THE ROLE OF WORLD TRADE ORGANIZATION MEMBERSHIP IN FOREIGN DIRECT INVESTMENTS: RUSSIA EVIDENCE

EDA ÖZKADİF

111664028

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DÜNYA TİCARET ÖRGÜTÜNE ÜYELİĞİN DOĞRUDAN YABANCI YATIRIMLARDAKİ ROLÜ: RUSYA ÖRNEĞİ

EDA ÖZKADİF

111664028

Okan Aybar :.....

Prof. Dr. Oral Erdoğan :.....

Kenan Tata :.....

Tezin Onaylandığı Tarih :.....

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1)Doğrudan Yabancı Yatırım
2)Dünya Ticaret Örgütü
3) Rusya

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1)Foreign Direct Investment
2)World Trade Organization
3) Russia

ÖZET

Küreselleşme günümüzde, herkesin yaşam dinamiğini çeşitli yönlerle tanımlayan önemli bir olgudur ve kültürel ve ekonomik faaliyetlerde karşılıklı artan bir bağımlılık yaratmaktadır. 1970'lerden itibaren ülkeler arası ekonomik etkileşim hızla artmış ve ülkeler arası politik ve ekonomik etkileşimi geliştirmek için bir takım organizasyonlar kurulmuş olup, bunlardan biri de Dünya Ticaret Örgütü'dür.

Rusya'nın, ekonomisini gelişen yeni dünyaya entegre etme çabası anlamında olan Dünya Ticaret Örgütü'ne üyelik yolculuğu, Sovyetler Birliğinin dağılmasından sonra ülkenin toparlanma sürecinde önemli bir rol oynamıştır. Bu tez; Rusya'nın doğrudan yabancı yatırımları ile Dünya Ticaret Örgütü'ne üyeliği arasındaki ilişkiyi, Rusya'nın Dünya Ticaret Örgütü'ne kabulüne bağlı olarak gelişen ekonomik durumunda, özellikle Rusya'nın doğrudan yabancı yatırımları ve söz konusu yatırımların bütün ekonominin büyümedeki rolüne odaklanarak sorgulamaktadır.

Bu tezde; temel konu ayrıca, Rusya'nın Dünya Ticaret Örgütü'ne başvurma nedenleri, üyeliğe kabulünü teminen ülkede yapılan ekonomik reformlar ve doğrudan yabancı yatırımların bölgesel ve sektörel dağılımları ışığında tartışılmıştır. Çeşitli yazarların makaleleri bu doğrultuda sorgulanmış ve uygun yerlerde alıntılar yapılarak aktarılmıştır.

Değişkenlerdeki sapmaların ekonomik göstergeler üzerindeki etkilerini görebilmek amacıyla birçok metot kullanılarak 2000-2012 yılarını kapsayan bir veri analizi yapılmıştır. Ayrıca, bulguların değerlendirilmesi sonrasında, Rusya'nın gelecekteki doğrudan yabancı yatırımlarını tahmin etmek üzere bazı yöntemler kullanılmıştır.

Çalışmanın son kısmında, bulgulara göre Dünya Ticaret Örgütü'nün Rusya Federasyonu'nun ekonomik durumundaki gelişmede önemli bir rol oynadığı sonucuna varılmıştır. Dahası tahmin sonuçlarına göre de, Dünya Ticaret Örgütü üyesi olmasından sonra Rusya'nın doğrudan yabancı yatırımının gelecek yıllarda artacağı sonucuna varılmıştır.

ABSTRACT

Globalization is a major phenomenon that defines the dynamics of everyone's lives in various aspects today and is generating further interdependence of cultural and economic activities. Since 1970s economic interaction among states boosted and several organizations have been established for enhancing political and economic interaction between states, one of which is World Trade Organization (WTO).

Russia's journey to membership in WTO, as an effort to integrate its economy to the emerging new world, has played a significant role in the country's recovery following the dissolvation of the Soviet Union. This thesis examines the relationship between the foreign direct investment (FDI) of Russia and being a member of WTO by touching upon the improvement of the economic conditions in the Russia in relation to its accession into the WTO, particularly focusing on FDI and its role on the overall growth of the economy.

On this paper, the matter is also discussed in light of Russian Federation's grounds of application to WTO, economic reformations within the country to enable its accession and structure of the FDI (regional and sectorial distribution). Papers from various authors have been cross examined and references are given to these authors where appropriate.

A thorough data analysis from 2000 to date has been conducted using various methods (please see results and findings for details) in order to see the effects of the changing variables to economic indicators. Moreover, following the evaluation of the findings some estimation techniques were used to estimate the future FDIs of Russia.

In the last part of this work, according to the findings, it has been concluded that the WTO has played a significant role in the improvement of Russian Federation's overall economic conditions. Moreover, according to the estimation results, FDIs will continue to increase in coming years after being a member of WTO.

Table of Contents

List of Abbreviations

WTO	World Trade Organization
GATT	General Agreement on Tariffs and Trade
FDI	Foreign Direct Investment
CBR	Central Bank of Russia
ADF	Augmented Dickey Fuller
GDP	Gross Domestic Product
OECD	Organization for Economic Co-operation and Development
BASF	Baden Aniline and Soda Factory
EU	European Union
EC	European Commission
PTA	Prefential Trade Agreements
IMF	The International Monetary Fund

List of Tables

1. Introduction

In today's globalized economy, it is not possible to think of economies of many states to remain isolated from the intense and unstoppable financial interaction around the world. Highly developed means of transportation, technology, knowledge sharing, and production renders it a necessity for any state to become a part of the global economy. Furthermore, extensive political changes that have taken since particularly the 1970s in the world as a result of end of colonization, the melting of the ice between the capitalist world and the communist sphere further boosted the economic interaction among the states according to Carkovi and Levine (2002).

Hence, states had begun to lift trade barriers, and make it easier both bilaterally and multilaterally to build up and expand their economic relations. As marked by Tezcanlı, and Erdoğan (1996), markets should be integrated in order to benefit from the contributions of incomes obtained from trade of goods, services and capital movements to the growth of the economy, in order to serve this end, several economic organizations have also been established whose ultimate goal has been to enhance economic and political interaction among their member states. One of such global (or international) of such economic organizations is the World Trade Organization which was originally established under the name General Agreement on Tariffs and Trade (GATT) in the post-World War Two period in 1948. The World Trade Organization (WTO), on the other hand, took over GATT, and it was established on January 1, 1995 with an aim to liberalize international trade, and supervise it.

The main duties of the WTO include regulating the trade activities between the member states via establishing a framework for the negotiations and formalization of trade agreement among the member states, as well as resolving conflictuary situations between the members as explained by Broadman(2004). In addition to these duties, the WTO also aims at focusing on the developing countries, and supporting such countries to develop their economies. This goal has been established as a product of the Doha Development Round that was commenced in 2001.Russia first applied to join GATT in 1993, however the negotiations took place for 19 years. 1993 marks the year when the Soviet Union was dissolved only very recently. Based on the above introduction to the globalized economy, and its inevitable consequence of intense economic and financial interaction among the countries in the world, this thesis specifically aims to focus on the case of the Russian Federation's accession into the WTO from the perspective of its contribution to the economy of Russia. More specifically, the thesis seeks to answer whether the WTO membership of Russia attracted foreign direct investment in the country, and what the share of the foreign direct investment has been on the overall growth of the Russian economy.

To serve these ends, Chapter 2 touches upon the literature on the capital movements; FDI and portfolio investments in particular. The chapter explains FDI and portfolio investments via examining determinants of FDI and portfolio investments, relationship between them, importance of FDI and portfolio investments for a states' economy, developing countries' economies in particular, moreover the chapter sheds light on why FDI is considered as a remarkable indicator among other types of financial flows for states' economy.

After these, this chapter also lays out the current literature on the relationship between membership in the World Trade Organization and its influence on foreign direct investment. Hence, the chapter brings out the internal dynamics of a state's economy, and how the WTO membership may even at times produce zero result in terms of foreign direct investment. Following this chapter, Chapter 3 focuses on the Russian case seeking to comprehend how and specifically in what sectors the foreign direct investment was attracted in to Russia; and where it did not, the chapter seeks to understand its reasons. After this section, the future FDIs will be forecasted by using some statistical techniques and interpretation of these finding will be done.

2. Literature Review

According to European Commission, international capital movements are classified as; FDI, real estate investments and purchases, securities investments (e.g. in shares, bonds, bills, unit trusts), granting of loans and credits and other operations with financial institutions, including personal capital operations such as dowries, legacies, endowments, etc.

The International Monetary Fund (IMF, 1993, section 359) defines foreign direct investment as an "investment that reflects the objective of obtaining a lasting interest by a resident entity in one economy in an enterprise resident in another economy..... The lasting interest implies the existence of a long term relationship between the direct investor and the foreign enterprise and a significant degree of influence by the investor on the management of the enterprise." Additionally, IMF defined direct investor as the owner of 10% or more of a company's capital.

Regarding this definition, although it is not an international rule, IMF recommends 10% ownership as a distinction between FDI and portfolio investment.

Hence, IMF describes portfolio investment as a kind of international investment which involves investment in equity and debt securities excluding any such instruments that are classified as direct investment or reserve assets. As Fishlow (1986) remarked that countries can be categorized as revenue borrowers or development borrowers, while FDI involves many components such as production technology along with the capital brought to the country, portfolio investments' only contribution to that country's economy is capital.

Regarding these definitions, in order a capital movement to be classified as FDI, it should be a cross border, long term transaction with an important number of shares referring to 10% of shares or more and in order a capital movement to be considered as portfolio investment, it should involve investment in equity and debt securities excluding FDI and reserve assets.

Therefore, as definitions were explained, it is also important to mention the determinants and importance of FDI and portfolio investments, relationship between them and their effects to state's economies.

Many studies have been made regarding the determinants of capital flights. Lipsley (1999) and Tsai (1994) found a positive relationship between Real GDP per capita and FDI. Similarly, according to Schneider and Frey (1985), the higher the real per capita GNP and the lower the balance of payments deficit, the more foreign direct investment is attracted. Edwards (1990) concluded that countries with lower income per capita, larger internal

markets and domestic investment ratios, attracts more FDI. Moreover, both Schneider and Frey (1985) and Edwards (1990) noted that political instability negatively affects FDI. Loree and Guisinger (1995) found out a negative relationship between FDI and performance requirements and host country effective tax rates.

Moreover, Garibaldi, P., et. al. (2001) remarked that the elements that influences inward direct investment in transition economies can be well explained by macroeconomic stability, the level of economic reforms, trade liberalization, natural resource endowments, the privatization method, direct barriers to inward direct investment, and a measure of government red tape whereas it was concluded that country fundamentals that explained triggers for the inward investment, failed to explain portfolio investment. Instead, portfolio investment found to be explained by the presence of a financial market and an indicator of the protection of property rights which indicates that good governance is an important factor in attracting portfolio investment.

Likewise, Kant (1996) also point to the effect of maladministration and inefficiencies in the market as an important reason for capital outflows instead of preferential choice of foreign capital, besides it was concluded that FDI inflows are always lead to a decrease in capital flight and policies that are implemented for the aim of reducing capital-market frictions increases capital flows and decreases capital flight.

On the other hand, Levchenko and Mauro (2007) investigated behaviors of different capital flows including foreign direct investment (FDI), portfolio equity investment, portfolio debt investment, other flows to the official sector,

banks and the nonbank private sector to find out which financial flow provide better protection against volitality during crises especially in the sudden stop times than other flows. According to the results, during the sudden stop times; FDI is found to be the least volitale in the class of other forms of flows wherein portfolio equity plays a limited role and portfolio debts and other flows including bank loans and trade credit are subject to severe drops and often remain depressed for a few years.Besides, in another studies relating to this subject, it was highlighted that, compared to portfolio flows, FDI is thought to be more costly to reverse and, because of this, less volatile (Lipsey, 1999) and less sensitive to global shocks (Durham, 2004).

In consistent with these, in order to attract FDI and other kinds of international investments, states started enhancing economic relations with each other which leaded to integrating their financial systems by means of economic and political tools one of which is participating in international oganizations. Thus De Gregorio (1999) marked that financial integration plays a significant role especially in portfolio diversification which causes a greater degree of consumption smoothing. Correspondingly, Solnik (1974) provided various examples about the importance and effectiveness of the portfolio diversification in risk reduction via advising to involve both foreign securities and domestic common stocks.Moreover, De Gregorio (1999),also found that financial integration supports economic growth via encouraging the development of the domestic financial system.

Also, it is of utmost importance to note that a country's participation in multinational agreements and international organizations can be a crucial source of international accountability for that specific country as pointed out by

Berglöf et al., (2003: 135). This is true not only for the government's increase in the popularity, relative strength in comparison to other states, but also for the increase in domestic reforms. It would be naive to believe that participation in particular in international organizations does not bring about any internal changes to the bureaucratic arena. It in fact does very much, and it is also thanks to the memberships in international organizations that countries become more stabilized and reliable in terms of politics, and hence, economic attractiveness.

In a congruent manner, Büthe and Milner (2008) argued that international trade agreements including GATT/WTO and PTAs provide mechanisms for foreign investors to invest in developing countries via assuring them about the way their assets will be treated in that particular country and pointing to the fact that going back on these commitments is more costly in many aspects such as dispute settlement mechanisms like the WTO's. Also, it was highlighted that, these mechanisms are much more credible to foreign investors than domestic policy commitments.

In a similar vein, it is also important to note that given the many failures that might occur during development and transition, both policymakers and academicians divert their focus to the tools that create external accountability.

Berglöf et al. (2003: 135) hold the view that one of the essential factors explaining the divergence in growth and developments between the Central and Eastern European countries and the CIS countries is the availability of such an outside anchor, in the form of the accession process to the European Union. Therefore, it is highly significant that membership and commitment in the

international and intergovernmental organizations serve as external anchors for change and development.

Furthermore, it was highlighted that, when such prospects of international, economic and political developments are foreseen, the public supports for such memberships also do increase. Such support from the public thus constitutes a catalyst factor which contributes to the coordination of institutional reforms, and facilitation of their implementation. Considering that to most countries the EU accession is not even a remote possibility, the membership in the World Trade Organization seems extremely attractive. China, for instance, made serious commitments beyond standard obligations in its World Trade Organization accession package, so that it could use the commitment power of the organization with its enforcement capacity.

Moreover, Dicaprioand Santos-Paulino (2011), examined developing country parties of The Dominican Republic Central America Free Trade Agreement (CAFTA-DR) and the European Union Caribbean Forum Economic Partnership Agreement (CEPA)and results indicate that free trade agreements have the potential to reduce vulnerability in the developing countries' economies such that, this advantage cannot be captured in their absence.

As far as the literature on foreign direct investments concerned, it can be noted that studies on different states about the aggregate foreign direct investment flows, such as Borensztein et al. (1998) and Alfaro et al. (2004), usually point to the evidence which shows that inward foreign direct investment adds up positively to economic growth of the host country.

Notwithstanding these, it is also claimed by Dani Rodrik that "one dollar of foreign direct investment is worth no more and no less than a dollar of any other investment". Rodrik's claims are also backed by the studies of Bloningen and Wang (2005) and Contessi et al. (2008) as they point to the need to understand the differences between the different levels of development of states. Similarly, Büthe and Milner (2008) noted that developing countries which participate more PTAs or belong to the WTO obtain greater FDI inflows and experience increase in economic growth.

Vita and Kyaw (2009) researched growth effects of FDI and portfolio investment flows into developing countries for different levels of income and figured out that portfolio flows appear to have a significant and positive effect on economic growth only in developing countries with upper middle income and only developing countries that have reached a minimum level of economic development and absorptive capacity are taking advantage of the growth enhancing effects of investment flows.

In addition to this, Lipsley R.E. et. al. (1999) noted that international capital flows permit levels of domestic investment in a country to exceed the country's level of savings in rapidly growing countries like United States and Argentina in the nineteenth century, moreover it was stated that foreign investment inflows contribute to the faster growth rates or enables growth without limiting current consumption.

The world has witnessed over the last thirty years to tremendous amounts of foreign direct investments across countries. As pointed out by Aitken and Harrison (1999), whether or not foreign direct investment facilitates substantial

economic growth, however, is yet to be made clear whether foreign direct investment indeed automatically affects economic growth. With commercial bank lending to developing economies not progressing in the 1980s, most countries lifted restrictions on foreign direct investment and some other countries came up with tax incentives and subsidies to attract foreign capital.

As a result of such policy changes, according to Carkovic and Levine study (2002), a big amount of noncommercial bank private capital flows to developing economies in the 1990s occurred. Private capital flows to developing market economies exceeded $320 billion in 1996 and reached almost $200 billion in 2000. Even the 2000 figure is almost four times larger than the highest commercial bank lending years of the 1970s and early 1980s. Furthermore, foreign direct investment now is over 60 percent of private capital flows. While the increase in foreign direct investment flows is certain, the growth effects remain unclear.

Theory provides conflicting predictions about the growth effects of foreign direct investment. The economic reason for offering special incentives to attract foreign direct investment usually comes from the idea that foreign investment brings about other advantages in the form of technology transfers and spillovers. Romer (1993) for example states that there are important "idea gaps" between rich and poor countries. He notes that foreign direct investment can make the transfer of technological and business know-how to weaker economies easier. According to this view, foreign direct investment may boost the productivity of all firms -not just those receiving foreign capital. Thus, transfers of technology through foreign direct investment may have significant spillover effects for the entire economy. In contrast, as claimed by Boyd and

Smith (1992), some theories predict that foreign direct investment in the presence of preexisting trade, price, financial, and other distortions will hurt resource allocation and slow growth.

Studies on certain states usually conclude that foreign direct investment does not add up to the economic growth, and such studies usually do not find positive effects that occur between foreign and domestic companies. According to Aitken and Harrison's (1999) study, there is no proof of a positive technology expansion from foreign companies to domestically owned ones in Venezuela between 1979 and 1989. While Blomström (1986) finds that Mexican sectors with an increased level of foreign ownership demonstrate faster productivity growth, Haddad and Harrison (1993) find no proof of growth-enhancing spillovers in other countries. As Lipsey and Sjöholm (2002) noted in some countries, researchers come up with evidence of positive expansion in some industries, but country-specific and industry-specific elements are so significant that the results do not necessarily support the entire conclusion that foreign direct investment increases substantial spillover effects for the entire economy. In sum, firm-level studies do not mean that foreign direct investment increases overall economic growth.

There are various factors that influence corporate strategies and make a country attractive for foreign direct investment. According to Michalet (2000), in order to attract foreign direct investment a country should possess certain institutional and economic & social background.

The Institutional background implies:

- Political and economic stability

- A transparent, stable, non-discriminatory legal and regulatory environment. Laws and regulations should be followed. In case of conflict, an efficient, non-corrupt legal system is required.
- Bureaucratic procedures and institutional rigidities must be banned. Transaction costs should be as small as possible. In case when administrative procedures are too complex, investors tend to move to another place.

The Economic and Social background implies:

- A big and growing market. However, it does not mean a big domestic market, but rather a big and growing regional market.
- An efficient communication system, infrastructure, and transportation.
- Qualified labor, particularly for middle-ranking and senior technical positions.
- Presence of efficient local firms, efficient local support industries.
- Privatization programs.
- Fiscal incentives (tax holidays or subsidies).

Due to its size, natural resources, availability of technical infrastructure and skilled labor, Russia has a huge potential for market-seeking, resource-seeking and efficiency seeking foreign direct investment. Upon entrance into the World Trade Organization, Russia has succeeded in attracting foreign direct investment at an increasing fashion.

Nevertheless, some studies render it questionable to the sustainability of such foreign direct investments in the long run. Therefore, when foreign direct

investment and the World Trade Organization membership linked together, it can be said that, the picture which comes out seems at first not very promising and positive. However, it is no doubt that any political and economic memberships usually come with its own advantages and costs; and this has not been different in the case of Russia.

According to Arbatli (2011), when briefly compared with China, whose accession to the WTO was enacted in 2001, it seems that the Russian economy could attract lower levels of foreign direct investment mainly due to two reasons. One reason is that Chinese economy has been much bigger than the Russian economy, and the speed at which the Chinese economy has been growing is higher than that of the Russian economy. The second reason is simply the timing. While the Russian membership took place in 2011, the Chinese membership took place about 10 years before that, in 2001. Hence, it was the Chinese market that particularly attracted a lot of foreign direct investment; and as far as the political stability and corruption is considered to be influential factors, the Russian Federation has much higher levels of corruption than China, a fact that makes doing business more difficult in Russia.

Eventually, although above-mentioned theory concludes whether foreign direct investment boosts economic growth is not clear yet hence, it should be taken into account that without considerable amount of economic growth, it would not be realistic to expect the inflow of foreign direct investments into Russia in the long-run, if not during the short-run. This is why, it is necessary that Russia continues its restructuring reforms, and adjustment policies even now it is a member of the World Trade Organization.

3. The Relationship Among Russia, WTO and FDI

3.1. Russia and the Road to World Trade Organization

Against the background of the capitalist globalization that increasingly contributed to the dissolution of the Soviet Union over the decades, the transition from socialism to capitalism began to take place in the post-Soviet countries. While some of these countries had rather smoother transitions to capitalism, it must be said that in their most part, the post-Soviet countries suffered from common embedded structural problems.

Russia has been in no different situation as far as its transition history goes. In other words, the post-Communist nomenklatura had to shift almost its governance system so that they could meet the requirements of the international economic standards. The politicians in Moscow also did their best to respond as perfectly as possible to the changing environment as well as the pressures that came from international agencies and the foreign capital.

Soon after the breakdown of the Soviet Union, the Russian government recognized that to transition successfully from a centrally planned economy to one based on market institutions, the country's economy would need to integrate with the global economy. This recognition almost immediately and automatically led the country to the initiatives in order to liberalize Russia's foreign-trade regime. The government lowered tariffs, reduced quotas, diminished import trade subsidies and formally applied in June 1993 to the GATT.

Russia's initial move towards WTO membership was based on the desire to improve its international political position and to increase its influence in

future international trade negotiations. Both the Russian Empire and the Soviet Union were strongly protected economies; Russia has no tradition of free trade and thus no cultural experience of its benefits. The experience of the 1990s, when trade liberalization coincided with a severe transition recession, created a belief among the Russian public in the recessionary nature of trade liberalization.

In this political context, Russia tried to negotiate accession conditions that would preserve, or even raise, the current level of protection against imports and entry of foreign firms. Russia's position on deregulation of services was particularly strict because of the strong lobbies in the Russian service sector. Although arguments have been advanced that not liberalizing trade in any particular sector might inflict negative effects on other sectors, they were ignored and the benefits of speeding up structural reforms were discounted because of the threat of higher unemployment posed by such reforms.

Such changes were made during the presidencies of Boris Yeltsin and then later, Vladimir Putin. The policy changes that took place in the 1990s aimed at promoting social stability as well as military security, creating a stable fiscal system of regular tax collection, and the establishment of the rule of law in all subjects of Russia as preconditions for the creation and maintenance of sustainable economic growth.

It was since that time in 1993 when Russia applied officially for the membership in the World Trade Organization that the country continued to significantly move toward market economy. The World Trade Organization

today includes around 150 member states, and the trade made among these countries are almost account for more than 96 per cent of world trade. Today, Russia has the largest economy in comparison to more than 30 member states of the World Trade Organization. Hence, the world's major political and economic powers i.e. the United States, France, England, Italy, Japan, Canada as well as Germany also acknowledged the significance of the Russian membership in the World Trade Organization.

3.2 Russia's policy framework for the World Trade Organization

The Russian governments have applied many significant structural reforms until the membership took place in the World Trade Organization in 2011. Some of these reforms are worth mentioning here so as to understand how Russian membership in the World Trade Organization attracted foreign direct investment.

Following the breakdown of the Soviet Union and the communist system embedded in it, the Russian governments have tried to dismantle the challenges that were posed by the old economic and structural system to the adaptation of the liberalized economy. As Broadman (2004) pointed out that Russia is a country that is largely dependent on its oil and gas export. The rise in oil prices in the 1990s and the devaluation of the Russian ruble certainly helped the country's economy significantly. However, in addition to this, a series of policies were implemented in Russia.

Moreover, Broadman (2004) aptly notes structural policies that trigger to enhance incentives for efficiency and predictability in businesses' transactions are essential for sustained enterprise development in Russia, as in other

transition economies. In developed market economies, a set of basic market institutions serve for the aim of facilitating and reducing firm's transaction costs by means of new investments or restructuring of existing operations and customize these incentives accordingly. These market institutions work hard in order to provide a market in which market power is not exercised by dominant incumbent firms, new entrants are encouraged and facilitated, existence of a regulatory regime by means of which products and services are provided to consumers through a decision making process and moreover public interest is being protected with transparent, accountable, rules-based, and independent governance. In addition to this, this market institution also work hard to obtain an efficient system which facilitates; the intermediation of savings into investment capital, the provision of finance to businesses on commercial terms, the protection of property rights and fostering the settlement of commercial disputes.

First of all, the business environment was improved in the country as a result of a vigorous assessment of investment laws, regulations, and the procedures to make sure that the Russian business environment is not under a competitively disadvantaged position in comparison to the other countries.

Furthermore, investment promotion strategies were also adopted in order to attract foreign direct investments in the country. To serve this end, the policies were adopted at the regional and federal levels to ensure the harmony of policies and regulations. The investment organizations were also given over time relatively more autonomy and resources so that they could move from being dysfunctional parts of governmental departments to becoming more

effective investment agencies that would attract the private sector, both domestically and internationally.

In addition to this, Russia put special emphasis on the training of its existing investment agency staff at not only the regional, but also the federal levels. The education and training of its already employed staff means that they gained sufficient knowledge to promote foreign direct investment. Another important point to be made with regard to Russia's efforts to attract foreign direct investment as mentioned by Broadman (2004), once it joined the World Trade Organization, Russian governments over the years significantly privatized more than 150,000 enterprises since the collapse of the Soviet Union.Even though the Russian governmental intervention remains in the economy, there is no doubt that private enterprises are regarded as the major factor that boosted the Russian economy since the early 1990s.

Furthermore, as Tezcanli V., et al. (2000) pointed out to the fact that while integrating to global capital markets, structural reforms related to domestic market needed to proceed such as; establishment of new stock exchanges and formation of alternative trading activities via technological innovation, enabling and facilitating investors' connection to different markets with various operating systems, together with the Russia's many movements towards liberalizing and integrating its market to globe, Moscow Exchange was established on 19 December 2011 via the merger of the two largest Moscow-based stock exchanges; the Moscow Interbank Currency Exchange and the Russian Trading system. So that, a single platform is created with a number of technical innovations to become one of the global leading stock

exchanges for trading across asset classes (equities, bonds, derivatives and currencies etc.) to local and international investors.

Throughout the negotiation process with the World Trade Organization, the Working Party that was established with the opening of the negotiation talks with Russia, studied the trade regime in Russia starting from 1995. The negotiations basically took place in multilateral and bilateral levels. The main issues of negotiations were formed around the decrease of trade tariffs, agriculture, and free access to the national services market –which included a list of obligations to provide free access and the list of exceptions from the most favored nation clause.

On the bilateral level, Russia has also initiated a series of bilateral negotiations with all the interested members of the Working Party on the terms and conditions of Russia's membership in WTO. The negotiations are in the areas of agriculture, the customs system (and customs union and other trade arrangements with CIS states), excise taxation and national treatment, import licensing, industrial subsidies, national treatment, Agreement on Technical Barriers to Trade Related Intellectual Property Rights and services.

3.3 Russia, World Trade Organization and Foreign Direct Investments

Before moving toward elaborating on the flow of foreign direct investments into Russia following the country's accession into the World Trade Organization, the pre-accession period starting from 2004-2005 needed to be covered in order to strengthen the argument on the point that Russia's membership in the World Trade Organization did certainly attract foreign direct investment even before the accession was complete.

One striking point is that Russia received only half of the foreign direct investment which was made by the European Union during 2000 – 2006. As far as the world foreign direct investment is concerned, Russia received itself only 1 per cent of global foreign direct investment that was made. This was the case not only about the amount of the foreign direct investment flow into Russia, but also net foreign direct investments inflow to Russia. Even though Russia's net positive foreign direct investments reached a peak in the mid-1990s, it entered into negative territory in the late 1990s. However, it was after 2004 – 2005 that this situation began to change.

This situation occurred due to a series of reasons. For one thing, due to a very significant increase in the foreign direct investment total inflows, foreign direct investment grew by 20 times in 2000 – 2006, and reached around USD 52 billion in 2007, and this made up about 4% of Russia's GDP. Following this, in 2005, the share of Russia in total foreign direct investment concerning the CIS countries jumped to 49%, and then to 67% in 2006.In addition to these, net foreign direct investment into Russia jumped from USD -0.1 to USD 9.2 billion between 2005 and 2006. These numbers continued the next year in 2007, with almost USD 7 billion net foreign direct investment.

Another reason, in addition to the above-stated one, one suggestion is the preparation of Russia to become a member of the World Trade Organization. In particular, it is striking to note that the foreign direct investment that flew into the Russian Federation arrived from the European Union, a fact that points to the ability of the European businessmen as well as political circles to foresee the upcoming membership of the country in the World Trade Organization and its positive effects.

To further the argument, the evidence pertaining to the foreign direct investment made by the European Union in the World Trade Organization. Despite the fact that Russia has a relatively small share of the EU's total external foreign direct investment, that is at 4% (this is actually significantly more than China), the European Union by 2008 has been the largest investor in the Russian economy.

The European Union directed its foreign direct investments toward different sectors. Services have received between 50% and 60% of the total foreign direct investment made by the European Union. Among the other sectors, natural resources and manufacturing attracted roughly comparable amounts of foreign direct investment. However, the share of the energy sector is larger in foreign direct investments made by the European Union.

According to the data provided by the Rosstat, while services received the largest amount of foreign direct investment made by the European Union, mining and quarrying followed the services investments with percentages between 15-20% from 2003 to 2007. By the same token, it is also important to note that in order for foreign direct investment inflows to continue, the host country does also need to maintain some level of its foreign direct investment in the investor country (or organization). Russia did exactly so by investing in the European Union, and the EU has become a large receiver of the growing Russian foreign investment outflows with about 42% between 2001 and 2006. It is equally important to note that these outflows from Russia have not been only capital flights, but they represent investment by Russian companies abroad, and are therefore a positive sign of the growing international integration of the Russian economy.

In terms of total investment, in 2002-2003 Netherlands, Germany, France and Sweden were the largest European investors in Russia. However, in terms of the number of investor projects, Germany is first (59 projects), and it is followed by France (36 projects), Sweden (28), Finland (27), Italy (21), and Denmark (18). Netherlands projects went mainly into the energy and food & drink sectors. German companies invested mostly in food and drink and automotive sectors. Most French investment projects went to the food and drink and consumer products sectors. Swedish investment focused on consumer products and wood products sectors.

Following the accession into the World Trade Organization, Russia saw a net benefit from this membership. Nevertheless, there have also been initial costs involved, related both to the ability of uncompetitive firms in Russia to restructure and to the capacity of the Russian economy to make swift structural changes. Increased mobility, particularly geographical and professional mobility, of labor and the mobility of capital facilitated through the development of financial markets, has been essential for accelerating structural changes and building Russia into a dynamic economy with high growth potential.

As Berglöff notes (2003), the measures needed to decrease the social costs of WTO membership are the same ones needed to improve Russia's business climate. The better the business climate in Russia is, the faster the necessary restructuring of the economy can occur—and the greater the benefits and the smaller the costs of accession become. For example, a strong financial system will help Russian firms finance modernization and make them more competitive in the global economy. Debureaucratization, in turn, will help

alleviate social consequences by facilitating reallocation of labor to small businesses.

As a medium-income emerging market, the main importance of foreign direct investment for the transfer of technology and human capital has been made stronger by the long period of underinvestment during the Soviet times. Moreover, Russia's strategic priorities that consisted of economic diversification and modernization of the economy reinforce the need for foreign direct investment as key instrument, which is currently, outside of extraction industries, quite low in comparison to many emerging countries. Hence, it can be argued that the beneficial role of foreign direct investment for Russian economy and focus on describing existing trends and determinants of foreign direct investment inflows.

There are two principal sources of foreign direct investment data in Russia, Rosstat (the statistical office) and the Central Bank of Russia (CBR). Their statistical methods differ considerably and so do their figures. Generally, foreign direct investment statistics by Rosstat are lower than the statistics given by the CBR. Since the focus is on medium-term trends in regional foreign direct investment flows, the annual foreign direct investment flows data compiled by Rosstat is used.

Despite the often-mentioned concentration of foreign direct investment flows into natural resources extraction (included in mining and quarrying), the most important destination of inward foreign direct investment both in terms of stocks and flows is manufacturing with 32% and 28% of total, respectively. This suggests some degree of foreign direct investment concentrated on re-

exports (export-platform foreign direct investment) as well as foreign direct investment that serves principally the domestic market (market-seeking foreign direct investment).

Foreign direct investment stock in mining and quarrying is similar to that in real estate, renting and other business activities, as well as financial intermediation, underlying the importance of services as a destination of inward foreign direct investment. Foreign direct investment remains heavily concentrated in only a few of the 83 regions in Russia. It is Moscow, St. Petersburg and the surrounding Moscow and Leningrad Regions. They attract foreign direct investment due to their high concentration of business activities and the size of local markets. Foreign direct investment inflows into the Sakhalin and Arkhangelsk Regions have been directed into the oil and gas sector.

Moscow and the Sakhalin Region attracted more than 50% of foreign direct investment inflows between 1995 and 2012 and Moscow remains the prime location of the foreign direct investment flows into Russia. Between 2001 and 2006, the Sakhalin Region attracted almost a third of all incoming foreign direct investment. This one-off inflow directed at development of its vast oil and gas resources leveled off in the 2007-2012 period, when Sakhalin's share of foreign direct investment inflows dropped back towards 10%. There is, however, considerable annual variation of inflows that combined with sparse population, results in huge per capita variations as in 2011.

The Kaluga Region is an interesting case. It features among the top-3 destinations for foreign direct investment in per-capita terms, despite the fact

that it lacks natural resources and has shortcomings in energy infrastructure and availability of labor. Nevertheless, it is profiting from a proactive cluster strategy in attracting foreign investors. The lack of research and development base in Russian regions seems as the secondary importance for foreign direct investment flows as many foreign firms bring their own technologies. The shortage of qualified labor and steady migration flows towards Moscow and away from poor regions are more significant deterrents of foreign direct investment inflows.

3.4. Determinants of the Regional foreign direct investment flows to Russia

Existing literature on the determinants of foreign direct investment inflows into Russia can be broadly divided into two groups. First, there are studies, including Campos and Kinoshita (2003), Zhuravskaya and Guriev (2010) and Arbatli (2011), that compare Russia's foreign direct investment inflows with those of other transition and resource-rich countries. They generally find that the level of foreign direct investment in Russia is comparatively low when adjusted for population and size, often due to Russia's institutional weakness. Second, studies such as Broadman and Recanatini (2001), Iwasaki and Suganuma (2005), and Ledayeva and Linden (2006) use regional data on foreign direct investment flows and other macroeconomic variables to assess the determinants of foreign direct investment flows on Russia's regional level. In addition, spatial dependencies of foreign direct investment flows into Russian regions are found important by Ledayeva (2007).

Market size, infrastructure and natural resources are found to be important drivers of foreign direct investment inflows. Some of the studies

conclude that they are significant in some specifications. However, they examine shorter data samples that do not include the global financial crisis of 2008-2009 and its aftermath.

One of the major obstacles to doing business in Russia is administration. According to World Bank's 2013 Doing Business Report, in terms of regulatory procedures, cost of importing foreign equipment and bureaucratic red tape Russia ranks very badly (8-11th place) in comparison with other eleven transition countries.

The expenses on importing foreign equipment are extremely high, and raise the costs of products by 30-40%, according to the World Economic Forum. Starting a new business in Russia is not easy. Administrative burden, the number of procedures and days required to start a business are rather high. However, the costs for starting a new business in Russia are lower than that in other transition countries. The tax system in Russia is rather complex as well.

According to OECD, it has a negative impact on investment, and discourages companies to start a business in the country. The complexity consists of the different taxes levied and the way of system implementation. An excessive tax burden on oil and gas production, for example, is imposing a negative impact on investment in the energy sector. Ineffectiveness of the tax system is caused by the lack of facilities, computers, and properly trained specialists. Some judges that hear cases on taxation lack knowledge in this field.

Another serious problem is the complexity of legislation. Government departments, regional administration and municipalities are often disconnected,

and the relations between different levels of power are unclear. Several reforms by president Putin are aimed at improving the situation. One of those is the reform of local government that is supposed to facilitate the governance of regions. Another important issue is to improve the legal system. The existing system is complicated, and makes it difficult to determine which governmental authority has what power and responsibilities.

3.5. Sectorial Distribution of Foreign Direct Investment Inflow to Russia

According to OECD, Russia is encouraging investment in oil and gas sectors. Most international oil companies expressed interest in exploration and development of Russian oil and gas fields, and some of them are already working on the projects in Sakhalin and Siberia.

Other priority sectors include agriculture, metals/mining, wood products, chemical industry, machinery, information technology, food industry and pharmaceuticals (Trade & Investment Development Agency of Russia). Many foreign companies established joint ventures with Russian companies. BP is working with Rosneft and TNK on the development of oil fields in Sakhalin, DaimlerChrysler and Sibmash are working on a project in Krasnoyarsk, BASF has several projects with LuKoil, Gazprom and Nizhekamskneftekhim.

The majority of foreign direct investment projects are in manufacturing. Most projects in food & drink, consumer products, textile, wood products and automotive sectors have been manufacturing projects. There were quite a few sales & marketing projects. These involved the opening of restaurant chains,

boutiques, or companies' marketing activities, such as opening of representative offices. Construction projects involved building chains of hypermarkets, entertainment centers, hotels or residential complexes. The largest projects were from IKEA and Metro those have invested in the construction of hypermarket chains in major Russian cities.

Logistics and distribution projects included investments in construction of pipelines, opening of chains of gasoline stations by major oil giants, and various projects in logistics sphere –construction of warehouses, opening cargo centers and freight terminals. Most of electricity/extraction projects were in heavy industry and metals/mining sectors that involved extraction of oil and gas or developing metal or mineral mines.

Projects in business services involved the opening of bank branches, financial companies, and marketing agencies. The other business functions received very few foreign direct investment projects. Companies have proved reluctant to invest in Russia in customer/technical services, ICT infrastructure, research and development, headquarters, customer relationship management and shared services centers and testing/training activities.

According to preliminary estimates of OECD, global foreign direct investment flows continued declining in the third quarter of 2012 to USD 274 billion recording a decrease of -12% from the previous quarter (-33 % from a year earlier). The stock of global foreign direct investment at end-2011 was estimated at USD 21.1 trillion, which represents 5% increase from 2010 and 27% increase from 2007. OECD outflows (accounting for 81% of global outflows) declined in Q3 2012 by -6% from the previous quarter to USD 238

billion and -26% from a year earlier. In spite of this stable share of global outflows, OECD area attracted only USD 98 billion of foreign direct investment in Q3 2012, reaching its lowest level of inflows since Q1 2009 (USD 68 billion or 47% of global inflows). In other words, OECD attracted 61% less foreign direct investment than a year earlier. At end-2011, the stock of inward foreign direct investment for the OECD was USD 13.4 trillion (65% of global inward foreign direct investment) and the stock of outward foreign direct investment was USD 17.8 trillion (82% of global outward foreign direct investment). At end-2011, OECD's inward and outward foreign direct investment stocks represented 29% and 39% of its GDP, respectively.

During the period January-September 2012, China attracted the lions share of global foreign direct investment flows with USD 170 billion followed by the United States (USD 104 billion), Brazil (USD 48 billion), the United Kingdom (USD 47 billion), and France (USD 46 billion). These five host economies received 45% of global inflows during first nine months of 2012 (as opposed to 37% in the first three quarters of 2011).

According to data taken from OECD, in Q3 2012 foreign direct investment inflows to OECD dropped by -43% from Q2 2012 (-54% in the European Union to USD 36 billion). This decline was partly offset by the increase in non-OECD economies of G20 (by 13%) which attracted USD 97 billion as compared to USD 98 billion inflows to the OECD area as a whole. Due to lower levels of both equity and intercompany flows, foreign direct investment inflows to the United States dropped by -29% from the previous quarter to USD 34 billion (and by -46% from a year earlier). Several EU countries recorded negative inflows such as Belgium at USD -7.6 billion

accounting for the reimbursement of intercompany loans or Germany at USD -11.3 billion as a result of both disinvestments (in equity) and intercompany debt reimbursement. While Brazil received 21% (or USD 18 billion) more foreign direct investment as compared to Q2, inflows to South Africa were multiplied by more than three times (to USD 2.7 billion) and Russia's inflows increased to USD 6 billion (from negative inflows of USD -1.1 billion in Q2 due to disinvestments).

4. Data

Data which is used in this thesis covers a period from January 2000 to December 2012. The data is taken from the central bank of Russia. There are four different data set used in these works which are foreign direct investment, GDP (gross domestic product), interest rate of Russia and Dow Jones UBS Commodity Index and all these data are quarterly. It means that the data of these three indicators are taken for each 3 months since the first quarter of 2000.

Table 1 shows the descriptive statistics of the data set. There are 52 observations in each indicator. In this table, the skewness and kurtosis can give important information.

Table 1: Descriptive Statistics of the Data

	FDI_MILLI...	GDP_GRO...	INTEREST...	LN_DOW_...
	FDI_MILLI...	GDP_GRO...	INTEREST...	LN_DOW_...
Mean	7629.135	5.178846	17.90942	4.773173
Median	6606.000	5.250000	11.00000	4.740330
Maximum	23187.00	10.20000	55.00000	5.088176
Minimum	109.0000	-7.800000	7.000000	4.480842
Std. Dev.	6186.816	4.134756	12.17213	0.182709
Skewness	0.562497	-2.099181	1.446393	0.182403
Kurtosis	2.416403	7.405695	4.372166	1.723264
Jarque-Bera	3.480095	80.24551	22.21062	3.820130
Probability	0.175512	0.000000	0.000015	0.148071
Sum	396715.0	269.3000	931.2900	248.2050
Sum Sq. Dev.	1.95E+09	871.9067	7556.199	1.702519
Observations	52	52	52	52

Skewness and kurtosis mention the location and variability of the data set. Skewness gives an idea about asymmetry and deviation from normal distribution. FDI, Interest Rate and Dow Jones Commodity Index data sets are right skewed distribution because the values are higher than zero. The GDP growth rate data is the only one which is skewed left. Skewed to right means that most of the values are in the left side of the mean, with extreme values of the data drop to the right side of the mean. Left skewed distribution is exactly the converse of the right skewed distribution.

Kurtosis is used to measure how much peaked of the data from normal distribution. The kurtosis values of GDP growth and interest rate are higher than 3, so they are "leptokurtic distribution" means that there is high probability for extreme values. Other indicators FDI and Dow Jones Commodity Index have lower than 3 as kurtosis value which called as "platykurtic distribution". Thus, there is low probability for extreme values.

Table 2: Correlation Matrix

	FDI (millions $)	*GDP Growth Rate (%)*	*Interest Rate (%)*	*LN(DOW JONES)*
FDI (millions $)	1			
GDP Growth Rate (%)	-0,30234827	1		
Interest Rate (%)	-0,72406799	0,382569121	1	
LN(DOW JONES)	0,76393789	-0,47567889	-0,59208	1

The correlation of four indicators which are foreign direct investment (FDI), GDP growth rate, interest rate and Dow Jones UBS Commodity Index can be seen in Table 2. In the correlation matrix, it is so obvious that there are so high or so low correlation which makes the regression results biased because of omitted variable bias or irrelevant included variable or multicollinearity.

The FDI will be estimated by using GDP growth rate and interest rate as independent variables after being a member of World Trade Organizations (WTO) by checking cointegration with Augmented Dickey Fuller Test and by using Predicted Failure Test.

It is an undeniable fact that being a member of WTO makes a country's foreign investment conditions better in a lot of angles which was stated in the earlier part of this work. Thus, it is strongly expected that the expected (fitted) FDI will be higher in further years than expected after being a member of WTO. In this thesis, it will be tried to prove this general idea.

5. Results and Findings

It is constructed primary data of FDI from 2000 to 2012 quarterly, and list the FDI value of Russia as dependent variable, GDP growth rate as

independent variable. FDI of Russia heavily depend on growth rate of GDP, it is affected year by year. And simple linear regression FDI in Russia on growth rate of GDP was employed. In order to see and comment on effect of growth rate on FDI, simple linear regression was constructed. Resulted below, coefficient of determination is so low, it is about 3%, and it shows FDI variability is explained by 3% by the regression result. P-values are lower than the significance level (5%), it shows GDP growth rate is a significance effect on FDI, but standard errors are extremely high, even standard errors are high, t-values are not as low as usual .

Table 3: ANOVA Table and Regression output of Simple Linear Regression

Regression	
Multiple R	0,11567888
R Square	0,03156777
Adjusted R^2	0,04912344
Standard Error	7866,32456
No. Observations	52

ANOVA

	df	*SS*	*MS*	*F*	*significance F*
Regression	1	13657899,6	123456755,6	3,2122344	0,2345677
difference	64	212345665	312323455,19		
Total	65	245678900			

Dependent	FDI					
	coeff.	*Standard error*	*t Stat*	*P-value*	*lower %95*	*upper %95*
Constant	4040,233	745,3456	5,234444	3,12968E-08	3111,3234	6123,5432
X (growth)	222,345	122,3456	2,002344	0,02227705	2,4356778	544,23444

Dependent Variable: FDI__MILLIONS_$_
Method: Least Squares
Date: 07/07/13 Time: 19:09
Sample: 2000Q1 2012Q4
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP_GROWTH_RATE____	234.623	123.9180	2.2234	0.0237
C	4456.090	744.0526	6.32456	0.0000

R-squared	0.0448	Mean dependent var	52345.356
Adjusted R-squared	0.028126	S.D. dependent var	6231.221
S.E. of regression	6134.012	Akaike info criterion	18.22754
Sum squared resid	2.38E+01	Schwarz criterion	22.3238
Log likelihood	-733.145	F-statistic	5.03438
Durbin-Watson stat	0.34563	Prob(F-statistic)	0.056705

If a simple linear model is constructed, it can be seen that if there is no growth rate, FDI still be 4456,09. This is autonomous and still high.

Equation : FDI = 4456,09 + 234,623*Growth

Estimation:

2000-1 FDI (E) = 4456,09 + 234,623*(10,2) = 6849,245

2000-2 FDI (E) = 4456,09 + 234,623*(9,8) = 6755,395

And it continues so on.

If it is willing to show that GDP growth rate is stationary or not between 2000-2012 time series, unit root test is required. Unit root test in statistics tests whether a time series variable is non-stationary using an autoregressive model. A well-known test that is valid in large samples is the augmented Dickey–Fuller test. The null and alternative hypotheses were formulated, and were employed to Augmented Dickey-Fuller test.

Table 4: Unit Root Test (ADF Test)

HO : GDP GROWTH HAS UNIT ROOT

H1: GDP GROWTH RATE HAS NO UNIT ROOT

Null Hypothesis: GDP_GROWTH_RATE____ has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=12)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.188	0.11122
Test critical values:	1% level	-3.88990	
	5% level	-2.55768	
	10% level	-2.476545	

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP_GROWTH_RATE____)
Method: Least Squares
Date: 07/07/13 Time: 20:29
Sample (adjusted): 2000Q1 2012Q4
Included observations: 52 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP_GROWTH_RATE____(-1)	-0.1024	0.0347	-2.445	0.0117
C	0.52	0.3553	1.6773	0.1155

R-squared	0.07896	Mean dependent var	0.167733
Adjusted R-squared	0.05673	S.D. dependent var	2.666687
S.E. of regression	2.45666	Akaike info criterion	4.677704
Sum squared resid	453.0707	Schwarz criterion	4.543703
Log likelihood	-178.4669	F-statistic	6.211974
Durbin-Watson stat	1.86759	Prob(F-statistic)	0.023641

Test results show; ADF test statistics = -2,188 , and it is greater than 1% , 5% and 10% significance level critical value. So H0 cannot be rejected and concluded that GDP growth rate is non-stationary and has unit root.

Another linear regression model was constructed by adding interest rate as independent variable. The reason why adding the interest rate is that interest

rates are highly related to foreign direct investment. So multiple linear regression model is built.

Table 5: Multiple Linear Regression (GDP growth, Interest Rate and FDI)

Dependent Variable: FDI__MILLIONS_$_
Method: Least Squares
Date: 08/07/13 Time: 19:31
Sample: 2000Q1 2012Q4
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP_GROWTH_RATE____	-176.7122	123.1123	-1.329773	0.1101
INTEREST_RATE____	-65.6774	10.5780	-5.34442	0.0010
C	9345.212	11231.765	8.433329	0.0020

R-squared	0.28932	Mean dependent var	5121.338
Adjusted R-squared	0.29785	S.D. dependent var	6455.164
S.E. of regression	5126.234	Akaike info criterion	20.9904
Sum squared resid	1.71E+19	Schwarz criterion	21.7604
Log likelihood	-733.323	F-statistic	18.5645
Durbin-Watson stat	0.5479	Prob(F-statistic)	0.000010

Equation : fdi = 9345,212 -65,67*Interest-176,712*Growth

Estimation:

2000-1 FDI (E) = 9345,212-65,67*(55)-176712*(10,2)= 3930,9

2000-2 FDI (E) = 9345,212-65,67*(50)-176712*(9,8)= 4329,93

And it continues so on.

According to the results, it can be stated that there is a negative relationship between interest rate and FDI in Russia, by seeing this in the coefficient of interest rate. Also GDP growth rate is negatively correlated with FDI, its coefficient is negative and affects inversely on FDI.

In order to examine relationship between FDI, GDP growth rate, interest rate more, another primary data which includes a third variable: natural logarithm of Dow-Jones UBS Commodity Index is also constructed considering to the fact that a commodity price such as gold and oil affect indices of USA as well as indicates of Russia, so it is aimed to understand the degree of these effects on FDI. Therefore another multiple linear regression model is built, the results of e-views are as follows:

Table 6: Multiple Linear Regression (GDP growth, Interest Rate, Dox Jones UBS and FDI)

Dependent Variable: FDI__MILLIONS_$_
Method: Least Squares
Date: 07/10/13 Time: 00:36
Sample: 2000Q1 2012Q4
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP_GROWTH_RATE____	203.8505	133.2628	1.529687	0.1327
INTEREST_RATE____	-223.4470	49.41036	-4.522271	0.0000
LN_DOW_JONES_	19248.69	3457.536	5.567171	0.0000
C	-81302.11	17205.69	-4.725303	0.0000

R-squared	0.711385	Mean dependent var	7629.135
Adjusted R-squared	0.693346	S.D. dependent var	6186.816
S.E. of regression	3426.032	Akaike info criterion	19.19000
Sum squared resid	5.63E+08	Schwarz criterion	19.34009
Log likelihood	-494.9399	F-statistic	39.43709
Durbin-Watson stat	2.219943	Prob(F-statistic)	0.000000

Equation : FDI = -81302,11 + 203,8505*GDP -223,44*INTEREST + 19248,69*LN(DJ)

Estimation:

2000-1 FDI (E) =

-81302,11+203,8505*(10,2)-223,44*(55)+19248,69*(4,712)= -795,001

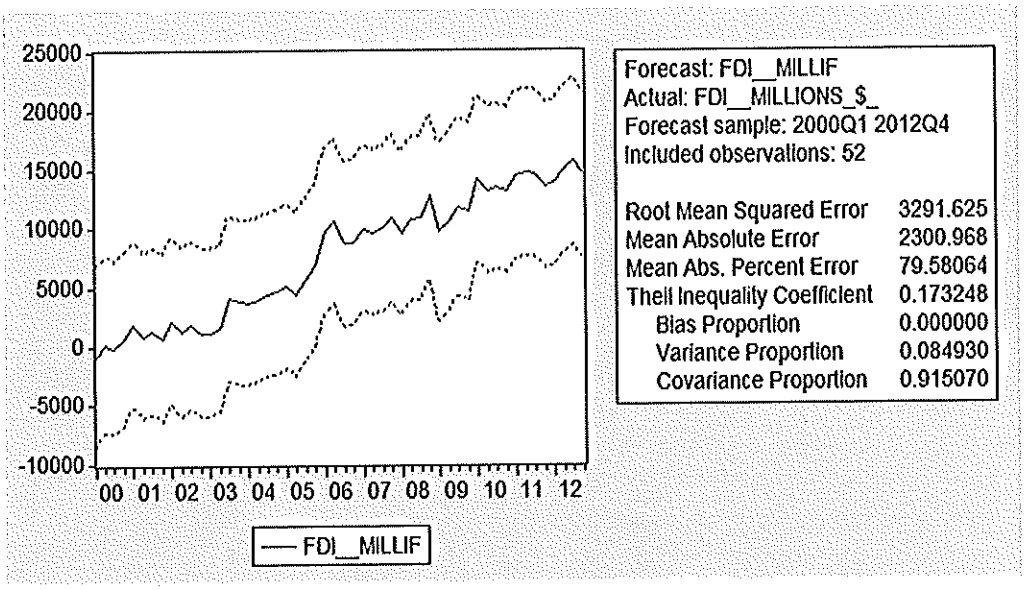
2000-2 FDI (E) =

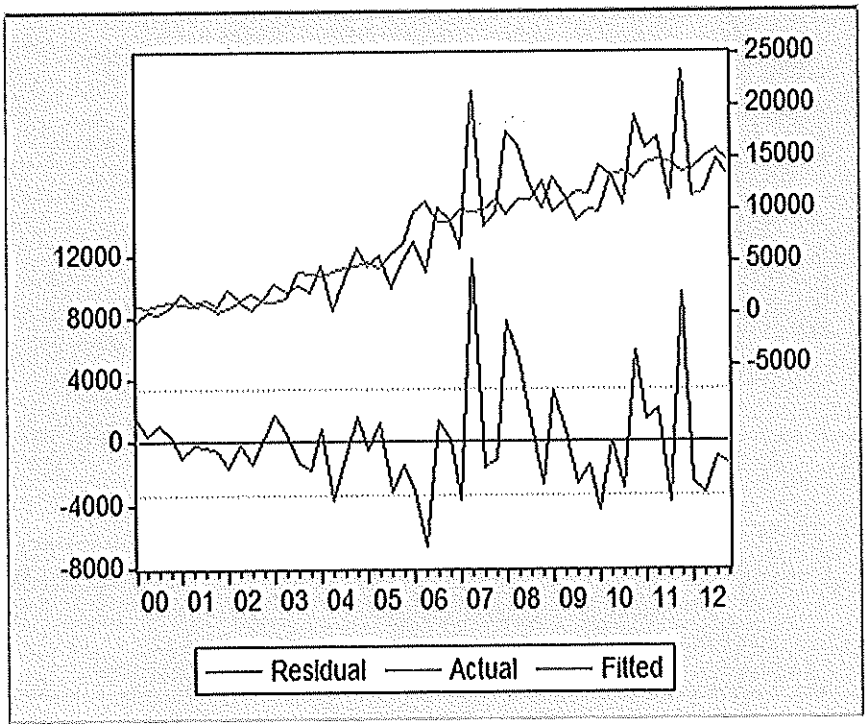
-81302,11+203,8505*(9,8)-223,44*(50)+19248,69*(4,704)= 85,35099

According to the results, it can be concluded that if the elasticity of Dow Jones index increases by 1 unit, FDI (actually it is a logit model), increases by 19248,69 units. It is a great effect that Dow Jones commodity prices rises according to FDI value in Russia. Also LN(DJ) is significant with 5% significant level (5%> p-value=0) , and significant effect on FDI in Russia. And constant term is negative effect on FDI, if LN(DJ) is added to the equation.

Now, more information about FDI is need, and to realize it forecast measurement of FDI data should be collected. So putting the data into e-views gives some results below: Actual model shows there is a high mean absolute error in 52 observations, and root mean squared error is greater than mean squared error. This shows expected values are below the actual values.

Figure 1: Forecast measurement (actual vs. expected)





Predictive failure test:

2000Q1 – 2012Q2

0.18 + 1.1RMt T = 51 RSS1 = 0.02345

2012Q2 – 2012Q4

0.58 + 1.33RMt T = 3 RSS2 = 0.00236

2000Q1 – 2012Q4

0.29 + 1.31RMt T = 52 RSS = 0.0235

$$H_0: \alpha_1 = \alpha_2 \ \ and \ \ \beta_1 = \beta_2$$

According to the test results, F-test =12,01. Comparing it with 5% F = 3.06, H0 is rejected at the 5% level and concluded that the restriction that the coefficients are the same in the two periods is rejected.

A series of data can often contain a structural break, due to a change in policy or sudden shock to the economy, i.e. 2001 Q4 FDI value in Russia. In order to test for a structural break, the predictive failure test this is like Chow test (the second test relates to predictions) is often used. The model in effect uses an F-test to determine whether a single regression is more efficient than two separate regressions involving splitting the data into two sub-samples. In predictive failure test, the test shows parameters are not stable after the negotiate WTO in 2012. With increase the growth rate and decrease the interest rates in Russia, FDI impact positive effect on Russia's economy. Multiple linear regression shows residuals are fluctuating under actual and fitted data, this shows there is a cointegration between residuals in time series. Also actual and fitted model vary within time, this shows R^2 is not as much as desired. (Its value is about 0,28 and there is a poor fitted equation.)

40% increase in FDI projects over the last decade, 55% of parameters shows Russia's accession to WTO will increase country's attractiveness for investment. Following Russia's recent accession to the WTO, the Russian

economy will push toward attracting a larger share of investment from its lading source regions such as the US and Europe.

6. Conclusion

In terms of investment potential, Russia is a large, resource rich country and welcomes investments in energy and metals/mining sectors. The potential of other sectors such as food industry, consumer products, real estate, and automotive is also high. Moreover, compared to other countries in Western Europe, production and labor costs in Russia are relatively low. Geographical location and size of Russia play an important role in the investment decisions as well. The country is close and has business connections in the Balkans, Caucasus and Central Asia, making Russian companies attractive for joint ventures exporting or investing in neighboring regions. Russia is also rich with important assets including good universities, qualified researchers, and skilled workforce, which has attracted several companies to establish research and development operations in Russia.

Although Russia ranks very badly in ease of doing business index in terms of regulatory procedures, cost of importing foreign equipment and bureaucratic red tape, many reforms were implemented in order to improve business environment by Russian governments throughout a timeframe initiating from Russia's WTO application in 1993 to date.

In accordance with these, many global giants such as BP, Rosneft, TNK, DaimlerChrysler and Sibmash, BASF,LuKoil, Gazprom, İkea, Metro and Nizhekamskneftekhim participated in investment projects in several regions of Russia.

For Russia, the WTO membership meant certainly that a lot of foreign direct investment could take place in the country, however the most important cost of entry into the WTO for Russia, as far as foreign direct investment goes, has been the negative effect of the foreign direct investment on the Russian local entrepreneurs. With respect to this, throughout this thesis, in addition to the contributions of FDI to Russian economy, negative effects of FDI and its costs are also mentioned.

On this paper, FDI of Russia is examined to understand whether accession to WTO increases Russia's FDI and if it is so, whether FDI triggers economic growth and other economic indicators that influence overall conditions of the economy positively. In order to test these, several methods were implemented to four economic indicators; FDI, GDP, interest rate and Dow Jones UBS Commodity Index, including Simple/Multiple Linear Aggression, Unit Root Test, and Predictive Failure Testfor the period from 2000 to 2012.

According to the results, FDIs will continue to increase in coming years but, although it is expected to find a strong positive relationship between FDI and GDP growth rate, similar to the studies of Borensztein et al. (1998), Alfaro et al. (2004), Lipsley (1999) and Tsai (1994), the results pointed out a weak negative interaction which cannot be concluded as strong in consistent with the studies of by Loree and Guisinger (1995), Wei (2000) and Hausmann and Fernandez- Arias (2000) for Russia. For further analysis, other variables such as; foreign exchange rate, oil prices can be implemented for a larger set of sample by means of other analyze techniques such as; ECM model, OLS analysis, cointegration analysis, cross correlogram, CUSUM, etc.

In a nutshell, it can be concluded that the membership of Russia in the World Trade Organization helped the country's economic transition and development by means of several reforms, while increasing foreign trade investment en route to the World Trade Organization significantly. In order for long term results, it is necessary, as noted above, to wait and see. What is important in order to make a complete assessment of the case of Russia in terms of increase in foreign direct investments in the country is that such operations' sustainability. Unless it is so, it would not be correct to conclude that for the long-run, the WTO membership drew significant amounts of foreign direct investment to Russia as can be examined from the results of some econometric techniques, the estimated values of FDIs for Russia are in a way that the FDIs will be in an increasing trend.

References

Aitken, Brian J., and Ann E. Harrison. (1999). *Do Domestic Firms Benefit from Foreign Direct Investment? Evidence from Venezuela.* American Economic Review89, no. 3 (June): 605–18.

Alfaro, L., A. Chanda, S. Kalemli-Ozcan and S. Sayek (2004). *FDI and economic growth: the role of local financial markets.*Journal of International Economics, 64(3), pp.89-112.

Arbatli, E. (2011). *Economic policies and FDI inflows to emerging market economies.*IMF Working Paper WP/11/192. IMF, Washington.

Berglöff, Erik, Andrei Kunov, Julia Shvets and Ksenia Yudeva (2003).*The New Political Economy of Russia.*The MIT Press, Cambridge, Massachusetts, London, England.

Bloningen, B. and M. Wang (2005). "Inappropriate pooling of wealthy and poor countries in empirical wealth studies", in: T. Moran, E. Graham and M. Blömstrom (eds.): *Does Foreign Direct Investment Promote Development?* Peterson Institute for International Economics. Washington.

Blomström, Magnus (1986). *Foreign Investment and Productive Efficiency: The Case of Mexico*. The Journal of Industrial Economics35, no. 1 (April): 97–110.

Borensztein, E., J. De Georgio and J-W. Lee (1998). *How does foreign direct investment affect economic growth?* Journal of International Economics 45(1), pp. 115-135.

Boyd, John H., and Bruce D. Smith (1992). *Intermediation and the Equilibrium Allocation of Investment Capital: Implications for Economic Development*. Journal of Monetary Economics 30: 409–32.

Broadman, Harry G. *"Global Economic Integration: Prospects for WTO Accession and Continued Russian Reforms"*,The Washington Quarterly 27(2), 2004, pp. 79-98.

Broadman, H. and F. Recanatini (2001). *Where has all the foreign investment gone in Russia?* Policy Research Working Paper 2640. World Bank. Washington.

Büthe, T., and Milner, H. V. (2008). *The politics of foreign direct investment into developing countries: increasing FDI through international trade agreements?*American Journal of Political Science, 52(4), 741-762.

Carkovic, M., and Levine, R. (2002). *Does foreign direct investment accelerate economic growth?*. University of Minnesota Department of Finance Working Paper.

Campos, N. and Y. Kinoshita (2003). *Why does FDI go where it goes? New evidence from the transition economies.* IMF Working Paper WP/03/228. IMF. Washington.

Contessi, S., P. De Pace and J. Francis (2008). *The cyclical properties of disaggregated capital flows.* Working Paper 2008-041. Federal Reserve Bank of St. Louis.

Carkovic, Maria, and Ross Levine (2002). *Does Foreign Direct Investment Accelerate Economic Growth?* Department of Finance Working Paper (June). Minneapolis: University of Minnesota.

De Gregorio, J. (1999). *Financial integration, financial development and economic growth.* Estudios de economía, 26(2), 137-161.

Dicaprio, A., and Santos-Paulino, A. U. (2011). *Can Free Trade Agreements Reduce Economic Vulnerability?* South African Journal of Economics, 79(4), 350-375.

Durham, J. B. (2004). *Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth.* European economic review, 48(2), 285-306.

Edwards, S. (1990). *Capital flows, foreign direct investment, and debt—equity swaps in developing countries.* NBER working paper no. 3497. Cambridge, MA: NBER.

European Commission (EC) (2013). *What are capital movements?* Available online:http://ec.europa.eu/internal_market/capital/overview_en.htm Accessed: 4 July 2013.

Fishlow, A. (1985). *Lessons from the past: capital markets during the 19th century and the interwar period.* International organization, 39(3), 383-439.

Garibaldi, P., et al (2001) 'Transition Economies: How Much Progress?' in *What Moves Capital to Transition Economies?* IMF Staff Papers, Vol. 48, pp. 109-145.

Haddad, Mona, and Ann Harrison(1993). *Are There Positive Spillovers from Foreign Direct Investment? Evidence from Panel Data for Morocco.*Journal of Development Economics42, no. 1 (October): 51–74.

Hausmann, R., & Fernandez-Arias, E. (2000). *The new wave of capital inflows: Sea change or just another title?*. Inter-American Development Bank Working Paper, 417.

Iwasaki, I. and K. Suganuma (2005). *Regional distribution of foreign direct investment in Russia.* Post-Communist Economies, 17(2), pp.153-172.

Kant, C. (1996). *Foreign Direct Investment and Capital Flow.* Princeton Studies in International Finance, no.80.Ledayeva, S. (2007). *Spatial econometric analysis of determinants and strategies of FDI in Russian regions in pre- and post-1998 financial crisis period.* BOFIT Discussion Paper 15/2007. BOFIT. Helsinki.

Ledayeva, S. and M. Linden (2006). *Testing for foreign direct investment gravity model for Russian regions.* Working Paper no. 32. Department of Business and Economics. University of Joensuu.

Levchenko, A. A., and Mauro, P. (2007). *Do Some Forms of Financial Flows Help Protect Against "Sudden Stops"?.* The World Bank Economic Review, 21(3), 389-411.

Lipsey, R. E., and Fredrik Sjöholm (2002). *Foreign Firms and Indonesian Manufacturing Wages: An Analysis with Panel Data.* NBER Working Paper 9417 (december). Cambridge, National Bureau of Economic research

Lipsey, R. E. (1999). *The location and characteristics of US affiliates in Asia.* NBER working paper no. 6876.

Lipsey, R. E., Feenstra, R. C., Hahn, C. H., & Hatsopoulos, G. N. (1999). *The role of foreign direct investment in international capital flows. In International capital flows* (pp. 307-362). University of Chicago Press.

Loree, D. W., & Guisinger, S. E. (1995). *Policy and non-policy determinants of US equity foreign direct investment.* Journal of International Business Studies, 281-299.

Michalet C-A., *Strategies of Multinationals and competition for foreign direct investment*, 2001, Available on www.fias.net/documents/michalet.doc (03/10/2013)

Romer, Paul(1993). *Idea Gaps and Object Gaps in Economic Development.*Journal of Monetary Economics32, no. 3 (December): 543–73.

Russian Federation Federal State Statistics Service. (2013). Available online:http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/main/. Accessed: 1 May 2013.

Schneider, F., & Frey, B. S. (1985). *Economic and political determinants of foreign direct investment.* World development, 13(2), pp. 161-175.

Solnik, B. (1974), *Why not diversify internationally rather than domestically?*Financial Analysts' Journal,Vol. 30, no. 4, pp. 48-54.

Tezcanlı, M. V., and Erdoğan, E. (1996). *Avrupa birliği sermaye piyasalarının entegrasyonu ve İstanbul Menkul Kıymetler Borsası.*IMKB Araştırma Yayınları, no. 8, pp. 269-287.

Tezcanlı,V. M., Küçükçolak,A., Erdoğan, O. ve Özer, L., (2000). *AB Sermaye Piyasalarına Uyum ve Rekabette Türk Sermaye Piyasası ve İMKB'nin Gelişimi.* İMKB Yayını, no. 14.

The Central Bank of the Russian Federation. (2013)*Time Series of Direct Investment of the Russian Federation (Balance of Payments Transactions) for*

Q1 1994 - Q4 2012. Available online:http://www.cbr.ru/eng/statistics/print.aspx?file=credit_statistics/dir-inv_bop_e.htm&pid=svs&sid=itm_33421. Accessed: 1 May 2013

The Central Bank of the Russian Federation. (2013). *Statistics.* Available online:http://www.cbr.ru/eng/statistics/Default.aspx. Accessed: 1 May 2013

The Organisation for Economic Co-operation and Development (OECD) (2013). *FDI In Figures April 2013.* Available online: http://www.oecd.org/daf/inv/FDI%20in%20figures.pdf. Accessed: 1 May 2013.

The International Monetary Fund (1993). Balance of Payments Manual, 5th ed., Washington D.C.

Trading Economics. (2013) *Russia Interest rate.* Available online: http://www.tradingeconomics.com/russia/interest-rate. Accessed: 1 May 2013

Tsai, P.-L. (1994).*Determinants of foreign direct investment and its impact on economic growth.* Journal of Economic Development, 19 (1994), pp. 137–163.

Vita, G. and Kyaw, K.S. (2009). *Growth effects of FDI and portfolio investment flows to developing countries: a disaggregated analysis by income levels*. Applied Economics Letters, 16:3, 277-283.

Wei, S. J. (2000). *How taxing is corruption on international investors?*. Review of economics and statistics, 82(1), 1-11.

World Trade Organization. (2013)*Russian Federation and the WTO.* Available online:http://www.wto.org/english/thewto_e/countries_e /russia_e.htm. Accessed: 20 April 2013.

Zhuravskaya, E. and S. Guriev (2010). *Rethinking Russia: Why Russia is not South Korea?* Journal of International Affairs, 63(2), pp. 125-139.