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THE ROLE OF INSTITUTIONS IN THE
RUSSIAN BANKING

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Kurumların Rus Bankacılığındaki Rolü

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ABSTRACT

The institutions, consisting of formal and informal rules, affect how the organizations function. While the informal rules evolve over time, the functioning of formal rules is beneficial when there is political and bureaucratic support for them. The banking sector is crucial for the economy to develop since it is the mechanism that supplies productive projects with necessary funds, contributing to the total income of the economy. The institutions are one of the main determinants of how efficiently the banking system operates. The institutions of the Union of the Soviet Socialist Republics (USSR), differed vastly from those of the capitalist western countries. Since the distribution of the funds were already determined in the central economic plans and all of the production was undertaken by the state enterprises, where private property on the means of production did not exist, banks were a mere tool of executing the orders written in the central planning with no need for credit assessment.

There was no competition for deposits with low cost nor loans with low default risk in the banking sector in the USSR. All the household savings were held at one state bank, all the credit holders were state enterprises, whose losses were compensated from the state budget. The USSR lacked the institutions to form a legal environment to regulate competition for the banking system, to assess credit risks to ensure the soundness of the banking system, to increase the efficiency and the security of the payment systems. Lack of such institutions adversely affected the development of the post-Soviet Russian banking system. The aim of this study is to show, with a descriptive method, that the institutions of the Soviet Russia and uncontrolled transition from the communist system to capitalism had adversely affected the development of the Russian banking system after the collapse of the USSR. The study employs North's new institutional framework to explain those effects, with a special emphasis on the formation of the institutions for competition, the property rights, the acquisition of skills and knowledge and the change in the perception of the economic agents.

ÖZET

Resmi ve gayriresmi kurallardan oluşan kurumlar, organizasyonların nasıl faaliyet gösterdiğini etkilemektedir. Gayriresmi kurallar zaman içerisinde kendi kendine oluşurken, resmi kuralların işleyişi, siyasi ve bürokratik desteğin varlığı halinde bir fayda sağlayabilmektedir. Bankacılık sektörü, ekonomide toplam geliri artıran üretken projelere fon sağlayan mekanizma olması nedeniyle ekonominin gelişimi için kritik önemdedir. Kurumlar, bankacılık sisteminin ne kadar verimli çalıştığını belirleyen temel etkenlerden biridir. Sovyet Sosyalist Cumhuriyetler Birliği'nin (SSCB) kurumları, kapitalist batı ülkelerdekinden önemli ölçüde farklılaşmaktaydı. Üretim araçlarında özel mülkiyetin var olmadığı bir ülkede, fonların dağılımının merkezi ekonomik planlarda önceden belirlenmiş ve üretimin tamamının kamu iktisadi teşebbüsleri tarafından gerçekleştiriliyor olması nedeniyle, bankalar sadece merkezi ekonomik planlarda yer alan emirleri yerine getiren ve kredi riski değerlendirmesi yapmaya ihtiyaç duymayan araçlardan ibaretiler.

Bankacılık sektöründe düşük maliyetli mevduata ulaşmak veya düşük riskli kredileri verebilmek için bir rekabet bulunmuyordu. Tüm tasarruflar tek bir devlet bankasında tutuluyor, tüm kredi müşterileri, zararları devlet bütçesinden karşılanan kamu iktisadi teşebbüslerinden oluşuyordu. SSCB, bankacılık sisteminde rekabeti düzenleyecek, bankacılık sektörünün sağlıklı olmasını sağlayan kredi riski ölçümlerini yapacak, ödeme sistemlerinin verimliliğini ve güvenliğini artıran yasal ortamı oluşturacak kurumlara sahip değildi. Bu tür kurumların yokluğu, Sovyet sonrası dönemdeki Rus bankacılık sisteminin gelişimine olumsuz etki etmiştir. Bu çalışmanın amacı, tanımlayıcı metotlarla, Sovyet Rusya'nın kurumlarının ve komünist sistemden kapitalizme kontrolsüz geçişin, SSCB'nin dağılmasının ardından Rus bankacılık sisteminin gelişimini olumsuz etkilediğini göstermektir. Bu çalışmada, söz konusu etkileri açıklamak için rekabet, mülkiyet hakları, yetenek ve bilginin edinimi ile ekonomik aktörlerin

algularının deęişimine ilişkin kurumlara vurgu yapmak suretiyle North'un kurumsal çerçevesi kullanılmaktadır.

INTRODUCTION

Banking is a sector that manages financial risks. The management of those financial risks is crucial to the economy because the banking system itself finances companies using the deposits of the households basically. Banking sector also decides on the micro allocation of national funds to productive enterprises to increase the production capacity of the economy. Not only the banking system assumes the role of financial intermediation, but it also employs necessary technologies and personnel to ensure that the national and international payment systems operates fast and safely. If the banking system fails, so does the economy as a whole. Hence, it is important that the banking system is supervised within a legal framework which makes sure that the banks can and do measure and manage their financial risks successfully. Banking system needs the necessary technological and infrastructural investments to enable the payment systems working safely and fast. Banks need to employ personnel with the necessary knowledge and skills that will let them compete in the global markets. The capacity of the governmental supervision and the legal environment depends mainly on the sufficiency of the formal and informal rules. Formal and informal rules signify all the institutions.

The evolution of the institutions are path dependent. Institutions are products of national culture and the political ideologies. When the rules of ideologies do not coincide with the necessities of the financial markets, the institutions become short of necessary supervision and the banking system lacks the skills and knowledge to divert national funds to productive agents of the economy. According to The Global Competitiveness Report of 2018 by the World Economic Forum, strong institutions are a fundamental driver of both productivity and long-term growth (World Economic Forum Global Competitiveness Report, 2018).

The institutions of the Union of Soviet Socialist Republics (USSR) were very different than the capital west. The communist mechanism operated differently from the invisible hand in the western economies. There were no private property on the means of production. Every single step of the production and the circulation of cash in the economy were already planned by the government. The government did not need to supervise the decisions of the banks and the companies since every decision was taken by the government itself. Banks did not have to worry about the managerial capabilities or the profitability of the business plans of the enterprises because the production was planned by the government. The banks were only organizations to carry out the necessary payments and collection of taxes within the economy. The economy was closed and there were no need to worry about the management of the monetary policy, taking into account the global financial risks.

But when the USSR collapsed and the new Russian Federation decided to manage the economy with the rules of the capitalist west, the institutions of the economy were not ready for it. The international competition was all new to financial markets and neither the institutions nor the organizations had the skills or knowledge to face an intense competition.

Uncontrolled transition of Russia from the communist system to a capitalist one had adversely affected the development of the Russian banking system after the collapse of the USSR. Due to the legacy of the Soviet system of economic administration, the institutions of the Russian Federation lacked the ability and agility to build a healthy banking system that would foster economic growth in the post Soviet era.

The integration of the Russian economy with the rest of the World after the collapse of the USSR, while lacking the necessary legal framework in the financial sector and the institutions to regulate the sector, caused an economic chaos. The uncontrolled privatization of state assets and emergence of illegal

organizations to create and control business conglomerates and corrupt bureaucracy had adverse affects on the development of Russian banking system.

The Putin administration on the other hand has been taking the necessary actions to fill the institutional, organizational, infrastructural and technological gap by putting efforts into building a new legal framework and undertaking the necessary infrastructure to render the Russian economy resilient against the western financial sanctions¹.

It would be expected that the change in political and economic institutions in Russian Federation would result in an increase in competition in the banking sector leading to more efficient use of resources and a decrease in the share of state banks leaving the state mainly as a regulator in the system. However, the regulators would expected to be free from political influence to assure proper enforcement of law to protect the private property and a decrease in transactions costs.

The perception of the players in the communist regime was that the main and only player in the financial sector should be the state and all the decisions were to be

¹ According to The United States Congressional Research Service (The Congressional Research Service, 2019), The United States impose sanctions on Russian persons (individuals, entities and vessels) in response to Russia's 2014 "invasion" of Ukraine, election interference, malicious cyber-enabled activities, human rights abuses, use of chemical weapon, weapons proliferation, illicit trade with North Korea and support to Syria. For each of those activities, the US imposed sanctions. For example, for the "invasion" of Ukraine, the sectorial sanctions apply to specific entities in Russia's financial, energy and defense sectors. US persons are restricted from engaging in specific transactions with these entities. The sanctions started in March 2014 when the United States suspended trade and investment talks with Russia. Later, the United States and the European Union imposed visa restrictions and asset freezes for specific Russian and Ukrainian persons. Later some import and export restrictions were added to the sanctions list, generally related to military capabilities, oil and gas technologies. The US Treasury, added several major Russian banks to sanction list, while European Investment Bank suspended funding projects in Russia. The sanctions included restrictions on access of Russian state banks to EU and US capital markets. The sanctions have been extended on a yearly basis since 2014 and are still in force.

taken by the state. If the change in the institutions of the Russian Federation was to support a free market mechanism, then the state should only exist as a regulator. However if there is path dependency, then the share of the state enterprises in the financial markets would increase, and the private sector's contribution to the development of the economy would be limited.

This study aims to show with a descriptive method that the communist economic mechanism which employs central planning in the USSR lacked the institutions that would help the formation and acquisition of necessary skills, knowledge and technological infrastructure to enable the players of the Russian banking sector to compete in global financial markets and foster economic growth. The study also analyzes the results of the institutional change after the collapse of the USSR and aims to find out if there is any path dependency with regard to the perceptions of the players.

There are many studies that show how the institutions in the Russian banking system affected the performance of the banking sector. For example, Garvy (1977) describes institutional structure of the banking system in the USSR; Johnson (1994) explains the effects of Soviet institutions on the banking sector until 1994, employing the notions used by North; Clifford (2001) analyses how institutional structure determines the overall economic performance in Russia prior to 1998 Russian financial crisis; Gnezditskaia (2005) shows how the oil industry affects the institutional structure in the Russian banking system; Acemoglu and Robinson (2012) show how extractive political institutions affect the overall economic performance in Soviet Russia.

This study, describes the effects of Soviet institutions on the development of the banking sector and tries find out if there is any path dependency in the evolution of institutions that leads to an increased role of state in the financial markets, curbing other players' ability to affect the market efficiency. Understanding the

change in the Russian institutions and path dependency helps to better assess the change in the structure of the Russian banking system.

The hypothesis will be explained with a descriptive method in the framework of the new institutional economics. This study is organized in four chapters. First chapter explains the new institutional economics, the theoretical concept formed by Douglass C. North and consists of a literature survey on the development of the Russian banking system in a historical perspective. Second chapter explains the methodology of the study. Third chapter explains the effects of the institutions of the USSR and the uncontrolled transition to capitalism of the Russian banking system in the post Soviet period. Several empirical data related to the Russian banking system are used to support proposed arguments within North's new institutional framework. This chapter also explains the measures and investments undertaken made by the Putin administration in order to provide the necessary conditions to create a sound banking system and assesses if there is any path dependence in the institutional change. Fourth chapter concludes the findings of the study.

CHAPTER 1

LITERATURE SURVEY

1.1. New Institutional Economics

The institutions have long been a subject of economics, going back to the first half of the 20th century. However, the term “new institutional economics” (NIE) was first used in 1975 by Oliver Williamson and then became widely known around 1980 (Richter, 2005). Richter (2005) notes that approaches under the NIE, “unlike neoclassical economics, do not assume the institutional framework as given but make it into the object of research and also seek to consider the implications of any given institutional arrangements for economic behavior”. Ronald Coase, Oliver Williamson, Douglass North, Daron Acemoglu are among the leading representatives of the NIE.

Coase explains that well defined property rights can help to solve the problem of externalities as long as the transactions costs are lower than the cost of externalities. Richter (2005) notes that the two branches of the NIE developed after Coase’s works² are “the transaction cost economics” (TCE) of Oliver Williamson and “the new institutional economics of history” (NIEH) of Douglas North.

The TCE analyses the “institutional governance” given the institutional environment while its object of research are agreed on arrangements between two actors. The NIEH on the other hand analyses the “institutional environment” inclusive ideology while the object of research are the informal and formal institutional constraints that control the behavior of more than two actors (Richter, 2005).

² Coase, R.H, 1937, “The Nature of the Firm”, *Economica*, 4, 386-405.

Coase, R.H, 1960, “The Problem of Social Cost”, *Journal of Law and Economics*, 3, 1-44.

The institutions in the TCE mainly deal with the transfer or administration of private good; they are the results of individual actions and do not consider the interaction between the economic and political decision making while the institutions in the NIEH deal with the provision or administration of public goods; they are result of explicit or implicit collective actions and take into account the interaction between economic and political decision making (Richter, 2005).

The new institutional economics makes use of the neo-classical theory as it retains and builds on the fundamental assumptions of scarcity and competition, while it abandons instrumental rationality (North, 1992). The instrumental rationality assumes that efficient markets characterize economies and does not take into account the institutions, ideas and ideologies. However, North (1992) emphasizes that the institutions may not be efficient and they are formed as a consequence of imposing constraints on human interaction in order to structure exchange.

According to North (1992), the assumption of the neo-classical economy that it is costless to transact is not realistic. North insists that it is costly to transact in the real world and ideologies may construct imperfect markets. He notes that property rights are crucial determinants of efficiency of the markets. Since the institutions are results of the political ideologies, they make difference on how the market equilibrium will result.

North defines "institutions" as "*the rules of the game of a society or the humanly devised constraints that structure human interaction*". In that manner, the institutions are composed of formal rules, informal constraints and the enforcement characteristics of both; while "*organizations are the players: groups of individuals bound by a common purpose to achieve objectives*" (North, 1992). In the framework proposed by North, the main transactions costs occur when the property rights are acquired, transferred or sold. The main determinants of the transaction costs are formal and informal rules. North claims that the protection of property rights and low transactions costs enhances the performance of economic

development. According to North, the key to transactions cost is the price of acquiring information. The transaction cost is the price of the assessment of the value of the goods exchanged, protecting the rights and supervising the contracts and arrangements (Yolal Eroğlu, 2018).

According to North (1992), scarcity and competition are keys to the alteration of institutions via price changes. In his framework, not only the institutions but also the political processes affect the formation of inefficient markets. Although the neo-classical model assumes that the institutions and the information available to the individuals in the economies will lead to a correction mechanism which would null the transactions costs eventually, in the real world this does not happen.

Acemoglu and Robinson are among the contemporary economists employing the political economy approach to institutional evolution. In their book “Why Nations Fail”, Acemoglu and Robinson (2012) define inclusive and extractive institutions. They also make a distinction between economic and political institutions. Acemoglu and Robinson (2012) note that economic success of the countries differ because they have different institutions. In their work they emphasize that inclusive economic institutions *“allow and encourage participation of by the great mass of people in economic activities that make best use of their talents and skills while enabling individuals to make the choices they wish and require secure property rights and economic opportunities not just for the elite but for a broad cross-section of society.”*

Extractive institutions, on the other hand, *“have opposite properties to inclusive ones; they are designed to extract incomes and wealth from one subset of society and benefit a different subset”* (Acemoglu; Robinson, 2012).

Acemoglu and Robinson (2012) define; the political institutions as the rules that govern incentives in politics; inclusive political institutions as the ones that are sufficiently centralized and pluralistic; extractive political institutions as the ones

that lacks one of the properties of the inclusive political institutions, causing a concentration of power in the hands of a narrow elite to exercise the power without much constraint. They emphasize that there is a strong synergy between economics and political institutions.

This study focuses on the role of the institutions in the Russian banking sector for the period covering the Soviet and the post Soviet era. In the Soviet era, the ideology was effective on the organization of the economic agents and therefore the economic activity was a function of the political administration, where the markets did not have any contribution in any proposed change for institutions.

For this study, the NIEH approach is more relevant since the institutions in the NIEH deal with the provision or administration of public goods and take into account the interaction between economic and political decision making (Richter, 2005).

Especially in the Soviet Russia, institutions did not exist to correct the price mechanism, but rather to allocate resources as planned centrally even if the economic equilibrium was not reached as defined in the neo-classical economy. The prices were not determined by the market forces but by the government. As North puts it: *"In a zero transaction cost world, bargaining strength does not affect the efficiency of outcomes, but in a world of positive transaction cost it does and it thus shapes the direction of long run economic change. ...Once an economy is on an 'inefficient' path that produces stagnation, it can persist (and historically persisted) because of the nature of path dependence."* (North, 1992). In the USSR, bargaining power in the markets was in the hands of government rather than the market players. The inefficiency persisted until the economy could not provide what the people needed and demanded, which ended in the collapse of the existing political system.

How do the institutions appear in the financial sector and how do they behave in the times of turbulence? Johnson notes that the institutions serve as the glue of society, and adds: *"They allow us to deal with our limited capacity to absorb and process information by routinizing numerous social tasks. A complex institution like a banking system, is composed of its structure (its organization), its practices (the ways in which operates) and its norms or values (the underlying ideas that guide its function).* Johnson (1994) notes that the structures, practices and values of old institutions are among the determinants of how the institutions will react or adapt to changes in economic or political conditions.

The structure, norms and values along with the practices of the Soviet banking system would define the reactions of the banking system in the post Soviet era. The path dependency is ensured by the skills and knowledge formed through time given the administrative environment to define the level of competition in the USSR.

The formation of the long run equilibrium in the financial markets in USSR was different from the one in its western counterparts, with different level of property rights, different type of demand for information and competition. It is important to understand the institutions, the perception of transactions costs, competition and price formations in the Soviet Russia in order to assess the capabilities of the Russian banking system. The Russian banking system formed by the legacy of the institutions of the Soviet Russia had to compete by the rules of the global financial system.

The transition of the economic policies and the alteration of the institutions in Russia after 1990 had taken place very quickly in an era of political and economic chaos. The reaction of the players of the Russian financial markets to those changes can be named as selective financial protectionism, where the banking sector could not function as one big financial network. Rather, small networks of

enterprises and banks were formed which operated within those small networks creating fragmented market structure.

The institutions are formed by the formal and informal rules. If necessary set of formal rules cannot be created and enforced in repeated situations, the informal rules are needed to complement the necessary set of rules (Yolal Eroğlu, 2018).

The institutional structure affect the perception and mindset of the economic players. As the perceptions of the players and organizations change, so do the institutions themselves. The Russian financial institutional structure has changed, by affecting the development of the Russian banking system through the interaction between the institutions and the organizations, the change in cost of acquiring information, the change in technology and the change in the mindset of economic players.

In the global financial markets, where no economic decision is taken free of political determinants, Russian policy makers and financial regulators had come to an understanding that one of the major ways to render the national economy resilient against the western financial sanctions is to have a sound financial system and institutional structure where the risk information can be shared with low cost and without interruption; the credit, market and operational risks can be measured continuously; regulators and supervisors of the financial system are free of corrupted political influence; the payment systems can be operated, regulated and supervised by the national authority without being disrupted by foreign sanctions; the tools of monetary policy can be used without distorting the elements of competition.

The next section will give brief information on the characteristics and dynamics of the Russian banking system from the Tsarist era until Putin administration accompanied with the related literature on the Russian banking.

1.2. Russian Banking in a Historical Perspective

1.2.1. The Soviet Era (1922-1991)

During the Soviet era, every aspect of the economy was integrated and managed by the government via central planning. What to produce, how much to produce, by whom the production will be undertaken were decided by the central planning. Every major product was produced by the state enterprises. Due to the central planning, managers of the state enterprises had very limited local decision making power. Similarly, the banks were state banks and none of those banks had to worry about the credit risk or the market risk assessment.

According to Garvy (1977), Tsarist Russia was the only country before the World War I, where the Central Bank was clearly a tool of the government, controlled by the Ministry of Finance and heavily involved in the private credit operations to stimulate industrial development. He notes that in the first half of the 19th century, banking resources consisted almost exclusively of the capital received from the State Treasury.

Although reshaped by the crisis after 1861, the commercial banking was still developing in the shadow of the state bureaucracy. After the revolution, there were no mixed banking, with the banking system solely owned and managed by the state. Lenin envisioned “*a single state bank, supported by a state foreign exchange monopoly, as the ‘skeleton of a socialist society’ and the core of a socialist administrative apparatus controlling the economy*” (Garvy, 1977).

Lenin, considered the banking system as a big state bank to build the new society. In order to control all aspects of the state centrally, one had to control the flow of money within the state and should have been able to measure activities in the economy in monetary terms through a country-wide bookkeeping.

How to finance the production was no exception. The monetary management for the planned economy was made by one bank only: the Gosbank. After the Bolshevik revolution in 1917, the Soviet government nationalized all the commercial banks and merged them into one bank, namely the "People's Bank (Narodny Bank)", later renamed in 1923 as "Gosudarstvenniy Bank" ("Gosbank" for short) which was in charge of all fiscal operations (Garvy, 1977). Gosbank became the bank of issue after the creation of the Federation. Hence, the Gosbank, which served as the central bank, was also serving as a tool of the government execute the operational activities outlined in fiscal planning such as money transfer between state enterprises, the establishment of credit lines to the state enterprises or tax collecting.

Between the years 1917-24, the Russian economy experienced hyper-inflation³, sharp fall in the production, in the agricultural output and in the foreign trade. As a result of break up of the economic exchange with the foreign countries, there was a foreign exchange shortage (Garvy, 1977). The Soviet state undertook a monetary reform in 1924 to terminate the hyperinflation. Credit planning was one of the main components of the central planning. All the fiscal operations were assumed by the State Bank. This point is very important as it has its own implications after the collapse of the USSR. Since the Soviet intelligentsia thought of banking system as the "*socialist administrative apparatus controlling the economy*" (Garvy, 1977), the banking system had to assume a lot of roles other than banking, preventing it from specializing enough on the credit assessment and money transfer systems.

A credit reform was undertaken between the years 1930-32. New specialized state banks in the areas of construction, agriculture and foreign trade were established. The specialized banks were merged into a single Investment Bank (Stroibank) later in 1959, the saving bank system was incorporated into the Gosbank in 1961

³ The inflation rate was over 600 % in 1917, passed 1.000 % in 1919, continued to increase in 1921 and passed 7.000 % in 1922.

and the bank for foreign trade (Vneshtorgbank) continued its functions only within a limited area (Garvy, 1977). According to Johnson (1994), all the monetary transactions went through Gosbank and this bank controlled all the other state banks.

The Soviet banking system was only a means to transfer money in accordance with the central economic plans made by the state. It was merely a huge payment system which actually lacked the necessary technological infrastructure, rather than a means of control for the monetary policy. As Johnson (1994) puts it:

“Over half of the assets of the banking system at any given time were credits to the government. The Soviet-type economy had no role for the independent bank monetary policies and did not need to affect the money supply and the demand for money by manipulating the availability of credit or the quantity of money.”

An important aspect of the Soviet economy was the differentiation between the cash and non-cash money. The “non-cash” money was used for all the monetary transactions between state companies in the course of production: payments made for the necessary inputs from one state company to another. It was not real money, since it could not be exchanged in the open market for goods and services and could not be used for any purposes other than certain planned transactions. It was only a credit, causing no injection of cash to the market, just like a letter of guarantee. Hence, most of the circulation of money could be controlled via non-cash transactions, preventing its possible inflationary effects. According to Johnson (1994), there was little correlation between the growth of the money supply and the rate of inflation during the Soviet era.

The banks in the USSR did not need to deal with credit risk assessment because all of their clients were the state enterprises. The amount and the timing of the establishment of credit lines were already determined by the central planning. Nor were the efficiency of the payment systems were important. In a closed economy

where there was no transfer of property rights, no need to account for the transfer costs, no competition in the market among the players, very little possibility of using cash money for illegal market activity, it did not really matter how fast the money was transferred.

Another series of the economic reforms were in place as of 1965 but they did not seem to change the basic structure and the mechanism of the credit system (Garvy, 1977). The aim intended by the reforms of 1965 was to prepare the economy to be gradually exposed to the market forces, by introducing the notion of "profit maximization" to the managers of the state enterprises hence decentralizing some aspects of the economy.

None of the players of the economy nor the politicians needed to think about the importance of the money transfer system. Only in the post Soviet era, when there was an economic chaos and high inflation, did it matter how fast and secure the money was transferred from one company to another.

Hence, the political and economic institutions of the USSR, curbed the abilities of bankers to make adequate credit assessment or invest in the technological infrastructure or innovate new financial products.

The tools of the monetary policy in the USSR were very limited since the economy was closed, there was not any private entrepreneurship at the industrial scale or financial innovation or assessment of credit risk by the banking sector. There was not a strong correlation between the money supply and the inflation due to the non-cash credit system and the aforementioned factors.

1.2.2. The Post Soviet Era (1991-2018)

1.2.2.1. The Structure of the Banking System in the Russian Federation

The monobank system of the Soviet Russia has transformed into a system that consists of 2.000 banks after the collapse of the Soviet Union. The structure of the Soviet banking system started to change in 1987 with the economic reform which gave more autonomy to the state enterprises. When the Russian Federation was established at the end of December 1991, the Gosbank was transformed into the Central Bank, while the rest of its functions were assumed by the newly created specialized state banks: Industrial Construction Bank, Agricultural Development Bank, Foreign Trade Bank and Savings Bank (Oda, 2007). However, they were dependent on cheap funding by the Central Bank (Johnson, 1994). Some branches of the state banks later became independent private banks.

The most important state bank in the Russian Federation was Sberbank. It was the former Union Savings Bank of the USSR, which held all the saving deposits when the Russian Federation was founded. By the overwhelming market share in the deposit market, Sberbank has since then been influential on the funding structure of the banking sector. Johnson (1994) notes that when the Union Savings Bank was transformed into Sberbank⁴ in 1992, the Russian government guaranteed deposits in all its branches and divisions when it held 431 billion rubles of household deposits, compared with 8,2 billion rubles for all other banks. She remarks that Sberbank offered negative real returns on deposits and made it difficult for depositors to withdraw their savings.

The new “law on cooperatives” was enacted in 1988. This law gave the state enterprises, the right to retain some of their profits. Private banks in Russia

⁴ As of 2019, Central Bank of the Russian Federation (CBR) is the main shareholder of Sberbank. Although the 45,64 % of the shares of Sberbank is held by foreign legal entities, CBR is the only shareholder to hold more than 5 % of the shares of the bank.

developed on the basis of the new law on cooperatives. According to Oda (2007), in 1988 and 1989, 150 commercial banks and cooperatives banks were founded with the money accumulated in particular branches of real sector. He notes that by the end of 1990, the number of banks exceeded 1.000.

The wildcat⁵ banks established as a result of relations of the state bureaucrats with the “entrepreneurs” which were themselves former bureaucrats. The state enterprises deposited money in those numerous small wildcat banks, which were established by the same state enterprise. According to Oda (2007), approximately four-fifth of all Russian commercial banks were set up by one or more state enterprises. The state enterprises which could already more freely act on their account, deposited cash at their own banks. Another financial source of those wildcat banks were the cheap funding by the inter-bank credit market and the Central Bank funding. According to Oda (2007), the real intention of creating those banks were to convert state-owned assets into cash and channel them to off-shore accounts. He claims that the capital accumulated in the “second economy” during Soviet era poured into wildcat banks and their clients used these banks to circumvent foreign exchange regulations. He notes that these banks did not pay interest for around 70 % of the liabilities, including the budgetary organizations’ accounts since 1993.

According to Johnson (1994), by 1993, the foreign ownership of Russian banks were limited to 12 % of total shares. Banks with foreign ownership could only establish their own branches with a minimum initial capital of 5 million USD, where this requirement was only 130.000 USD for the Russian banks. Moreover, the majority of foreign banks were banned from doing business with Russian customers between 1993 and 1996 (Johnson, 1994).

As of 1996 the number of commercial banks in Russia peaked to 2.600. Those banks were using cheap funding from the state banks and state enterprises to

⁵ Wildcat is used in its dictionary meaning “commercially unsound or risky”.

finance their shareholders and speculate in foreign exchange markets. The risk management of those banks were far from complying with the sound risk management principles. Apart from a small number of large banks, the rest of the system were undercapitalized.

After 1998 financial crisis, a banking reform was proposed. Some elements of the reform were as follows (Gnezditskaia, 2005):

- application of International Accounting Standards (IAS) in the banking sector by 2004,
- introduction of a deposit insurance scheme,
- removal of Sberbank's monopoly on the household deposits through the operation of the deposit insurance scheme.

However, the law regulating the deposit insurance failed to pass in the parliament (Duma) until 2003, since it was seen as a regulation against the interests of the oligarchs. The insurance scheme would place non-oligarchic banks with a retail network in a stronger position (Gnezditskaia, 2005).

Neyaptı and Arasil (2016) argue that “those who benefit from the prevailing institutional network resist the change via political lobbying activities. Since short tenured governments may tend to accommodate the demands of an organized minority, this may hinder adaptive changes in formal institutions”. In this case, the oil companies resisted to some of the institutional changes when it was not in their interest. Gnezditskaia (2005) argues that as of 2005, the mineral economy rather than the local economy in Russia was the main determinant of the performance of the Russian banking system. According to Gnezditskaia (2005), the banks owned by oil companies usually stayed intransparent and the terms of lending to their shareholder and affiliated companies were usually unknown. She remarks that most of those credits were subsidized at negative real interest rates.

1.2.2.2. The Privatization of the State Enterprises

In the aftermath of the collapse of the Soviet Union, a mass transfer of ownership of state enterprises took place in the economy. The transfer of ownership occurred at non-realistic and very low prices. The privatization of the state enterprises was seen essential in the transition period to the capitalist system and it took place in two stages.

At the first stage which took place between the years 1992-1994, vouchers, each worth of 10.000 Rubles, were distributed to every citizen in Russia. These vouchers were to be used to purchase shares of the privatized state enterprises. However, according to an article on the internet site gazeta.ru (2017), most of the citizens did not know what to do with their vouchers and they tried to sell their vouchers for cash, driving the price of the vouchers down to 3000-4.000 Rubles each by the mid 1993. At the end of the first stage, the citizens could get little amount of money for their vouchers while domestic and foreign middlemen collected shares for cash (Desai, 2005). There were no set of rules to assess the true price of the capital-share of state enterprises, nor were there legal correction mechanisms. The market, then governed by armed groups, created its own correction mechanism. Businessmen, politicians and managers of enterprises and banks died in the course of correction mechanisms when the organized crime played a role in the legal arrangement. Shares of the state enterprises were being accumulated in the hands of few, "the oligarchs", who had formed necessary organizations to rule in a corrupted environment. The lack of formal rules, the rule of law and the appropriate monetary policy caused an economic and legal chaos.

The second stage, namely "The Loans for Shares Program", took place between 1995-1996. At this stage, the government shares in the large industrial companies were traded for loans to finance the state budget. The banks owned by oligarchs lent money to the government in exchange for the controlling shares of the major state-owned enterprises, some of which happened to be the big oil companies.

The second stage was financed either through the off-shore accounts of the oligarchs, cheap loans from the Central Bank or the money funded by the large multinational corporations under a scheme of commercial papers issued by Russian financial groups which were dealt by major US or European banks (Lingelbach, 2013). This stage of privatization basically helped financing the government budget deficit.

1.2.2.3. Management of the Monetary Policy in the Russian Federation

Having grown up in the USSR, the policy makers of the Russian Federation mimicked the policies of the Soviet Russia in the aftermath of the collapse of the USSR. They charged the banking system with duties of “tax collection” when the new taxation system was introduced in 1992 (Johnson, 1994), turning the bank branches into tax collection offices of the state, which in turn caused the banks’ clients to stay away from the banking system, curbing the potential of development of retail banking. They lacked the necessary tools of the monetary policy because the non-cash credit system of the USSR required much less policy intervention to fight against inflation. They did not know how to regulate the banking system to control the credit risk, since none of the banks in the USSR needed to make any credit risk assessment for their clients.

The Central Bank of the Russian Federation could then only transfer the money in weeks, which increased transfer costs as the value of money changed in the course of high inflation.

After the collapse of the USSR, the rapid and excess supply of money and uncontrolled increase in the number of banks caused the inefficient allocation of capital. With no valuable credit assessment, a country would lose its ability to invest in productive projects, meaning the inability to create assets to increase income. This would in turn cause a situation in which the purchasing power of the

economic agents soar rapidly and the trust within the markets and between the economic agents would diminish. This is actually what happened in the Russian Federation in 1990's. Johnson (1994) states that while autonomy is a necessary condition for effective banking reform and policy making, the inner dynamics of the institutions also matter. She claims that increasing the Central Bank's autonomy in Russia would not change the anti-market values, incentives and standard operating procedures embedded in the institution in the short term. She argues that the lack of legitimate political institutions and a legal framework to support a market economy in Russia resulted in reluctance to implement the government reforms and the solidification of patronage ties between institutions and political and economic actors at the local level.

Clifford (2001) questions whether the openness of financial markets would promote more efficient allocation of capital and lead to better functioning financial institutions. He argues that without effective regulatory frameworks, integration to international financial markets would probably result in further destabilization of the system. He notes that in the Russian case, institutional structures necessary to support the continued evolution of capital were weak or absent in the post Soviet era.

Hence the difficulty behind managing the monetary policy was basically the struggle for creating the necessary institutions within the country that could create and put in force the necessary legal environment for financial services.

After the collapse of the USSR, member states of the Commonwealth of Independent States⁶ (CIS) continued to use Russian Ruble. While each member

⁶ Commonwealth of Independent States (CIS) was created in December 1991. The participants of the Commonwealth declared their interaction on the basis of sovereign equality. At present the CIS members are Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine. In September 1993 the Heads of the CIS States signed an Agreement on the creation of Economic Union to form common economic space grounded on free movement of goods, services, labour force, capital; to elaborate coordinated monetary,

state of the CIS established its own Central Bank, those banks had the right to issue non-cash credits in Rubles although all Ruble notes were printed in Moscow. Each government tried to establish non-cash credits to finance its fiscal deficits. This caused inflationary pressures on the Russian Ruble between 1991-93. The CIS countries stopped using ruble and started printing their own currencies in 1993. This lift off a big part of the inflationary pressures on the Russian Ruble.

Rytila (1994) notes in her work that the central bank policy in 1992 was focused on maintaining the Ruble area for CIS countries, emphasizing the problems of the payment system and enterprise arrears and de-emphasizing the need for an inflation objective. According to Rytila, the years 1993-1994 constitute a period when the idea of Ruble zone seems to have been abandoned and the Central Bank had operations similar to those of western central banks.

Rytila (1994) emphasizes the fact that one of priorities of the Central Banks of Russia has been financing the state budget deficits at zero or low interest rates until 1994. She points at the fact that credits extended by the CBR to state enterprises and specific regions, either directly through commercial banks or through Ministry of Finance increased the money supply which in turn contributed to the acceleration of inflation. She notes that the importance of direct Central Bank financing has diminished in 1994 as the credits were channeled through the budget. Rytila (1994) remarks that the adverse economic conditions in Russia led to capital flight amounting to 30 billion USD between 1990-1993.

tax, price, customs, external economic policy; to bring together methods of regulating economic activity and create favourable conditions for the development of direct production relations (Interstate Statistical Committee of the Commonwealth of Independent States, 2019; website).

Desai (2005) argues that, Boris Yeltsin⁷ and his team applied a “shock therapy” from 1992 to 1998 which aimed at creating a market economy and ending the communist policies of economic planning. This shock therapy included removal of price controls, downsizing the budget deficit, privatizing the state-owned means of production, opening the economy via foreign trade and capital account under a unified and market determined Ruble (Desai, 2005).

Within this framework the monetary supply was tightened and government borrowing from the Central Bank was largely cut while IMF was providing foreign financial support for the plan. Desai (2005) points out the fact that the economic program was practiced with presidential decrees without seeking political consensus. However, when the price controls ended up with a hyperinflation, the savings of people vaporized and the balance sheets of the companies were destabilized, causing a decrease in the political support among the people for Yeltsin.

To achieve a balanced state budget was a difficult task. According to Desai (2005), the Soviet system incorporated automatic subsidies from the budget to loss making state enterprises. He notes that at the beginning of Yeltsin reforms, these subsidies continued as a result of the existing network between the party bureaucrats and the factory managers. When the subsidies were cut, the Central Bank increased money supply to meet demands for money. When the increase in money supply was combined with the removal of price controls, the inflation rates reached to 2.500 % by the end of 1992 (Desai, 2005). According to Rytla (1994), credits and other subsidized programs directed to state enterprises by the Central Bank, have delayed the introduction of hard budget constraints for the state enterprises.

⁷ Boris Yeltsin was the first president of the Russian Federation after the collapse of the USSR. He served as president between 1991-1999. After Boris Yeltsin, Vladimir Putin became the president in 1999 and has been serving as the president of Russian Federation since then.

With the IMF program of 1993, the Central Bank started to follow a tight monetary policy and decreased the inflation rate to 3 % by 1997. However, the high real interest rates caused a rush to buy government bonds in 1997, the government defaulted on its debts in 1998, the interest rates increased to 150 % and the depreciation of the Ruble continued for the following two years. Yadav (2017) notes that the crisis of 1998 was exacerbated by the fact that the banking system was the “weak link” of the financial system.

From 1999 onwards, the Putin administration managed the fiscal and the monetary policy better, embarking on the capitalist reforms made by the Yeltsin administration, while having benefited from the increase in the oil prices. The value of the Ruble was relatively more stabilized until the economic sanctions for political motives were imposed by the United States in 2014. Following the sanctions, the Ruble depreciated severely. Since 2014, the Putin administration has been redesigning its financial infrastructure by taking into account the financial sanctions imposed by the United States and the European Union. Among the measures are the establishment of a national payment system and promoting Ruble in international payments to trade partners.

Next chapter describes the methodology used in this study to assess the institutional change and path dependency in the Russian banking sector, which employs the North’s theoretical framework.

CHAPTER 2

METHODOLOGY

In order to understand the mechanisms that affected the development of the banking system in the Russian Federation, it is crucial to understand the financial institutions of the Soviet Union. The study makes use of the analytical framework proposed by North (1992) and notions defined by Acemoglu and Robinson (2012) to achieve this goal. North puts forward five propositions as foundation of his analytical framework. Each proposition will be the conceptual base for explaining the institutional change and its results in the banking sector of Russia. Hence, the explanation of the institutional change will be explained in five sections in chapter three of this study.

The first proposition of North is that *“the continuous interaction between institutions and organizations in the economic setting of scarcity and hence competition is the key to the institutional change”*. Based on this proposition, in the first section, the resources that are scarce in the banking sector and the level of competition for those resources will be explained. For this purpose, a brief information on how a bank makes profit is given and the indicators of competition in the Russian banking system are analyzed. Later, the effects of Soviet institutions on the competition for deposits and loans are discussed. In this section, it is also-discussed how the criminal organizations tried to acquire market share in the banking sector to create their own extractive economic institutions.

In his second proposition, North claims that *“competition forces organizations to continually invest in skills and knowledge to survive. The kinds of skills and knowledge individuals and their organizations acquire will shape evolving perceptions about opportunities and hence choices that will incrementally alter institutions”*. Based on this proposition, in the second section of chapter three, the importance of information sharing in the banking sector is briefly told and the level of information sharing and the capability of the banks the evaluate the

information acquired in the Russian banking system is briefly assessed. Also the investments in the payment systems and Sberbank are discussed.

The third proposition of North is that "*the institutional framework provides the incentives that dictate the kind of skills and knowledge perceived to have maximum pay-off*". Based on this proposition, the effects of Soviet institutions on the regulations in the post Soviet era is briefly assessed and the effects of the new set of laws established in the post Soviet era on the ability of the state organizations to regulate to banking sector is analyzed.

In his fourth proposition, North puts forward the allegation that "*perceptions are derived from the mental constructs of players.*" Based on this proposition, the evolving perceptions of the players in the Russian banking sector are discussed.

In his fifth proposition, North concludes that "*the economies of scope, complementarities and network externalities of an institutional matrix make institutional change overwhelmingly incremental and path dependent.*" Based on this proposition, we will analyze the change in the structure, performance and the efficiency of the Russian banking system to assess if there is any path dependency in the institutional change. The institutional changes initiated in the post Soviet era were to establish the free markets in the Russian Federation. If there were not any path dependency, one would expect the transactions costs to decrease and the footprints of the state in the banking sector to be minimal. Any departure from those lines defined above will be interpreted as path dependency.

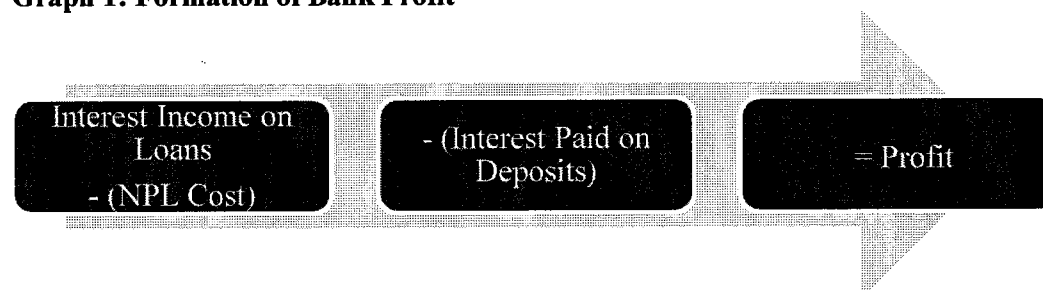
CHAPTER 3
ASSESSMENT OF THE INSTITUTIONAL CHANGE AND PATH
DEPENDENCE

3.1. Scarcity And Competition

Within this section, the elements of scarcity and competition in the banking sector and how the Soviet institutions shaped the market structures for these elements will be put forward in line with the first proposition of North.

Banks mainly operate by lending out the funds they borrow. In order to make profit, banks need to charge an interest rate for credits that should cover for the cost of funds they borrow, which is the interest rate paid on deposits plus the cost of non-performing loans (NPL). Ignoring the commission income earned as a mark-up on transactions costs and the operating expenses, the profit of the banks equals the net interest margin minus the cost of non-performing loans.

Graph 1: Formation of Bank Profit

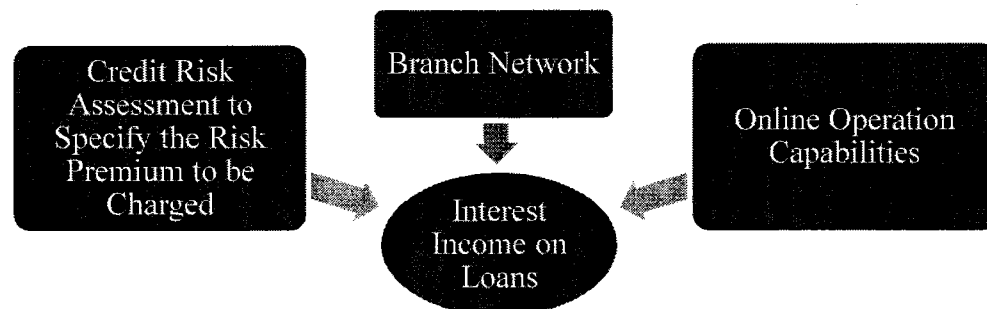


In this simplified version, the constraints on the level of profit and loss depends on the interest rate charged on loans and the amount of loans extended, the interest paid on deposits, the ratio of non-performing loans (NPL ratio). Each of these factors are explained below.

1. The interest rate charged on loans and the amount of loans extended: The interest rate charged on loans depends on the risk premium to be charged for

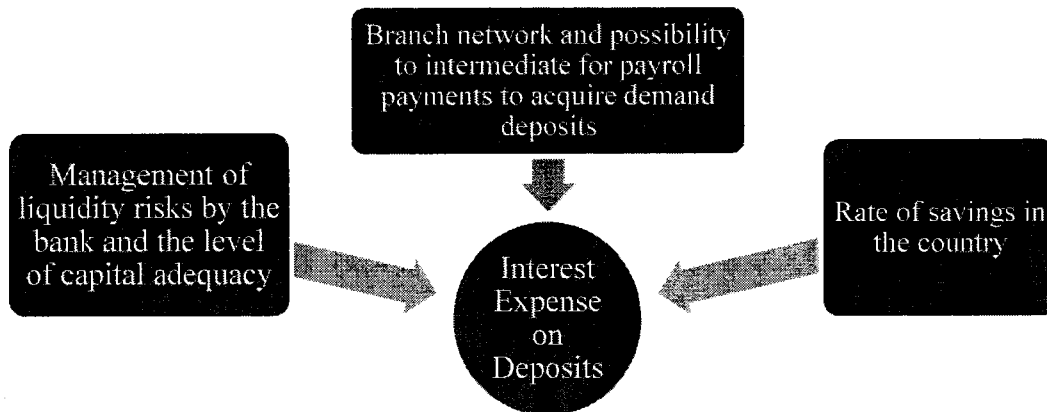
every borrower. There is also the country risk premium added. The risk premium should be assessed by every bank using all the financial information about the customer and employing the credit risk assessment analytics. The amount of the loans established by a bank depends on the sales capabilities and the capital adequacy of the bank. The sales capabilities depend on the size of its branch network and its online operation capabilities. The easier for the customers to complete their banking operations the lower will be the transactions costs and higher will be the customer loyalty. The cost of banking transaction for a customer includes the cost of going to a bank branch. When a bank branch is closer to the customers or when a customer can complete a banking transaction using mobile phones or computers on the internet, the cost of banking transaction for customers decrease, making it easier for banks to keep their customer base.

Graph 2: Factors Affecting the Interest Income on Loans



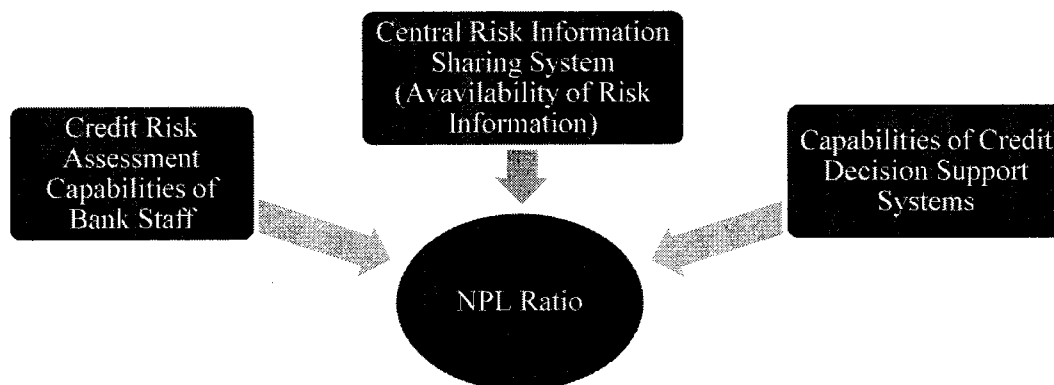
2. The interest paid for deposits: The interest rate on deposits depends on the liquidity risk of the bank. Managing the liquidity risk of a bank becomes more difficult if it operates with inadequate level of capital. Also when the level of savings in the country is low, then it is more difficult to acquire the necessary funding by the banks. The interest rate on demand deposits are lower than the interest rate on time deposits. The ability of a bank to acquire demand deposits depends on the size of its network branch and its ability to intermediate for corporate payments such as payroll payments.

Graph 3: Factors Affecting The Interest Expense on Deposits



3. The ratio of non-performing loans (NPL ratio): The provisions accounted for the non-performing loans are deducted from the profits of the banks. They are costs for the bank, increasing the cost of credit. The NPL ratio depends on the banks' credit risk assessment ability and the continuous monitoring of credit risks. These two functions depend on the skills and knowledge of the bank staff, its capabilities of credit decision support systems and the availability of risk information on loan customers which is provided by credit bureaus in a country. As the NPL level increases, so does the transactions cost for the loan customers.

Graph 4: Factors Affecting the Non Performing Loans Ratio



Therefore, the banking sector competes for the two main factors in order to achieve profitable financial results:

1. Deposits with low interest rates: The main source of finance for banks are the deposits. Banks need to borrow funds on competitive terms, competing to acquire deposit with lower interest rates than the sector average.
2. Loan customers with low credit risk (good loans): A bank competes to establish credit lines to the firms with low probability of default on their credit risks.

It should be noted that the factors aforementioned are closely related to the quality of the banking regulations and the supervision in the country. Neyaptı and Dinçer's (2014) study covering about 53 countries shows that banking regulation has significant positive effects on bank deposits and investment rates while significant negative effects on NPL ratio. The banking regulatory and supervisory agencies (BRSA) set the minimum standards for the bank management and specifies the level of investment to be made and the amount of information and the skills to be acquired by the banks. Also the BRSA is expected to take necessary precautions in coordination with other state institutions to ensure the depositors' trust to the banks in the system. All these factors affect the level of competition in the deposit and loans markets in a country.

3.1.1. General Structure of Competitiveness in the Russian Banking Sector

Although the Russian banking system is considered to become more competitive over time by the measure of Herfindahl-Hirschman Index⁸ (HHI), the state-owned largest bank, Sberbank still dominates the deposit markets. Table 1 shows the HHI index for the Russian banking system. As it seen in Table 1, while the level of competition in Russia has been increasing in the sector over time (HHI: 1.104 in 2013; 1.121 in 2017), the assets share of the top five banks has also been increasing (50,3 % as of 01.01.2013; 55,3 % in as of 01.01.2017), showing a continuous domination of large banks.

Table 1: HHI Index for the Russian Banking System

	01.01.2013	01.01.2014	01.01.2015	01.01.2016	01.01.2017
Share in assets of top 5 banks	50,3	52,7	53,6	54,1	55,3
Share in assets of top 20 banks	69,8	71,7	75,1	75,7	78,1
Share in assets of top 50 banks	81,4	82,8	85,7	87,0	88,7
HHI Index (on assets)	1104	1153	1156	1162	1221

Resource: Kruglova; Ushakova, 2017.

In their study on the role of the state in the Russian banking sector, Arena, Culiuc, Sanjani (2018) suggests that Russian banking sector can be best characterized as

⁸ The Herfindahl-Hirschman Index (HHI) is a common measure of market concentration and is used to determine market competitiveness. It is calculated by squaring the market share of each firm competing in a market and then summing the resulting numbers. It can range from close to zero to 10.000. The closer a market is to a monopoly, the higher the market's concentration (and the lower its competition). If there were only one firm in an industry, that firm would have 100 % market share, and the Herfindahl-Hirschman Index (HHI) would equal 10.000, indicating a monopoly. If there were thousands of firms competing and each would had nearly 0 % market share then the HHI would be close to zero, indicating a nearly perfect competition. The U.S. Department of Justice considers a market with an HHI of less than 1.500 to be a competitive marketplace, an HHI of 1.500 to 2.500 to be a moderately concentrated marketplace and an HHI of 2.500 or greater to be a highly concentrated marketplace (Investopedia, website).

operating under monopolistic competition and foreign-owned banks appear to be the most competitive.

Table 2 shows the share of top five banks (in terms of assets, deposits and loans) in the Russian banking sector as of November 2017. Table 2 shows that four of the top five banks are state owned banks. The top three banks are state owned banks operating on commercial terms and the total of their market share is 53,9 % in system assets, 58,6 % in system deposits, 59,5 % in system loans. This data shows that state banks are overwhelmingly dominant in Russian banking sector.

Table 2: Top Banking Groups in Russia

	Bank Name	Ownership	Assets (Bln USD)	Share in (%) the System		
				Assets	Deposits	Loans
1	Sberbank of Russia	State	388	29,4	32,9	34,4
2	Total VTB Group	State	231	17,5	17,9	17,4
3	Gazprombank	State	92	7,0	7,8	7,7
4	Total Moscow Exchange Group	Private	58	4,4	1,2	2,3
5	Russian Agricultural Bank	State	51	3,9	4,4	4,1

Resource: Arena; Culiuc; Sanjani, 2018.

According to the Global Competitiveness Index⁹ calculated by the World Economic Forum (Table 3), Russia ranks at 43th position among 140 countries in 2018. Although Russia has improved its position through time (64th, 67th, 54th in preceding three years respectively), there is still plenty of room for improvement.

⁹ The Global Competitiveness Index 4.0 assesses the microeconomic and macroeconomic foundations of national competitiveness, which is defined as the set of institutions, policies and factors that determine the level of productivity of a country. The index score is between 0-100, where 100 is the best.

Table 3: Global Competitiveness Index¹⁰ in 2018 for Certain Countries

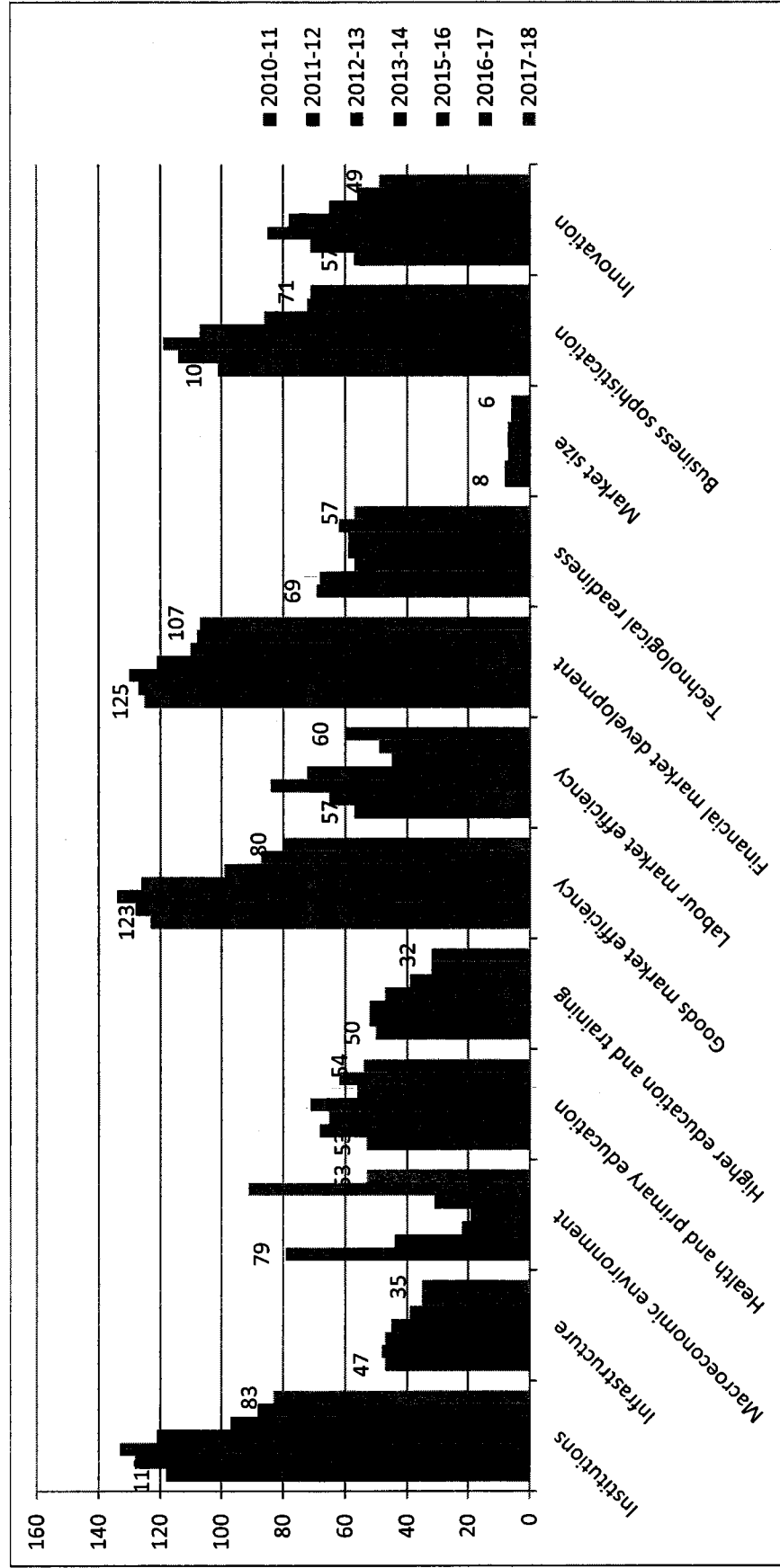
Country	2018 Global Competitiveness Rankings and Scores	
	Ranking	Score
USA	1	85,6
Germany	3	82,8
Japan	5	82,5
United Kingdom	8	82,0
France	17	78,0
China	28	72,6
Russian Federation	43	65,6
India	58	62,0
Turkey	61	61,6
South Africa	67	60,8
Brazil	72	59,5

Source: World Economic Forum, The Global Competitiveness Report 2018

Graph 5 shows the rankings of the Russian Federation for the components of Global Competitiveness Index between 2011 and 2018. Since 2012, it is observed that Russia achieved significant development in terms of banking competitiveness regarding its institutions, goods market efficiency, financial market development and business sophistication.

¹⁰ There are a total of 98 indicators in the index, derived from a combination of data from international organizations as well as from the World Economic Forum's Executive Opinion Survey. These are organized into 12 pillars in the GCI 4.0 for the year 2018 (although the number of the pillars stayed the same across years, some pillars and sub-component were changed in 2018 in the GCI 4.0), reflecting the extent and complexity of the drivers of productivity and the competitiveness ecosystem. As of 2018 the pillars are listed as follows: Institutions, Infrastructure, ICT adoption, Macroeconomic stability, Health, Skills, Product market, Labour market, Financial system, Market size, Business dynamism, Innovation capability.

Graph 5: Rankings of the Russian Federation for the Components of Global Competitiveness Index (2011-2018)



Resource: Global Competitiveness Index Reports for the years 2011-2018

Although the legal environment has been strengthened in favor of a sound banking system during the Putin administration since 1999, the Global Competitiveness Index of 2018 shows that regarding the “Institutions” component¹¹, The Russian Federation still has relatively low scores and lags behind other industrial countries. Table 4 shows Russia’s scores and ranking regarding sub-components (of the component “Institutions”) “organized crime”, “judicial independence”, “efficiency of legal framework in challenging regulations”, “incidence of corruption”, “property rights”, “strength of auditing and reporting standards”. Russia’s ranking for these sub-components are low and confirm that the related institutions are still not sufficient to create the necessary legal environment for a level of competition in the deposit markets that is similar to one in the developed countries.

Table 4: Global Competitiveness Index 2018 Ranking and Scores of The Russian Federation for Chosen Sub-components of the Component “Institutions”

Selected Sub-components of the Component “Institutions”	Score in 2018 Report	Ranking in 2018 Index (out of 140 countries)	Raking in 2010-2011 Index (out of 139 countries)
Organized crime	61.6	78	112
Judicial independence	38.4	92	115
Efficiency of legal framework in challenging regulations	36.1	79	115
Incidence of corruption (2018 Index) / Favoritism in decisions of government officials (2010-11 Index)	29.0	113	106
Property rights	45.5	112	128
Strength of auditing and reporting standards	60.4	69	116

Source: World Economic Forum, The Global Competitiveness Report 2018

¹¹ In the Global Competitiveness Index for the year 2018, the index component “Institutions” has 20 sub-components, where each sub-component is scored on a 0 to 100 scale and 100 represents the optimal situation or 'frontier'.

Table 5 shows the score and ranking of Russia for the sub-components of the component “Financial System” (“Financial Market Development” before 2018 GCI report). As it is seen in Table 5, Russia has low scores regarding “domestic credit to private sector”, “financing of SME’s”, “soundness of banks”, “non-performing loans” and “banks’ regulatory capital ratio”. These scores show us that the financial system in the Russian Federation is still not as mature as the most of the countries in included in the index.

Table 5: Global Competitiveness Index 2018 Ranking and Scores of The Russian Federation for Chosen Sub-components of the Component “Financial System”

Selected Sub-components of the Component “Financial System”	Score in 2018 Report	Ranking in 2018 Index (out of 140 countries)	Raking in 2010-2011 Index (out of 139 countries)
Domestic credit to private sector (% GDP) (“Ease of access to loans” for the 2010-11 index)	57.3	65	107
Financing of SME’s (“Ease of access to loans” for the 2010-11 index)	39	106	107
Soundness of banks	45.1	114	129
Non-performing loans (% loan portfolio value)	81.9	97	-
Banks’ regulatory capital ratio	91	109	-

Source: World Economic Forum, The Global Competitiveness Report 2018

3.1.2. Competition for Deposits

Given the structure of the Russian banking system, competing for deposits and loans is not an easy task. There several factors explaining the difficulty in competing for the deposits. First of all, there are a large number of banks in the sector. The level of customer confidence on private banks is low and the banking supervision is poor with respect to the international financial rules. And there is high market dominance of a single state bank over deposits, namely the Sberbank.

While each of these factors had their own impact on the structure of the deposit markets, the actions taken or not taken during the period of transition from the communist regime to a capitalist one also had their own impacts, most of the times deepening the deficiencies in the short-run.

The institutions of the Soviet era, corresponding events of the transition period and their final impact are listed in the Table 6 below and explained thereafter. The transition period covers the 10 years period from 1988, the year when the new “Law on Cooperatives” was enacted, which gave the state enterprises the right to retain some of their profits, to 1998, the year of Russian financial crisis, when the Russian government defaulted on its financial obligations and the fixed exchange rate collapsed.

Table 6: Effects of the Soviet Institutions on the Deposit Market in Post Soviet Era

Institution	Transition Period Events (1988-1998)	Deficiency in the Post Soviet Era
<ul style="list-style-type: none"> - Monobank system. - Specialized state banks (The Union Savings Bank). 	<ul style="list-style-type: none"> - High need of funds by the government for public finance. - Dominance of Sberbank in terms of branch network size. 	<ul style="list-style-type: none"> - Overwhelming market dominance of a single state bank (Sberbank) in the deposit market.
<ul style="list-style-type: none"> - Closed economy - No application of international financial rules to promote fair competition 	<ul style="list-style-type: none"> - Direct integration with global financial markets without the necessary preparation of proper legal framework and the proper bank supervision. 	<ul style="list-style-type: none"> - Poor banking supervision in accordance with the international financial rules. - Low level of consumer confidence in private banks.
<ul style="list-style-type: none"> - No private property rights on the means of production 	<ul style="list-style-type: none"> - Ad hoc privatization of public assets. - Criminalization of the banking sector and the economy - Establishment of wildcat banks within large business groups, oil companies and mobs. - Credit lines established only to affiliated companies. 	<ul style="list-style-type: none"> - Large number of banks in the sector and concentration of credit risks and deposit funds of banks within their risk groups¹². - Low level of consumer confidence in private banks.
<ul style="list-style-type: none"> - High influence of politicians on the justice and the law enforcement. 	<ul style="list-style-type: none"> - Increased corruption. - Establishment of wildcat banks. 	<ul style="list-style-type: none"> - Low level of consumer confidence in private banks.

¹² The term “risk group” defines the affiliated companies of the bank and their business partners.

Institution	Transition Period Events (1988-1998)	Deficiency in the Post Soviet Era
- Dual credit line (cash/noncash) system as a tool for the state planning.	<ul style="list-style-type: none"> - High level of investment in government bonds - High level of speculation in foreign exchange market - No investment in technological infrastructure by the banks. 	<ul style="list-style-type: none"> - Lack of fast and technologically reliable payment systems. - Lack of banking products to keep deposits in the private banks.

During the monobank period, all the savings were deposited in the Union Savings Bank and were used for public finance. High public spending continued after the collapse of the USSR. After the establishment of Sberbank, which is the continuation of the Union Savings Bank, the government introduced the deposit insurance scheme only for Sberbank. Sberbank was the only bank that had a very large branch network of 42.000 branches that covers a large territory of the Russian Federation.

The criminalization of the economy after the collapse of the USSR, the network advantage and the deposit insurance scheme granted only for Sberbank gave the households all the necessary reasons to keep their deposits in this state bank. At that time, Sberbank was almost the only commercial bank, whose real owners were publicly known and not a part of a mob.

The organized crime started with the privatization era. There were almost no private ownership of property rights on the means of production in the USSR. During the two stage privatization period, the state enterprises were sold for very low prices. The correction mechanism for the price was the increased organized crime. This was the start of a war on the streets among the mafia. Every former Soviet officer aspiring to become businessman, wanted to use every means to own the large steel, oil or gas extracting state enterprises. The government could not regulate and protect the property rights.

The increase in the organized crime in Russia after the collapse of the Soviet Union had important adverse effects on the formation and the transformation of the banking system in the Russian Federation. As the organized crime was involved with the asset acquisition in the post privatization era, a lot of wildcat banks were already owned by the Russian mobs.

Williams (1997) states that according to the published figures, the number of criminal organizations in Russia was 3.000, 5.700 and 8.000 in 1992, 1994 and

1998 respectively. He points out in his work that there were a series of murders and murder attempts¹³ targeting bank managers in 1990's. He claims that although the criminal organizations were trying to take control of certain banking institutions, effective steps by the law enforcement to identify and apprehend the killers were not taken. According to Williams (1997), by the year 1995, it was estimated¹⁴ that criminal groups controlled over 400 banks and 47 exchange offices.

Williams (1997) claims that the banking system was used by the criminal organizations for money laundering, extortion and corruption. Voronin (1997) states in his work that The Russian Ministry of Internal Affairs officers assumed that almost every one of the organized criminal groups had its own high ranking official providing protection and support.

The increase in the criminal activity and the involvement of criminal organizations in the banking sector caused households to deposit their savings in Sberbank rather than in the private banks. Since they could not differentiate between the "good banks" and the "mafia banks", they preferred Sberbank even though it offered negative real interest rates on deposits. None of the companies nor people trusted each other. Enterprises established their own banks to keep their cash at their own banks.

This was an attempt by criminal organizations to create their own extractive economic institutions after the collapse of the Soviet Union. Extractive economic institutions can be formed and continue their existence when political institutions are not inclusive (Acemoglu; Robinson, 2012). When the USSR collapsed, the

¹³ Williams (1997) notes that, even the house of the chairman of Russian Central Bank became a target of arm fire in 1996, leading to a speculation that the Central Bank had angered criminals by revoking the licenses of commercial banks violating banking regulations.

¹⁴ Estimated by the Russian Ministry of Internal Affairs (MVD) All Russia Scientific Research Institute.

institutions became insufficient to become inclusive. This means that the institutions of the Russian Federation in the 90's could not feature secure private property, and an unbiased system of law. The state lost some of its ability to be the "monopoly of legitimate violence". Hence it could not play its role as the enforcer of law and order, causing a breakdown of inclusive institutions and paving a small group of the society to concentrate power in their hands, creating their own political and economic extractive institutions. Acemoglu and Robinson (2012) emphasized that in such situations, the state fails to achieve almost any political centralization and the society descends into chaos.

The rules of the international financial system that would guarantee a certain level of competition were not applied in Russia for a long time. The deposit insurance scheme was limited to Sberbank only until 2003. "The Deposit Insurance Law" came into effect in 27 December 2003. This was the first law to establish a legal base for deposit insurance system in Russia. The risk management systems were primitive and there was no financial transparency.

Since there were no investment in payment systems and retail banking, there were no product innovation to promote deposits in the banks other than Sberbank. At that time, the only competition was to receive cheap funding from the CBR to speculate in the foreign exchange market, buy government bonds or direct loans to their own group companies in order to channel funds to off shore accounts.

3.1.3. Competition for Loans

The difficulty in competing for the good loans after the collapse of USSR has several reasons. The number of banks increased very quickly. There was no single central risk information sharing system within the financial sector, making it costly to exchange information on all loan customers. Even the largest state bank did not share risk information on loan customers until 2010. There was no use of

advanced credit decision support systems¹⁵. There was a lack of banking professionals to perform the risk assessment analysis during credit underwriting process. There were no employment of advanced risk management systems by banks and existing banking IT systems could not provide periodic reporting on banks' regional activities. Bank managers did not diversify asset portfolios due to the aforementioned factors and because it was more lucrative to speculate in FX markets or buy government bonds. Also, most of the banks were undercapitalized, hence could not make necessary investments to compete in the loans market.

In that matter, the institutions, corresponding events of the transition period and the their final impact are listed in the Table 7 below and explained thereafter.

¹⁵ According to the internet site, a decision support system (DSS) is a computer-based application that collects, organizes and analyzes business data to facilitate quality business decision-making for management, operations and planning (Techopedia, 2019, website)

DSS is widely used in the banking sector for underwriting and collection of loans incorporating local and sector wide risk information on the loan applicants and clients. The sector wide information is supplied by credit bureaus. More detailed information on this issue is given in the section "4.2.1 The Information Sharing in the Banking Sector" of this paper.

Table 7: Effects of the Soviet Institutions on the Loan Market in the Post Soviet Era

Institution	Transition Period Events (1988-1998)	Deficiency in the Post Soviet Period
<ul style="list-style-type: none"> - Central economic planning. - No need for credibility assessment and risk management by the state banks since all funds were allocated among state enterprises according to the central economic plan. - State banks acting like the treasury department of state enterprises. - Unhealthy relationships among the legislative apparatus, state enterprises and banks. 	<ul style="list-style-type: none"> - There was no mutual effort by the members of the banking sector and the government to create a single risk sharing system to facilitate credit risk assessment of sectors and individual customers. - Capital flight from the Russian Federation - High level of investment in government bonds creating crowding out effect, hindering private technological infrastructure investment by the banks. 	<ul style="list-style-type: none"> - Lack of single central reliable risk information sharing system within the financial sector. - Not enough investment in credit decision support systems employing advanced decision analytics. - Lack of advanced risk management systems in the banks.
	<ul style="list-style-type: none"> - Bad loans to inefficient state enterprises, and persistence of old practices and relationships between banks and state enterprises. 	<ul style="list-style-type: none"> - Increase in non-performing loans.
	<ul style="list-style-type: none"> - Risk information asymmetry. - loans extended to only affiliated companies. - Banks used cheap funding to invest in government bonds or to speculate in FX markets. 	<ul style="list-style-type: none"> - Lack of competitive banking professionals to perform credit rating analysis during credit underwriting process. - Lack of portfolio diversification among interest-earning assets of the banks. - Fragmented structure in the loans market.

Institution	Transition Period Events (1988-1998)	Deficiency in the Post Soviet Period
<ul style="list-style-type: none"> - High influence of local politicians on the functioning of the state enterprises. 	<ul style="list-style-type: none"> - Sberbank credit lines to local enterprises of large conglomerates for monetary or political gains. 	<ul style="list-style-type: none"> - Lack of advanced main banking information technology systems for state banks to control credit risk of regional network.
<ul style="list-style-type: none"> - High influence of politicians on justice and law enforcement - The formation of wildcat banks. 	<ul style="list-style-type: none"> - Increased corruption. - Criminalization of the economy. 	<ul style="list-style-type: none"> - Lack of reliable order of law, preventing collection of NPL via the legal system.
<ul style="list-style-type: none"> - No property rights 	<ul style="list-style-type: none"> - Ad hoc privatization of public assets and the formation of banks of large business groups, oil companies and mobs. - Criminalization of the economy. 	<ul style="list-style-type: none"> - Insufficient level of capitalization of the banks. - Fragmented structure in the loans market.

The credit process of banks includes finding customers and accepting their loan applications, making credit assessment, disbursement of loans, monitoring loans and collecting loans.

All five steps in the credit process need risk information on loan customers and the proper application of law. Since there were no need to find credit customers and credit assessment in the USSR, where all the customers were the state enterprises, and all the distribution of funds was already planned by the state, the sophisticated tools for banking were almost non-existent in the banking system. There was no center to share the credit risk information on market players in the economy.

Also, the increased organizational crime in Russia caused the fragmentation in the financial system. All business groups and state enterprises have established their own banks in order to escape from schemes of mob groups in the financial system. Due to the information asymmetry about the credit risk and the difficulty of monitoring risks, banks were not willing to lend to businesses that were not known to them, that is, to the companies outside of the banks' risk groups. This was an obstacle for the banking system to allocate funds efficiently in order to foster the economic growth.

The problems with the law enforcement made difficult to collect non-performing loans. Even the state agencies were facing armed resistance when they wanted to collect necessary documents and information from the companies. As of 2014, the courts of the Russian Federation was still using armed forces to collect financial documents from companies or information on clients from banks in the Russian Federation.

To sum up, the abolition of private property on the means of production and central planning in the Soviet era created a Soviet banking system with no elements of competition. During the Soviet era, all deposits were kept at one state

bank and all loans were established to the state enterprises, with no competition for higher interest rate margins. In the post Soviet era, the ad hoc privatization policies and corrupt relations among the state officers and the entrepreneurs caused criminalization of the Russian economy.

During the post Soviet era, wildcat banks were established by state enterprises and mobs to transfer state-owned assets to offshore accounts. The criminalization of the economy and the deposit guarantee granted only to Sberbank caused Sberbank to overwhelmingly dominate the deposit markets even when it offered negative real interest rates. Due to lack of proper risk information on loan applicants and criminalization of the economy, banks established loans only to affiliated companies causing a fragmented loans market.

Hence, the lack of competition and private property rights on the means of production in the Soviet era ended up in a high concentration of deposits in one state bank and a fragmented loans market, hindering the proper intermediation function of the banking sector.

3.2. Skills and Knowledge

The skills and knowledge necessary for a sound banking system are to be found on both the regulators' and the banks' side. Every bank today is trying to match demands for loans in the fastest manner that incorporates all the data available in the market on the economic agents in order to minimize the risk and cost of loans. Also, they need to retain the deposits with the lowest possible cost to fund their interest earning assets.

The key factor for success in the banking sector is the ability to analyze data in order to manage the financial risks. This ability is based on the statistical calculations made by computer systems using historical data and econometric models. The data used are gathered from the banks' internal databases as well as from the other banks that are willing to share their data on their clients.

The regulator, on the other hand, uses all the data available in the banking sector to measure the soundness of the banking system under various scenarios in order to take necessary supervisory actions to help achieving successful monetary policy.

In the Soviet Russia, every agent of the economy would act according to the central plans made by the government. Hence, neither the management of the companies nor the banks would have to make any decision based on the market data, since the central planning would already had made its decision on what should be produced by each state enterprise and how much credit to be channelled to them. As a result, companies and banks in the Soviet Russia did not employ analytical models to come up with the fastest and the most correct decision to compete with their rivals, since there were no rivals. The rivalry was only in the political arena to control all the state assets. Banks were only channelling funds from the treasury to state enterprises as ordered in the central plans and enterprises were producing exactly the type and amount of goods they were assigned to

produce. There was no need for any analytical models to facilitate credit decisions, there was no risk information sharing in the banking sector to be analyzed.

To sum up, when the Soviet political system was collapsed, the Soviet banking system lacked the analytical tools and skills to make use of data available in the banking sector to manage its risks. The fastest way of increasing the skills and knowledge in the banking sector in such situation would be to import them. Necessary skills and knowledge were acquired in two ways: entry of foreign banks, purchase of decision support systems and consulting services from the western companies. The next section describes the evolution of information sharing in the Russian banking sector in the post Soviet era.

3.2.1. Information Sharing in the Banking Sector

The credit bureaus supply the banking system with the necessary sector-wide database and scoring system in order to support the decision making processes and risk management systems of the banks in a country. Every country has a different scheme of risk information sharing system. Some countries like the US, employ more than one credit bureau, some other countries like Turkey host only one central risk system that serves all banks. There are more than one credit bureaus in the Russian Federation. If a bank wants to reach the whole set of database for all borrowers in the country, then they have to become members of all credit bureaus in Russia. This, on the other hand, increases the cost of lending and also creates the problem of incorporating different types of datasets and scoring systems into each bank's risk management system. That means high transactions costs for the economy.

The institutions in the United States of America created a whole different path-dependent system for the banking sector. Unlike in Soviet Russia, the companies and banks in the United States were trying to use data to improve business

decisions even in 1950's when every company needed to make its on business decisions relying on the data available in the market. There were always a fierce competition at the national and international level. In other words, they needed to manage their own business risks.

Credit bureaus and banks use analytics software to produce credit scores and manage their own credit risks. There are two leading companies in analytics software for the banking sector worldwide, namely the Experian¹⁶ and the Fair Isaac Cooperation (FICO)¹⁷.

FICO is the technology partner of the Russian company "National Bureau of Credit History" which is a credit bureau founded in 2003 by a non-commercial partnership of some of the leading banks in the Russian Federation, then transformed into a commercial company in 2005.

The largest bank of Russia, namely Sberbank, which employs 300.000 staff and holds 41 % of retail loans, 56 % of mortgages, 43 % of credit card balances and

¹⁶ According to Experian's website, in 1803, a group of London tailors began swapping information on customers who failed to pay their debts. The ability to make better and more informed decisions enabled the tailors to improve their own personal fortunes. This idea was further developed by other law companies, banks and department stores using customer data in America and United Kingdom since then. Experian, was formed when some of such UK and US businesses combined under the ownership of Great Universal Stores in 1996 to form the world's leading information services company (Experian, website).

Experian's history in Russia has begun in 2002. The global credit bureau operator Experian, and the Russian news agency Interfax have established a credit bureau (Experian-Interfax Credit Bureau) in 2004. The Bureau was included in the State Register of Credit Bureaus in the Russian Federation in 2006 and in the same year it launched the scoring service to assess the borrower's creditworthiness on the basis of their credit history data. As of 2006, their database contained 1 million credit histories.

¹⁷ According to the company FICO's website, FICO was founded in 1956 in the USA and built its first credit scoring system for American Investments in 1958, the first automated application processing system for Wells Fargo in 1972, introduced its first credit bureau risk score in 1981, opened its first office in Europe in 1982, first office in China in 2007 (FICO, website).

33 % of corporate loans in the country as of 2018, did not disclose credit stories of its borrowers until 2010. By the end of 2009, Sberbank became 50 % shareholder of Experian-Interfax Credit Bureau and the Bureau changed its name to United Credit Bureau (UCB) in 2011.

The number of credit histories kept in the UCB database increased to 350 million in 2019 from 200 million in 2016 and 110 million in 2013. Although UCB is the largest Russian credit bureau in terms of database volume, the number of its clients is about 600 banks and financial organizations as of March 2019, which is far from covering all the banks in the RF.

In 2009, Richard Hainsworth, the CEO of the Russian ratings agency Rusrating, stated that the establishment of the aforementioned credit bureau would significantly improve the financial system's efficiency, with the banking system's biggest player becoming a part of the information access system. He added that by this development; an increase in the transparency in the Russian retail lending market, a reduction in the credit risk, a provision of consumers with better access to credit and the existing number of credit agreements to be accessible through Experian-Interfax to double to 23 million were expected. Hainsworth stated that the fact that Sberbank has not been disclosing the credit stories of its borrowers was heavily distorting the data about Russia's credit market. A unified credit bureau would be the biggest database in Russia that would help to separate creditworthy borrowers from financially unstable ones (RT News, 2009).

"The Doing Business Project" by the World Bank provides objective measures of business regulations for local firms in 190 economies and selected cities at the substantial level¹⁸. One of the sections in the project is entitled as "Getting Credit" which is defined as follows on the project site: *"Score-Getting credit (DB15-19*

¹⁸ The Doing Business Project, website.

methodology)" measures the gap between an economy's performance and the regulatory best practice on the Getting Credit indicator components¹⁹.

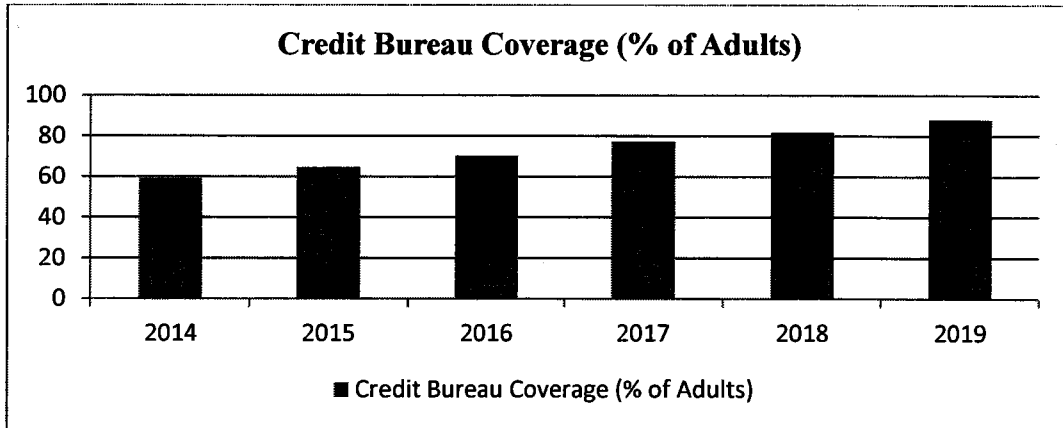
Within the framework of aforementioned project, data on the Russian Federation has been collected since year 2014. Some of the data gathered and calculated in the project give us a clear idea about how well the risk information system in the Russian Federation is covered. It is important to note that even after 2014, there has been a great deal of improvement in the availability of risk information and loans in the RF.

As it is seen the Graph 6, the credit bureau coverage of adults²⁰ was only 59 % in 2014, where it increased to 88 % by 2019. It should be noted that until year 2010, even the largest state bank in Russia did not share the risk information on its clients.

¹⁹ The sub-indicators are weighted proportionally, according to their contribution to the total score, with a weight of 60 % assigned to the strength of legal rights index and 40 % to the depth of credit information index. The score ranges from 0 to 100, where 0 represents the worst regulatory performance and 100 the best regulatory performance.

²⁰ "Credit bureau coverage (% of adults)" reports the number of individuals and firms listed in a credit bureau's database as of January 1 of the year covered by the corresponding Doing Business report (e.g., DB2019 corresponds to January 1, 2018) with information on their borrowing history from the past five years and the number of individuals and firms that have had no borrowing history in the past five years but for which a lender requested a credit report from the bureau in the previous calendar year. The number is expressed as a percentage of the adult population (the population age 15 and above in the previous year according to the World Bank's World Development Indicators).

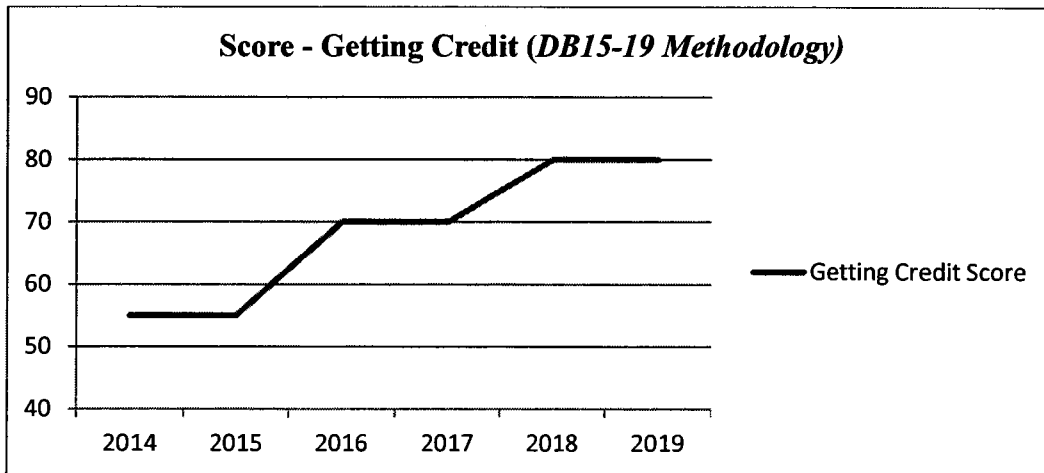
Graph 6: Credit Bureau Coverage in Russia



Source: World Bank “Doing Business Project”.

As it is seen in Graph 7, “The Strength of Legal Rights Index²¹” prepared for “Getting Credit Score” was only 33 in 2014, however increased to 75 in 2019, where “0” being the worst and “100” being the best. “Getting Credit Score” itself was improved substantially over years.

Graph 7: “The Doing Business Project”- Getting Credit Score for Russia



Source: World Bank “Doing Business Project”.

²¹ “Score-Strength of legal rights index (DB15-19 methodology)” captures the gap between an economy’s performance and the regulatory best practice on the Legal Rights index. The score ranges from 0 to 100, where 0 represents the worst regulatory performance and 100 the best regulatory performance.

Next section, give information on the investments made in the largest state bank in Russia to acquire necessary skills in the banking sector.

3.2.2. The Performance of Sberbank

The state-owned Sberbank, the largest bank in Russia, is the most important player in the Russian banking system as it carries most of the savings and is too big to fail. The systemically important financial institutions selected by CBR, accounted for over 60 % of total assets of the banking sector in Russia as of 2018. However, the assets of Sberbank equal to 390 billion USD alone, accounted for 43 % of those 11 financial institutions.

It was by the end of 2008 when the Putin administration decided to pay a special attention to the management and the performance of Sberbank. According to the Financial Times, Sberbank was in a desperate condition as of 2008, in terms of control over the regional network and IT systems while it was lending below the market rates (Financial Times, 2018).

According to the article, Sberbank was far from being managed by its headquarters before 2008. According to the bank executives' statements (Financial Times, 2018), in April 2008, the bank management did not have any numbers for the previous-year, even the printers did not work at the headquarters. The bank was losing its market share. The operations of the bank ran on three thousand different IT systems, meaning it could only serve clients in the branch where they open their account. The regional managers opened credit lines with little or no central supervision. According to Financial Times (2018), the new management of the bank unified the regional network and IT systems of Sberbank, ended unprofessional relations with clients while axing below market rates.

According to Sberbank Investor Presentation (2019), as of December 2018, Sberbank had 151 million clients worldwide, 14,2 thousand branches in Russia, 294 thousand employees and controls 45,1 % of retail deposits, 23,1 % of corporate deposits. As of 2018, the return on equity of the bank is 23,1 % showing that its profitability is very high.

As of 2018, Sberbank has a futuristic financial training facility in Moscow where its staff are joining education programs designed by INSEAD and other programs of the bank (Financial Times, 2018). According to Sberbank Analyst Day Presentation (2018), the Bank's active customer base is growing and digital channels' active usage is increasing. These developments show the positive return on the Bank's investment on technological infrastructure to promote digital banking towards cost cutting. As of 2018, the online lending program of Sberbank promises to conclude the assessment of the credit risks, selection of product parameters, and issuing of credit documentation in a total of seven minutes. This speed of retail lending is comparable to its global rivals. As of December 2018, Sberbank is the 11th largest debit card issuer in the world, with 123 million debit cards.

To sum up, the ability to acquire risk information and process this information as quickly as possible is the key to survive in fierce global competition in the banking sector. The risk information today is provided by the credit bureaus and the ability to rapid process this information is provided by the credit decision support systems. However, although the risk information sharing and processing systems were popular in the countries like the US in the first half of the 20st century, where the competition was at the heart of the markets, they were not employed in Russia until the year 2003. The Russian banking system started to employ these systems only after it faced with the foreign competition in the banking sphere. And having realized how important the banking system in creation of national income, the Putin administration embarked on necessary

projects to enhance the performance of the state-owned giant Sberbank to create additional income and to contribute to the efficiency of fund distribution.

3.3. The Institutional Framework

3.3.1. The New Regulatory System

The institutions of the USSR affected the development of the banking sector. The Putin administration and the Central Bank of the Russian Federation were determined to create a financial environment which can be regulated. The newly formed regulations in turn would influence the mindset, skills and knowledge of the players in the banking sector.

As it was noticed already that too many banks and financial institutions were established in the Russian Federation, most of which were affiliated to organized crime or were subject to political influence, used as a tool for creating the extractive economic institutions to procure gains for the criminal groups. There was a very low level of confidence for the private banks among the public. The structure of the credit market was fragmented and banks were willing to establish credits only to their affiliated group companies. The law enforcement was very weak and mobs were threatening, even killing bank managers and regulators. In other words, the political institutions were not centralized and pluralistic enough to be inclusive. Hence the extractive political institutions were concentrating power in the hands of criminal organizations. Yadav (2017) notes that in 1990's, the new regulatory system in Russian banking system was modelled on international standards, but insufficient infrastructure and human capital impeded its ability to perform tasks effectively. Impacts of the institutions of the USSR are itemized in Table 8.

Table 8: Effects of the Soviet Institutions on the Regulations in Post Soviet Era

Institution	Transition Period Events (1988-1998)	Deficiency in the Post Soviet Period
<p>- Banking system only a means of payments and tax collection.</p>	<p>- Banks used as tax collecting offices.</p>	<p>- Businessman avoiding banking system to undertake transactions.</p> <p>- Less control of the Central Bank on the monetary transactions.</p>
<p>- High influence of politicians on justice and law enforcement.</p>	<p>- Lack of necessary laws on banking and anti money laundering,</p> <p>- Elusion of some banks from the control of the Central Bank.</p> <p>- Politicians' influence on banking sector persisted.</p>	<p>- The legal framework was not rigid enough to regulate the banking system.</p> <p>- Most of the banks did not obey the orders of the Central Bank.</p> <p>- The supervision for anti-money laundering was weak.</p>
<p>- The payment system is merely seen as simple tool of operation to transfer money between state enterprises, designated as in the central economic plans.</p>	<p>- No investments were made to enhance the payment systems' infrastructure.</p>	<p>- The Russian Federation and ex Soviet countries are dependent on the US and the Chinese payment systems</p> <p>- Russian financial institutions are vulnerable to the US sanctions targeting the economy.</p>

Voronin (1997) argues that the totalitarian regime of the Soviet rule had created its shadow economy which acted as a substitute for the market. He notes in his work that the legislative framework needed to combat organized crime – including banking laws, laws against corruption, organized crime, money laundering has been impeded by corrupt legislators between 1993-1996.

It was clear that the corruption and the money laundering were affecting the institutional framework adversely and prevented the development of a sound banking system. Table 9 represents the chronology of regulations related to financial sector in the Russian Federation. The law on anti money laundering and combatting the financing of terrorism (AML/CFT) was passed in 2001 and Russian Federation became a member of Financial Action Task Force in 2003. It should also be noted that the law on National Payment System was not passed until 2011. The efficient control of the payment systems is crucial for both the development of the banking system and the fight against corruption and terrorism in any country. The more efficient are the payment systems, the lower are the costs of transactions.

Table 9: Chronology of Regulations on Financial Sector in the Russian Federation (1990-2018)

Year	Regulation / Development
1990	<ul style="list-style-type: none"> - Central Bank of Russia (CBR) founded - Law of banks and banking activities - Law of Central Bank of Russian Soviet Federative Socialist Republic (RSFSR)
1992	<ul style="list-style-type: none"> - Russia becomes an IMF member - Russian Stock Market (MICEX) established - Law on insurance business
1995	<ul style="list-style-type: none"> - Law of Central Bank of RSFSR: amendments - Russian Trading System (RTS) exchange established
1996	<ul style="list-style-type: none"> - CBR becomes a Bank for International Settlements (BIS) member - Law on securities market - Law on joint stock companies
1999	<ul style="list-style-type: none"> - Law on the protection of rights of securities market investors
2001	<ul style="list-style-type: none"> - Law on Anti Money Laundering/Combatting the Financing of Terrorism
2002	<ul style="list-style-type: none"> - Law on the Central Bank of the Russian Federation - First edition of the Russian corporate conduct code
2003	<ul style="list-style-type: none"> - Russia becomes a Financial Action Task Force²² member - Start of the IFRS reporting project - Law on deposit insurance - Law on mortgage-backed securities
2005	<ul style="list-style-type: none"> - Introduction of corridor for USD & EUR basket within the exchange rate policy framework

²² The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 by the Ministers of its member jurisdictions. The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combatting money laundering, terrorist financing and other related threats to the integrity of the international financial system. The FATF is a “policy-making body” which works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas (Financial Action Task Force, 2019, website).

Year	Regulation / Development
2009	<ul style="list-style-type: none"> - CBR becomes a member of The Basel Committee on Banking Supervision (BCBS) - CBR becomes a member of The Committee on Payments and Market Infrastructures (CPMI)
2010	<ul style="list-style-type: none"> - Introduction of floating exchange corridor
2011	<ul style="list-style-type: none"> - Law of National Payment System - Law on insider trading - MICEX and RTS merge into the Moscow Exchange
2012	<ul style="list-style-type: none"> - National Settlement Depository obtains status of the Central Securities Depository of Russia
2013	<ul style="list-style-type: none"> - CBR becomes the mega regulator of the Russian financial sector. - National Clearing Center obtains status of the first qualified Central Counterparty in Russia - CBR becomes a member of International Association of Insurance Supervisors (IAIS) and The International Organization of Securities Commissions (IOSCO)
2014	<ul style="list-style-type: none"> - Inflation targeting regime with % 4 medium term target rate - Introduction of floating exchange rate regime - Approval of the new corporate governance code - National Card Payment System Joint Stock Company (AO NSPK) established
2015	<ul style="list-style-type: none"> - Signing of IOSCO Multilateral Memorandum of Understanding - Establishment of the national payment system MIR²³ and MIR card
2016	<ul style="list-style-type: none"> - Banking regulation in Russia assessed as compliant with Basel II, Basel 2.5 and Basel III (RCAP)
2017	<ul style="list-style-type: none"> - Introduction of proportional regulation in banking sector - Introduction of new financial rehabilitation mechanism
2018	<ul style="list-style-type: none"> - Bank of Russia joins IAIS Multilateral Memorandum of Understanding

Source: CBR Investor Presentation²⁴, 2018

²³ The Russian national payment system MIR was created in late 2015 as an alternative to other international payment systems such as Visa and MasterCard. The main aim was to create a national payment system that cannot not be suspended due to financial sanctions.

There were too many banks in the sector. Most of the banks had ties with criminal groups, political corruption and did not perform real banking activities that would contribute to the economic development. A lot of banks operated only for money laundering or to speculate on foreign exchange markets by the cheap funding in the interbank money market and most of them were undercapitalized.

Having too many wildcat banks in the system made it very difficult to regulate the banking sector. The Putin administration used all the state apparatus to make the conduct of law easier for the Central Bank of the Russian Federation and the legal system in that manner.

In 2013, the CBR became the mega regulator of the financial markets. It did not only assume the responsibility of regulating the banking system, but also the insurance and the securities market. For the new legal status of the CBR, Nefedov (2014) notes that in addition to classical functions of a central bank, CBR assumes the functions of the banking regulatory and supervisory agency, the securities and exchange commission and the treasury that would otherwise be assumed by the aforementioned organizations. Among the functions of the CBR are to establish rules for the payment settlement, regulate and supervise the banking sector, register securities issued by credit institutions, regulate foreign exchange operations, arrange and exercise currency exchange regulation.

The armed forces usually accompanied CBR staff or other government staff when they needed to ask for a document or information about banks' customers or banks' themselves, since some wildcat banks showed armed resistance against the demand for information and document sharing on their customers for the government.

²⁴ The Bank of Russia holds regular meetings and teleconferences with institutional investors to increase information transparency and improve the understanding of the Bank of Russia's monetary policy. The related presentations are available on the internet site of the Bank of Russia.

During the Putin administration, if a bank's risk management or internal control system was found to be inefficient, or if the bank was involved in the money transfer activities that was detected to be against the law on AML/CFT, then the bank's licenses were revoked. A typical example of an information notice by the CBR Press service is as follows:

"By Order No..., dated ..., the Bank of Russia revoked the banking license of the Moscow-based credit institution Limited Liability Company (Registration No. ...) from ... 2018.

Due to 's inefficient internal control system, the bank on multiple occasions failed to comply with the laws and Bank of Russia regulations on countering the legalization (laundering) of criminally obtained incomes and the financing of terrorism, including with regard to identifying operations subject to obligatory control and submitting reliable information to the authorized body. 's activities in 2016-2017 were largely focused on dubious transit operations, which posed a real threat to the interests of its creditors and depositors ...

The Bank of Russia took such an extreme measure — revocation of the banking license — because of the credit institution's failure to comply with the federal banking laws and Bank of Russia regulations...

... is a member of the deposit insurance system. The revocation of the banking license is an insured event as stipulated by Federal law No. 177-FZ 'On the Insurance of Household Deposits with Russian Banks' in respect of the bank's retail deposit obligations, as defined by law. The said Federal law provides for the payment of indemnities to the bank's depositors, including individual entrepreneurs, in the amount of 100 % of the balance of funds but no more than a total of 1.4 million rubles per depositor... "

According to CBR Investor Presentation of 2018, between 2013 and 2017, more than 300 banking licenses were revoked with no adverse effect on total assets of the banking sector in the RF. Decreasing the number of banks in the system is necessary for the Russian banking system since most of the wildcat banks in the system do not contribute to the development of the economy and they do not comply with the laws.

In an effort to increase the competition in the banking system and to reduce financial costs, the CBR introduced “Proportional Banking Regulation” in 2017, which aims to differentiate regulatory burden for banks based on their size and simplifying requirements for smaller banks focused on retail and small and medium sized enterprises (SME) banking. This regulation scheme introduces 2 main types of banking licenses: “the basic license” and “the universal license”. The basic license limits the list of operations its holder may engage in the banking system, while it requires lower level of capital to operate in relation to the holder of a universal license. Table 10 shows the list of the requirements for each type of license.

Table 10: Types of Banking Licenses in the Russian Federation

BASIC LICENCE	UNIVERSAL LICENCE
Charter capital of minimum 300 million rubles.	Charter capital of minimum 1 billion rubles.
Capital (own funds) may not exceed 3 billion rubles.	At least 1 billion rubles of their own funds (capital).
Simplified disclosure rules: banks holding a basic license are not required to disclose information on accepted risks, their assessment, risk and capital management procedures or any information on financial instruments included in the calculation on financial instruments in the calculation of their own funds (capital).	Additional requirements for systemically important credit institutions: <ul style="list-style-type: none"> - Higher requirements to risk management - Subject to add-ons to the standard values of risk weights for assets for calculating capital adequacy requirements.
Reduced list of banking operations: <ul style="list-style-type: none"> - May not establish branch offices or create subsidiaries in a foreign jurisdiction. - May not open accounts with foreign banks other than accounts required for participation in a foreign payment system. - May not perform several operations or transactions in respect of foreign legal entities. - International transactions may be effected via accounts at the universal license banks only. 	May carry out all banking operations set forth by the law.

Source: CBR Investor Presentation, 2018.

As of 31.12.2018, the total number of credit institutions (CI) with banking license in the Russian Federation is 484. As of the same date, the number of CI with basic license is 149, with universal license is 291, non-bank CI is 44.

A new resolution mechanism for the banking system in 2017 was introduced in order to lower the costs and the time required for the resolution of the banks, while some banks are taken under financial rehabilitation mechanism under CBR supervision.

3.3.2. Payment Systems and Financial Sanctions

While banking system provides a means of financing production and consumption by intermediating between the depositors and the loan customers, it is important that a country have control over its payments system. If other countries control the home country's payment systems, then they can prevent payments to home country, get information on trade and distribution of funds which may even have strategic importance, prevent customers of home country's banks to use payment systems all over the world.

The more the banking system is used to channel funds between the agents of the economy, the more the state agencies will be able to use the tools of the monetary policy, measure economic development more accurately, enforce the laws on AML/CFT and collect taxes.

The Putin administration was aware of these facts, so they decided to build the national payment systems and reshape the state-owned banks so that they could become competent at the international level at this area and to better defend the economy against financial sanctions.

As of 2018, 32 payment systems and 550 organizations using payment systems in the Russian Federation are supervised within the national payment system by the Central Bank of the Russian Federation. But the USA has control over most of the international payment systems. The USA imposes sanctions on other countries if they do not comply with its laws. Most of those sanctions are applied through control over the payment systems. For example, "Foreign Tax Account

Compliance Tax” (FATCA), a US law, which went into effect in 2014, is designated to find US taxpayers, who are hiding their assets in non-US banks and other non-US financial institutions. FATCA requires non-U.S. financial institutions (“Foreign Financial Institutions” or “FFI”) to report their U.S. “account holders” to the U.S. tax authorities. FATCA imposes a 30 % withholding tax on any FFI that does not comply with FATCA. The U.S. persuaded over 100 countries to change their laws to require FFI to comply with FATCA (GTCA, 2018). Sanctions such as “withholding” some of the profits received from investments in US based securities may be implied over SWIFT system. SWIFT system is a global member-owned cooperative and the world’s leading provider of secure financial messaging services. Most of the international inter-bank money transfers are made over SWIFT system.

Another payment system is the credit card system. Within a framework of the US sanctions on Russia, clients of several Russian banks were blocked from using the American card payment brands Visa and MasterCard. Those clients suddenly realized that they could not have access to a means of payment or line of credit that could be used worldwide, although they had enough credibility to use it. The reason was that some people in the administrative boards of those Russian banks were listed under US sanctions.

Table 11 shows the share of card brands in purchase transactions on global cards. It can be seen in Table 11 that the total share of Visa and MasterCard brands in 2015 was 73 % for credit cards, 89 % for debit cards in 2015. It is also striking that the Chinese card payment system UnionPay has shares of 15 % for credit cards and 11 % for debit cards while there was no Russian card payment brand in the market in 2015.

Table 11: Share of Card Brands in Purchase Transactions on Global Cards (2015)

Brand	Market Share	
	Credit Cards	Debit Cards
Visa	44 %	65 %
MasterCard	29 %	24 %
UnionPay	15 %	11 %
American Express	7 %	-

Source: The Nilson Report (2017)

As a response to US and EU economic sanctions on Russian commercial payments, the Russian Federation developed its own national payment system in year 2014, namely the Mir National Payment System. As of June 2018, 37 million Mir cards were already issued.

Another economic strategy to protect the Russian economy and the banking system from the western sanctions is to increase the share of currencies other than US dollar as a means of payment for the international trade. The Moscow-backed Eurasian Economic Union, which includes Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia tries to promote trade in their own currencies (Russia Briefing, 2018). However, to create an effective inter-bank money transfer system as an alternative to SWIFT seems to be very difficult in a near future since it takes the rest of the world to change their existing payment infrastructure, which is very costly.

To sum up, the regulation and supervision of the banking system was very difficult in the post Soviet era, due to the large number of banks and criminalization of the economy. However, the Putin administration completed the set of regulations that international financial markets required and started revoking the banking licenses of wildcat banks on the grounds that they did not employ proper internal control and risk management systems or that they were engaged in anti-money laundering activities. While the number of banks were decreasing, the government employed all the state apparatus to establish the

understanding in the banking sphere that state was the only power to regulate and supervise the banking system. Having realized the importance of the control over national and international payment systems while trying to find a solution to alleviate the economic problems caused by the US and EU financial sanctions, the Putin administration started to build Russian national payment systems and increased the efforts to form economic alliances create a new international payment system as an alternative to SWIFT, in order to increase the control of Russia over international money transfers.

3.4. Perceptions of Players

The main players of the banking sector are the government, the Central Bank of the Russian Federation and the banking officials. The government shapes the legal environment along with the fiscal and monetary policy in collaboration with the Central Bank, and also controls the state banks. The Central Bank is the mega regulator and tries to increase the efficiency of the banking system by designing the monetary policy and changing the structure of the banking system. The banking officials are players to maximize their profit by managing their risks in the given institutional framework and macroeconomic environment.

After the collapse of the USSR, the aim the government officials was to create western style free markets, where the market players would take their own decisions to operate efficiently and the government would exist as a regulator only. Since 1990's the first attempts to create free markets resulted in financial crisis. The political institutions were not inclusive, the results of privatization era were only beneficial to a small group of businessmen and the criminal organizations who tried to create their own extractive economic institutions.

The change in the legal environment in the aftermath of the 1998 financial crisis was mainly an attempt to create the set of rules that are required in the international financial markets. New laws were required for new set of operations, which did not exist in the Soviet era.

Having assessed the level of competition in the international financial markets, the Putin administration invested in the technological infrastructure for the payment systems and the state banks. However, contemporary Russian state organizations are overwhelmingly dominant in the banking sector. It is still not known to public if this dominance is a temporary precaution to restore the centralization of the institutions in order to create inclusive political institutions or a permanent one to create extractive political and economic institutions for the existing political elite.

Nefedov (2014) notes in his article that it still can not be told if the state monopoly in banking is over. He emphasized in the article that many elements of the Russian banking system are still a compromise between the old and the new perceptions of the economy. He puts forward the idea that actions to ensure a deregulation of the banking system and consolidation of credit institutions would contribute to development and improvement of the Russian banking system (Nefedov, 2014).

In 2013, the Central Bank became the mega regulator, assuming functions of all major regulatory organizations in the developed countries. Four of the largest five financial organizations in the Russian banking sector are the Soviet era originated state owned Russian commercial banks, namely Sberbank, VTB Group, Gazprombank and Russian Agriculture Bank. The largest Russian state owned oil company Gazprom owns the third largest bank in the Russian banking sector. Only these four state owned banks control the 63 % of the deposits, leaving very little room for the rest of the sector to finance the real sector. The Central Bank and the four state banks mentioned almost form the Gosbank of the USSR, controlling majority of the assets in the sector and regulating every financial aspect in Russia.

Most of the government officials and managers of the Central Bank of Russian Federation are raised in the USSR. Perhaps their vision of a sound banking system is one that serves the interests of the state. In other words, they may be seeing a very centralized state and its enterprises to be a one that is inherently pluralistic which only serves for the interests of the public. But even this view is dangerous, because a strong, centralized state may not be pluralistic and can serve for the interests of a small group of people. Although we do not know the real intention behind increasing the footprint of the state in the banking sector, it seems that the government and the Central Bank of the Russian Federation do not believe that decisions taken by the free market players is for the best of the public interests.

The bitter experience from the criminalization of the economy in the post Soviet era when the state was not centralized enough to enforce the order of law is a reason for the domination of the state in the Russian financial markets.

To sum up, although the legal environment was changed with an aim to create free markets and the latest technology is employed in the Russian banking sector to increase its competency, the large and deep footprint of the state in the banking sector shows us that the state monopoly stemming from the communist system is still not over. This is an indicator that the mental constructs of the state officials and regulators are still not very different from the ones of the communist system. The official view of a sound banking system seems to be the one that is overwhelmingly dominated by the state enterprises and controlled strictly by the state leaving little room for the other players of the market to make decisions in order to create efficient markets which contribute to the economic growth. The bitter experience from the criminalization of the economy in the post Soviet era when the state was not centralized enough to enforce the order of law is a reason for the domination of the state in the Russian financial markets.

3.5. Institutional Change and Path Dependence

The Soviet institutions were lacking the ability to create a legal environment to protect private property, the economic system to promote competition and innovation. The efficient markets of the capital system on the other hand were offering these missing components of the legal and economic system to promote competition and innovation, which in turn contributed to the wealth of the capitalist societies.

For these reasons, the politicians of the newly founded Russian Federation decided to change the political and economic institutions to establish the free market economy. In other words, the final goal of all the efforts was to promote efficient markets that could use the resources which international financial markets offered and contributed to the income per capita and GDP of the Russian Federation.

The result of the communist system was a banking system with no ability to efficiently allocate the resources. The performance of the banking system did not matter at all. There was no expectation from the banking system to make profit in order to increase the capital available to extend more credits to promote economic growth. The banking system in the capitalist system on the other hand is expected to deliver the most efficient allocation of resources, to make profit in order to increase its capacity to support the real sectors and to increase the collaboration with the international financial markets to ease the accessibility to foreign financial sources.

If the institutional change that was aimed by Yeltsin was successful, then the structure of the banking sector would become one that accommodates foreign banks, that has high profitability and operates efficiently. But if there is a path dependency, on the other hand, then the institutional change would partly be existing only on paper, which is not executed as initially aimed. The path

dependency means that the political elite and the bureaucrats of the Russian Federation would think and do as the ones in the communist system. This would result in a less free market, weaker private banks and an inefficient banking sector.

In the following sections, the structure, the performance and the efficiency of the banking sector will be assessed to decide whether the institutional change was successful and if path dependence in the institutional change of the Russian banking sector is observed.

3.5.1. The Changes in the Balance Sheet of the Russian Banking Sector

Table 12 shows the changes in the balance sheet of the Russian banking sector since 2001. As it can be seen in the Table 12, the assets of the banking sector with respect to GDP has almost tripled since 2001, reaching 92,6 % of GDP as of the end of 2017. This fact shows that in the absence of the central planning, the banking system assumed the role of allocation of funds and is already supporting the domestic production to a certain level, which was one of the aimed results of the institutional change in Russia.

The total amount of capital doubled in the same time period, reaching 10,2 % of GDP in 2017 from 5,1 % in 2001. The share of capital in the banking assets declined to 11 % in 2017 from 14,4 % in 2001, showing that banking sector had the chance to finance their assets with household deposits and other funds attracted. This is a crucial point showing an increase in the confidence of the households in the banking sector. As a matter of fact, the household deposits increased from 7,6 % of GDP in 2001 to 28,2 % in 2017. But not only its volume increased but also its share in banking sector assets. The share of household deposits in the banking sector assets increased from 21,5 % in 2001 to 30,5 % in 2017. Parallel to this development, the share of household deposit as percentage of household income increased from 12,7 % to 47,7 % in the same time period.

This may be partly due to the increase in confidence in the banking system and partly due to the fact that the increase in the number of the retail products in the banking system caused an increase in the share of household savings held as deposits in the banking system.

Although the household confidence of the banking system has increased, it should be noted that the share of Sberbank in the retail deposit market is 45 % as of 2018. This indicates the existence of path dependence among the behavior of the households. Households still trust almost half of their savings to the state bank. The change in institutions, such as the establishment of the deposit insurance scheme and rendering the CBR as the mega regulator seems to have little influence on the perception of the households towards the players of the banking sector.

Table 12: Selected Balance Sheet Items as of % GDP for the Russian Banking Sector

(as % of GDP)	2001	2005	2009	2013	2016	2017
Banking sector assets as % of GDP	35,3	45,1	75,8	78,5	92,9	92,6
Banking sector capital as % of GDP	5,1	5,8	11,9	9,7	10,9	10,2
as % of banking sector assets	14,4	12,7	15,7	12,3	11,7	11,0
Loans and other funds extended to non-financial organizations and households²⁵ as % of GDP	14,8	25,2	41,5	44,4	47,5	46,0
as % of banking sector assets	41,9	55,9	54,8	56,5	51,1	49,7
Securities acquired by banks as % of GDP	6,3	7,1	11,1	10,7	13,3	13,4
as % of banking sector assets	17,8	15,8	14,6	13,6	14,3	14,5
Household deposits as % of GDP	7,6	12,7	19,3	23,2	28,1	28,2
as % of banking sector assets	21,5	28,3	25,4	29,5	30,2	30,5
as % of household income	12,7	20,4	26,1	38,0	44,7	47,7
Funds attracted from organizations²⁶ as % of GDP	10,1	13,7	24,6	23,1	28,2	27,0
as % of banking sector assets	28,6	30,3	32,5	29,4	30,4	29,2

Source: Central Bank of the Russian Federation (Banking Supervision Reports 2003-2017)

²⁵ Including overdue debts.

²⁶ Including deposits, government extra_budgetary funds, funds of the Finance Ministry, financial bodies, customers in factoring and forfeiting operations, float, and funds written down from customers' accounts but not entered in a credit institution's correspondent account.

One problem with the Russian banking sector in the 1990's was that the banks used some of the funds either to speculate in the foreign exchange market or to buy government bonds rather than extending loans to the real sectors. When we look at the balance sheet structure, it is seen that the share of securities acquired in the total assets fell from 17,8 % percent in 2001 to 14,5 % in 2017 leaving more room for loans to be extended to real sectors and households. The amount of loans in general have been increasing for the last two decades. The loans extended to non-financial organizations and households were only 14,8 % of the GDP in 2001, while it reached to 46 % in 2017. The share of those loans in the banking sector assets increased from 41,9 % in 2001 to 49,7 % in 2017.

These developments reassure the fact that the banking system can support the domestic consumption and production. But the transactions costs are among the main concerns of the institutional economics. North states that the transactions costs are crucial determinants of the efficiency of markets. He emphasizes that the key to transaction cost is the price of acquiring information. Banks, acquire information to better manage their risks. If the risks are not well managed, then the level of non-performing loans increases, which in turn increases the cost of transactions in the banking sector.

The share of non-performing loans in total loans (NPL ratio) has been moving to different directions for the retail and corporate loans recently. The retail loans are mostly established employing computer based decision support systems giving less room for network externalities. According to the CBR Investor Presentation (2018), the NPL ratio for the retail loans has decreased to 8,4 % as of September/2018 from 9,9 % as of December/2014, decreasing the transactions costs for the consumers.

The corporate loans on the other hand are established depending not only on the current financial situation of the firms but also on their expectations of profit

levels in the foreseeable future. The expectations can be biased under the political influence causing network externalities. According to the CBR Investor Presentation (2018), the NPL ratio for the corporate loans has increased to 12,2 % as of September/2018, from 7,2 % as of December/2014, increasing the transactions costs for the producers and merchants. The increasing cost of the funds is one of the factors that decreases the efficiency of the banking sector.

3.5.2. The Changes in the Structure of the Russian Banking System

With the increased competition and stricter banking supervision, small and risky wildcat banks have been driven out of the sector during the Putin era. Licenses of many banks were revoked in the basis that they do not have proper internal control and risk management systems or that they were not complying with AML/CFT laws.

Table 13 shows the asset and capital shares of credit institutions according to ownership and size. As it can be seen in the Table 14, the number of the small and medium sized banks decreased from 964 in 2005 to 343 in 2016. This was an important step to increase the capability of the banking supervision by the Central Bank of the Russian Federation.

The number of foreign controlled banks, increased from 51 in 2005 to 72 to 2017. Foreign banks saw the opportunity to make profits in the Russian market and the soundness of the banking system was getting better. The decriminalization of the economy and the banking system in particular contributed to this development. It is interesting to note however that the number of foreign controlled banks had increased to 115 before the US and EU sanctions, but dropped to 74 in 2016. Similarly the asset and capital shares of the foreign controlled banks decreased after the sanctions. Since the sanctions are related to the political and military problems between the two ex-Soviet countries, Russian Federation and Ukraine, it is an example of how the banking system is affected from the past political

institutions. This another type of network externality, causing path dependence. In this case the banking system is restricted from using international funds and global competition, which would hamper the institutional change.

Some of the large private Russian banks were bankrupt due to insufficient risk management and as a result, their licenses were revoked or confiscated to be rehabilitated. The number of large private Russian banks decreased to 134 as of 2016 from 158 in 2005. But the real decline was in their asset and capital shares. The asset and capital shares of private banks declined to 31,2 % and 21,1 % respectively as of 2016 from 40,9 % to 42,1 % in 2005. The market shares of the confiscated banks were obtained by the state controlled banks.

From the Table 13, one can observe that the asset and capital shares of state banks increased to 58,5 % and 70,7 % respectively in 2017 from 40,7 % and 33,9 % in 2005. This development shows us the path dependency of the change in institutions. The banking system is still seen as "*the controlling apparatus of and the backbone to build the new society*". An apparatus that was once lost by the state to criminal organizations. This is a departure from the initial aims to change the institutional framework in the Russian banking sector. Some foreign banks and large private banks left the sector, leaving the market for the state banks.

However, all the investments made in the banking sector should have been leaving the state only as a regulator in the banking system. On the contrary the state is not only the regulator today, but also the major player among banks. If the Russian government officials can not promote competition among large private and foreign banks, the banking sector will loose its skills and knowledge which would support economic growth in the long run. As North states it, competition is the key to the institutional change.

Table 13: Asset and Capital Shares of Credit Institutions According to Ownership and Size

	2005	2009	2013	2016	2017
State-controlled banks²⁷					
number of banks	32	22	26	24	19
% share of total banking sector assets	40,7	43,9	51,4	58,5	58,5
% share of total banking sector capital	33,9	48,9	48,6	63,8	70,7
Foreign-controlled banks²⁸					
number of banks	51	106	115	74	72
% share of total banking sector assets	8,3	18,3	15,3	7,7	7,7
% share of total banking sector capital	9,2	16,9	17,3	11,5	11,8
Large private banks²⁹					
number of banks	158	136	127	134	NA ³⁰
% share of total banking sector assets	40,9	32,1	28,8	31,2	NA
% share of total banking sector capital	42,1	27,4	28,2	21,1	NA
Small and medium sized banks³¹ based in Moscow and the Moscow Region					
number of banks	463	334	279	138	NA
% share of total banking sector assets	5,3	2,6	2,3	1	NA
% share of total banking sector capital	9,0	3,4	3,0	1	NA
Small and medium sized regional banks					
number of banks	501	409	313	205	NA
% share of total banking sector assets	4,3	2,8	2,0	1,1	NA
% share of total banking sector capital	5,6	3,1	2,6	1,6	NA
Non bank credit institutions					
number of non-bank credit institutions	48	51	64	48	44
% share of total banking sector assets	0,5	0,4	0,3	NA	3,5
% share of total banking sector capital	0,2	0,2	0,3	NA	0,8
Total number of credit institutions	1.253	1.058	924	623	561

Source: Central Bank of the Russian Federation (Banking Supervision Reports 2003-2017)

²⁷ Banks in which more than 50 % of authorised capital is owned by the government (government structures, federal and regional government controlled unitary enterprises and the Russian Federal Property Fund and the Bank of Russia).

²⁸ Banks with a non resident interest in their authorised capital of more than 50 %, including banks whose nonresident owners are controlled by residents.

²⁹ Banks from the 200 largest banks by assets were analysed, excluding the banks that have been included in the categories "state controlled banks", "foreign controlled banks" and "non-bank credit institutions" in the table. Banks in this group were described as 'large private banks'.

³⁰ NA: Not available

³¹ All other banks not included other categories in the table were considered. These are medium sized and small banks, which in turn, were divided into two groups by location: "medium sized and small banks based in Moscow and the Moscow Region" and "medium sized and small banks based in other regions".

3.5.3. The Performance and the Efficiency of the Russian Banking System

The performance and the efficiency of the Russian banking system is expected to improve with the institutional changes took place in the banking sector. The basic way to measure the performance of the banking system is to track the changes in the return on assets (ROA) and return on equity (ROE) ratios. Assuming that the foreign controlled banks have more experience with the western type banking and are equipped with the latest information technology, a comparison of the performance of state-controlled banks with foreign-controlled banks would give us an idea whether the investments in the state-banks were efficient or not.

The performance data on the bank groups in Table 14, show that the state controlled banks have been as profitable as the foreign controlled banks. The sanctions, however changed the profitability of those two groups. While their profitability was close to each other in 2013 and 2014; the profitability of the state controlled banks fell sharply compared to their foreign-controlled rivals right after the western sanctions in 2015. But in 2016 and 2017, when some foreign controlled banks left the Russian market, not only the market share, but also the profitability of the state-controlled banks increased. The ROA and ROE of the state-controlled banks were 2,1 % and 16,1 % respectively in 2017; while the ROA and ROE of foreign-controlled banks were 2,4 % and 13,8 % as of the same date. However, it should be mentioned that when we exclude the Sberbank, the profitability of the state owned banks fall. Arena, Culiuc and Sanjani (2018) found in their study, which covers that time period 2002-2016, that the state owned banks have lower profitability than the privately owned banks except for Sberbank which has high profitability both within Russia and also compared to peer countries.

Table 14: Profitability Ratios According to Ownership and Size

(% value)	2013	2014	2015	2016	2017
State-controlled banks					
ROA	2,0	1,1	0,3	1,9	2,1
ROE	17,2	10,2	2,5	15,8	16,1
Foreign-controlled Banks					
ROA	2,2	1,4	1,0	1,8	2,4
ROE	15,1	10,4	7,4	11,4	13,8
Large Private Banks					
ROA	1,6	0,2	-0,1	-0,1	-
ROE	12,9	1,6	-1,5	-1,2	-
Small and medium sized banks based in Moscow and the Moscow Region					
ROA	1,9	1,4	0,8	0,4	-
ROE	10,2	7,4	4,0	1,6	-
Small and medium sized regional banks					
ROA	1,6	1,6	0,6	0,3	-
ROE	10,2	9,6	3,5	1,9	-

Source: Central Bank of the Russian Federation (Banking Supervision Reports 2003-2017)

Although the ratio analysis with ROA and ROE shows us how well did the Russian banks in terms of performance, they do not reveal whether their resources were used efficiently. The study by Arena, Culiuc and Sanjani (2018), assesses how ownership impacts profitability, capitalization and relative efficiency of the Russian state owned banks and the relative efficiency of the Russian banks compared to a sample of peer countries³².

The study employs both a ratio analysis to examine the profitability of the Russian banks and a data envelopment analysis³³ (DEA) to examine whether the relative efficiency of the state owned banks in Russia is different from the privately owned banks. DEA is used to assess how efficient are banks turning multiple inputs (such as deposits, equity, personnel, fixed assets) into multiple outputs (such as interest bearing assets, income, profits). The study has different conclusions for the profitability and the efficiency of the banks in Russia. The results of the study suggests that;

- the state owned banks exhibit higher Tier 1 capital ratio and better loan quality than the rest of the system, meaning they have healthier balance sheets than privately owned banks,
- the state owned banks have lower profitability than the privately owned banks except for Sberbank which has high profitability both within Russia and also compared to peer countries,
- system level profitability of the Russian banking is better than the average in peer countries,

³² The study included countries where public sector banks play a dominant role. The DEA exercises covered around 600 banks over the period 2002-2016.

³³ Arena, Culiuc and Sanjani (2018) notes that DEA is a benchmarking tool which uses information on the input-output combinations of individual entities to construct an efficiency frontier enveloping the data. This frontier is then used to measure the efficiency of the individual entities relative to a benchmark entity chosen by the model. The analysis uses the intermediation approach, which views banking activity as transforming the money borrowed from depositors into the money lent to borrowers using labor and capital. During the study, six different sets of input and output combinations are used and then the results are averaged.

- Russian state owned banks' efficiency has been declining relative to that of the privately owned banks,
- Russian banks are less efficient than the ones in peer countries and there is no indication of convergence.

The monopolistic structure of competition, increasing transactions costs and overwhelming domination of state banks in the sector has been driving down the efficiency of the Russian banking sector. These developments indicate a path dependence in the sector. Although the foreign owned banks appear to be the most efficient of the Russian banking sector, more than one third of them left the Russian market after the western sanctions. As a result, the Russian banking sector became a market that is overwhelmingly dominated by the state owned banks and working less efficient then before.

To sum up, the empirical data confirm that the institutional changes have mostly been on the paper to show the international financial markets that the Russian Federation have established the institutional environment to promote free markets. In reality however, the state is overwhelmingly dominating the sector as if the Gosbank of the Soviet regime still exists. The political problems stemming from the Soviet era are driving the foreign owned banks out of the system, carrying the competition to a further monopolistic level. The impending lack of competition is a threat to acquiring necessary skills and knowledge that North describes, which shape the evolving perceptions to alter the institutions.

CHAPTER 4 CONCLUSION

In his theoretical framework for institutional change, North (1992) states that the continuous interaction between institutions and organizations in the economic setting of scarcity and hence competition is the key to the institutional change. The abolition of the private property on the means of production and the central planning in the Soviet era created a Soviet banking system with no elements of competition. During the Soviet era, all deposits were kept at one state bank and all the corporate loans were established to the state enterprises, with no competition for higher interest rate margins. In the post Soviet era, the ad hoc privatization policies and corrupt relations among the state officers and the entrepreneurs caused criminalization of the Russian economy.

During the post Soviet era, political institutions became less centralized causing concentration of power in the hands of criminal organizations that were trying to create their own extractive economic institutions. Wildcat banks were established by the state enterprises and the mobs to transfer state-owned assets to offshore accounts. Due to the lack of proper risk information on loan applicants and criminalization of the economy, banks established loans only to affiliated companies causing formation of a fragmented structure in the loans market. The criminalization of the economy and the deposit guarantee granted only to Sberbank until 2003 caused Sberbank to overwhelmingly dominate the deposit markets even when it offered negative real interest rates.

Hence the lack of competition and the private property rights in the Soviet era, ended up with a high concentration of deposits in one state bank and a fragmented loans market, hindering the proper intermediation function of the banking sector in the post Soviet era.

North proposes that competition forces to organizations continually invest in skills and knowledge which will eventually change the perceptions of the players. The ability to acquire risk information and process this information as quickly as possible is the key to survive in fierce global competition in the banking sector. The risk information today is provided by the credit bureaus and the ability to rapidly process this information is provided by the credit decision support systems. However, although the risk information sharing and processing systems were popular in the countries like the US in the first half of the 20st century, where the competition was at the heart of the markets, they were not employed in Russia until the year 2002. The Russian banking system started to employ these systems only after it faced foreign competition in the banking sphere. Having realized how important the banking system in creation of national income, the Putin administration embarked on necessary projects to enhance the performance of the state-owned giant Sberbank to create additional income and to contribute to the efficiency of fund distribution.

The regulation and supervision of the banking system was very difficult in the post Soviet era, due to the large number of banks and criminalization of the economy. However, the Putin administration completed the set of regulations that international financial markets required and started revoking the banking licenses of wildcat banks on the grounds that they did not employ proper internal control and risk management systems or that they were engaged in anti-money laundering activities. While the number of banks were decreasing, the government employed all the state apparatus to establish the understanding in the banking sphere that state was the only power to regulate and supervise the banking system.

In 2013, the Central Bank of the Russian Federation became the mega regulator of the financial system. Having realized the importance of the control over national and international payment systems while trying to find a solution to alleviate the economic problems created by the western financial sanctions, the Putin administration started to build Russian national payment systems and increased

the efforts to form economic alliances in order to create a new international payment system as an alternative to SWIFT to increase the control of Russian Federation over international money transfers.

Although the legal environment was changed with an aim to create free markets and the latest technology is employed in the Russian banking sector to increase its profitability, the large and deep footprint of the state in the banking sector shows us that the state monopoly stemming from the communist system is still not over. The increasing state dominance in the financial markets is an indicator that the mental constructs of the state officials and regulators are still not very different from the ones of the communist system. The official view of a sound banking system seems to be the one that is overwhelmingly dominated by the state enterprises and controlled strictly by the state, leaving little room for the other players of the market to make decisions in order to create efficient markets which would in turn contribute to the economic growth.

Although we do not know the real intention behind increasing the footprint of the state in the banking sector, it seems that the government and the Central Bank of the Russian Federation do not believe that the decisions taken by the free market players is for the best of the public interests. The bitter experience from the criminalization of the economy in the post Soviet era when the state was not centralized enough to enforce the order of law is a reason for the increasing domination of the state in the Russian financial markets.

The empirical data confirm that the institutional changes have mostly been on the paper to show the international financial markets that the Russian Federation have established the institutional environment to promote free markets. In reality however, the state is overwhelmingly dominating the sector as if the Gosbank of the Soviet regime still exists. The political problems stemming from the Soviet era are driving the foreign banks out of the system, carrying the competition to a further monopolistic level. The impending lack of competition is a threat to

acquiring necessary skills and knowledge which shape the evolving perceptions to alter the institutions, as North describes it.

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