Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

BACHELOR THESIS

Economic Evaluation of Russian Ruble

Author: Kazantsev Alexander

Supervisor: Ing. Petr Procházka, MSc, Ph. D.

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Alexander Kazantsev

Business Administration

Thesis title

Economic evaluation of Russian Ruble

Objectives of thesis

Main goal is to identify what factors influence the rate of Russian currency, compare different views on the reason of evaluating of ruble, quantify how rate of Russian currency is dependent on the price of oil, determine impact of central bank to the rate of national currency, how geopolitical situation influence the rate of currency.

Methodology

Literature review is done using methods of synthesis, abstraction, induction, deduction, extraction.

For the practical section, Data have to be collected and sampled and evaluated using methods of technical and fundamental analysis.

The proposed extent of the thesis

40 pages

Keywords

exchange market, rate of currency, ruble, dollar, technical analysis,fundamental analysis, central bank, interest rate,inflation

Recommended information sources

AUDZEI, Volha. Efficiency of central bank policy during the crisis: role of expectations in reinforcing hoarding behavior. Prague: CERGE-EI, 2012, 44 s. Working paper series (CERGE-EI). ISBN 978-80-7343-281-2.

BURGESS, Gareth. Trading and investing in the Forex market using chart techniques. Hoboken: Wiley, 2009, xiii, 211 p.

CANALES-KRILJENKO, Jorge Iván. Foreign exchange market organization in selected developing and transition economies: evidence from a survey. Washington, D.C.: International Monetary Fund, 2004, 46 p. IMF working paper, WP/04/4.

Commercial banking and the role of the Central Bank. Praha: Bankovní institut, 1998, 171 s. ISBN 80-7265-003-3.

DERVIZ, Alexis. FOREX microstructure, invisible price determinants, and the central bank´s understanding of exchange rate formation. Praha: Czech National Bank, 2003, 42 s. Working papers. ISBN 80-239-1530-4.

HORVÁTH, Roman. Exchange rate variability, pressures and optimum currency area criteria: lessons for the central and eastern European countries. Praha: Czech National Bank, 2005, 26 s. Working paper series (Česká národní banka). ISBN 80-239-7033-x.

Liddell, Robert W., and William Litt. National Currency: An Analysis with Values. Port Clinton, OH: BNR, 2004. Print.

Sether, Laura. Technical Analysis. Cedar Falls, IA: W&A Pub., 2007. Print.

Thomsett, Michael C. Fundamental Analysis. Hoboken, NJ: J. Wiley and Sons, 2006. Print.

Expected date of thesis defence

2015/16 SS – FEM

The Bachelor Thesis Supervisor

Ing. Petr Procházka, Ph.D., MSc

Supervising department

Department of Economics

Electronic approval: 3. 3. 2016

prof. Ing. Miroslav Svatoš, CSc.

Head of department

Electronic approval: 3. 3. 2016

Ing. Martin Pelikán, Ph.D.

Dean

Prague on 14. 03. 2016

STATUTORY DECLARATION

I, the undersigned, hereby declare that the bachelor thesis "Economic Evaluation of Russian Ruble" is a result of my personal work and only sources I used are listed in the references. In Prague, March 14, 2016.

<div align="right">

…………………………..
Kazantsev Alexander

</div>

Ekonomické ohodnocení rublu

Summary:

The goal of this bachelor thesis is to evaluate the rate of Russian ruble and main factors, which influence the rate of ruble.

The thesis is divided into two parts. Firstly, theoretical part introduces and defines basic terms about foreign exchange market and specification of ruble as national currency. The second, practical part evaluates results based on fundamental and technical analysis, defining what information and what forces have the greatest impact on the rate of ruble. The aim of this thesis is firstly to define forces as actions of Central bank, which influence the rate of ruble and secondly to predict future changes of Russian ruble and propose the possible solution for avoiding unstable situation in this market.

As an example diversification of economics would decrease the addiction of Russian economics from the price of oil.

Souhrn:

Cílem této bakalářské práce je oceněni vyšší kurzu Ruského rublu a hlavní faktory, ovlivňující jeho změnu.

Práce je rozdělena do dvou částí. Za prvé, teoretická část zavádí a definuje základní pojmy o devizovém trhu a specifikaci rublu jako národní měny. Druhá, praktická část vyhodnocuje výsledky na základě fundamentální a technické analýzy, které určují, jaké informace a jaké síly mají největší dopad na změnu kurzu rublu. Za prve, cílem této práce je definovat opatřeni centrální banky, které mají vliv na změnu kurzu rublu a za druhé, pokusit se odhadnout

možnou budoucí vyšší kurzu Ruského rublu a navrhnout možné řešení pro vyhnuti nestabilní situace na tomto trhu.

Jako příklad diverzifikace ekonomiky bych uvedl snížení závislostí ekonomiky Ruska na cenách ropy.

Key words: foreign exchange market, rate of Russian ruble, price of oil, role of Central bank

Klíčová slova: trh zahraniční měny, kurz Ruského rublu, cena ropy, role Centrální banky

Table of Contents

List of Tables

List of Figures

List of Abbreviations

OPEC   Organization of the Petroleum Exporting Countries

USD   United States Dollar

RUB   Russian Ruble

OTC   Over-counter-market

US   United States

EBC   European Central bank

Forex   Foreign exchange market

GDP   Gross Domestic Product

CPI   Consumer Price Index

RTSI   Russian Trading System Index

WTI   West Texas Intermediate

1. Introduction

At this moment foreign exchange market is the largest market in terms of trading volume. Banks, commercial companies, central banks, investment management firms, hedge funds, retail forex brokers and investors participate in trading of currencies in this market. Currencies are traded against each other, supply and demand define rate of each currency. Rate of national currency directly influences the volume of international trade and the amount of investments in certain country. At this moment world is in globalization process and most countries economically become more dependent on each other as the volume of international trade and investment increases that extremely affect the economics of each country.

Countries with higher dependency on export are more sensitive to any changes in foreign exchange market as mostly exported items are traded in American dollars but country receives revenues in local currency. In this situation rate of local currency against American dollar strongly defines the amount of revenue in local currency. As increasing of local currency against American dollar could decrease export of certain item as decreasing of local currency could decrease revenue from trading certain item. Any fluctuation in price of traded item directly influences the rate of local currency of exported country.

Russian Federation is highly dependent on the export of natural resources, especially on the export of crude oil. As revenues from crude oil takes significant share of Russian federal budget price of oil has the great impact on the rate of Russian ruble. Price of oil is not the only one factor influencing the rate of Russian national currency as there are other significant forces influencing certain rate of ruble.

2 Thesis Objectives and Methodology

2.1 Objectives

The main focus of the thesis is evaluation of Russian ruble. The first goal is to identify specification of Russian economics as rate of ruble is strongly dependent on the economical parameters of country. Second goal is to define forces influencing the rate of ruble as information from many areas and events affects the rate of Russian ruble. Third goal is to determine the level of impact of all forces affecting the rate of ruble, as different forces have different amount of influence on the rate.

2.2 Methodology

Initially, in the theoretical part, all relevant and necessary information was gathered in order to explain all terms and definitions as specific of foreign exchange market, participants of foreign exchange market, and role of Central banks in regulating of local currency, main parameters of economics. Literature review was conducted using methods of synthesis, induction, deduction and extraction.

In the analytical part, methodology consists of fundamental and technical analysis. Fundamental analysis and technical analysis include necessary data mining. The range of the data is mostly from January 1, 2014 until December 31, 2015.

After numerical data had been collected, they were consequently evaluated by the comparative method and statistically analyzed by techniques to explain a particular phenomenon. Figure and tables are used for visualization of the results. Trading platform and Microsoft Excel were used for generating information and evaluation of acquired data.

3. Literature Review

3.1 Forex Market

3.1.1 Definition of Forex

The Forex market is an international over-the-counter market (OTC). This market is decentralized, self-regulated with no central exchange or clearing house, unlike stocks and futures markets. This structure eliminates fees for exchange and clearing, thereby reducing transaction costs. Currencies of all countries are traded in this market and it is considered as the largest and the most liquid market around the world.

Forex is marketplace where the world's various currencies are traded. It is an interbank market which was created in 1971 when international trade transitioned from fixed to floating exchange rates. As a result of its incredible volume and fluidity, the FX market has become the largest and most significant financial market in the world. This market has unique characteristics:

Forex markets operate 24 hours a day.

Superior liquidity - the daily turnover of the foreign exchange market – over 4 Trillion Dollars – makes it easy to trade most currencies instantaneously.

Profit could be gained from rising or falling markets.

There are standard instruments available to help to control risk exposure.

3.1.2 Participants of Forex

The Forex OTC market is formed by different participants which trade directly to each other. These participants could be divided into two groups: the interbank market and the retail market.

1. The Interbank Market

The interbank market defines Forex transactions that occur between central banks, commercial banks and financial institutions. Interbank is the top level of forex market where all mentioned

institutes and organizations trade to each other directly of through electronic brokering platforms.

Central Banks - National central banks (such as the US Fed and the ECB) play an important role in the Forex market. As principal monetary authority, their role consists in achieving price stability and economic growth. By this reason they regulate the entire money supply in the economy by setting interest rates and reserve requirements. They also manage the country's foreign exchange reserves that they can use in order to influence market conditions and exchange rates.

Commercial Banks- Commercial banks (such as Deutsche Bank and Barclays) provide liquidity to the Forex market due to the trading volume they handle every day. Some of this trading represents foreign currency conversions on behalf of customers' needs and some of them trade for speculative purpose.

Financial Institutions - Financial institutions as money managers, investment funds, pension funds and brokerage companies trade foreign currencies as part of their obligations to find the best investment opportunities for their customers. For instance, an employee of an international equity portfolio will need to engage in currency trading for buying and selling foreign stocks.

2. The Retail Market
The retail market defines transactions which are made by smaller speculators and investors. These transactions are executed through Forex brokers who act as an intermediary between the retail market and the interbank market. Retail exchange market is smaller than interbank market. The participants of the retail market are hedge funds, corporations and individuals.

Hedge Funds- Hedge funds are private investment funds that speculate in various assets classes using leverage. Macro Hedge Funds follow trading opportunities in the Forex Market. They design and execute trades after conducting a macroeconomic analysis that reviews the

challenges affecting a country and its currency. As hedge funds trade huge amounts and due to their aggressive strategies they are the main participants of the dynamic of Forex market.

Corporations - They represent the companies that are engaged in import/export activities with foreign counterparts. Their primary business requires them to purchase and sell foreign currencies in exchange for goods, subjecting them to currency risks. Through the Forex market, they convert currencies and hedge themselves against future fluctuations which could be raise due to the not stable economic or political situation.

Individuals- Individual traders or investors trade Forex on their own capital in order to profit from speculation on future exchange rates. They mostly trade through Forex platforms that offer small spreads, immediate execution and highly leveraged margin accounts.

3.2 Fundamental Analysis
3.2.1 Fundamental Analysis Definition

Fundamental analysis is a method that attempts to predict the intrinsic value of an investment. It is based on the theory that the market price of an asset tends to move towards its 'real value' or 'intrinsic value'.

Fundamental analysis is based on the information coming from the events and situations influencing the future expectation of traded currency. Any event or situation affecting the rate of traded currency could be used in the fundamental analysis. All these factors have different impact on the rate of currency as they have different degree of importance.

Fundamental analysis in Forex entails predicting the price valuation of a currency and its market trends by analyzing current economic conditions, government policy and societal factors within a business cycle framework.

3.2.2 Macroeconomics Indicators of Fundamental Analysis

Traders and investors evaluate a country's economic state by examining macroeconomic indicators.

Macroeconomic indicators are statistics that indicate the current status of the economy of a state depending on a particular area of the economy. They are announced regularly by governmental agencies and the private sector.

As any information macroeconomics indicators form future expectations of traders and investors regarding to future economic development of certain country. This information helps Forex traders monitor the economy's trend. After publication of these indicators we can observe volatility of the market. The degree of volatility is determined depending on the importance of an indicator. It is very important to understand the importance of each indicator as it allows predicting future changes more accurately.

1. Interest Rates Announcement

Interest rates play the most important role in moving the prices of currencies in the foreign exchange market. Central banks are the most influential players as they set interest rates. As the institutions that set interest rates, central banks are the most influential actors. Interest rates define flows of investment. Currencies are the representations of a country's economy; differences in interest rates affect the relative worth of currencies in relation to one another. When central banks change interest rates they cause the forex market to experience movement and volatility. In the area of Forex trading, accurate speculation of Central banks actions could increase the trader's chances for a successful trade.

2. Gross Domestic Product (GDP)

The GDP is the broadest measure of a country's economy as it represents the total market value of all goods and services produced in a country during the year. Since the GDP figure itself is often considered as the indicator with delay, traders mostly focus on the two reports that are announced infew months before the final GDP figures: the advance report and the preliminary report. Significant difference between these reports can cause considerable volatility.

3. Consumer Price Index

The Consumer Price Index (CPI) is probably the most important indicator of inflation. It

represents changes in the level of retail prices for the basic consumer basket. Inflation is connected directly to the purchasing power of a currency within its borders and affects its standing on the international markets. With a good developing of economy the increase in CPI can lead to an increase in basic interest rates. Increase in basic interest rateslead to an increase in the attractiveness of a currency for investors.

4. Employment Indicators

Employment indicators represents the overall health of an economy or business cycle. It is important to know how many jobs are created or destructed, what is the percentage of the work force actively working as it is important to know how many new people are claiming unemployment. It is important for inflation measuring to monitor the speed at which wages are growing.

5. Retail Sales

The retail sales indicator is announced monthly and it is important for foreign exchange trader because it shows the overall power of consumer spending and the success of retail stores. The report is particularly useful because it is a timely indicator of broad consumer spending patterns that is adjusted for seasonal variables. It could be used as well for predicting the performance of more important lagging indicators, and to assess the immediate direction of an economy.

6. Balance of Payments

The balance of payments represents the ratio between the amount of payments received from abroad and the amount of payments going abroad. It shows the total foreign trade operations, trade balance, and balance between export and import, transfer payments. If coming payment exceeds payments to other countries and international organizations the balance of payments is positive. The surplus is a favorable for growth of the national currency.

7. Government Fiscal and Monetary policy

Stabilization of the economy (e.g., full employment, control of inflation, and an equitable

balance of payments) is one of the goals that governments attempt to achieve through manipulation of fiscal and monetary policies. Fiscal policy relates to taxes and expenditures, monetary policy to financial markets and the supply of credit, money, and other financial assets.

3.2.3 Other Important Indicators of Fundamental Analysis

As information coming from economic indicators is not the only one type of information influencing the rate of currency, information from other important areas influence the rate as well.

1. Political events

Elections as the part of every nation cause huge impact on a local currency. Elections could be considered by analysts as separated case, with opportunity of causing political instability. As usually it triggers higher volatility in the local currency. In most cases traders would keep following pre-election polls to get an idea about the current situation in the country. If a country's government is expected to be changed, this could suggest that new ideology, new monetary or fiscal policies are to be proposed and implemented, while this could turn into a strong driving force behind the value of a currency.

Another situation could be as unexpected election. Whether it happens as a result of a non-confidence vote, corruption scandals or other situations these elections have the potential to introduce chaos in the currency market. A very rare case could be an upheaval among citizens of a country. This situation could lead to protests, walk-outs and even more extreme forms of civil disagreement. These events may shake the foundations of a country, introducing economic uncertainty, potential loss of rating and higher political instability.

Not stable situation in the political system of a country could decline any expected positive outcomes from a newly elected government in a short term, while the national currency may experience massive selling pressure. On the other hand these disturbances are usually expected to ease, when the national currency could remain in close future to the exchange rates that reflect country's economic growth state.

2. Natural disasters

Natural disasters and wars have a catastrophic influence on the value of currencies. The morale and infrastructure of a country can be severely harmed by natural disasters as floods, tornadoes, earthquakes and hurricanes. These disasters usually have significant negative effect on a national currency.

These examples were the earthquakes in Japan and New Zealand and their effect on currencies was negative as well. Firstly, the currencies get weaker because of the damage made to the economy. Then currency strengthened due to the insurance funds which are sent to these countries from different sources in order to fund the repairs. After that the currencies decreased in value because of the actions performed by their central banks as they took measures to promote economic recovery by providing the financial market with additional funding and by reducing interest rates. These actions unfavorably influence the rate of currency.

As another situation was the Triple Calamity in Japan in 2011 (an earthquake, a tsunami and a nuclear disaster), which delivered a huge impact on local economy and also influenced global economy. The basic infrastructure forms the cornerstone of any economy. That is why damages or complete destruction of infrastructure may greatly limit or decrease the economic output of a certain region. Furthermore, possibility of reduction in consumer spending caused by the economic uncertainty, possible decrease in consumer confidence, as well as in any economic advantage the country may have, clears the way to economic cataclysm. This becomes evident, especially in comparison of the harmed nation to other countries, prospering from the other's loss.

3. War

Close to the case with a natural disaster, the impact of war on economy is usually wide-scaled. As it was said already damaged infrastructure "kills" a nation's short-term economic viability,

which could cost citizens and the government billions. A major part of these funds would be borrowed. An economy injured by war usually should be recovered with the aid of low-cost loan, what is result from low interest rates. This situation leads to devaluation of local currency.

3.3 Technical Analysis
3.3.1 Technical Analysis Definition

Technical analysis is a technique used to forecast the future direction of prices through the study of historical market data, primarily price, volume and open interest.
Technical analysis is used for defining patterns for predicting future activity.

Technical traders use trading information (such as previous prices and trading volume) along with mathematical indicators to make their trading decisions. This information is usually displayed on a graphical chart updated in real time that is interpreted in order to determine when to buy and when to sell a specific instrument as well the forecasting of financial price movements based on the examination of previous price movements.

Technical analysis reflects all forces influencing the price/rate of traded item. By following technical graphs and figures trader is able to recognize current trend of item and based on the technical indicators predict future changes in price.

Dow Theory
The ideas of Charles Dow, the first editor of the Wall Street Journal, form the basis of modern technical analysis. They are based upon three main premises:
The price is a comprehensive reflection of all market forces. At any specific time, all market information and forces are reflected in the prices.
Prices move in trends that can be identified and turned into profit opportunities.
Movements of price are historically repetitive.
Advantages of Technical Analysis.
Technical analysis requires less amount of information than fundamental analysis. From price

and volume technical trader is able to obtain all needed information.

As it is focused on identifying trend reversal, the question of timing to enter a trade is easier to address with technical analysis.

Disadvantages of Technical Analysis
Technical analysis could become a self-fulfilling prophecy. As when many investors use tools which are similar to each other and following the same rules, shift together the supply and demand, this can lead to the prices moving in the predicted direction.

Technical and/or Fundamental Analysis
Technical Analysis is one of the most significant tools available for forecasting financial market behavior. It has been proven to be an effective tool for investors and is constantly becoming more accepted by market participants. When used in conjunction with fundamental analysis, technical analysis can offer a more complete valuation, which can make the difference in providing profit trades.

The currency price of one country gets stronger and/or weaker against another country's currency on a daily basis. Local currency exchange rate affects travel, exports, imports and the economy.

3.4. Role of Central Banks
Most countries have some form of Central Bank serving as the principle authority for the national financial matters.
Primary duties for a Central Bank include:
Implement a monetary policy that provides consistent growth and employment
Promote the stability of the country's financial system
Manage the production and distribution of the local currency
Inform the public of the overall state of the economy by publishing economic related statistics

3.4.1 Roles of Central Banks in Monetary Policy

Central banks directly influence economic growth by controlling the amount of liquidity in the financial system. They regulate it by setting interest rates on loans, mortgages and bonds. Most Central banks have several tools of monetary policy for achieving this goal. Firstly, they set a reserve requirement, which informs their network of private banks what amount of cash to have on hand every day.

Secondly, Central banks use open market operations to buy and sell securities from member banks. It allows to quickly changing the amount cash on hand without changing the reserve requirement. Usually this tool is used for emergency situations.

The most effective tool is to change interest rates. Raising interest rates slows growth, preventing inflation.

Lowering rates stimulates growth, preventing or shortening a recession. This is known as expansionary monetary policy.

Inflation targeting

Inflation-targeting is the best framework for monetary policy. This is due to simplicity, accountability and transparency. Inflation targeting combines understandable commitment to price stability with sufficient flexibility to avoid economic shocks and keep the economy operating close to its potential volume.

Supply and Demand of Currency

As any commodity the value of a free-floating currency is based on supply and demand. For increasing the value of currency Central Bank uses interventions for buying currency and holds it in its reserves. This actions decreases supply of the currency available and could lead to an increase in valuation.

To reduce a currency's value Central Bank uses intervention for selling its reserves back to the market. This increases the supply of the currency and could lead to a decrease in value.

International trade flows can also influence supply and demand for a currency. When a country has positive trade balance (meaning that export is more than import) foreign buyers must exchange more of their currency for the currency of the exporting country. This increases the demand for the currency.

3.4.2 Role of Central banks in fiscal policy

Fiscal policy refers to the economic direction needed for government to pursue regarding taxation, spending, and borrowing.

A primary role for Central Banks is to supply operational capital to the country's commercial banks. This is executed by offering loans usually by nightly basis to these banks for short time periods. This provides the banking system with sufficient liquidity for businesses and individual consumers for borrowing money, and the availability of credit to have direct impact on business and consumer spending.

The Central Bank charges interest on the provided short-term loans. The rate charged by the Central Bank affects the interest rate that the banks charge their customers as the banks should pay for the interest they paid to Central bank plus to earn profit.

Central Banks use the relationship between the short-term rates at which loans are offered, and the interest rate of the banks charge for influencing the cost for the public to borrow money.

If the Central Bank decides that an increase in consumer spending is necessary for stimulating the economy, it can lower short-term rates when providing loans to the commercial banks. As the result commercial banks lower interest they charge, making borrowing less costly for consumers which the Central Bank e will lead to an increase in overall spending.

If a tightening of the economy is needed to slow inflation, the Central Bank can increase interest rates making loans more expensive to acquire, which could lead to an overall reduction in spending.

3.5. Dutch Disease

3.5.1 Definition of Dutch Disease

The term "Dutch disease" originates from a crisis in the Netherlands in the 1960s as result from discovering of huge natural gas deposits in the North Sea. The newfound wealth caused the Dutch guilder to rise, making exports of all non-oil products less competitive on the world market.

Negative consequences arising from large increasing in income of country. Dutch disease is primarily associated with a natural resource discovery, as well it could be as a result from any large increase in foreign currency, including foreign direct investment, foreign aid or a substantial increase in natural resource prices.

The problem occurs because inflows cause currency appreciation. This increases the cost (in foreign currency) of exports of the products of other industries, making them less competitive. The classic case is de-industrialization as manufacturing industries are made less competitive by exports of oil and natural gas.

Dutch disease has two main effects:

1. A decrease in the price competitiveness and as the result decreasing of the export of the affected countries manufactured goods

2. An increase in imports

Both factors in the long run can cause to manufacturing jobs being moved to lower-cost countries. The end result is that non-resource industries are hurt by the increase in wealth generated by the resource-based industries.

3.5.2 Impact of Dutch Disease

In the 1970s, the same economic condition occurred in Great Britain, when the price of oil quadrupled and it became economically viable to drill for North Sea Oil off the coast of Scotland. By the late 1970s, Britain became a net exporter of oil as before Britain was net importer. The pound increased in value, but the country fell into recession when British workers demanded higher wages and exports became uncompetitive.

4 Analytical Part

For the period 2014-2015 years Russian ruble devalued more than 100%. This fallen of Russian rubble caused by several factors. As information the main source of influencing on market of currency in this practical part would be shown how information from different sources influence the rate of Russian ruble. Practical part is defined by particular cases and by overall situation.

Data collected and analyzed is impressed and explained in figures and graphs as well as in tables. Information from newspaper's articles is reflected in mentioned above forms for providing completely understanding of processes and tendencies which mostly influence the rate of evaluated currency.

The structure of practical part is to go from overall situation to particular cases and to summary all information at the end.

Different particular situations show how information from different areas influences the rate of Russian national currency in certain examples and how other forces participating in the process of forming the rate of ruble react and affect this rate.

First step is to understand overall situation about the rate of ruble and main tendency in foreign exchange market in term of Russian ruble. As evaluated period is from 1st of January 2014 year to the end of 2015 year graph 1.0represents the overall devaluation of rubble against dollar.

Rate of Rubble fell down from 32 rubles per dollar at the beginning of 2014 to 74 rubles per dollar to the end of 2015.

Figure 1: Overall of rate of ruble for 2014-2015 years

Source: Own processing data from fxcm.com platform (2016)

Recognition of trend is very important for evaluation process as it allows understanding general tendency of trading currency.

Graph 1.1 representing Russian Ruble trend is below and as it is shown the Russian ruble had negative tendency for last two years.

Figure 2: Trend of Russian ruble for last 5 years
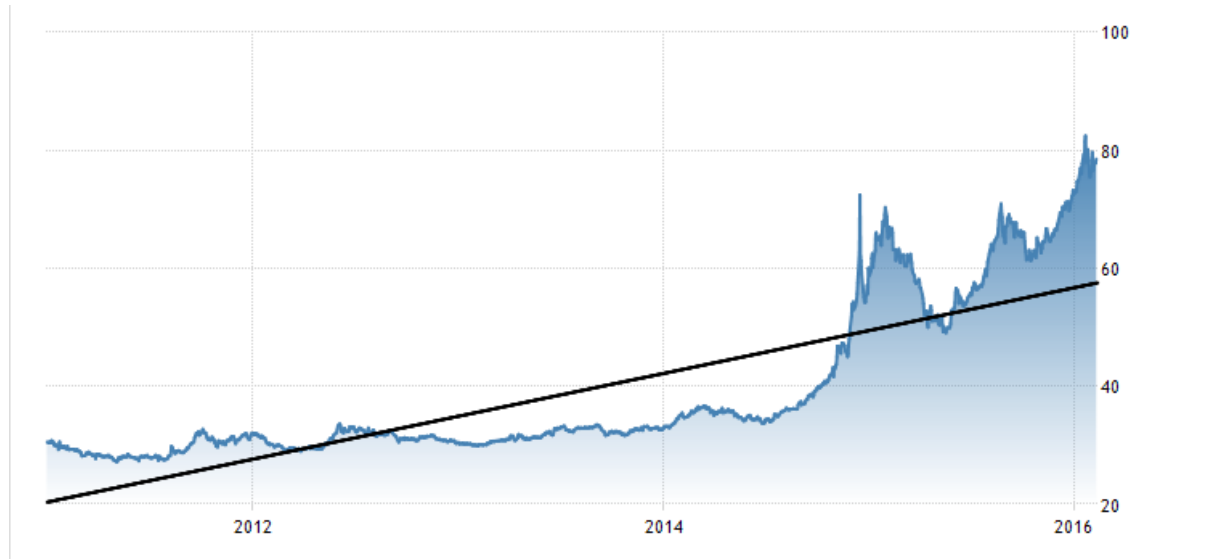
Source: Own processing data fromtradingeconomics.com platform (2016)

During the evaluation period different factors influenced the rate of ruble and within different parts of periods these factors had different impact.

4.1 Analysis of geopolitical situation

At the beginning of 2014Russia had tense geopolitical situation what affected the rate of Russian ruble. As foreign exchange market is partially defined by the behavior of traders or participants of the market, many of them analyze geopolitical situation to decrease risks of losing their investments. Any information about destabilizing the situation in certain region influences the price of traded items of this region, including the national currency of the analyzed country. Annexation of Crimea and possible direct military engagement of Russia in the war conflict on the East of Ukraine caused the devaluation of Russian ruble. Following

sanctions against actions of Russia by world global community including USA, European Union, Canada and other participants worsened the economic situation in the country. Information regarding to the escalation of military conflict or expectation of starting the war affect market directly and significantly. As well the expectation of unstable situation in politics or economics increase risks for investments which is reflected in decreasing of national rate due to decreasing of investments from outside of the country.

As an example information from the geopolitical area and the influence of this information on the currency market is analyzed.

On the first of Mach 2014 president of Russia Vladimir Putin received approving from the Soviet of Federation which allows using armed forces in the Crimea due to extraordinary situation in the Ukraine which could cause threat to Russian citizens. After this action stock market indices fell down: RTS Index fell down on 7,5%, Moscow Stock Exchange index fell down on 5,8%. Central bank moved the boundaries of currency corridor and it changed key rate from 5,5% to 7%.

Figure3.0 represents the fall of RTS index next day after signing the document by president Putin. This caused by possible expectation of investors of starting military conflict in Ukraine region which would cause the decreasing of revenue of companies which are represented in the RTS index. Due to this many investors decided to transfer their assets to less risky companies.
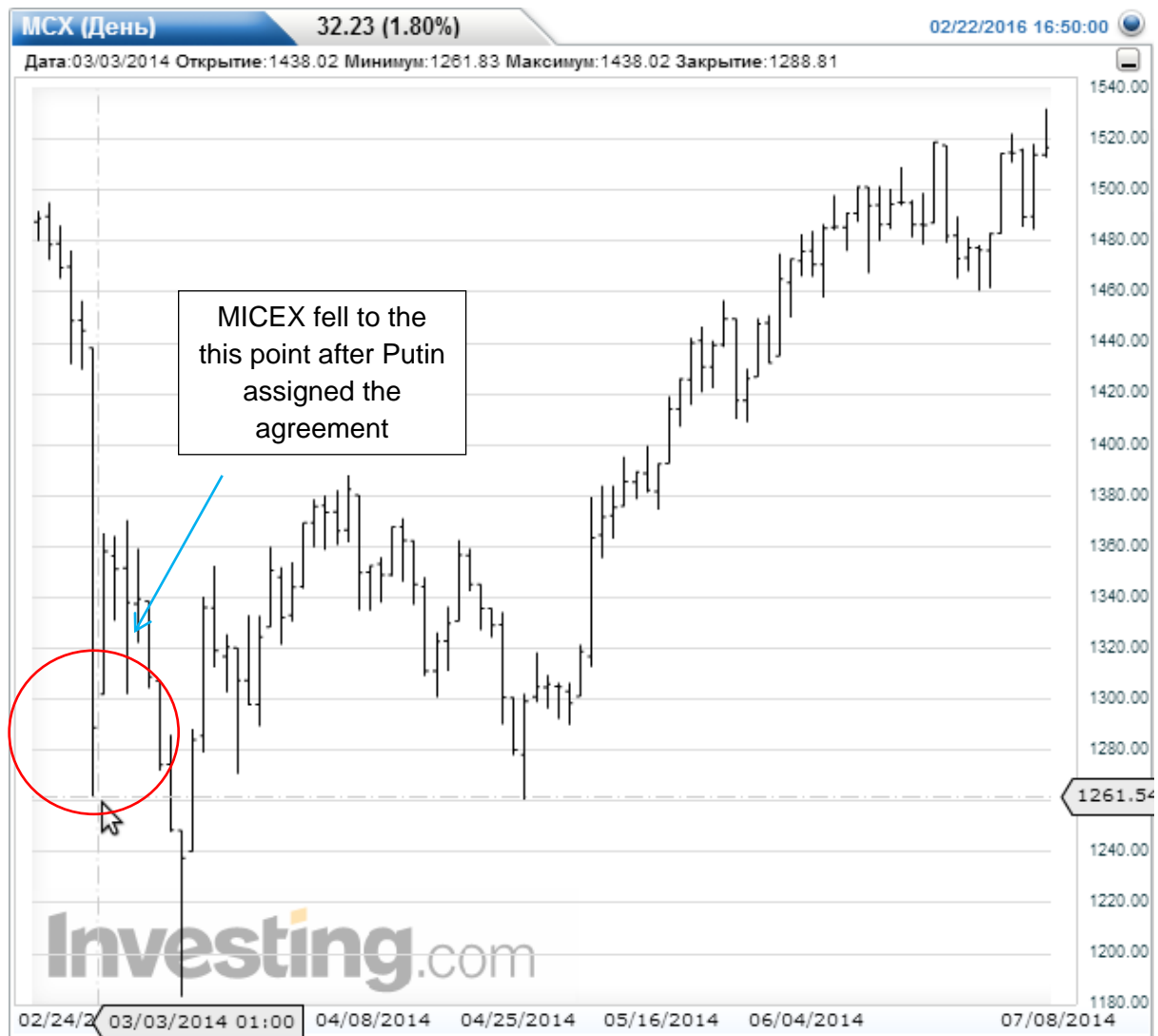
On figure 3 is mentioned the following day after the signing of the document by president Putin and by Soviet of Federation.

Figure 3: RTS index February-April period of 2014 year

Source: Own processing data from investing.com platform (2016)

Figure 4: Moscow Stock Exchange index from March to August 2014

Figure 4 represents the fall of Moscow Stock Exchange index the next work day after signing the document by president Putin. Certain figure represents the behavior of investors in terms of changing geopolitical situation. As risks of destabilization of situation increase risks of losing investments increase as well.

4.2 Analysis of Actions of Central Bank in monetary policy

Falling of main indexes caused capital outflow from the country as people expect worse economic conditions. For preventing falling of ruble Central bank used currency interventions. On 4th of March, the next day after falling these two indexes, Russian Central bank intervened $11,3 billion, Central bank spent two billions more for last two months than it spent for one day. This situation reflects how sensitive rate of Russian ruble is to geopolitical situation. On the table 1.0 is shown amount of interventions of Central bank for March 2014 and the rate of USD\RUB for March 2014.

Table 1: Daily amount of interventions by Central bank for March 2014 and daily rate of USD\RUB for March 2014

Interventions			USD\RUB rate	
Date	$ billion		Date	Rate
03.03.2014	-1200		03.03.14	36.18
04.03.2014	-11369		04.03.14	36.38
05.03.2014	-400		05.03.14	36.32
06.03.2014	-400		06.03.14	36.08
07.03.2014	-400		07.03.14	36.13
11.03.2014	-400		11.03.14	36.26
12.03.2014	-400		12.03.14	36.4
13.03.2014	-2657		13.03.14	36.49
14.03.2014	-1678		14.03.14	36.46
17.03.2014	-4407		17.03.14	36.64
18.03.2014	-650		18.03.14	36.65
19.03.2014	-400		19.03.14	36.45
20.03.2014	-400		20.03.14	36.21
21.03.2014	-357		21.03.14	36.11
24.03.2014	-400		24.03.14	36.4
25.03.2014	-322		25.03.14	36.17
26.03.2014	-203		26.03.14	35.93
27.03.2014	-200		27.03.14	35.45
28.03.2014	-200		28.03.14	35.58
31.03.2014	-200		29.03.14	35.69
Total	-26643			

Source: Own table based on data from cbr.ru (2016)

As Central bank sets rate of currency to ruble there are different mechanisms for regulation. As the result of interventions for the March Russian ruble had stable rate.

On figure5 is shown that the highest rate of ruble to dollar was 36.18 after speech of Putin and to the end of Month rate of ruble appreciated to 35.69 per dollar.

This rate represents successful actions of Central bank for supporting the rate of ruble. Despite huge expenditures, Central bank played its role and held the rate of ruble at the same level.

Figure 5: Rate of ruble for December2013 to October 2014
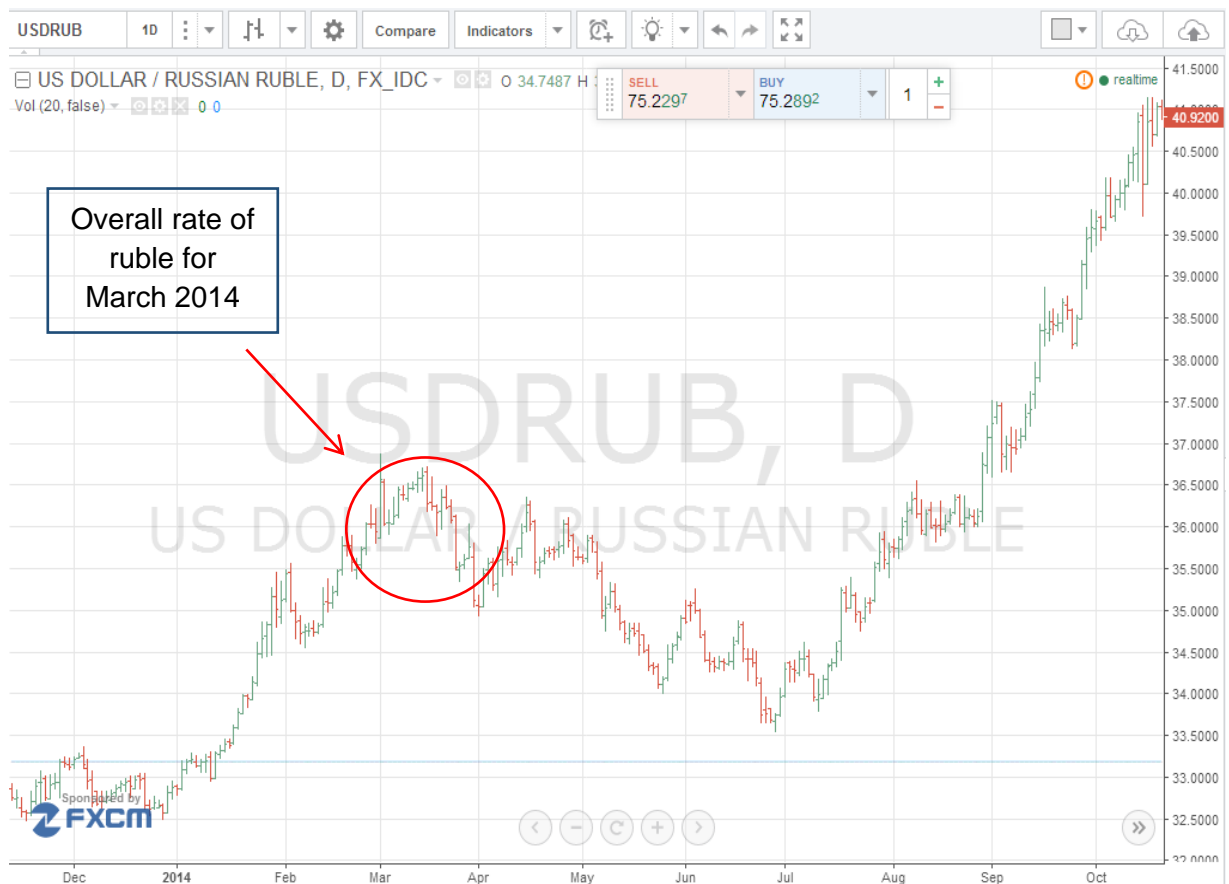
Source: Own processing data from fxcm.com platform (2016)

One of the reasons for keeping rate of ruble at certain level is adopted budget of Russian government. Every year government adopts budget in terms of satisfying macroeconomic factors and providing national economy with positive conditions for sustainable growth. The one of the most important factors is the rate of national currency as it directly influences the

amount of payments for external debts, import and the most significant part – export of Russia. As Russia supply countries with energy resources there is huge revenue from selling hydrocarbons. As revenues of hydrocarbons coming from external markets they consist of foreign currency and then exchanged to national currency. In this case rate of ruble significantly defines the amount of revenue in Russian rubles.

Specific of Russian budget is that approximately 45% of Russian budget is formed from the oil and gas revenues. On following figure 6 are mentioned the share of revenues for last 10 years.

For last 4 years Russia tries to decrease the addiction of Russian budget from the hydrocarbons revenues but it still takes significant place in forming of budget.

Figure 6: Share of oil and gas revenues in the budget for last 10 years
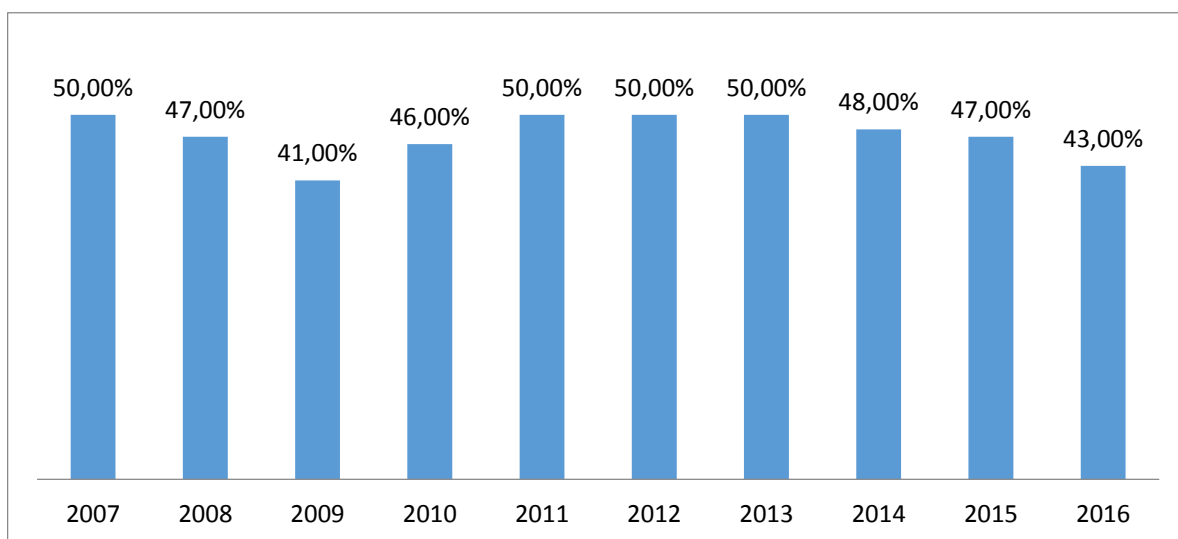
Source: Own figure based on data from vestifinance.ru (2016)

As 48% percent of budget was formed from revenues from energy sector and these resources were sold abroad the rate of ruble in combination with price of oil directly influence the budget receipts. For reaching stable growth both factors should be taken into the consideration, execution of budget and influence of rate of ruble on import and payments for external currency debts.

As revenues from selling oil and gas form significant share of budget Central bank is interested to provide rate of ruble which is approved in the budget.

For 2014 government approved budget with price 93 dollars per barrel and average rate of dollar for 33.4 rubles per dollar. Using this data it is possible to calculate desired price for barrel of oil in rubles.

Table 2: Data for calculating satisfied price of barrel of oil in rubles

budget 2014		
usd per barrel	rate of usd/rub	price of barrel in rubles
93.00	33.40	3106.2

Source: Own table based on data from tass.ru (2016)

By multiplying average expected price of barrel of oil in dollars on average expected rate of USD\RUB there is satisfied average price of barrel of oil in rubles for 2014 year which was adopted in the budget for 2014 year.

Table 3: Price of Ural oil in dollars March 2014 Table4: Rate of USD\RUB for March 2014

date	price	Date	Rate
03.03.2014	110.80	03.03.14	36.18
04.03.2014	109.11	04.03.14	36.38
05.03.2014	107.80	05.03.14	36.32
06.03.2014	108.51	06.03.14	36.08
07.03.2014	108.81	07.03.14	36.13
11.03.2014	108.30	11.03.14	36.26
12.03.2014	108.20	12.03.14	36.4
13.03.2014	106.80	13.03.14	36.49
14.03.2014	108.21	14.03.14	36.46
17.03.2014	106.20	17.03.14	36.64
18.03.2014	106.51	18.03.14	36.65
19.03.2014	105.91	19.03.14	36.45
20.03.2014	106.11	20.03.14	36.21
21.03.2014	107.01	21.03.14	36.11
24.03.2014	106.61	24.03.14	36.4
25.03.2014	106.90	25.03.14	36.17
26.03.2014	106.91	26.03.14	35.93
27.03.2014	107.70	27.03.14	35.45
28.03.2014	108.01	28.03.14	35.58
29.03.2014	108.02	29.03.14	35.69

Source: Own table based on data from ria.ru (2016)

Table 5: Price of barrel of oil in rubles for March 2014

Date	price
03.03.14	4008.74
04.03.14	3969.42
05.03.14	3915.30
06.03.14	3915.04
07.03.14	3931.31
11.03.14	3926.96
12.03.14	3938.48
13.03.14	3897.13
14.03.14	3945.34
17.03.14	3891.17
18.03.14	3903.59
19.03.14	3860.42
20.03.14	3842.24
21.03.14	3864.13
24.03.14	3880.60
25.03.14	3866.57
26.03.14	3841.28
27.03.14	3817.97
28.03.14	3843.00
29.03.14	3855.23

Source: Own tables based on data from cbr.ru (2016)

Collected data represents additional revenues for budget during the March 2014 as desired price of barrel of oil 3106.2 rubles is exceeded by price of barrel of oil per March.

Figure 7: Monthly and average price of barrel of oil in rubles for 2014 year
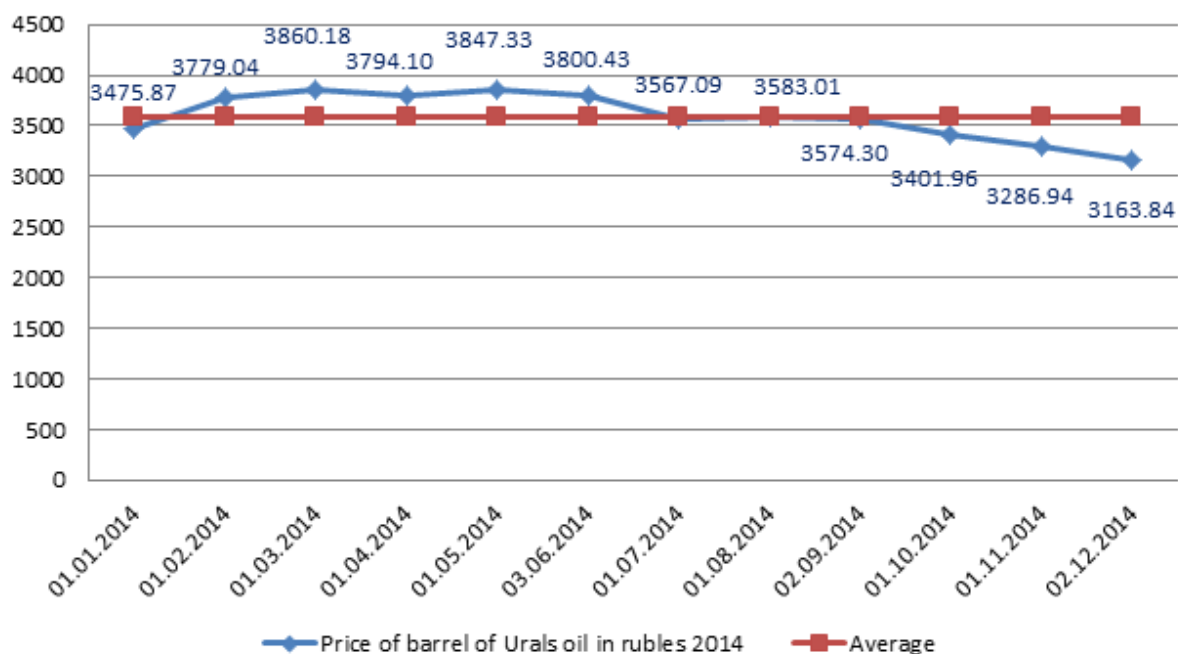
Source: Own figure based on data from cbr.ru and fxcm.com (2016)

The price of oil in rubles was regulated by Central bank as Central bank was involved in the process of interventions for stabilizing the rate of ruble. On figure 7 is shown the average price of oil for year was 3583 rubles. Optimal price of barrel of oil in rubles were reached as desired price at the day of adoption of budget was 3106 rubles per barrel but due to devaluation of ruble payments for external debts increased as well.

Additional revenues for were needed as additional expenses should be covered by these revenues.

Figure 8: Revenues and expenses of federal budget for 2014 year in billions of rubles (the actual and adopted by budget values)
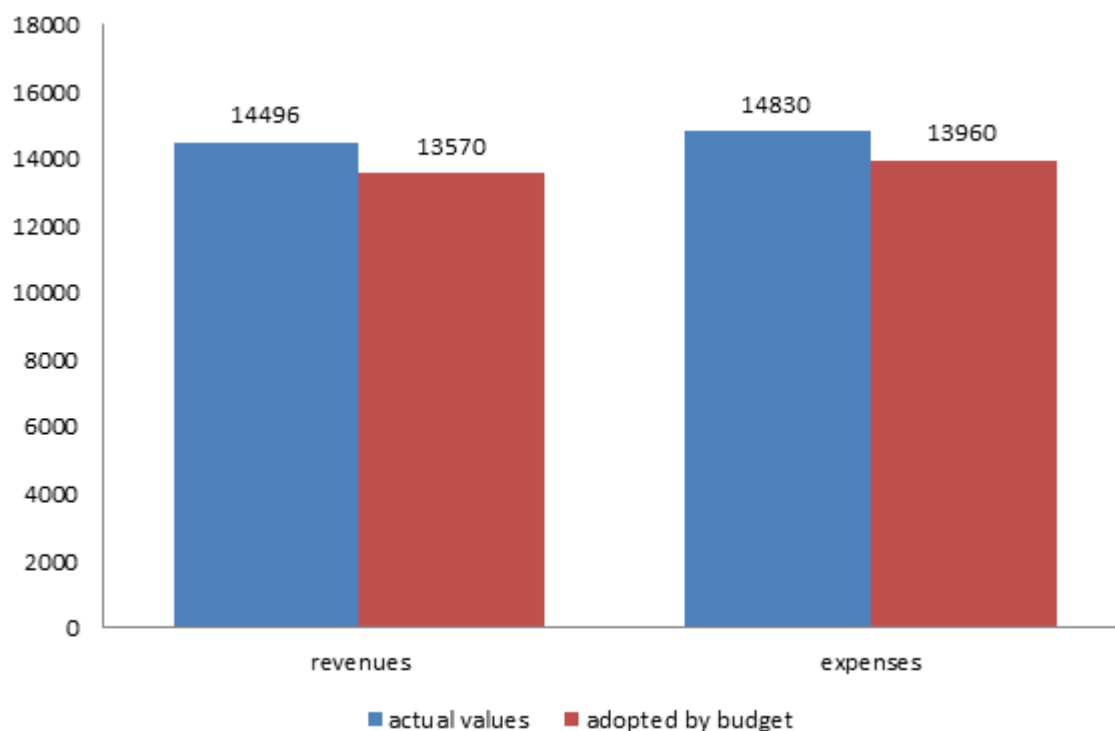
Figure 8 represents the increasing of expenses as the increasing of revenues of federal budget of Russia for 2014 year. During the 2014 Russian decreased external debt on $130 billions, this is the one of most important factors of increasing expenses as external debts are paid in foreign currency and national rate of currency extremely influence the amount of payment in rubles.

As rate of dollar mostly regulated by Central bank, geopolitical situation did not affect significantly the rate of ruble for 2014 but affects the amount of Central bank reserves for the same year.

Downward trend represents stable spending of reserves by Central bank due to interventions for prevention of falling of Russian ruble and for regulating the rate at the desired level. For 2014 year Central bank spent approximately 120 billion dollars on interventions.

Figure 9: Spending of international reserve for interventions by Central bank for 2014 year
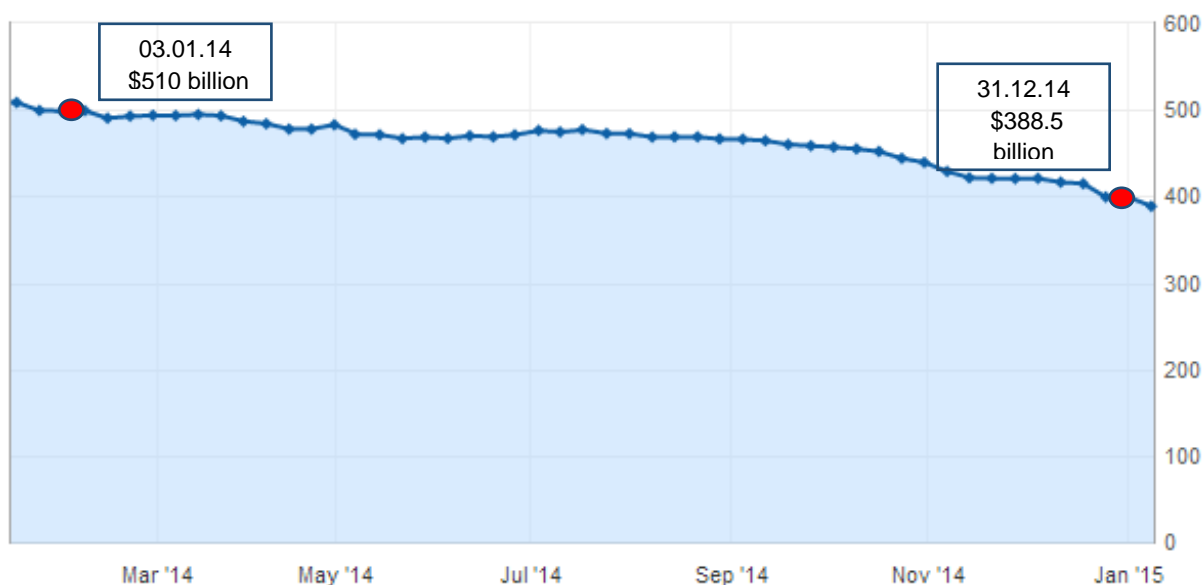
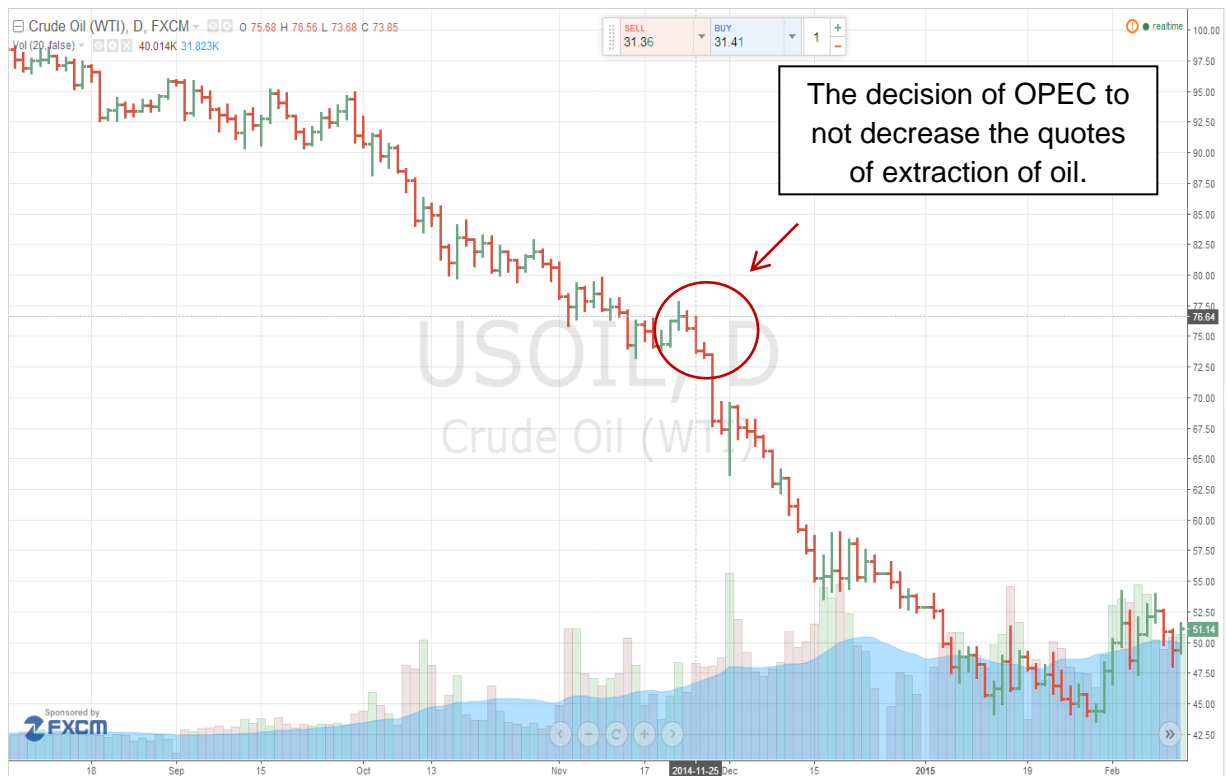Source: Own processing data from ru.investning.com platform (2016)

Due to these interventions rate of ruble did not fall extremely low and the plan of budget was executed. As very weak ruble would harm economy and at the same time revenues should be received to the budget Central bank mostly used intervention tool.

4.3 Analysis of the price of oil

As the rate of ruble depends on the price of oil information from the oil market influences the rate of ruble as well.

As traders and investors follow their investing strategy based on the future expectations and possible risks of traded item, they follow the expectation regarding the price of oil as one of the mechanisms of making decision for investing in ruble.

Figure 10: The price of barrel of oil in USD for September 2014 – February 2015

Source: Own processing data from fxcm.com platform (2016)

From the middle of 2014 price of oil fell down from 107$ per barrel of WTI oil to 52$ dollars per barrel to the end of 2014. The reason was exceeding demand by supply due to slowdown of global economic and increasing of extracting of oil by United States of America. Organization of the Petroleum Exporting Countries (OPEC) extracts 40% of worldwide extraction of oil. Member countries - Algeria, Angola, Ecuador, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia/ United Arab Emirates, and Venezuela make decisions regarding the estimation of quotes for extracting of oil and by this mechanism they are able to regulate the supply of oil what directly affects the price of oil in the market. On 25th of November 2014 these countries had session in Wien for discussing the situation regarding to the decreasing price of oil. Many participants of oil market expected the decreasing of quotes extracting of oil from OPEC to align the level of oil price. As OPEC didn't want to lose share of market the decision was not to change the quotes.

On figure 9 is mentioned the day after the decision was made. Price of oil sharply fell down and continued its falling. As many people expected the decreasing of quotes and expectations were not fulfilled that caused the continued falling of ruble as well.

4.4 Analysis of Actions of Central bank both in fiscal policy and monetary policy

On 10th of November Central bank decided to implement floating rate of ruble regulating by supply and demand. As Central bank spent huge amount of currency on regular interventions since that moment Central bank refused using regular interventions and allowed market to establish the rate ruble.

As spending reserves from Central bank solves problem with rate of currency only temporary in long term run only diversification of economics would remove dependency of rate of ruble to price of oil.

In this case Central bank has one more tool for regulating the rate of ruble. Increasing of key rate would attract foreign currency inflow as having deposit in Russian banks would generate higher revenues. After the decision of OPEC price of oil kept falling and central bank increased the key rate for 17 % next month.

Figure 11: Monthly key rate of Central bank for 2014 year
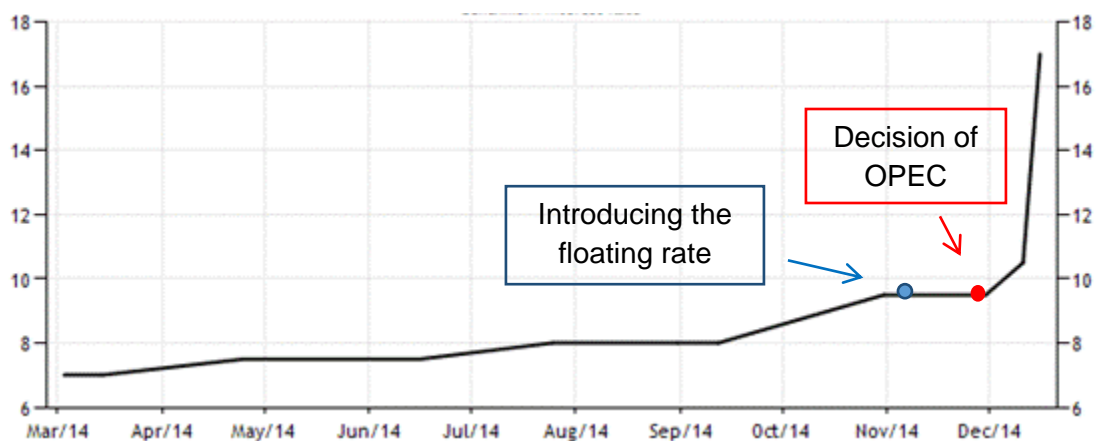
Source: own processing data from tradingeconomics.com (2016)

On the figure 11 are highlighted main events happened before the increasing key interest rate.

As Central bank refused from the regular interventions only one tool of regulating is left. After introducing the floating rate of ruble by Central bank can be followed increasing correlation between rate of ruble and price of oil.

The mechanism of interventions work in the way of selling foreign currency and buying national currency for preventing the falling of national currency. In this case international reserves decreases and rate of national currency increases.

As well there is mechanism of buying foreign currency and selling national currency. In this case international reserves increases and rate of national currency decreases, by this action Central bank supports devaluation of national currency.

Figure 12: International reserves of Central bank for the period from 31th of August 2015 year to 31th of January 2015 year
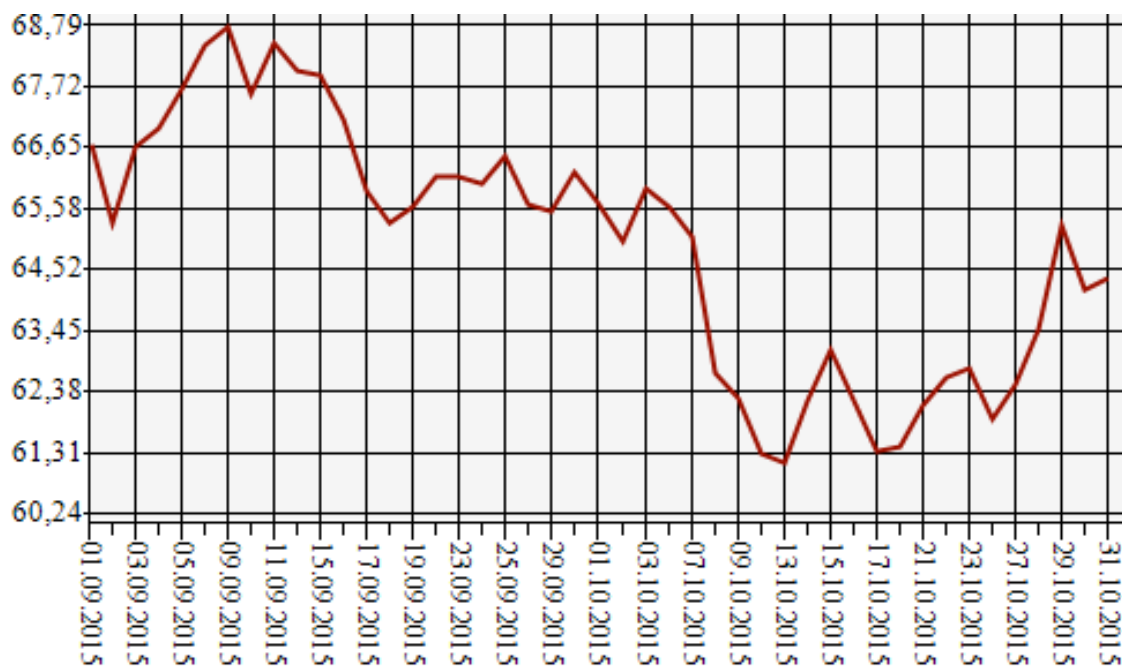
Date	International reserves	foreign exchange reserves
31/01/2016	371,559	320,180
31/12/2015	368,399	319,836
30/11/2015	364,708	317,028
31/10/2015	369,640	319,061
30/09/2015	371,267	322,375
31/08/2015	366,343	318,661

Source: own processing data from cbr.ru platform (2016)

Figure 12 represents increasing of international reserves for September 2015 year from 366,343 billion dollars to 371,267 billion dollars. That means that Central bank used interventions for buying foreign currency and pushing local currency into the market. Due to these actions Central bank supported devaluation of ruble.

Figure 13 represents fluctuation of rate of ruble for September 2015 and by the end of month rate of ruble even appreciated.

Figure 13: Rate of Russian ruble against American dollar for September 2015 year

This appreciation happened in terms of devaluating interventions from Central bank and decreasing price of oil.

On following figure 13 is highlighted September of 2015 when price of oil kept decreasing but the rate of ruble increased to the end of the September even under devaluating interventions of Central bank.

Figure 14: Price of WTI crude oil for the period from May 2015 to March 2016

Source: own processing data from macrotrends.com platform (2016)

As foreign exchange market is speculative and there are other factors affecting the rate of ruble even in main negative conditions rate of ruble is able to appreciate against foreign currencies.

This situation proves that there are other factors influencing the rate of ruble such as psychological aspect of all participants of foreign exchange market which affects the rate of ruble as well.

As the result appreciating of ruble for September of 2015 year in terms of buying interventions of Central bank and decreasing the price of oil.

4.5 Analysis of Correlation with Oil

As Central bank introduced floating exchange rate of ruble on 10th of November 2014 price of oil became the main factor of influence the rate of ruble as the correlation coefficient increased rapidly for 2015 year.

Figure 15: Correlation of ruble and oil for the period 2003-2015 years
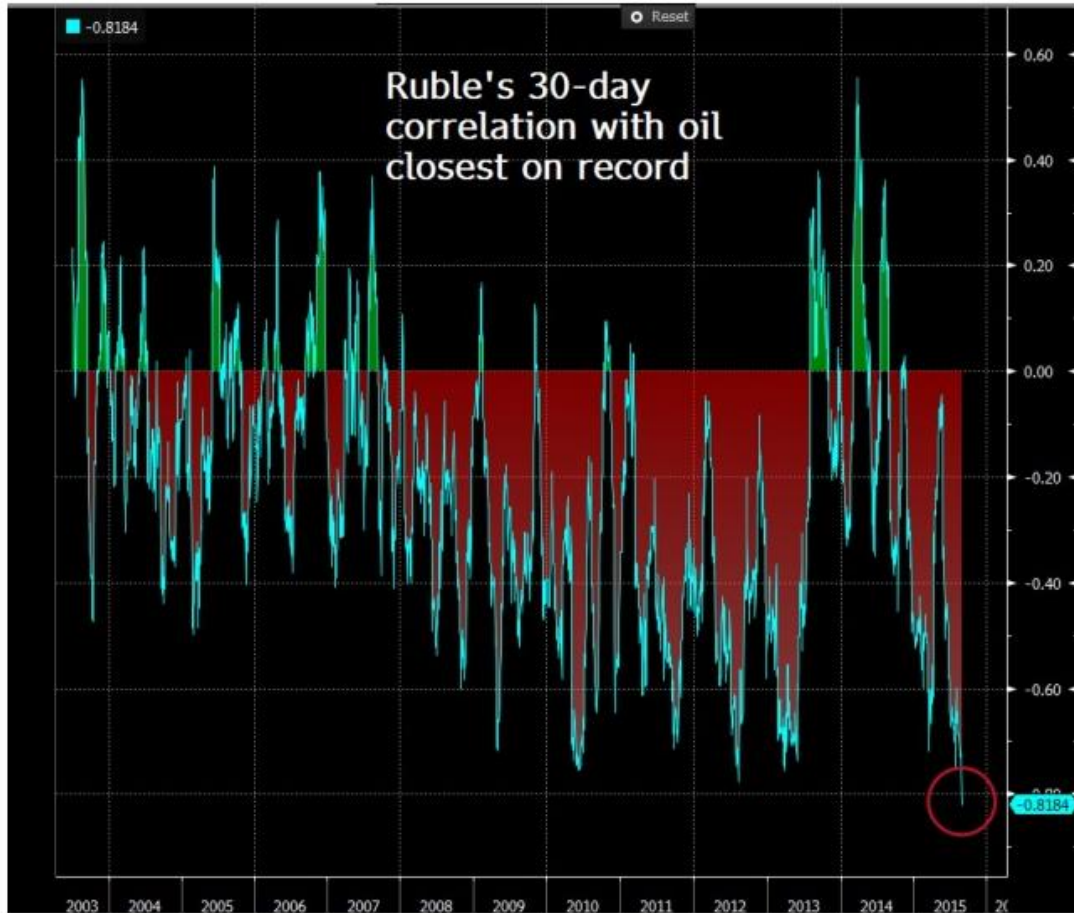
For 2014 year correlation does not have single trend as correlation is changing from negative to positive within the year. The reason that rate of ruble was mostly influenced by interventions from Central bank.

For 2015 year there is downward trend with its historical minimum of -0.8184 of correlation coefficient. There is extra strong negative correlation between the rate of ruble and price of

oil. For 2015price of oil is the main factor of influence on the rate of ruble as correlation of rate of ruble and price of oil reached historical maximum dependency. Russian government try to decrease the dependency of revenues from export of hydrocarbons what is shown on the figure 6 but it still has significant share of Russian federal budget.

As the result of this correlation it could be expected the strengthening of Russian ruble in terms of increasing the price of oil and reverse depreciation of Russian ruble in terms of decreasing the price of oil.

Only reforms in economics are alternative solution except for increasing the price of oil.

4.6 Analysis of Balance of Trade

There are different factors which influence the rate of ruble.

One of the positive factors is balance of trade.

Russian positive balance of trade informs that the whole amount of money received from export exceed the amount of money spent on import what leads to the strengthening of Russian ruble against foreign currencies.

Figure 16: The Russian balance of trade for 2011-2015 years

Source: own processing data from tradingeconomics.com platform (2016)

On the figure 16 is shown balance of trade for 2011-2015 years. As it visible on figure Russia has positive balance of trade for 2014 and 2015 years, that means that inflow of foreign

46

currency is higher than outflow of foreign currencies in terms of foreign trading that causes increasing of Russian ruble. This factor is not significant but it has impact on the rate of Russian national currency as balance of trade one of the main parameters of evaluation of economics.

4.7 Analysis of Capital Flow

One of the negative factors is the capital outflow which is considered for last 8 years on figure 17.People or banks expecting the devaluation of ruble would like to secure currency risk by exchanging national currency to foreign currency. Due to difficult economic situation capital outflow for 2014 reached its maximum for last 15 years in the amount of 158$ billion.
On the figure 17 is shown the capital outflow for last 15 years. Graph is divided into two parts – bank sector and other outflow. As it is visible other sectors take significant share of capital outflow. Only for two years Russia had capital inflow higher than outflow, for years 2006 and 2007 before the world wide crisis. As well figure 17 shows the proportion in the outflow of capital between bank and other sectors.

Figure 17: Outflow of capital from Russian for period 2000-2015 years
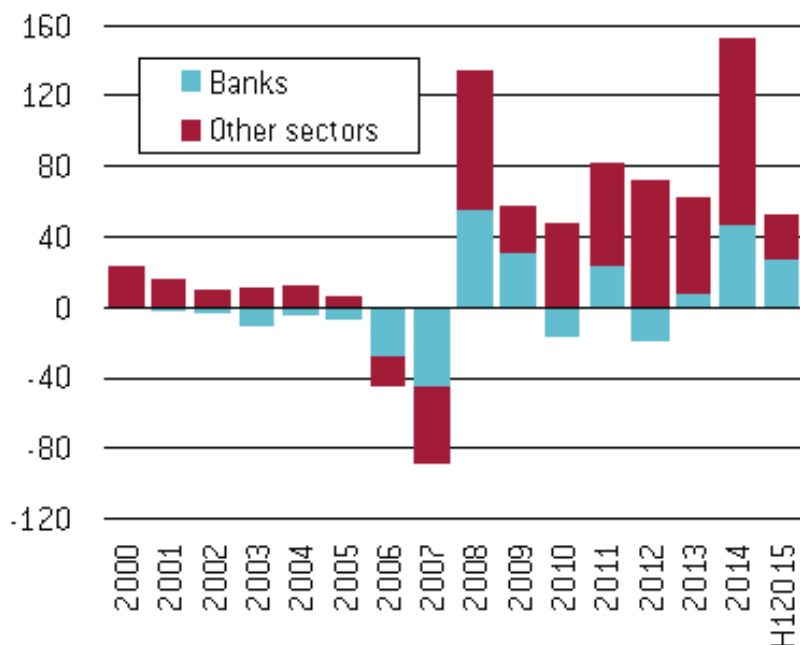
Source: own processing data from tradingeconomics.com platform (2016)

Outflow of capital represents distrust of ruble holders to the future situation and as results they are trying to save their capital exchanging Russian currency to foreign. As supply of Russian currency increases the rate of ruble decreases. 2014 year was the most difficult year in terms of capital outflow as the maximum capital outflow of capital reached this year and as the result the fall of ruble.

5. Conclusion.

During the period 2014-2015 years Russian economics faced many challenges related to geopolitical situation, worldwide economic situation especially in term of the decreasing of price of oil. Due to tense geopolitical situation and risks which could be caused by possible military conflict in Ukrainian region Central bank had to spendhuge amounts of money for selling foreign currency during the interventions for stabilizationthe rate of Russian ruble for first part of evaluation period from 1st of January 2014 to 10thof November 2014.In this period the rate of ruble was totally regulated by interventions of Russian Central bank and due to these actions international reserves decreased on 120 billion dollars. During this period correlation of rate of ruble and price of oil was indefinite as it is shown on figure 15, changing from positive to negative during the year. Geopolitical situation during 2014 year influenced only the amount of money used for interventions as ruble was totally supported by Central bank.

Implementation floating exchange rate of ruble on 10th of November 2014 year by Central bank changed the vector of influence on rate of ruble. Since that moment price of oil had the greatest impact on the rate of ruble as correlation coefficient of rate of ruble and price of oil reached -0.8184 at the end of 2015 year.

For second part of evaluating period Central bank did not use regular interventions for stabilizing ruble and even at some moments supported devaluation of ruble. As the example is taken August of 2015 when price of oil kept falling but the international reserves increased for this month from 366.343 billion dollars to 371.267 billion dollars at the beginning of September 2015. Rate of ruble depreciated as well for this moment from 59.48 rubles per dollar at the beginning of August 2015 to 66.52 rubles per dollar to the end of August. Summarizingresults which were caused by different factors at this moment price of oil and actions of Central bank have the greatest impact on the rate of ruble. As well political decisions could change the situation as the behavior of most traders and investors are based on the future expectations. In this case diversification of economics would decrease the addiction

of Russia from export of hydrocarbons such as natural gas and crude oil. This diversification in long term run would stabilize the rate of ruble as ruble would not be dependent so strong on the price of oil and other factors would increase their weight in terms of influence on rate of Russian ruble.One of examples of this influence is represented on figures 11, 12 and 13 where the rate of rubble for September 2015 strengthened in unfavorable conditions of devaluating interventions of Central bank and decreasing the price of oil. Diversifying of economics would increase the weight of other factors as price of oil would not have strong affect as it has now.

6. References

LITERATURE

AUDZEI, Volha. Efficiency of central bank policy during the crisis: role of expectations in reinforcing hoarding behavior. Prague: CERGE-EI, 2012, 44 s. Working paper series (CERGE-EI). ISBN 978-80-7343-281-2.

BURGESS, Gareth. Trading and investing in the Forex market using chart techniques. Hoboken: Wiley, 2009, xiii, 211 p.

CANALES-KRILJENKO, Jorge Iván. Foreign exchange market organization in selected developing and transition economies: evidence from a survey. Washington, D.C.: International Monetary Fund, 2004, 46 p. IMF working paper, WP/04/4.

Commercial banking and the role of the Central Bank. Praha: Bankovní institut, 1998, 171 s. ISBN 80-7265-003-3.

DERVIZ, Alexis. FOREX microstructure, invisible price determinants, and the central bank´s understanding of exchange rate formation. Praha: Czech National Bank, 2003, 42 s. Working papers. ISBN 80-239-1530-4.

HORVÁTH, Roman. Exchange rate variability, pressures and optimum currency area criteria: lessons for the central and eastern European countries. Praha: Czech National Bank, 2005, 26 s. Working paper series (Česká národní banka). ISBN 80-239-7033-x.

LIDDELL, ROBERT W., AND WILLIAM LITT. National Currency: An Analysis with Values. Port Clinton, OH: BNR, 2004. Print.

SETHER, LAURA. Technical Analysis. Cedar Falls, IA: W&A Pub., 2007. Print.

THOMSETT, MICHAEL C. Fundamental Analysis. Hoboken, NJ: J. Wiley and Sons, 2006. Print.

ONLINE SOURCES

International Reserves of the Russian Federation. (n.d.). Retrieved January 16, 2016, from http://www.cbr.ru/eng/hd_base/default.aspx?Prtid=mrrf_m

The Role of Central Bank | OANDA. (n.d.). Retrieved January 15, 2016, from http://fxtrade.oanda.com/learn/intro-to-currency-trading/fundamental-analysis/central-bank

International Reserves of the Russian Federation. (n.d.). Retrieved January 28, 2016, from http://www.cbr.ru/eng/hd_base/default.aspx?Prtid=mrrf_m

International Reserves of Central bank Russian Federation (USD). (n.d.). Retrieved January 27, 2016, from http://ru.investing.com/economic-calendar/russian-central-bank-reserves-(usd)-969

The Impact Of Currency Conversions | Investopedia. (2007). Retrieved January 22, 2016, from http://www.investopedia.com/articles/basics/07/currencies.asp#ixzz3ovT47s1h

Correlation of Ruble Reached Historical Record (2015). Retrieved February 05, 2016, from http://ktovkurse.com/valyuty/korrelyatsiya-nefti-i-rublya-dostigla-istoricheskogo-rekorda

Crude Oil Price History Chart | MacroTrends. (n.d.). Retrieved February 15, 2016, from http://www.macrotrends.net/1369/crude-oil-price-history-chart

Нефтегазовая подушка безопасности. Минфин подсчитал дополнительные доходы федерального бюджета в этом году. (n.d.). Retrieved February 15, 2016, from http://www.newizv.ru/economics/2014-05-21/201883-neftegazovaja-podushka-bezopasnosti.html

Сбили с курса: как война, санкции, нефть и ЦБ уронили рубль. (n.d.). Retrieved February 10, 2016, from http://rbc.ru/economics/09/02/2015/54d7cccf9a79471f9f83f9dd

Внешний долг России в 2014 году сократился почти на 18%. (n.d.). Retrieved February 19, 2016, from http://www.rbc.ru/rbcfreenews/54be0cee9a794722290af064

Путин подписал закон о федеральном бюджете на 2014-2016 годы. (2013). Retrieved February 17, 2016, from http://ria.ru/economy/20131202/981334802.html

ОПЕК сохранила квоты, обрушив цены на нефть и курс рубля. (2014). Retrieved February 18, 2016, from http://ria.ru/economy/20141127/1035511336.html

Путин одобрил федеральный бюджет на 2014-2016 годы. (n.d.). Retrieved February 20, 2016, from http://tass.ru/ekonomika/805352

Oil Prices. (n.d.). Retrieved February 5, 2016, from http://www.topoilnews.com/