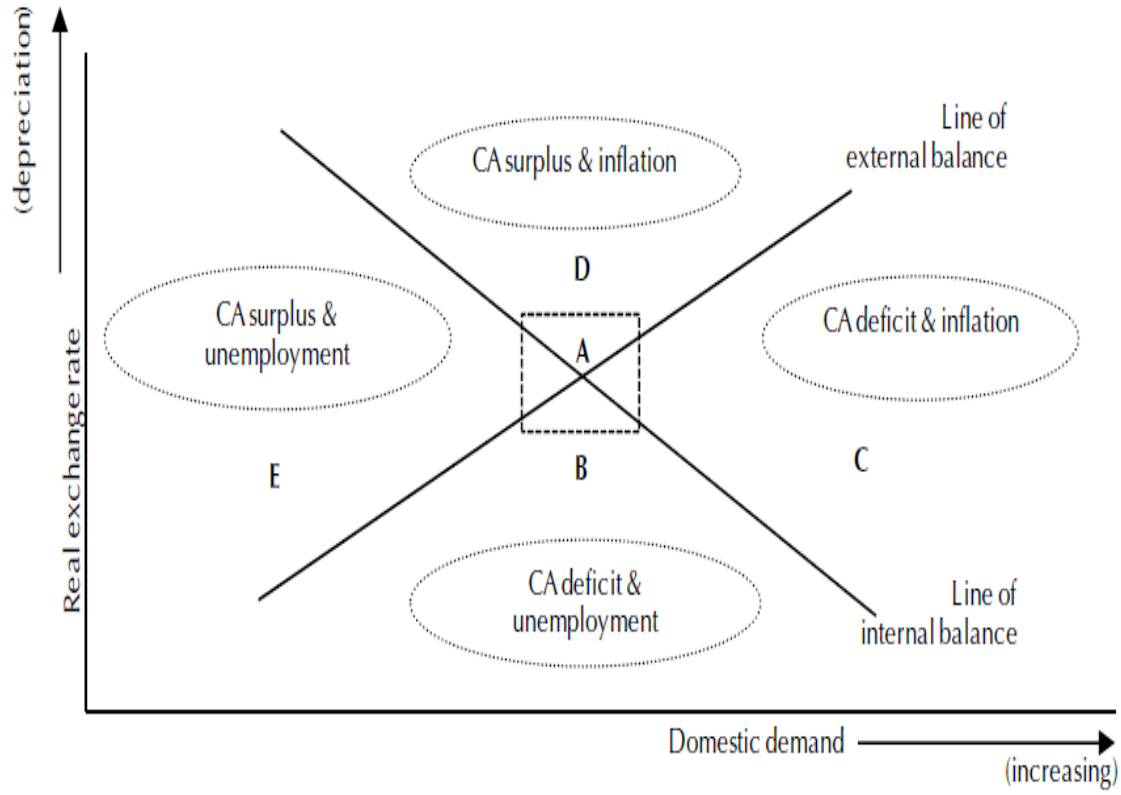
In case that the economy suffers from recession (high rate of unemployment – free resources in the economy) and it has external trade surplus, it means that it has recession but at the same time it exports more than it imports, so the government implements expansionary fiscal policy to encourage spending. This policy means that government will decrease tax rate (sometimes the government increases government expenditures), then households will have more of income after taxation and then they will be able to consume more of goods and services. This means that aggregate demand will increase because of an increase in consumption. Firms also will pay less on taxes, because of that, they will be able to invest more. Increase in investments also will be reflected in aggregate demand. In other word the economy will move to the right, which means that GDP will increase. By the way the government closes the recessionary gap, and at the same time this policy will lead to more of exports. When aggregate demand increases, gross domestic product increases and imports will increase. When imports increase, the economy will be able to eliminate the surplus in trade and reach the point

[27] http://artnet.unescap.org/pub/awp143.pdf

of external balance. In case that the economy suffers from recession and has a trade deficit, this policy will not be enough. The government has to influence the foreign exchange rate to encourage exports. Then the government will implement policies to deprecate the domestic currency. By the depreciation of the domestic currency domestic goods will become for foreigners cheaper than before. The depreciation of the domestic currency will evoke a greater demand abroad. This situation will lead to an increase in exports and lead to deficit elimination and reaching the external balance.[28]

[28] http://artnet.unescap.org/pub/awp143.pdf

Figure No. 2.1: The swan diagram



Source: http://higheredbcs.wiley.com/legacy/college/salvatore/0470505826/study/ch18.pdf, own processing

In case of inflation (the demand exceeds the aggregate supply) the government implements restrictive fiscal policy to discourage spending and cool down the heating of the economy. This is done by increasing tax rate or decreasing government expenditures. When government increase tax rate, household will have lower income after taxation. Because of that they will decrease their consumption. By the same way firms will react on this situation and they will decrease their investments. This behavior will lead to a lower aggregate demand and decreasing of gross domestic product. In case that economy has a deficit in trade, this restrictive policy will be enough to eliminate inflation and also to eliminate trade deficit. Since the decrease in aggregate demand will evoke a decrease in gross domestic product and then a decrease in imports. Decreasing imports will eliminate the deficit and by this the economy will be able to reach the external balance. In case of inflation and surplus in trade, restrictive fiscal policy will not be enough to reach both targets. It means to decrease the price level and to eliminate surplus in trade. In such a case government implements policies to decrease the international competitiveness of the economy and by this way it will decrease exports

and reach the external balance. The central bank sells foreign currencies and buys local currency. When the central bank buys local currency, the local currency appreciates and because of this appreciation the local goods and services become more expensive for foreigners. When the currency appreciates exports decrease and the county eliminates the surplus in trade.

The four cases of imbalance are explained in so called Swan diagram. This diagram includes the targets of economic policies. The targets are three internal targets and one external target. The internal targets are to have a stable economic growth, low rate of unemployment and low rate of inflation. The external target is to have a balance in trade.

2.2.2 The Theories of Foreign Direct Investments

Currently, there is a comprehensive structure of various theoretical views on the transfer of capital to foreign economies. There are many motives why investors move abroad. In this part of thesis I would like to explain the widespread theory that deal with the issue of foreign direct investments and the existence of transnational corporations. [29]

Product cycle theory, whose author is R.Vernon (1966) provided one of the earliest and best explanation of the role of foreign direct investments the business strategies of multinational companies. Vernon in his work focused on clarifying why capital does not shift quickly from industrialized economies to less developed economies. His theory is based on the distribution of the product lifecycle into four phases.

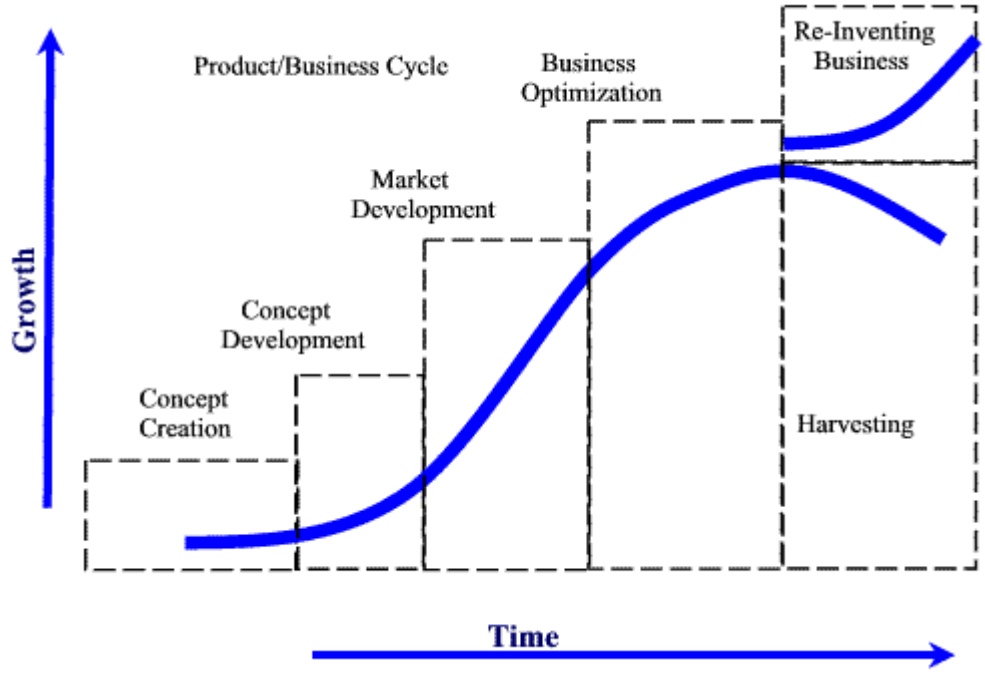
The first phase - the launch of product – it takes place in the domestic economy due to the fact that the company is well known at the domestic market, established and knows the local environment. This enables better communication with the market. The company is able to respond effectively to possible modifications of the product according to customer needs. Once the product is competitive, the company starts to think about expansion into foreign markets and moves into the growth phase. The company expects that it has a monopoly advantage at the foreign market derived from

[29] http://artnet.unescap.org/pub/awp143.pdf

the innovative leadership and certain transitory barriers to entry into a sector, allowing it to gain a higher profit than normal.

Over time, however, the products and processes of standardization and products become very sensitive to price. Companies to maintain the competitiveness of their products while maximizing profit, they are forced to move production to less developed countries with lower production costs. At this point, the product is located in the stages of maturity and decline. This pattern is typical for markets such as market of goods, market electronics, where the important role during the utilization of innovation is played by brand and marketing.

Figure No. 2.2: Life cycle of international product



Source:http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.474.83&rep=rep1&type=pdf, own drawing

Eclectic theory was processed JH Dunning (1993) and summarizes in itself three major theories of foreign direct investment. The overall concept is known as "OLI" paradigm, which argues that foreign direct investment is a function of certain benefits. Advantages which the investor has are the ownership, the location and internalization.

FDI = f („O“, „ L“, „I“)

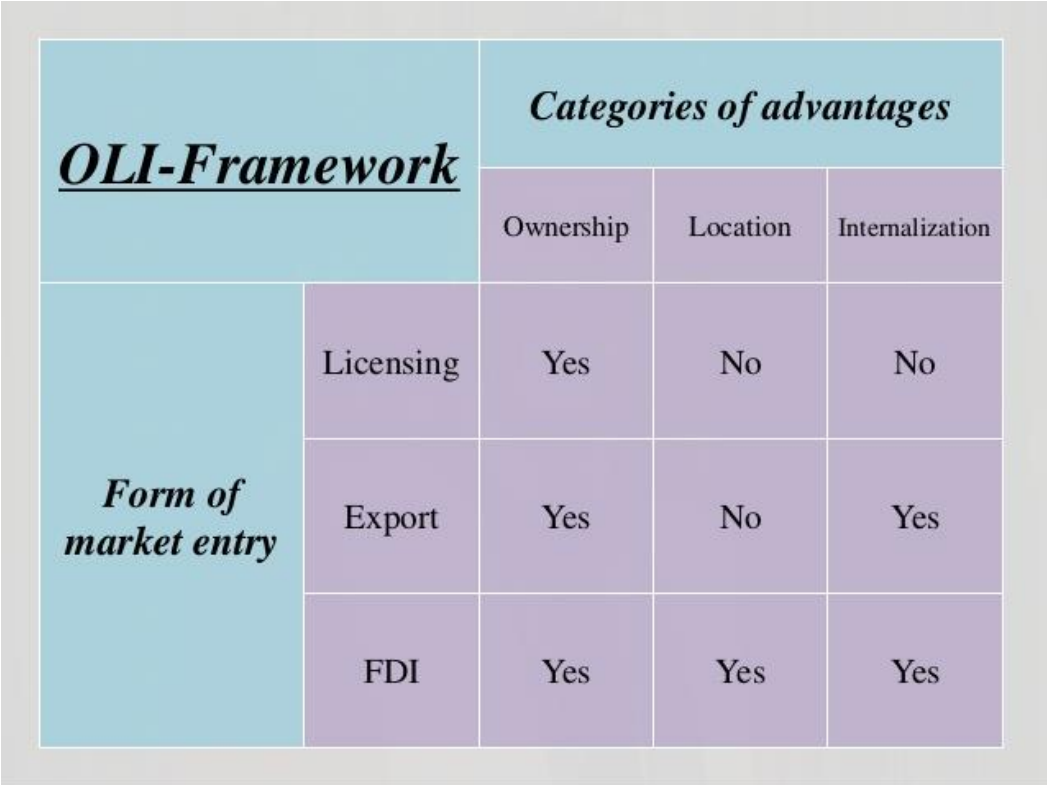
Ownership advantages - "O" - these are the advantages that the investor has comparing to other companies operating in the same market (comparing to his competitors). These are reflected in the ownership of specific assets that provide the investor a competitive advantage. Specifically, it can be know - how and technology, patents, information, goodwill, trade secrets, trademarks or results of research and development activities. These advantages will help investors to cope with additional costs associated with the functioning of the foreign market eg. a lack of knowledge of the local market or to differences in the institutional, legal, cultural and linguistic areas. [30]

Location Advantages - "L" - it is the benefits that the investor has because of the location comparing to other, less desirable location. Investors usually are interested in economic specifics of the region, which may include the size and proximity to markets, infrastructure factors such as the quality of roads and railways, proximity to airports and ports. And the related transport and communication costs and work factors such as the quality and the availability of labor force. Important role alongside economic and social specifics are played when investor pays attention to cultural and linguistic differences between domestic and international environment. When choosing a location investor also takes into account the political factors and the relationship of the government to foreign investors. The investor takes into account the implemented economic policies such as fiscal, trade and monetary policy. In many cases these policies can strongly affect the doing business in foreign markets. Political risk is very important factor which influence foreign investments abroad. Trade restrictions, tax rate, regulations, subsidies and many such factors are important factors related to this issue. [31]

Internalization advantages - "I" - this advantage can be achieved if an investor builds foreign subsidiary or other form of branch and will remain connected with the parent company. This form will allow him to reduce transaction costs and other costs associated with development and research or to obtain quality subcontracts from its parent company or other affiliates.

[30] http://www.freewebs.com/nebitcorsalini/1251476.pdf
[31] http://artnet.unescap.org/pub/awp143.pdf

Figure No 2.3: "OLI" paradigm



OLI-Framework		Categories of advantages		
		Ownership	Location	Internalization
Form of market entry	Licensing	Yes	No	No
	Export	Yes	No	Yes
	FDI	Yes	Yes	Yes

Source: http://users.ox.ac.uk/~econ0211/papers/pdf/fdiprinceton.pdf, own processing

These three types of benefits the investor uses in the implementation of foreign direct investments, to obtain factors of production, markets or take advantage of economies of scale.

The theory of market distortion by government is based on the belief that the government of the host country has a portfolio of tools with which it may promote the entry of FDI into the country and affects their structure and size. Using these tools it creates an uneven playing field in the market and it can result in a certain extent of discrimination against foreign domestic investors. The most known form is the form of public support. Receiving supports from the system of investment incentives is limited by a certain level of investment (the level of the invested amount). Investors who do not reach this threshold are disadvantaged compared to those who reach this threshold. Usually foreign investors are able to invest huge amounts comparing with domestic

investors. This gives them advantage in reaching incentives comparing with domestic investors who are paying taxes to local government. [32]

The theory of market imperfections is based on the existence of certain costs and inconvenience which the foreign investor must face if he decides to invest in a foreign environment. Comparing with the domestic investor he has to suffer and make more of efforts to overtake many barriers associated with many aspects. Mainly he has to learn how to understand the impact of the new culture on doing business and how this culture influences the demand and managerial method needed for managing the company in this new environment. In addition he has to understand the communication methods, the political environment and its impact on doing business and he has to bear the costs of searching for information and he must hedge against many risks, such as foreign exchange rate risk. These disadvantages and additional costs should be offset by certain advantages in comparison with domestic entrepreneurs to that extent that investor will prefer investment strategy instead of trading. Foreign investor must have a comparative advantage over domestic businesses, for example in the form of ownership of specific assets, such as patents, trademark, goodwill, or advanced technology to produce a given output at a lower cost than his competitors.

The theory of Internalization, formulated by PJ Buckley and MACasson, argues that multinational companies exist due to the existence of imperfections in external markets. Internalization is the process of creating a market within a company itself, which will replace the external market. The imperfections of external markets force the company to exchange certain products on the internal market of the company through the transfer of prices. For these transfer prices transactions are realized between branches of multinational companies, which are located in different parts of the world. These prices may differ from the prices of free market, ie. From prices which are charged between independent producers.

The internalization theory is closely related to another theory which is called the theory of transaction costs. According to this theory, the individual branches of multinational companies are able to exchange assets with lower transaction costs than when the

[32] http://www.freewebs.com/nebitcorsalini/1251476.pdf

change is realized on external markets. Lower transaction costs are achieved due to the knowledge about the nature and the price of products.

2.3 Foreign Direct Investment and Economic Development

Policy makers and scholars argue that foreign direct investments can have many positive impacts on host economies. Besides the direct capital financing, foreign direct investments can be a very important source of new technologies and know – how during their merging with host firms. Based on these arguments, developed and developing countries have made a lot of efforts to attract foreign direct investments to their economies. [33], (Alfaro, 2003)

Recently, however, the advantages of foreign direct investments and the incentives delivered by host countries have begun to be questionable. The debate around the notion that FDI generate positive spillovers for investments receiving countries is ambiguous. Many researchers such as Hanson (2001) argue that the evidence that foreign direct investments generate positive effect on host economies is weak. Some researchers even argue that the impact of FDI on host economies is negative, Gorg and Greenwood (2002). Other researchers concluded that there is no relationship between foreign direct investments and economic growth, such as Lipsey (2002). According to him there is a need to take in consideration the different conditions in economies which might restrict or promote spillovers.

In many cases the research has difficulties to determine in which sector is the positive effect of foreign direct investments, such positive effects might differ across economic sectors. UNCTAD World Investment Report (2001:138), Says that the relationship between the foreign investors and the local producers in the sector of input materials is very limited. But their relationship in the sector of industries is stronger and they a lot of mutual activities. These activities link them to each other. In the industrial sector investors and suppliers are connected in many cases and they have common targets. In

[33] www.rips.ac.jp

the sector of services the scope of production is divided to discrete stages and subcontracting stages. [34], (Alfaro, 2003)

Most of researchers concentrate on the role of foreign direct investments that played in the most important sectors of any economy. Mainly we mean by this the primary sector, the sector of industries and the sector which provides services. The most known benefit of foreign direct investments in these sectors are, the transfer of know-how, the transfer of new technologies, the introduction of new procedures and the improvement of labor quality. For instance, the improvement of labor skills and quality is usually related to manufacturing sector. Such improvement does not occur in the sector of agriculture or mining sector. This notion has been supported by the notion of Findlay (1978) and Wang and Bloomstrom (1992) where they modeled the role of foreign direct investments as a canal of transferring new technologies to service sector rather than to primary sector. Some researchers highlighted that not all economic sectors have the same circumstances to absorb the new technologies offered by foreign direct investments and some cases they do not have the ability to create linkages with the other economic sectors. For instance, Hirschman (1958) mentioned agriculture and mining sectors as sectors with weak linkages to the rest economic sectors. According to him, due to weak linkages the impact of foreign direct investments is then very limited. The research of Rodiguez-Clare (1996) concluded that multinational firms are very good in utilizing and efficient use resources in host economies. Laura Alfaro (2003) concluded that foreign direct investments have different effects on economic development. According to this study foreign direct investments have a negative effect on primary sector, whereas foreign direct investments have a positive effect on manufacturing sector. Regarding the effect in the sector of services according to this study the evidence is ambiguous. They concluded that the main determinants of growth are income, human development factors, domestic financial factors and institutions quality. Another their conclusion is that foreign direct investments have little spillover effect in agriculture and mining sectors. In fact, most of research works conclude that positive effects are related to industry sector.

[34] www.rips.ac.jp

2.3.1 Theories of Economic Growth

The main question of all economic theories is chat conditions lead to sustainable economic development within an economy. These theories evaluate the performance of economies sand attempt to determine the main factors which influence that sustainable growth in that certain economy.[35] This research focuses on macroeconomic issues that have the ability to change the business environment which improve the attraction of foreign direct investments. Each theory attempts to understand the economy, according to that understanding it creates a model and then uses this model to maximize the performance of that economy according to this model. The most know theories of economic growth are the mercantilist, the classical, neoclassical theories, Spontaneous Order and Monetarism. The beginning of economic theories is associated with the period when Europe moved away from feudalism toward capitalism. The first two theories were physiocratic and mercantilist theories. The French theory in 18th century stated that economic growth comes just from land ownership and agriculture. While the mercantilist believed that the main source of economic growth is trade. (Balasubramanayam, 2003)

Adam Smith theories of economic growth came as a critique of both physiocrats and the mercantilists. According to this theory the most important determinants are, specialization, labor division and the accumulation of wealth. According to this theory government should not intervene in economy and this will lead to a large and free business sector. Robert Solow developed this theory by insisting that the growth is caused by savings and consumers should postpone savings which will allow the built up of savings.[36]

Solow and Paul Romer developed the neoclassical theory or the new economic growth theory. They concentrated on the growth of labor where they say that labor growth leads to economic growth. They stated that the improvement of labor quality through education and training lead to economic growth. Joseph Schumpeter took into account the role of innovation and new technologies in creating economic growth. New technologies are able to produce more of goods and services which means that that they are able to generate economic growth. At the same time, new technologies have the

[35] www.aw-bc.com
[36] www.aw-bc.com

ability to destroy old market and create new ones. Another theory which came to the world in difficult period is theory of Maynard Keynes. Keynes believed that during a recession households do not spend and they do not invest because of lack of trust and in this case governments should intervene and invest in labor market to encourage spending and trigger economic growth. This theory of Keynes has been criticized mainly by Friedrich Hayek and Milton Friedman. According to Hayek many elements of economic growth we are unable to predict. This opinion is known as Spontaneous Order. Friedamn believed that money has the power to generate economic growth. This theory is called Monetarism and according to this theory governments should control the amount of money in the market. The government should find the equilibrium between the supply of money and the demand for money. This control of money can reduce inflation and lower unemployment rate (Jones, 1988).

Many economists have built different models regarding economic growth. The models which have been built by the old generation of economists have been criticized. According to critics these models are impractical since they ignore important issues such as government planning and mismanagement. Unlike the neo-classical economists this generation of economists stated that economics associated with economic growth is a special branch of economics. Unlike the neo-classical theory they did not perceive the differences of economic output among developing countries which in many cases reflected mainly a variation of implemented policies. In developing countries implemented policies play crucial role regarding poverty. (Bardhan and Audrey, 1999; Paso, 1997). The first generation of economists focused on macroeconomic models while the neo-classical economists concentrated on microeconomic stage of production and household consumption. The generation of new development theory has been totally different than the first two mentioned generations. This theory focused on specific aspects of underdevelopment. They used accurate mathematical models based on data collected at the individual levels. This model concentrates on the importance of capital accumulation, on the importance of technological know-how and their contribution to the process of production and future returns. This perspective presents the human and capital and the technological development as the main factors of economic growth. This theory as I mentioned above is called Endogenous Growth Theory (Romer & Lucas, 1988). Romer (1998) believes that the main reason of

growth theory is the increasing returns coming back from the improving of technologies and this is why he called for the connecting research and development. According to this notion the models of Grossman and Heipman (1994) and Barro and Sala-Imartin (1995) implied that technological advances come as a natural result of research and development.[37] The modern theories of economic growth consider technological level as a result of effective economies while the old theories assumed it as a given variable. The technological level of economies became to be one of the most important factors regarding their ability to attract foreign direct investments. The technological level determines the performance of capital as a factor of production. Economies without technological innovation are unable to maintain their competitiveness. The technological level also influences the economic output of used labor in combination with capital used during the production process. The perspective factor of production is one of the most crucial aspects. The output of any economy is mainly determined by the quantity of factors of production in that economy and by their quality. The long run aggregate supply of any economy is determined by capital, labor and technological level of that economy. In the long run, to increase the output either we increase the quantity of factors of production or we improve their quality.

[37] etheses.dur.ac.uk

Chapter 3 – The Impact of Risks on FDI

3.1 Introduction

In this chapter we are pursuing a number of objectives. First, we would like to explain the major factors which must be considered concerning the political environment when firms enter global markets. Second, we would like to explain the terms of access and highlight the importance of these elements in facilitating trade. Third, we would like to explain and highlight the importance of political aspects in global business and the impact of political risk on foreign direct investments. The performance of business is usually affected by many factors. Some of these factors are internal factors and some of them are external factors. The primary factors that influence business are economic environment, political environment, social and technological environment.

Economic environment – business is mainly affected by the aggregate demand in the economy. For example, during recession business suffers due to the decline in demand, while business benefits during the period of expansion and economic boom. During the period of economic boom, consumers are more likely to spend more on goods and services which increases the profit of firms and results in an increase of employments and income respectively. Governments mainly concentrate on pursuing macroeconomic stability and take needed steps to stimulate growth and to attract foreign direct investments. (Brown, 2004)

Social factors that influence the economic performance of an economy are the cultural influences. For example: a business man with alcohol products who is doing well in Europe will fail with his business in the Middle East where most of people are Muslims. Another example could be associated with fashion design. Social environments that tend to be more conservative will not support styles that appear to be trendy. The fashion designers' business will suffer if they do not change the clothing style. (Brown, 2004)

The quality of the business environment

Companies, who are considering implementing their investment in a foreign environment, consider multiple sites and evaluate the importance of each factor from state to state. These factors can be divided into six groups.

• **Business factors:** proximity to markets, proximity to customers, availability of raw material resources, the presence of other important local and foreign companies and support services

• **Infrastructural factors:** quality of roads and railways, proximity to airports and ports, development of information and communication technologies

• **Operating factors:** quality, availability and flexibility of the workforce

• **Local factors** offer development areas in industrial zones and beyond, the ability to communicate with local authorities, knowledge base, financial incentives, tax level and linguistic affinities

• **Price factors**: labor costs, land prices, the price of leases

3.2 Political Risk

Political risk is associated with government interference in business affairs of foreign investors and their business. The extent of this interference can range from discrimination treatment to confiscation of assets. [38] The political risk is a top concern for foreign investors no matter if they become from developed or developing countries. Nowadays, since the World economy slowly recovers, developing countries are expected to attract a bigger share of foreign direct investments. These opportunities in emerging countries often are accompanied with huge challenges and political risk. Understanding how investors perceive and cope with political risks helps to draw out the role of political risk instance industry.[39] Political risk remains one of the main barriers to doing business in developing countries and is likely to continue being so over the near future. Foreign investors surveyed for the political risk among their top free concerns when investing in emerging countries more than other consideration, including

[38] www.economistinsights.com
[39] www.csi.columbia.edu

macroeconomic stability and access to financial loans. Over the past few years many factors encouraged a relative high tolerance for risk: the most known factors are: growing economies, abundant liquidity and flattening risk premium. (Hansen, 2004), (Ratha, 2009), (UNCTAD, 2009), (World Bank, 2006), (Horska, 2014)

Defining Political Risk

When firms need to recognize and manage their political risks, they need to define and classify these risks. The political risk is generally classified on three levels: firm related political risk, country related risk and global related risk. (Horska, 2014)

Firm-related risks, sometimes it is called micro risks, the risks which affect firms at the project or corporate level. Governance risk, because of the goal conflict between a firm and its host government, is the most known firm related political risk. [40]

Country-related risks, sometimes it is called macro risks. The most known categories at the country level are transfer risk and cultural and institutional risks.

Global-related risks, terrorism, anti-globalization movement, poverty and cyber-attacks are known examples of this type of risk.

Depending on the manner in which firms are affected, political risk can be classified into three types: [41]

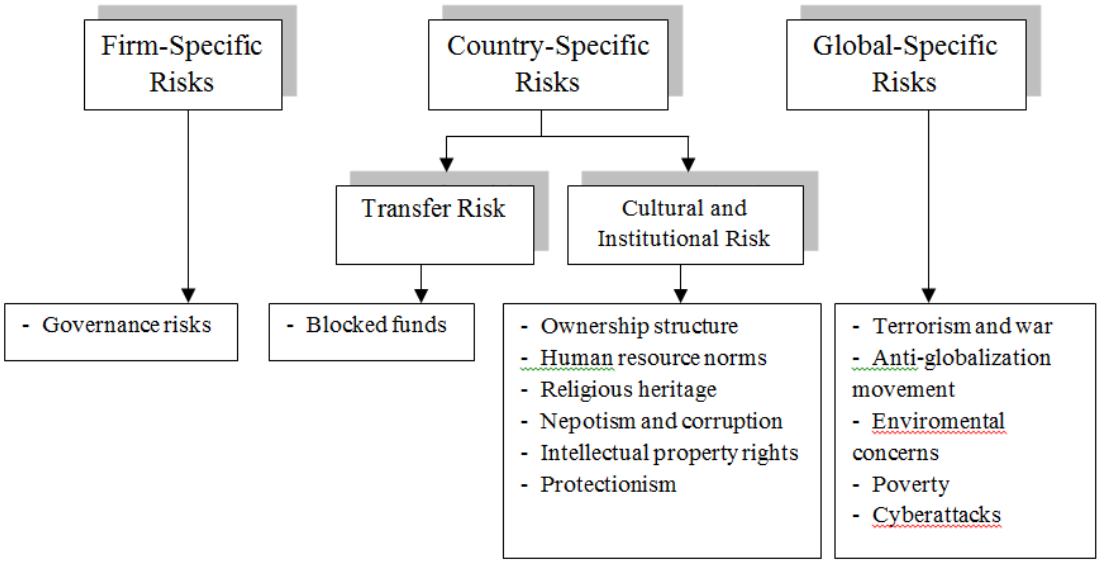
Transfer risk, which arises from uncertainty about cross-border flows of capital, payments and know-how.

Operational risk, which is associated with uncertainty about the host country's policies affecting the local operations of multinational companies.

Control risk, which arises from uncertainty about the host country's policy regarding ownership and control of local operations.

[40] www.coursehero.com
[41] facta.junis.niac.rs

Figure No. 3.1: Classification of Political Risk



Source: http://www.awbc.com/scp/0321280318/assets/downloads/ch17.pdf

To launch the assessment process, the managers should create and conduct a baseline assessment of the political risks events which influence business strategy and objectives related to effectiveness and operational efficiency. The baseline evaluation of political risks should include four primary categories: [42],[43], (Horska, 2014)

The macro-political environment. Factors that influence the competitiveness of a firm and its ability to conduct business in a country - such as taxation structures, foreign ownership, privatization, business regulations and corruption.

Economic policies which influence inflation rate, interest rate, economic growth and foreign exchange rates.

Social risk such as social behavior, shifts in demographics and societal conflicts and tensions.

42 Political risk assessment and management, available at: http://www.aw-bc.com/scp/0321280318/assets/downloads/ch17.pdf

43 How managing political risk improves global business performance, available at:http://www.pwc.com/us/en/riskcompliance/assets/PwC_PoliticalRisk_052006.pdf

Security issues, such as governmental institutions preparedness for catastrophic events caused by either natural or human events. The most known events are – environmental disasters, hurricanes, earthquakes, terrorist attacks and bio- security threats.

Figure No. 3.2: Normative Model of Macro Political Risk Assessment

	Internal	External
Government-related	- Degree of elite repression - Degree of elite illegitimacy - Likelihood that regime chase will affect policy	- Likelihood of political violence - Degree of involvement in international organization - Possibility of regulatory restriction on investment, capital or trade
Society-related	- Degree of fragmentation (potential for social conflict) - Sense of nationalism, xenophobia alienation or fundamentalism	- World public opinion - Disinvestment pressure - Regional diversity and incongruent interests
Economy-related	- GDP per capita growth - Income distribution - Likelihood that economic goals will be met	- Future economic policies regarding FDI - Likelihood of balance of payments problems - Likelihood of currency inconvertibility / instability

Source: Alon – Martin, "A normative model of macro political risk assessment", Multinational Business Review, 1998.

One of the most important factors which give a good picture about the political environment and then the rate of political risk are the dimensions of the Governance Indicators.[44]

Government Effectiveness includes responses on the competence of civil servants, the quality of public service provision, the quality of the bureaucracy, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies.

44 http://nile.riverawarenesskit.org/English/NRAK/Gov_L3/html/3_3_2_7_indicators.html

Rule of Law involves many indicators which measure the extent to which institutions have confidence in and abide by the rules of society. This includes perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.

Voice and Accountability contains a number of important indicators that measure different aspects of the political process, political and human rights, civil liberties measuring the extent to which people of a country are involved in the selection of their government.[45]

Absence of Violence and Political Stability includes several indicators that measure perceptions of the likelihood that the government will be overthrown or destabilized by unconstitutional or violent means, including local violence and terrorism.

Control of Corruption is a measure of the extent of corruption, usually defined as the exercise of public power for private gain. It is based on scores of variables from polls of experts and surveys.

Regulatory Quality which focuses more on the government's economic policies, including measures of the perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development as well as the incidence of market-unfriendly policies such as price controls or

Firm - related risks and country – related risks can be dividend to risks which are associated with government or with instability. Figure No. 3 includes examples of such risks. [46]

[45] www.resourcesflows.org

[46] Political risk assessment and management, available at: http://www.aw-bc.com/scp/0321280318/assets/downloads/ch17.pdf

Figure No. 3.3: Examples of political risk

	Government Risks	Instability Risks
Firm-related risks	- Discriminatory regulations - "Creeping" expropriation - Breach of contract	- Sabotage - Kidnappings - Firm-specific boycotts
Country-related risks	- Mass nationalizations - Regulatory changes - Currency inconvertibility	- Mass laborstrikes - Urban rioting - Civil wars

Source: author drawing

General political risk indicators

Six Internal causes of political risk:

- Divided political scene and divided political power
- Divided society in many aspects such as language, religion, ethnic and divided power related to that.
- Restrictive (coercive) measures require retaining power
- The existence of willingness to compromise, nationalism, xenophobia, corruption, and nepotism
- Social factors such as the density of population and its structure and wealth distribution
- Social conditions including population density and Organization and strength of forces for a radical left government
- Two External causes of political risk
- The case of dependency on hostile major power
- The influence of regional political streams. This factor is more important in case that these political streams are negative.

Two symptoms of political risk:

- Societal conflict involving demonstrations, strikes, and street violence
- Instability as perceived by non-constitutional changes, assassinations, and guerrilla wars

Political Risk Assessment - Key Steps [47], [48], (World Bank, 2009), (Horska, 2014)

1 - Map the political environment**.** Create an analysis of political risk portfolio in potential countries. The analysis should provide a comprehensive picture about all of political risk perspectives in potential countries. This analysis should be constructed and built according to information form trustful internal and external resources. The analysis of political risk should rely on a board spectrum of known parties. After this analysis the company should identify its position in the global market, in its region regarding it dependency on global supply chain of energy. There is a need for the evaluation of the organization´s potential exposure in many aspects. In this case the evaluation should include risks which are called macro-risks. This includes aspects associated with the regime itself, issues related to terrorism, instability regarding the political aspects and war. All of this is associated with mapping of political risks with its different forms. (Rodriguez, 1996)

2 - Evaluate risks**.** This means that the information collected from the mapping of political risk should be identified and divided to certain group according to their priority and specifications. This will help to see the relevant risks associated with the business performed and the related operational activities. One of the most important issues in this aspect is the relationship between political stability and risks associated with government - which we call mac-level risks. In this aspect we have to develop and build certain approaches to know how to assess the political stability and it impact on doing business. In many cases this aspect strongly influences the value of assets. Mainly financial derivatives are very sensitive to political stability. The analysis of political risk impacts influences company´s strategy and in many cases this analysis is the first factor behind changing of firms strategies. The analysis shows the critical and weak points of strategies where the impact of political risk can be very severe. The firms should assess their plans and procedures. The firms should determine the extent to which they are able to accept political risk and they should analyze the degree to which they will be involved in political risk. One of the most important issues is associated with foreign exchanges and profit reparations. This issue regarding currencies is very

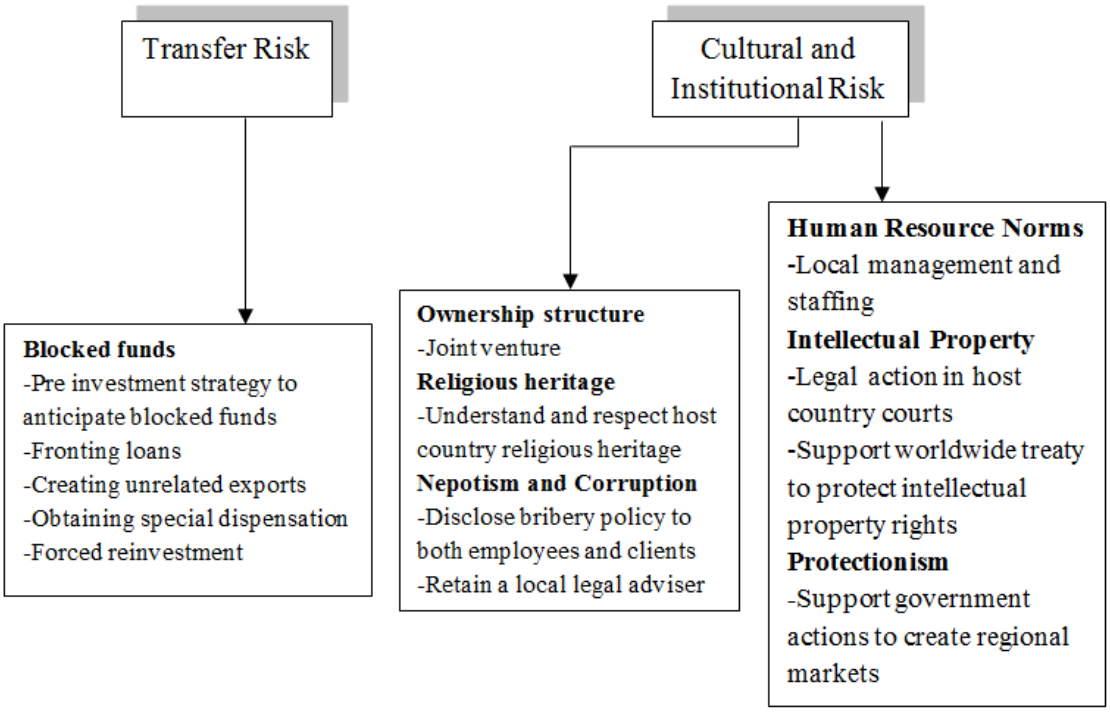
[47] Political risk assessment and management, available at: http://www.aw-bc.com/scp/0321280318/assets/downloads/ch17.pdf

[48] How managing political risk improves global business performance, available at:http://www.pwc.com/us/en/riskcompliance/assets/PwC_PoliticalRisk_052006.pdf

crucial mainly in developing countries. Foreign investors in many cases need urgently transfer of certain amounts of hard currencies.

Non-payment and currency inconvertibility has such forms like inability to convert local currency into foreign exchange as well as delays in acquiring foreign exchange caused by the host government´s actions or failure to act. Confiscation, expropriation and nationalization have such forms like elimination of ownership, control over, or right to the asset/investment. War and civil distribution disturbance has such forms like loss due to the destruction, disappearance, or physical damage to assets caused by politically motivated acts of war or civil disturbance, revolution and insurrection. Another example is terrorism and sabotage treated selectively. Breach of contract has such forms like breach of repudiation of a contractual agreement with the investor/lenders by host government. (Horska, 2014)

Figure No. 3.4: Management Strategies for Country-Related Risks

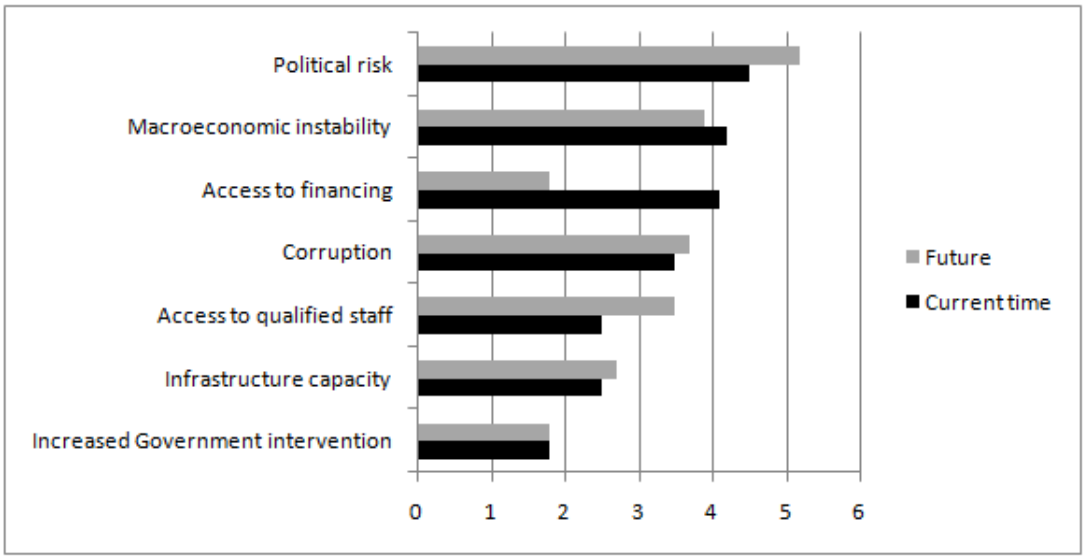


Source:http://www.awbc.com/scp/0321280318/assets/downloads/ch17.pdf

In 2010 the Word Bank published a study (*World investment and political risk*) which seeks to examine the evolution of political risk perceptions. The study says that how investors perceive and deal with these perils will contribute to mapping out the role of political risk insurance in the emerging post-crisis investment landscape, and how it can

contribute to a revival of foreign direct investments. This study focuses on foreign direct investments and political risk instance for long-term investment, and mainly covers political risk in developing countries. In the last part of this charter we will present certain examples and figures which are drawn and calculated according to the above mentioned study. According to the study´s respondents the following factors will pose the greatest constraint on investments by their company in emerging markets. See Figure No. 5. (World Bank, 2010), (Horska, 2014)

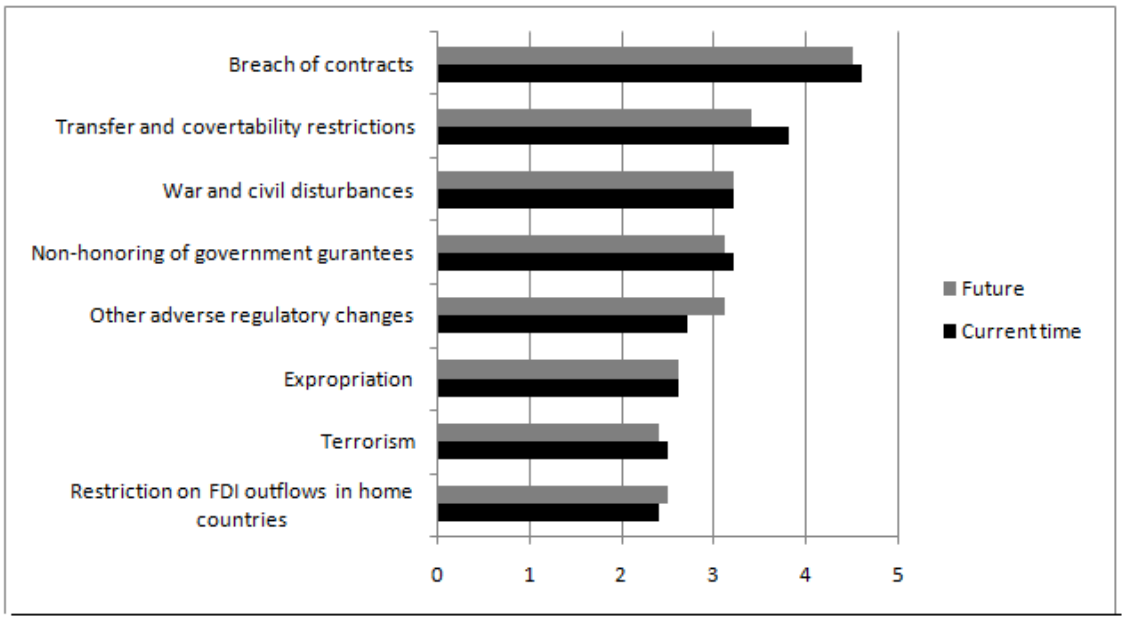
Figure No. 3.5: Major Constraints on Foreign investment in Emerging Markets



Source: according to MIGA-EIU Political Risk Survey 2010, author drawing

According to the study the types of political risk of most concern to investors in emerging countries are as follows. See Figure No. 6. (Horska, 2014)

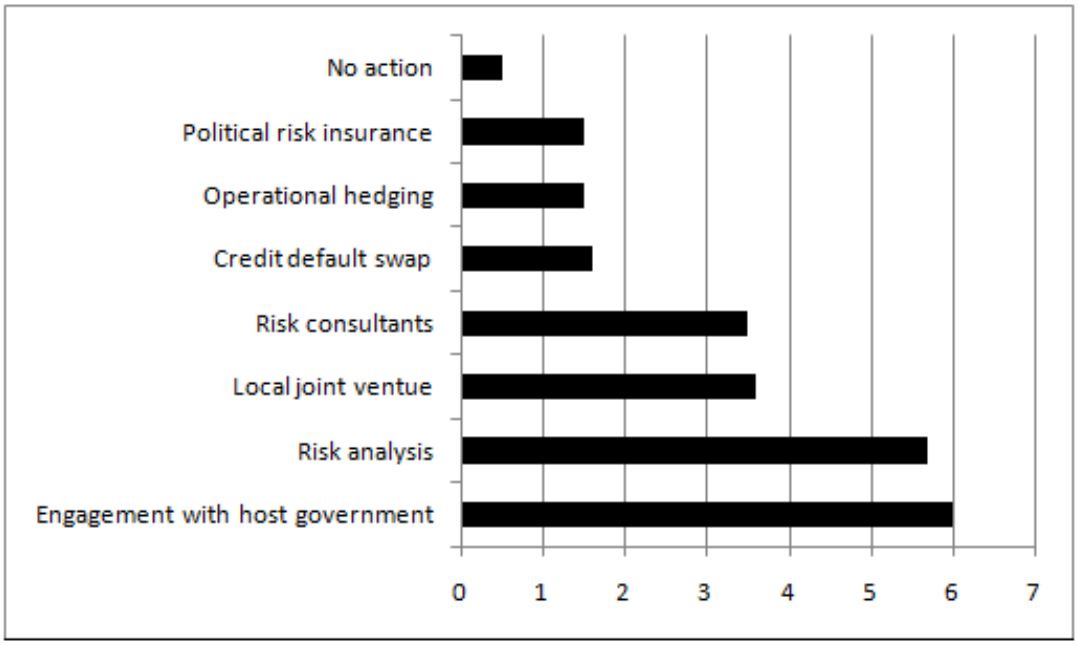
Figure No. 3.6: Types of Political Risks of most Concern to Investors in Emerging Markets



Source: according to MIGA-EIU Political Risk Survey 2010, author drawing

According to the study the following types of political risk of most concern to investors in emerging countries are as follows. See Figure No. 7. (Horska, 2014).

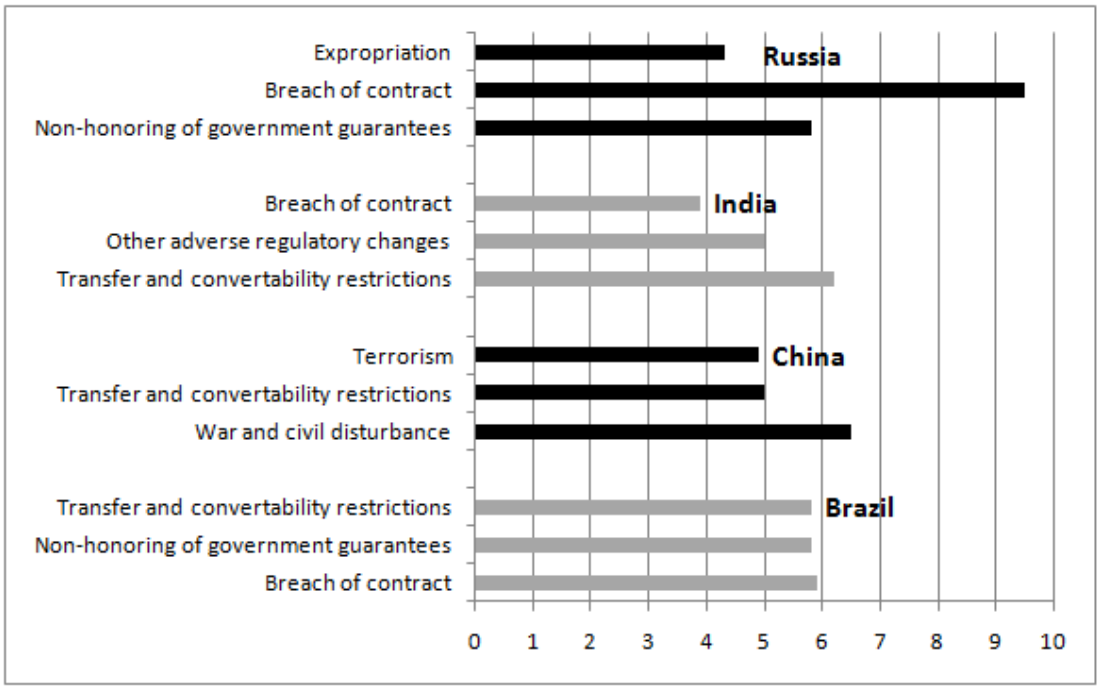
Figure No. 3.7: Tools used to Mitigate Political Risk in Emerging Markets



Source: according to MIGA-EIU Political Risk Survey 2010, author drawing

According to the study the following types of political risk of most concern to investors in emerging countries are as follows. See Figure No. 8. (Horska, 2014)

Figure No. 3.8: Top Political Risk for Investors from the BRICs



Source: according to MIGA-EIU Political Risk Survey 2010, authors drawing

Companies have and investors have to learn how to manage political risk. The following steps are the most known step which should be followed to manage political risk:

- Investors should identify and analyze the loss exposure
- Investors should know how to measure the losses connected with this risk
- Investors should develop new alternative approaches for dealing exposure
- Investors should implement high level techniques and combine them to be able to forecast each exposure
- Investors should evaluate the result and according to them they should improve their techniques of identification, measurement and treatment.

Foreign investors should understand what national policies are being pursued, and what policy instruments the government typically uses to promote its interests (see Figure No. 9). It is important to carefully assess the political power structure and mood in a

country before making decisions regarding business operations. By evaluating various environmental factors (see figure No. 10), marketing managers can arrive at a more thorough understanding of the likelihood of various problems or opportunities in a country. (Horska, 2014)

Figure No. 3.9: Government Policy Areas and Instruments

GOVERNMENT POLICY AREAS AND INSTRUMENTS

	Policy Areas					
Policy Instruments	*Monetary*	*Fiscal*	*Trade*	*Foreign Investment*	*Incomes*	*Sectoral*
Legal	• Banking reserve levels	• Tax rates • Subsidies	• Government import controls	• Ownership laws	• Labor laws	• Land tenure laws
Administrative	• Loan guarantee • Credit regulation	• Tax collection	• Import quotas • Tariffs •Exchange rates and controls	• Profit repatriation controls • Investment approvals	• Price controls • Wage controls	• Industry licensing • Domestic content
Direct market operations	• Money creation	• Government purchases	• Government imports	• Government joint ventures	• Govern-ment wages	• State-owned enterprises

Source: Adapted from James E. Austin, Managing in Developing Countries: Strategic Analysis and Operating Techniques (New York: Free Press, 1990) p. 89.

Figure No. 3.10: Country Risk Assessment Criteria

COUNTRY RISK ASSESSMENT CRITERIA

Index Area	*Criteria*
Economic Risk	• GDP Per Capita • Real Annual GDP Growth as Annual percent Change • Annual Inflation Rate as Annual percent Change • Budget Balance as percent of GDP • Current Account as percent of GDP
Financial Risk	• Foreign Debt as percent of GDP • Foreign Debt Service as percent of Exports of Goods and Services • Current Account as percent of Exports of Goods and Services • International Liquidity as Months of Import Cover • Exchange Rate Stability as percent Change
Political Risk	• Government Stability • Socioeconomic Conditions • Investment Profile • Internal Conflict • External Conflict • Corruption • Military in Politics • Religious Tensions • Law and Order • Ethnic Tensions • Democratic Accountability • Bureaucracy Quality

Source: The PRS Group, *International Country Risk Guide*, http://www.prsgroup.com/, accessed July 20, 2009.

Motivation for and determinants of FDI

Investors generally they highlight that the motivations for investing in countries differ according to the country and the sectors of investment. But in certain cases they concur that there are main factors which determine the inflow and outflow of investments to countries. The most known determinates are the following:

- One of the most important determinants is the market in foreign countries. The size of the market and its conditions are the most important factors for attracting foreign investments. The size of the market and its demand play the main role in that. And they have more importance than the price of labor (wages).
- The productivity of labor and the wage adjusted productivity of it. The productivity of labor and the sills of labor play crucial role in attracting foreign direct investments.

- The endowment of good and modern infrastructure. In many countries government they offer free of charge infrastructure of certain areas to attract foreign direct investments.
- The level of taxation is another determinant, but actually not in all of sectors. In some sector it plays major role, but in many sectors it is not the most important one. But generally fiscal policy stability and level of taxation influence the decision of many investors. (Horska, 2014)

3.3 Motives for Performing Foreign Direct Investments

"The basic assumption of FDI is to achieve a minimum level of political, institutional and macroeconomic stability, liberalization of foreign goods and financial flows." (Srholec, 2004). The importance of these factors reflects the volume of FDI, which was targeted in the many countries all over the world. Some studies show that the rate of taxation can have the same effect as an investment incentive. Hong Kong and Estonia due to the low rate of taxation on capital reached high FDI inflows, without a system of incentives. Ireland also stands as an example of the already mentioned "flagships". Investors also look at the number of established thriving businesses.

Among the important factors we include the localization of production and labor costs, the existence of investment incentives, economic stability. Recently, in the forefront of gets the bureaucracy, market size and level of corruption. Investors are also concerned about the socio-economic aspects, such as: quality and price of labor, the total cost of development. According to estimates, investors have been identified as the most important low labor costs and the quality of the workforce. Investment incentives were included approximately the same level as economic and political stability. We can therefore conclude that the investment incentives are an important motive for the investor.

According Srholce (2004) first the stability of the country and the actual feasibility of investment in the technical and socio-cultural environment is evaluated. It focuses on aspects related with the degree of corruption in the functioning of legal protection and protection of investments, the availability of the necessary infrastructure and availability of all infrastructures. The investor is aware that it can financially contribute to creating

just mentioned infrastructure, but its cost must be offset by income from the environment for example an easier access to resources, insufficient qualifications of potential employees and others. After an evaluation followed by a comparison of economic factors such as transportation costs, labour costs, availability of technical workshops and so on.

We can monitor several independent functioning markets of FDI, which have the same level of these factors. The differences are significant and competing with each other. Therefore, the investor decides whether it is more favorable for him to be in advanced and more technologically advanced countries at the expense of higher wages, taxes, etc. We are talking about the euro area countries except southern European countries or in the countries of Central Europe, which would be interesting to relatively low labor costs. However, they are not as technically and economically equipped. At the other end are the countries of Eastern Europe, which investors still unstable, whatever the quality of the labor force, the legal environment and high level of corruption. The situation in Libya is very far from the above mentioned areas and there is a very specific market.

The literature examines a large number of determinants that have been put forward to explain FDI. Some of these determinants are encompassed in formal hypotheses or theories of FDI, whereas others are suggested because they make sense intuitively (see figure No.11).

Figure No. 3.11: Classification of FDI determinants

The UNCTAD's Classification of FDI Determinants

Determinants Variables	Examples
Policy Variables	Tax policy, trade policy, privatisation policy, macroeconomic policy
Business Variables	Investment incentives
Market-related Economic Determinants	Market size, market growth, market structure
Resource-related Economic Determinants	Raw materials, labour cost, technology
Efficiency-related Economic Determinants	Transport and communication costs, labour productivity

Source: UNCTAD (2002).

Political risk has become a key concern of investors after the perceived openness and liberalization of foreign direct investment (FDI) regimes in the 1990s. Governments that do not recognize this trend pay a high price in lost investments. Confronting political and regulatory risks as part of the investment climate is thus crucial for countries to make their business environments more competitive. When considering investments, companies assess countries' investment climates as well as the stability and likely direction of their laws, regulations, and political institutions. Political risk- the probability of disruptions in company operations by political forces and events- is one of the main concerns for corporate investments. Figure 12 shows top investors' concerns about foreign direct investments.

3.4 Types of Foreign Direct Investments Incentives

Investment incentives are already for several years much debated topic of the professional community and the political arena. They have become indispensable economic policies in all countries regardless of their economic advancement. "A popular government measures have become because they allow governments to emphasize the" the added value "to the country's economic growth, decline in unemployment due to growth in new jobs and improving public finances, thanks the increase of payment of social security and pension insurance and the decline in the volume of paid unemployment benefits. We can say that the investment incentives create the impression that support for selected businesses the government increases the competitiveness of the country, thus creating a suitable environment for business. However, in the literature we find a match that investment incentives are not the main factor in deciding whether - if the investment will be placed in a specific country. (Markusen, 1999)

The main objective of investment incentives should be to benefit economically weak regions, which are characterized by high unemployment, low economic levels compared to other regions and very low standard of living of the population. Inherently divide investors into two groups. The first act according to standard rules, others are favored application of investment incentives and have no effect if it is implemented incentive subsidies or tax relief.

"They are economically advantageous as if they overcome existing market failures. On the other hand, the granting of incentives linked to the risk of government failure, when the government distortion of market conditions led investors to inefficient allocation of resources. For this reason, investment incentives are refused in many countries, but this State intervention is authorized as an exception to the general rule. Another reason is in principle against investment incentives EU is a single market. Member States can no longer compensate for the benefits provided in a neighboring country by increasing import duties under the common customs policy.

The existence of investment incentives produces long-term disputes. Supporters see their contribution in motivating investors to bring their investments in the country. I suppose that this step was initiated by steady economic growth. At the same time they point out the positives of investment incentives in increasing the creation of direct and indirect jobs in a significant transfer of know-how and modern Technology. Further argue that the state provision of investment incentives, there are no significant costs in the tax area and to support employment. Conversely, opponents see mostly unfounded burden on public finances and intervention in the stability of competition. They maintain their opinion that the stimulus incentives are unnecessary, since some countries have skilled and relatively cheap labour. A very strong argument against the incentives system see the disadvantaging of domestic companies that they do not have strong capital as multinationals. A more appropriate investment promotion could be looking at reducing the tax burden, especially in creating a stable, transparent political and macroeconomic environment.

Literature dealing with FDI and subsequently incentive schemes accesses to the basic division of state incentives in two different ways. The first represented by for example L. Alfaro, is inclined to think that the investment incentives can be divided into two types - fiscal and financial. The second approach, which could be a representative for example N. Pain, expands the above-mentioned basic division of the group of so-called incentives Non-financial incentives. I would now like to proceed to describe in more detail the various groups.

Fiscal incentives include, inter alia particularly preferential tax rates and other items which contribute to earnings after tax This kind of state support of foreign investors,

however, where the multinational company can take advantage of the so-called Pricing, loses importance. Among other things, tax relief international investors often seen as a temporary advantage.

Financial incentives include and are represented mainly by state grants and subsidies, guarantee granting preferential loans and ultimately guarantee national participation in risky investments.

A group of non-financial incentives is mainly represented by state participation in projects such as for example the formation of a new network infrastructure, building of industrial zones and free trade zones, or even providing guarantees certain privileges in foreign trade.

The analysis of investments incentives summarizes several arguments about investment incentives. Proponents of investment incentives, see them as positives, negatives notable opponents.

- Investment incentives are an effective economic policy of the government, which helping to eliminate gap between developed and undeveloped regions of the country.
- Investment incentives lead to reducing disparities in unemployment rates in different regions through the creation of new jobs.
- Creation of new jobs through investment incentives is effective.
- Press the investment incentives is a targeted restructuring of unemployed.
- In connection with the investment incentives it is often stressed the importance of the so-called. Spillover effects, whether within or between industry sectors.
- Investment incentives lead to tax cuts.
- Consulting companies are willingly to produce according to the order of governments studies demonstrating the impact on public budgets.
- Investment incentives are market-conforming tool of economic policy.

From the foregoing paragraphs it shows that the investment incentives are a form of selective support to influence the market allocation of resources - leads to market distortion.

Figure No. 3.12: Top Investors Concerns about Foreign Direct Investments

Source: own drawing

The main political risk aspects that foreign investors consider as important can be viewed as follows:

1) The stability of host economy and mainly the price stability in that economy
2) The host government way of treatment regarding foreign investors (fair, equal)
3) The approach of host government regarding regulations
4) The approach of host government regarding profit transfers
5) The approach of host government regarding the ability of foreign investors to sell or liquidate assets and to transfer funds to their homelands
6) The approach of host government regarding conducting structural reforms. Structural reforms in many cases are considered as important factor for foreign investors.

3.5 Effects of Foreign Direct Investments

The actual application of foreign direct investments usually focuses on three areas that are confronted with the management of economic policy. These are the following three areas:

- The analysis of determining factors that are causing the presence of FDI in the country or economic sector
- The analysis of direct effects on the host company (the direct effects are mainly affects its productivity, return on equity, employment, wages, export, import, growth, etc.)
- The analysis of the indirect effects of FDI (Spillovers) on the entire host economy.

The beginning of the actual debate about the indirect effects of FDI goes back to the time around the early 60s of the 20th century. If not the first author, and certainly one of the first who systematically included a so-called Spillovers among the possible consequences of FDI was MacDougall (1960), who also tried this to analyze it closer. Next to him Corden (1967) and Caves (1971) tried to do the same. Common goal of their work was to compare all the possible costs and benefits associated with FDI, which together with the discussions also many indirect effects that affect the well-being of the host country There are lined up for example government revenues, the kind of tax policy, questions of local trade or balance of payments situation At the moment in world literature perceived impact of indirect effects just as crucial, because it significantly affects the host economy. FDI alone mean more than just the expansion of international trade, free movement of capital as a production factor FDI is touching the essence of capital in a much broader sense:

a) FDI represent the function of inadequately generated by domestic capital, a low rate of domestic savings

b) FDI bring into the economy more modern technology, a higher quality of physical capital

c) FDI complement the lack of domestic skills of the country of human capital in areas such as research and development know-how to cope with new technologies that staff, and the management and organization of production and sales.

d) FDI expand underdeveloped domestic capital through networks in information technology, distribution and marketing, including more sophisticated penetration of world markets, and access to patents, innovation and banking services.
e) FDI last but not least improve the condition of the institutional system of the host country in the areas of efficiency and competitiveness, for markets, signaling assurance and subsequent development of the economy, protection and enforcement of property rights, public administration functions, and overall culture of the local market economy.

Possible negatives associated with FDI

In the next part of my work, I will summarize the possible negative effects of FDI and indirect effects on the whole economy. Many of the impacts I have already touched on in the previous section, but for compactness enumeration I will mention them again.

1) Hostile takeover to suppress production of the field with the subsequent aim of removing all existing competitors.
2) The crowding out of domestic savings by foreign savings and forced transfer of domestic savings abroad under adverse conditions.
3) Crowding and disposal of domestic investors (mainly in FDI oriented to the domestic market for the entry of multinational corporations), the development of production in companies with foreign capital. This is not any adverse impact of FDI but only phenomenon occurring in a healthy market economy - called efficient allocation of resources.
4) Depreciating of the domestic currency as a result of the surplus on the capital account, leading to a trade deficit and the disposal of marginal domestic exporters.
5) The development of capital-intensive production at the expense of labor-intensive manufacturing downturn will (according Rybczynského and Stolper-Samuelson theorem), so-called. Dutch disease and rising unemployment.
6) The effect of raising wages in the sector of foreign companies is hampering the domestic business sector, but where labor productivity is not growing at such a

pace, as is precisely the case with foreign companies. This again negatively influenced the unemployment rate and the competitiveness of domestic producers.

7) Increasing the money supply due to high FDI may have inflationary effects. Subsequent sterilization increases interest rates and the effect on the domestic economy rather restrictively.
8) Increase in import of materials and supplies in companies with FDI participation may lead to liquidation of of domestic suppliers of such commodities. In this case, the question arises why domestic manufacturers are not able to offer a competitive alternative to imports.
9) Repatriation of profits burden on current and capital account. The problem in the past can be monitored in case of Hungary. But this is a normal phenomenon when foreign investors are only trying to successfully invest and maximize their profits.
10) Possible manipulation of prices within a multinational corporation (transfer-pricing) reduces the tax revenue of the host country. This is a difficult problem punishable because most international companies seeking high income taxes utmost to avoid. This option is lacking their smaller domestic competitors, who are once again becoming less capable competitors.
11) Lagging domestic segment of the economy segment behind the companies with FDI leads to dual (or parallel) economy.
12) Inappropriately optimistic expectations and subsequent concessions to foreign capital may occur in discrimination or neglecting the issue of domestic companies.
13) Chronic problems and confrontations with foreign capital may lead to xenophobia, autarkic tendencies, political instability and subsequent lag to the world.

3.6 Foreign Direct Investments Protection

Several measures can be used to strengthen the confidence of foreign investors. Governments should review their laws, regulations, and policies to assess these frameworks and determine whether they provide:

1. Investor protection. Governments will not expropriate investors' property except for public purposes, on a nondiscriminatory basis, based on laws and procedures, and with prompt, sufficient compensation.

2. Arbitration. Investors can resort to domestic or international mediation for commercial disputes and are entitled to timely resolution of disputes and enforcement of awards. Alternative dispute resolution guarantees help mitigate risks associated with indirect expropriation.

3. Repatriation of funds. Governments allow investors to freely and promptly transfer project funds in a convertible currency of their choice.

4. International investment regimes and risk mitigation instruments. Investors can draw on favorable conditions set out in bilateral investment treaties and other international agreements, and access risk mitigation instruments provided by international financial institutions. International trade agreements reassuring investors about the quality of a country's investment climate are more credible than domestic policies because reneging on them is more costly. Between 1970 and 2000 developing countries that entered into binding international agreements attracted more FDI

The elements of political risk and foreign direct investments

- Barriers against foreign direct investors
- Limitation regarding the share of equity a foreign investor could hold in an entity.
- Limitations regarding the field in which foreign investor could invest
- Limitations regarding the ownership of assets
- Limitations regarding the volume of the inflow of FDI
- Exclusion of foreign investor from lucrative economic sectors
- Unclear criteria regarding official approval of FDI
- High rate of taxation and limited incentives

- Limitations of equities
- Unclear local requirement specifications
- Very long repatriation time
- Limitations regarding the volume of repatriation
- Limitations regarding the repatriation of foreign exchange rates
- Barriers to foreign currencies transfers
- Barriers regarding profit repatriation
- Ban of capital and profits to investors home countries
- The extent of government interventions in economy
- The extent of price regulation conducted by the government
- The prices of natural resources
- The extent of monopolies in the economy
- The extent of government enterprise sector
- The social environment and its stability
- The political structures and their weaknesses
- The level of corruption
- The existence of civil wars
- Government in efficiency and incapability
- The level of crime in the society
- The organizational level and its weaknesses
- The difficult relationships of the government to UN
- The difficult relationships of the government to IMF and World Bank
- The ability of government to conduct economic reforms
- The stability of political environment
- Putsch
- Riots
- Civil instability
- The democratic institutions and their enforcement of rules
- The relationships with international institutions

The political risk in countries can be influenced by many factors outside the host country. One of these factors is international institutions. One of these institutions is the World Bank and it institutions.

The World Bank has established three institutions which work in the field of foreign direct investments and in many cases they can be very helpful for international investors. The first institution is the International Finance Corporation. This institution has one very important task which is the investment promotion activities which include mainly advisory services regarding how to attract foreign direct investments and foreign investors. The institution mainly concentrates on developing countries. This institution helps them to formulate the following activities:

- To build technologies regarding the transfer of technology
- To build general rules regarding the attraction and dealing with FDI
- To build strategies associated with the attraction of FDI
- To optimize and increase the ability of government institution which deals with foreign direct investments
- To build and learn specific policies need for the attraction of FDI to certain economic sectors
- To identify the firms that have the potential to perform foreign direct investments or the firm in developing countries that interested in to be involved in foreign direct investments.
- To identify the sectors in developing countries which have the potential to provide the needed opportunities to foreign investors
- To increase and make manage the awareness of International Finance Corporation activities
- To Learn developing countries how to issue new financial products that ma y attract investors from developed countries
- To deliver developed countries with needed information about potential investors worldwide.

The second institution is the international Centre for Investments Disputes

This institution was founded in the year 1965. The main aim of this institution is solve the disputes which occur between foreign investors and host countries. In many cases this institution uses arbitration methods to help in the conciliation and court processes. Almost one hundred states have signed the treaty regarding ICID and most of them have ratified the treaty.

The third institution is the Multilateral Investment Guarantee Agency. The political risk can be seen as a risk from two different aspects. The first one can be influenced by the host government. This aspect includes the level of taxation, the way of treatment toward foreign investors, the extent of regulation. The policies regarding profit repatriation, the permission needed to buy foreign exchange rates of hard currencies and similar activities are included in the first category which mainly determined by the host government. The second type of political risk is that risk which beyond the control of domestic government. This type of risk is a risk where the government of host country is unable to manage it or to deal with it. Most of developed countries and international organization have tried to mitigate this type of risk by offering insurance to cover it. A typical example of such a risk, is the case of war or sever political instability. This institution has two main tasks, first it offers guarantees against commercial risks which are not associated with commerce and it attempt to improve the environment of foreign direct investments and promote investing in poor countries. These activities of guarantee of foreign direct investments are done as follows:

1. Guarantees regarding the situation of war or army conflict
2. Guarantees in the case the foreign investor is unable to reach fair judicial process due to lack of law enforcement
3. Guarantees regarding foreign exchange restrictions and transfer of hard currencies – this is one of the most known difficulties in developing countries. Many developing countries restrict the outflow of hard currencies from their economy.
4. Guarantees against confiscation or taking over the investment. This issue has many faces such ownership taking over by host country such confiscation , domestication or expropriation.

This institution in many fields helps and provides assistance to developing countries to be able to attract foreign direct investments. This assistance has the following types:

- Assistance in the field of research
- Assistance in the form of information dissemination

- Assistance in the form of providing the promotion and needed policies. This assistance is usually done after the request of host countries

- Assistance regarding the agreements with the investors or agreements associated with the guarantees with Multilateral Investment Guarantee Agency

Bilateral agreements on the protection of investments

Agreements between two countries

One of the solutions how to reduce political risk and to keep the interest of foreign direct investors is to build a certain agreement between the investors and the home government. Political regimes play crucial role in decreasing political risk. In many democratic regimes are more attractive for investors. Democratic regimes are ready to make commitments that they will respect the rights of the foreign investors. Such agreements make the host country more attractive and increase the potential of capital inflows.

Bilateral Investment Agreements

Usually such agreements are signed among industrialized countries and developing countries. In other words agreements among exporting countries of capital and importing countries of capital. Bilateral investment agreements are associated with many aspects. The most important aspect is related with the rights of the investor after he starts his business in host country. These ownership conditions of the investor are the most important. This issue is related with expropriation and transfer of funds between host country and the homeland of the investor. These aspects also care about dispute settlement between the investor and the host country.

The most known parts of investment agreements are the following:

1. The definition of the investment

   - The scope covered by the investment
   - The geographical areas covered by the investment

2. General conditions associated with the protection of the investment and its attraction

3. The conditions regarding the treatment of the investor

- These conditions do not include right of establishment
- These conditions include a fair and equitable treatment

4. The ownership (expropriation)

- In the general interest (public interest)
- For the general interest (public interest)

5. Compensation

- It should be done according to the value of the investment
- Rules regarding how it should be done

6. Transfer of funds

- It should be done effectively

7. Exceptions

- This is associated with the case when countries are involved in many agreements or if they are members of certain integration unit such as custom union. Usually this is associated tax agreements

8. Disagreement between foreign investors and investment receiving countries

9. Disagreement between the government of investor and the host country. When we look to the link between political risk and the foreign direct investments, the findings of most researches showed that political risk is negatively correlated with the flow of foreign direct investments. Some research found out that political stability increases the probability of a country being selected as an investment location and increases the attractiveness of that country for foreign investors. Some researches explained how different forms of political violence affect foreign direct investments found that the impact on foreign direct investments is very much determined by whether political violence is anticipated or not, with unanticipated events having a strong negative effect on foreign direct investments. Some researches highlight the importance of amount of capital available for investment at a given point in time and the sensitivity to political risk where their findings say that when foreign direct investment is booming, investors are less sensitive to political risk. Some findings say that political risk in a host country

not to be a significant determinant of foreign direct investments for transition economies. At the same time many research say that the attractiveness of a country's business environment based on the relative weight of multiple criteria used by companies in their investment decision, and in certain cases many factors have more powerful influence on foreign direct investments than political risk.

Chapter 4 – The Characteristics of Libyan Economy

4.1 Introduction

Libya's economy is almost completely dependent on the extraction and export of crude oil and gas. Although the crude oil and gas sector has been and even now remains the main source of export revenues and income for the state budget, as in the past, this sector employs around 3% of the working population. The crude oil sector remains under the ownership control of the state. Mining, transport and processing of raw materials takes place by 90% in cooperation with foreign mining companies, which are among other things, the main suppliers of technology and know-how in this sector. [49]

According to IMF data, the Libyan economy in 2012, gradually recovering from the slump caused by the civil war in 2011. Daily crude oil production is already in mid-2012 reached nearly prerevolutionary of 1.5 mil. barrels, which meant creating a stable base for the fulfillment of the state budget and thus (thanks to distribute financial benefits to citizens) it maintains social peace in the country. Gross domestic product in nominal terms even exceeded the value of 2010 and compared to the critical 2011 increased in real terms by almost 105%. The government was unable to meet the goal and restore capital construction in the country. The reason is that as a result of [50]international sanctions announced by the end of 2011 was blocked by the cooperation of foreign construction contractors, on which Libya is almost totally dependent, with two key government bodies responsible for residential, commercial and infrastructure construction. Their removal from the sanctions list was done in January, respectively April 2013. According to a recent report by the World Bank, the economy of Libya again dips into negative numbers. After a sharp decline in GDP of 62% r. 2011, Libya's economy in the year 2012 began to recover rapidly and its growth rate reached 104%, mainly due to a revival of crude oil production. However in 2013 economic development experienced another negative peak manifesting blocking mining and crude

[49] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

[50] http://www.omicsonline.com/open-access/a-review-of-libyans-economy-structural-changes-and-development-patterns-2151-6219-4-083.pdf

oil exports as a result of nationwide social security and instability in the country. Balances on the current and financial account declined due to the drop in revenues from crude oil sales and the continued expansionary spending policy of the government. This situation continues to deepen the real unemployment rate, with generous welfare benefits, this situation does not motivate the population to change this trend to the better. Libya's economy is still heavily dependent on crude oil, its production represents 70% of GDP and government revenue is dependent on its sale by 95%. Starting with June 2013 the daily output of crude oil production due to strikes and unrest in the crude oil fields and export port terminals blocking by the warring militias abruptly dropped from 1.4 million barrels (b / d) by 1 million b / d, but at the end of that year the quantity produced was just over 200 thousand. b / d. The above developments reflected a decline in balances in the current and financial account of the country. The decline of crude oil revenues was around 80%. The problem with the balance of payments was also intensified due to the continued expansionary fiscal policy of the government, during the mentioned period, incredibly, in September 2013 announced an increase in the salaries of public sector and employees and issue a specific decision to increase the salaries of judges. The World Bank, therefore, for the period 2013-2014 revised its estimates regarding the development of the fiscal parameters of Libya. The surplus on the financial account deficit reached in 2012 was again plunged into a deficit representing 5% of GDP in 2013 and 4% of GDP in 2014. Also, the current relatively high surplus current account balance drops significantly. Unfortunately, everything is far too dependent on crude oil production (as the predominant source of fulfillment for all balance systems), and internal political stability in the country. The current situation, the government is and will be required in order to finance budget deficits reaching deeper into still relatively substantial reserves. At the end of the year 2012, the reserves of foreign currencies accounted for 124 billion USD. It is estimated that to cover the deficit in 2013 the county had to withdraw from reserves of foreign currencies amount between 10-13 billion USD. [51]

[51] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

Table No. 4.1: Basic macroeconomic indicators over the past 5 years

	2008	2009	2010	2011	2012
Real GDP growth (annual changes in%)	5,6	0,5	5,0	-62,1	104,5
Crude oil and gas (annual changes in %)	3,6	-4,6	4,0	-72,0	211,4
Other sectors (annual changes in %)	7,9	6,0	6,1	-52,5	43,7
Nominal GDP (bil. LYD)	119,8	79,3	94,7	42,5	103,0
Nominal GDP (bil. USD)	98,0	63,3	74,8	34,7	81,7
GDP per capita (thousands. USD)	15,6	9,9	11,7	5,5	12,7
Inflation rate (CPI, %) - average	10,4	2,0	2,5	15,9	6,1
Inflation rate (CPI, %) – the end of period	9,8	5,1	3,3	26,6	-3,7

Source: IMF, 2012

Labor market remains highly distorted, with 80% of people employed in the public sector. Relatively attractive wages and other benefits in the public sector create high wage expectations among potential candidates for jobs in the private sector. These market needs and ideas, ultimately causing persistently high unemployment among the working population. Despite the fact that the official statistics of the Ministry of Labour and Social Affairs show a gradual decline in the unemployment rate from 20% in 2010 and 2011 to 15% in 2013, it is estimated that as a result of hidden unemployment in the public sector, real unemployment is about 30% of the working population. The highest unemployment rate was in the group of people aged under 25, which reaches up to 50%.[52]

The World Bank highlights the main issues and challenges which, if not promptly and effectively addressed, could worsen the prospects for recovery and growth of the Libyan economy. The primary challenge is to streamline the management of crude oil resources and the urgent need to diversify the economy in order to ensure long-term financial and economic stability and a drop in unemployment. Despite the large contribution of crude oil production to the state budget, this sector is highly capital intensive, while it offers just 2% of the employed population. The second - equally important challenge is to

[52] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

regulate the system of public subsidies representing 10% of GDP and reduce wage costs in the public sector. Subsidies are high, while in their current structure (for basic food, fuel, energy, etc.) they create a space for inefficiency and wasteful in their spending. Yet they are significantly undervalued investments in health, education and infrastructure. Another huge and still unresolved crucial issue is the lack of support for private sector development. The growth of private sector is hampered in particular due to the lack of access to finance business projects, the uncertainty of the regulatory environment and the fragile security situation in the country.

4.2 The Crude Oil and Gas Sector

The extraction and processing of crude oil and gas is a key sector of the Libyan economy. This sector is controlled and owned by the state, but it is highly dependent on technological investments from abroad.

The volume of discovered deposits is about 43.7 billion barrels, which represents about 3.3% of world and 40% of African reserves. Until the outbreak of civil war in 2011, the average of daily production was around 1,7 mil. barrels per day (bpd). In 2011 a vastly decline of production has happened but already in the first quarter of 2012 daily production climbed to 1,25 mil. bpd, by the end of 2015 it will be technically possible to reach the production level of the period before the year 2011.

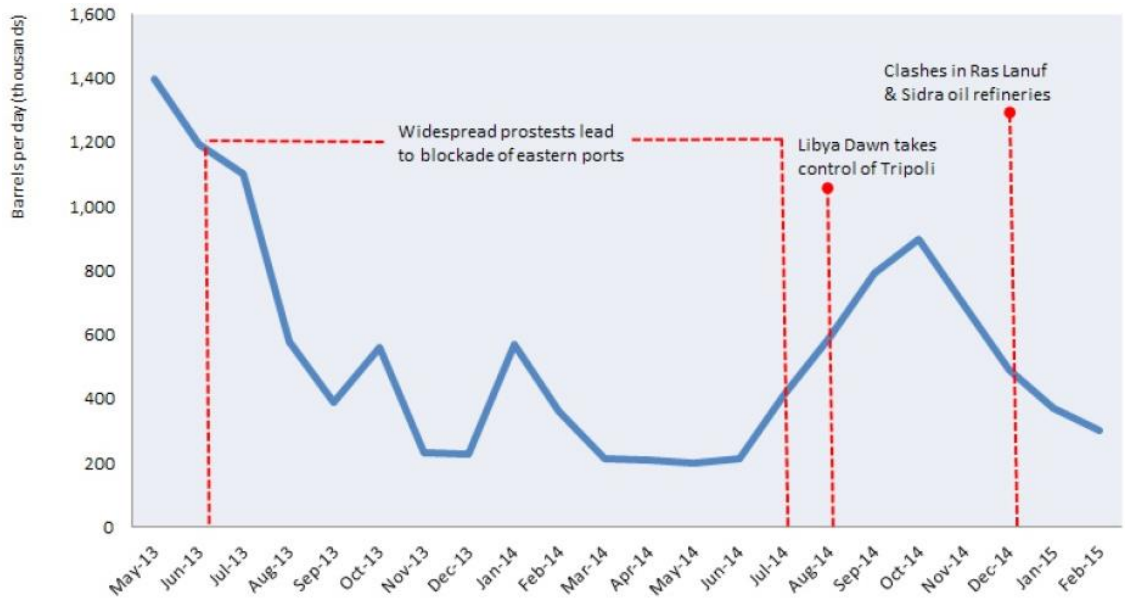
Among the major foreign companies which were extracting crude oil in Libya till the outbreak of civil war in the country were the Italian ENI, this company is operates in Libya since 1959. And many famous firms such as ExxnMobil, ONCG Videsh from India, Total company, Agip company and OMV company. Significant contracts at the time of the Gaddafi government were allocated to Algerian company Sonatrach in association with Oil India and Indian Oil, then Russia's Gazprom, Shell and Polish state company PGNiG.

In Libya there are 6 oil refineries which for a long time require reconstruction. These are the Zawia refinery, Ras Lanuf , Tobruk and small Brega refinery, Sarir and Sirt (all over 10 thous. bpd).

The confirmed reserves of natural gas represent approximately 1.5 trillion m3, which is 0.8% of world reserves. Libya in this aspect ranks fourth in Africa. Till the year 2011

the production of natural gas was 12 billion M3 of which 8 billion M3 was exported to Italy by the means of undersea gas pipeline in cooperation with the Italian ENI. !!!!! and 1 billion M^3 to liquefied natural gas was exported to Spain by tankers. The rest of the production was consumed by the domestic industry. In Libya there is no gas distribution pipelines, consumers use propane-butane bottles.

Figure No. 4.1: Crude oil production in Libya



Source: http://www.iss.europa.eu/de/publikationen/detail/article/libya-crude-implosion/

4.3 The non-Oil Sector

The production of iron and steel is performed by "Libyan Iron and Steel Co." (LISCO), which previous annual production dosahovala1,2 mil. of rolled metal sheets, profiled steel and concrete. Glass industry is performed Azizia Glass Manufacturing Company (AGMC), with production focusing on energy-saving glazing, façade glass panels for high-rise buildings, glass walls and doors. Food industry represents only a small portion of industrial production in the country. It consists mostly of small plants for processing of dairy products and local agricultural produce (olives, dates, tomatoes and citrus). In the domestic market are represented mainly products of al-Mazraa (juices, etc.). In operation, a grain mill, "Wadi al-Rabia Company" (flour but mostly imported from Italy). Machinery industry in the past represented a number of small manufacturing

companies, for example. Assembling trucks (IVECO, FIAT), cars and tractors. At present, however, this sector is in crisis, almost all production is imported and the existing capacities being installed rather abruptly, and most of the time are out of use. Rubber industry was represented by a factory for the production of tires in the industrial area Tadjurah, which in 2010 was producing only periodically.The Production of pharmaceuticals accounted for 2 relatively new plants, one of which (Al Mayah near Tripoli) was operated for technological collaboration with Slovfarma Hlohovec (a subsidiary al. Zentiva). Its production, however, was on the local market represented only a slight extent, unable to compete with strong pressure from foreign importers.

Construction industry

Larger state-run projects in the country were subdued during 2012. One explanation is that in the context of international sanctions (incl. EU) against LY was blocked by the cooperation of foreign construction contractors with two key local bodies responsible for residential, commercial and infrastructure construction - state agencies such as the Organization for Development of Administrative Centers.[53] In 2013, it was good news that the ODAC has been removed from the sanctions list of the EU in January 2013 and HIB[54] in April 2013. Another reason for the unrealized part of state investment in development programs and the construction was and still is the tardiness of the highest LY state institutions in matters of compensation for damage losses and foreign construction contractors operating in the LY before the revolution. In particular, urban development and transport infrastructure. In contrast, the planned investments in the development and construction of a fully depleted in the oil and gas industry, which was in collaboration with a number of foreign partners was in 2012 fairly quickly resumed production, transportation and processing of oil and gas. Within the aforementioned state investments in development programs and construction in line with the budget for 2013, among other counts 3.5 billion. LYD on (before the revolution started) the construction of housing, public buildings and public facilities (all within the competence of the ODAC and HIB), with an additional 2 billion. LYD investment in the renewal and modernization of the oil and gas industry with 1.8 billion. LYD to be

53 http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

54 Housing and Infrastructure board

invested in energy, ie. in the generation, transmission and distribution of electricity. Quite significantly begun to revive private construction which is mainly due to start up small and medium enterprises in the country.

Agriculture – development and structure

The cultivation of desert oases in addition to appropriate some coastal areas, and the area suitable for growing crops account for only 1.7% of the territory of Libya (93% of the territory covered by desert). The main grown crops are olives, dates, oranges, lemons, tangerines, grapes and almonds. The oases in the interior grow wheat and millet. On farms, both on the coast and inland, are grown almost all vegetables: onions, carrots, fennel, potatoes, tomatoes, peppers, cucumbers, eggplants, etc. Increasing production through artificial irrigation is costly. Government of M. Qaddafi previously favored the cultivation of water-conserving crop subsidies. Currently, the number of damaged irrigation systems, which, especially in areas of intensive artificial irrigation virtually impossible to start the season crops recently. The Current share of agricultural production (incl. Fishing) to GDP in the previous period ranged between 3-6%. Therefore, during 2012, envisages deepening the country's dependency on food imports (previously 80%). Due to the fact that almost two thousand kilometers of the coast of Libya has great fishing opportunities that were not yet very widespread disinvestment due to processing plants and fishing fleets. Libya has only one processing factory and two sardine canneries. Given the wealth of the Libyan coastal waters and the fact that the Mediterranean tuna on the world market, the most demanded goods be fishing and the related processing industries in the future could become a promising sector for foreign investors. [55]

Services

The service sector of tourism is practically not developed, in spite of the considerable natural and historical potential of the country (about 2,000 km of beaches and many historical sites on the coast and inland). There is a woeful lack of accommodation, beach hotels (with few exceptions) do not exist. Construction of new capacity has so far

55 http://www.omicsonline.com/open-access/a-review-of-libyans-economy-structural-changes-and-development-patterns-2151-6219-4-083.pdf

prevented not only inadequate infrastructure and a highly polluted coast in the vicinity of large cities (garbage, municipal outfall sewers), but also difficult conditions for foreign investment. Development of beach tourism, moreover, does not help the absolute prohibition of consumption and therefore imports of alcoholic beverages and pork. Persisting dismal security situation in the country practically does not create any preconditions for the development of the tourist industry for the next several years.

Infrastructure (transport, telecommunications, energy)

Rail transport in the country is practically nonexistent. Formerly operated the only railway line linking the cities of Benghazi and Barka (Al Marj) was abolished in 1964. In the early nineties he formed the plan of the railway linking offshore Tunisia and Egypt - almost 2200 km long - railway. In 2002 there was even to start work on the embankment (notwithstanding the large unsecured sources of funding), but the project soon began to be economically re-evaluated. Therefore it began construction of only a few segments. Contract to one of them (350 kilometer stretch between Homs and Sirte) won the 2008 Chinese state company China Railway Construction, with whom he was in addition to that also signed a contract to build a railway line from Sebha to Misurata. In 2008 it was awarded a contract for construction of 500-kilometers railway line between Sirt and Benghazi Russian state-owned company (Russian Railways). Further continuation of the implementation of the above, and in 2011 the civil war interrupted projects will be subject to political stabilization in the country, while the evolution of the situation after the future. Air transport was in the nineties due to the UN embargo marked a critical obsolescence fleet. Although the first decade of this century has been its partial modernization (especially in the government preferred Afriqiyah Airways, as well as with national carrier Libyan Airlines), the current technical condition of the fleet as a result of more than six months, neglecting their maintenance during the revolutionary unrest in the year 2011 and also the readiness of the current (quite a variation) flight personnel so unsatisfactory that were banned flights of Libyan aircraft in the EU. Functional civilian airport in Tripoli, Benghazi, in many cities such as Marsa el-Brega and Sebha. In many cases, runways and technical facilities are in very poor condition. For international transport the airport in Tripoli is used (Tripoli International Airport Mitiga Airport), and in Benghazi. In total there are 59 airports in Libya hard-landing areas and 78 airports with unpaved airfields. International maritime passenger

transport, in principle, does not exist. A fleet of maritime freight transport, which together with freight cars still stands in for absent coastal railway is very bad condition. The main ports are Tripoli, Benghazi, Marsa el Brega, Misurata, El Sider (Sidra) and Khoms. Offshore oil terminals (ports directly connected with oil deposits) are located in cities such as El Sider, Ras Lanuf and Marsa. Telecommunications sector in Libya belonged and still belongs to the least developed of all the countries of North Africa. Currently, the system has approximately 1.2 million fixed lines (of which approximately 300,000 households), some of them may be inoperative due to lack of maintenance. The capacity of fixed lines is increasingly being replaced by mobile connections, and is currently in Libya in the order of 11 million use mobile phones.[56]

Installed capacity of electricity generation was 6250 MW. Monopoly producer of electricity is a public company GECOL (General Electricity Company of Libya). Production of electric energy provides about 300 thermal power plants with diesel aggregate (DPP) with steam turbines (SPP), gas turbines (SPP) and the combined cycle (CCGT). GECOL also provides high voltage transmission and distribution of electricity.

Libya in early 2011 spent a considerable sum to support some countries in sub-Saharan and southern Africa (Zimbabwe, Tanzania, Uganda) and provided a number of countries in those regions also funding the construction of mosques, Islamic centers and teaching the Koran. The current transitional government strongly reassessing the overall foreign policy towards countries in sub-Saharan Africa, which will match her ideas on possible further providing development aid to these countries. It is already certain that any redistribution of aid in advance are excluded countries that supported the Gaddafi regime, or if they now hiding his family members.[57]

4.4 State Budget and Government Revenues

Libyan state budget for 2013 was approved by the parliament on March 19, 2013, provides for balanced revenues and expenditures in the amount of 66.9 billion Libyan dinars (LYD), which according to the official exchange rate CBL (1.67 LYD / EUR) is the order of 41 billion EUR, or 1 trillion CZK. Its value is compared to 2012 by 2.4%

[56] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

[57] http://www.omicsonline.com/open-access/a-review-of-libyans-economy-structural-changes-and-development-patterns-2151-6219-4-083.pdf

lower. DEU not yet have details of the entire division, are known but its basic values 5 chapters, even in comparison with 2012 (see table below), as well as more detailed breakdown of the chapter "Programs of development and construction.

Table No. 4.2: Wages in Public Sector

	2012		**2013**	
	mil. LYD	*share in %*	*mil. LYD*	*Share in %*
Wages in public sector	18 670	27,3	20 783	31,1
Operating expenses of the public sector	12 135	17,7	10 770	16,1
Programs of development and construction	19 118	27,9	19 300	28,9
Subsidies and price Match	14 600	21,3	10 608	15,9
Reserves	4 000	5,8	5 400	8,0

Source: IMF, 2013

The table shows that budgetary expenditure on public sector wages was increased in 2013 in nominal terms by 11.3%, while its share in total budget expenditure was increased from 27.3% to 31.1%. In contrast, the decline in nominal spending on subsidies and price is matched by more than 27%. Their share in total expenditure fallen from 21.3% to nearly 16%.[58]

[58] http://doc.utwente.nl/76014/1/Abouazoum10change.pdf

Table No. 4.3: Pubic Finance Expenditure

	2008	**2009**	**2010**	**2011**	**2012**	**2013 expectations**
Total revenues	66,7	61,3	64,9	50,3	75,6	74,0
Crude oil revenues	*60,4*	*55,6*	*58,8*	*47,8*	*72,5*	*70,5*
Total expenditure and net lending	37,4	49,7	56,1	68,9	51,6	54,9
of which capital expenditures	*22,7*	*26,4*	*25,6*	*8,2*	*5,3*	*11,1*
Total balance	29,3	11,7	8,9	-18,7	24,0	19,1
Balance without crude oil revenues	-31,1	-44,0	-50,0	-66,5	-48,5	-51,4
Balance without crude oil revenues as % of GDP	-171,6	-146,3	-139,6	-137,4	-191,0	-187,2

Source: IMF, 2012

An important chapter of the budget in terms of possible participation of foreign firms in the supply of investment "Programs of development and construction." Here, in comparison with the previous year, maintaining approximately the same value of expenditures, although it is estimated that in 2012 was half of the amount was not exhausted, ie. 9 billions LYD. One explanation is that in the context of international sanctions (incl. EU) against Libya. [59] The cooperation of foreign construction contractors was blocked with two key local bodies responsible for residential, commercial and infrastructure construction - state agencies ODAC and HIB. For 2013, it is good news that the ODAC has been removed from the sanctions list of the EU in January 2013 and "delisting" HIB has been taken place after that. Another reason for the unrealized part of state investment in development programs and the construction was and still is the tardiness of the highest Libyan state institutions in matters of compensation for damages and losses of foreign construction contractors operating in

59 http://www.omicsonline.com/open-access/a-review-of-libyans-economy-structural-changes-and-development-patterns-2151-6219-4-083.pdf

the Libya before the revolution. In particular, urban development and transport infrastructure. In contrast, the planned investments in the development and construction of a fully depleted in the oil and gas industry, which was in collaboration with a number of foreign partners was in 2012 fairly quickly resumed production, transportation and processing of crude oil and gas. Another reason for the unrealized part of state investment in development programs and the construction was and still is the tardiness of the highest Libyan state institutions in matters of compensation for damages and losses of foreign construction contractors operating in the Libya before the revolution. In particular, urban development and transport infrastructure. In contrast, the planned investments in the development and construction of a fully depleted in the oil and gas industry, which was in collaboration with a number of foreign partners was in 2012 fairly quickly resumed production, transportation and processing of oil and gas. Within the aforementioned state investment in development programs and construction in line with the budget for 2013, among other counts 3.5 billion. LYD on (before the revolution started) the construction of housing, public buildings and public facilities (all within the competence of the ODAC and HIB), with an additional 2 billion. LYD investment in the renewal and modernization of the oil and gas industry with 1.8 billion. LYD to be invested in energy, ie. in the generation, transmission and distribution of electricity. For more information on the breakdown of the expected public investment programs of development and construction worth 19.3 billion. LYD (11.5 billion) In terms of the focus of individual investments are in the annexes of this chapter. Current and expected development of revenue and expenditure of the state budget (% of GDP). See table number 4.3.[60]

The Most utilized correspondent banks in foreign payments (such acceptance LC) - are, Commerzban, Raiffeisenbank and Societe Generale. The legislative basis is the Law no. 1/2005. Law no. 1/2013 establishes Islamic banking - the prohibition of interest (riba) in deposits and loans to banks seems to have adjusted to the bank derived products (since the law does not define them), and profit sharing (mudaraba), the Bank for the purchase

[60] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

of goods client (idjara), manufacturing and supply contracts with the subsequent resale of the work by the bank client (istisna), fixed costs and surcharges (murabaha).

4.5 Tax System

Tax legislation since the creation of the transitional government in the autumn of 2011 so far has not undergone any changes. As recommended by the IMF in January 2012 by the government and the central bank should start coordinating their fiscal and monetary policies. Ministry of Finance was advised to create an annual overview of fiscal flows through the central bank in coordination with key ministries, tax and customs administration, which should be used to adjust future tax system. According to Law no. 11/2004 the company tax progressive and ranges from 15% (gross profit to 200 thousand. LYD year) to 40% (gross profit of 500 thousands LYD a year). The tax is assessed on the basis of the auditor (auditor is mandatory for foreign companies) filed tax return. After several years, however, made by the tax office a tax recovery, which is determined based on the expected profit (imports of goods 5-8%, works 15 to 20%, various services 18-25%, design and engineering 25-40%) regardless of the actual costs incurred. Costs, which represent a benefit for employees (accommodation, meals in the canteen, commuting etc.), and that should be included in taxes on wages are taxed at a rate of 15-20%. The tax on salaries and wages in the range of 8-15% of net salary is deducted stamp duty of 0.5%. Tax revenues (revenue duty, stamp duty for registration of the contract). All contracts and sub-contracts involving the supply of services shall be registered in the tax office and pay the so-called tax revenues amounting to 2% of the contract value (resp. 1% of the value of the sub-contract). The tax is withdrawn immediately after registration of the contract, regardless of the effective payment. From all payments to public entities is deducted 0.5% of the payment amount as so-called. Withholding tax or "stamp duty". Supplier of goods or services gets paid less by that amount. All sales of goods are by law subjected to a sales tax of 5% of the sales invoice. In practice, however, this tax is levied only on invoices issued by subsidiaries of foreign companies in Libya. Libyan entities do not pay taxes and invoices or receipts it therefore not included. In Libya, there is still no value added tax (IMF recommended the establishment in 2007), gift and inheritance tax or taxes to local governments. Libya has entered into an agreement for the avoidance of double taxation with France, Portugal, Slovakia, Malta, Croatia, India and Pakistan, Great Britain and most countries LAS

(Algeria, Egypt, Iraq, Yemen, Jordan, the Palestinian Authority, Morocco, Mauritania, Sudan , Syria, Tunisia, United Arab Emirates). With Germany Libya has agreed texts of agreements, pending their ratification. The negotiations are going on for an agreement with Italy. [61]

4.6 Foreign Trade of Libya

Systematic review of exports and imports in terms of territorial structure is the local institution available. Libyan exports by 95% are composed of petroleum, petroleum derivatives and natural gas. Among the biggest consumers of oil are Italy, Germany, France and Spain. Most of the exported gas goes undersea pipeline to Italy. Extraction and export of gas through that pipeline provided by Mellitah Oil & Gas (a joint venture of the Libyan National Oil Corporation and the Italian ENI).[62] Other chemicals are exported mainly polymers of ethylene. In the mix of exports, while agricultural products are not listed, but it is known that Libya exported a limited quantity of fish products, olive oil and fruit, for example Tunisia and France. A considerable part of Czech exports to Libya have been over the last few years carried out through third countries. These were mainly supplies for public sector projects and foreign companies in Libya (supply of steel structures, pipes for oil wells, etc.). Among the most famous private importers of Czech goods were the former graduates of military colleges in the former Czechoslovakia, who after leaving the army started own business. The most important state-owned partner for cooperation with the Czech Republic so far has been the National Oil Corporation (NOC), which will certainly be of interest in terms of further cooperation in the future. Among other potential partners we can consider the General Electricity Company of Libya (production and distribution of el. Energy), Industrial Research Center (Geological Survey), NASCO (the importation of basic foodstuffs), and Libyan Iron and Steel Co. . Among the items with the largest share in exports were in 2013, high-voltage switchgear (19% share), construction (7.7%), men clothing (6.2%), glassware (6.2%), ceramic tiles and Coating (4.8%), medical furniture and

61 http://www.omicsonline.com/open-access/a-review-of-libyans-economy-structural-changes-and-development-patterns-2151-6219-4-083.pdf

62 http://doc.utwente.nl/76014/1/Abouazoum10change.pdf

equipment (4.5%), cosmetics and toilet preparations (3.5%), motor vehicles for the transport of goods (3.7%), turbo-propellers (2.9%) .[63]

Table No. 4.4: The trade balance for the last 5 years - exports, imports, balance

	2008	2009	2010	2011	2012
Export (mil. USD)	62,1	37,1	46,8	19,1	62,2
Import (mil. USD)	20,9	22,0	24,6	11,2	25,7
Turnover (mil. USD)	83,0	59,1	71,4	30,3	87,9
Balance (mil. USD)	41,2	15,1	22,2	7,9	36,5

Source: IMF

Import conditions and documents

In accordance with the previously applicable legislation it is possible to import goods to Libya through officially registered dealer, or through a branch of a foreign company in Libya. In both cases, the registrant should be provided by business and industrial chambers in the cities of Tripoli, Misurata, Tobruk, Sebha, Benghazi, Zawi and Derna according to the territorial scope of the importers, which should be checked by the organization that is called the Highest Chamber of Commerce and Industry. Detailed information regarding the current status in terms of procedures and the list of required documents during the registration process is usually provided by foreign embassies. Import duties are applied in accordance with the applicable tariff schedule. Current overview of tariff and non-attractive import conditions in Libya provides Market Access Database**.** Private exporters do not need license for goods manufactured or produced in

[63] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

Libya export license They must, however, be duly registered as exporters at the Ministry of Economy and Trade Export licenses are still required for export of machinery and equipment that were imported into Libya It banned the export of scrap iron, copper, brass, aluminum and the lead waste, charcoal, cement, reinforcing steel, state-subsidized food products (flour, rice, sugar) and previously imported medical equipment and pharmaceuticals. Exports of oil, gas and the petrochemical products is in full responsibility of the state National Oil Company (NOC) and its subsidiaries Payment of exported goods must be in freely convertible currency and any letter of credit securing customer payment for goods must not exceed 3 months from the date of dispatch of the supplier. Protection of the domestic market
With regard to the negligible domestic production base and mostly raw material (crude oil, gas) nature of domestic production any existing tax restrictions against certain types of imported products can not considered as a measure related to the protection of the domestic market, but as a fiscal tool.[64]

Prerevolutionary rules on free trade zones was based on a law to regulate transit of goods and free trade zones no. 9/2000 "and the relevant implementing regulation (Resolution 276/2000) In the context of those legislative work conditions, for example free trade zone in Misurata (210 km east of Tripoli), which also included part of a port. View of the current unclear and inconsistent situation with regard to the implementation of legislative business conditions and the movement of goods and capital throughout the territory of Libya, does not lie to talk about functioning "free trade zones" in accordance with any law.

4.7 The Conditions of Entry of Foreign Capital

Formally legislative changes to the conditions of entry of foreign capital in connection with the emergence of a new transitional government has not yet occurred and prior to stabilization of the political power of the country's parliament and forming a government based on the results of elections in June 2012 will most likely not happen.[65]

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[64] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

[65] http://doc.utwente.nl/76014/1/Abouazoum10change.pdf

Libya is a member of the United Nations (1955) and a number of its specialized agencies (FAO, IAEA, WHO), the League of Arab States (1953), the Organization of the Islamic Conference (1969), the Organization of African Unity, the Organization of Petroleum Exporting countries (OPEC), the Arab Maghreb Union (1989), the African Union (2002), common Market for Eastern and Southern Africa COMESA (regional group where Libya geographically is not only formally due to the common border with Egypt).

Investments in crude oil and gas regulated by specific legislation It is called Conditions EPSA IV (Exploration and Production Sharing Agreement), which are based on international standards Former regime conducted in 2005, their treatment in order to induce investors to employ and train the maximum number of local workforce, in addition to investments in development fields ("upstream") and to invest in so-called "Downstream", ie The reconstruction of refineries and gas plants These changes will then follow to further statutory regulation in 2010 allowing foreign investors among other things, mandate the appointing Libyan citizens in positions of general managers in their firms in Libya. [66]

The investments covered by the Investment Incentives Act (no. 5/1997), which provided conditions for foreign investors applying for the special regime of investment incentives. In order for an investment project to meet the application of that law, it must comply with "one or more" of the following conditions: production of goods or services for export or substitute existing imports, creating new jobs, transfer of new technologies, utilization of local raw materials, etc. The minimum value of investments (Government Decision no. 86/2006 of 04/20/2006) the amount of 5 mil. LYD, in the case of joint investments with a local partner, whose share exceeded 50%, the lower limit is set at 2 million LYD.

Investment incentives include exemption of equipment necessary for the operation of customs duties for a period of 5 years, exempting projects from income tax for 5 years, exemption of products destined for export from the manufacturing and export taxes. Furthermore, the project covered by an exemption from postal tax exemption port and

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66 http://doc.utwente.nl/76014/1/Abouazoum10change.pdf

airport taxes, etc. The investor is entitled to a transfer of profits and dividends, and after 5 years to transfer invested capital. [67]

Although the law No. 5/1997 "guaranteed" investors relatively attractive terms, the reality was quite different. Investors faced similar problems as other foreign companies implementing contracts in Libya, especially lengthy release of goods from the port, the slow issuance of work visas, employment pressure on the high number of local labor, etc. Problematic was the repatriation of profit and investment.

Libya has from European countries concluded agreements on investment promotion and protection with Malta (1982), Austria (2004), Croatia (2006), Switzerland (2003), Cyprus (2005), Italy (2004), Germany (2004), Belgium (2007), France (2006), Slovakia (2009), Spain (2008) and Portugal. Libya is a member of MIGA (Multilateral Investment Guarantee Agency).

Foreign direct investment in the territory (sectoral and territorial structure) Development of FDI to and from Libya for the period 2001-2010 (data are presented cumulatively mil. USD). The existing inflow of FDI into Libyan economy was directed almost exclusively to the extraction and processing of oil and gas. Among the largest foreign investors were Germany (Wintershall), UK (Shell), Canada (PetroCanada), USA (ExxonMobil, ConocoPhillips, Amerada Hess Marathon), Italy (AGIP), France (Total), Russia, China, Japan and Poland (PGNiG). Investments outside the oil sector went mainly to the cement industry and in mining and processing of building materials.

Table No. 4.5: The development of foreign direct investments for the period 2001-2010 (in mil.USD)

	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Inflow	338	483	626	983	2021	4034	8723	12834	15508	19342
outflow	1767	1631	1694	1408	1536	1002	4935	10823	11988	13269

Source: UNCTAD, 2011

[67] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

Local sources do not provide information about the territorial breakdown of foreign direct investments in Libya and statistics of CNB did not register any Czech investments in Libya.

The most promising sectors for investment, privatization and development projects In the context of the structure of the Libyan industry may be generally (in the context of global demand), the most promising sectors for foreign investments of extraction of oil, gas and mineral processing, which has significant reserves of Libya. Potentially, it may be interesting in terms of investments and infrastructure development and services, especially in tourism. Theoretically, there is the amount of unused beaches suitable for the operation of resorts, as well as the interesting and historical potential of the country.

Currently, the largest and key risk for investment in Libya is unsatisfactory security situation enhanced by the addition fragmentation of power (clan and tribal) effects in different parts of the country. Until now they did not begin to operate effectively in the central internal security forces and a unified army. Generally yet do not recommend even tourist travel to Libya. The country still governed by a transitional government appointed by the Interim National Council (NTC). Everything will depend on the smooth running of a nationwide recognition of the election results and the future of political negotiation. [68]

There are a lot of challenges and risks of the local market. Environment for the development of any business and commerce in Libya even during the former regime was characterized by considerable competence inconsistent structure of government and the complexity of the legislation. It can be expected that the current transitional period will be in that context even more complicated. The complexity of the situation resulting from this transitional period, as in the past, has intensified by requiring consistently Arabic as the only official language and the lack of reliable information sources. Foreign firms are in most cases dependent on more or less capable local representative, or middlemen, whose abilities and usefulness, however, may take up to several months or years, so businesses can also cause considerable losses.

[68] http://www.africaneconomicoutlook.org/fileadmin/uploads/aeo/PDF/Libya%20Full%20PDF%20Country%20Note.pdf

Obtaining market orientation therefore for the new company will be a long and costly affair. Therefore the advantage may have foreign companies that have in Libya for many years its affiliates. From a business perspective, the market is too risky for the Libyans themselves. In the legislative chaos to disregard the agreed commitments (in particular payment) and to use collusion is a common practice.

According to existing rules fall within far unchanged trade commitments under contracts with state companies and local representatives duly registered under the Libyan jurisdiction. Under a special government approval could be in the "management contracts" invoked arbitration clause. In the case of investment was possible on the basis of bilateral contractual arrangements (eg. An agreement on investment promotion and protection, which the Czech Republic with Libya has signed) achieved by international arbitration mechanisms. Generally, it is suggested and advised to avoid litigation with the state and businesses in Libya registered private companies because of their lengthy, costly and uncertain outcome.

The current situation in Libya in terms of the legal and institutional framework is characterized by paradox which lies in the Starting up a relatively large-scale institutional transformation while preserving the existing rights in all other areas that do not affect political institutions. After elections in June 2012, the main task of the new Supreme National Congress and the government appointed by him as the two basic elements of the legislative and executive powers should be the development and adoption of a new Constitution and the related laws. Based on the current development, however, it can be assumed that this process will be very complicated and in the short term with an uncertain outcome, particularly as regards maintaining centralized control over the whole territory of Libya and the associated control of revenues from the oil and gas industry. Already, they are seen separatist and federalist tendencies unspecified especially in the southern and eastern regions of the country. [69]

[69] http://doc.utwente.nl/76014/1/Abouazoum10change.pdf

Chapter 5 – The Practical Part

5.1 Introduction

For the needed calculations we will use. the least squares method OLS. In the calculations will be investigated change in employment depending on economic growth, which is expressed by change in GDP, inflation and foreign investments. Libya's economy is unique in the fact that the employment rate ranges from 55.3 to 55.9 percent. The data show that investments and GDP influence employment only in limited ways. In the calculations and testing we are attempting to determine to what extent these regressors determine the development of employment. The model includes the classic macroeconomic indicators. Regards the exogenous variables that may affect the model, but by themselves they are not limited. Endogenous variables are therefore included within the model and they are determined during the reporting period. Regard to these circumstances it is important to test the model. Heteroskedasticitay analysis will be used. It must be ascertained whether the estimate parameters of unbiased and consistent.

In the tests it will be performed and also the detection of heteroscedasticity and Breusch-Pagan test, which tests whether the estimated variance of residues which depend on the values of the explanatory variables is valid. It will be carried out White's test, which tests whether the square of residue is dependent on the explanatory variables, their square and the mutual multiple (cross products). Further in the tests will be determined the coefficient of determination, to assess the compatibility of the model with the data used in the model. The model includes 3 types of squares RSS - residual sum of squares, TSS - the full sum of squares, ESS explained sum of squares, TSS = ESS + RSS. The coefficient of determination will be interpreted in a verbal commentary. Corrected coefficient of determination, sometimes called adjusted coefficient of determination. In our model is marked in yellow. In the tests will also be carried autocorrelation residues. The reasons of autocorrelation residues are, whether the included variables in the model are significant variables, in that the further whether in observations y_s and y_t are common factors with higher impacts (more than $x_{s\gamma}$ and x_T). Further, the test shows insufficiency specification, whether the model has dynamics

or not , which in turn is shown by graphs ACF and PAFCs. The test is carried out to avoid the effects of autocorrelation residues. In the interpretation it must also appear the estimation of parameters, whether it is unbiased and consistent. This is needed to detect autocorrelation of residues whether the phenomena which are included in the model, influence the results of and to what extent.

Backgrounds of the econometric model

The Libyan economy has always been a very specific economy. Even the economy has always been different from other Arab oil economies. The Libyan economy has been actually very different from all the neighboring economies. This difference was not only in the complete dependence on oil, but also by a very special intervention of the government there. In Libya there was applied even very particular economic theory, which was in some respects far away from capitalism and socialism. Economic theory of the Green Paper had a significant impact on the whole economy and made a hybrid economy. This fact is reflected mainly in the results of the application of the doctoral thesis. The crude oil sector the main effective sector. This economy has been also influenced by the size and the position of the country. The fact that Libya is very near to Europe has highly influenced this economy and its performance. This fact is reflected mainly in the results of the application of the doctoral thesis. Employment moves in the last twenty years, just under 56 percent. Likewise, there is a 30% unemployment rate and this situation is unchanged since 1998. At the first sight therefore, the employment rate is not affected by the creation or loss of GDP, in other words, the employment is not influenced by economic growth. Likewise, it cannot be quite say that employment is affected by foreign direct investments. This presumption, however, is needed to confirm or falsify. For this purpose the formulation of hypotheses and calculations and conclusions that can unleash an economic nature.

General writing of econometric model

$$y_{1t} = \gamma_1 x_{1t} + \gamma_2 x_{2t} + \gamma_3 x_{3t} + \gamma_4 x_{4t} + \gamma_5 x_{5t} + u_{1t}$$

Basic data

Table No. 5.1: Basic data for the model 01 - Employment

Year	Employment	Inflation (%)	GDP	Investments
1999	55,9	18	35975000000	12869500
2000	55,8	18,5	38271000000	141000000
2001	55,9	1	34112000000	1330000000
2002	55,8	2,8	30471000000	145000000
2003	55,8	2,9	36186000000	143000000
2004	55,7	2,8	41148000000	910000000
2005	55,3	2,658	47335000000	910000000
2006	55,5	1,465	54976000000	1590000000
2007	55,7	6,211	67690000000	756200000
2008	55,8	10,401	87236000000	1776900000
2009	55,9	2,448	63069000000	2060000000
2010	55,9	2,458	74804000000	938000000
2011	55,8	15,902	34707000000	131000000
2012	55,7	6,072	81915000000	2508800000
2013	55,6	2,594	65516000000	881800000
2014	55,7	2,8	41148000000	910000000

Source: own processing, Index Mundi

Used data sources are based on official statistics and databases. The main secondary source was Index Mundi, data had to be supplemented with data from other statistics, for example ILO and the World Bank. Data was prepared for calculating is in source table see table number 5.1 . The first column contains the data of employment rates. The data are generated according to ILO methodology. It is therefore a share of the total number of employed persons aged 15 years and younger than 65 years. This is an internationally comparable figure, which is admittedly very specific in its stationary form, but it is valid. In the second column indicates the inflation rate as a percentage. The third column contains the development of GDP, which is calculated according to the expenditure approach and the last column contains foreign direct investments (FDI)

Table No. 5.2: Descriptive characteristics

	The mean value	Median	Minimum	Maximum
Employment	55,737	55,800	55,300	55,900
Inflation	6,1881	2,8000	1,0000	18,500
GDP	5,2160e+010	4,4242e+010	3,0471e+010	8,7236e+010
Investments	9,4654e+008	9,1000e+008	1,2870e+007	2,5088e+009

Source: own processing

Figure No. 5.1: Employment, Inflation, GDP, Investments

Source: own processing

In the table No. xxX are entered descriptive characteristics monitored macroeconomic indicators (employment, GDP, inflation and investments) in Libya. Mean values of

employment corresponds to 55, 7 percent, which corresponds to the development in the period when employment fluctuated between 55 4 and 55, 9 percent. Inflation in Libya ranges from 18, 5 percent in 2000 to a level of 1 percent in the following year. The mean value is at level 6, 1 percent. GDP showed that in the economy there is a very strong fluctuation caused by the changing political situation and the price of oil on world markets. Investments have a strong link to the mining industry. This is related to the export, which is almost 100 percent consists of crude oil.

Table No. 5.3: The correlation matrix ($X^{\acute{}T}X^{\acute{}}$); Correlation coefficients by using observations of 1999 - 2014; 5% critical value (two-sided) = 0.4973 for n = 16

	Employment	**Inflation rate**	**GDP**	**Investments**
Employment	1,0000	0,3043	-0,0766	-0,1289
Inflation rate		1,0000	-0,1542	-0,4214
GDP			1,0000	0,7138
Investments				1,0000

Source: own processing, GRETL

Table No. 5.4: Model 1: OLS using observations of 1999-2014 (T = 16); Dependent variable: employment; HAC standard errors, 1 width window 1 (Bartlett's core)

	Coefficient	**Standard error**	**t-share**	**p-value**	
Inflation rate	1,06457	0,437703	2,4322	0,0302	**
GDP	9,34426e-010	undefined	undefined	undefined	
Investments	−4,56131e-09	8,14724e-09	−0,5599	0,5851	
The values of OLS model and the testing results					
The mean value of the		55,73750	The standard deviation of the		0,162788

dependent variable		dependent variable	
The sum of the squares of residues	4213,937	The standard error of regression	18,00414
The coefficient of determination	0,915225	The adjusted coefficient of determination	0,902182
logarithm credibility	−67,29153	Akaike criterion	140,5831
Schwarz criterion	142,9008	Hannan-Quinn criterion	140,7017
Rho (correlation coefficient)	0,463287	Durbin-Watson statistic	1,065113

Source: own processing, GRETL

Table No. 5.5: Multiple linear regression - Estimated regression equation

V1[t] = + 55.7146 + 0.00772957V2[t] + 1.11369e-13V3[t] + 1.0111e-11V4[t] - 0.00474157t + e[t]					
Multiple Linear Regression - Ordinary Least Squares					
Variable	Parameter	S.D.	T-STAT H0: parameter = 0	2-tail p-value	1-tail p-value
(Intercept)	+55.72	0.1567	+3.5550e+02	1.095e-23	5.477e-24
V2	+0.00773	0.008874	+8.7100e-01	0.4024	0.2012
V3	+1.114e-13	4.007e-12	+2.7790e-02	0.9783	0.4892
V4	+1.011e-11	9.883e-11	+1.0230e-01	0.9204	0.4602
t	-0.004742	0.01213	-3.9090e-01	0.7033	0.3517

Source: own processing, Wessa

The OLS model important values are highlighted in yellow. The column p-values indicates statistical significance of the indicators, it is worth noting only the investment and its impact on employment. Although this is the highest p value generally its level is low. It can therefore be concluded that the statistical significance of regresors on the dependent variable employment is low and therefore these factors hardly affect employment. This corresponds to the real economic situation in Libya. Unemployment constantly remains at the level of 30 percent, employment is also almost due to this situation is unchanged about 55 5 percent, but inflation is fluctuating. At its maximum it reaches the value of 18 and at it is at the minimum it is around 1 percent. It is

therefore obvious that inflation and price fluctuating do not influence the unemployment rate in Libya.

GDP has similarly distant maximum and minimum values. It is therefore obvious that GDP is not even regressor which the dependent variable significant influences. The same applies to exports and investments. Thus, the question remains which regressor affect employment. Libya has a very specific and centralized economy. Most of reported and statistically registered employee was paid by the government or by companies that have a majority state ownership. At the time of Qadhafi's regime it was actually a sort of artificial employment, when the regime in this way shared a portion of the proceeds from the sale of oil and it demanded a high degree of political loyalty. The state had the dominant role in determining the rate of employment the government was the only guarantor of social policy, security, health care or education policy.

The equation of the econometric model

$$Employment = \underset{(0,438)}{1{,}06.inflation} + \underset{(8{,}15.10^{-9})}{9{,}34.10^{-10}.HDP} - 4{,}56.10^{-9}.Investments$$

T = 16, coefficient of determination = 0,915 (standard errors in brackets).

Source: own processing, GRETL

The econometric equation was created using Gretl. The coefficient of determination was determined by the value of 0.915. The value is high. It can be stated that the calculations are relatively accurate. If we want to forecast employment in Libya, we must, on the basis of estimated parameters β1 = 1.06; β2 = 9.34-010; β3 = - 4.56-09 and values of explanatory variables to calculate the employment rate for next year and the year. The estimation may serve to determine the employment assuming that inflation will be reduced by 1 percent, such as before the government was the only GDP. The resulting statistical estimate serves to determine the the rate of decline in employment, provided that inflation will be reduced by 1 percent.

Table No. 5.6: White's heteroskedasticity test

OLS, using observations of 1999-2014 (T = 16)
Dependent variable: uhat^2

	coefficient	standart err.	t-share	p-value
const	3122,56	18,8582	165,6	3,27e-012 ***
inflation	−118,788	2,40513	−49,39	4,62e-09 ***
GDP	−1,05027e-07	8,29903e-010	−126,6	1,64e-011 ***
FDI	5,20871e-07	9,01970e-09	57,75	1,81e-09 ***

Non-adjusted determination coefficient = 0,999935
Testing statistics:: TR^2 = **15,998962**, with p-value = P(Chi-square (9) > 15,998962) = **0,066903**

Source: own processing, GRETL

. White's heteroskedasticity test determines the intensity of changes of variance in a time series The test shows the p-values are statistically significant (three stars). In the table number 5.6, the results of W- test (significance level) are higher than five per cent, which means that it is possible to reject the hypotheses H_1, H_2, H_3. The model therefore is affected by a number of factors that were not included, but they are significant.

Table No. 5.7: Breusch-Godfrey test for the first order of autocorrelation OLS using observations of 1999-2014 (T = 16))

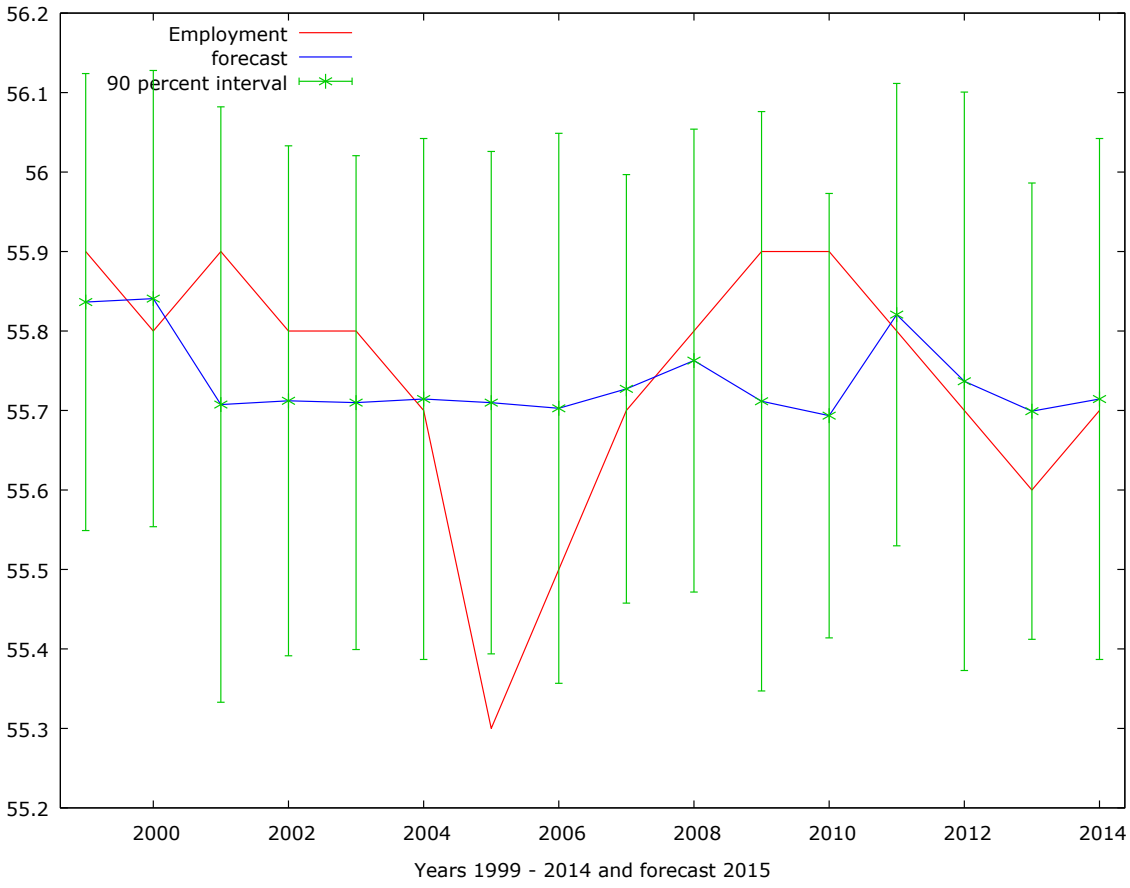
	coefficient	standard err.	t-share	p-value
inflation	0,369625	0,774295	0,4774	0,6417
HDP	−1,70604e-010	2,51511e-010	−0,6783	0,5104
FDI	6,11067e-09	9,55828e-09	0,6393	0,5346

Non-adjusted determination coefficient = 0,227105
Testing statistics: LMF = 3,526034,
with p-value = P(F(1,12) > 3,52603) = 0,0849
Alternative statistics: TR^2 = 3,633674,
with p-value = P(Chi-square (1) > 3,63367) = 0,0566
Ljung-Box Q' = 2,97203,
with p-value = P(Chi-square (1) > 2,97203) = 0,0847

Source: own processing, GRETL

Breusch-Godfrey test shows that p-values which we incorporated in the model are not statistically significant for monitoring the development of employment. P-value came less than five percent on the level of significance, which means that it is possible to reject the hypotheses H1, H2, H3 of autocorrelation. Another result, the Box-Ljung Q value, also shows less than five percent level of significance. Non-adjusted value of determination indicates 0.227, which means weak determination of independent variables on the dependent variable (employment). This test was used because the result can sensitively detect dependencies between three or more variables. It is a more accurate test than the test of pair wise correlation coefficients.

Figure No. 5.2: Employment



Source: own processing, GRETL

The calculation and the chart show moderate changes in employment. The value that is forecasted will build on the base 55, 7 per cent in 2014. The plot was determined a confidence interval of 90 percent.

Table No. 5.8: Autocorrelation function of residues

Autocorrelation function of residues

Lag	ACF	PACF	Q-stat. [p-value]
1	0,4281 *	0,4281 *	3,5180 [0,061]
2	-0,0333	-0,2651	3,5409 [0,170]
3	-0,3936	-0,3450	6,9721 [0,073]

Source: own processing, GRETL

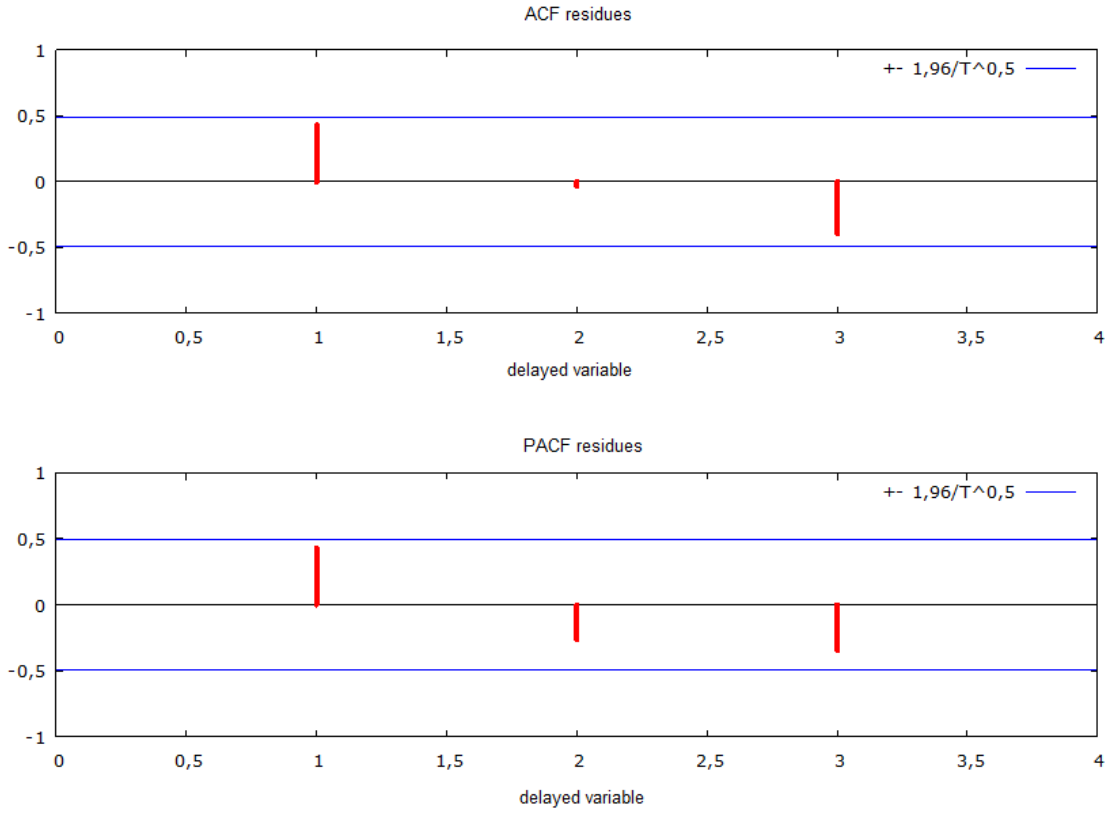


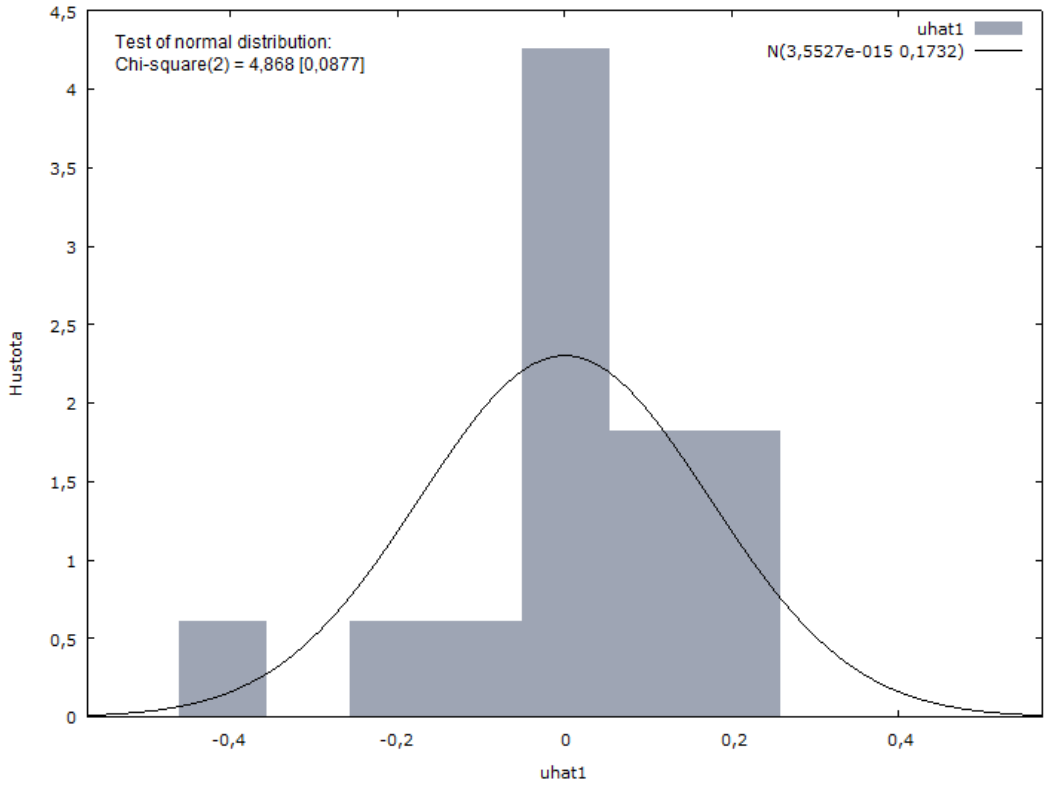
Table No. 5.9: Durbin-Watson test

Durbin-Watson statistics = 1,13209
p-value = 0,0204381

Source: own processing, GRETL

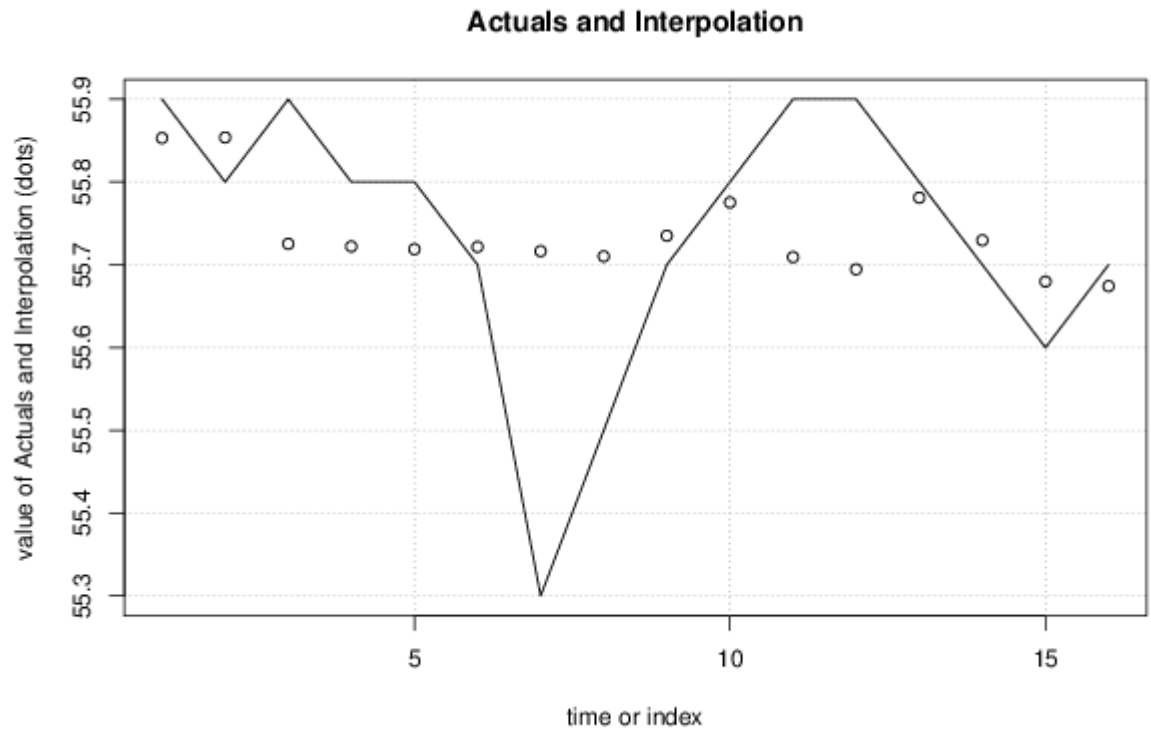
The result of the test is that the regressors are statistically low significance. This means that employment is not determined by inflation, GDP or investments. Durbin Watson test.

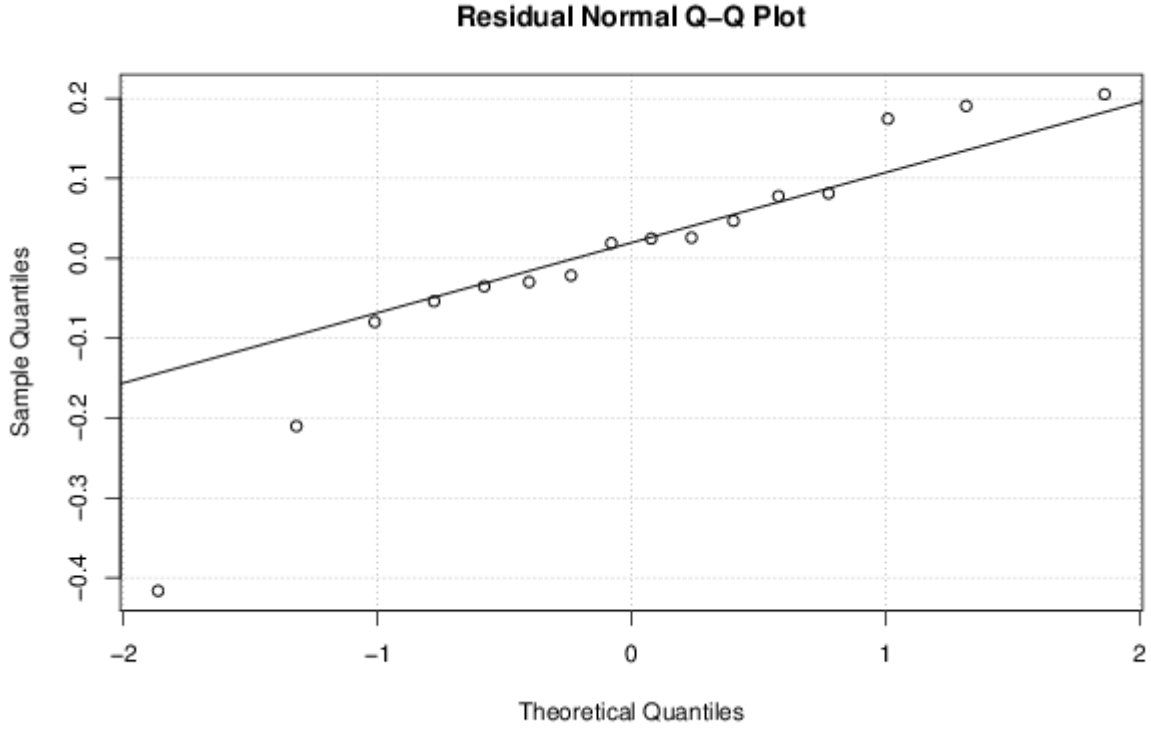
Figure No. 5.3: Test of Normal Distribution

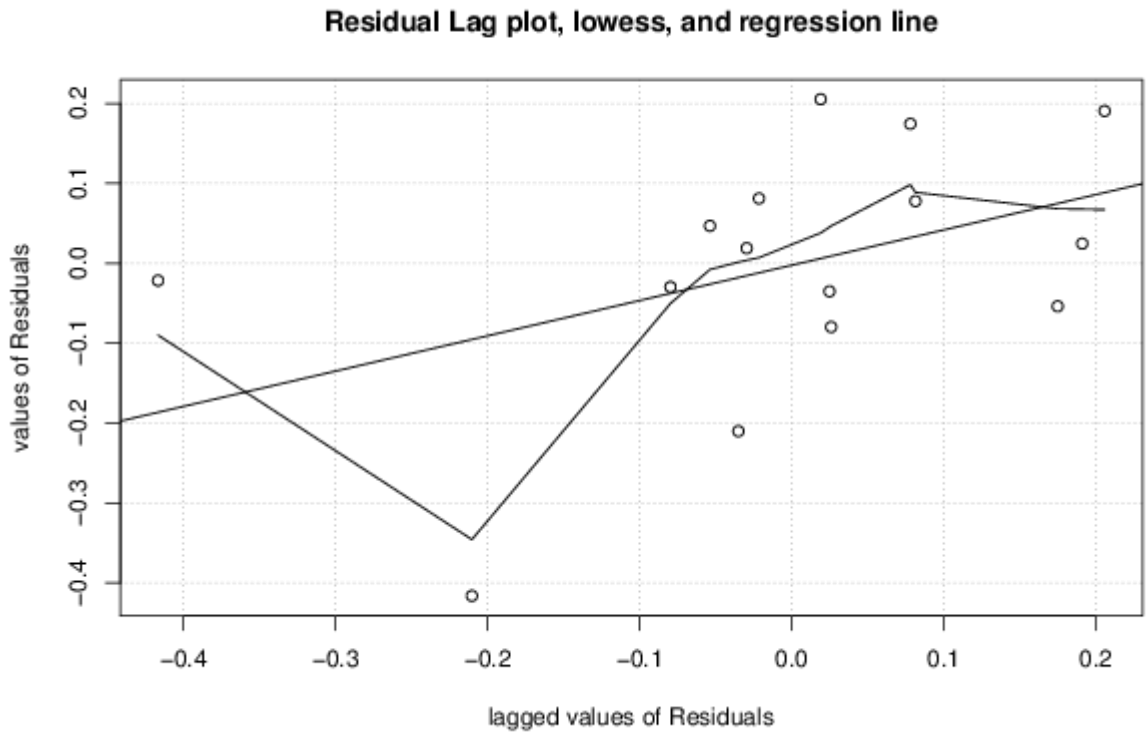


Source: own processing, GRETL

The test of normal distribution of residues (chi-square) shows a calculated value of 0.08, which means that the hypothesis about the relationship between employment and GDP can be refused. The claim is valid that there is not demonstrable dependency between employment generating and GDP development.


Actuals and Interpolation
value of Actuals and Interpolation (dots)
55.3
55.4
55.5
55.6
55.7
55.8
55.9
5
10
15
time or index


Residual Normal Q–Q Plot
Sample Quantiles
−0.4
−0.3
−0.2
−0.1
0.0
0.1
0.2
−2
−1
0
1
2
Theoretical Quantiles


Residual Lag plot, lowess, and regression line
values of Residuals
lagged values of Residuals
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.4
−0.3
−0.2
−0.1
0.0
0.1
0.2

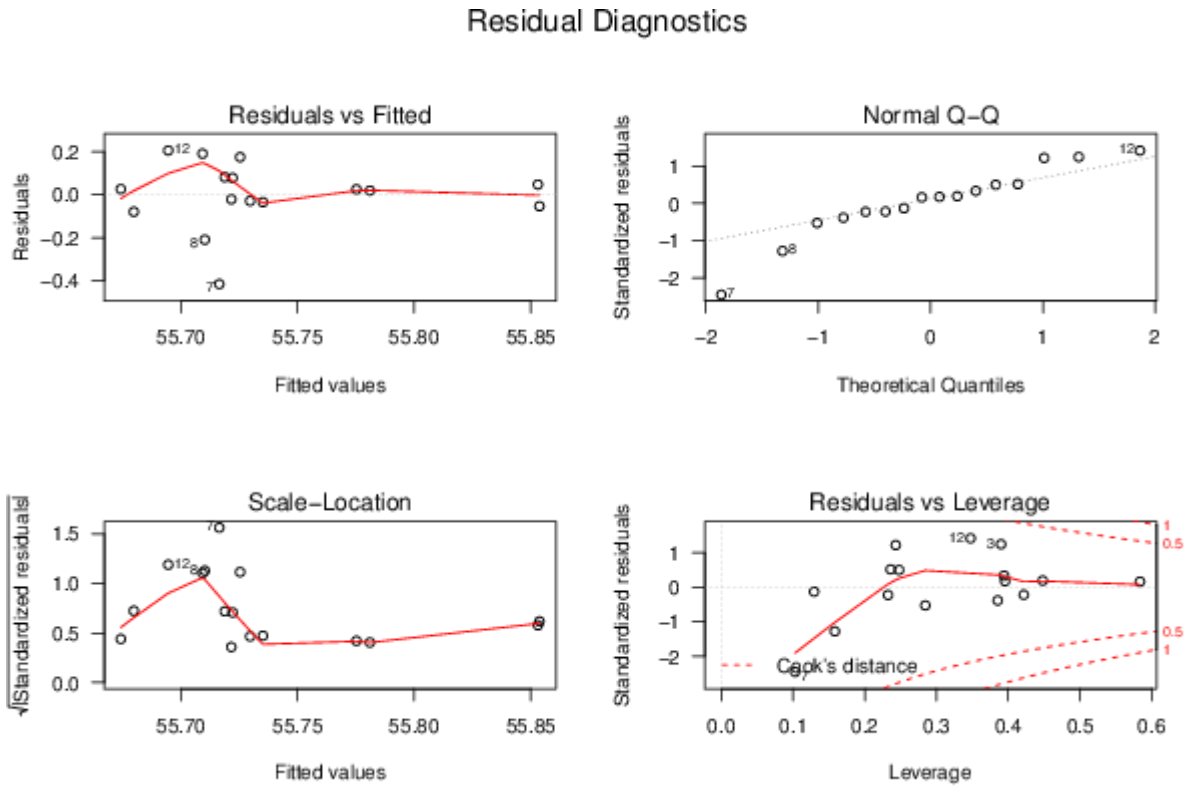

Residual Diagnostics
Residuals vs Fitted
Residuals
Fitted values
Normal Q−Q
Standardized residuals
Theoretical Quantiles
Scale−Location
√|Standardized residuals|
Fitted values
Residuals vs Leverage
Standardized residuals
Cook's distance
Leverage
55.70
55.75
55.80
55.85

Table No 5.10: Employment and calculating of prognoses

Observations	Years (x)	Employment (y)
1	1999	55,9
2	2000	55,8
3	2001	55,9
4	2002	55,8
5	2003	55,8
6	2004	55,7
7	2005	55,3
8	2006	55,5
9	2007	55,7
10	2008	55,8
11	2009	55,9
12	2010	55,9
13	2011	55,8
14	2012	55,7
15	2013	55,6
16	2014	55,7
17	2015	55,6825
18	2016	55,67602941

Source: Index Mundi, own calculation Gretl

From the results it is obvious that the employment rate in the reporting period from 1999 to 2014, ranging from 55.4% to 55.9%. It can say that the development of employment is stationary, which corresponds to the inverse indicator, which is the general unemployment rate. The unemployment rate in the reporting period is 30%. Prognosis for the development of unemployment rate in 2016 shows that it going to be a decline in employment levels to 55.67602941.

Figure No. 5.4: The development of employment

Source: Index Mundi, own calculation EXCEL

From the calculations it is obvious that employment in the short term will stagnate in the range of 55.6 to 55, 7 percent. This development is expectable. The greater part of the employment was provided by the government or rather the government sector. In the country the employment is just slightly reflected in the commercial sector and the services sector. Although the government was during Qadhafi regime providing the social, health care, education policy and security. Currently, the trend rather reverses. It can be expected that the political situation will play an important role in determining the extent and structure of employment. Calculation accuracy is limited, as shown in tests were conducted to econometric model. The high degree of volatility values limits the possibilities of medium-term and long-term forecasts. If we want to reach relatively accurate results, it is necessary to reduce forecasts for a maximum period of two years and after this period the prognosis repeated. Methodically then we need to build on long time series of data (for example, 50 observations) and use advanced econometric modeling using ARIMA or Fourier model.

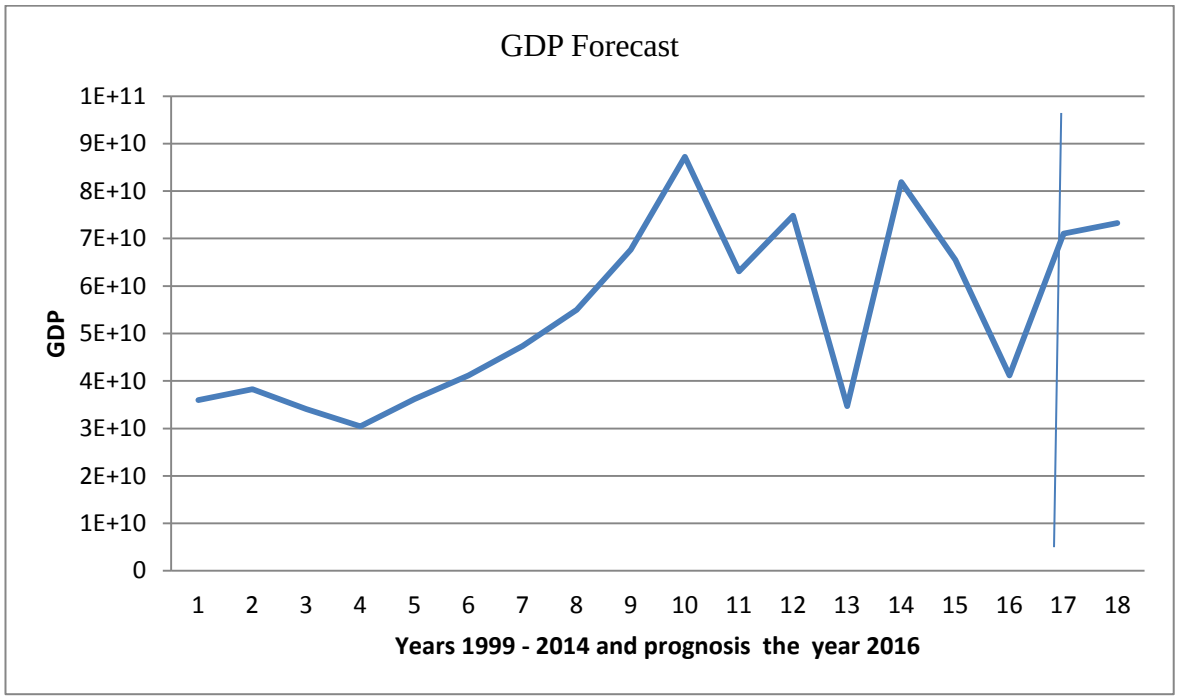
Table No. 5.11: GDP development and its prognosis

Number of observations	Year (x)	GDP (y)
1	1999	35975000000
2	2000	38271000000
3	2001	34112000000
4	2002	30471000000
5	2003	36186000000
6	2004	41148000000
7	2005	47335000000
8	2006	54976000000
9	2007	67690000000
10	2008	87236000000
11	2009	63069000000
12	2010	74804000000
13	2011	34707000000
14	2012	81915000000
15	2013	65516000000
16	2014	41148000000
17	2015	71011000000
18	2016	73228772059

Source: Index Mundi, own calculation Gretl

GDP development shows in the first half of the period a stationary growth. In the second half of the period, the situation has changed. In Libya, there were alternating decline and GDP growth: Changes that are seen in the following chart, were mainly caused by the change of regime in 2011 and then struggle against the Islamists in 2014. In 2011 there was the fact that even though the price of oil has increased, on the creation of GDP it did not have substantial influence. Mined out oil and its revenues for 2011 were not included in official statistics. Sales of oil consumption showed statistically, but not in government revenues and GDP. From the calculations it is obvious that after the settlement of a statistical extremes caused by wars, should be the formation of GDP at $ 73228772059, which is a slight increase compared to previous years.

Figure No. 5.5: The development of GDP and its prognosis



Source: Index Mundi, own calculation EXCEL

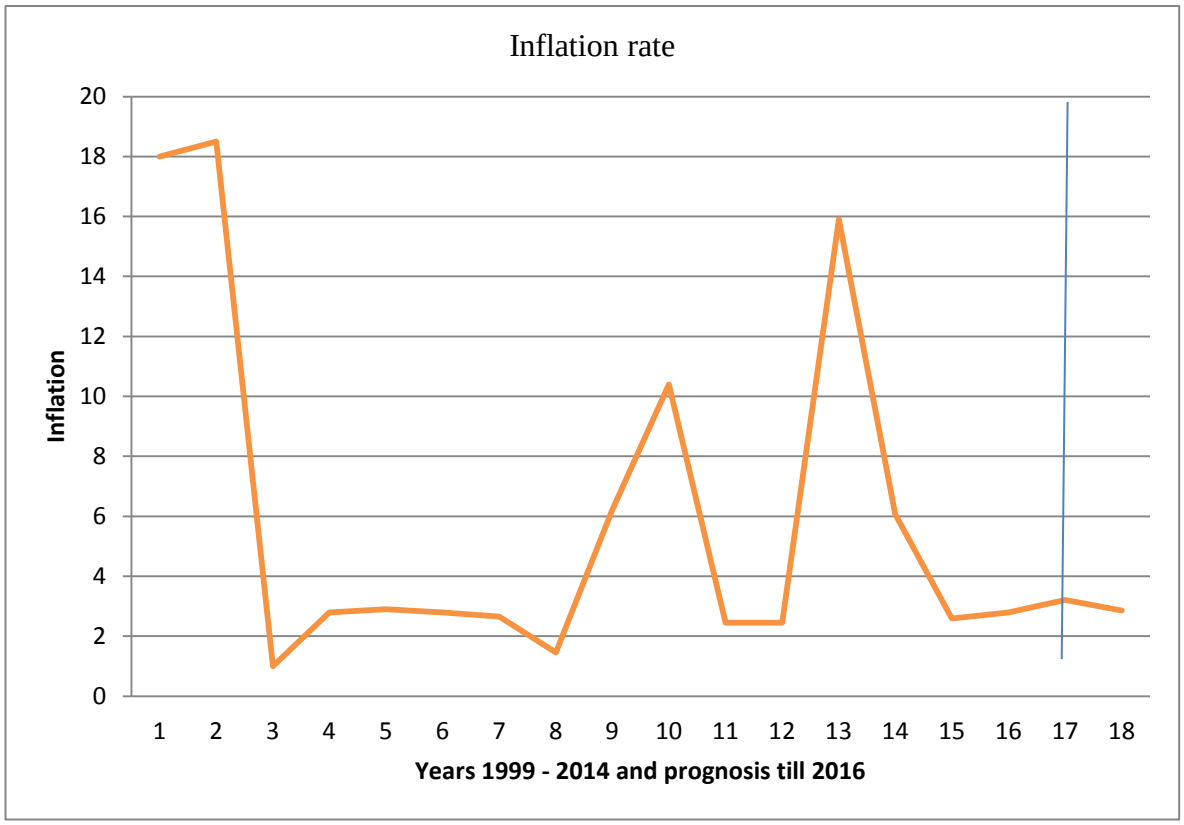
From the calculations it is obvious that the gross domestic product in recent years does not have valid stationarity. It can be said that crude oil prices in those years moved to the top level of 107, 46 (2011) dollars per barrel and in 2014 the oil price was $ 96.1 per barrel. Yet there has been a sharp decline in GDP, which shows the previous graph (observations of 13, 2011 and 16, 2014). We can conclude that the decline in GDP development was caused by the war, it had a long-term trend and did not affect employment. The calculation shows rather that the country is destabilized in certain cycles, however, demand for crude oil can expect a faster recovery than in case of industrial or agrarian country.

Table No. 5.12: The development of inflation and its prognosis

Number of observation	Year (x)	Inflation (y)
1	1999	18
2	2000	18,5
3	2001	1
4	2002	2,8
5	2003	2,9
6	2004	2,8
7	2005	2,658
8	2006	1,465
9	2007	6,211
10	2008	10,401
11	2009	2,448
12	2010	2,458
13	2011	15,902
14	2012	6,072
15	2013	2,594
16	2014	2,8
17	2015	3,213725
18	2016	2,863802941

Source: Index Mundi, own calculation Gretl

Figure No. 5.6: The development of inflation and its prognosis



Source: Index Mundi, own calculation EXCEL

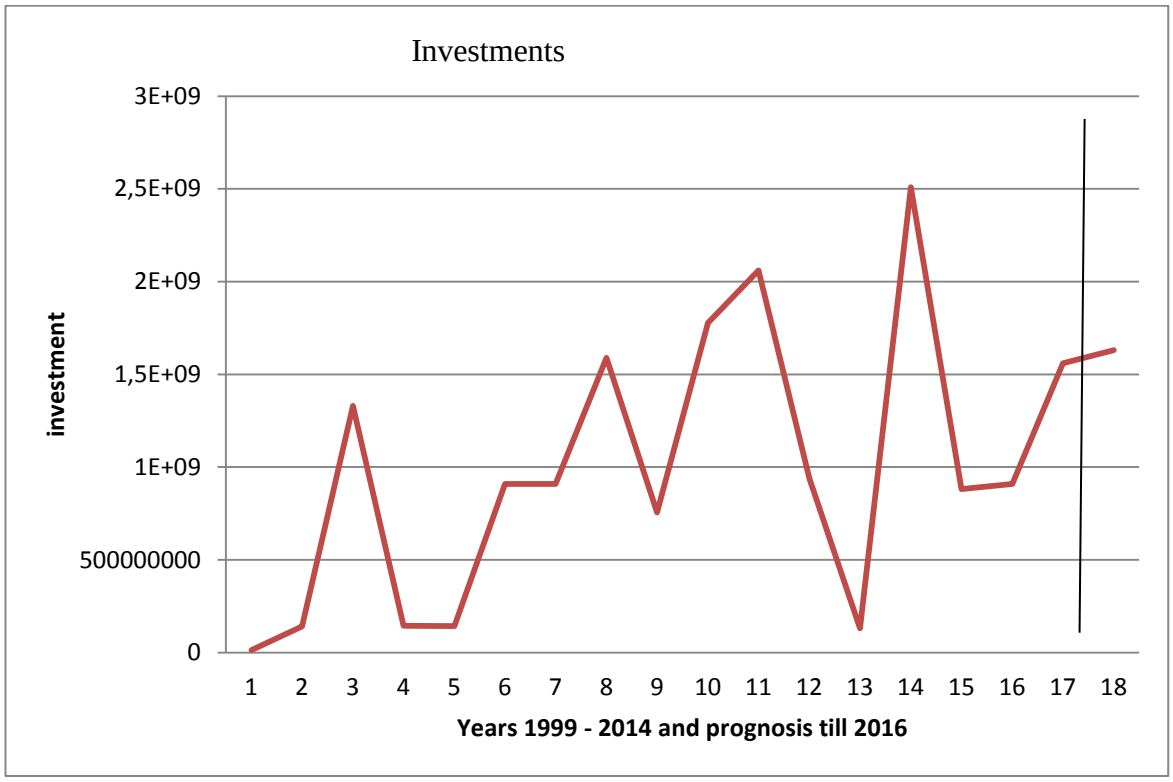
The calculations and the chart show that inflation in 2011 (13 observations of), this year has reached the highest level over the past 15 years. The inflation rate in 2011 was 15.902 percent. High inflation index was due to the state of war, limited means of transport and goods distribution. In the years 2011 and 2012 the Libyan market had been cut off from their traditional suppliers of food and goods. Markets awaited the post-war order and political situation that changed in 2012, which reflected the reversal of this trend and the impact of renewed oil supplies to European countries began to sharply reduce inflation .There was also a stabilizing monetary policy, due to imports of European goods and food. Inflation calculation for 2015 is 3.213725 and for the year 2016 it is even only 2.863802941 percent. The decline in inflation is due to a decline in oil prices at the end of 2014 and in 2015. Currently, the price is on the border of $ 96.1 per barrel. In 2013 the price was $ 105.7. It is a drop in the order of 6.55 percent. The decline in inflation can be expected assuming that the oil price will rise.

Table No. 5.13: The development of investments and their prognosis

Number of observation	Year (x)	FDI (y)
1	1999	12869500
2	2000	141000000
3	2001	1330000000
4	2002	145000000
5	2003	143000000
6	2004	910000000
7	2005	910000000
8	2006	1590000000
9	2007	756200000
10	2008	1776900000
11	2009	2060000000
12	2010	938000000
13	2011	131000000
14	2012	2508800000
15	2013	881800000
16	2014	910000000
17	2015	1559161313
18	2016	1631234926

Source: Index Mundi, own calculation Gretl

Figure No. 5.7: The development of investments and their prognosis

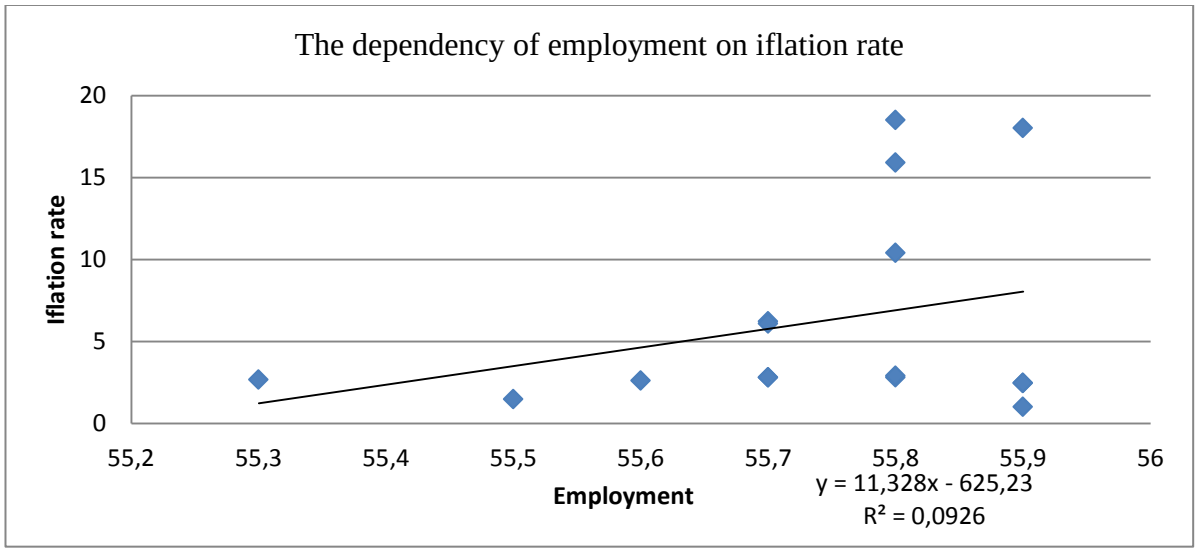


Source: Index Mundi, own calculation EXCEL

The inflow of foreign direct Investments to Libya was always very fluctuating. The foreign direct Investments to Libya have been affected by the specific conditions of the Libyan Economy. After the deep study of this issue we can conclude that one of the most important factors which have strongly influenced the inflow of investments to Libya was the political environment in Libya. The political environment in the world and the response of the Libyan regime on that was one of the most main factors which played the significant role regarding investment inflow. Another important fact which as strongly influenced the inflow of investments was the crude oil sector. In fact the Libyan economy is almost one sector economy. This sector influenced the inflow of investments by different issues. One of them is crude oil price fluctuation and the world demand for this commodity. In periods of high crude oil prices and bigger world demand for crude oil, the inflow of investments has been positively influenced by that. In certain cases this development has been affected by economic factors and certain case this development has been affected by political factors. The inflow of investments was cyclical. The prognosis therefore indicates certain growth, but only for two years.

In the medium term we can expect a decrease again. The trend analysis is necessary within two to three years to be re-corrected. The calculations show that in the future a moderate growth will continue but in a limited volume.

Figure No. 5.8: The dependency of employment on inflation rate

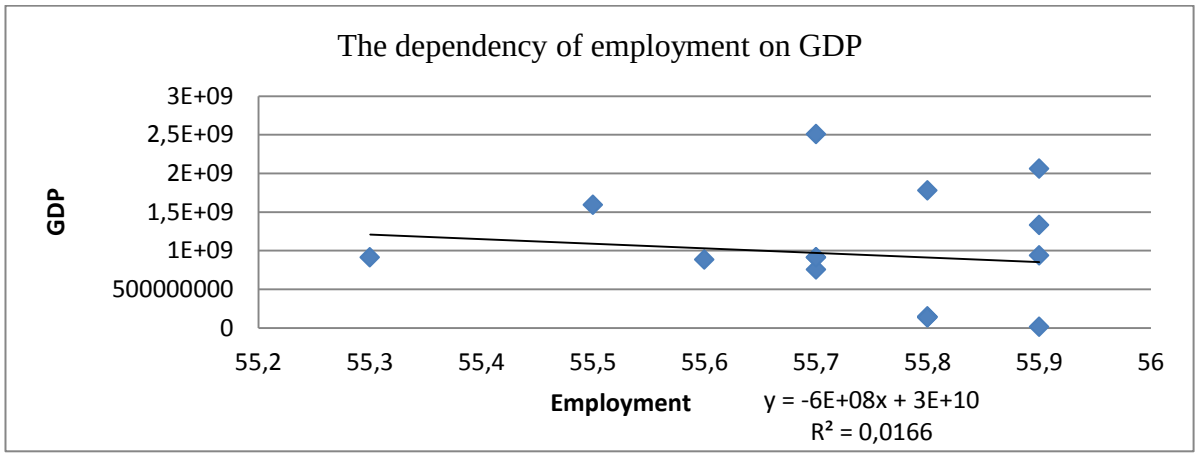


Source: own calculation EXCEL, data Index Mundi,

$$y = 11{,}328x - 625{,}23$$

The regression graph expresses the correlation between employment and price inflation. If we want within a regression analysis to determine the evolution of employment when there is a change in inflation we can use the equation, which is listed below the graph. The equation is already estimated standardized parameters β1 and β2. The first parameter β1 appeared in the value of 11,328 (it is the induced part of the function) and the other standardized parameter β2 walked worth 625.23 (this is the autonomous part of the function). Calculations of such forecasts are shown in figure 5.6. The graphs and the calculations indicate that the deepest decline in investment again was in 2011 (observation)

Figure No. 5.9: The dependency of employment on GDP

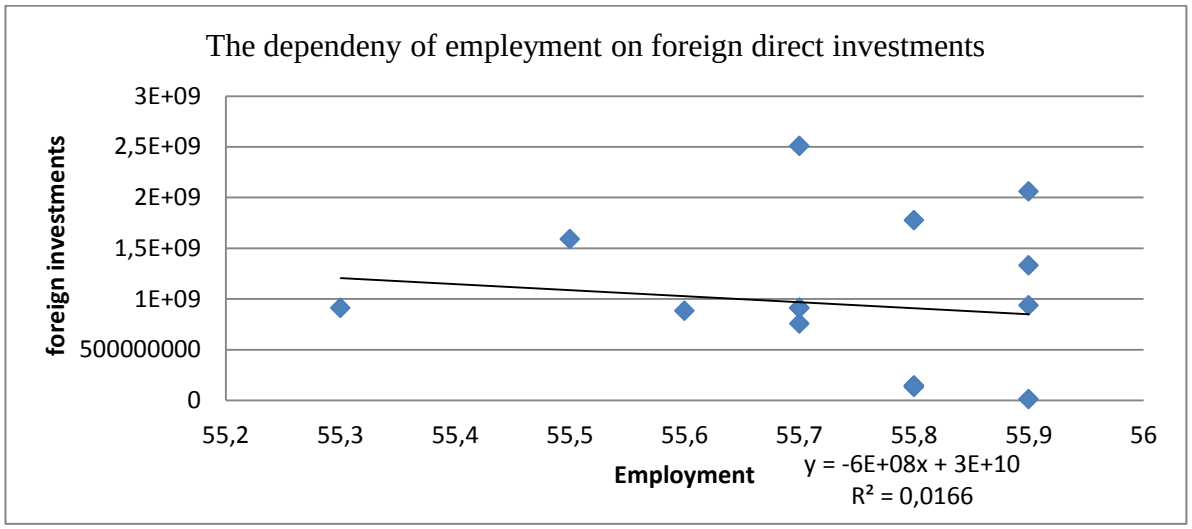


Source: own calculation EXCEL, data Index Mundi,

$$y = -6.10^8 x + 3.10^{10}$$

The regression graph expresses the correlation between employment and GDP. The dependent variable in the regression analysis which is employment is plotted on the x axis. On the y axis is plotted the independent variable, GDP. In the equation, which is listed below the graph are expressed standardized parameters β1 (induced value of the function is -6.10^8) and β2 (value of autonomous function is 3.10^{10}). Substituting into the regression equation we can calculate the change in employment when there is a change in GDP. Calculated values are shown in the figure no. 5.5.

Figure No. 5.10: The dependency of employment on FDI



Source: own calculation EXCEL, data Index Mundi,

$$y = -6.10^8 x + 3.10^{10}$$

The figure shows the regression curve that shows the relationship between the change in employment and foreign direct investments. In the regression analysis, the dependent variable is employment, foreign direct investments is then independent variable. In the listed equation below the chart there are standardized parameters β1 and β2. The regression coefficient (parameter) is possible in this case to define as follows: How many jobs will be created when there is a change in investment by one unit). This procedure can then be used in the development of employment prognosis for the next two years. Prognosis is shown in figure no. 5.7.

Table No. 5.14: Model 1: OLS, using observations 1999-2014 (T = 16)

Dependent variable: GDP

HAC standard errors, bandwidth 1 (Bartlett kernel)

	Coefficient	Std. Error	t-ratio	p-value	
const	2.99232e+010	4.5607e+09	6.5611	<0.0001	***
Crude oil prices	3.57802e+08	1.03209e+08	3.4668	0.0038	***

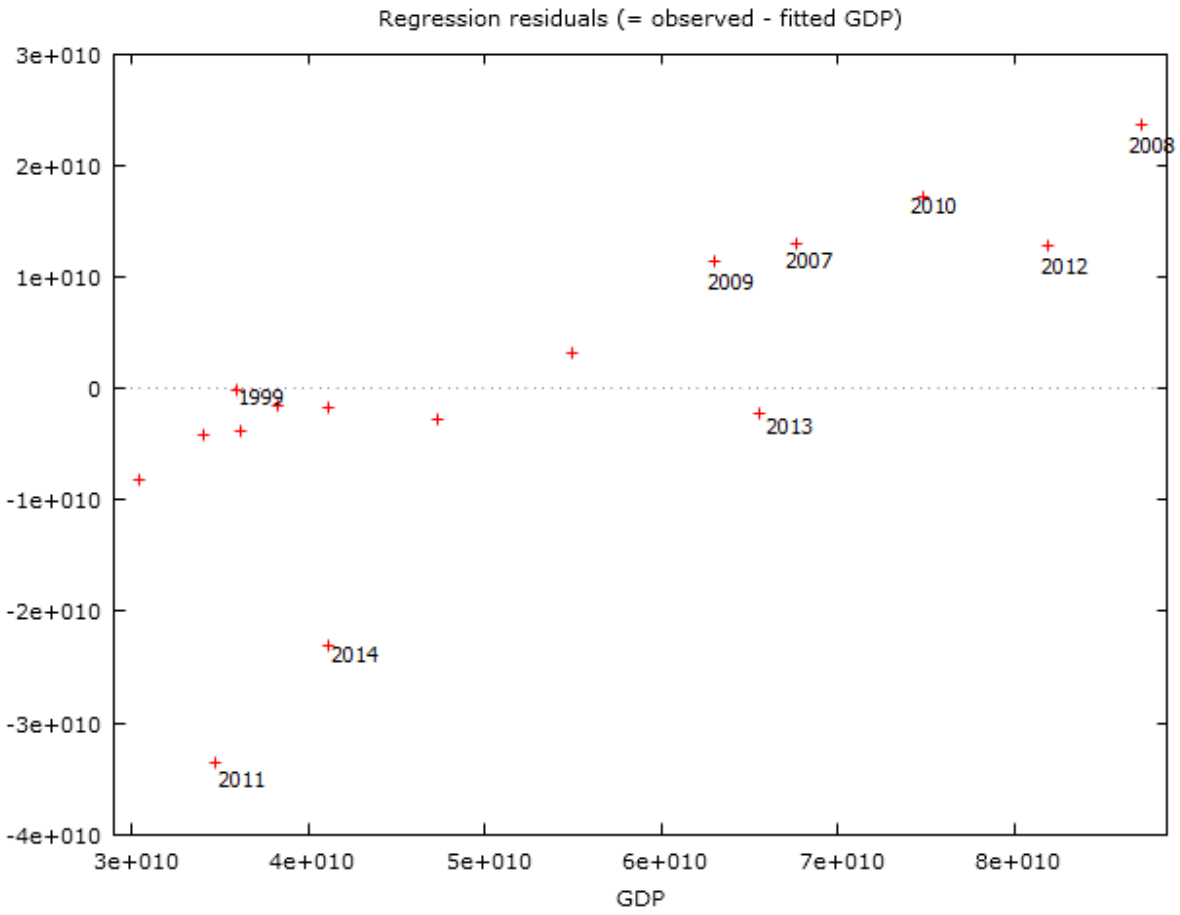
Mean dependent var	5.22e+10	S.D. dependent var	1.87e+10
Sum squared resid	3.12e+21	S.E. of regression	1.49e+10
R-squared	0.406469	Adjusted R-squared	0.364074
F(1, 14)	12.01851	P-value(F)	0.003777
Log-likelihood	−396.4514	Akaike criterion	796.9028
Schwarz criterion	798.4480	Hannan-Quinn	796.9820
rho	−0.037462	Durbin-Watson	1.889931

$$GDP = 2{,}99.10^{10} + 3{,}58.10^{8}.crudeOilPrices$$

$$(4{,}56.10^{9}) \qquad (1{,}03.10^{8})$$

T = 16, R-squared = 0.406

(standard errors in parentheses)



5.2 Results and Interpretation

The result of calculating of the first OLS model, says that there was no statistically significant correlation between employment, GDP and foreign direct investments. Employment between 1999 and 20014 was in the interval from 55, 5% to 56% Unemployment since 1999 constant around 30%. If we wish to identify the major determinants of employment and economic growth in Libya, then we have to expand the econometric model and include the price of oil. According to the calculation based on our model, the main determinant of GDP growth is the price of crude oil.

The calculation and figures show that the impact of oil prices was reflected at least in 2011 and 2014, where in 2008, 2012, and 2010 was a significant influence of crude oil. From the model it is seen that in recent years crude oil prices were not the main determinant of GDP growth, the reason for this phenomenon is the fact that after the fall of the regime different rival groups were selling crude oil on black market. Thus, the revenue from such sales was not reflected in statements published in the official statistics.

5.3 Limitation and Possible Solutions of the Study

The estimation model includes only variables such as GDP, inflation, investment and employment. In addition, the regression is made based on annual data which does not take in to account the seasonality and fluctuation with in the year. Therefore, it would be reasonable the included variables not to have an impact on employment. This is further exacerbated because the main driving sector in the Libyan economy that is oil price is not included. Further, if Libya is financially integrated with the world market not taking interest rate and exchange rate would have similar effect. Hence, incorporating oil price, interest rate and exchange rate would be valuable in improving the estimation. Further, using interpolation the frequency of data can be changed from low to high frequency data and estimate the finding. However, when we are interpolating we have to take a serious look in to the Libyan economy and its seasonality. This is because the wrong interpolation could lead us in to erroneous findings.

In addition to the mentioned weakness there could be a methodological issue as well. For instance, estimating the time series using OLS shows us the relationship between the regressor and regresand. Nonetheless, the correlation does not necessarily mean causality between the variables. For example, all the variables could increase or decrease due to some other external variable effect. Specifically, if the government expenditure increases keeping everything constant it could lead GDP, Inflation and employment to increase. However, when we regress GDP and Investment on employment we could see GDP and investment having positive impact on employment although the increase in employment is due to government expenditure. Therefore, before directly going to estimation using OLS it necessitates determining causal effect among the macro economic variables. In fact, the causality could be estimated using the granger causality test and come with the real impact. However, granger causality alone does not solve the complication we face when estimating time series data. For instance the issue of reverse causality omitted variable bias and data issue.

However, despite these issues the estimation partially captures the reality in Libya. The estimation is able to capture the reality in Libya after differencing GDP, Investment, CPI and employment becomes stationery. Although we lose information after first differencing the data the potential gain outweighs lose. Nonetheless, the potential of the model predicting the future trend of employment, GDP, Investment and CPI using the model would be misleading. The reason is that the model cannot explain the short and long term causality among the variables. Therefore, predicting the future of employment using variable which do not affect it will be biased.

Hence to capture the real causality in addition to granger causality the study has to incorporate variables such as oil price, interest rate, exchange rate and money supply. When these variables are included the model will not be stationary and therefore it requires an advanced mean estimation techniques. As a consequence, first estimate the short term causality using Error correction model (ECM) and find the impulse response employment to small change GDP, Interest rate, inflation, exchange rate, investment and money supply. Further, using Variance decomposition we can identify how much of the movement in employment is caused by each variable. Using the findings from ECM we can forecast the short term expected trend of employment and the other variables.

The other alternative to increase the reliability is estimation is using Vector auto regression (VAR) model this is perhaps advocated by Sims *(1980).* In fact, VAR model could provide theory free estimation of causality between the macroeconomic indicators. Further, this estimation particularly the impulse response function could be a useful tool in identifying small shocks in macroeconomic variables and their implication to employment.

In time series models frequently we want to estimate non stationery dependent variables on non-stationary independent variables through linear combination. However, this regression gives spurious result. The only exception is if the linear combination of two non-stationary variables create stationary variable and stochastic trend. These two variables are called co-integrated in the same order. In fact, if the variables are co-integrated in the same order we will be able to estimate the long term relationship between the endogenous and exogenous variables. Further, the forecast for employment, GDP, investment and inflation would be realistic. However, this will not capture regime shifts particularly the model cannot predict the collapse of Gadflies regime and financial crisis.

Therefore, to capture such kind of unexpected events we have to use regime switching models such as threshold autoregressive (TAR) and Self-Exciting Threshold Auto Regressive (SETAR) models. These models would be appropriate because they allow higher degree of flexibility through regime switching behavior.

Chapter 6 – Conclusion and Recommendations

6.1 Conclusion

The dissertation work has focused on foreign direct investments and their relationships with the Libyan economy. It attempted to answer the questions regarding the relationships between foreign direct investments, the increase in price levels, the economic growth represented by the changes in GDP and their impact on unemployment in Libya. The study has conclusively answered the objectives of the study. The study has deeply examined the structure of Libyan economy and its sectors. The study can conclude that the economic sectors in the Libyan economy have different tasks, history and importance. They show huge differences between each other. Some of them play crucial role regarding GDP creation and formation. The different role of sectors determines the main macroeconomic indicators in this economy. Because of this fact, the Libyan economy depicts a very specific economy. This fact is obvious when we compare this economy with industrialized economies. Libya has a very specific economy even we compare this economy with its neighbor or when we compare it with crude oil producers economies. The main role is played by crude oil sector. This sector actually has changed the face of Libya from the start of extracting of crude oil which was in 1959. The sector has changed the economic performance of Libya and mainly its commodity structure of foreign trade. From this study it is very obvious that there is a significant relationship between crude oil sector and foreign trade, mainly exports. Oil export revenues account for more than 96% of Libya's hard currency earnings. Crude oil sector offers opportunities to every actor n the Libyan economy. In other words this sector is responsible for opportunities and at the same time for challenges and struggle of some actors. The main determinant of GDP per capita is crude oil as well. The crude oil sector accounts for more than two third of GDP. Revenues coming from the trade with this commodity coupled with a small population give this country one of the highest per capita GDP in Africa. When we have examined any macroeconomic relationship in the Libyan economy at the end we have finished in crude oil sector. The main obvious phenomenon is the relationship between crude oil prices and the Libyan GDP. GDP of Libya fluctuates and its fluctuations reflect and mirror the fluctuations of

crude oil prices. This fact is also reflected in the performance of external trade. The crude oil exports have more that 95% share in total exports. This number can tell us a lot about the structure, the sectors and the external relationships of this economy. The price of crude oil was the main determinant of the Libyan export revenues. The price of crude oil and crude oil sector also were the main factors which influence the inflow of foreign investments and even they were the main determinants of the formation and type of foreign direct investments to Libya. From the analysis it is clear that inflow of investments and the growth of fixed capital formation were adversely influenced by the downturn in crude oil prices or crude oil exports. This situation was more than obvious during the periods of difficulties, for example in the year 1982 or during the eighteenth. On the other hand during the boom time (1973 till 1981) or after 1999, Libyan economy was benefiting from the increase of crude oil prices. This strong relationship between exports and crude oil prices was reflected in the second part of trade. This relationship highly influenced imports structure, size and financing of imports. The commodity structure of imports and territorial structure of Libyan partners have been strongly influenced by crude oil structure and its performance. Crude oil sector played the first and main role in financing of imports. In certain case the buyers of crude oil were also the suppliers of Libyan imports. The fluctuations in crude oil prices and exported quantities due to geopolitical situations have subsequently changed the share of Libyan foreign trade in global trade. The Libyan trade with crude oil has been many times affected by global issues or by its membership in associations associated with the extracting or supply of crude oil such as OPEC. Crude oil was behind the Libyan huge and largest water transportation all over the world. This project transports more than five million cubic meters of water per day across the Libyan Desert to the north area of the county.

Crude oil sector also strongly influenced the whole external relationships with the rest of the world. Crude oil in Libya also strongly affected the political and social affairs in this African country. The sector in certain periods actually influenced the world politics mainly because of the former specific political regime in Libya. For example, besides to crude oil price fluctuations, Libyan export of crude oil and revenues from that has been affected by United Nations sanctions imposed after the bombing of Pan Am flight over Lockerbie, Scotland. Due to that Libya has been forced to implement very hard and

restrictive fiscal policy to limit government expenditures due to lack of crude revenues. When we have examined this relationship over a long period of time, always we have found that this sector plays the main role and this operates as a generator for the whole economy.

As mentioned before the Libyan economy is highly dependent on exhaustible and volatile crude oil resources which determine the almost the entire government revenues. The extent of Libyan crude oil dependency was highlighted during the revolution against the former regime. The decline of crude oil production from 1.69 million barrels per day in 2010 to 0.48 million barrels in 2011 led to a decrease in GDP by 62 percent ad at the same time this decline in GDP affected the fiscal budget so from a surplus of 9% of GDP to deficit of 18.8 percent in 2011. From the analysis it was obvious that the development of key macroeconomic variables in the Libyan economy has been substantially affected by the crude oil sector.

The Libyan crude oil sector provides huge revenues to promote and deliver social and economic development, but the most important issue is the effective and productive allocation of these resources. These resources are being gradually depleted and in the future they will come to their end. Because of this fact Libyan government must run public surpluses during the period of high prices and should invest these surpluses to non-crude oil productive sectors. These savings should be invested in alternative sources that they will be able to evoke and increase in GDP. These potential sources will help the government to close the gap between government spending and non-crude oil revenues. The government should diversify the economy to avoid and protect it against crude oil price volatility.

From the analysis of this study it is very obvious that due to the fact of crude oil dependency and central bank commitment to the fixed foreign exchange rate regime of the currency, the fiscal remains the main and the only means how to protect the Libyan economy against the sudden and huge fluctuations in domestic demand and maintaining macroeconomic stability. The former regime had been implementing expansionary fiscal policy before the revolution mainly due to wage bill and subsidies.

The reserves of crude oil in this country are the main source of wealth for the whole nation. At the same time we have to emphasize that crude oil and the dependency on

this sector is also the weak point of this economy. This economy is highly vulnerable to anything related to the market of this commodity. Such factors as the world demand for energy resources and especially for crude oil and the geopolitical situation in the world. These issues are determined outside the Libyan economy but they strongly influence its performance. Since the former regime did not establish effective and productive economic sector except the crude oil sector. This fact coupled with over reliance on crude oil sector leads to an increasing vulnerability. Libya has a non-crude oil primary budget deficit far more than the equilibrium level. That is why one of the most important issues is the efficiency of capital investment in Libya. The efficiency of capital investment will help the economy to avoid inflation pressures and currency appreciation which will encourage non-crude oil sectors to develop.

Unless Libya will be able to diversify its economy to create more of resources from non-crude oil sector, Libya should create precautionary savings during the periods of crude oil high prices. These savings (buffers) would help during the periods of crude oil price downturns and will help governments to avoid sharp restrictive fiscal policies over the long term. At the same time public finance management should be guided toward macro-financial stability. In other word fiscal policy should be conducted with regard to monetary policy and with respect to the optimal and the pro-competitive foreign exchange rate. The Libyan budget suffers from its fragmentation and bad formulation and execution. In many cases the budget overlooks the need to concentrate on medium and long term fiscal considerations. The successful implementing of the right policies needs to build stronger fiscal institutions with the qualified personnel, unfortunately Libya suffers from institutional capacity constraints. Libya needs urgently to establish an independent institution that would deliver independent advices on the needed fiscal policies and determining the fiscal expenditures which will help to reach certain fiscal independency and more of fiscal transparency. In spite of the fact that there is no one-size-fits-all fiscal policy rule that would work always and everywhere, Libya needs a credible fiscal rule. The fiscal envelop of expenditures should be out of reach political influences.

Around foreign direct investment there is a number of myths. In this doctoral thesis we attempted to qualify the proposition which says that the foreign direct investments are automatically connected to the positive macroeconomic effects in the form of higher

GDP growth, low rate of unemployment, higher GP per capita, higher growth rate of real wages, more of exports etc. According to our analysis FDI investments did not lead to an increase in employment. Under certain conditions it was possible to observe an adverse effect which called Crowding out effect. In this case FDI negatively influence domestic investments and lead to an increase in unemployment. This does not mean that the Libyan economy was harmed by FDI. Because of these investments Libya was able to extract more of crude oil and was able to gain more of crude oil revenues. The reason of this conclusion lays in the fact that Libyan economy is crude oil dependent economy. In other word it is possible to say that the Libyan economy is almost one sector economy. This means that the Libyan economy has offered just limited opportunities to foreign direct investments. The Libyan economy is very centralized economy with very specific phenomena. Such as weak private sector, weak financial and banking system, a lot of market regulations, tendency to expropriation of foreign direct investments, small involvement in global economy etc. Due to this and more of facts the majority of foreign direct investments come to this sector. This sector is capital intensive sector, which means that this sector is not labor intensive. The huge investments in this sector are implemented in machines and equipment investments. One more important issue which has influenced the inflow of foreign direct investments to Libya was the security issue and political risk. The former regime has very complicate international relations with the rest of the world and this fact strongly influenced the inflow of investments.

6.2 Recommendations

- Libyan government should make its investment climate more attractive for foreign direct investments by the means of wide and deep reforms regarding its regulatory and institutional framework. The government should streamline the bureaucratic procedures. In this aspect the government should know that political risk is one of the most important determinants of foreign direct investments, that is why the government should concentrate on security, political stability and legal frame work in Libya.
- Libyan government should conduct profound reforms of the financial and banking system in Libya to provide the needed service for foreign investors and economic actors.

- Libyan government should fight with corruption since it has series of socio-economic impacts. In many cases it raises transaction costs and uncertainty in Libyan economy.
- The Libyan economy suffers from the lack of qualified human resources. The Libyan nation is a small nation and the system of education had many difficulties in the past. This issue can be solved by opening the economy and by involving the economy in more of economic integration within the Arab league or with the African neighbors.
- There is a crucial need for economic diversification and Libyan government should work on that urgently. The reform of the economy should be done deeply and profoundly, since the need of restructuring the economy is urgent. The government should encourage private sector and non-crude oil productive sectors such as industry, agriculture and the sector of services. The diversification of Libyan economy is a key issue and one of the most important solutions to reduce unemployment and the country dependency on imports.
- The Libyan economy is very closed and centralized economy; it needs more of liberalization and more of involvement in the global economy.
- Libya should incorporate the basic principle of a rule-based fiscal regime in the constitution with the needed institutional operational details in a public finance responsibility law.

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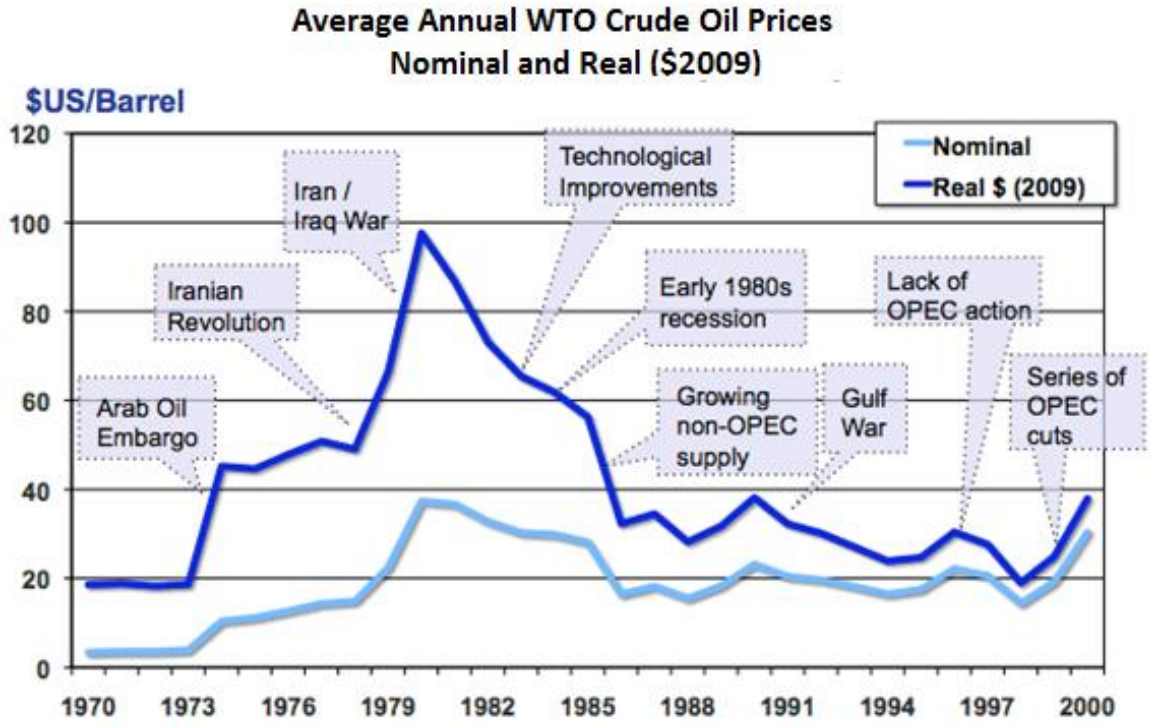
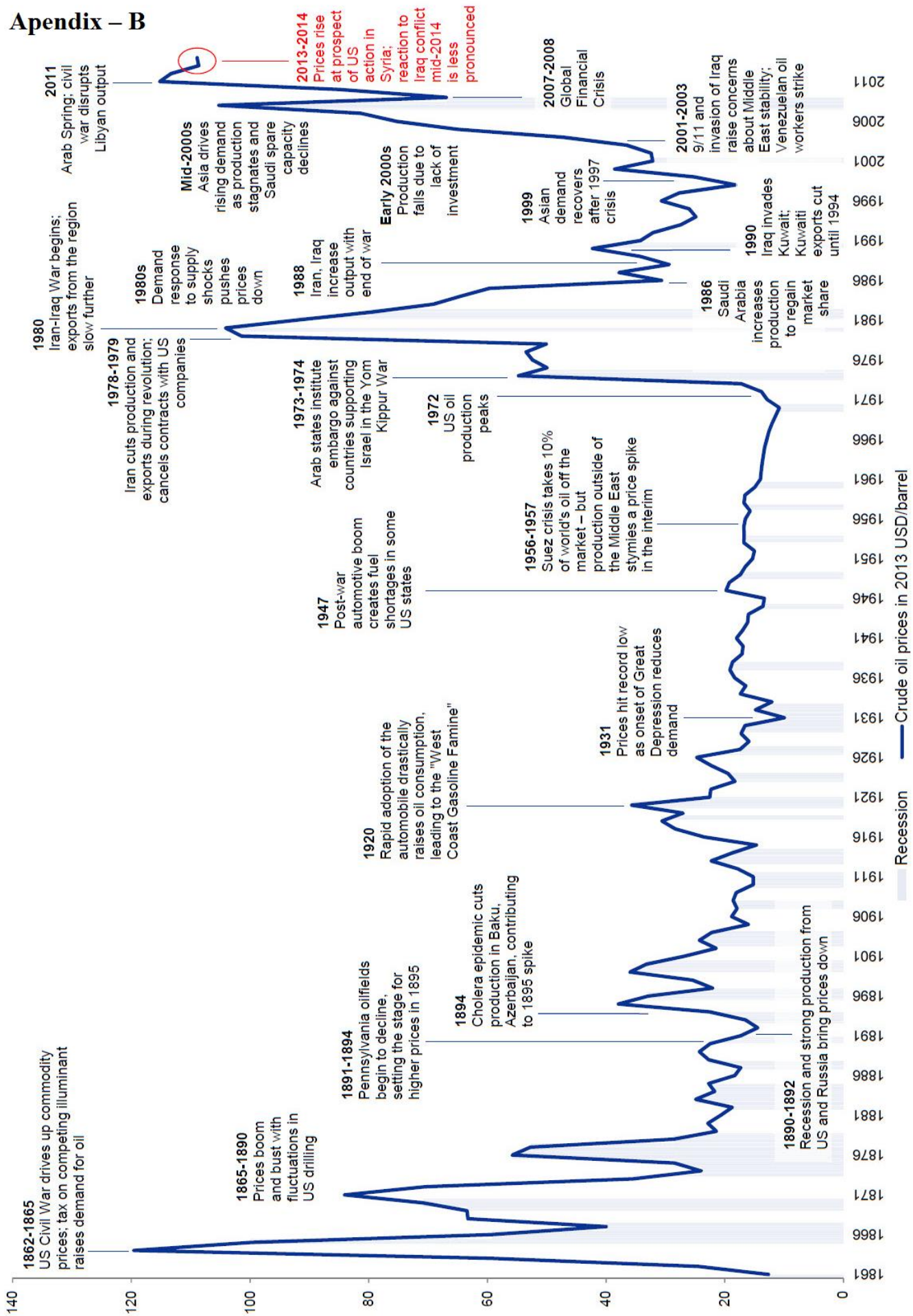
Supplements

Appendix – A



Source: U.S. Energy Information Administration. Real prices were calculated using the Consumer Price Index of the US Department of Labour.

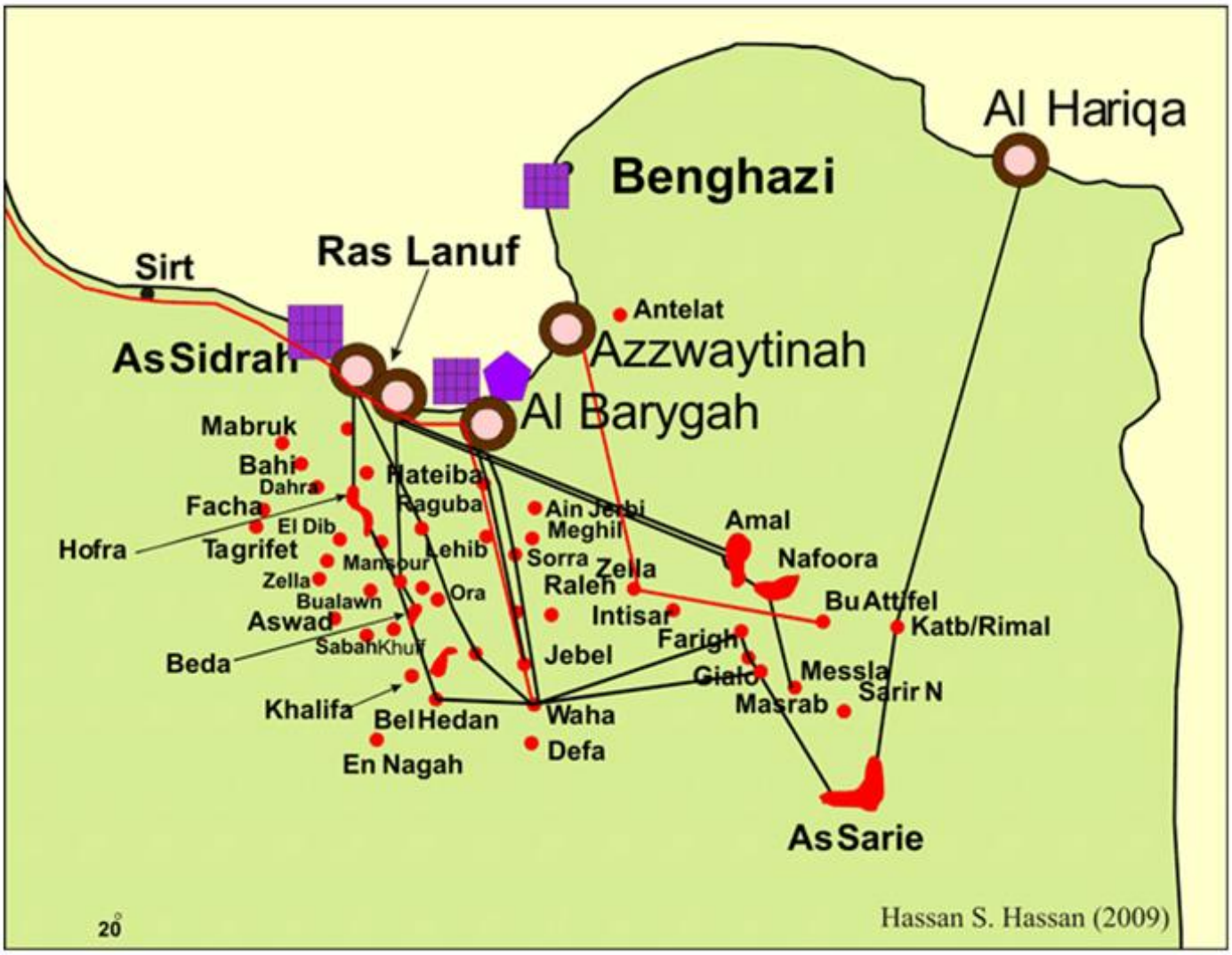
Apendix – B


1862-1865
US Civil War drives up commodity prices; tax on competing illuminant raises demand for oil
1865-1890
Prices boom and bust with fluctuations in US drilling
1890-1892
Recession and strong production from US and Russia bring prices down
1891-1894
Pennsylvania oilfields begin to decline, setting the stage for higher prices in 1895
1894
Cholera epidemic cuts production in Baku, Azerbaijan, contributing to 1895 spike
1920
Rapid adoption of the automobile drastically raises oil consumption, leading to the "West Coast Gasoline Famine"
1931
Prices hit record low as onset of Great Depression reduces demand
1947
Post-war automotive boom creates fuel shortages in some US states
1956-1957
Suez crisis takes 10% of world's oil off the market – but production outside of the Middle East stymies a price spike in the interim
1972
US oil production peaks
1973-1974
Arab states institute embargo against countries supporting Israel in the Yom Kippur War
1978-1979
Iran cuts production and exports during revolution; cancels contracts with US companies
1980
Iran-Iraq War begins; exports from the region slow further
1980s
Demand response to supply shocks pushes prices down
1986
Saudi Arabia increases production to regain market share
1988
Iran, Iraq increase output with end of war
1990
Iraq invades Kuwait; Kuwaiti exports cut until 1994
Early 2000s
Production falls due to lack of investment
1999
Asian demand recovers after 1997 crisis
2001-2003
9/11 and invasion of Iraq raise concerns about Middle East stability; Venezuelan oil workers strike
Mid-2000s
Asia drives rising demand as production stagnates and Saudi spare capacity declines
2007-2008
Global Financial Crisis
2011
Arab Spring; civil war disrupts Libyan output
2013-2014
Prices rise at prospect of US action in Syria; reaction to Iraq conflict mid-2014 is less pronounced
140
120
100
80
60
40
20
0
1861
1866
1871
1876
1881
1886
1891
1896
1901
1906
1911
1916
1921
1926
1931
1936
1941
1946
1951
1956
1961
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
Recession
Crude oil prices in 2013 USD/barrel

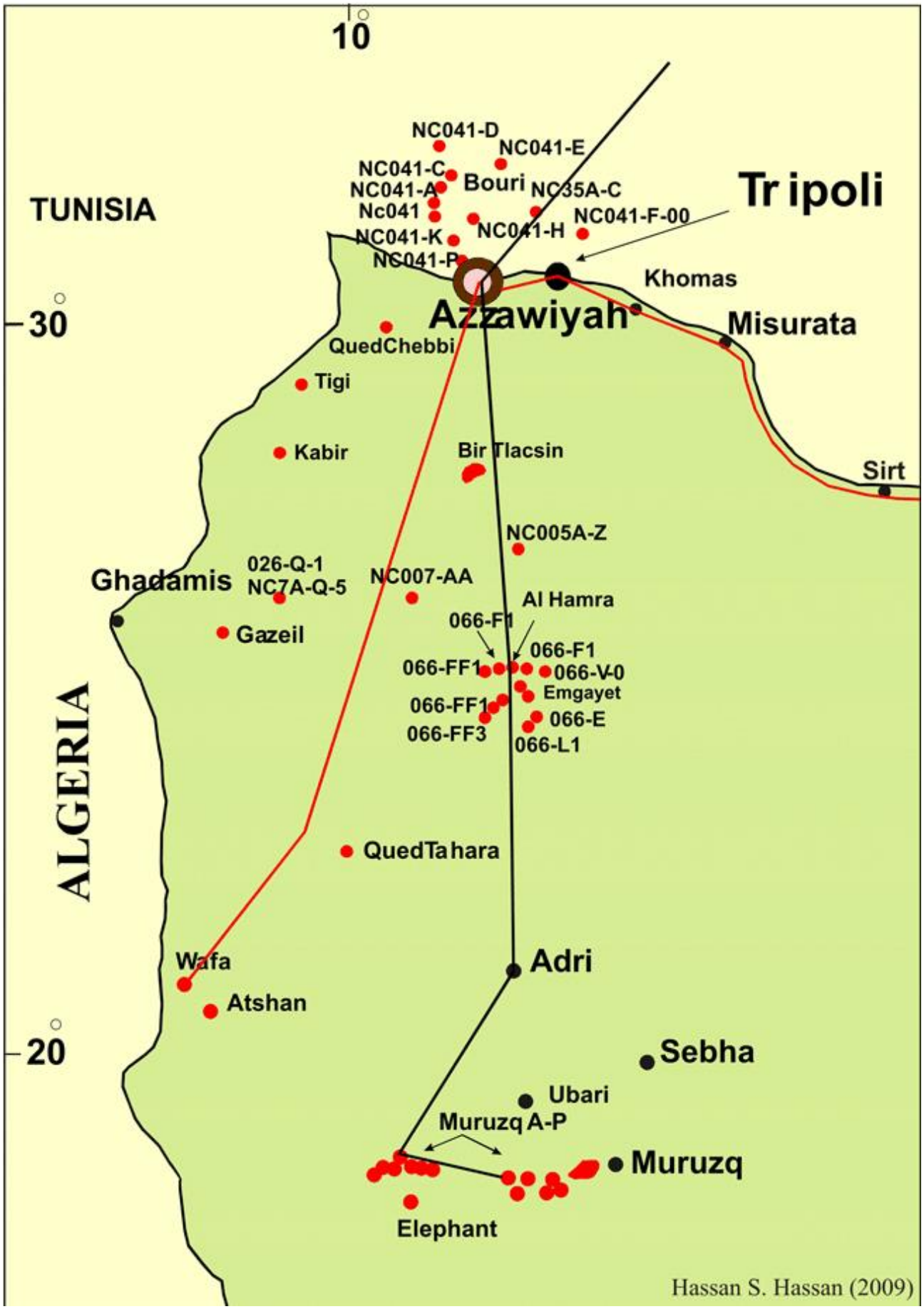
Apendix – C


MEDITERRANEAN SEA
TUNISIA
Tripoli
Azzawiyah
Misurata
Khomas
Benghazi
Al Hariqa
Ras Lanuf
Sirt
AsSidrah
Azzuwaytinah
Al baryqah
Ghadamis
ALGERIA
EGYPT
LIBYA
Adri
Sebha
Ubari
Muruzq
Muruzq A-P
Elephant
Wafa
Atshan
QuedTahara
AsSarie
Gas Pipeline
Oil Pipeline
Oil Field
Liquified Gas Planet
Oil Terminal (Oil Exporting harbor)
Petroleum refining
Hassan S. Hassan (2009)

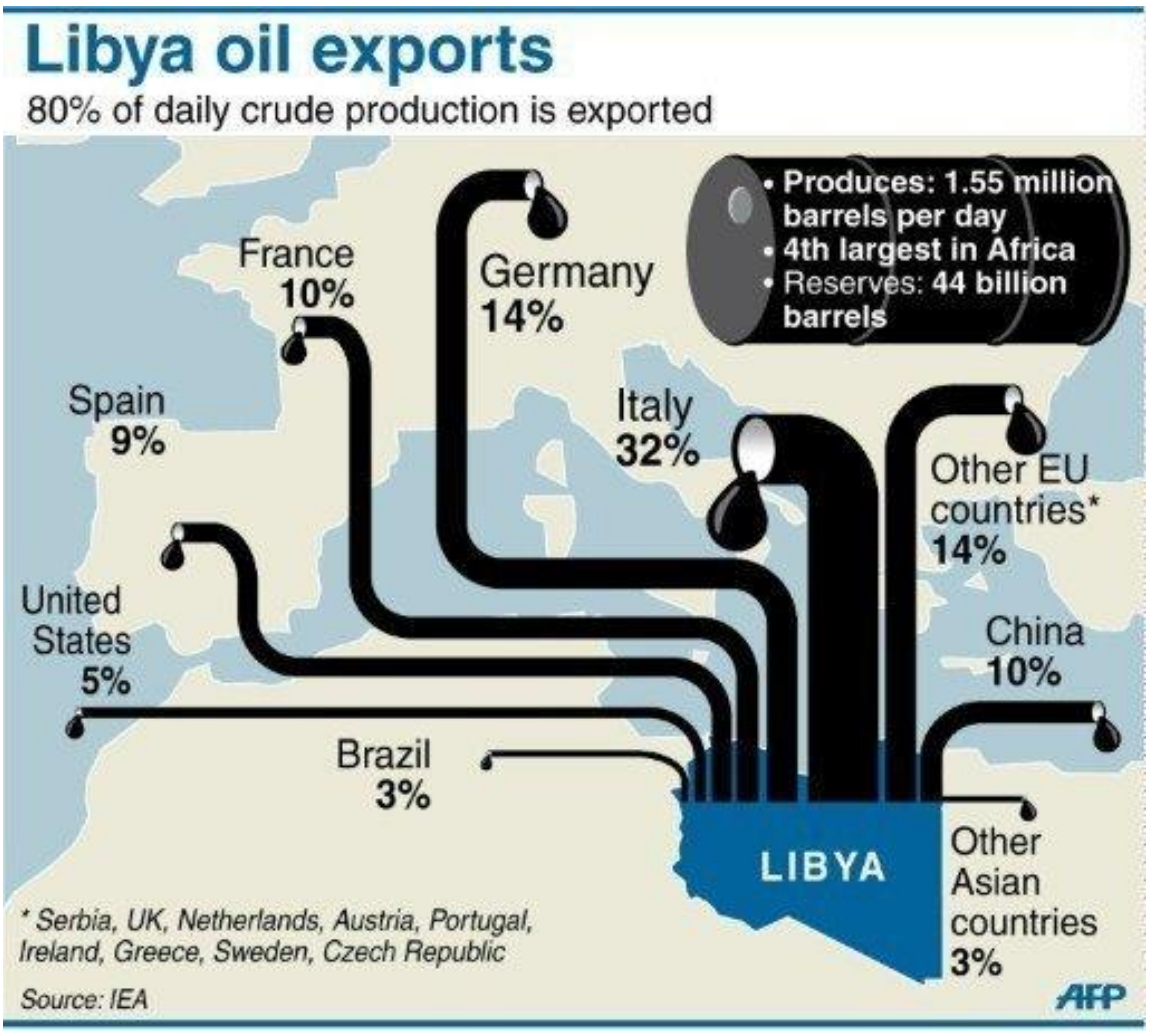
Apendix – D


Al Hariqa
Benghazi
Ras Lanuf
Sirt
Antelat
As Sidrah
Azzwaytinah
Al Barygah
Mabruk
Bahi
Dahra
Facha
Hofra
El Dib
Tagrifet
Mansour
Zella
Bualawn
Aswad
Beda
Sabah
Khalifa
Bel Hedan
En Nagah
Lateiba
Raguba
Lehib
Ora
Ain Jerbi
Meghil
Sorra
Zella
Raleh
Intisar
Jebel
Waha
Defa
Amal
Nafoora
Bu Attifel
Katb/Rimal
Farigh
Gialo
Messla
Sarir N
Masrab
As Sarie
20°
Hassan S. Hassan (2009)

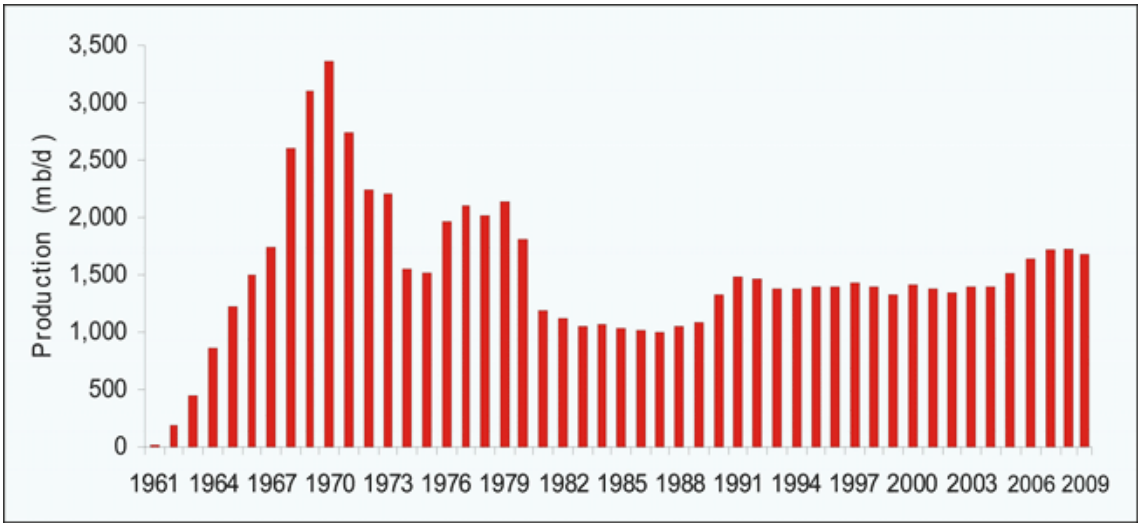
Apendix – E


10
30
20
TUNISIA
ALGERIA
Tr ipoli
Khomas
Azzawiyah
Misurata
Sirt
Bouri
NC041-D
NC041-E
NC041-C
NC041-A
Nc041
NC041-K
NC041-P
NC35A-C
NC041-H
NC041-F-00
QuedChebbi
Tigi
Kabir
Bir Tlacsin
NC005A-Z
Ghadamis
026-Q-1
NC7A-Q-5
NC007-AA
Al Hamra
066-F1
Gazeil
066-FF1
066-V-0
Emgayet
066-E
066-FF3
066-L1
QuedTahara
Wafa
Adri
Atshan
Sebha
Ubari
Muruzq A-P
Muruzq
Elephant
Hassan S. Hassan (2009)

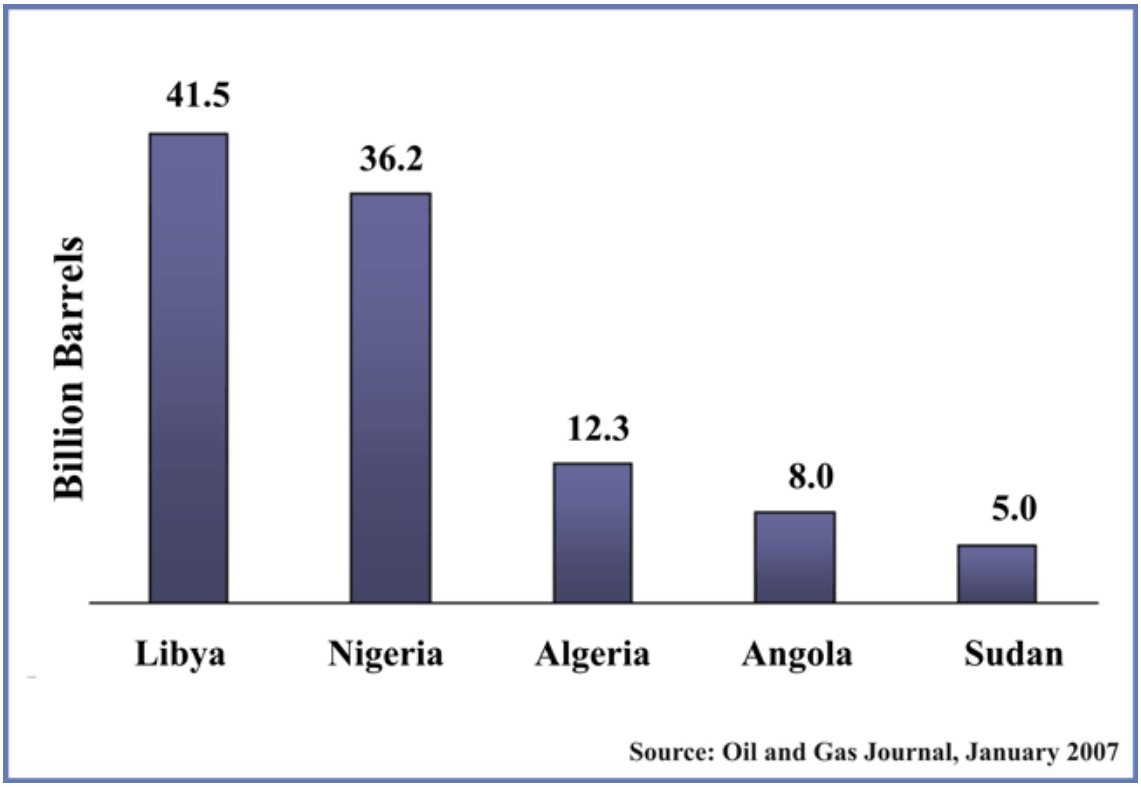
Appendix – F



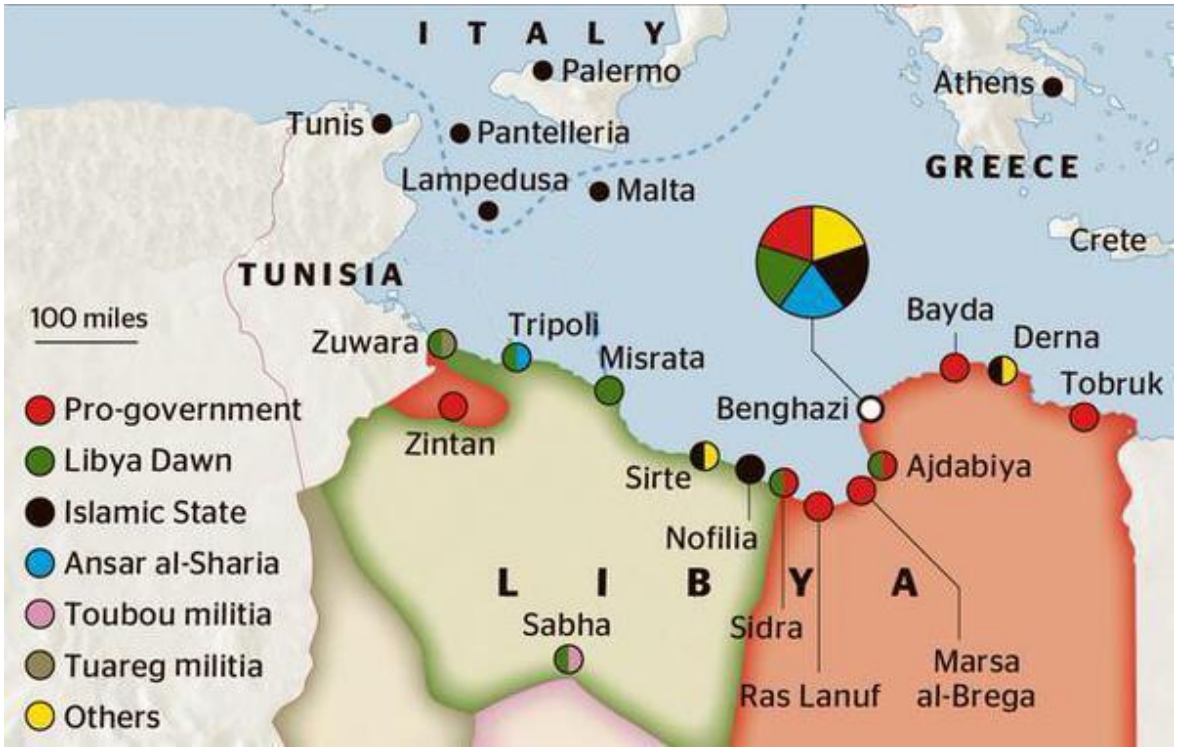
Apendix – E



Appendix – F


41.5
36.2
12.3
8.0
5.0
Billion Barrels
Libya
Nigeria
Algeria
Angola
Sudan
Source: Oil and Gas Journal, January 2007

Appendix – G



The Current political situation in Libya

Source:https://www.google.cz/search?q=The+Current+political+situation+in+Libya&source=lnms&tbm=isch&sa=X&ved=0CAgQ_AUoAmoVChMIybvJmcyByQIVQ3VyCh1ZFw3o&biw=1366&bih=629#imgrc=SWQGMALePohyAM%3A