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**MONETARY POLICY AND THE ROUTE
TO DE-DOLLARIZATION IN POST CRISIS RUSSIA**

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ABSTRACT

MONETARY POLICY AND THE ROUTE TO DE-DOLLARIZATION IN POST CRISIS RUSSIA

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De-dollarization is a new age concept comparing to dollarization, became popular as the result of crises, originating from dollarization and also dollarization hysteresis. Comparing to dollarization; there is limited resources on de-dollarization and none of them adopted a supplementary approach which gives theoretical approach and exemplifies this case in the same study.

Aiming to adopt a supplementary approach; this study makes a theoretical clarification to de-dollarization and exemplifies this theoretical concept with Russian economy taking the political background, global crises, and macroeconomic trends into account. The claims are supported with figures and tables, quoted directly from other studies, or obtained from official datasets. Besides, a special graphical analysis for Russian de-dollarization policy is given from 2013 January to 2019 December. According to this graphical analysis, interpretations related to Russian Federation economy are stated and suggestions are given for further studies researching Russian Federation de-dollarization policy

Keywords: De-dollarization, Dollarization, Monetary Policy, International Monetary Systems, Exchange Rate Regimes, Russian Federation

ÖZ

KRİZ SONRASI RUSYA'DA PARA POLİTİKASI VE DE-DOLARİZASYON SÜRECİNE YÖNELİM

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Dolarizasyona kıyasla daha yeni bir kavram olan de-dolarizasyon hem dolarizasyon, hem de dolarizasyon histerezisinden kaynaklı krizler sonucunda popüler hale gelmiştir. Dolarizasyon ile karşılaştırıldığında; bu konudaki kaynaklar sınırlı sayıda olup, hiçbiri teorik açıklama ile örneklemeyi aynı anda içeren bütüncü bir yaklaşım benimsememiştir.

Tamamlayıcı bir yaklaşım benimsemeyi hedefleyen bu çalışma; de-dolarizasyona teorik bir açıklık getirmekte ve bu teorik kavramı, siyasi arka plan, küresel krizler ve makroekonomik eğilimleri dikkate alarak Rus ekonomisi ile örneklendirmektedir. Çıkarılan sonuçlar, doğrudan diğer çalışmalardan alıntılanan veya resmi veri tabanlarından elde edilen grafik ve tablolarla desteklenmiştir. Bunun yanında, Rusya'nın de-dolarizasyon politikasını incelemek için 2013 Ocak-2019 Aralık zaman aralığı için özel bir grafik analizi yapılmıştır. Söz konusu grafik analizinin sonuçlarına dayanarak Rusya ekonomisi için yorumlamalara yer verilmiş ve Rusya'nın dolardan arınma politikası hakkında ileride yapılacak olan çalışmalar için önerilerde bulunulmuştur.

Anahtar Kelimeler: De-dolarizasyon, Dolarizasyon, Para Politikası, Uluslararası Para Sistemleri, Döviz Kuru Rejimleri, Rusya Federasyonu

Dedicated to my grandparents...



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Ege Uyar
Izmir, 2021

TEXT OF OATH

I declare and honestly confirm that my study, titled “Monetary Policy and The Route to De-Dollarization In Post Crisis Russia” and presented as a Master’s Thesis, has been written without applying to any assistance inconsistent with scientific ethics and traditions. I declare, to the best of my knowledge and belief, that all content and ideas drawn directly or indirectly from external sources are indicated in the text and listed in the list of references.

Ege Uyar

September 2021



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ABBREVIATIONS

ADB	Asian Development Bank
BRIC	A grouping acronym of member countries
BBC	The British Broadcasting Corporation
BIS	Bank for International Settlements
CBR	Central Bank of Russia
CCB	Cambodian Commercial Bank
CCFF	Compensatory and Contingency Financing Facility
DCD	Domestic Currency Denominated
DOI MOI	Vietnamese Reforms
ECB	European Central Bank
ECU	European Currency Unit
EEC	European Economic Commission
EMCF	European Monetary Cooperation Fund
EFF	Extended Fund Facility
EMS	European Monetary System
EMU	European Monetary Union
EPU	European Payments Union
ESCB	European System of Central Banks
FCD	Foreign Currency Deposit
FDI	Foreign Direct Investment
FED	Federal Reserve Bank
FX	Foreign Exchange
G7	Group of Seven
GAB	General Arrangements to Borrow



GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GKO	Russian government Bonds
GNP	Gross National Product
ICU	International Clearing Union
IMF	International Monetary Fund
MIACR	Russian Interbank Rate
MOEX	Moscow Exchange
NATO	North Atlantic Treaty Organization
NBC	National Bank of Cambodia
OCA	Optimum Currency Area
OECD	Organization for Economic Co-operation and Development
OEEC	Organization for European Economic Co-operation
OFAC	Office of Financial Assets Control
OPEC	The Organization of the Petroleum Exporting Countries
PMI	Purchasing Managers' Index
SBV	State Bank of Vietnam
SDG	Sustainable Development Goal
SDR	Special Drawing Right
SME	Small and Medium-Sized Enterprises
SPFS	System for Transfer of Financial Messages
STF	Systemic Transformation Facility
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UK	United Kingdom
UNTAC	United Nations Transnational Authority
US	United States



USD	US Dollar
USSR	Union of Soviet Socialist Republics
VAT	Value Added Tax
VND	Vietnamese Dong
WTO	World Trade Organization



CHAPTER 1

INTRODUCTION

Dollarization becomes one of the key issues after the year 1970, the decade of inflation in the United States; when the country experienced double-digit inflation, caused the end of the Bretton Woods period, made other countries change their monetary system from Bretton Woods principles to “snake” and obligated Federal Reserve to increase its official USD reserve to cope with inflation in terms of Nixon Shock. The world writes off this period's losses in the 1980s and the crisis in developing countries ended with an increasing share of dollarization, which made dollarization important and debatable.

Mishkin (2004) defined money as “anything that is generally accepted in payment for goods or services or the repayment of debts”. The functions of money are identified by Goodhart (1977) as being a medium of exchange, the unit of account, and the store of value. Medium of exchange can be used as a “means of payment” while this function refers to the solution of exchange problems even under uncertain conditions. The money is not used only in trade, which refers to other two functions: if an individual prefers to make saving or consumption “store of value” function is in question and if calculation of revenue, cost, or profit is in question the money is used as “unit of account”. Hoppe (1994) distinguishes money in terms of “fiat money” and “commodity money”. According to Hoppe (1994), commodity money is a medium of exchange which is either a commercial commodity”, on the other hand, fiat money is “the term for medium exchange which is neither a commercial commodity, a consumer, nor a producer good, nor title to any such commodity” which is known as “currency” in modern economics. In practical means, the operability of these functions depends on other macroeconomic conditions such as inflation of the country in question.

The history of money starts with commodity money, the well-known example is the gold standard which evolved to fiat money with Bretton Woods, known as the start point of dollarization which led to an increase in USD’s dominance in world

economics in the 1970s with 70 to 80% share taking central banks' reserve into account. Euroization interrupted this dominance and decreased dollarization's share in the global economy to 60 percent. While the share of USD is more than 50 percent even after the European Monetary system, dollarization is still debatable as the result of its influence on the world economy taking central banks' obligations to hold USD and gold into account (Farrel & Lund, 2000).

The strength of dollarization resulted in adverse effects by some governments including Russia, which is known as "dollarization hysteresis". "Dollarization hysteresis" refers to a decrease in demand for domestic currency as the result of confidence loss or economic instability which generally progresses in a high-level dollarized country in a short time. The end of the Soviet Union finished limitations related to foreign currency holdings, which led to volatility in inflation and depreciation in the exchange rate and necessitated precautions related to high-level dollarization and created "dollarization hysteresis" in Russia. These precautions are known as "de-dollarization policy" for Russia, which was firstly mentioned in 2003, however monetary policies related to de-dollarization policy started in 2013 with the application of regulations related to de-dollarization.

Russia is not the first or the only country, who applied de-dollarization. Several examples applied this policy, but Russia is special among these countries through its effect on the world economy taking its historical background and natural resources into account. That is why Russia is particularly chosen as the model country for the de-dollarization process unheeding limited resources related to the Russian economy as the result of its communist background into account which sustains also informally taking Russian datasets and policy statements into account which are not as clear as liberal countries.

This study aims to clarify the theoretical background of de-dollarization policy, besides make an interpretation of Russian de-dollarization policy taking the political background of the country into account while countries' economies are intercorrelated with its political agenda. Different than many studies in economy, the political structure is not omitted, explained in detail before the interpretations related to de-dollarization policy.

CHAPTER 2

INTERNATIONAL MONETARY REGIMES

This chapter provides the theoretical background for dollarization and de-dollarization concepts. “International monetary systems” is explained aiming to take a historical overview to international monetary regimes and “Gold standard” era is explained in detail due to its importance on de-dollarization. Currency and asset substitution are mentioned theoretically while it is used in dollarization and de-dollarization’s theoretical base. Exchange rate regimes are preferred to handle in detail while analysis for a country or group of countries cannot be carried out without its ongoing exchange rate regime. On the other hand, an economic process or an economic geography model cannot be explained without its exchange rate regime. Lastly, economic cycles theory is explained due to its important role in de-dollarization.

2.1. INTERNATIONAL MONETARY SYSTEMS

Nineteenth-century can be accepted as the breakeven point for monetary models; because before this period; foreign currencies are not used constantly in local markets, the “exchange rate” concept was not widely known and standardized, also official currencies were not homogenous. The formation of territorial currencies was completed around 1914 excluding colonized countries. Before the second world war, the consolidation of monetary unions especially in Europe has always been interpreted as a threat to territorial currencies. This system is accompanied by free banking which rejects the impartial central banking system in the union. In the interwar period, weak currencies faced with the reality of economic weakness in terms of currency substitution. Between the nineteenth and twentieth centuries, territorial currencies faced a new challenge: hegemonic powers implemented usage of their currencies and they have described this pressure as “territorializing”. This effort is described as the start point of “monetary unions” in history, which submitted

different colonial countries together. The end of second world war ended this system while new independent countries created their monetary structure (Helleiner, 2003).

Mundell is the first economist, who defined Optimum Currency Area (OCA). According to Mundell (1961); OCA is the currency area the cost of accepting a foreign currency becomes more attractive to countries comparing to single currency adaptation or fixed exchange rate regime (Mundell, 1961). On the other hand, Helleiner described the OCA theory which minimizes costs of creation of a monetary union and is beneficial for all sides. In history, countries preferred to make alliances in economic terms with the countries having political ties and disregarding Helleiner's "geography of money". Under these circumstances, OCA theory has only "relatively predictive power" as Charles Goodhart stated (Helleiner, 2003).

Calvo responded to Helleiner's "OCA" concept while it omits special conditions of emerging markets and theory differs from the reality especially in Latin American countries responding to dollarization and external factors such as government intervention. According to him, emerging markets omit the large share of exchange rates in their economy and favors de-dollarization in terms of the detention of foreign exchange usage in governmental and trade issues (Calvo, 2002).

The literature gives governments great responsibility in terms of gold standards rather than markets or individuals, while it does not affect the market conditions and limits state monetary policies comparing to other regimes. The gold standard is evaluated always hard to define, because of the mechanism's difference in the international area and national area. Traditionally, this system is stated as a set of norms to model international transactions; aiming to unite different monetary systems. The historical period shows that monetary adjustment is the result of the gold standard; in other words, it is the beginning of the current system (Knafo, 2003).

2.1.1. Gold Standard

The Gold Standard system is known as the first international monetary system in an economy. The monetary system was conducted in two different ways until the establishment of Bretton woods; both were based on the Gold standardization system. Until the 19th century, there was a metallic standard that evolved to the gold standard and existed in two different systems (Astrow, 2012). Historically, the gold standard

was adopted firstly in England while French people were using silver in the 17th century. In these years, pure metallic standards were used in different countries which value their coins by the weight of the metal at market prices until the development of the banking sector and institutions. The world economy experienced metallist reforms between the 17th and 19th centuries; the world population needed commodity money, supply and demand conditions were determined by world trade. Adaptation of pure metallic standards was sabotaging states' legitimacy in the economy. Newton defined the exchange rate of the pound to gold in the 18th century in England, silver was a subsidy comparing to Gold in this country, in other words, England is the first country to go on the Gold Standard (Cecco, 1991).

The classical Gold standard started in England, continued in France, and expanded to World in time. The common mistake of the gold standard is the hypothesis of currency absence. Countries were using their currencies in the domestic economy, which can be convertible to gold with a fixed rate. Central banks were selling and purchasing gold at this fixed price. Individuals could also export or import gold to other countries in terms of free movement of capital and individual's principle which was restricting countries' monetary policy while capital outflow was "free" even in an inflated economy. The gold standard was applied in two different ways in history: the classical gold standard and the gold exchange standard (Knauf, 2003).

The Classical Gold Standard was theoretically based on a neutral and automatic system, which does not permit political intervention. David Hume's "price-specie flow mechanism" is used in this period, which illustrates how trade imbalances can be solved without political intervention under the political standard. As Allen defined (1991); "The 'specie-flow mechanism' is an analytic version of automatic, or market, adjustment of the balance of international payments." According to this mechanism, competitive markets will find equilibrium in the international accounts, at the zero-trade balance automatically. Theoretically, if a country's money stock decreases, it results in a fall in the price level, which will affect other countries taking the free movement of capital principle into account. Low-priced products will be exported more comparing to other countries same product and the system come to equilibrium in time and the necessary gold stock will be found which is consistent with Ricardian production theory takes comparative

advantage into account. The equilibrium situation defines a zero-trade balance for gold stock and price levels. This theory is criticized heavily while it does not take demand and supply indicators into account, it assumes that every commodity is always necessary for every country; on the other hand, it does not take the cost of import and export for the countries into account (Allen, 1991).

While the classical gold standard system gives central banks a neutral position, they were not. Central banks always protected their benefits, tried not to throw their reserves away. They were more active in periods of gold outflow; using extra reserves of gold or other devices to reduce the money supply to the domestic market (Knauf, 2003). The classical Gold Standard era's most important success was the open international economic system which was named as the first age of globalization while the movement of capital and goods was relatively free, and the movement of human capital was better. Except for Persia and China, successful countries' economics were interconnected by the gold standard (Frieden, 2017).

Two acute economic depressions were experienced in this process on the world in the 1890s as the "Baring Crisis" and the "Great Depression" in the 1930s. The classical Gold Standard was subject to the discipline between 1870 and 1914; and Gold Exchange Standard between 1919 and 1939, was named the interwar period (Astrow, 2012). World War I's damages were not purely solved in the Versailles conference (1919). In ten years, economic depression in world economics started; including a collapse in international trade, finance, and investment and stabilization in countries' economic growth data which led to the Great Depression. In other words, the second world war's basic reason is the first world war and its insufficient solution process (Frieden, 2017). The gold exchange standard started in 1925 and became common in two years in other countries. Genoa conference's (1922) most important result is this system while new precautions were taken for gold shortage possibility and foreign exchanges became an instrument of international reserve (Bordo, 1993).

The Gold Exchange Standard is far more different than the classical standard, takes the possibility of a country's declining reserves and usefulness of "specie-flow mechanism" into account; solves all these problems with a gold standard without a gold currency. Gold was avoided in local circulation; prices were labeled in gold and can be paid with silver currency under a fixed ratio. If the current value of the coins,

face value, is greater than market value; the state was responsible with preserve it even with rarefication. The parity was determined by currency demand and supply equilibrium or disequilibrium, rather than direct gold calculation. Even coins or silver were in usage in the market, every country and bank had a gold reserve, which was used in foreign trade. Laughlin (1927) evaluates the “gold-exchange standard” as a system to produce a “quasi-gold standard” where consumers choose to buy goods to make savings or investments. The gold exchange standard was consisting of five main principles: Firstly; if the face value of the coin falls, the monetary authority is responsible for competing with the seignorage problem. Secondly; countries are not free to release coins according to their decisions, exchange rates are in question. Thirdly, only a limited quantity of golds are in circulation because of coins’ validity in the domestic market. Fourthly; the coinage system has a limited legal tender power except for specific cases, and lastly; it’s always possible to exchange coins with gold.

The number of coins was determined as the result of demand and supply in the domestic market in this system and its value relies upon the quantity of the coin in circulation, coherent with quantity theory (Laughlin, 1927). Quantity theory concentrates on the difference between money’s nominal quantity and real quantity. The nominal quantity of money is the formal expression of the money in a unit, in a currency. On the other hand, the real quantity of the same money concentrates on this money’s purchasing power. This theory advocates that the real quantity of the money must be equal or greater to its nominal quantity to evaluate this money as a “strong parity”. According to the traditional quantity theory, prices are proportional to the nominal quantity of money; nominal stock of money determines equilibrium price level (Friedman, 2010). Quantity theory omits cause and effect logic, while money’s value does not change according to its quantity only; many different elements determine its level. Lastly, the gold exchange standard is designated to solve the absence of gold problems by the existence of foreign gold reserves in exchange with other precious metals. Gold reserves can be sold in specific cases, such as India did to win its redemption; however, it is an instrument for international trade (Laughlin, 1927).

2.1.2. Bretton Woods System (1944-1971)

The Gold Exchange Standard ended in England with the suspension of the convertibility system in 1931 and all around the world in 1939 with the end of the interwar period. The historical regimes until Bretton Woods do not represent a clear example of fixed or floating exchange rate regimes. The interwar period is a mix of three exchange rate regimes, floating exchange rate regimes between 1919 to 1925, the gold exchange rate standard until 1931, and managed float exchange rate regime until 1939 (Bordo, 1993). The pre-WWI international system succeeded in two points: firstly, financial centers' cooperation of the important monetary authorities avoided the spread of economic crisis for a long time. Secondly, this economic cooperation ensured the principal countries' political balance. In the interwar period (1919-39); policymakers in economics tried to ensure an ongoing system without intervention, in other words, a self-regulating world economic model or liberal economic system was favored even in the important studies written in these years by the international economic institutions. However, this period is the start point of major financial centers' international cooperation's dispersal such as France and Germany conflict or the United States' desire to act separately from other countries (Frieden, 2017).

These economic inabilities in the economic order led to the collapse of cooperation which tried to be rebuilt by different countries at different times. Even none of these efforts were successful; the world understood the necessity for a stable international economic order. These conditions led countries to establish a new order. All the countries agreed on the positive facts of the classical economic period: development in trade and investment. However gold standard was no longer applicable in the international system, such an open system is controversial with national social-policy goals and the world was tired of interstate disputes related to international investment (Frieden, 2017). The next step is Bretton woods as an international monetary system; the result of Keynes and White's long-run study to solve three problems of the previous system, adjustment, liquidity, and confidence, however, the confidence problem could not be solved with the Bretton Woods system. That is why, the world needed a new economic order after a quarter-century (Bordo, 1993).

The adjustment problem of the Gold exchange standard was countries' general economic policy which does not care about the rules and the asymmetric information between countries that experience deficit and surplus at the same time which results in deflation. The United States and France were countries that experienced deficit and absorbed its gold reserved in time; on the other hand, England was taking advantage of these times, started sterilization which led to gold import from other countries. Liquidity problem was the result of adjustment problem; while countries were monetizing taking their gold reserves into account, resulted with key currency reserve expenses and fear of convertibility crisis in an absence of key currency or gold reserve. The last and unsolved confidence problem was the conflict of key currencies and gold reserves in the international system. It was the result of key centers' fear of inability to convert their liabilities to their currency and a possible repayment crisis under these circumstances. The Bretton Woods regime is not a simply fixed exchange rate regime; while the pre-convertibility period is closer to the adjustable peg regime, but the convertible period is an example of a fixed dollar standard (Ikenberry, 1993).

The interwar period made the US the richest country in the world, which made them the creditor nation in the new economic order and decreased Britain's popularity. As Igwe stated (2018); the US was the major creditor nation of the world; with more than 10 billion USD in 1919. The majority of these debts were given to Britain, France, and Italy; in other words, the US became the major creditor nation in these years for currency stabilization; that's why the US government resisted the establishment of international economic institutions. American policy for repayment resistance created international instability in the 1920s and 1930s and resulted in the great depression (Igwe, 2018). The new order did not emerge in a second; there is a 5-year gap between the Gold Exchange Standard's end and the start of the Bretton Woods system. The Atlantic Charter (1941) and the Mutual Aid Agreement (1942) were evaluated as a consensus between the USA and Britain which led to Bretton Woods Settlement while the British government accepted to pay its debts in a multilateral system which makes each exchange rate convertible and the US forecasted to sustain full employment, to be the creditor nation and recover the postwar crises. As a result, the Bretton woods conference aimed to solve interwar period mistakes and the new monetary constitution was aiming to create new

exchange rate order, increase employment, and economic cooperation between countries which will end the former monetary system's problems (Bordo, 1993).

Keynes' British delegation and White's American delegation had different plans for the new economic order which were named Keynes and White plans and published in 1943, before the Bretton Woods settlement. The Keynes plan was providing the new world order to increase world trade capability, increase world liquidity and protect the domestic economy from foreign problems in terms of Supernational Bank's and International Clearing Union's establishment and create new international money called as bancor which will be fixed to gold. There would be a permanent capital control system to protect countries from speculative attacks. The White Plan is far more different, dwells on exchange rate stability, and forecasts less liquidity in the international monetary system with United Nations Stabilization Fund, countries would draw resources in terms of this institution in a case of liquidity problem. Each member had to declare the par value of its currency in terms of USD and debtor countries would experience fewer difficulties (Ikenberry, 1993).

The compromise of these two plans is the Joint Statement by the International Monetary Fund, evaluated as the working draft of Bretton Woods and consists of IMF Articles. This joint statement created a system without ICU, bancor, and generous liquidity to countries and made countries freer in exchange rate policies. The articles of the Bretton Woods agreement were affected by both plans but dominated by US concerns. The definition and the structure of the Par value system, the Fund's powers, its organization, its use of resources, and lastly multilateral payments were the main points of the Articles (Igwe, 2018).

The par value system was the standardization of exchange rates in the new international monetary system in gold or USD. Member countries preferred to declare their par value for their benefits while parities were changing hardly in Bretton Woods' early days; IMF was confirming the change if the parity changed more than 10% and rejecting the changes if its less than 10%. Uniform changes in par values were required the majority of country votes and every country must be affected by more than 10%. The Fund was the institution of White's plan and its power was limited for the domestic system, but its influence was more effective on the international politics while the authority to approve parities for international trade balance and access to credit opportunities became easier. On the other hand, the Fund

was responsible for cooperation between different national and international monetary authorities. The Board of governors was appointed by member states who are responsible for critical decisions. Other operations were driven by the executive directors, but important changes necessitate the country's vote. Its resources are contributed by member countries and can be raised every five years if the majority votes for it. The usage and repurchasing procedures were strict. The Fund has the power to urge its members to be more cautious in a case of inefficiency. Multilateral payments were also organized to finish the dominance of specific currencies and ease the countries' payments (Bordo, 1993).

Neither Keynes nor White defined the working process of the Bretton woods system. The next writers clarified procedures. Each country was responsible for its exchange rate's par value. The United States was pegging its currency to gold and other countries were fixing their exchange rate to USD. In the case of a payment deficit, countries could draw resources to finance their liabilities. On the contrary, if there is a surplus in the economy countries could build up their reserves from the fund to balance their economy. Capital controls were aiming to stabilize speculation possibility (Bordo, 1993). The International Monetary Fund (IMF) and World Bank (WB) were planned as two major pillars of the new financial system as the result of the United Nation Monetary and Financial Conference in 1944 with the participation of 44 countries. The IMF charter was written as the post-war constitution of monetary policy, composed the base of the Bretton Woods System (Igwe, 2018).

The Bretton Woods period was analyzed in 3 periods: firstly, the pre-convertibility Period between 1946 and 1958, secondly the Heyday of Bretton Woods between 1959 and 1967, and lastly the Collapse of Bretton Woods between 1967 to 1972. The pre-convertibility period is the result of countries' adoption problem of full convertibility until 1958. Bilateralism due to members' insistence sustained in the ongoing system and absence of trust to new countries was in question in this period. Besides dollar shortage due to experienced depletion of gold reserves in European countries provoked the situation. European Payments Union (EPU) was established by Organization for European Economic Co-operation (OEEC) countries as a clearinghouse for member states. The clearing unit was USD, gold, or credit and EPU's working capital was founded by the United States to finish this crisis; its

operability lasted for five years, ended with countries' convertibility declarations in 1958 (Bordo, 1993).

The Heyday of Bretton Woods last for eight years starts with the establishment of current account convertibility. Problems due to adjustment hardened this period, while Bretton Woods could not resolve deficit and surplus countries' balance and US economic performance was far better than other countries according to indicators. US' balance of payments was giving deficit which created a perception to be a problem in liquidity for other countries. In the early 1960s, Johnson and Kennedy's administrations tried to follow more protective economic policies to strengthen their economy such as controlling capital outflows, which affected the rest of the world in terms of liquidity and decreased trust in the ongoing system. As a result, the system evolved to de facto dollar standard as a fixed exchange rate system, while gold has a strong role in the economic balance. The Bretton Woods was a plan to overcome the crisis, originated from fixed exchange rate regime; however, circumstances changed the articles in time while the world economy confronted the same problem. The economic system was not governing by governors, the world economic balance was the result of the USA's and developed countries' decisions which led to the collapse in Bretton Woods (Ikenberry, 1993).

The last years of Bretton Woods were named as the collapse period from 1967 to 1972 which starts with the establishment of a two-tier arrangement and resulted in a de-facto dollar standardized system (Bordo, 1993). The dollar crisis between the 1960s and 1972 is the major event lived in this period and caused a change in the ongoing system. USD deficits in countries started in the 1950s because of the devaluation in European countries. US tried to solve this problem by releasing more USD to the world market which resulted in a decrease in value and led to a dollar glut after the dollar shortage in the world in 1960. France became the first country to oppose the new system; changed its international holdings from USD to gold reserves (Igwe,2018).

The closing of the gold window disabled the system in 1971 because of the inflation problem, especially in the USA because of expansionary monetary policy in the 1960s to fund Vietnam War and social programs. France and Germany experienced an exchange rate crisis which illustrated the fragility of the system in 1968 and 1969 which obligated them to devalue their currency in 1969 and decreased

the effect of USD in the world economy. According to Bordo (1993); the Bretton Woods system collapsed because of three basic reasons. Firstly, flaws such as adjustable peg and gold exchange standard mechanism weakened its efficiency, secondly, US monetary policy was not appropriate for an international exchange rate, and lastly, surplus countries were reluctant to adjust their exchange rate to take advantage of the ongoing system (Bordo, 1993).

The Special Drawing Right (SDR) concept is one of the most important legacies from the Bretton Woods system, created to solve an international problem that increased in the 1960s. According to the International Monetary Fund (IMF), “the special drawing right (SDR) is an international reserve asset, created by the IMF in 1969 to supplement the existing official reserves of member countries.” SDR is valued depending on key international reserve currencies and their importance on the world trade and finance system within the past five years. SDR could be used as a currency in global trade; for pricing assets, stabilize currencies and measure official statistics and accounts; while SDR is less volatile, so that it gives chance to struggle exchange rate volatilities for the public and private sector (Cohen, 1971).

The General Arrangements to Borrow (GAB) was approved by the board in 1961 which materialized the SDR system in 1969 fully which was the new form of international reserve money. GAB generated two studies related to international monetary developments in 1963; the first one was the study of IMF, other one belonged to the Group of Ten economic group. Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, UK, and the USA were the member states of the Group of Ten. The second study settled in time in terms of economic practices, prepared by deputies including the Fund, OECD, and other important institutions; named as “ministerial report”. The ministerial report emphasized the necessity related to new reserve asset formation which can counterbalance worldwide ongoing credit crunch. The IMF report was related to domestic precautions aiming to solve liquidity problems. The group of Ten introduced a new report in 1965 and emphasized necessary improvements in the international monetary systems including new reserve assets creation. The group of ten was studying under the German Bundesbank with Otmar Emminger on the reserve creation issue (Schammel, 1975).

The joint meeting on July 1967 finished this process, approved by Group of ten and IMF governors in the annual meeting in the following months; the international monetary system would create its own fiat money which would be the fiat money on the international scene. The formation of the new monetary instrument took three years and new reserve assets were issued in 1970. The SDR was determined as a unit of account, equivalent to 0,88671 grams of gold in 1971; calculated 1934 gold value into account aiming to omit last years' speculative graph in parities. Allocation of SDR was the duty of IMF and operating related to country's quotas, and this monetary unit could not decrease while it was impossible to transfer SDR outside the system. Therefore, SDRs would increase in number and their value would appreciate and countries might use them to purchase currency from other countries or the SDR seller state: United States. The country was responsible to diminish the currency when there is an SDR exchange in return for its exchange rate to sustain the stability of the global system. Several precautions were taken against the maldistribution of SDRs which give responsibility to Fund and countries. However, SDR could not diminish the effect of USD in the international liquidity and could not solve the liquidity asymmetry at all while foreign exchange holdings were so high between 1970 and 1973 and balance of payment calculation was taking USD into account rather than SDR while SDR organization was largely passive (Schammel, 1975).

Bretton woods' moment was in the sun until 1971; macroeconomic and financial stability was succeeded. Major changes in the global conditions led to minor changes in the system which led to the present system: floating exchange rate regime. However, the Bretton Woods system is the base of the ongoing system and comparing to the gold standard; Keynes and White's economic order is still used with modifications. The Bretton Woods system started to fail between 1968 and 1973. Richard Nixon prohibited exchanging USD in return for Gold temporarily as the US President. In 1973, the floating of major currencies between each other started officially while USD experienced hard times during the 1960s (Frieden, 2017).

2.1.3. The Snake and The Snake in the Tunnel (1972-1979)

European Economic Community proposed four different plans during 1970-1971; aiming to introduce a new and stable monetary system as the result of the Nixon Shock. 44 delegates from 44 countries meet in Bretton Woods Town in the

USA to reshape the world economies. Moreover, three pillars of international economic institutions GATT which became WTO, World Bank, and IMF were established in Bretton Woods Conference. The final and the accepted plan was the Werner report, which was a study of finance ministers in Venice in May 1970 and concerned with integration between 1971 and 1974 including consensus on margin reduction in case of fluctuation and divergence on the establishment of Reserve Fund. This final plan was a consolidation of Luxemburg and Venice authorities on these years, the first written document of the European Monetary Union, known as the “snake system”. The regional problems’ spillover effect as the result of central bank interventions tried to be arranged as the first stage. Firstly, Germany's deposit requirement was increased to 40% in case of abroad borrowing in February, and secondly the European contrived stabilized their exchange rate with 2,25 percent, which was the base of the “snake” system (Coffey, 1987).

Belgium, Luxembourg, France, Italy, Netherlands, and West Germany were countries that stabilized their exchange rate in April 1972; Denmark, Ireland, Norway, and United Kingdom joined after the establishment of the European Float Agreement; in other words, “the snake system”. In time, Snake enlarged the band of USD convertibility to 4%, which is named as “twists of the snake” and named as the “tunnel”. The European Monetary Agreement named this study “snake in the tunnel” (Pinsky& Kvasnicka, 1979).

The snake system introduced a narrow band for fluctuation, however, the 1971 USD crisis made other countries suspend USD’s convertibility to gold and introduced a larger band to US dollar with 4,5% as the result of the Smithsonian Agreement. The speculative graph of USD was the result of a decrease in this exchange rate’s demand. The United Kingdom and Ireland left the system after two months like Italy or France, which evolved to Deutsche Bank Zone with its limited members including Belgium, Denmark, Luxembourg, the Netherlands, and West Germany in 1979 (Coffey, 1987).

The United Kingdom was one of the countries that quitted the system in a short time while there was heavy downward pressure on the British Pound as the result of the labor market problem which damaged the balance of payments. The press on British Pound could not be solved with official intervention limits by the central bank and other countries, which proved the market’s power in the face of countries in

terms of this system. As expected, the currency was permitted to float freely which led to market pressure to shift Italy's economy and forced the country in 1973 before the Smithsonian agreement which introduced the "Snake in the Tunnel". As Bordo (1993) stated; 1973 was the year of floating exchange rate regimes which obliged to be managed exclusively. The shift towards floating exchange rates was regarded as "temporary" while countries were evaluating the cost of par-value system establishment which concluded with oil price shock in 1973. The floating was accepted as a de facto reality in 1976 (Pinsky& Kvasnicka, 1979).

As Coffey (1987) stated; the success of the snake is not the result of its well-functioning system, it was the result of countries' position in a speculative market that motivated them to move jointly and was not real. Regulations related to credit limits could not solve balance of payment problems which made Italy and the United Kingdom quit this system. The acceptance procedure of exchange rate adjustment was long, which was the reason for the inefficiency of exchange rate interventions in these years and increased the gap between deficit and surplus countries. The semi-official call for united action by the Head of EEC was a proposal for the European Monetary system which came into operation in March 1979 (Coffey, 1987).

2.1.4. European Monetary System (1979-1991)

With the collapse of the snake system, there was an evident enthusiasm of the founder states regarding exchange rate stability and inflationist pressure with a flexible system and obligatory nuances which created the base for the European Monetary System (EMS) (Coffey, 1987). The plan was introduced in July 1978 and approved by nine member countries of the European Community and planned to actualize in 1979. Seven of nine members of European community countries, excluding Italy and the United Kingdom, launched EMS in March 1979. Italy approved the system with modifications and the United Kingdom elected not to apply all the arrangements (Pinsky& Kvasnicka, 1979). As Coffey (1987) proposed; EMS aimed to converge economies better than Snake systems, adoption common policies related to economy, exchange rate stability, integration of member countries to each other, and promote European Currency Unit (ECU) system.

ECU has the key role in the European monetary system as the monetary unit ECU was not a physical currency but designed as a monetary asset that can be held

by central banks as a reserve, can be sold and borrowed to finance the economy; was a substitute to Special Drawing Right (SDR) of IMF. Different than its monetary function, ECU had a role in accounting. Each member state defined its currency in terms of ECU, as a shared monetary instrument that formed exchange rates' "bilateral grid" and established a "threshold of divergence". Shortly, the "bilateral grid" was the system that defines relative rates of different exchange rates, and the "threshold of divergence" was the emergency point of the economies which alarms to get precautions against it. Different than, ECU was a mixture of member countries, defined in terms of all the exchange rate's total balance with different proportions. Currencies' weights were the result of the country's economic indicators such as GNP or share in European trade, which was re-evaluating in every five years or a case of extraordinary changes in the currency. USD value in terms of ECU was defined by EC and changed day to day taking fluctuations into account (Strihou, J., 1979).

"The Bilateral Grid" was another new feature of EMS, created for daily operations and evaluated similarly to the snake system. According to the Bilateral Grid, countries were responsible for protecting their currency's value relative to others by monetary or fiscal instruments. This system expresses the base of exchange rate regimes. Each country, except Italy, accepted to intervene in foreign exchange markets when their currency appreciates 2,25%. Italy accepted this condition in a case of a 6% increase aiming to balance supply and demand and prevent speculation. "The Threshold of Divergence" was another concept of EMS, a system to avoid conditions that can break the relations of member states. If a currency is increased out of line, others were not obligated to protect their currency's value anymore while the external value of ECU is designed to remain stable and this instrument can be used to compete with this situation. If an exchange rate depreciates more than 1,69% from its ECU value, the monetary authorities are responsible to compete with this problem by revaluing or devaluing its currency. This limit was higher for Italy in the beginning: 4,5% (Pinsky & Kvasnicka, 1979).

The lack of credits was the legacy of the Snake system to EMS, which aimed to be solved with the new system. The number of credits increased with the new system for a possible economic problem. In 1981, the total amount of the credits appreciated 100% comparing to a former system (Coffey, 1987). This increase was the result of

new supporting credit facilities, which was an innovation of EMS, established to support member countries with three types of credits changing according to the maturity date. The first unlimited credit type was designed for market interventions, can be borrowed from other member countries, and paid between 45 days to 90 days. The second type's maturity date was longer, between three to six months, and can be extended to nine months, limited with the credit pool and member's quote was determined taking its economy into account. The last type of credit was used if the member aims to reduce the domestic problem and paid for a longer period while there is a serious problem that can cause global chaos (Zis, G. 1999).

The European Monetary Cooperation Fund (EMCF) was the institution dealing with the credit arrangements of EMS. Each credit was denominated in ECU and the country could repay the credit either in ECUs or currency. However, the creditor countries were free to accept repayment if ECU's share is less than fifty percent. Countries holding fewer ECUs than their quotas had to pay interest rates, which was determined by taking the weighted average of member countries' discount rates. Each member state deposited 20% of their gold and USD reserve; and received their ECUs. This fund was used by EMCF in extraordinary cases and these credit processes (Pinsky & Kvasnicka, 1979). EMCF was not functional; swaps and credit management were managed by Bank for International Settlements (BIS). The EMS finished with the economic crisis in the early 1990s which led European Union to construct an exchange rate classification system (Coffey, 1987).

2.1.5. The European Monetary Union (1991-....)

The following system after the European Monetary system is constructed with Maastricht Treaty in December 1991 which forecasted fixed exchange rates among the European countries in 1991 with a common European currency that replaces national currencies. The European Monetary Union (EMU) is an extension of the European Monetary System (EMS) which realizes "the European Currency Unit" concept with "Euro". According to the treaty, the European Central Bank (ECB) will be responsible for the monetary policy of this common currency, planned to be located in Germany which led national central banks to operate such as the regional member Banks in the US economic system. According to the agreement, each country was responsible to balance the government deficit to GDP ratio below 3%,

gross public debt below 60% of the country's GDP, sustain price stability, and maintain its exchange rates in the prescribed range (Bekaert & Hodrick, 2017).

Austria, Spain, Belgium, Finland, Portugal, France, Ireland, Luxembourg, Italy, Germany, and the Netherlands were the eleven countries that adopted the common currency "euro" in January 1999. Denmark, Greece, Sweden, and the UK were the four countries that did not adopt the euroization in this first wave. Each country's local currency's conversion rate was different; determined by the European Central Bank in 1999 and in 2002 euro was the only currency in circulation which gave the euro sole legal tender in these countries. After this step, the European System of Central Banks (ESCB) was established in each country, which is responsible for implementing common monetary policy, conduct foreign exchange operations and hold the official foreign reserves of the country in question (Dabrowski, M. 2019).

The costs and benefits of this system to member countries are disputable and there is not common sense to describe this system as "beneficial" or "unprofitable". The system reduced the transaction costs in the EU countries as a benefit, which constitutes 0,4% of European GDP (Bekaert & Hodrick, 2017). On the other hand, the exchange rate stability led countries to derive a profit from the currency loss problem in the eurozone which will increase the efficiency of European companies in the global trade and serve as the third benefit of this system. The liquidity problem will be solved easier with the integration of European countries as the result of European countries' performance in the capital markets comparing to other markets (Menkhoff & Sell, 1991).

All these conditions make countries cooperate in the political area which reduces the security cost of member countries. Besides, it is obvious that euroization is a system that limits countries' legitimacy in terms of economic policies and a pessimistic scenario; the country cannot deal with it because of joint movement policy, cannot receive payments from the European Central Bank in the intended amount. The OCA concept is important under these circumstances while the extension possibility of this union can damage both sides (Bekaert & Hodrick, 2017).

2.2. EXCHANGE RATE REGIMES

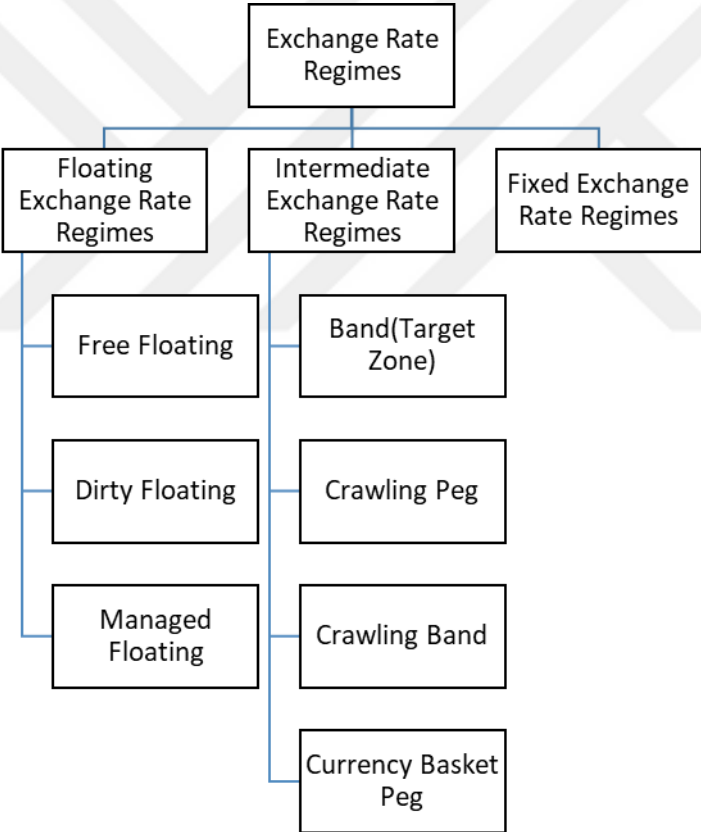
The exchange rate regime specifies the government's ability to intervene in the market under certain conditions which accord to the central bank's monetary policy.

In general terms, the government is entitled to intervene in the market to maintain the exchange rate in fixed, conversely, the central bank prefers exchange rate to find its value depending on supply and demand in floating based on the market mechanism (Terra, 2015).

2.2.1. Classification of Exchange Rate Regimes

According to Terra (2015), exchange rate regimes are divided into three groups from the most flexible to the most rigid regime: floating regimes, intermediate regimes, and fixed parity regimes as shown in Figure 2.2.1.1.

Figure 2.2.1.1. Exchange Rate Regimes Classification



Source: Terra, C. (2015). Exchange Rate Regimes. Principles of International Finance and Open Economy Macroeconomics

2.2.1.1. Floating Exchange Rate Regimes

The arrangement after the Bretton Woods refers to a floating exchange rate regime for the US and its main partners. Value of USD changes according to US

citizens' demand for buying USD and foreigners country affects the exchange rate which clears the market. The US monetary and fiscal policy did not contain articles related to necessary adjustments for the exchange rate in these years. Theoretically, appreciation comes results in such a system with an increase in purchasing power parity for Americans and in aggregate demand as the result of omitting the foreign demand while foreigners become suspicious to use high-value USD in trade even in daily life (Labonte, 2004).

A floating exchange rate system is based on long-term price changes to increase economic strength and change the interest rate differentials between countries. Short-term policies are a reflection of speculation or daily operations on countries' currency such as central bank intervention. In this system, the exchange rate is determined by the open market through the supply and demand balance. In other words, demand for the currency increases its value through a positive correlation in general terms. Specifically, the floating exchange rate regime has two different types: Free-floating, Dirty Floating, or Managed Floating Exchange Rate Regimes. The main difference between this system is the ability of government intervention. In dirty floating exchange rate regimes, governments interfere with the monetary base which is quite popular. Different articles suggest that governments are willing to interfere with exchange rate fluctuation to protect their economy (Terra, 2015).

2.2.1.2 Intermediate Exchange Rate Regimes

The problems of fixed exchange rate regimes induced the intermediate exchange rate system, which is in the middle of both systems: Fixed exchange rate and floating exchange rate regime. While Milton Friedman discussed an alternative system to a fixed exchange rate regime with floating exchange rate regimes in 1953, Maurice Scott defined a third option for countries on the idea to have a control on the parity while it affects by other factors. The governments' position in the economy is defined neither as the controller nor as to the viewer in this new system which was implemented by the Chilean government in 1965 and spillover to other Latin American countries aiming to control inflation in these problematic countries (Williamson, 2002).

Intermediate exchange rate regimes are based on neither a liberal nor a strict monetary policy. There is a band, a target zone that restricts exchange rates' daily peaks or deeps. Denmark's policy after the establishment of the eurozone is an example of this system with keeping its value close to the euro. This second type, soft peg regimes, has three different types: crawling bands, crawling pegs, and fixed exchange rate. In pegged in a horizontal bands regime, the government announces a limit for the exchange rate and intervenes in the necessary position. Many European countries used this regime before Euroization, on the other hand, countries with high inflation preferred it to decrease the real exchange rate. In the crawling pegs regime, the exchange rate is arranged in terms of the economic program in terms of specific indicators such as high inflation. China used this regime until the Wall Street Crisis. The third soft peg regime is the fixed exchange rate regime which prohibits the government to intervene in currency through the interest rate or other instruments (Terra, 2015).

2.2.1.3. Fixed Exchange Rate Regimes

The last group is hard to peg regimes, which have currency board, dollarization, and monetary union. In a currency board, the government is obligated to apply a specific exchange rate parity. The central bank does not have control over the money supply (Terra, 2015). Fixed exchange rate regimes are the third group, which can be assessed as "pegged exchange rate" regimes. In such a system, the monetary authority has the decision power to buy or sell foreign exchange; in other words, the government applies a specific exchange rate parity and applies the necessary policy aiming to stabilize the exchange rate (Obstfeld & Rogoff, 1995).

Fluctuations cannot be eliminated through this policy sometimes as experienced through post-Bretton Woods years which caused the end of the system by fluctuation in USD. While the government has the main responsibility in this issue, they must protect their economy from external shocks which is harder to recover in such a system (Obstfeld & Rogoff, 1995). According to Terra (2015); dollarization means adoption of another country's currency which means loss of sovereignty is full dollarization or euroization in question while the government has limited power to control the monetary market. Even many countries adopted Euro as their exchange rate; "euroization" cannot be defined as a fixed exchange rate regime

while its authority belongs to a specific institution such as IMF which makes this system more “free-floating” (Terra, 2015).

2.2.2. De-Facto Classification of Exchange Rate Regimes

The countries' exchange rate regimes were evaluating in terms of the annual IMF report, which was informed to IMF by the government; known as “de-jure exchange rate regime classification”. However, countries changed their economic behaviors according to changing conditions especially in the 1990s; do not imply economic policies in strict with their exchange rate. Well-known “De-Facto Classification of Exchange Rates Regimes and Monetary Policy Frameworks” was presented in 1998 by IMF, to clarify discrimination of exchange rate regimes differs according to flexibility and monetary policy as shown in Table 2.2.2.1 (Terra, 2015).

After the breakdown of Bretton Woods, the IMF discriminated against exchange rate regimes in terms of pegged regimes or flexible regimes. Pegged regimes were similar to fixed exchange rates while they had limited flexibility. Before 1998, eight exchange rate regimes were identified and changed the table in 1999. The new classification is based on the exchange rate's behavior, takes official declarations into account, and could change according to specific positions. These regimes are determined taking four basic factors into account: the OCA fundamentals, the stabilization considerations, the currency crises factors, and political and institutional features (Von Hagen & Zhou, 2007).

While many countries do not prefer to follow one of these policies strictly and it is acceptable by international markets; it is well known that the exchange rate regime is not always consistent with exchange rate policy, which is a well-known coincidence in de jure exchange rate regimes (Von Hagen & Zhou, 2007)

Table 2.2.2.1.: The IMF Classification of Exchange Rate Regimes

Old Classification (Before 1998)	New Classification (After 1998)
Single Currency Peg	No separate legal tender
SDR peg	Currency boards arrangements
Another composite currency peg	Other conventional fixed pegs
Flexibility limited vis-a-vis a single currency	Horizontal bands
Flexibility limited vis-a-vis a group of currencies	Crawling pegs
Exchange rate adjusted according to a set of indicators	Crawling bands
Other managed floating	Managed floating with no pre-announce path for the exchange rate
Independently Floating	Independently Floating

Source: Von Hagen & Zhou, 2007

2.3. CURRENCY AND ASSET SUBSTITUTION AS A THEORETICAL CONCEPT

As Seater (2008) defined, “Currency substitution is the abandonment of one medium of exchange for another in the face of changing incentives.” In economies with high inflation rates, this concept is important for monetary policy while it is used in forecasting variables, analyzing results, and conducting the policy. While high inflation rates increase the cost of holding domestic currency because of compensation for this loss’s absence motivated residents to calculate their loss in terms of this system. Currency substitution also gives chance to compare performances of different exchange rates for professional investors; mirrors demand multiple media of exchanges and eases analysis also in theoretical, academic scope (Seater, 2008).

Currency substitution can be interpreted in terms of the relative cost of holding a currency rather than foreign currency or a system during the transaction. Differentiation of currency substitution is firstly stated by McKinnon in different academic studies until the 1990s. (1982, 1985) In this context; there are two types of currency substitution: direct currency substitution and indirect currency substitution.

Direct currency substitution refers to the “common denominator” for more than two currencies in daily usage. On the other hand, indirect currency substitution means the “common denominator” for non-monetary financial assets and currencies in different countries, affects the demand for these investment tools. Mizen and Pentecost (1996) developed these concepts and defined direct currency substitution calculation of different currencies, indirect currency substitution is used when investors do not use liquid investment tools. McKinnon (1996) reacts to their definition of indirect currency and emphasizes the necessity for more than two countries aiming to trust this methodology (Yıldırım, 2003).

Mizen and Pentecost (1996) defines currency substitution in two ways: as an “equilibrium state” while there is a necessity to substitute the currency in question; secondly as a “dynamic process” when non-financial assets are in question. On the other hand, currency substitution can be in question if and only if there is an exchange transaction into foreign currency or this wealth is stocked in another currency. This study is in accord with Mizen and Pentecost’s study while it takes the existence of non-financial assets and develops it with new concepts: “dynamic” and “fixed” (Mizen & Pentecost, 1996).

Asset substitution is another theoretical concept used in dollarization. Berg & Borenstein (2009) clarified this concept in the most basic way. If individuals or institutions keep foreign exchange accounts in the banks and central bank does not play with these foreign currencies; so, this foreign currency will be kept in the central bank as the international reserve. Net positions will not change, and aggregates will be stable. The central banks use those foreign reserve in a possible requirement in the foreign exchange market, so capital inflow affects current exchange rate in the market. On the other hand, banks use these investments to offer lending in foreign or domestic currency which causes expansion in money supply in order to help banks or individuals to balance their position. Asset substitution forms in the risk perception process. If banks expand their balance sheet in terms of domestic and foreign currency, the market becomes more volatile in terms of exchange rate. In such cases, it is possible to encounter with maturity date problem which will result with exchange rate volatility. The monetary authorities can use foreign reserves to orchestrate short-term liabilities (Berg & Borenstein, 2000).

In the empirical literature, currency substitution is commonly used, and asset substitution is not preferred to test this method. However, money demand in the domestic market depends on depreciation omitting currency substitution because gain from the foreign assets depends on depreciation and it constitutes the opportunity cost of foreign currency to domestic currency; in other words: “fiat money”.

2.4. THEORY OF ECONOMIC CYCLES

Economic cycles are the spontaneous result of world economy’s process, which generally measured by Gross Domestic Product (GDP) and explains the general system taking different indicators into account. Different definitions are available taking their perspective into account, but economic cycle defines the economy’s fluctuations between growth and recession periods and composed of four stages: expansion, peak, contraction, and trough. Different theories tried to solve this problem in different ways, taking their priorities into account. Economic cycles differ from each other taking its starting point into account which can be exogenous, and theories related to economic cycles is the result of endogenous factors (Isaic et al., 2019).

Economic cycles firstly identified by Clement Juglar in 1862, which lasts 8 to 11 years with suspicious points. However, in history growth periods lasted longer than theoretical approach: 1945 to 1970; ended with oil crisis in 1973 and Stock Market Crash in US. As a result, in 1954 Schumpeter developed the economic cycle with four stages: “expansion term” when the production and prices increase and interest rates are low, “crisis term” when stock market crashes happens and multiple bankruptcies come into question, “recession” term when interest rates increase, and production decreases parallel to prices and lastly “recovery term” is defined when stocks recover which explained in next paragraph (Dagum, 2010).

Natural, demographic, political or technological factors are four basic exogenous economic cycle types, the last type is valid in the 21st century taking the significance of technology into account. Four basic explanations included as an exogenous cycle taking technological factors into account: Kitchin (Stocks), Juglar (Investment), Kuznets (Infrastructure), Kondratiev (Technological Innovation). Long-term economic cycles are analyzed by Kondratiev, taking 40-60 years into

account. According to Kondratiev; expansion, stagnation and recession are three phases of economic cycles, originated from inequality, social freedoms and opportunities which affects political stability, demographics and technological progress which necessitates distribution of wealth to sustain social peace (Isaic et al., 2019).

Six types of endogenous economic cycle theory are due to functioning of the economy: Keynesian approach, Monetarist approach, New classical approach, Neo Keynesian approach, Austrian School and Mainstream Theory. Keynesian approach follows a straightforward scenario which focuses on aggregate demand and omits other factor which affects production and supply. Tight money policy results with rise in interest rates and fall in investment which affects the general economics and aggregate demand in return. Unemployment and excess supply come into question which will result with decrease in money demand. Respect to this, investment is the major contributor to aggregate demand which is affected also by state expenditure. On the other hand, central bank policy affects aggregate demand which can interrupt employment or production (Day & Lin, 1991).

On the contrary, the monetarists focused on the aggregate supply while production level is independent of aggregate demand and the economic system must be prepared for a sudden increase or decreases in demand. Different to Keynesian approach, economic policies effect is evaluated as limited, and the market is perfect. Agents need to be stable and predict the short-term fluctuations, while monetary policy has short term effect. “Supply” concept refers to money supply in this approach which must be adequate to conditions, where the central bank is responsible. According to monetarist theory, irrational growth of money supply’s result is economic cycles, which affect production and employment in the short run. In the long run, the supply of goods and services are determined through more realistic bases: workforce, capital, infrastructure, natural resources (Isaic et al., 2019).

The new classical approach focuses only on aggregate supply omitting the aggregate demand while markets are efficient, prices and wages are flexible, and agents are rational to adopt themselves to a possible economic downturn. The new classical models underestimate effect of money for business cycle process, agents are accepted as rational to protect themselves for a possible economic shock and rational expectations principle is taken as the principle while demand can change according

to changing circumstances. Even it becomes impossible to forecast demand, governments must focus on supply (Hudea, O. S., 2015).

Fourthly, the Neo-Keynesian theory differs itself from others with an acceptance of imperfect market conditions. Wages and prices are rigid which affect agents and the market is based on agents' unpredictable expectations. Under these circumstances, unemployment and short-term production fluctuations are in question. Price and wages are rigid while there is a cost to change them, demand is affected by unpredictable external factors, coordination is not in question for the market and there is a distinction between employers and workers which creates inequality (Isaic et al., 2019).

The Austrian school is based on monetary policy, which is not planned or applied strictly, and economic conditions such as interest rate or credits are artificial to market. In this way, Austrian view finds Central Bank interferences even dangerous to economy. Agents are not logical to make their investment to the best choice or make investments without necessary balance, that's why credit system is in question and creates "superinvestment" concept which belongs to this school. "Superinvestment" is the result of "credit-induced" boom which is possible for free market conditions with possibility with over liquidity as the result of credit expansion, which will make agents to make investment and stagnate the market. In this way, Austrians perceives recession inevitable in some conditions which will make governments to take precautions (Oppers, S. E., 2002).

Lastly, Mainstream theory states that the aggregate demand and aggregate supply which determines the aggregate output. Monetary policies can affect short-term fluctuations; wages and prices while they are not rigid, and agents' expectations influence the economy taking interest rate into account which affect the demand. However, monetary policy does not affect production and employment which makes the money "neutral" in this perspective. The economic cycle is the result of technological changes and governments' fiscal policies which can harden stabilization policy (Isaic et al., 2019).

CHAPTER 3

DOLLARIZATION AND DE-DOLLARIZATION

This chapter provides a theoretical approach to de-dollarization. To make a realistic approach, explanation of dollarization is preferred, and its differentiations of this concept is given. Secondly, de-dollarization is explained theoretically on dollarization base; examples from different countries with different de-dollarization process are given to put flesh on the bones of de-dollarization.

3.1. DOLLARIZATION

After the theoretical approach, types of dollarization and pros of cons of dollarization is given in this section.

3.1.1. Theoretical Approach

Dollarization is the result of USD's position as international money. Feige (2003) defined dollarization as: "The process of substituting a foreign currency for a domestic currency to fulfill the essential functions of money as a medium of exchange (currency substitution) and/or as a store of value (asset substitution)." On the other hand, Bennet et al. (1999) defined dollarization in a different way: "The holding by residents of a significant share of their assets in the form of foreign-currency-denominated assets."

Full dollarization, official (de-jure) dollarization is in question when the country adopts a foreign exchange and replace their domestic currency. In this case, foreign currency is the unit of account, store of value, and official transaction object. On the other hand, partial(de-facto) dollarized systems use foreign exchange for one of these purposes (Feige, 2003).

Dollarization refers to official dollarization, in a case when country refuse to use its domestic currency such as Panama or Ecuador. Thirdly, monetary union refers to a group of governments share the same currency (Terra, 2015). Cohen (1971) highlights three basic functions of money: a medium of exchange, a store of value or

a unit of account by public and private usage discrimination. A currency is used as a medium of exchange by the private sector to arrange international economic transactions or by governments for foreign exchange interventions by central banks. Secondly, currency can be used as a store of value if private or public consumers as their official foreign exchange reserve. Lastly, a currency is used as a unit of account; if private users state trade and financial instruments or by governments to denominate trade or to stabilize the national currency (Cohen, 1971).

International currencies have some identical characteristics. Firstly, these currencies are the store of value or unit of account and there is confidence in its price stability. Secondly, the issuing country must have well developed and open financial markets. Thirdly, transactional networks of the issuing country must be strong to the world economy. Fourthly, its market must be deep large and liquid to offer a wide range of assets to allow investors to diversify their risk and store their wealth. International currencies are defined in terms of four types by Strange (1971); master, top, neutral, and negotiated or political currencies. Master currency has domination over a certain territory. Top currency is dominant in the international economy and has world economic leadership. Neutral currency is attractive for investors but does not have dominance or possibility to become a top international currency in a short time. Negotiated or political currency's issuer loses economic power (Strange, 1971).

While talking about the USD's position as international money; the collapse of the Bretton woods system is necessary. This process leads to several voices that criticized the instability of the Flexible-Dollar-Standard system for the first time. 2008 Wall Street Crisis is another case, which made other countries to question this system. As an example, China wanted to protect its economy in terms of its dollar-denominated assets from the fluctuation of the parity and took measures by supporting the usage of Special Drawing Rights issued by IMF as a substitute to USD (Williamson, 2015).

Definition of negotiated or political currency refers to the situation of USD during Wall Street Crisis while investors wanted to take precaution in such a speculative market. Theoretically, the US had to offer a certain financial or political program to persuade investors for using their currency, which is made with "Monetary Normalization Policy" which started in 2014 with the change of FED's chair after the recovering process. However, economists' analyses do not have a

consensus on USD's future position; if it can maintain its international role or lose its importance. The main reason for this dissidence is the global crisis (Williamson, 2015).

3.1.2. Types of Dollarization

There are three discriminations in dollarization: discrimination due to USD capacity in the country, discrimination due to dollarization process and lastly discrimination due to USD intensity in the country's balance sheet.

3.1.2.1. Full Dollarization and Partial Dollarization

When the usage of foreign currency is favored as a store of value or in trade for domestic currency; unofficial (de-facto) dollarization is in question. In de-facto dollarized systems, foreign currency in circulation is omitted and money supply is measured incorrectly while it is not controlled by the central bank (Feige, 2003). When USD is in circulation but does not have a partial role in the economy; full dollarization is in question. Full dollarized countries' currency has a subsidiary role in the economic system; foreign currency is brought to the country artificially and has a principal role comparing to local currency. Foreign currency can be used both in private and governmental payments. Full dollarization has more than one form; the country can use more than one foreign currency which is acceptable for freedom of choice (Bogetić, 2000).

Full dollarization has variations; for example, in a "monetary system" foreign currency has a full legal tender, but daily transactions and payments are made in local currency. Many countries from South Africa's Common Monetary Area such as Namibia are examples of this system. This type of countries calculates seigniorage and takes position taking this issue into account. Full dollarization has a cost; in various perspectives, taking seigniorage into account. Seigniorage is lost when the country accepts dollarization and gives up its currency. This cost can be observed firstly as "stock cost"; the necessary amount which has to be acquired by the country in question or "flow-cost" taking domestic currency's decreasing seigniorage revenues in time. Besides these costs, the full dollarized country's central bank loses control of the economy, these countries in question deceive flexibility in the exchange rate and monetary policy and they also become obligated to change their

system including machines using in this economic system from domestic currency to the new currency. All these costs are accepted by the countries in an economic downturn to eliminate essential risks in the economies. The elimination of currency risk and country risk parallelly. Real interest rates do not have to be much higher to get over crisis and long-term financing is available in this system (Bogetić, 2000).

3.1.2.2. Unofficial, Semi-Official and Official Dollarization

Second discrimination in the dollarization process arises from the economic policy of the government; mirrors the willingness of USD usage. Theoretically, unofficial dollarization is in question for countries where the foreign currency is not legal tender, but citizens prefer to their hold their wealth in this currency such as Vietnam or Latin American countries where US is the main trading partner of the country in question. Semi-official dollarization is named in some sources as official bi-monetary system. In such a system, foreign currency plays the central role in the economy taking holdings of the country into account; however domestic currency is used through a secondary role to make payment for governmental issues. Different than unofficially dollarized countries, central bank has the authority in the domestic economics in this system. In an officially dollarized country, USD has the prominent role in the economy with full legal tender and the domestic currency has a minor role (Schuler, 1999).

The penetration of the U.S. dollar has far-reaching implications for dollarized countries and the United States; seigniorage is the simplest effect which means the revenue or loss while printing money and taking it into circulation. The value of the currency is the second way of seigniorage while more printed money becomes less valuable. These two ways of seigniorage give chance to the United States as the base country of USD. If other people hold domestic currency rather than USD, seigniorage revenue will stay in the country rather than the US (Gentry, 2008).

Dollarization is usually blamed in politics while it is a start point in the way losing national identity while the domestic currency is perceived as a symbol as a useful object comparing to the national anthem or flag. That is why, official dollarization is controversial in many countries taking domestic currency's function in diplomacy. On the other hand, it is evident that autonomy in the monetary system

reduces dependency on other countries and risks in the worst-case scenarios which decreases the political vulnerability of the country in question (Schuler, 1999).

Countries are often curious about the residents' preference for foreign currency even the stability of the country in question is achieved, which is called a hysteresis commonly. De-dollarization is the result of the hysteresis of political powers in question while their back-up plans necessitate costly measures. Despite the improvements in the world economy and increasing level of monetary and fiscal policy quality; dollarization still proceeds in many countries. Some countries try to get rid of this cycle; implicates de-dollarization (Gentry, 2008).

3.1.2.3. Liability Dollarization and Asset Dollarization

The third discrimination is made in terms of the countries or individuals' balance sheet. Asset dollarization defined as the substitution of foreign currency denominated assets with domestic currency. Liability dollarization is the case of high proportion of foreign currency deposits in the banking system. Foreign-Currency-Denominated Assets protects countries from macroeconomic risk such as recessions or inflations.

Taking asset substitution into account, residents in developing countries would prefer Foreign-Currency-Denominated assets in order to protect themselves from inflation, which is a well-known hysteresis of dollarization. A volatile inflation rate decreases the demand for domestic currency preferences in investments. In such cases, proportion of foreign currency assets increases, which leads to asset dollarization. Commonly, the central banks use interest rate strategy to increase domestic currency deposits in nominal means (Berg, A. & Borensztein, E., 2000).

“Original sin” describes the countries' currencies inefficiency in the international market in terms of borrowing. Such countries have liability dollarization commonly where all economic agents become more fragile because of foreign exchange loans (Eichengreen et al., 2004).

3.1.3. Pros And Cons of Dollarization

As the result of risk aversion, citizens prefer to hold part of their savings in Foreign-Currency-Denominated assets. Systemic risks occur with diversification while financial systems are still not trustworthy. That is why, dollarization is not pure

advantageous or disadvantageous. Increasing share of Foreign-Currency-Denominated assets in the financial system can pump the risk for financial and banking crisis. However, absence of freedom in the economic system creates country risk for the country in question. While each country has different conditions, the process related to dollarization changes (Bennett et al., 1999).

According to Bennett et al. (1999) there are three main advantages of dollarization. Firstly, dollarization encourages agents to hold their deposits even in Foreign-Currency-Denominated assets in the national banking system. When stability is achieved, the confidence on the country and the market is restored and the economy starts to process in a better way. This benefit of dollarization is named as “reintermediation in the economy” in the IMF report. Secondly, banking system will be healthier under these conditions and start operations to absorb its residents’ Foreign-Currency-Denominated assets and the system will be more open to world market, financial transactions’ cost will be lower to have increase Foreign-Currency-Denominated assets from other countries. Domestic agents will have chance to protect their savings in a case of devaluation with Foreign-Currency-Denominated assets. Thirdly, countries’ credibility increases with this integration process and strengthening financial policies. The monetary board will be able to diagnose problems in shorter time and strengthen confidence to the ongoing system (Bennett et al., 1999).

According to Ozsoz & Rengifo (2016) full dollarization has different advantages. Different than Bennet et al.; dollarization reduces inflation, eases fiscal discipline, reduces borrowing cost and transaction costs. Besides, partially dollarized countries take advantages of promotion for financial deepening and incentive for saving as the result of partial dollarization. Both advantages of partial dollarization and the second advantage of full dollarization is in the same line with Bennet et al. That is why “reducing inflation”, “reducing borrowing costs” and “reducing transaction costs” is examined separately. As Ozsoz & Rengifo (2016) stated; if a country under speculative attack experiences high and long-term inflation, full dollarization heals the economy quickly in terms of inflation. Ecuador is the well-known example for this problem while the country was experiencing inflation more than 30%, full dollarization decreased this rate to 6,8% in 2010 after the acceptance of USD. When the inflation is decreased, the interest rates’ graph will be downward

correlatively which will result with decrease in borrowing costs and increase FDIs. Lastly, full dollarization enables countries improve their trade under same foreign currency which will lower transaction costs in banking system (Ozsoz & Rengifo, 2016).

Dollarization induces risks beside these advantages, Free market system gives chance to capital inflows and outflows, which can change in a possible economic crisis and paint short term liabilities into a corner. Uncontrolled increase in foreign currency liabilities or assets in the banking system can result with a flight capital in a possible devaluation case. In such position, net dollar assets will be lower than assets and liabilities in USD which will harden the economy. Central banks become more vulnerable in maturity date mismatched positions which created crisis Mexico in 1995. That is why; central banks always try to cope with devaluation in such systems (Bennett et al., 1999).

Dollarization obligates countries an amount of loss due to seignorage. Seignorage concept is necessary to understand dollarization. "Seigniorage" refers to the difference between the circulating value of a coin and the cost of bullion including minting, involving a once-for-all gain to the coin's issuer. In time, this term evolved to clarify gain or loss of money's issuer, especially for international money. According to Cohen (1971); manufacturing international money is costless while the country in question must create a cumulative deficit in the balance of payments. This process leads to an increase of income for the country in question. As a result, foreigners tend to take credit from the issuing country. Seignorage has two ways of benefits: current and capital gains. Current gain refers to short term accruals for the country by acquiring additional currency. Capital gain composed of long-term investments made by the cumulative deficit in question, which can be started earlier than the existence of cumulative deficit (Cohen, 1971).

Disadvantages of dollarization can be analyzed different way, by separating its returns in terms of partial dollarization and full dollarization. According to Ozsoz & Rengifo (2016) full dollarization results with "Loss of Monetary Policy" and "Inability to act as Lender of Last Resort"; on the other hand, partial dollarization can result with "Exchange Rate Risk for the Banking System", "mismatch in liabilities and assets in terms of foreign exchange", "increase in country's default risk" and lastly "challenges in monetary policy". The first and second disadvantage

of partial dollarization is explained by Bennett et al. (1999) and the second disadvantage of full dollarization is explained by Cohen (1971). Ozsoz & Rengifo (2016) adds for full dollarization the non-functionality of central banks, besides partially dollarized countries are more open to crises in banking sector while there is often possibility for asset-liability mismatch or speculative attacks which increases the country's default risk and results with actions in monetary policy such as increasing interest rate or transaction limitation in foreign exchange (FX).

3.2.DE-DOLLARIZATION

De-dollarization is explained theoretically in the first section and exemplified from different countries under different circumstances in the second section.

3.2.1. De-Dollarization as a Theoretical Concept

Bretton woods system motivated countries/individuals to trade in USD. In time negative effects of trade dollarization become debatable. An increase in US currency leads to a decrease in world trade while there is a positive correlation between prices in international trade and exchange rates. Hirschofer (2019) states that; an increase in US currency around 1 percent; leads to a depreciation in the volume of global world trade around 0.7 percent. Secondly, the sustainability problem becomes highly questionable which favors the usage of secondary/local currencies in trade. However, usage of local currencies is a risk, the world has experienced it frequently in the recent past. This accepted opinion is corrupted in the studies regarding economic crisis, which results that only 15 percent of general currency depreciations experienced often and often. Therefore, local currency usage is favored while it throws out macro risk and reduces the exchange rate risk of local borrowers. According to Hirschofer (2019); the interest rate of the currency in question eliminates the risk of inflation and depreciation which is aimed at fixing USD in trade. On the other hand, default risks in trade being eliminated by this method from the exporters' perspective.

That is why; regulations for foreign currency usage and incentives for local currency funding/usage are increased in time taking consumers and macro-prudential advantages into account. On a theoretical basis, the weakness of domestic economic institutions allows destabilization as the result of massive inflows of foreign currency.

The economic crises, experienced until 2016, occurred after the end of capital inflow to the country in question. Six major cases are considered in Hirschofer's research, which includes crisis from different geographies. On the other hand, capital flow bonanzas are the result of Sustainable Development Goal (SDG) financing. However, the majority of debt crisis depend on social factors such as politics. That is why; financing SDGs must be sustainable and must be planned for the long-term (Hirschofer, 2019).

Every country has different policies related to SDG. Countries, trying to succeed economic independence implies de-dollarization. Measures supporting de-dollarization aimed to restrict requirements for USD and its instruments. Depreciation in domestic-currency-denominated (DCD) assets and an increase in pricing of Foreign-Currency-Denominated assets are signals of a problem in macroeconomic stabilization, which motivates countries for the de-dollarization process. Measures supporting the de-dollarization process theory, financial instruments; substitute to Foreign-Currency-Denominated assets, supporting market to the fix prices in domestic currency, stabilizing volatility in exchange rates and its policies, coherent banking regulations to promote usage of DCD taking pricing decision advantage of banks into account. Currency and asset substitution are affected by this macroeconomic stabilization differently. Macroeconomic stabilization ensures an economy that does not have problems related to inflation and forces asset substitution. Such an economy would improve itself and network externalities will be in question. At that point, usage of foreign currency for payments or settlements becomes inevitable and governments should take additional measures to support currency switching and to avoid settlements in foreign currency. Foreign currency regulations are used mostly, to apply the de-dollarization policy undoubtedly (Kubo, 2017).

In details, de-dollarization is a mix of reforms on the statutory base, administrative enforcements, and macroeconomic policy taking both fiscal and monetary policy into account. Statutory policy reforms include radical changes in the banking system and advantageous policies for holding deposits in domestic currency. Setting new, advantages financial instruments in local currency and obligations in some type of payments are in this group. Administrative enforcements include direct interventions such as limiting currency holding, enforcement for USD to domestic

currency. Laws, obligates residents to use domestic currency in wage, and tax payments increase the demand for domestic currency and monetary authority will be partially successful through this artificial demand. Lastly, macroeconomic policies include stabilization of prices, inflation, and exchange rate. (Gentry, 2008).

Countries implement one, both or triple of these policies depending on their and central bank's situation. A government with a powerful central bank and monetary base can use all of them. It is stated that statutory regulations must be implemented to balance the market and solve problems related to externalities. On the other hand, de-dollarization proponents state that dollarization creates all these problems. Statutory policy measures are considered as the riskiest by governments while it includes aggressive changes. Countries trying to implement de-dollarization do not prefer risky ways to stabilize their own economic and political balance. At this point, de-dollarization becomes a "side effect of stable fiscal and monetary policy" according to Gentry (2008). These types of countries expect stabilization in currency debt and inflation in the de-dollarization process such as Latin American countries (Gentry, 2008).

Achievement possibility of de-dollarization policy is evaluated always as "very difficult"; that is why many countries decide to implement de-dollarization policy even their economic and political stability is positive. Taking behavioral economics into account; a country must obligate its system to domestic currency, encourage the market to use its own currency, and use legislative force to ease taking advantage of these benefits theoretically. Payment system changes especially in taxation are used generally (Gentry, 2008). Even de-dollarization is evaluated as "very difficult" by Gentry; many countries replaced externally issued money in the history. After the second world war, usage of domestic money embittered political and economic autonomy. De-colonization process largened usage of domestic moneys (Jameson, 2003).

Domestic money usage caused different economic disasters in developing countries: devaluation, inflation and currency confiscations in harder times and economic performance of currencies are measured in terms of asset or currency substitution. Domestic money supply must have Benjamin's mess in the gross money supply so as to apply an effective monetary policy. As Feige & Dean (2002) stated; extensive currency substitution not only makes domestic monetary policy less

effective, it also makes active exchange rate intervention more dangerous. Different sources stated that; 40-60% of US cash is the issue of international circulation in mid-1990s. The official report of the Federal Reserve stated that, this ratio increased to 52% in 2000 (Feige & Dean, 2002).

According to Feige & Dean (2002); when network externalities are greater than 35% dollarization, de-dollarization process become impossible while cost of de-dollarization is greater than current damages in the economy. Informal usage of USD causes confusion in currency substitution theoretically; and it experienced in Latin America in 2000s due to network externalities (Jameson, 2003).

As Liebowitz & Margolis (1994) defined; Network externality is a change in the benefit of the agent when number of total agents consuming the same product changes. Network externality problem in various cases; nor an increase inflation rate results with dollarization, neither de-dollarization causes fall in inflation rate. This is the result of agents' behaviors; switching currencies triggers this process (Jameson, 2003).

3.2.2. De-Dollarization Experiences from Other Countries

De-dollarization process' analysis differentiates due to country's dollarization process. This section analyses three different countries' de-dollarization process taking its dollarization past into account.

3.2.2.1. Cambodia: A Semi Officially Dollarized Country

Cambodia is one of the countries which has never adopted full dollarization but increased the level of dollarization more than expected in time. As the National Bank of Cambodia announced; the foreign currency deposit (FCD) ratio increased from 56% to 83% in ten years. %95 of total deposits was foreign currency deposit by the end of 2015. This type of dollarization caused challenges to the government and national bank in terms of monetary policy and implementation while the national bank's control over effective money supply decreased with this chaotic situation. Not only effective money supply but also financial markets were affected by this uncontrolled dollarization. The demand for government bonds in domestic currency decreased (Odajima, 2017).

As a semi-officially dollarized country, Cambodia organized a meeting in 2006 under the National Bank of Cambodia (NBC) with IMF and Asian Development Bank (ADB) to evaluate USD circulation and possible precautions to stabilize Cambodia's domestic currency: riel. NBC announced its long-term economic policy in terms of de-dollarization which was important especially for IMF while their aim is creating different economic policies to solve debtor countries' currency problems. However, Cambodia has never adopted or announced an integrative de-dollarization policy while this policy was not promoted by statutory policies which are necessary as explained in terms of behavioral economics (Gentry, 2008).

In the historical background, Cambodia experienced poverty, unofficial dollarization in high ratios, could not succeed political stability, and applied only inefficient measures to dollarization. Apart from USD and Riel, Vietnamese dong and Thai were in usage in Cambodia before and after the de-dollarization announcement of NBC. In 1975, political power changed, and economic activities related to agriculture were supported. Private property was ignored, banks were eliminated, and barter was forbidden. NBC was re-established around the 1980s as a single bank which weakened its reliability due to inadequate economic policy and lack of public confidence. This situation changes with the United Nations Transitional Authority in Cambodia's (UNTAC) entering service in 1993 aiming to guide the government which was elected democratically. With the help of a market-based economy; the share of foreign currency increased as the result of private investments, international aids, tourism, and export. Cambodian workers living abroad contributed also to economic liberalization (Gentry, 2008).

Taking numbers into account; usage of USD is originated from UNTAC operations in 1991-1992. In these years, 1,7 billion USD was imported to Cambodia, which constitutes 75% Cambodian GDP, and spent to peacekeeping operation. In years, foreign currency deposits gained larger share in bank deposits. The first private bank (Cambodian Commercial Bank), which was established in 1991 as a joint venture supported these activities of UNTAC (Odajima, 2017).

In sum, Cambodia was one of the richest countries in the 1960s; however, became one of the poorest on the world in 1990s. 30 years period before 1998 named as a turbulence in terms of politics, diseases, and economical structure of the economy. In 1998; a new cabinet was formed after a long time (Kang, 2005).

To make a true statement for Cambodian economy, after the historical look; advantages of dollarization must be clarified to perceive Cambodian people laxness to the high dollarization in short time. Firstly, dollarization stabilized price levels in the market. If the market insisted on using Riel rather than USD; pricing would be more difficult for a country with a 100 million deficit 1998. An un-dollarized Cambodia would prefer to print money to solve budget deficit issue rather than applying tax policies, which would lead to inflation easily. Secondly, taking 1997 Asia foreign currency crisis into account, Cambodia managed the crisis with a nonserious damage comparing to other countries such as South Korea even though Riel devaluated dramatically. However, this dramatic devaluation did not affect Cambodia with the help of dollarization. From 1993 foreign currency in the total currency(M2) was around 8%, however its share jumped to 77% in 2003 (Kang, 2005).

Even the political conflict was ended officially taking foreign currency's share in M2 into account which means that Cambodians did not trust fully Cambodian Banks or Riel. This situation is the major motivation for Cambodia's uncontrolled dollarization. High dollarization was in question also in Cambodia's neighbors such as Vietnam in 2002. In other words, the USD's share in the Cambodian economy increased and this currency became the second tender without any regulation. Pricing in the economy was in USD, the share of bank transactions in USD had the greatest share, and Riel was used only in daily life in small quantities. However, Cambodia did not restrict usage of foreign currency, NBC adopted freedom of currency choice for investments or payments; named as "managed float with no pre-announced path". This system is composed of two different exchange rates: the official and the market rate. The official exchange rate was used in governmental transactions and the market rate was used in foreign exchange dealers. On the other hand, commercial banks were free to define their exchange rate. This policy of freedom induced high dollarization in Cambodia during the 1990s. Radical changes in economic structure with the help of UNTAC could not prevent an increase in dollarization. Even macroeconomic stability, growth, and steady public finance were achieved in 1995, dollarization was at high levels which posed danger to the Cambodian government and economy (Gentry, 2008).

A high level of dollarization affected Cambodian people in terms of the exchange rate, especially poor regions as expected. While the rural population was using and holding riel, their living standards decreased asymmetrically. The large share of USD usage in the general economy thanks to the urban population led to depreciation. These conditions limit the government's power on its fiscal policy while the central bank's effect on the real sector is depreciated. Monetary base expansions were resulting in Cambodians' band wagoning effect in exchanging their Riels to USD which was another cause of inflation. In addition to a public preference for USD, Cambodia had always high public debt ratio, which was limiting economic powers to behave freely and made Cambodia obligated to foreign aids and more debt. Low tax revenues originating from Cambodia's "freedom of choice policy in the exchange rate" which limits the financial authorities to take measures. Even agro-cultural economics was targeted in 1975, the textile and tourism sector were leading the economy and taxation was regulating these sectors in apple-pie order (Gentry, 2008).

Abovementioned seigniorage loss was in question also for Cambodia in 2004. Annual cost of seigniorage to Cambodian economy was estimated as 61 million USD in 2004 and total loss from seigniorage was 682 million USD. Seigniorage loss of Cambodia can be clarified in three aspects. In the first aspect, there is a direct loss: necessary amount of USD to print Riel in order to circulate the economy, in such a case if domestic currency worth lower than USD; there is a clear seigniorage loss. Governments should make policies to have social savings of their people in the domestic currency however in 2005; %70 of M2 was in USD. In the second aspect, a country's economy makes an indirect loss by giving up seigniorage. Growth in the real economy was leading to an increase in volume of foreign currency in Cambodia which restricts the amount of money the central bank has to print. Large share of foreign currency usage creates uncertainty for monetary authority and printing money issues a new problem taking its real exchange rate and cost of this process in USD into account. In the third aspect, if the government had banned usage of foreign currency by individuals, total amount of USD would rest in National bank and lending USD to necessary sectors would be an advantage for bank through interests and government bonds. In such a situation, interest rate would be more efficient taking financial and monetary policy of the country into account (Kang, 2005).

However, Cambodian monetary policy was planned to become free omitting its cash-based structure into account. Taking USD's important role in cash payments; NBC was ineffective to orchestrate inflation through monetary policy (Gentry, 2008).

NBC's loss of monetary policy is one of the results taking high dollarization ratios into account. Theoretically, central banks are responsible of supplying money to market and controlling it through monetary policies and stabilize price level, stimulate economic development, estimating interest rates. Still, NBC was ineffective in this part as the result of free circulation of foreign currencies. On one hand, open market operations, on the other hand estimating reserve requirements are not useful such a situation, which limits central banks in theory and in practice taking Cambodia into account. In such a situation, Cambodian government was failing to satisfy domestic industries using monetary policies. As a result, poverty and unemployment remained unsolved (Kang, 2005).

Even high dollarization protected Cambodia from Asian crisis taking other countries into account; Cambodian government could not constitute ever an effective foreign trade policy to protect its economy from possible outside shocks. Under normal circumstances, central banks support exports in possible crisis to import foreign currency from other countries, however in Cambodia nearly all goods were imported and sold in foreign currency. In these premises, income differences occurred between people who receive foreign currency or Riels. Considering the country's structure into account, only small scale of the population was earning foreign currency which caused poverty and injustice in income distribution (Kang, 2005).

In other words, NBC never performed a strong de-dollarization policy; tried to improve its macroeconomic performance and hoped to reduce effect of USD in its economy through non-administrative policies. Cambodian government never intervened foreign currency holdings of its citizens, preferred to make their currency as a substitute to USD in the economy which is like Israel or Chile. The main logic was de-dollarizing the economy trusting on the market forces that will continue with local currency and its instruments (Gentry, 2008).

Taking country's weak financial laws into account; Cambodia and Asian Development plan introduced long-term strategy which includes reforms in

commercial law and improving it in terms of WTO requirements. The financial strategy does not emphasize de-dollarization, designs monetary and financial policy to increase confidence to riel. In this point, Cambodia's policy is mentioned in different sources such as Latin American countries while the central bank improves the economy but does not intervene ongoing situation directly (Gentry, 2008).

Odajima (2017) analyzed effect of dollarization to Cambodia with a survey, made in 2014 taking households and firms into account. According to this survey, foreign currency is used commonly in every transaction both by firms and individuals which constitutes payment dollarization. Real dollarization, which was materialized in 1990s resulted with real dollarization in the Cambodian economy. Real dollarization and payment dollarization resulted with financial dollarization.

3.2.2.2. Vietnam: An Unofficially Dollarized Country

Vietnam experienced a long-term Vietnam War until 1975 between south and north Vietnam. During Vietnam War, USD was more efficient in South-Vietnam which was supported by US and anti-communist allies. On the other hand, foreign currency usage was banned in North-Vietnam as a community supported by Soviet Union. Like Cambodian Civil War, this war ended with the victory of communist allies and two countries were unified again as "Socialist Republic of Vietnam". Vietcom Bank (Bank for Foreign Trade of Vietnam) was the only bank in first years in the country. Socialist Republic of Vietnam had a closed economy policy which exchanges goods and commodities in a socialist way and trade was carried out in Russian ruble as cheap as dirt while Soviet Union was the main trading partner of Vietnam for a long time. Vietnam established its economy, dependent on Soviet Union on many components such as oil or steel. Economic policy was composed of central planning, direct government intervention to economics in all policies which was efficient during wartime. Taking long run requirements of Vietnam into account, the system created chaos in a complex supply-demand traffic (Harvie, 1996).

After the war, the government implement different policy measures in order to stabilize the economy during 1980s. Besides, the government issued new currency which was more valuable of the old one which ended with a panic in the real market and followed by low GDP growth rates, peak in inflation, actually an hyperinflation. As the result of the hyperinflation, the interest rates increased 13% in 1988 while real

interest rates were still negative. In 1986; the Vietnamese reforms named as “DO MOI” was carried out by Vietnam government aims to transform the economy from centrally planned to socialist-oriented market economy. Banking system was changed, four state-owned commercial banks were established, and the State Bank of Vietnam (SBV) was the central bank in 1998. With this separation, SBV focused on price stability and inflation decreased, GDP growth peaked in time. 1992 is another breakeven point for Vietnam while SBV reacted to stabilization of Vietnamese Dong (VND) for the first time (Harvie, 1996).

All these reforms are evaluated as failure looking to trends in domestic currency. It is not the result of institutions, it was the result of inconvertibility principle of VND in these years and decreasing confidence on VND which led public preference to gold and foreign currency in savings, trade and means of payments. Like Cambodia, durable goods were priced in USD or gold. In other words, foreign currency and gold were the medium-of-exchange and store-of value in Vietnam but they were not deposited in the banking system (Pham, 2017).

Before 1989, “multiple exchange rate regime” was the principal policy in Vietnam which estimates four different exchange rates: a market exchange rate (official exchange) rate which overvalues VND, a non-trade exchange rate, a beside parallel market rate and an internal exchange rate. Foreign exchange centers in different locations were established in 1991 by SBV aiming a “freely convertible VND” after the interbank foreign exchange rate formation in 1994 which aims creation of an official market to provide an official service to the Vietnamese and apply monetary policy, supply the foreign exchange reserves (Phuc & Nyungen., 2009).

Central bank’s intervention to VND continued in Asian financial crisis (1997) and VND was overvalued to USD while other Asian currencies were undervalued. As a result, Vietnamese goods and services became expensive in the international markets and trade deficits were suffered between 1994 and 1997. In 1998, SBV changed its policy on foreign exchange management and regularized foreign currency accounts in commercial banks and legitimized usage of foreign currency. This Decree 63 is an important step by the Vietnamese government while it takes international standards into account and enhances convertibility of VND which allows a possible devaluation of VND. Official exchange rates were announced four

times in a year until 1999 in addition to exchange rate controls. This regime is called as “pegged exchange rate”. According to Ohno (1999), this regime could help the country stabilize the real effective exchange rate. This regime healed Vietnam’s economy and turned its trade policies from negative to positive for the first time in 1999 (Pham, 2017).

After 1999; official exchange rate started to be announced in every working day and details of foreign exchange trade was formulated in detail which fully became effective in 2002. This change was an effort to apply managed floating exchange rate; however Vietnamese economic system could not ever implement this policy successfully thanks to its USD-based structure. In 2004, annual target for exchange rate started to be announced by the governor of SBV to implement monetary policy and limit the functioning peg in this way. The parallel market premium was positive against the official exchange rate which was stable (Phuc & Nyungen, 2009).

Wall Street Economic Crisis caused a domestic economic crisis in Vietnam and the government developed a new economic policy taking economic growth, social security, and poverty reduction into account in 2009. In 2009; Vietnam inflation recorded its highest inflation rate in August 2008 after 17 years with 28%, economic growth decreased 50%, market interest rates peaked from 7,5% to 19% and trade balance deficit peaked. However, this package is not evaluated as successful to Vietnamese economy while loan ratios increased, asset bubbles occurred and as a result banking system experienced a recession in 2011 with 5% economic growth rate, 6% inflation comparing to 7% ratios between 2000-2010. In 2016; Vietnam announced new exchange rate mechanism which will be determined taking various element into account, which was the beginning of de-dollarization policy in the country (Pham, 2017).

Like Cambodia, Vietnam’s level of dollarization is measured with foreign currency liabilities and assets in the system to M2. This ratio peaked in 1991 with 41,2% and decreased until Asian crisis to 20,3% in 1996. Following the Asian crisis; it increased to 31,7% in 2001. Theoretically this trend is the result of VND’s depreciation with Asian crisis and interest rate increase in the international markets in 2000 to USD. This trend started to decline after the global economic crisis. Vietnam’s level of dollarization measured also comparing foreign currency loans to

total loans in the banking system. This ratio peaks in 1994 with 38,6% and decreases to 19,4 in 2001. After a period of fluctuation between 2002 to 2005, it decreased to 10,08% in 2016. In sum, dollarization level decreased in Vietnam from 30-40% to 10-15%. According to 2017 IMF report, Vietnam is a moderately dollarized country. However, all these materials do not take cash foreign currencies into economy and level of USD in Vietnam is still increasing. This behavior is familiar to economists for countries with low economic management (Pham, 2017).

Dollarization is the result of macroeconomic instability for various countries. Governments try to make a regulatory framework to ensure macroeconomic stability. High inflation was in question for Vietnam in 1980s and in the beginning of 1990s. Deposit dollarization showed a decreasing trend with the downward graph for Vietnamese inflation in 1992. On the other hand, Vietnamese economy did not react to increasing inflation between 2008 to 2011 with a rise in dollarization. Beside the inflation, depreciation is considered for macroeconomic stability. Decreasing trend in economic growth and increasing trade deficit resulted with depreciation on VND; inconvertibility period of VND promoted demand to foreign currency. The government reacted all these trends with new regulatory frameworks to support usage of VND or accelerate internal market. Vietnamese people started to keep their foreign currency deposits in commercial banks in 1988, and in time many arrangements declared to officialize foreign currency market taking individuals, institutions, and oversea investors into account. These measures were taken to promote investment in Vietnamese banking system which was planned as a fund to economic development; however, caused for a high dollarization in the country. On the other hand, changing regulations for foreign exchange market was perceived as restrictive and Vietnamese people flooded to parallel market because they could not buy Foreign Currency in the official exchange market even there were no negative condition. This “parallel market” rushed up dollarization in a psychological way (Bui, 2018).

3.2.2.3. Ecuador: Situation of Officially Dollarized Countries

Dollarization was widely accepted as advantageous in its first years, taking 1999's economic collapse into account; however, sustainability of dollarization is controversial. None of the officially dollarized countries have applied de-

dollarization program until the Wall Street Crisis. Wall Street Crisis process and its background led countries to question their synthetic economic system, Ecuador was one of them. Jameson evaluated possibility of de-dollarization for Ecuador in 2003. A dollarized economy must convince its residents to convert USDs back to domestic currency, which evaluated mostly as impossible by different economists. The country will probably be saddled with monetary policy issues which will make it more vulnerable in terms of national security; that's why dollarization is evaluated as "irreversible" (Jameson, 2003).

According to Parades (2017), Ecuador experienced a deep banking crisis originating from General Law of Financial System Institution in 1999. Aiming to liberalize banking sector, the ongoing system corrupted and led a suspicious system. As an example, freedom to give credits to commercial banks and also "natural persons" was legitimized, which caused the possibility for moral hazard. These rules reasoned to an increase in dollarization as the result of decreasing confidence for ongoing system (Paredes, 2017).

International Capital flows interrupted in 1999 as the result of Ecuador's political confusion in terms of international politics and domestic politics, which resulted with exchange rate crisis and USD was adopted as Ecuador's domestic currency in 2000. However, debated on dollarization remained, several political actors chewed up full dollarization while money supply is not under Ecuador's control, excess government spending and ineffective public debt policy was in question (Jameson, 2003). Dollarization supporters' popularity decreased in time, which evaluated as the negative reaction of Ecuador towards dollarization, economic problems, ineffective political reforms. According to Jameson (2003); in such a situation, de-dollarization can only be succeeded if only radical reforms in economic policy are implemented; flexible exchange rate can be advantageous to Ecuador if network externality costs are reduced.

Taking numerical database into account monetary base growth decreased from 174 percent to 5,2 percent, deflation was not solved, and GDP growth changed from deficit 4,8 percent to 4,2 surpluses, unemployment decreased to 8,7% from 15%, gross fixed investment increased around 6%, foreign direct investment tripled from 1999 to 2002. After 2003, economic performance of Ecuador started to decline which led economists and citizens to question dollarization. High interest rates, high level

of country risk according to international companies, high level of public debt was still in question when political power was changed in 2002. High country risk was still in question while real exchange rate of Ecuador was calculated so high, and export-import imbalance was in question in 2003 (Jameson, 2003).

Parades (2017) grouped reasons to de-dollarize Ecuador into five main points: “The background to currency policy in Ecuador”, “The strict monetary constraint is highly vulnerable to persistent external shocks”, “The new mode of regulation or the monetary regime?”, “Dollarization constrains the scope for high and sustained economic growth” and “The restoration of foreign exchange policy”. In summary, Ecuador could take advantage of de-dollarization while the country would be more flexible in monetary policy in a de-dollarized system with its own exchange rate which would decrease fragility of country’s economy with its powerful system. Dollarization makes countries obligated to USD and its liquidity is controlled by another state’s mechanism, which is unfair. While USD is controlled by an external institution, the managing country uses it for its own hand naturally which can harm other countries and could stagnate economic growth. Lastly, a purified exchange rate system would be more advantageous to Ecuador according to economic indicators (Paredes, 2017).

Wall Street Crisis was a chance to Ecuador, taking USD’s depreciation and its effect on export into account; however, oil prices were high and IMF loans were still in question. Economic reforms were planned according to postpone de-dollarization process; but these reforms are not such as to solve these problems. De-dollarization opinion was seen always is the idea of populist and nationalist concerns while money was one of the country’s national symbol and loss of this symbol was not tolerated by the whole population. Loss of independence in monetary policy was also questioned (Jameson, 2003).

According to Jameson (2003); de-dollarization can develop Ecuador’s economic performance in terms of three areas: “Increased Macroeconomic Stability and Policy independence, Improved Micro–Macro Linkages and Increased Access to Foreign Saving”. It is evident that switching USD with the domestic currency, these three benefits could be in question. In order to accrue these benefits, several actors questioned the possibility and the ideal way for Ecuador’s de-dollarization (Jameson, 2003).

In theoretical background, it is widespread believed that de-dollarization is impossible because of its hard realization process taking various risk factors into account, achieving this process takes the result into account: a non-chaotic country. Taking Ecuador as an example, it is evident that de-dollarization has costs and benefits for fully dollarized countries and its harder to accomplish considering to semi officially or unofficially dollarized countries into account while the whole economic system is based on USD in fully dollarized countries and the country has to plan a perfect-match strategy for its own conditions. It is not precise hat de-dollarization will be more proper than USD-based economy for these economies. International support is important for this part, while other countries' sanctions hurt de-dollarization process deeply.



CHAPTER 4

DE-DOLLARIZATION POLICY OF RUSSIA

This chapter is the main chapter of this study. Firstly, historical background of Russian Federation is discussed in compliance with political process, especially role of political actors, countries, specific policies, and economic crisis are analyzed with graphs in detail. Secondly, a specific analysis is preferred to evaluate de-dollarization policy's success and interpreted with theoretical base and supported with numerical data, also graphs.

4.1. HISTORICAL BACKGROUND OF DE-DOLLARIZATION POLICY

Comparing to dollarization, de-dollarization is a new-age concept and there is limited number of in-depth analysis in respect to this. Both concepts are related to monetary policy, besides dollarization has a historical background coming from Bretton Woods and tried to be undermined in terms of "Snake" and "European Monetary System". However, none of these initiatives diminished USD's role in the global economy; that's why dollarization is still a disputable concept in terms of political economics as the international currency.

Cohen (1998) evaluates money's importance in international affairs. "The geography of money" is changing according to political cases and the strength of countries. The traditional view of one nation/one money cares governments more than society; it fails to take the global crisis' main actors into account. The political economy affects the geography of money mostly, and territoriality loses significance taking costs and benefits into account. The definition of international currency gives details of dollarization. Mckinnon (1971) improves currency substitution in terms of world trends, takes foreign currency interventions into account which aims to eliminate depreciation which constitutes the base and the problems of dollarization. Friedman (2010) clarified the quantity theory of money, which was the base of gold

standard era as a whole and changed with Bretton Woods System. Frieden (2017) analyzed Bretton Woods process with historical approach similar to Bordo (1993). Bordo (1993) took a step further with an analysis in terms of macroeconomic indicators and differentiates this process' reflection to different countries in different way due to different conditions. Pinsky & Kvasnicka (2008) researched analyzed the developments in next period, named as "the snake" and went further with "snake in the tunnel" period which led to European Monetary system in world economics. Coffey (1987) is the well-known source; explains European monetary system and its reflections by taking snake and snake in the tunnel period; in other words, by taking this period as a whole.

As stated in the beginning, dollarization is analyzed in depth in various studies. Feige (2003) defines dollarization taking currency and asset substitution into account, emphasizing on de-facto dollarization as a type of dollarization with its advantages and disadvantages. De-facto dollarization is examined particularly on the basis of "the great amount of USD is held abroad" claim which undermines governments' ability to command internal sector and created "dollarization hysteresis" in several countries such as Russia and Argentina. Terra (2015) defined dollarization as "adoption of another country's currency, results with sovereignty loss.", which refers to official dollarization and explained during exchange rate regimes in this study.

Types of dollarization is given in different studies, there is not a widely accepted of dollarization discrimination. Bogetic (2000) stated that full dollarization's cost and benefits cannot be measured while it is limited only with eighteen countries and most of them are island countries. The most important one is Panama, and the result of the full dollarized system's advantages is conflicting. Panama is experiencing this system for a hundred years and vulnerable to exogenous shocks more than other countries using their currency. However, its system worked well until Wall Street compared to countries using own countries, dealing with currency, and banking crisis as a result of seignorage costs and other problems. Berg & Borenstein (2000) is an IMF study to evaluate full dollarization's earnings and loss to countries and world economics. Argentina is taken into perspective in analysis chapter, which is out of scope for this study however theoretical approach is used in

theoretical part. Gentry (2008) clarified the discrimination between unofficial, semi-official, and official dollarization.

There is lack of resources related to de-dollarization theoretical background. Hirschofer (2019) researched de-dollarization in general; and tried to its possible effect on trade in future by citing other analysis directly. Kubo (2017) analyzed southeast countries dollarization and de-dollarization process as a whole and correlated de-dollarization process with countries Sustainable Development Goal (SDG) planning. Gentry (2008) makes an analysis on Ecuadorian de-dollarization process and gives central bank great responsibility in this process. As stated in this paper, central banks can prefer various policies; de-dollarization is the side effect of countries' failure in monetary or fiscal policy.

Each de-dollarization study includes an example to ground this new concept. Jameson (2003) exemplified a case for de-dollarization with Ecuador as the semi-officially dollarized country, shows its positive and negative results with numerical indicators testing the country's macroeconomic performance. In other words, it shows costs and benefits of de-dollarization for a country. It is stated that this policy is not always advantageous for countries; but not impossible to accomplish. Ecuador is evaluated as partly successful while the country has to overcome different problems soon. Kang (2005) exemplified de-dollarization with Cambodia, as an semi officially country with numerical data and historical background, explained Cambodians' relaxedness to high dollarization in their country in terms of price level stabilization and comparing to its neighbors Cambodians never managed with an economic crisis with a shock damaging effects. Like other developing countries, lack of trust level to foreign currency is taken into perspective, which obligated the government to take precautions to high level dollarization. Differences between real dollarization and payment dollarization are given and failure of de-dollarization policy is stated. Pham (2017) exemplified de-dollarization Vietnam, as an unofficially dollarized country with its macroeconomic and political background. After the dollarization analysis is conducted, de-dollarization analysis is measured through deposit and loan dollarization with graphs, foreign currency in circulation is also taken into account. De-dollarization and dollarization policy regulations are compared and its results to Vietnam is evaluated; Vietnamese people behaviors are also not omitted taking the explanation of "parallel market".

Russia is the subject of my research question. The political process is not omitted in this thesis; in contrast political process is deeply analyzed due to the well-known dilemma: Does politics dominate the economics? As stated theoretically; money likes democracy and political stability in modern era. According to IMF reports, political instability affects economy in negative terms. In other words, politics dominates the economics. As a result, it can clearly be stated that; politics and economics are inter-correlated but political instability creates mistrust in the market which results which economic downturn in the economics. For a strong economy, the government must have a consistent political stance. That is why strong economies are built with healthy democracies or with the help of international environments. However, each country lives an infinite economic cycle that composed of economic expansion, late cycle, recession, and recovery phase which is known as theory of economic cycles. According to country's economic portrait, duration of these parts changes.

Boughton (2012) analyzed the Russian historical background in detail, challenges to politicians and Russian people are given step by step as a political study without any numerical or econometrical analysis. This study is used as the base of de-dollarization policy of Russia Chapter and necessary political details are explained with the help of other resources. Gregory (2018) can be evaluated as the secondary source while economic analysis is more evident than Boughton. Russian economic history's breakeven point is clarified by Gregory, which is used in this study as "before 2008" or "after 2008". Cooper (2009) is used more than other resources while it gives US perspective to Russia for 1998-2008 period with numerical data. Its systematic is different than Gregoy, evaluates economic policies in terms of presidential terms; however, the breakeven point is still defined as 2008 for Russian economy taking Wall Street Crisis into account and evaluates possible outputs for Russia in future.

Chiodo and Owyang (2002) put a great importance on Russian 95-98 crises and defined them as currency crisis; evaluated these shocks in terms of exchange rate, stock market index, Real GDP, and lending rate; in other words, with macroeconomic variables. These crises are specified as currency crisis and justified with domestic economy. Bratishev (2002) researched Russian economic policy to overcome 95-98 crises, defined precautions taken by the government step by step and did not evaluate

success of these policies. Mabro (1998) correlated 1998 crisis and Brent crude oil prices; made an analysis with numerical data and took a global perspective to this process which led to an evaluation for oil market as a whole. Only oil price indicators are taken into perspective and its results to countries are evaluated in this study.

Some studies used different separation for Russian economic history, took start of Vladimir Putin presidency as the breakeven point. McFaul (2000) analyzed Russian history under Boris Yeltsin presidency with a political approach, gave its results to Russia and Russian economy without any numerical, graphical, or economic analysis. Kipp (2001) is also one of the political sources, examined Chechenya wars' results to Russia without any economic indicators specifically; aims to give the process clearly to reader and implicates these policies as the work of Russian presidents. However, its results to Russian economy are given in this consolidated study which aims to give politics and economics. Stoner and McFaul (2015) evaluated Putin's presidency, explained the process, and grounded their negative perspective with macroeconomic indicators such as GDP or survey outputs related to Vladimir Putin. Popov (2008) adopted same approach and evaluated Russian economic failure with Putin's political strategies, failures or plans without any numerical evidence.

Johnson (2008) interpreted Russia's problems with USD giving example from Russian history starting the 1990s. Russia is chosen as a special country while its USD stock is the third record on the world in 2006 after Japan and China which makes them vulnerable to exogenous shocks. Politicians' successful and unsuccessful politics against USD are justified. USD's "relative weakness" is important for Russia in this evaluating process; it forced Russian officials to price energy resources in rubles, which is the main economic resource of the country. The process is explained with numbers and proves the de-dollarization policy's success.

Oomes (2003) linked dollarization and economic failure for Russia in terms of dollarization hysteresis and network externalities concepts with various datasets and analysis and equations. High dollarization's cost is defined as seignorage loss, decrease in tax revenue, decrease in central bank's power on the economy. Cost and benefit analysis used over and over in this study, which resulted with fiscal policy

hardening and exchange rate regimes. Dollarization hysteresis is defined as the existence of network externalities in currency demand process.

The interpretation for Russian Economic policy in section 4.3. takes political structure into account, tries to draw conclusion from political process and theoretical background. That is why firstly theoretical explanations are preferred given as the first step, political process is preferred to be analyzed in section 4.2. and its reflections to economy is explained in section 4.3. with a graphical analysis and evaluated according to the expectations based on the theoretical background.

4.2. HISTORICAL BACKGROUND OF DE-DOLLARIZATION POLICY

The historical debate between Russia and the United States comes from the Second World War. German-Soviet Non-aggression pact was reacted by the western bloc. Stalin guaranteed Hitler not to get into the war on two sides. In this process Pearl Harbor attack took place; it targeted nearly 2,000 Americans which made the United States get into World War Two. Battle of Stalingrad (which was an important industrial city) changed the direction of the war in favor of Allied forces. The end of this period noted to the starting point of the Cold War between the United States and the Soviet Union in terms of political, economic and propaganda fronts.

Defeating Nazi Germany in 1945 caused this Cold War; the Soviet Union reacted to the increasing alliance between the US and Great Britain with establishing new communist governments in Eastern Europe to protect itself. At the same time, the US was leading western countries under its influence and these countries became economically independent in the following years. This flow affected smaller countries to become more resistant to superpowers. Decreasing performance of Mikail Gorbachev administration gave chance to Eastern European communist regimes to collapse and new countries such as Poland, Hungary, and Czechoslovakia declared their independence. The Soviet Union collapsed in 1991, led 15 newly independent nations including Russia with its anti-communist approach. Three different presidents served until 2019; however, Yeltsin and Putin are the major actors in the country's history.

4.2.1. Yeltsin Legacy: From Unofficial Dollarization to Devaluation

As USSR's Russian Republican Bank of State transformed; Bank of Russia was established in July 1990. In December 1990; Central bank of Russian Federation became the main bank of Russian Federation with restricted powers. In December 1991, the State bank of USSR abolished its liabilities and assets; equities were transformed to Bank of Russia. Bank of Russia started foreign currency market operations, undertook publishing official exchange rates since 1992. As Popov stated (2008); while the Central bank of Russia was founded in 1990 and did not have explicit written powers and responsibilities, it did not use its effective economic policies until 1995; IMF's Extended Fund Facility Reforms

Mikhail Gorbachev's attempt to give Soviet Republics greater autonomy reacted by communist forces with a military coup against the president on 19 August 1991, result with Gorbachev's house arrest. Boris Yeltsin called for a general strike to oppose communist forces and Gorbachev came back to Kremlin in two days. In 1992, Yeltsin became the first president of Russian Federation and applied for IMF membership aiming to liberalize Russian economy through several reforms. Russia, as the successor of Soviet Union, was inherited with high level of debt and low level of gold and foreign exchange reserve. Russian market was not effective even in consumer goods; dependent on other countries, which made Yeltsin to cooperate with creditor countries to get over with this chaotic situation. G7 countries preferred IMF to take a central role in this process to secure the cooperation. This "cooperation" was reinforced officially in July 1991 and continued with Russia's external debt. The Prime Minister Gaidar started economic reforms in 1992, when the government ended its control on pricing; named as "preliminary economic reform program". Russia aimed to stabilize the economy and to find financial assistance from other countries. The Russian Government became a member of IMF in June 1992 and first official lending to Russia started in August which led to hyperinflation after 1985 in Russia (Boughton, 2012).

1992 is important for Russian economy, taking Hyperinflation into account. To explain this issue clearly, the historical facts and numerical data must be used, and the USSR policies must be also reviewed. Russian inflation was 4,6% in 1985, increased to 19% in 1990 and peaked to 200% at the end of 1991. This inflation was originated from the economic stagnation during 1970s, because of gross output drive

policy of economic actors; omitting the quality or consumer needs and increasing the quantity of the output which resulted with shortfalls in raw materials due to inefficient use. Gorbachev's policy of "perestroika" was an attempt to overcome these problems and control the production, also the whole budget. Increasing central control and high level of competition led to disequilibrium and hyperinflation due to market conditions (Filatochev & Bradshaw, 1992).

In the communist system before 1990s, workers were determining their wage levels which was four times higher than labor productivity in 1990. Many institutions reacted this policy with new investments to reduce the expenses including wages, which could reduce job opportunities. On the other hand, while raw material market was confusing; production level stroked the bottom. Banking system had also another hysteresis; while the sector was controlling by the government and managers were not taking realities into account. As a result, especially in the industrial sector the wholesale price index was 200% in the beginning of 1990 and increased to 264% in the last months of 1991. This situation was the result of spillover effect between sectors, while inflation in intermediate goods or raw materials cause an inflation in the final goods (Filatochev & Bradshaw, 1992).

There was a widening gap between domestic demand and volume of output in Soviet Union in 1990. GNP dropped to 17%, industrial output decreased 8% and agricultural output decreased 10-11%. In such a situation, banking sector applied monetary expansion which combined with decreasing output, lead to inflation in the economy. However, all these conditions are the elements of inflation; not "hyperinflation". The strong downturn in industry and refuses from donor Republics to make their payments reduced federal state budget, which has to cover not only central government spending, but also other activities such as health or police. While these plans did not realize, and the government get into a scrape; aggregate money supply increased in these years. Aggregate money supply was not increased because of credit expansion by private sector or individuals, it was the result of Soviet banking system's great volume of credits used by Russian republics especially in 1991. The breakdown of relations between republican governments caused this credit explosion. In the new economic system with the Central bank of Russia, monetary policy was not the issue of central government. Volume of money in circulation

increased in republican countries dramatically and introduction of national currencies worsened Russia's situation; caused "hyperinflation" (Filatochev & Bradshaw, 1992).

Even in Soviet times, Russians could not make peace with US dollar in the economy. As well known, forbidden dollars were used in underground economy and used by tourists in hard-currency-only stores. The hyperinflation in 1992 led Russians to be more familiar to USD and Russia dollarized with a high ratio in a short time. Russians were handling dollars to use in daily life, however the government held fewer than its citizens in total. Russian government since the collapse of Soviet Union made a great effort to decrease this level of dollarization. Russia's dollarization history starts with unofficial dollarization before 1991, when citizens kept their cash outside the banking system and made their country more vulnerable to financial crisis. (Johnson, 2008).

Accession to dollar was the key to withstand ongoing economic crisis in Russia during 1990; working for foreign company and currency trading was protecting Russians from inflation. USD/Ruble exchange rate was well known by Russians as the result of currency exchange booths. Pricing started to be measured with USD, even in some stores. This growing dollarization became serious problem for Russian government, which led to a call for official dollarization or adopt a dollar-linked currency board. Unofficial dollarization ended in Russia in 1991, however the system did not change to official dollarization; aimed to officialize dollarization in the economy as a term of modernization and reform (Johnson, 2008).

Due to hyperinflation; Yeltsin government was obligated to make an agreement with IMF and in 1993 International monetary Fund used Systemic Transformation Facility (STF) as a new instrument to help countries in transition faster. STF standards were more relaxed, taking conditions of the countries in question into account. Russia was applying privatization program, trying to eliminate state enterprises; the central bank was also increasing interest rate to control inflation. However, the economy was not controlled efficiently, and private firms was not competitive in the market with the old non-private firms. In terms of STF, IMF offered more support to Russia in 1993. In 1993, Russia became indebted to World Bank 610 million USD and to other countries 10,2 million dollars which created domestic chaos in political area between Yeltsin and the Parliament." (Boughton, 2012).

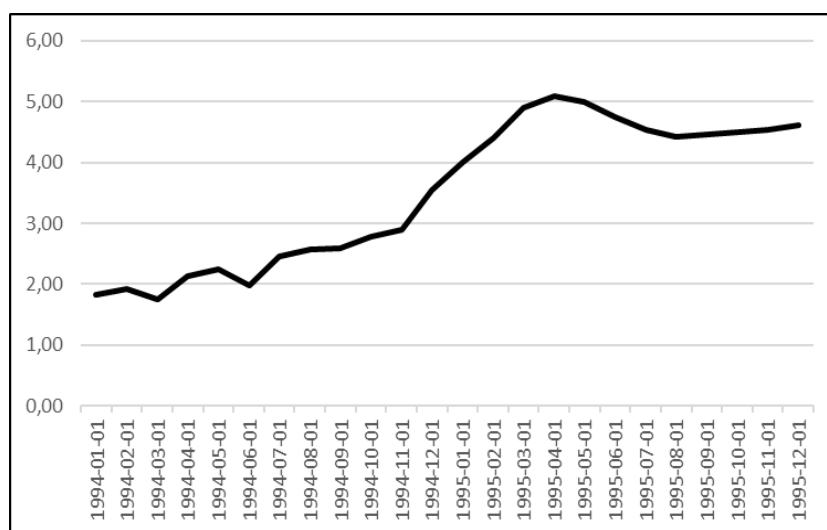
The domestic chaos was originated from the superiority issue between the congress and the president. The congress objected this system taking the hyperinflation and large number of debts into account. Price liberalization and economic reforms throw this superiority issue into question. Congress put these views into reality with a constitutional draft, proposing amendments to rectify the Russian president. On the other side, Yeltsin reacted this move by dissolving the congress; by using his constitutional rights. The congress declared the vice president as the interim president, which was a replay of 1991 with two Russian state heads. Russian tanks attacked the Russian parliament, which was controlling on these days by anti-Yeltsin powers. Yeltsin's this tactic was seen remarkably like 1991-year Russia; however, roles were changed. The chaos affected the public; protests grown up and the Russian army applied Yeltsin's orders to finish this chaotic situation; which was contradictory to their neutrality declaration after 1991. Yeltsin called for an early election and referendum which will give expanded power to the president; however, in this election anti-Yeltsin voters could not use vote as the result of recent conflicts. Yeltsin won this election, and the new constitution was approved. Yeltsin and the Congress was not arguing about the financial issues, political issues were also in question before and after this process. Chechnya, Tatarstan were first two countries in the independence process of Soviet Union countries. 1993 constitution motivated other countries to declare their independence including other necessary elements such as currency, flags, or constitutions, which was the result of the IMF-based democratization process (McFaul, 2000).

Chechnya was one of the countries declared its independence, which was a Muslim-majority region. Russian security forces were preventing this new-born states' legitimacy, which led to de-facto civil war between different groups related to nation and religion and this long process named as "Chechen wars". Yeltsin administration saw Chechen self-determination efforts as a threat to Russian sovereignty and acted in 1994 with military forces which lasted until the end of Yeltsin's presidency. Chechens recaptured Grozny, the capital of Chechnya, in August 1996 which obligated Yeltsin to accept ceasefire and withdraw the Russian armed forces (Kipp, 2001).

During the first Chechen war, in September 1994, CPI increased sharply which weakened the confidence on reforms and led to a panic in foreign exchange market;

resulted with Russia's "Black Tuesday" in October 11. In a single day, ruble lost 21% of its value against USD as shown in Figure 4.2.1.1; signaled the inefficiency of current reform process. Yeltsin reacted the hyperinflation by changing his economic team, which was composed of equipped but old school-minded team, to strengthen the reforms. IMF arrived in Moscow after a week of Black Tuesday; with an equipped team including Stanley Fischer as the principal deputy. IMF mission proposed full-scale-standby agreement; however, could not agree with Russia. IMF's efforts in 1994 cannot be "unsuccessful" even the agreement was not signed, because negotiation process for a complete reform started between Russia and IMF. In April 1995, the Executive Board approved a stand-by arrangement for 6,8 billion USD despite the concerns of some members of the Boards related to Russia's possible political and economic failures. Russia and IMF implemented this program successful, which affected the economic indicators, confidence on Russian economy and international investments were increased since 1992. 1995 program, named as IMF was seen "successful" by authorities but two costs were in question and created problem in next years: privatizing major state-owned enterprises and inefficient exchange rate policy thanks to the program (Boughton, 2012).

Figure 4.2.1.1. USD/RUB Exchange Rate (1994-1995)



Source: Federal Reserve Bank of St. Louis; National Currency to US Dollar
Exchange Rate: Average of Daily Rates for the Russian Federation

As the result of reforms, Russia applied to General Agreement on Tariffs and Trade (GATT) in 1993, which converted to World Trade Organization membership in 1995 while this organization became the administrative body of GATT. This innovation process decelerated as the result of economic and political issues during Yeltsin Period (Cooper, 2009).

The Extended Fund Facility (EFF) program designed in 1995 and actualized in 1996 taking pros and contras of earlier programs into account. Russia's current account surplus will be supported in financial means by IMF; and Russia will be free to draw 10 billion USD after three years. As Boughton (2012) stated; even if repayments will not be disrupted, Russia's indebtedness will be equal to a quarter of IMF's total loan in 1996; which makes this decision one of the riskiest decisions on the IMF side. EFF was obligating Russia to increase tax revenues, creating a tax corridor to control tax collection efficiently which would limit spending of Russian people and firm's revenue. VAT (Value added Tax) system was offered to be developed; and tax avoiders are offered to stay outside the system. Fund approved Russian efforts in this process even Yeltsin could not meet all the necessities and continued to support Russia financially. Paris Club of official creditors rescheduled 40 billion USD Russian debts from Soviet Union to be repaid in 25 years thanks to US support to Russian economic desires (Boughton, 2012).

Rapid increase in the first half continued in the second of 1990s; as the result of "dollarization hysteresis" as Filatochev mentioned, that Russia experienced also in terms of network externalities. As theoretically explained and exemplified in Cambodia; network externality defined as the increasing demand to an instrument as the result of another actor's behavior (Oomes, 2003). Liebowitz & Margolis's (1994) definition of network externality is given under "de-dollarization as a theoretical concept" title. Externality is defined as the cost or benefit upon a service or system as the result of others' actions; in other words, the cost or benefit is generated by external factor and named as "externality" which can be negative or positive. McGee and Bonnici (2014) defined network externality as the change in the utility when number of people consuming the same product, which is in the same way with Liebowitz & Margolis (McGee & Bonnici, 2014). USD was using as an instrument for investment and payment which raised network externalities as the result of its advantages such as acceptability or hedge for inflation. Dollarization hysteresis is

defined in the same way with Filatochev theoretically and applied to Russia while dollarization increased as the result of currency depreciation and inflation, however, did not decrease with positive development in these variables. The exchange rate stabilization could not stop dollarization speed in Russia as the result of “dollarization hysteresis.” (Oomes, 2003).

The exchange rate corridor protected exchange rate from Russian inflation; however, this system was not elastic enough for political dilemmas and elections was not in long-term-plans of Russia and overvaluation was in question. In May 1996, Russian diplomats announced that exchange rate of Ruble will be depreciated 1,5% per month, which seen as ineffective under these conditions. 1996 is important taking tax collection into account, while Russia could not strengthen tax collection process. As a result, none of the countries supporting Russia was happy; they were disappointed, taking absence of fiscal reforms into account. Government spending was still high, exchange rate was still out of balance, tax revenues was not collecting effectively, Russian treasury bills were not demanded by foreign investors, which lead to fiscal deficit in Russian economy and convinced IMF staff to abandon the restrictions regarding to interest payments (Boughton, 2012).

Despite all these chaotic signals, US government declared their support in a summit for Russia to be accepted as a major economic power; to be the next participant country in the “Summit of the Eight”, to be a member of WTO, OECD and Paris Club as a country who rescheduled its Soviet-era debt only one year. At the same time, IMF chair alarmed for Russia’s economic conditions; taking tax collection crisis and other issues into account and called for a program for reforms. In 1997, Russia was “in a state of crisis, a crisis of a state” according to the literature. To overcome such a situation; reforms should be large-scale, aim to improve investment in terms of high-level authorities for private investment. While the state was unable to collect taxes, there was “a major risk of anarchy” if the government would fail to finish this economic crisis (Boughton, 2012).

As economic cycles theory explained; unexpected increase in macroeconomic indicators is a signal for the economic crisis. Between 1992-1994 period; central Asia countries had shown rapid growth in international trade. Especially by mid-1997 three-digit inflation was defeated by post-soviet republics such as Kazakhstan or Uzbekistan. In Summer 1997, Pacific countries had experienced currency crisis,

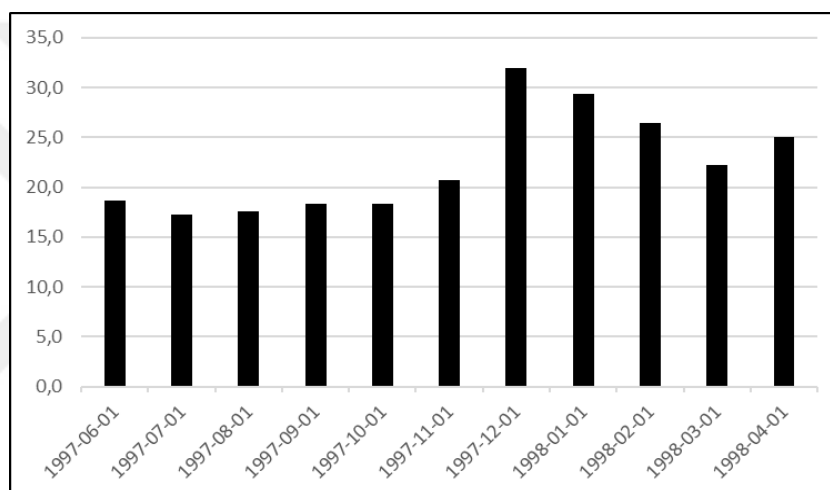
which corresponds to repetitive crisis period between 1997-1998 in Russia. After the beginning of East Asian crisis, a speculative attack occurred to Ruble in November 1997, which led to currency devaluation after the first crisis, set Russia back 6 billion USD reserve. In addition, foreign holders started to sign forward contract for government bills to hedge risk, which originates from exchange rate. Russian commercial bank's liabilities from these kinds of contracts were around 6 billion USD in the first half of economy, which harmed by decrease in oil prices and led to third wave. (Chiodo & Owyang, 2002).

Russia made a great effort to liberalize its treasury bill market aiming more investment from foreigners which enabled the Russian government to finance the fiscal deficit without an effort related to tax collection and government expenditure. In other words, Russian fiscal deficit became dependent on international speculative investors and government's inability in fiscal policy was more evident. The interaction between speculative investors and the Russian government drove the financial system into repetitive crisis period by the end of 1997. This period composed of four waves: First wave in October 1997 which led to currency devaluation, second wave in May 1998, third wave in July 1998 and the Final Crisis in August 1998 which led to change in political power (Boughton, 2012).

On October 28 of 1997, the first wave started. The stock market lost 20 percent value and Russian government Bonds'(GKO's) interest rates increased to 25 percent at the same day reactively as shown in Figure 4.2.1.2. This speculative attack does not have any special reason from Russian agenda however financial developments in East Asia were suspicious in October 1997. Taiwan dollar was devalued, Hong Kong Stock market decrease more than 20 percent. One day before the speculative attack on Russian market; equity markets were decreasing altogether including developed countries such as USA. Russian stock market was not affected directly; but global shock affected the Russian market in terms of foreign investors. IMF interfered the Russian economy reactively to solve two ongoing problems: fiscal policy and exchange rate which were the heritage of 1994 and could not be solved even with EFF. "Kudrin-Fischer Plan" applied by IMF and Russian government on November 9, as a package of tax and spending measures. Some measures were under Central Bank's responsibility and others would be implemented by Yeltsin's decisions. IMF was expecting real measures, decided by Russian government or economic authority.

The central bank decided to implement devaluation on ruble as a currency reform which would passivate the market rate at the beginning of 1998; only in two months. This announcement of central bank resulted with decreasing demand on GKO's which led to decrease in foreign exchange reserve before the beginning of the devaluation. The government concentrated on tax collection and succeeded, which resulted with confirmation of 672 million USD debt. Yeltsin's second reaction to first wave was changing his officials, the prime minister and the first deputy, which became a ceremony after each crisis in Russia (Boughton, 2012).

Figure 4.2.1.2. GKO Rate (June 1997-April 1998)



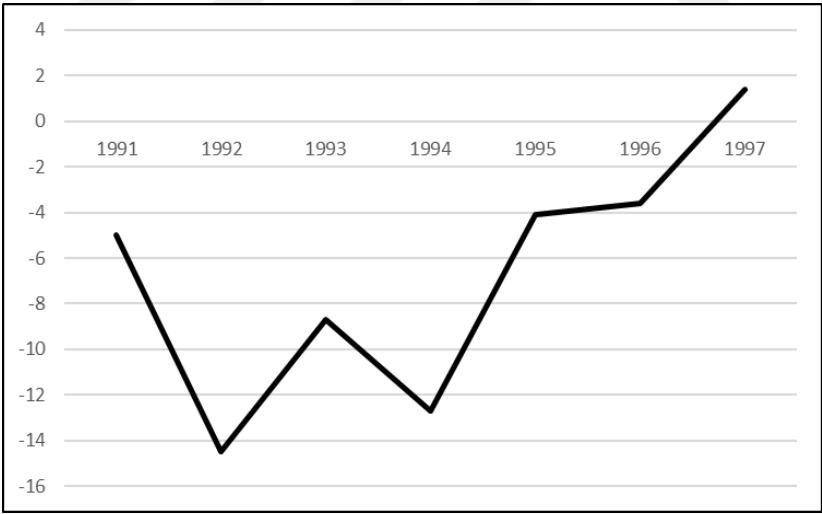
Source: Federal Reserve Bank of St. Louis; Interest Rates, Government Securities, Treasury Bills for Russian Federation

This confirmation of 672 million USD debt was not the beginning of a different history; while earlier credits from IMF would come due, such as 6,8 billion debt from 1995 as an example. Russia became obligated to decrease domestic borrowing and force tax collection to have a comfortable zone for interest payments. Economic growth was slowing down every year, and real GDP declined 4,9 percent in 1998 instead of the stagflation in economic growth indicator (Chiodo & Owyang, 2002).

1996 is an important year for Russia while government officials began to negotiate repayment for foreign debt, coming from Soviets. The officials were

aiming to restore investors' confidence with this decision. That is why; 1997 is seen as a breakeven point toward economic stability for Russia. In September 1997, Russia joined the Paris Club of creditor nations after planning its payment related to the Soviet Union's debt to other countries. Recognition from the Paris club fixed the exchange rate for 0.6 rubles per dollar; evaluated as "arbitrary" by Chiodo and Owyang (2002). This low exchange rate eased Russian banks to borrow from other countries which increased the country's foreign liabilities from 7 percent to 17 percent in three years. A month later, in London club 23-year debt payment program was scheduled for 33 billion USD. Besides, Currency crises are experienced in Pacific countries in the summer of 1997. Russia's Paris Club accession assumed to lead an increase in credit ratings, which resulted with 0,8 percent economic growth for the third quarter as an optimistic indicator after long years as shown in Figure 4.2.1.3., which was the result of bank's increasing foreign liabilities from 7% to 17% (Chiodo & Owyang, 2002).

Figure 4.2.1.3. Russian GDP Growth 1991-1997



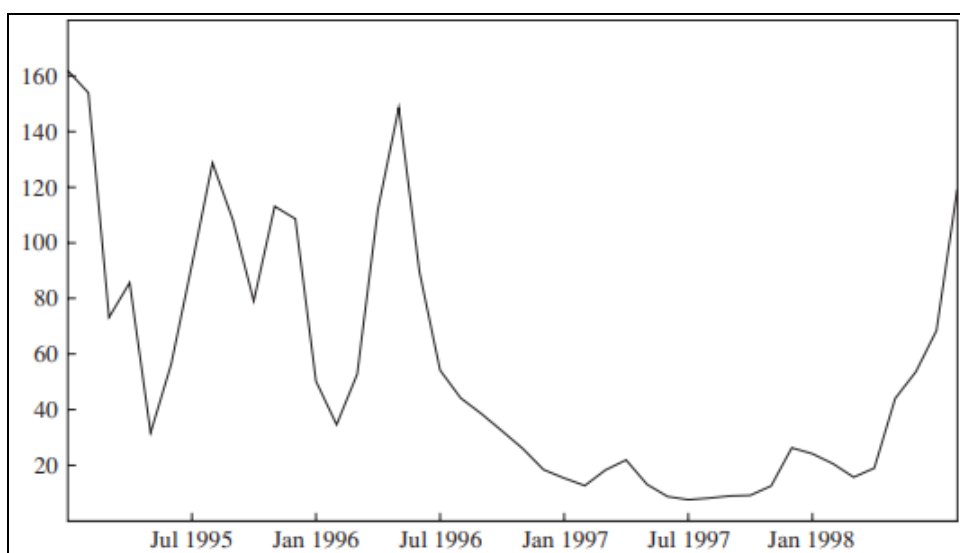
Source: International Monetary Fund, Real GDP growth (Annual percent change)

Despite these optimist assumptions, real wages were less than half comparing to 1991, wage payments were always late, foreign direct investment was low and tax collection was so weak as the result of monopolies and led to high numbers in public deficit. Tax revenues were planned to be collected with an old-school-system, which

was unfair. Regional governments had to be supported to operate this system clearly, firms must have budget to make tax payments to regional governments. To eliminate country's default risk, Russian government agreed on a new Tax Code; composed of more efficient taxes. However, problems in federal revenue were ignored, which was the basic problem of this regulation (Chiodo & Owyang, 2002).

In May 1998 the 18th, Russia experienced second wave of this crisis. Annual GKO's interests jumped 20 percent and central bank became obligated to intervene Ruble from collapsing. There was a political crisis in Indonesia, created a loss of confidence for weak economies which includes Russian market. IMF denied "the crisis in a Russian market" rumors to prevent panic which did not affected Russian economy on the positive side enough. Clinton's statement which evaluated as a pressure on international financial institutions did not create a positive effect in the expectations after IMF's evaluations to Russia, which made GKO interest rates to approach 95% yearly to preserve domestic exchange rate to compete with USD. During Yeltsin presidency, GKO rates were used for each crisis; as shown in Figure 4.2.1.4. (Boughton, 2012).

Figure 4.2.1.4. Real Short-Term Interest Rate (1995 - 1998)



Sources: Kharas, H., Pinto, B. Ulatov, S. (2001)

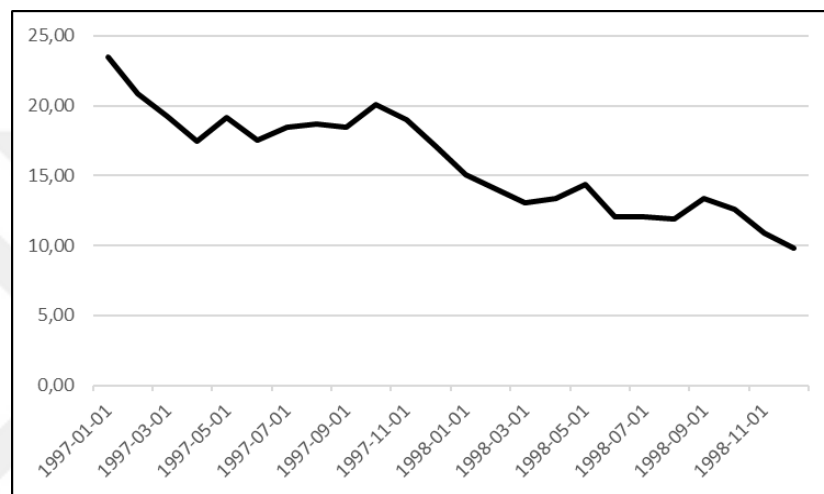
IMF reacted this shock with another announcement related to next tranche of EFF agreement to refresh investors' confidence; however, it could backfire if Russian government could not compete with tax cheaters. The Executive Board postponed the meeting while Russia was ineffective in tax collections which created a backfire effect related to announcement. Financial gap becomes more evident each day, which convinced Yeltsin to take more radical decisions related to budget. The government and the president blamed each other while arguing this short-cut budget. IMF agreed with Russia after 15 days with a promise on tax collections; and country's total indebtedness was brought to 14,3 billion USD (Boughton, 2012).

Third wave recurred in July 1998; as the result of political conflict between Yeltsin and the parliament. Yeltsin's regulations aiming to increase federal revenues were rejected several times, which undermined the promise of Russia to IMF after the second crisis. US, the state supported Russian government during this crisis, changed its policy and started to press Russia rather than IMF. During this period, G7 countries privately agreed on supporting IMF for a possible lending program if Russia applies the economic reforms effectively. On July 13, Russia addressed "radical tightening of the federal budget"; supported by new financing from IMF. IMF reacted for a new lending, which will be used in the context of EFF arrangement taking necessary reforms into account and "Compensatory and Contingency Financing Facility (CCFF)" which will compensate depreciation of world oil prices in terms of international trade. Additional lending will be available for implementation of programs. Continuing decrease in ruble's real value and increase on GKO yields harmed Russia's economic performance in this period, which was the result of investors' decreasing trust to country regarding to IMF statements and conditions. Worse still, the parliament refused tax regulations which endangered IMF funding and market confidence to Russia and resulted with a decrease in initial payment of new funding; resulted with the peak of Russia's debt to IMF with 16,2 billion USD (Boughton, 2012).

Oil price depreciation started in the first months of 1998 as the result of Dubai and Mexico's downward Brent Crude oil pricing, which mirrored to crude oil prices for Russia as shown in Figure 4.2.1.5. According to Mabro, oil price crisis is originated from 1997, while speculative pricing led countries to make planning with unrealistic income expectation from oil export as the result of the peak in December

1996. “Normal level” of oil pricing was calculating taking past prices into account, which omit possible speculations into account. Oil price decline coincides the Jakarta OPEC meeting held on 26 November to 1 December, prices started to represent downward trend and did not change with Riyadh Meeting between Saudi Arabia, Venezuela, and Mexico while traders did not accept production cuts and perceived this decision “sentimental” (Mabro, 1998).

Figure 4.2.1.5. Global price of Brent Crude (1997-1998)



Source: Federal Reserve Bank of St. Louis; Global price of Brent Crude

As Mabro (1998) stated; was a general perception of “contango” in the world regarding to depreciating oil prices and reversal of this policy seems impossible or so far. “Contango” decreased demands to make investment in oil sector while marginal cost of storage added to opportunity cost and competition over pricing. Earlier, oil prices were high as the result of growth in demand which led Asian countries to make investment on this sector such as Algeria, Qatar, or Nigeria. Saudi Arabia changed the game, export oil with fixed volume until 1997; did not affected by oil price crisis while new investments were not in question for this country and determined downward prices easier than others (Mabro, 1998).

Oil price crisis was the result of non-useful quota system in the sector for both OPEC and non-OPEC countries. Oil exporting countries were not uncomfortable with downward pricing in first time, even oil prices were less than 1994 pricing

which led to threatening oil price collapse in history. Countries like Russia felt vulnerable to decline in oil prices while; the government budget was depending on oil revenues and exports, oil production cost was increasing, foreign debt repayment planning was not able to tolerate such a shock. In addition, some countries such as Qatar made huge investment to this sector as the result of peak in 1996. Venezuela was another problematic country, while they were reluctant to apply oil cuts or quotas because it could send a wrong signal to foreign investors with decrease in volume of export. Venezuela agreed with Saudi Arabia and Mexico later while depreciation of oil prices started to affect their economy like other countries that made investment. Agreement aimed to get rid of supply surplus with the help of production cuts. Effect of the policy mirrored to economies in 1999, with huge damages in the world economy (Mabro, 1998).

The crisis started to repeat itself oftener; the fourth and the final crisis broke down only one month later: in August. Financial times pointed that Russian economy getting worse and worse every day, should be interfered with effective instrument such as devaluation of 15 to 25%, while whole deputies of Economy and the government were in holiday. The next day, GKO prices collapsed, and banks reacted this by selling securities (Boughton, 2012).

On August 13, investors' fears on government possible decision to devalue the ruble led to collapse in Russian stock, bond, and currency markets. Annual yields of domestic-currency-denominated bonds increased to more than 200%, which obligated the market to shut down for 35 minutes while the prices hit the bottom, which was a signal to Russian officials, even IMF officials were insisting on the opposite, to make changes in the economic system (Chiodo & Owyang, 2002).

As Bratishev (2000) stated, productive investments have fallen by five times, the output by two times and export of manufactured goods were almost at zero between 1991-1998. The currency crisis was the result of increasing public debt, capital flight from the Russian market which made payment of short-term obligations impossible. In 1998, the government had to pay 150 billion rubles while the expected budget was only 120 billion rubles (Bratishchev, 2000).

IMF officials were insisting Russia on finding a solution with its creditors, while Russians decided but not announced the devaluation. Russia defaulted on

domestic currency denominated debts, which was the result of financial institutions' demand on Ruble-denominated financial instruments. IMF could not maintain liquidity to Russia as the result of G7 finance officials' pressure to stop lending. The Russian government devaluated the ruble on 17 August 1998, however the currency depreciated 19% in the following week. To stop this situation, the country shifted to floating exchange rate regime without a strong currency board. There was no external funding to Russia for ten months, until July 28 in 1999 which was the last drawing from IMF for Russia until 2010. (Boughton, 2012).

Devaluation could not stop the decrease in real output, which announced as minus 4,9 percent; exports increased, and imports stopped, on the other hand foreign direct investment did not increase as assumed. Russia experienced a currency crisis and applied devaluation of Ruble. Currency crises occur in countries with large deficits and low foreign reserve such as 1998's Russian economy. Privatization, economic reforms, and macroeconomic stabilization efforts resulted with higher costs. Positive economic growth record in 1998 led Russia to repay its sovereign debt, while the country could not manage this process; applied devaluation and declared foreign creditors a repayment program to preserve its own interests (Chiodo & Owyang, 2002).

Johnson (2008) questioned the persistency of Russian dollarization in such a bad economy. The Soviet Currency Reform in 1991 legalized dollarization with an exchange limit with 1.000 per each citizen. The beginning of high-level dollarization is the 1992 hyperinflation, which decreased trust to Russian Ruble. Currency reforms in 1993 and 1998, financial crises and collapse of banks made Russians to keep their foreign currency at home rather than financial institutes. Yeltsin applied 5 anti-dollarization policies to strengthen the economy. The Russian government limited dollar transactions firstly in 1992, the central bank banned cash payments in dollars in 1994, ruble corridor introduced to guarantee the exchange rate to fluctuate in a narrow band in 1995, the Ruble devaluation hardened dollarization as the result of its cost, which led to decrease in dollarization in 1998. Finally, after 1998 central bank introduced an important measure which obligates exporters to convert %50 to %75 of its foreign currency to Ruble to strengthen its which served to speed up in recovery for dollar reserves in coming years (Johnson, 2008).

According to Popov (2008), there are several elements shows the economic crisis's intensity. The mortality rate is one of them, which is a unique case in Russian history with a 60 percent increase from 1990 to 1994 without wars, epidemic, or something unexpected. It was the result of cardiovascular disease in 40-50 males, who could not deal with the stress of the market economy's transition. Murder rate by mid-1990s is another indicator; which was the third highest rate on the world after South Africa and Colombia; on the other hand, it doubled Brazil and Mexico. As Popov (2008) stated; Russia's democracy index was 48th out of 54 countries even after the establishment of the market economy and victory of democracy in 1996. This low performance decreased trust to the Russian economy and between 1992-1998 tax collection rates fell about 20 percent and GDP halved itself; as a result, the Russian economy lost 45% of its output during the transformational recession of 1989-1998. There was no person worth 1 billion dollars in 1995; although 53 billionaires were residing in 2007 (Popov, 2008).

In August Putin was assigned to prime ministry by Yeltsin, which doubted other countries for several problems such as Chechnya. However, the Russian country started to implement better macroeconomic policies after the final crisis, increase in world oil prices increased Russian income from exports and healed the economy. In December 2000, Russia did not required renewal of Funding and paid all of IMF obligations in 2005 when Vladamir Putin was the president of Russia (Boughton, 2012).

4.2.2. Putin Legacy: From Devaluation to De-Dollarization

Yedinstvo(Unity Party) was established before the 1999 elections, and its victory was a success story for well-funded regions over financial supporters and the appointed prime minister of the Russia: Vladamir Putin. Yeltsin resigned from his duty on 31st December 1999 and Putin became the acting president of Russia. Putin promised Russian people to cope with economic turmoil and ensure long-term economic growth. Putin took the benefit of government spending cuts, increase in tax regulations and 1998 devaluation which accelerated export income and reduced tax-collection problem. In other words, Putin had to protect this graph after the end of Russian devaluation effect on the economy (Cooper, 2009).

Gregory (2018) divides Putin's economic policy into two periods: 2000-2008 and 2008 to present taking the global crisis and payment of foreign debts into account. In the first period, economic policy was more liberal, and economy was growing consistently. Putin's second victory was not a great surprise while there weren't any strong opponents in the 2004 elections and Putin used his economic policy's strength, there was a growing economy in the BRIC countries (Gregory, 2018). Even Putin struggles to undertake this victory, it was the result of 1998's economic measures as Cooper stated. As Stoner and McFaul (2015) said; "Putin got the credit. He was in the right place at the right time."

Putin strengthened its economy, however with several failures. Firstly, Putin could not succeed a "diversified modern economy" promise, Russia has still oil-based economy while major revenue comes from oil and gas. Skolkovo was a project announced in the first period and constructed in the second period; designed as a competitor to Silicon Valley. However, the announcement of the project did not change anything in the economy, technology could not rise. In addition, foundation of Skolkovo Innovation Center also did not change the distribution of Russian general income in the second Period. Secondly, succeeding state-owned industries promise as a communist behavior did not work, while none of them became an efficient brand in the world economy. Gazprom was one of them; the Russian partially state-owned multinational energy cooperation with the dozens of investments in 2007 by the Russian government. This institution was founded in 1989, with this investment Putin aimed to make Gazprom "the world's first trillion-dollar cooperation.". Gazprom was worth 360 billion USD and the third most valuable company in 2007; however, in ten years its value decreased dramatically. Gazprom is not in the top companies even it has 15% of world gas reserves and orchestrates the European market, while it funds Putin's political projects. Major Russian companies are state owned however are not working efficiently as Chinese State-Owned companies. Thirdly, Putin's one-man rule perspective and aggressive foreign policy isolates Russia in economical means taking Chechen Wars and energy treatments into account. Putin's expropriation initiatives frighten foreign investors. Lastly, his policy which favors autarky and isolation for Russian economy similar to Stalin contradicts with modern understanding (Gregory, 2018).

The first period consists of two presidential terms of Putin: 2000-2004 and 2004 to 2008. During his first presidential term, Putin actualized critical economic reforms to protect Russian economy. The first presidential era is the accumulation of critical reforms to achieve economic stability. In 2002; pension reform succeeded to compete with poverty and increase retirement funds, on the other hand the responsibility of pension shifted to employers from the government. The following year, government deposit insurance program was introduced to lend a hand to private banks, the institutions working without insurance, and also state banks which trusts on state funds in the old system. This program clarified criteria for private banks which tests their financial performance to Russian central bank. In 2004, financial transparency widely accepted to improve Russian bank operations. In this period, new SMEs are encouraged through a regulatory reform which eliminates obligatory procedures to carry on a business. These incentives boosted the Russian market and ensured country's economic performance. Aiming to provide a healthy democracy to succeed economic growth, minority rights are also ensured with new regulations (Cooper, 2009).

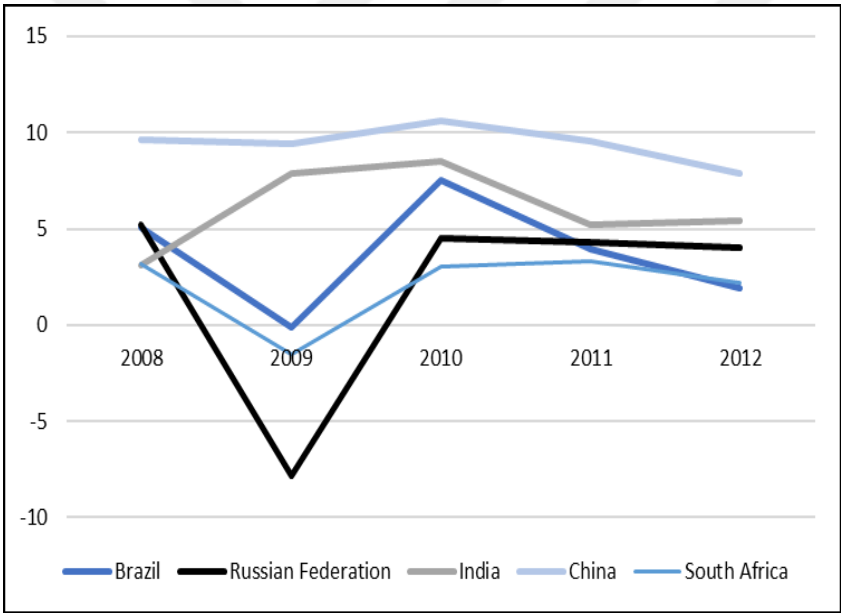
Even in Soviet times, agriculture was one of the inefficient sectors in the Russian economy. Yeltsin legacy kept agriculture alive with low interest loans and subsidies, which was similar also in Soviet era. 1998 devaluation led a boom to this sector like other sectors; however, agriculture sector was not ready for foreign competition and could not maintain its graph after the devaluation. Land reform from the Soviet times was always problematic and leading to long debates. In 2003, the Russian legislative body legitimized a framework for land trade; however, it was not successful like other reforms while the Russian people were reluctant to implement this policy. The first term was the era of regulation, however the country started to make strategic movements to sectors to handle the control of the Russian economy. Yukos oil company was the first case, its president was arrested and accused of tax dodging in October the 2003. Its president acquired shares in other companies through auctions in Yeltsin era; without paying taxes. He stood up to government omitting Putin's government monopoly on oil transport principle with privately owned pipelines. As a result, a state-owned company bought these pipelines in return of tax penalties. The Yukos company bankrupted in the end, which is important for Russian history as the first case (Cooper, 2009).

The second presidential term of Putin consists of a great effort to re-establish control over the economy through investment on critical sectors and establishment of new institutions, also new regulations. One of the most important economic reform was reduction of overlapping taxes in Russian economy taking local, regional, and federal governments into account. Before these reforms, Russian residents were obliged to pay 200 separate taxes, only 30 of them was subject to federal government. In 2004, the Russian government changed the system altogether, number of taxes were decreased to 16, only 6 of them were going to regional and local authorities. Personal tax income was reduced to 13% from 30% and introduced as “flat tax”. Different social taxes started to be collected under one name and tax ministry became the only responsible institution for tax collection; to solve the corruption. The stabilization fund was founded also in 2004, to ensure fiscal balances. The stabilization fund increased governmental tax revenues at crude oil prices to balance budget deficit if oil price falls in speculative ways. During the second presidential period, the fund’s cash was around 225 billion USD which were used to pay of obligations from IMF and Paris club. In the next year, the government replaced the policy of social subsidies to selected groups aiming to ensure the economic stability, to free transportation and health care as a socialist policy (Cooper, 2009).

Aiming to control the economy through strategic sectors, the Russian government undertook the control of specific sectors such as oil, machine building or aviation between 2004 to 2006. The primary producer of Russian cars’ administration was transferred to state-owned defense company. The same company took the majority share of another company named as VSMPO-Avisma which acts on titanium production. Share of government control increased in this period, especially in crude oil production sector with the help of Gazprom. As Cooper stated (2009); many private companies became state-owned and share of the government in oil industry increased from 18% to 50% between 2004 to 2007. With Putin’s economic policies, Russia became the second largest oil exporter after Saudi Arabia, started to utilize from its natural gas resources and became the largest country and also used its coal reserves to develop the industry. As a result of Putin’s economic planning, natural resources play a big role in the Russian economy, which evaluated as a failure by Gregory (Cooper, 2009).

In December 2007; the political party “United Russia” won elections with more than 50% vote. Russian constitution was disabling a politician to be the president for the third time; as a result, Dmitry Medvedev was nominated and elected by Putin’s support and Putin was appointed to prime minister office by Medvedev in a short time, which named as “tandemocracy” or “joint-leadership” by the world press. The second term starts with global crisis; with these important strategies in the Russian politics, which continued also in 2012. Russia affected by the Wall-Street Crisis as all other countries and started to recover after two years. According to Gregory, Russia affected deeply comparing to BRICS taking annual GDP growth into account as shown in Figure 4.2.2.1. (Gregory, 2018).

Figure 4.2.2.1. Russian GDP Growth Annual (2008-2012)

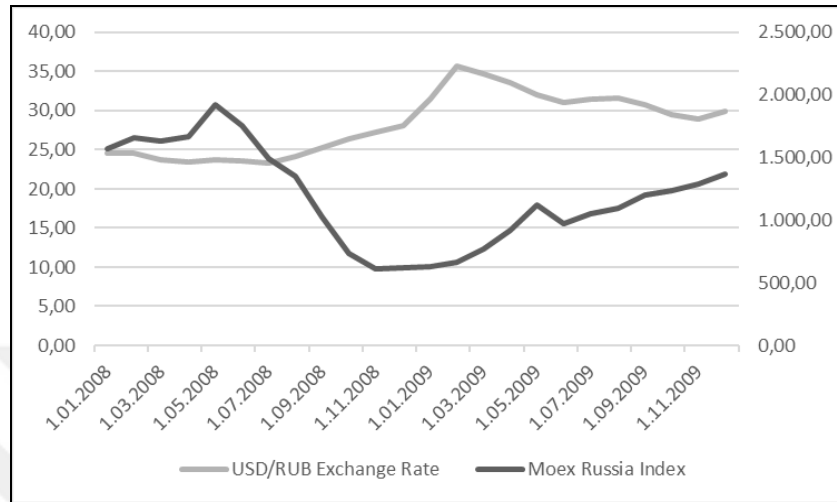


Source: International Monetary Fund, Real GDP growth (Annual percent change)

The economic downturn did not affect only economic growth, mirrored to several economic indicators such as exchange rate which led to decline in official reserves around 380 billion USD at the end of February 2009 because of CBR’s direct interventions. As expected, stock exchange experienced “a peak” in negative means, which lost value before the currency in mid-2009 as shown in Figure 4.2.2.2. The government increased debt ratio of banks, firms, and individuals to sustain economic stability taking its heavy cost’s responsibility; changed regulation in

taxation. 2009's measures are different than 2008 while they include macroeconomic instruments (Cooper, 2009).

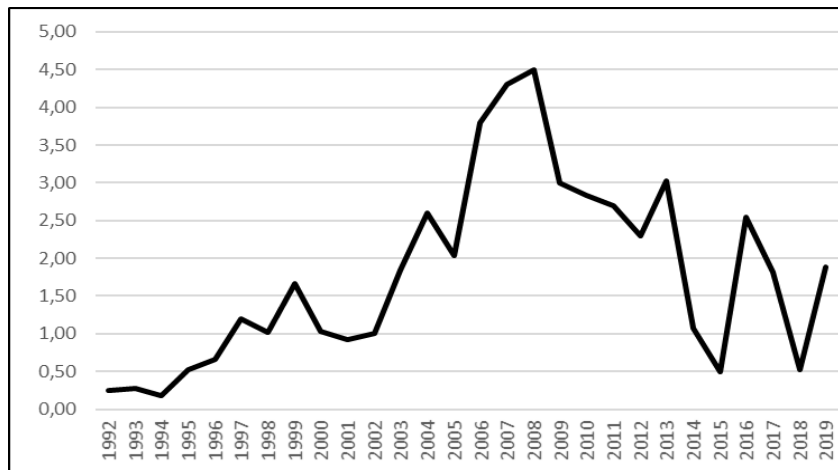
Figure 4.2.2.2. Russian Official Reserves and Moex Russia Index (2008-2009)



Source: International Monetary Fund, Total Reserves (includes gold, current USD) & Moscow Exchange, Moex Russia Index

In January 2009, United States elections experienced a historic victory, when Barack Obama came to power as the first black president of the country as the result of Wall Street Crisis. His political approach was also different to Russia in his first three years, which named as a “reset”, aiming to construct a successful cooperation. In 2010; both sides signed “New Start Treaty” aiming to eliminate nuclear technology of both countries and accepted United Nations Security council resolution as a comprehensive sanction to Iran. “Northern Distribution Network” expanded to make alliances in foreign policy, which was essential for Usame Bin Laden Operation and use of force against Mohammar Quaddaffi in 2011. Russia became member of World Trade Organization during this period and share of FDI in both countries increased, especially in Russia as shown in Figure 4.2.2.3. “Reset” period was the project of Medvedev and Obama, gave a short time heal in terms of FDI inflows especially 2013 but ended with 2014, the Ukrainian War (Stoner & McFaul, 2015).

Figure 4.2.2.3. Net inflows of FDI, share of GDP (2019-2014)

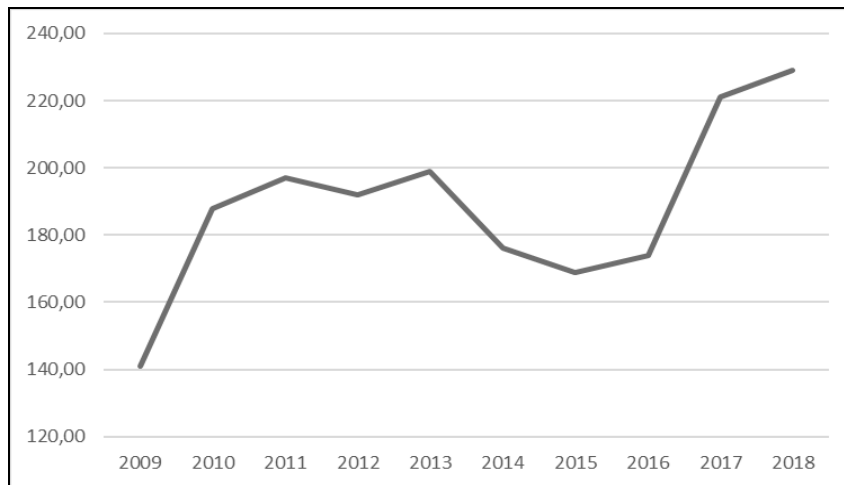


Source: World Bank, Foreign Direct Investment, net inflows

Putin won 2012 presidential elections with majority. On his first day in Kremlin, he issued 14 presidential decrees which includes long-run goals for the Russian economy. The Russian economy stagnated between 2012 and 2014 and as the result of undiversified energy-based economy. In 2004 Russian economy was evaluated as “one crop” economy as Latin American markets, which was not consistent with Putin’s promises (Gregory, 2018).

Declining economic performance of the country obligated Putin to form foreign enemies and reunite the country as classical policy which was implied during 2008 with Georgian attack. Crimea invasion and Ukrainian War were the results of similar policy in 2014 giving the population the message that United States is breaking up Russia and NATO is supporting this policy. Russian economic indicators declined constantly as the result of this policy, on the other hand Russian gas exports fell in 2015 as shown in Figure 4.2.2.4. These were the part of economic sanctions to Russia by the leading governments which affected Russian market and the leading companies taking export volume and international institutions’ credit block into account. According to Gregory (2018); Russia became obligated to absorb 300 billion USD to recover depreciation and protect ongoing investments. As a reaction to Ukraine crisis, USA and EU countries implied sanctions to Russia which continued until 2019 and led Russia to find new allies (Gregory, 2018).

Figure 4.2.2.4. Natural Gas Export Volume of Russia (2009-2018)

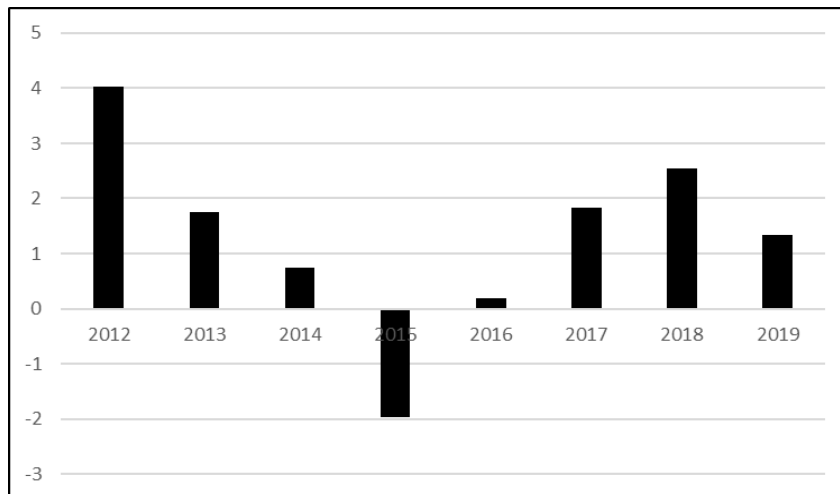


Source: World Bank; Natural gas rents (% of GDP)

2015 IMF country report for Russia is well-used resource for this context. The report states that Russian potential growth is declining since 2014, oil prices and economic sanctions accelerated this process, Ruble experienced a heavy pressure in 2014, sanctions increased concerns related to Russia's financial stability, inflation peaked in 2015 and the projections are based on recession. As stated in the report, it is not easy to discriminate effect of sanctions and oil prices; however, IMF estimated that sanctions weakened Russian GDP from 1% to 1,5% and in the long-term Russian GDP is able to affect worse (IMF Report, No:15/211).

In April 2015, Medvedev reported that Russian GDP declined by 2% in the first quarter, sanctions would cost to Russia more than 100 billion USD. Medvedev added that economic growth is projected for 2016 which was consistent with Goskomstat; however economic growth could not deal with inflation for ordinary people. According to independent institutions the damage was much heavier, around 4%. In annual calculations World bank calculated change in GDP with -1,97% as shown in Figure 4.2.2.4. (Gregory, 2018).

Figure 4.2.2.5. Russian GDP Growth (2012-2019)

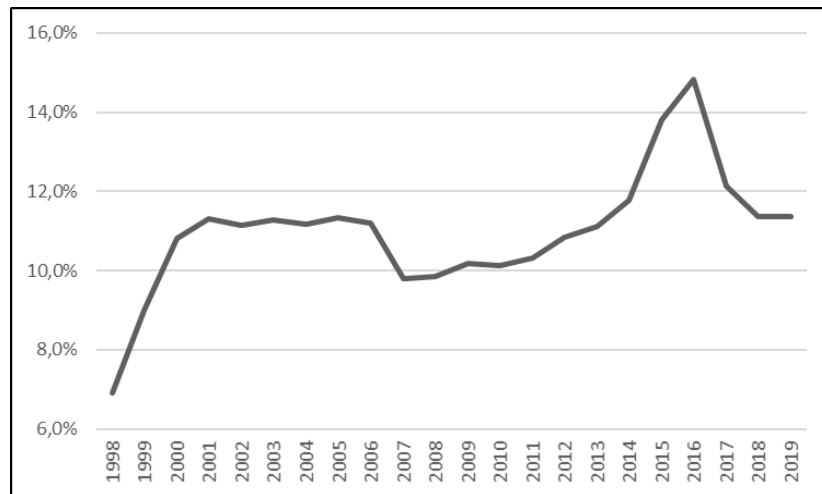


Source: International Monetary Fund, Real GDP growth (Annual percent change)

These external sanctions and shocks were basic the reasons of de-dollarization policy, started in 2003 with a publish, which is analyzed in the next chapter. In 2015 Russian budget tightened as the result of oil revenue loss; several measures were taken to compensate this condition: usage of social security pension funds, central bank's policy of decreasing foreign exchange reserves, REPO operations and other de-dollarization measures aiming to bringing dollars to Russian territory firstly and turning the system on a Ruble-based structure.

Neither of these downturns could not stop Russian military spending habit coming from 1990s as shown in Figure 4.2.2.6. While private investment and consumption is decreasing after Yeltsin-era crisis, the government increased its military spending in Pre-Crimea process; on the other hand, the same government reacted foreign sanctions in 2017 with Syria even state Duma considered 27% cut on military spending.

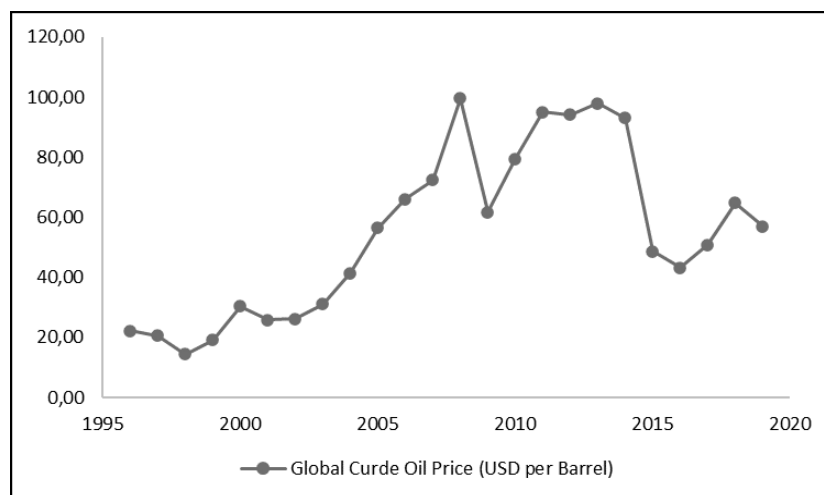
Figure 4.2.2.6. Military Expenditure, share of government spending (1998-2019)



Source: Stockholm International Peace Research Institute, SIPRI Military Expenditure Database

After all, oil prices hit the bottom in 2017 for the second time excluding 2014; and collapsed in 1998 as shown in Figure 4.2.2.7. Wall Street and oil price crisis were two important exogenous shocks after 2008; however Russian growth affected by both and could not heal in short periods (Gregory, 2018).

Figure 4.2.2.7. Global Crude Oil Price (USD per Barrel)



Source: Federal Reserve Bank of St. Louis; Global price of WTI Crude

4.3. AN ANOTHER INTERPRETATION TO THE RUSSIAN DE-DOLLARIZATION POLICY

As stated in previous sections, economics is affected by several factors. Russia is more specific, while its economic system is immature due to establishment date of Russian Federation and political crises which is explained in “Historical Background of De-dollarization Policy” section and affected country’s economy. Governments develop their policies taking their experiences into account and take precautions in this way. De-dollarization Policy is one of these precautions of Russia, a group of these precautions in other words. De-dollarization policy was firstly put into words in 2003; however necessary measures started in 2013 and diversified. 2014 December blew up de-dollarization process as the result of the latest record of Russian Ruble against USD taking oil crisis into account. As stated in BBC, the psychological barrier exceeded in December 2014 when 60 Rubles worth to buy one single dollar (Farkas, 2015).

The Russian Bank took several precautions before this crisis; including free floating mechanism of Russian Ruble, eliminating automatic interventions to support the currency. While the CBR reacted this undervaluation with interest rate increase with 6,5 percent, the oil prices and US-EU sanctions was damaging all these efforts. Shortly, Russian financial institutions’ debt financing was limited, oil and gas exploration activities were no more supported by US technology, Russian demand for military activities was no more supplied by these countries and import from Russia was hardened. Lastly, “Office of Foreign Assets Control” (OFAC) policy blocked certain Russian individuals and sectoral sanctions are decided to be implied (Hanson & Lowell, 2014).

Russian government responded these policies firstly in 2014 with the establishment of SPFS system: “System for Transfer of Financial Messages”. This system was the substitute of international SWIFT system. US threatened Russia by termination of Russian Banks with SWIFT system in the same year, as stated in CNBC (Turak, 2018). However, this system was activated in 2017; which is known as the breakeven point in Russian de-dollarization process. 2017 is known as the breakeven point due to activation of SPFS system and declaration of political limitations by the Russian government. Russian declared restrictions in foreign trade in this year; limitations for USD in Russian seaports started to be applied aiming to

make Russian Ruble main currency and eliminate US sanctions. In addition, companies invited to make agreements in Russian Ruble which will be more beneficial for them in these years (Abramov & Winning, 2014).

In 2018, more than 400 companies and banks participated to this system, but it could not beat SWIFT (Society for Worldwide Interbank Financial Telecommunication) system because of its high transaction costs. Aiming to overcome this problem, transaction fee reduced; however, it could not function in in practice. To limit USD's orbit; Russia made agreements with Turkey, China, and Venezuela to use domestic currency in foreign trade. In addition, arm deals would be proposed in domestic currency. In addition, China participated SPFS system in 2019 which is evaluated as an important level. China participated this system and took precautions with Russia as one of the largest US debt-holder country. Even India decided to participate this system, it did not have a broad repercussion in press while China became the new great power in the world economy, through its production power and export income.

The graphical analysis is mainly based on the PMI as an economic forecasting tool used by several countries. This indicator is released on the first business day of the following month, provides a forecast related to country's economic strength. When we view PMI data for a long period, we can clearly state that the economy is weakening or strengthening in each time or peaked in another time. PMI is measured by each country's specific association and this data given to "Markiteconomics".

As IHS Markit(2017) stated; the responsible associations to measure the country's PMI is selected carefully to provide advanced signal related to private sector's economic agenda taking different variables such as output, employment or prices into account. Responsible countries apply surveys, which are based on facts not on opinions, to respondents to measure the business conditions' improvement comparing to previous month which creates a reliable economic indicator. PMI is perceived also as a forecast of economic performance such as GDP and other important economic indicators.

Economic crises are always evaluated generally in terms of "Unemployment Rate", "Interest Rate", "GDP" and "Parity"; in addition to these indicators two specific indicators are important for Russian economy: firstly "Crude oil price" is evaluated as the major income source, secondly "export income" considered as the

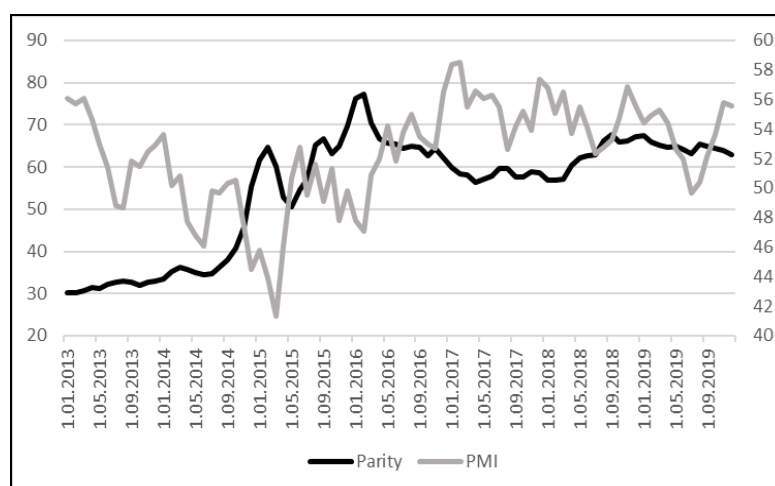
result of evident truth which confirms that developing markets are willing to get the advantage of this type of income to solve short-term liquidity problems. However, Russia always had problem in terms of its exchange rate that's why the analysis starts with "USD/RUB exchange rate vs PMI" analysis in Figure 4.3.1. In the flow of the section, a specific graph is considered which questions the importance of "Oil Prices" for Russian economy. After that some indicators' relation with "Gold" indicator is taken into account specifically in order to clarify the process.

Graphical analysis starts with with the de-dollarization's starting year (2013), ends with Covid-19 shock (2019). In some graph; longer time period is used which starts with 1995 which is the activation year of CBR and ends again with Covid-19 shock (2019). Justifications related to period and interpretations related to given indicators are given before each graph.

The Russian economic history is full of exchange rate crisis, that's why firstly this indicator is taken into account and other indicators are analyzed one by one. While powerful economies are not expected to have vulnerable parities, there must be a clear negative correlation between the exchange rate and PMI omitting the export-oriented economies, who has to cope with other markets' prices and can solve this problem with lower exchange rates such as in China. Export is important for Russia taking its natural resources export into account however natural resources market are not so competitive so China's exceptional situation is not valid for Russia.

This analysis is made for the 2013-2019 period aiming to get rid of Yeltsin period's crises, hyperinflation and especially devaluation cases, which affected directly Russian Rouble. Figure 4.3.1 shows that USD/RUB exchange rate is negatively correlated with Purchasing Managers Index of Russia except crisis period in 2015 when Russian government experienced international sanctions which is unexpected theoretically for Russia.

Figure 4.3.1. USD/RUB Exchange Rate vs PMI

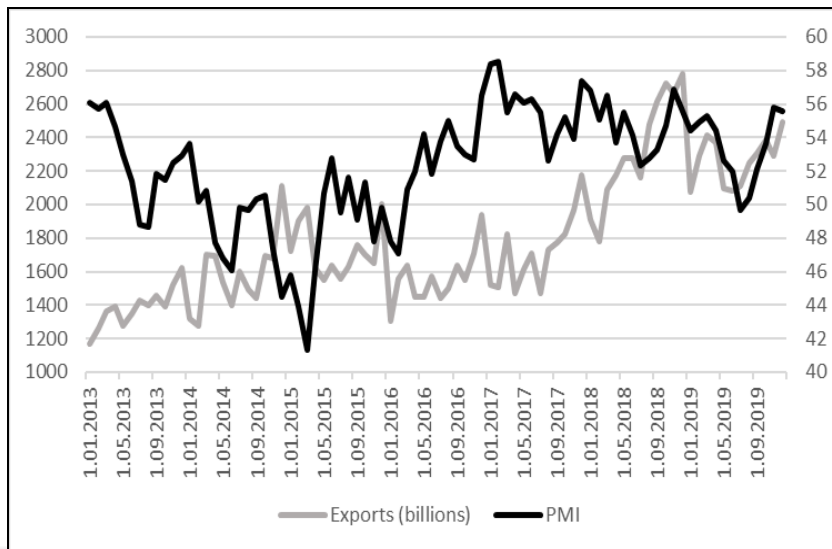


Source: IHS Markit, Purchasing Managers Index & Moscow Exchange, USD/RUB Exchange Rate

Figure 4.3.2. shows the unexpected relationship from 2013 to 2016 between export income of Russian Federation and country's PMI, which was expected to have positive correlation due to export income's importance for developing economies in general. The period is not preferred to start with 1995 while Russian devaluation and Vladimir Putin's first years' good economic performance can be evaluated as an "exception" for export income while both of them affected it directly. On the other hand, taking this period into account the economic crisis in 2015 has to be taken into account as another exception.

Taking this crisis period as an exception, it can be stated that export income and PMI is positively correlated omitting the economic crisis and European sanctions, which satisfies the expectation in terms of exports variable. However its effect on the unemployment is important for the country's macroeconomic stability, which expected to decrease unemployment. Under these circumstances we can state that the export income's relation with PMI is satisfied which is evaluated in Figure 4.3.3.

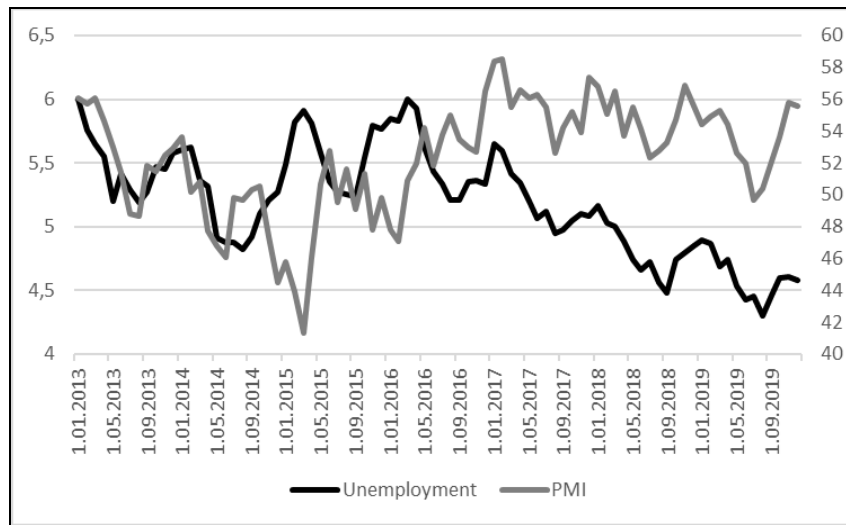
Figure 4.3.2. Export Income of Russia(billions) vs PMI



Source: IHS Markit, Purchasing Managers Index & OECD, Exports: Value Goods for the Russian Federation

Figure 4.3.3. shows the relationship between unemployment rate and PMI; which is expected to have a inverse relationship theoretically. The period is taken again between 2013 and 2019 with same reasons. Expecting an inverse relationship between variables, the country's PMI has a parallel line with unemployment indicator which makes Russian unemployment variable suspicious and does not satisfy the expectation. It can only be clarified taking Exports income into account and can be stated that the positive relationship between Exports income and PMI is the result of low exchange rate with makes Russian firms competitive and do not lead for an extra unemployment.

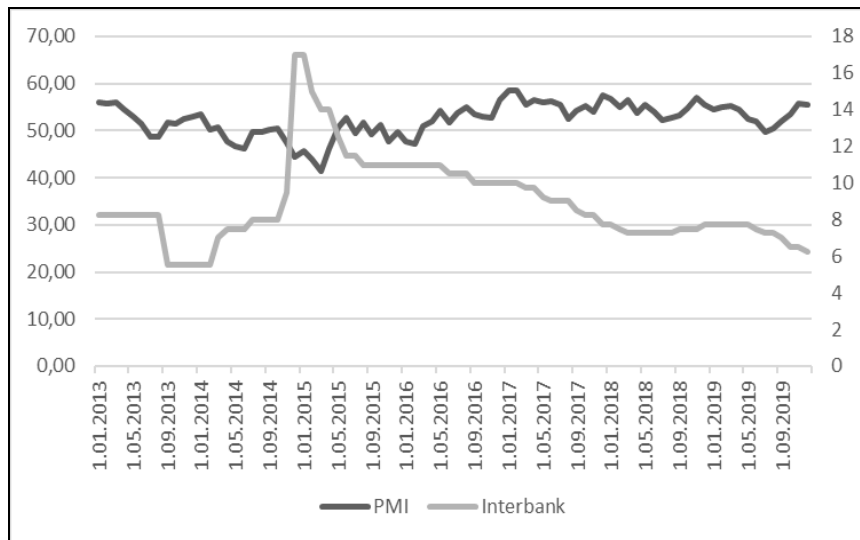
Figure 4.3.3. Unemployment Rate vs PMI



Source: IHS Markit, Purchasing Managers Index & Organization for Economic Co-operation and Development, Registered Unemployment Rate for the Russian Federation

Taking the first three graphs into account, it can clearly be stated that Russian economy is based on exports; which does not affect the employment and confirms the importance for natural resources to the economy and also confirms the importance of interest rate to the economy while these type of countries generally cope with economic depressions generally with interest rate to control exchange rate. Figure 4.3.4. analyzes the relationship between PMI and interest rates, which expected to be negative theoretically while stronger economies have lower interest rates. According to graph, interest rates and PMI have a negative relationship which is expected theoretically and specifically for Russia taking other conditions into account.

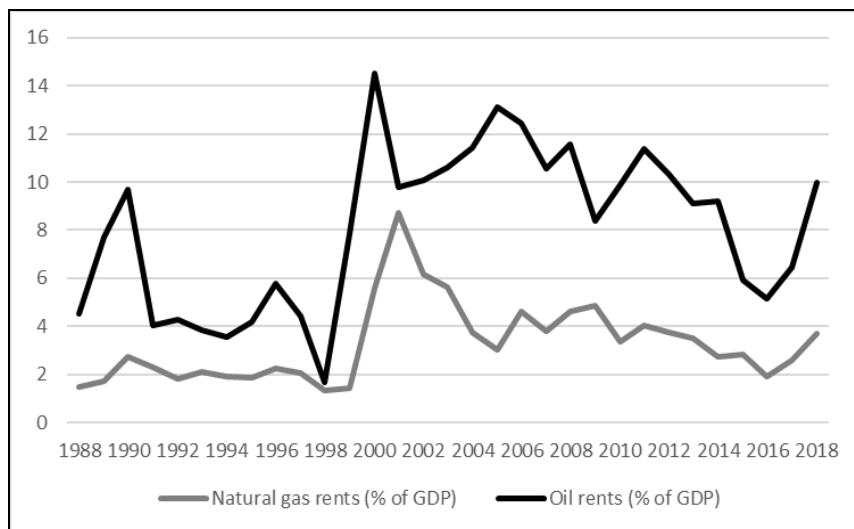
Figure 4.3.4. Russian Interbank Rates vs PMI



Source: IHS Markit, Purchasing Managers Index & Federal Reserve Bank of St. Louis. Interest Rates, Government Securities, Treasury Bills for Russian Federation

It is well known that natural resources are important for Russian economy, but “Brent” variable does not take natural gas income into account which constitutes more than 2% of Russian GDP in last years but has still lower share comparing to oil rents as shown in Figure 4.3.5 for 1988-2018. Besides, “Oil rents” variable takes crude oil prices into account which shown as the reason of economic crises in Russia.

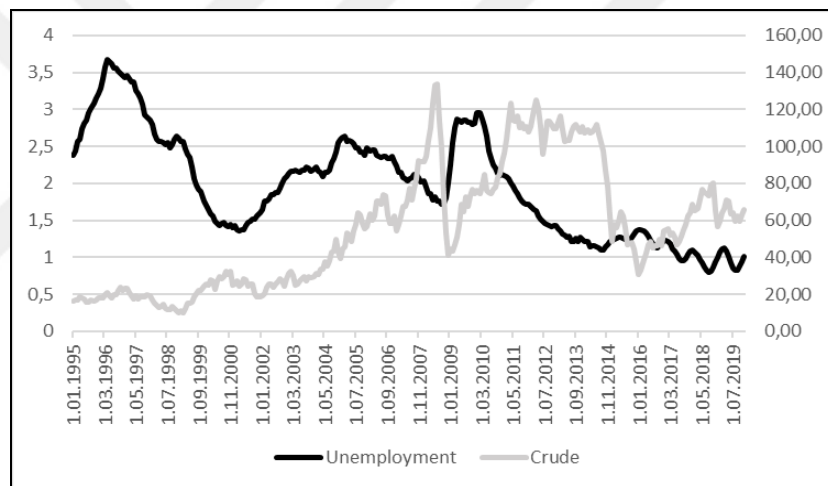
Figure 4.3.5. Natural gas rents and Oil rents of Russian GDP (%)



Source: World Bank; Oil rents (% of GDP) & Natural gas rents (% of GDP)

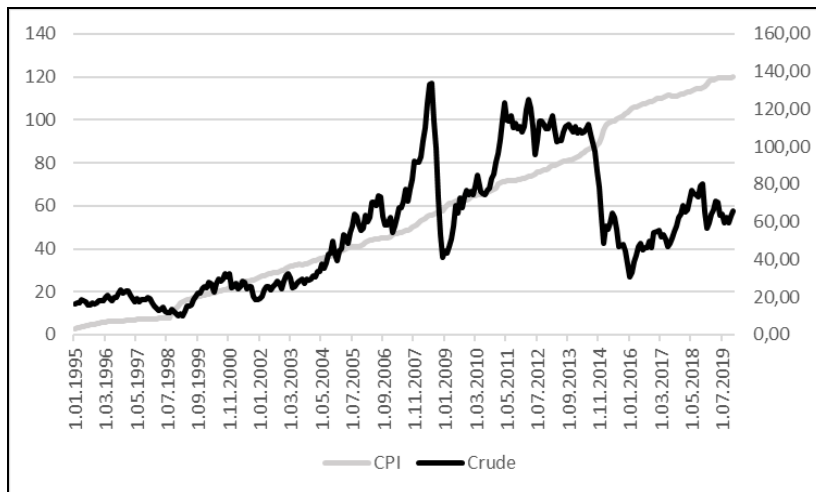
This finding is a counterchallenge for all these statements related to Russian Federation while country's crises are always correlated with oil prices. In order to support this finding; Figure 4.3.6. and Figure 4.3.7. is given to show Crude Oil Prices' relation with inflation and unemployment which is expected to have negative correlation in Russian Federation. Aiming to make a general statement related to this issue, maximum time period(1995-2019) is taken into perspective. Regarding to Figure 4.3.7. Inflation is not correlated with Crude Oil Prices; on the other hand, Figure 4.3.6 does not give us a clear correlation between unemployment and Crude Oil Prices. Under these circumstances, it is evident that crude oil prices are not correlated with inflation and unemployment, which are the basic indicators for PMI.

Figure 4.3.6. Unemployment Rate vs Global Brent Crude Oil Prices



Source: Federal Reserve Bank of St. Louis; Global price of Brent Crude & OECD, Registered Unemployment Rate for the Russian Federation

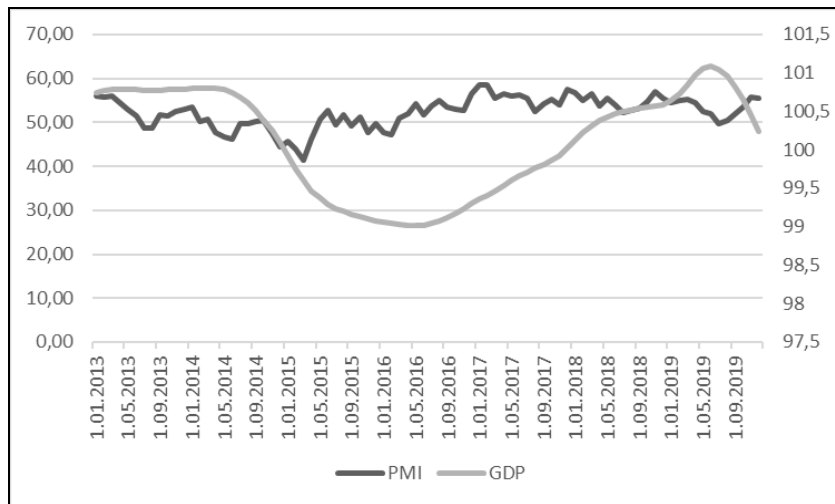
Figure 4.3.7. CPI vs Global Brent Crude Oil Prices



Source: Federal Reserve Bank of St. Louis; Global price of Brent Crude & OECD, Consumer Price Index: All Items for Russian Federation

GDP is another must for an analysis of a country has to be also analyzed which shows the country's macroeconomic performance. Theoretically, countries with lower GDP have lower PMI scores. In order to find the relation between these two variables Figure 4.3.8. is considered which is taken in the shorter period. However according to the graph, Russian GDP does not have a direct effect on country's PMI, which is a signal for another important effect for country's economy while under normal circumstances these two variables are strongly correlated theoretically. That's why Gold in circulation is analyzed with PMI in Figure 4.3.9. taking de-dollarization concentration on this indicator into account.

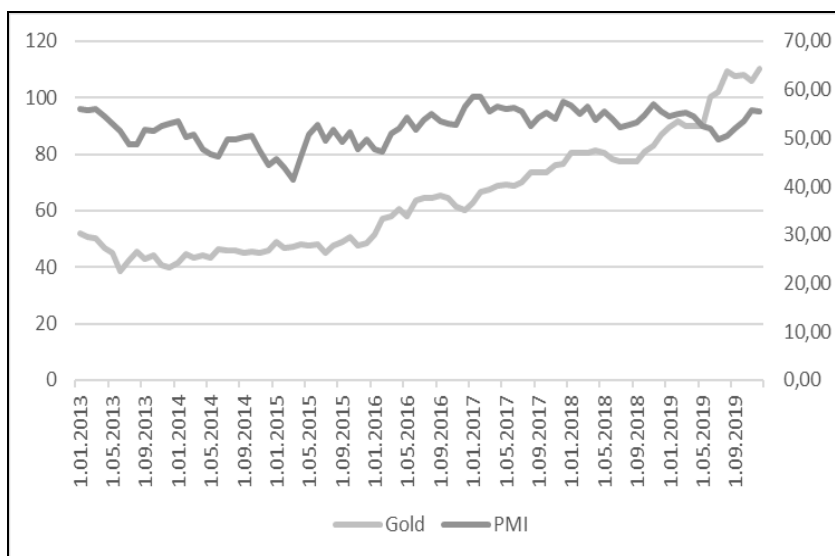
Figure 4.3.8. PMI vs Russian GDP (billions)



Source: IHS Markit, Purchasing Managers Index & World Bank; World Development Indicators

Regarding to de-dollarization policy statements, which emphasizes on the necessity for decreasing USD in the Russian economy in different ways, Russian Federation aimed to increase its Gold Reserve. De-dollarization policy is applied to strengthen the economy, which will increase the country's PMI with the help of gold.

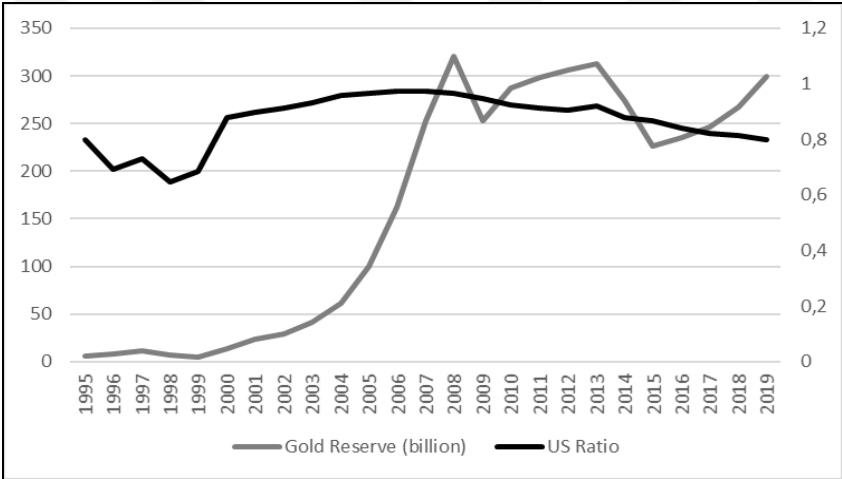
Figure 4.3.9. Gold Reserve vs Russian PMI



Source: IHS Markit, Purchasing Managers Index & Organization for Economic Co-operation and Development, Reserve Assets for the Russian Federation

Regarding to Figure 4.3.9. Gold Reserves of Russian Federation is not correlated with Russian PMI; in other words, Russian PMI is not affected by Gold while there are more important problems in Russian Federation in last years such as inflation, unemployment which affects PMI more than Gold Reserve. On the other hand, gold reserve can change for spontaneous decisions taken by government. In other words, increasing Gold reserve does not increase country’s Purchasing Managers Index. While gold reserve is the main point of de-dollarization policy, Figure 4.3.10. is prepared to answer this question: “Could Russia de-dollarize by increasing gold reserve?”

Figure 4.3.10. Gold Reserve vs USD Ratio in the Russian Economy



Source: International Monetary Fund, Total Reserves

As shown clearly, there is neither inverse nor parallel relationship between USD ratio and Gold Reserves. USD ratio is obtained with a simple formula; which calculates total reserves minus gold over total reserves of Russian Federation. While it is impossible to measure informal USD reserve of Russian Federation, it is omitted. Gold reserves indicator is increased consistently omitting Global Crisis and 2014 crisis as expected, however share of USD has not dramatically fallen in years. In other words, increasing gold reserve could not eliminate role of USD in Russian economy according to Figure 4.3.10 which is consistent with earlier findings.

CHAPTER 5

CONCLUSION AND SUGGESTION

Dollarization is not indispensable but implicating de-dollarization policy necessitates secondary conditions which makes a country's economy strong enough to dominate its own economic policy as well as other countries' economics. None of these de-dollarized countries could reach their goal, except communist countries which omits global trends in the world economics. De-dollarization policy is out of a single countries depth while it necessitates a collective strategy; that's why euroization is shown as the substitute of dollarization rather than Russian ruble. Rochon and Rossi (2003) stated that currency crises and their negative effect on the economies led euroization discussion in transition countries aiming to attract foreign direct investment. The Western Balkan economies adopted euroization aiming to cope with political tensions in their country and welcome multilateral aids.

Taking euroization into account, a currency can be attractive for underdeveloped countries when it welcomes multilateral aids and places trust on the country's economy as the result of its stability and strength. Russian ruble is neither stable nor its monetary authority strong enough to cope with international crises as seen in the Russian economy. That is why Russian de-dollarization can be evaluated as unsuccessful while the international system is predominantly working with USD and share of USD in the Russian economy has not decreased yet.

Cooperation with other economies such as China will obviously strengthen de-dollarization policy but accepting Ruble as the substitute of USD is not realistic under these circumstances, taking the analysis and political background of the country in the account. Chinese currency can be more powerful taking Chinese industry's influence in the total output and Chinese workforce into account. Comparing China and Russia is not realistic obviously while both countries have different experiences from their history and China has been always mentioned with

its extraordinary economic profile taking its production power and competitiveness in economics literature.

All these deductions are made taking not only Russian political background but also the graphical analysis in this study into account. Future researchers can concentrate on the analysis more than its theoretical and political background; aiming to make a general and more realistic statement for Russian economy with another econometrical analysis which analyzes a longer period. Advanced techniques for time-series analysis such as lag differentiation or further tests can be applied to obtain the best result.

USD's share in the Russian economy will be a useful variable in further analysis, which shows the reality of de-dollarization policy more than Gold stock in the economy taking the graphical analysis into account. On the other hand, with a dummy variable for political indicator will test politics effect on the Russian economy in further studies if the further researchers aim to test politics' effect on the Russian economy.

The analysis of this study is limited as expected, so it is not preferred to state findings overconfidently. For next researchers, it will be more practical to cope with data and the econometrical analysis taking the theoretical and historical background of the country from this study when they conduct a research on the same topic.

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