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ROLE OF FOREIGN DIRECT INVESTMENT IN ECONOMIC DEVELOPMENT OF THE RUSSIAN FEDERATION

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1. INTRODUCTION

Foreign direct investment (FDI) is often viewed by developing countries as an opportunity to boost their economies. FDI, as well as other forms of participation of multinational enterprises (MNEs) in the local economy, can act as a shortcut to structural change and help break the cycle of poverty and underdevelopment. It can play the role of a significant catalyst for production and trade in developing countries and demonstrates the potential to make important contributions to economic development in terms of investment, employment and foreign exchange (Narula and Pineli, 2016).

The processes of world economy globalization form new trends in the cross-border movement of capital. At the beginning of the XXI century an increase in the role of a group of states with a dynamically developing economy, first, the BRICS countries, in the modern capital movement has become one of the phenomena of the world economy. However, there are still many theoretical questions and practical problems associated with the birth and evolution of these processes, to which so far there are no definite answers.

Many researchers in the theoretical analysis of this phenomenon focus on companies, the home state, the host country, as well as the identification of differences in the investment expansion of multinational companies (MNCs) from developed countries and those from the developing world. Other experts concentrate on studying the applied aspects of this problem, primarily on the quantitative parameters of capital outflow from the country. However, outside the scope of the study, as a rule, there remains an analysis of the driving forces of these processes in Russia, or the impact of direct investment outflow on the national economy development. For Russia, this area of scientific analysis is associated with the search for a country's development strategy.

Russia's outward foreign direct investment (OFDI) has garnered increasing attention due to its distinctive characteristics and the strategic motives driving Russian multinational corporations to expand abroad. Unlike other emerging markets, Russian OFDI is heavily influenced by geopolitical considerations, state ownership, and a strategic focus on sectors such as energy, mining, and technology. This unique context presents challenges to the applicability of traditional FDI theories, such as the Investment Development Path (IDP) and the OLI framework, which often emphasize economic factors and market-seeking behavior.

This dissertation seeks to address these challenges by critically analyzing the drivers of Russian OFDI, assessing the relevance of existing FDI theories, and developing a theoretical framework that better captures the nuances of Russia's investment behavior. By exploring the intersection of economic, geopolitical, and institutional factors, this study aims to provide a comprehensive understanding of Russian outward FDI and its implications for the country's economic development and global positioning. Due to the uncertainties and peculiarities brought about by the COVID-19 pandemic and the ongoing situation between Russia and Ukraine, this dissertation focuses exclusively on the period before the COVID-19 outbreak, ensuring a clearer analysis of the pre-existing conditions and trends in Russian FDI.

1.1 Problem statement

The application of traditional FDI theories to Russian OFDI presents several conceptual and empirical challenges. The IDP and OLI frameworks, which have long been used to explain the patterns and motivations behind FDI, often fall short when applied to the Russian context. Russia's geopolitical landscape, characterized by Western sanctions, political tensions, and strategic alliances,

significantly influences the investment decisions of Russian MNCs. Additionally, the prevalence of state-owned enterprises and the dominance of the energy sector further complicate the applicability of traditional models that primarily focus on economic and market factors.

Moreover, Russian OFDI is marked by unique practices such as round-tripping, where capital is funneled through offshore jurisdictions before being reinvested in Russia, often for tax optimization or regulatory evasion. These practices challenge the conventional understanding of cross-border investments and highlight the need for a revised theoretical framework that accounts for the complex interplay of geopolitical, economic, and institutional factors.

This study seeks to address these gaps by providing a critical examination of existing FDI theories, exploring their limitations in the Russian context.

1.2 Significance of the study

A useful framework often used by policymakers to formulate FDI policies for developing countries is the Investment Development Program (IDP), built by John H. Dunning. This research will provide an overview of foreign direct investment, its types, sources, impact and define the stage of development of Russia by IDP. The application of economic theories of FDI in the formation of a country's investment strategy can increase its predictability and effectiveness.

The problem of the massive outflow of capital from the country, primarily offshore, is ambiguous. It is negatively perceived by the state and society. The lack of scientifically based answers to questions about the reasons for the expansion of domestic companies abroad, about the possibilities for its further

development, as well as about the forms and extent of the impact of globalization of business on the national economy development can limit the assessment of the positive effects of these processes for the Russian economy (Kuznetsov, 2007). Typically, outward FDI of the country exceeds inward and Western sanctions only facilitate this ratio. However, the existing potential of OFDI must be converted into a competitive advantage of the country, which can be a factor in the implementation of the foreign economic strategy of Russia.

This research holds substantial significance for both academic inquiry and practical policymaking. Academically, it contributes to the FDI literature by challenging the assumptions of traditional theories and extending them to accommodate the distinctive characteristics of Russian OFDI. By offering a deeper understanding of the strategic motivations and constraints faced by Russian MNCs, this study enriches the discourse on FDI and highlights the need for a more nuanced theoretical approach.

For policymakers, the findings of this research provide valuable insights into the formulation of investment policies that leverage Russian OFDI for national economic development. Understanding the drivers and challenges of Russian OFDI can inform strategies that enhance the effectiveness of investment activities, mitigate potential risks, and align with national priorities. By developing policies that reflect the realities of the global market and Russia's strategic interests, policymakers can strengthen the country's economic resilience and global competitiveness.

Moreover, the study's focus on the role of geopolitical factors, state ownership, and sectoral specialization offers practical implications for managing the complexities of Russian OFDI. By addressing these factors, policymakers can

create an enabling environment that fosters sustainable economic growth and enhances Russia's position in the global economy.

1.3 Objectives of the study

The primary objective of this study is to analyze the distinctive features and drivers of Russian outward foreign direct investment and evaluate the applicability of traditional FDI theories in explaining these phenomena. This research aims to provide a nuanced understanding of the factors influencing Russian OFDI and contribute to the development of more effective investment policies in Russia. To achieve this overarching goal, the study focuses on the following specific objectives:

- Identify and Analyze Key Trends: The study seeks to identify and analyze the key trends and characteristics of Russian OFDI, including sectoral and geographic patterns. By examining these trends, the research aims to provide insights into the strategic choices made by Russian MNCs in their international investment activities.
- Evaluate Traditional FDI Theories: The research assesses the relevance and limitations of traditional FDI theories, such as the Investment Development Path model and the OLI framework, in explaining Russian OFDI. This evaluation will help determine whether these theories can adequately capture the unique aspects of Russian investments abroad or if new theoretical approaches are needed.
- Explore Influential Factors: The study explores the impact of geopolitical factors, state involvement, and sectoral specialization on the motivations and destinations of Russian OFDI. Understanding these influences is crucial for developing a comprehensive picture of how Russian MNCs navigate the global investment landscape.

- Review FDI Characteristics and Impact: The study provides a comprehensive review of the characteristics, impact, and sources of FDI in the Russian context.

The findings of this study will be valuable to Russian policymakers and business leaders by offering insights into better practices and tools for managing foreign investments. By aligning investment strategies with national priorities and global market realities, Russia can strengthen its economic resilience and global competitiveness.

1.4 Research questions and hypotheses

This study is guided by several key research questions and hypotheses that address the complexities and unique characteristics of Russian foreign direct investment:

- What are the key characteristics and trends of Russian OFDI, and how do they differ from traditional FDI patterns? This question seeks to explore the distinctive features of Russian OFDI, including its sectoral focus and geographic distribution, and how these elements diverge from conventional FDI models.
- How applicable are traditional FDI theories, such as the Investment Development Path model and the OLI framework, in explaining the motivations and behavior of Russian OFDI? This question aims to assess the relevance of these theories in the Russian context and identify any theoretical gaps.
- What roles do geopolitical factors, state ownership, and sectoral specialization play in shaping the patterns and destinations of Russian OFDI? This question examines the impact of external political

dynamics and internal structural factors on Russian investment decisions.

Based on these research questions, the study proposes the following hypotheses:

- H1: The IDP model is inadequate in identifying the development stage of the Russian economy due to its unique economic and geopolitical characteristics. Unlike other economies, Russia's FDI patterns do not align neatly with the sequential stages proposed by the IDP model, as they are influenced by non-traditional factors such as state involvement and geopolitical strategies.
- H2: Geopolitical considerations and state ownership significantly influence the patterns and destinations of Russian OFDI. This suggests that Russian OFDI is heavily shaped by political alliances, strategic interests, and state-directed investment strategies.
- H3: Russian investment is significantly attracted by locations where economic indicators reflect favorable conditions in the host economy. This suggests that Russian firms prioritize investing in countries with strong economic fundamentals, including stable political environments, robust market growth, and favorable regulatory frameworks, which align with their strategic objectives.

Through this comprehensive investigation, the study aims to provide a robust theoretical and empirical foundation for understanding Russian outward FDI and its implications for economic policy and development. By addressing these research questions and testing these hypotheses, the study seeks to contribute valuable insights into the strategic management of Russian OFDI and its role in the global economy.

2. MATERIALS AND METHODS

2.1 Research process

The research process followed six phases to achieve the objectives of the study. These six phases are:

1. Defining the problem: to gather information on the studied field of research, a thorough review of the existing literature was conducted. This involved understanding the concept of foreign direct investment, the eclectic paradigm, the Investment Development Path theory, and analyzing global investment trends.

2. Developing an approach to find the solution: based on the findings of the literature review, a conceptual model was developed to investigate the outward FDI of Russia.

3. Formulating the research design: to test the validity of the suggested model, hypotheses were developed. Multiple linear regression using SPSS and parallel regression on the panel dataset using STATA were chosen as the primary statistical techniques to answer research questions.

4. Collecting data: data collection was carried out using reputable sources, including international institutions such as the World Bank, OECD, and UNCTAD. The data collected included various macroeconomic indicators and statistics.

5. Analyzing data through statistical techniques: with the help of proper statistical techniques, the collected data was analyzed. SPSS was used for multiple linear regression analysis to identify the relationship between Russian FDI and various economic indicators. STATA was employed for

parallel regression analysis on the panel dataset to examine how different factors simultaneously impact Russian OFDI over time.

6. Presenting and discussing results: the results of the data analysis were compiled and presented using tables, charts, and graphs.

2.2 Data Preparation

2.2.1 Data collection

To apply the Investment Development Path model, the Net Outward Investment Position (NOIP) was computed using the Central Bank of Russia's data on inward and outward FDI stocks, following the methodology outlined by Bulatov (2018), which excludes reserve assets. Additionally, GDP and population data were sourced from the Federal State Statistics Service of the Russian Federation (2023). The official webpage of the Federal State Statistics Service provides accessible online data. The secondary data on GDP and population has been searched and downloaded from the webpage. The data spans from 2001 to 2017.

Panel data was collected to perform parallel regression analysis aimed at identifying the indicators that most significantly impact OFDI. The data spans from 2013 to 2019 and was sourced from several authoritative institutions, each providing essential economic indicators:

- Data on outward positions by instrument and partner country was obtained from the Central Bank of Russia, reflecting the directional principle of Russian investments abroad (CBR, 2024).
- The annual GDP growth rate, sourced from the World Bank, measures the annual percentage growth rate of GDP at market prices based on

constant local currency, expressed in U.S. dollars (The World Bank, 2024a).

- The political stability and absence of violence/terrorism indicator, also from the World Bank, measures perceptions of political instability and violence, providing scores on a standard normal distribution scale, ranging from -2.5 to 2.5 (The World Bank, 2024b).
- Population data, based on midyear estimates that count all residents regardless of legal status, was obtained from the World Bank (2024c).
- Data on statutory corporate tax rates was retrieved from the OECD (2024a) Database.
- Exchange rate data for the Russian Ruble was obtained from UNCTAD, computed separately for each year (UNCTAD, 2024a).
- Inflation data, sourced from the World Bank, measures the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services (The World Bank, 2024d).
- Data on trade openness, including the sum of exports and imports as a percentage of nominal GDP, was obtained from the UNCTAD (2024b) Database.
- The Logistics Performance Index (LPI), from the World Bank, measures the quality of trade and transport-related infrastructure based on a survey of logistics professionals (The World Bank, 2024e).

Together these institutions offer a rich repository of reliable secondary data for global and regional economic research and analysis where data for the parallel regression of this study has been collected. The data were retrieved online on official statistical webpages of mentioned institutions.

The panel dataset includes data from the following countries: Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czech Republic,

Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States. The countries are members of the Organization for Economic Co-operation and Development.

The indicators chosen for the dataset are critical in signaling a country's economic health and potential for profitability, which are crucial for investors. A strong and stable GDP growth rate indicates a robust economic environment, attracting foreign investors due to the potential for higher returns on investments. This is supported by the UNCTAD World Investment Report (2024c). Countries with stable political environments and transparent, investor-friendly policies are more likely to attract FDI. This includes the ease of doing business, legal protections for investments, and the absence of excessive regulation. The World Bank's Doing Business Report (2024f) provides insights into how regulatory environments affect economic activities. Larger markets often attract more FDI because they offer greater potential for sales and profits. This is typically measured by population size or total GDP. Analysis from OECD Economic Outlooks (2024b) highlights the relationship between market size and FDI. Good physical and technological infrastructure, including transportation, telecommunications, and energy, facilitates business operations, making a country more attractive for FDI. The World Economic Forum's Global Competitiveness Report (2020) evaluates infrastructure as a key factor in competitiveness. Competitive corporate tax rates and tax incentives significantly influence FDI decisions. Special economic zones with tax exemptions or reductions are common strategies to attract foreign investors. The OECD Tax Database provides detailed data on corporate taxes

across countries. Investors seek financial stability, including stable exchange rates, to mitigate business risks associated with currency conversions. The International Monetary Fund's reports (2024) provide data on exchange rate stability. Open trade policies and strong trade networks enhance FDI by providing access to export markets through favorable trade agreements. Inflation, as measured by the consumer price index, reflects the annual percentage change in the cost to the average consumer of acquiring goods and services. A stable and low inflation rate indicates a stable economy, reducing uncertainty for investors.

2.2.2 Data cleaning and transformation

Ensuring that there are no missing values in a dataset is crucial for reliable and accurate analysis. Missing data can lead to biased estimates, reduce the statistical power of the analysis, and potentially distort the conclusions drawn from the data (Little & Rubin, 2019). Imputing missing values helps maintain the integrity of the dataset, allowing for more robust and consistent results. Addressing any gaps in the data is essential to enhance the validity and reliability of the research findings.

After the data collection process, it was identified that there were missing values in the panel dataset: four in the OFDI column and one in the Logistics Performance Index column. These missing values were addressed by calculating and imputing the mean value for each respective country. There was no missing data for the dataset prepared for implementation of IDP.

The next step to follow is normalization of the panel dataset as the features have different units and scales. No action was taken for the IDP dataset.

Data normalization is a critical process in data preprocessing that transforms data into a common scale without distorting differences in the ranges of

values. This process is essential for ensuring that various types of data can be compared and analyzed on an equal footing, which enhances the performance and reliability of machine learning models (Jain et al., 2000). By normalizing data, the impact of features with larger numerical ranges is minimized, thereby preventing these features from disproportionately influencing the results of an analysis (Han et al., 2011). Normalization techniques include min-max scaling, which adjusts the range of data to a fixed scale, usually 0 to 1, and z-score normalization, which scales data based on the mean and standard deviation, transforming the data to have a mean of 0 and a standard deviation of 1 (Shanker et al., 1996).

The panel dataset includes various features such as GDP growth, political stability, population, corporate tax rate, exchange rate, inflation rate, trade openness, and logistics performance index. These features are on different scales. Given that the dataset has a diverse range of features and may include outliers (e.g., population numbers and exchange rates), Z-score Normalization is more appropriate. This method will ensure that each feature contributes equally to the analysis, regardless of its original scale.

The numerical columns have been selected from the dataset that required normalization, excluding categorical columns like 'Country' and 'Year'. The result is a data frame where each numerical feature has been normalized to have a mean of 0 and a standard deviation of 1. This makes the features comparable and suitable for various machine learning algorithms and analyses.

2.3 Data Analysis

2.3.1 Multiple linear regression

Multiple linear regression is a statistical technique used to model the relationship between a single dependent variable and multiple independent variables. The Enter method was used in this study. The Enter method, also known as the forced entry method, involves including all specified independent variables in the regression model simultaneously. This approach does not involve any statistical criteria for including or excluding variables; rather, it ensures that all chosen predictors are considered in the analysis (Tabachnick & Fidell, 2019). One of the primary advantages of the Enter method is that it allows for a comprehensive analysis of all potential predictors. This ensures that the effects of all included variables are assessed together, providing a holistic view of their impact on the dependent variable. Additionally, by including all variables, the method controls for potential confounders, which allows for a clearer interpretation of each predictor's effect (Field, 2013).

Prior to beginning the analysis outliers were identified. Outliers can significantly influence the results of a multiple linear regression analysis, potentially leading to misleading conclusions. Identifying and addressing outliers is crucial for obtaining accurate and reliable results. Residual plots, which are scatter plots of residuals versus predicted values, can help identify these outliers. Ideally, residuals should be randomly scattered around zero, indicating a good fit (Field, 2013).

Once outliers are identified, there are several approaches to address them. One approach is to exclude the outliers from the dataset, particularly if they are due to measurement errors or are not representative of the population. Another

approach is to apply transformations, such as log transformation, to reduce the impact of outliers. Additionally, robust regression techniques, which are less sensitive to outliers, can be used. Reassessing the model with and without the outliers can help understand their impact and decide on the best course of action (Osborne & Overbay, 2004).

After running a multiple linear regression analysis in SPSS, interpreting the output is crucial for understanding the relationships between the variables. The key components of the output include the Correlation Coefficient, ANOVA table, and Coefficients table.

1. Correlation Coefficient provides the R, R-squared (R^2), and Adjusted R-squared values. R^2 represents the proportion of variance in the dependent variable explained by the independent variables. An R^2 value close to 1 indicates a good fit. Adjusted R^2 adjusts the R^2 value based on the number of predictors in the model, providing a more accurate measure of model fit when multiple predictors are involved (Field, 2013).
2. ANOVA (Analysis of Variance) table tests the overall significance of the regression model. The F-statistic and its associated p-value indicate whether the model as a whole is statistically significant. A p-value less than 0.05 suggests that the model significantly predicts the dependent variable (Tabachnick & Fidell, 2019).
3. Coefficients table provides the unstandardized and standardized coefficients (beta values), t-values, and significance levels for each predictor. The unstandardized coefficients (Beta) represent the change in the dependent variable for a one-unit change in the predictor variable. The standardized coefficients (Beta) allow for the comparison of the relative importance of each predictor. The t-values and associated p-values test the null hypothesis that the coefficient is zero. A p-value less than 0.05

indicates that the predictor significantly contributes to the model (Field, 2013).

By carefully examining these components of the output, researchers can draw meaningful conclusions about the relationships between the dependent and independent variables, the overall fit of the model, and the significance of each predictor. Additionally, the results can be visualized through various graphical representations.

2.3.2 Parallel regression

Parallel regression refers to comparing multiple regression models (pooled OLS, fixed effects, random effects) to determine the most appropriate model for the data. By running these models in parallel and applying tests like the Breusch-Pagan LM test, it is possible to validate the necessity and advantages of using panel data techniques (Baltagi, 2008).

Panel data, also known as longitudinal data, consists of observations on multiple entities (such as countries in this study) over multiple time periods. Panel data combines the cross-sectional dimension (across countries) with the time-series dimension (across years), allowing for richer analysis by accounting for both individual heterogeneity and temporal dynamics (Greene, 2012).

Before starting the parallel regression analysis, it is important to check multicollinearity. Multicollinearity occurs when two or more independent variables in a regression model are highly correlated, meaning that one can be linearly predicted from the others with a substantial degree of accuracy. This situation can lead to several issues in regression analysis.

The most common method to detect multicollinearity in a regression model is Variance Inflation Factor (VIF). VIF measures how much the variance of a regression coefficient is inflated due to multicollinearity. A VIF value greater than 10 is often considered indicative of high multicollinearity.

Once multicollinearity is checked and addressed, the Breusch-Pagan Lagrange Multiplier (LM) Test can be performed. This test, often performed using the *xttest0* command in Stata, is used to decide between a pooled ordinary least squares (OLS) model and a random effects model.

Pooled OLS Model assumes no individual-specific effects and combines all data ignoring the panel structure. The *xttest0* command in Stata tests the null hypothesis that variances across entities are zero (i.e., no panel effect). A significant test result indicates the presence of individual-specific effects, suggesting that a random effects model is more appropriate than a pooled OLS model (StataCorp, 2021).

Ordinary Least Squares is a method for estimating the parameters in a linear regression model. The OLS method minimizes the sum of the squared differences between the observed dependent variable and those predicted by the linear function.

If the panel data analysis is appropriate, the process can be continued by defining the model. Two primary models are often considered: fixed effects (FE) and random effects (RE).

The fixed effects model controls for time-invariant characteristics of the entities by allowing each entity to have its own intercept. It is useful when we assume that individual-specific characteristics may correlate with the independent variables (Hsiao, 2014).

The random effects model assumes that individual-specific effects are uncorrelated with the independent variables and are randomly distributed across entities. The RE model treats these individual-specific effects as random variables drawn from a larger population (Greene, 2012).

The RE model is more efficient than the Fixed Effects (FE) model when the individual-specific effects are uncorrelated with the independent variables because it uses both within-group and between-group variations (Baltagi, 2008). The model retains more degrees of freedom than the fixed effects model since it does not require estimating an intercept for each entity (Wooldridge, 2016).

The Hausman test is used to differentiate between the fixed effects model and the random effects model. It tests whether the unique errors (random effects) are correlated with the regressors, which would violate the assumptions of the random effects model.

The Hausman test is a crucial step in panel data analysis as it helps determine the appropriate model to use. By comparing the fixed effects and random effects models, the test ensures that the chosen model accurately represents the data structure and relationships (Baltagi, 2008).

When running parallel regressions using pooled OLS, fixed effects, and random effects models, it is essentially comparing the assumptions and fit of each model. The interpretation of parallel regression results involves examining the coefficients, standard errors, and fit statistics of each model to determine which one is most appropriate.

3. RESULTS AND DISCUSSION

3.1 Evaluation of Russian OFDI based on Balance of Payments and OECD data

The main source of data about foreign direct investment is Balance of Payment (BOP). The financial position of a country on the global market is usually estimated according to its balance of payments. It is an important indicator that makes it possible to foresee the degree of a country's participation in world trade and establish its solvency.

In recent decades, the current account of the country has evolved largely under the influence of the "Dutch disease" that swept Russia. Its symptoms in Russia are obvious: the share of the mining industry has increased, the share of revenues from oil and gas exports in the federal budget during the years of high world prices for hydrocarbons reaches 51% (RBC, 2016), while raw materials and fuel have long been the basis of Russian exports of goods. As a result, the state of both the BOP and the entire economy, which is mainly exporting, is mostly determined by fluctuations in world prices for raw materials, materials, semi-finished products, and especially for energy (Tcyrempilova et al, 2024).

According to Bulatov (2018), in Russia, the outflow of capital systematically exceeds its inflow, as can be seen from the balance of the financial account, if to exclude from it the movement of reserve assets (Table 1). Thus, a significant part of potential domestic investment goes abroad, mainly to offshores, not being compensated by the inflow of foreign capital.

Table 1. Outflows and inflows of Russian capital, billion rubles

	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Net Inflows/ Outflows	13.6	0.3	0.3	-87.8	133.6	57.5	30.8	81.4	53.9	60.3	152.1	57.0	18.4	24.8
Outflows	20.0	33.6	74.8	128.4	240.6	49.7	73.7	148.1	126.9	174.9	114.4	-7.0	7.3	13.4
Inflows	6.4	33.4	74.4	216.3	107.0	-7.8	43.0	66.7	71.1	114.6	-37.7	-64.0	-11.1	-11.4

Source: Bulatov, 2018

Summing up the data of the CBR on the outward and inward investment for 2001-2017, it can be calculated that during these years outflow of capital accounted for 1369 billion, and inflow for 791 billion dollars. The main entities investing abroad were relatively narrow and because of these high-yield industries - mining, chemistry and metallurgy, which is indirectly confirmed by their high profitability and, consequently, a large weight of these industries in the profits received by all Russian organizations. Strong monopolistic barriers to entry into other Russian industries, low profitability of these industries, uncertain prospects of the Russian economy pushed the exporters of raw materials and semi-finished products to export a significant part of their profits abroad in the form of export of capital. Thus, from 40 to 60% of revenues from oil and gas exports were used to export capital and pay incomes of foreign investors (Manevich, 2017).

Thus, Russian outward direct investment exceeds inward FDI according to the BOP of the country. Moreover, the CBR provides detailed data of countries-recipients of Russian OFDI which allows it to model the geographical structure. Nevertheless, as it was observed before, the majority of Russian OFDI goes to offshores, which can be a transition point to other countries.

Because of the specific features of Russian OFDI the data of OECD countries was obtained to compare with the data of CBR and determine the real presence of Russian capital in those countries.

OECD International Direct Investment Statistics 2018, where data related to FDI for each member-country can be found, was the main source for comparison. On the side of CBR, Positions by Instrument and Partner Country (Directional Principle) of direct investment of the Russian Federation abroad were obtained. Thus, Table 2 contains the comparison of data from both sources.

Table 2. Comparison of CBR and OECD data on Russian OFDI

Country	Russian OFDI stock, as of January 1, 2018 (millions USD)				Variance (millions USD)
	according to CBR	%	according to OECD	%	
AUSTRALIA	499	0,31	confidential data	--	--
AUSTRIA	30944	19,36	31472,8	46,83	528,8
CANADA	1758	1,10	not available	--	--
CHILE	2	0,00	not available	--	--
CZECH REPUBLIC	1791	1,12	996,4	1,48	794,6
DENMARK	1205	0,75	58,2	0,09	1146,8
ESTONIA	328	0,21	827,1	1,23	499,1
FINLAND	3035	1,90	1685,1	2,51	1349,9
FRANCE	3006	1,88	not available	--	--
GERMANY	8411	5,26	not available	--	--
GREECE	733	0,46	36,8	0,05	696,2
HUNGARY	259	0,16	not available	--	--
ICELAND	--	--	0,4	0,00	--
ISRAEL	571	0,36	nil	0,00	--
ITALY	2816	1,76	983	1,46	1833

JAPAN	53	0,03	51,4	0,08	1,6
KOREA	28	0,02	not available	--	--
LATVIA	1546	0,97	1844,6	2,74	298,6
LITHUANIA	315	0,20	313,1	0,47	1,9
MEXICO	4	0,00	24,2	0,04	20,2
NETHERLANDS	48493	30,34	1005	1,50	47488
NEW ZEALAND	109	0,07	not available	--	--
NORWAY	506	0,32	105,2	0,16	400,8
POLAND	666	0,42	1015,9	1,51	349,9
PORTUGAL	228	0,14	201,5	0,30	26,5
SLOVAK REPUBLIC	161	0,10	not available	--	--
SLOVENIA	270	0,17	644,8	0,96	374,8
SPAIN	6382	3,99	8993,8	13,38	2611,8
SWEDEN	183	0,11	70,1	0,10	112,9
SWITZERLAND	20160	12,61	confidential data	--	--
TURKEY	9490	5,94	12717,0	18,92	3227
UNITED KINGDOM	9091	5,69	confidential data	--	--
UNITED STATES	6776	4,24	4157,0	6,19	2619
Total:	159819	100.0	67203,4	100.0	92615,6

Source: comprised by author based on OECD (2023) and CBR (2023) database

According to CBR, Austria, Netherlands and Switzerland receive most of the Russian capital. They accounted for more than 50% of all Russian OFDI in OECD countries in 2017.

The CBR uses as a methodological basis to compose the BOP 6th edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6). An OECD database includes the data reported by national experts according to the 4th edition of the OECD's Benchmark Definition of FDI

(BMD4). The figures are mainly based on BOP statistics published by central banks and statistical offices in accordance with the recommendations of the BPM6 of IMF and BMD4 of OECD. The data sets on FDI flows, income and positions by partner countries include FDI statistics for OECD countries presented on a directional basis. It is the recommended method for collecting detailed FDI statistics for partner countries. Outward and inward FDI statistics by partner countries are represented by host countries and countries of direct destination.

However, in the dataset of OECD shown in Table 2 there are many countries of which data is not available or confidential. Due to that the difference in total amount of OFDI in OECD countries between CBR and OECD data is tremendous, 92615,6 million US dollars. For those countries where data is presented, there is still a difference. Perhaps this is due to the peculiarities of Russian outward direct investment associated with offshores. Also, the difference in the methodology for collecting and presenting data between the CBR and the OECD can play a role. Thus, based on the data obtained in the result of comparison, it is difficult to determine the real presence of Russian capital in OECD countries which can be stated as the main limitation of this study.

3.2 Investment development paradigm and Russian MNCs

Russian outward FDI is driven by large industrial companies, especially in natural-resource-based industries. According to the RIA ranking (2019) of largest Russian companies of 2018 Rosneft was the largest company, Sberbank was 2nd and Lukoil 3rd ranked by market capitalization.

The largest companies from the ranking list invest the bulk of Russian capital abroad. However, as was said prior, outward direct investment of the country

exceeds inward. Kalotay (2005) indicates that the presence of the Russian Federation with lower-middle incomes in the global top list of outward direct investment in 2005 is an anomaly for standard theories, such as IDP. For the investment development path, the behavior of a net investment position is opposite to what the theory predicts. Instead of IFDI that exceeds OFDI and grows faster than OFDI, OFDI exceeds IFDI and grows faster. Referring to the investment development path and words of Kalotay K., to reveal any anomaly in Russian FDI the data on it will be analyzed in more detail below.

Thus, following the IDP model, in this study FDI stocks data have been used to estimate NOIP and GDP has been used to define a level of development. NOIP was calculated according to CBR's data on inward and outward FDI stocks by Bulatov (2018) which excludes reserve assets, data on GDP and population is derived from Federal State Statistics Service of the Russian Federation.

The multiple linear regression analysis was utilized to elaborate the IDP for the Russian Federation. The Enter method was used. The aim of the analysis is to determine the extent and character of influence of GDP per capita to NOI per capita and to visualize investment development path. Prior to beginning the analysis outliers were identified and eliminated. The analysis is done by using SPSS.

To determine and test the correlation between the dependent and independent variables, the Pearson Coefficient was calculated, as well as the statistic test and the corresponding probability for each combination of variables - the results are presented in the following table:

Table 3. Correlation Matrix

	NOIP per capita	**GDP per capita**

Pearson Correlation	NOIP per capita	1.000	0.459
	GDP per capita	0.459	1.000
Sig. (1-tailed)	NOIP per capita	0.0	0.078
	GDP per capita	0.078	0.0
N	NOIP per capita	11	11
	GDP per capita	11	11

Source: author's own work based on SPSS analysis

The Pearson coefficient level provides information about the value and intensity of the correlation between the variables being analyzed. This coefficient can take the value in the interval [-1, 1]. When assessing the intensity of correlations between variables, threshold values of significance are also taken into account (Sig.). Considering the minimum threshold value of 0,05, below which the coefficients are significant from a statistical point of view. In other words, Sig. values below 0.05 for each calculated coefficient suggest a significant correlation between the variables being analyzed. In the results of analysis, it can be concluded that correlation between the variables is not significant.

The analysis of the model's parameters was carried out based on the results in the tables below:

Table 4. Correlation Coefficient (R)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.459[a]	0.211	0.123	177.945403100000000

a. Predictors: (Constant), GDP per capita

Source: author's own work based on SPSS analysis

Table 4 contains the values of the R correlation coefficient at the level of variable. The chosen variable is related to NOIP by 45,9%. Only 21,1 % of the fluctuation in the NOIP is explained by the variable.

Table 5. ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76146.115	1	76146.115	2.405	0.155[b]
	Residual	284981.098	9	31664.566	-	-
	Total	361127.214	10	-	-	-

a. Dependent Variable: NOIP per capita.
b. Predictors: (Constant) GDP per capita

Source: author's own work based on SPSS analysis

Using the ANOVA test, a significance threshold is calculated. The registered value is above the significance threshold (0,05), which means that the independent variable does not explain the change in the dependent variable. The model is not significant (Table 5).

Table 6 includes the analysis of the results of evaluation of the parameters of the regression model and checking their significance. In the table the coefficients of the regression model, the value of the t-test statistic, standard errors and the value of the threshold of significance (Sig.) can be found.

Table 6. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficient	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Erro	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	14.092	162.256	-	0.087	0.933	-	-	-	-	-
	GDP per capita	0.001	0.000	0.459	1.551	0.155	0.001	0.000	0.459	1.551	-

a. Dependent Variable: NOIP per capita

Source: author's own work based on SPSS analysis

Thus, the model of linear regression is:

$$NOIP = 14{,}092 + 0{,}001GDP$$

It is visualized in the following figure:

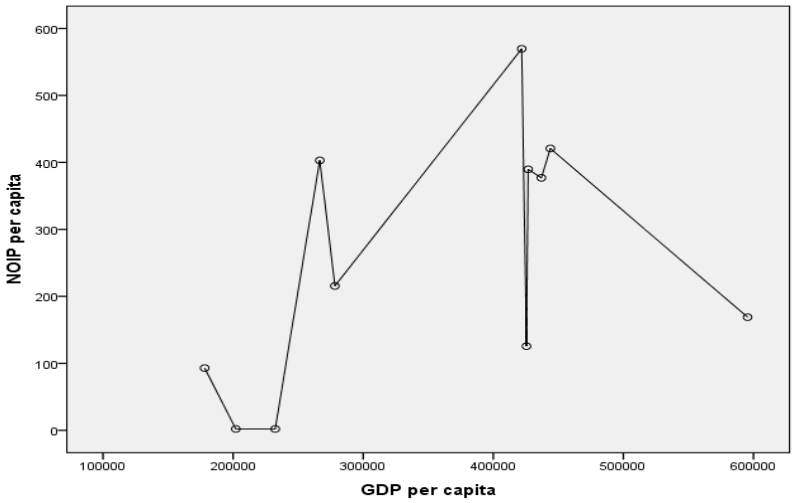

Figure 1. Visualized regression analysis model
Source: author's own work based on SPSS analysis

From the previous figure (1) it can be concluded that there is nothing like IDP in Russia. The results of the analysis are not significant and there is no strong correlation between outward direct investment and GDP. It can be explained by the paradox and special features of Russian OFDI. However, the data utilized in the analysis can be a limitation of the model. The GDP data was obtained on the official page of Russian Statistics Service, but it mentioned that data from 2011 to 2016 in 2011 prices do not correspond to similar data in 2016 prices and will be revised after recalculation of the time series in 2020. Moreover, data on net outward direct investment was taken from the work of a professor of the Department of World Economy in Moscow State Institute of International Relations, instead of CBR. Hence, the model cannot be considered as a reliable proof of not applicability of IDP for Russia.

However, talking about the Russian outward FDI paradox, even though the results of the regression analysis are not proper evidence, it still takes place

and is at odds with traditional theories and models such as IDP of Dunning. Kalotay (2005) explains it in two ways: the first is by introducing an analysis of the economic and business environment into the analysis of the international investment position, and the second is by introducing the picture of the duality of the Russian economy and society as an explanatory factor.

The first way to explain this paradox is to analyze the economic and business environment. Assuming that, ceteris paribus, the more difficult the environment, the more the net investment position shifts towards OFDI. The business environment in Russia remains difficult, despite recent improvements. The government elaborated alternative ways to create more effective areas such as special economic zones or other mechanisms. However, they do not seem to work effectively. Recent shifts in the business environment have sent conflicting messages to foreign and domestic investors. On the one hand, several impressive measures were taken to enhance the Russian business climate that include the rationalization of taxes. On the other hand, tax administration was used to reach certain non-economic, non-fiscal goals.

Another way the author used to explain the Russian paradox is to assume that there are two radically different economies and societies in the country. Most of the society has a middle income or even low. They do not have capital. However, there is a rich in capital and resources segment of society and the economy. It behaves like a country with a high level of income. This dualism causes two problems. First, the excess capital of the resource-rich segment is not necessarily intended for the poor segment of society, but rather for abroad. Another problem is that this situation can create much social tension and become unstable. This may partly explain why government actions are aimed at one of the leading outward investment companies.

The outflow of FDI by Russian companies is partly due to that they want to control the value chain of natural resources globally. Russian natural resource MNCs began internationalization through the export of their products. The profitability of such exports was due to the difference in price between the global and domestic markets. Further, to enter foreign markets and diversify the production, Russian energy companies began to establish foreign affiliates and acquire companies abroad. These subsidiaries are also used as tools of avoiding export duties, introducing more profitable tax planning (Kalotay, 2005).

The eclectic paradigm (OLI paradigm) links outward FDI with the ownership advantages and internalization of MNCs and the locational advantages of host countries. Ownership advantages include the "Oa" advantages, which consist of intangible assets and property rights, and the "Ot" advantages such as advantages of governance, learning experience and organizational competence. Russian MNCs base their international expansion on the O advantages, which are not so much connected with technology, as with organization and management (Ot). Although in recent years, a company like Lukoil has been actively investing in new technologies. Russian companies have the Ot advantages in the iron and steel industry. Moreover, the fact that foreign investment companies are more profitable than companies without foreign expansion can be considered as additional indirect evidence that the organizational and common governance-type ownership advantages are used for international expansion. As already emphasized, most Russian companies investing to foreign countries are in the energy, mining and metallurgy industries. These industries usually generate tremendous cash flows. It was natural to look for opportunities for investment abroad for this excess capital. This excess of capital can be considered as a special case of Ot advantages.

Another advantage, for example, for post-Soviet countries is familiarity with local businesses and the regulatory framework. Sometimes companies can entrust personal connections inherited from the times of the Soviet Union. It is easy to enter the country of CIS, because of the general regulatory legacy and the small language barrier. The aspect of the internalization of MNC strategies can be used to explain the behavior of Russian firms (Kalotay and Sulstarova, 2010). Companies are moving to an international expansion, developing their ownership advantages. Regarding the locational advantages of host economies, the main motives of investment for main Russian capital exporters companies are resource and market seeking. Thus, resource endowment as well as a relatively large and/or growing market can be considered as locational advantages.

However, as Kalotay (2006) suggests, more than in other countries, the environment and factors in the home-country play a key role in determining OFDI of Russia. The OLI paradigm does not have the fourth “home-country” factor. There may be sundry arguments in favor of the applicable "OLIH" theorem. One of them is the fact that the absence of home-country factors creates problems with theoretical interpretations of OFDI. It may be needed to consider state-ownership as an additional factor, as in Russia (Kalotay, 2006).

To examine Kalotay's argument, parallel regression analyses will be conducted using independent variables that are crucial indicators of a country's economic health and profitability potential. This approach will assess the impact of location advantages of the traditional OLI paradigm on Russia's OFDI.

3.3 Parallel regression of panel data

As stated earlier, this chapter aims to understand how various economic, political, and logistical factors of the receiving country, which can be grouped as Location-specific advantages, influence OFDI. Variables such as GDP growth, political stability, population, corporate tax, exchange rate, inflation, trade openness, and logistics performance are considered to capture a wide range of influences. Utilizing panel data techniques helps in accounting for both time-series and cross-sectional variations. This approach is crucial for understanding how the impact of variables on OFDI changes over time and across different countries.

As detailed in the Data preparation chapter, the dataset was constructed using data collected from various international organizations' databases. After uploading the data to STATA, the first step of the analysis was to declare the dataset as a panel dataset. Consequently, the dataset is organized as a panel, with “country_id” as the panel variable and “Year” as the time variable, spanning from 2013 to 2019. The dataset is strongly balanced, meaning that each country has complete data for each year within this range. The time increments are yearly, with a delta of one year.

To ensure the robustness of the regression analysis, a multicollinearity test was conducted using the Variance Inflation Factor (VIF). The VIF measures how much the variance of an estimated regression coefficient increases if the predictors are correlated. A VIF value greater than 10 indicates high multicollinearity, which can be problematic for regression models (Table 7).

The analysis results are as follows:

Table 7. Variance inflation factor

	VIF	1/VIF

Political Stability	1.818	.55
Logistics index	1.566	.639
Corporate tax	1.521	.658
Trade openness	1.507	.663
Population	1.426	.701
Exchange rate	1.384	.722
Inflation	1.331	.751
GDP growth	1.139	.878
Mean VIF	1.462	.

Source: author's own work based on Stata analysis

Each variable individually shows a low level of multicollinearity. The mean VIF for all the variables in the model is 1.462, which signifies an overall low level of multicollinearity. This indicates that the variables in the regression model are not highly correlated, minimizing the risk of multicollinearity issues in the analysis. Since all VIF values are well below the threshold of 10, multicollinearity is not a concern in this analysis. This enhances the reliability of the regression coefficients, ensuring they are not significantly affected by correlations among the predictor variables.

After declaring the dataset as a panel and checking for multicollinearity, a regression has been run in Stata. To determine if panel data analysis is necessary, the Breusch and Pagan Lagrangian multiplier test for random effects was conducted using the xttest0 command (Table 8). The following results were obtained:

Table 8. Breusch and Pagan Lagrangian multiplier test for random effects

OFDI[country_id,t] = Xb + u[country_id] + e[country_id,t]

Estimated results:	Var	SD = sqrt(Var)
OFDI	1.003774	1.001885
e	.0436128	.2088367
u	.8785928	.9373328
Test: Var(u) = 0		

	chibar2(01) = 616.91
	Prob > chibar2 = 0.0000

Source: author's own work based on Stata analysis

The estimated results show the variance (Var) and standard deviation (SD) for OFDI, residuals (e), and the random effects (u). For OFDI, the variance is 1.003774 and the standard deviation is 1.001885. For the residuals (e), the variance is 0.0436128 and the standard deviation is 0.2088367. For the random effects (u), the variance is 0.8785928 and the standard deviation is 0.9373328.

The test hypothesis was whether the variance of the random effects (Var(u)) is equal to zero. The test statistic, chibar2(01), is 616.91 with a p-value of 0.0000. This result strongly rejects the null hypothesis, indicating that the panel data structure is appropriate and that random effects are present in the model. Thus, the Pooled OLS Model is less suitable.

To evaluate whether the preferred model in panel data analysis should be the fixed-effects model or the random-effects model the Hausman test was used. This test helps determine whether there is a correlation between the independent variables and the error terms, which affects the consistency and efficiency of the estimators (Green, 2012).

In panel data analysis, deciding between FE and RE models is crucial. The FE model controls for time-invariant characteristics by allowing the intercept to vary across individuals. The RE model assumes these individual effects are random and uncorrelated with the regressors, providing more efficient estimates if the assumption holds (Wooldridge, 2010). The test involves estimating both FE and RE models and comparing their coefficients. The null

hypothesis (H0) states that the preferred model is RE, meaning the differences in coefficients are not systematic. If the null hypothesis is rejected, it implies that the FE model is more appropriate (Table 9).

Table 9. Hausman test results

---- Coefficients ----

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	FE	RE	Difference	Std. err.
GDP_growth	-0.008	-0.009	0.001	.
Political_~y	0.051	0.086	-0.035	0.028
Population	-2.103	0.079	-2.183	0.857
Corporate_~x	-0.050	-0.017	-0.033	0.019
Exchange_r~e	-0.001	-0.002	0.001	0.053
Inflation	0.004	-0.010	0.013	0.004
Trade_open~s	-0.061	-0.017	-0.044	0.092
Logistics_~x	-0.091	-0.051	-0.040	0.011

b = Consistent under H0 and Ha; obtained from xtreg.
B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

chi2(8) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 24.64
Prob>Chi2 = 0.0018
(V_b-V_B is not positive definite)

Source: author's own work based on Stata analysis

FE Coefficients (b): These are the estimates obtained from the fixed-effects model. RE Coefficients (B): These are the estimates obtained from the random-effects model. Difference (b-B): This column represents the difference between the FE and RE coefficients. Std. Err.: Standard error of the difference. The p-value for the test is 0.0018, which is less than 0.05. Therefore, we reject the null hypothesis that the preferred model is the

random-effects model. This result indicates that the fixed-effects model is more appropriate for this analysis because there is a systematic difference in the coefficients, suggesting that the RE model's assumption of no correlation between the regressors and the individual effects is violated.

Before proceeding to implement the fixed-effect model, the Modified Wald test has been utilized. The Modified Wald test for groupwise heteroskedasticity is used to detect the presence of heteroskedasticity in a fixed-effects regression model (Table 10). Heteroskedasticity occurs when the variance of the error terms differs across observations or groups, which can lead to inefficient estimates and invalid statistical inferences.

Table 10. Modified Wald test for groupwise heteroskedasticity in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i
chi2 (38) = 1.9e+06
Prob>chi2 = 0.0000

Source: author's own work based on Stata analysis

The chi-square test statistic is calculated for 38 groups and the value 1.9e+06 is extremely large, indicating a significant deviation from the null hypothesis of homoscedasticity. The p-value of 0.0000 is less than any common significance level (e.g., 0.05, 0.01), providing strong evidence to reject the null hypothesis. Given these results, we reject the null hypothesis and conclude that there is significant evidence of heteroskedasticity in the fixed-effects regression model. This implies that the variance of the error terms differs across the groups in the panel data.

In summary, the Modified Wald test indicates that the fixed-effects regression model suffers from groupwise heteroskedasticity. Consequently, it is crucial

to use robust standard errors to ensure the reliability of the regression results and statistical inferences. Thus, the fixed-effects regression model with robust standard errors adjusted for clustering by country_id was used to provide insights into the factors influencing outward foreign direct investment (Table 11).

Table 11. The fixed-effects regression model with robust standard errors adjusted

Fixed-effects (within) regression Number of obs = 266
Group variable: country_id Number of groups = 38
R-squared: Obs per group:
Within = 0.0528 min = 7
Between = 0.0167 avg = 7.0
Overall = 0.0158 max = 7
F(8, 37) = 1.06
corr(u_i, Xb) = -0.9181 Prob > F = 0.4141
(Std. err. adjusted for 38 clusters in country_id)

OFDI	Coefficient	Robust std. err.	t	P>t	[95% conf.	interval]
GDP_growth	-0.008	0.007	-1.130	0.267	-0.022	0.006
Political_Stability	0.051	0.079	0.650	0.522	-0.110	0.212
Population	-2.103	1.736	-1.210	0.233	-5.622	1.415
Corporate_tax	-0.050	0.034	-1.490	0.144	-0.118	0.018
Exchange_rate	-0.001	0.041	-0.030	0.975	-0.085	0.082
Inflation	0.004	0.030	0.120	0.906	-0.057	0.064
Trade_openness	-0.061	0.107	-0.570	0.573	-0.278	0.156
Logistics_index	-0.091	0.051	-1.770	0.084	-0.195	0.013
_cons	-0.000	.	.	.	.	.
sigma_u	2.490					
sigma_e	0.209					
rho	0.993	(fraction of variance due to u_i)				

Source: author's own work based on Stata analysis

The analysis includes 266 observations across 38 countries. The within R-squared is 0.0528, indicating that about 5.28% of the variation in OFDI within countries over time is explained by the model. The between R-squared is 0.0167, indicating that about 1.67% of the variation in OFDI between countries is explained by the model. The overall R-squared is 0.0158, indicating that about 1.58% of the overall variation in OFDI is explained by the model. The F-statistic is 1.06, with a p-value of 0.4141, suggesting that the independent variables do not collectively explain a significant portion of the variation in OFDI.

GDP growth has a coefficient of -0.008 with a standard error of 0.007, a t-value of -1.130, and a p-value of 0.267. The 95% confidence interval is [-0.022, 0.006]. This suggests that GDP growth has a negative but not statistically significant effect on OFDI, indicating that changes in GDP growth do not have a clear impact on OFDI within the sample.

Political stability has a coefficient of 0.051 with a standard error of 0.079, a t-value of 0.650, and a p-value of 0.522. The 95% confidence interval is [-0.110, 0.212]. This suggests that political stability has a positive but not statistically significant effect on OFDI, indicating that political stability does not have a discernible impact on OFDI within the sample.

Population has a coefficient of -2.103 with a standard error of 1.736, a t-value of -1.210, and a p-value of 0.233. The 95% confidence interval is [-5.622, 1.415]. This suggests that population size has a negative but not statistically significant effect on OFDI, indicating that variations in population size do not significantly influence OFDI.

Corporate tax has a coefficient of -0.050 with a standard error of 0.034, a t-value of -1.490, and a p-value of 0.144. The 95% confidence interval is [-0.118, 0.018]. This suggests that corporate tax rates have a negative but not statistically significant effect on OFDI, indicating that changes in corporate tax rates do not have a significant impact on OFDI within the sample.

The exchange rate has a coefficient of -0.001 with a standard error of 0.041, a t-value of -0.030, and a p-value of 0.975. The 95% confidence interval is [-0.085, 0.082]. This suggests that the exchange rate has a negligible and statistically insignificant effect on OFDI, indicating that fluctuations in the exchange rate do not significantly impact OFDI.

Inflation has a coefficient of 0.004 with a standard error of 0.030, a t-value of 0.120, and a p-value of 0.906. The 95% confidence interval is [-0.057, 0.064]. This suggests that the inflation rate has a positive but statistically insignificant effect on OFDI, indicating that inflation does not significantly influence OFDI.

Trade openness has a coefficient of -0.061 with a standard error of 0.107, a t-value of -0.570, and a p-value of 0.573. The 95% confidence interval is [-0.278, 0.156]. This suggests that trade openness has a negative but statistically insignificant effect on OFDI, indicating that variations in trade openness do not have a significant impact on OFDI within the sample.

The logistics performance index has a coefficient of -0.091 with a standard error of 0.051, a t-value of -1.770, and a p-value of 0.084. The 95% confidence interval is [-0.195, 0.013]. This suggests that the logistics performance index has a negative effect on OFDI, which is marginally significant at the 10% level, indicating that better logistics infrastructure might be associated with

lower OFDI, though this result is not robust at conventional significance levels.

The variance components include sigma_u (2.490), which represents the standard deviation of the country-specific effects, and sigma_e (0.209), which represents the standard deviation of the residuals. The rho value (0.993) indicates that a significant portion of the variance in OFDI is attributed to differences across countries rather than within-country changes over time.

Overall, the fixed-effects regression with clustered standard errors suggests that the included independent variables do not have a significant impact on OFDI within the sample. The high rho value indicates that most of the variation in OFDI is due to differences across countries. The model's low R-squared values suggest that these variables explain a small portion of the variance in OFDI, and the non-significant F-statistic implies that the independent variables do not collectively explain a significant amount of variation in OFDI. Robust standard errors were used to account for heteroskedasticity, ensuring more reliable inference.

Based on the fixed-effects regression analysis, it is evident that location-specific advantages do not significantly impact Russia's OFDI. The variables representing location advantages—such as GDP growth, political stability, population size, corporate tax rates, exchange rate, inflation, trade openness, and logistics performance—show no statistically significant effects on OFDI. These variables explain only a small portion of the variance in OFDI, and most of the variation in OFDI is due to differences across countries rather than within-country changes over time. Therefore, it can be concluded that location advantages are not a determining factor for Russian OFDI.

Russian OFDI still occurs and contradicts traditional theories and models, such as Dunning's eclectic paradigm. As Kalotay (2006) suggests, the home-country environment and factors play a more significant role in determining Russia's OFDI compared to other countries. According to the author, the OLI paradigm lacks this fourth "home-country" factor.

The international expansion of Russian firms is closely related to the reforms undertaken over the past three decades: privatization and attempts to restructure the industry to keep up with technical progress. The state played an important role in the emergence of Russian outward direct investment. State-owned enterprises have several advantages such as administrative support, access to loans from the central bank etc. These advantages contribute to their internationalization. At the same time, the influence of the state remains significant even in fully privatized companies. However, the influence of the state varies by industry. It directly influences the energy sector and in indirect form to others, stimulating their development (Panibratov and Latukha, 2014).

Panibratov and Latukha (2014) developed a theoretical framework reflecting an influence of two critical determinants on the formation of the competitive advantages of Russian MNCs. These determinants are the interest of the state and control by state. They grouped Russian companies according to the state role based on the determinants.

The first group is with a high level of both determinants. This group includes companies from industries such as oil and gas, mining, electricity, military. The sectors in the group are strategically important from an economic and political point of view for the country. The state interest in these sectors is great. Moreover, the state controls the activities of firms strictly. Capital

requirements are high because of the complexity and scale of the infrastructure.

The second group has a high level of state interest but low control by the state. It consists of banking, telecom, metallurgy, IT. The government wants to develop these sectors. The reason is the representative nature of their image. Requirements of infrastructure and capital are moderate. Firms can invest in internationalization independently of the state and the government understands that. Consequently, the state does not control the activities of these companies directly.

The third group has a high level of control by the state and a low level of interest. These sectors are media, education, sport. These industries are more important socially and politically than economically. The state can influence the home country's population or other countries' governments. The state controls these companies' activities. Complicated and extensive infrastructure is not required as well as technology requirements are low. However, the capital requirement can be relatively high to provide growth.

The last group contains the following sectors: automotive; logistics; building; fast food. It is characterized by low levels of both determinants (low interest and control by the state). Capital and infrastructure requirements in these sectors are medium and even low. The government is not interested in developing these sectors. However, it takes care of companies in a particular industry such as automotive industry but formally. The government avoids control over the activities of these companies. Progressive technologies can compensate for the lack of capital for growth.

The authors developed this framework to explain how the multi-level influence associated with government leads to different internationalization strategies. Moreover, this indicates that strategic choice patterns are

determined at the industry level and modified according to the characteristics of a particular firm. The results of the researcher's analysis allow to understand the state influence on competitive advantages of Russian MNCs based on their grouping in an empirically grounded framework.

For Russian MNCs the role of state ownership and the political aspects connected with it are stronger than for MNCs from developed countries. For example, Russian embassies abroad usually assist in obtaining important information, which allows Russian companies to establish initial contacts with foreign companies. Political support from the government is often used to reduce protectionism in countries such as Belarus or Venezuela. In addition, the role of the state for Russian MNEs is fulfilled through such schemes as "investment-for-debts". It allows companies to borrow money from financial institutions related to the state and then reinvest these funds into their international projects. Such cooperation carries political obligations, since these companies are linked to Russia's foreign policy and interests. Governments can stimulate outward direct investment and exports through various economic and financial instruments. It can be tax rebates, legal restrictions and economic diplomacy etc. Government activity is a decisive factor explaining the evolution of Russian OFDI. However, despite the statement of strategic support, the Russian government has not yet developed a successive policy of helping its MNCs in their global expansion. (Panibratov and Michailova, 2018).

Furthermore, historically, international trade and investment was the state monopoly in the Soviet Union, and then in post-Soviet Russia. It can be said that the government has much experience and knowledge in doing business at the international level. Thus, since the government actively participates in the overseas business strategy of companies, this adds the knowledge and

experience presented by the government in the international activities of Russian MNCs.

However, it is worth noting that most of the representatives of the Russian political and business elite come from the Soviet period of Russian history and they are interrelated. People in the governance structures of both state bodies and corporations are the same and belong to the same interest group. It leads to the development of patronage systems and bribery; thereby public bodies do not consider the interests of small companies. Moreover, because of this close relationship between the government and the Russian MNCs, management and ownership are often used as a political tool in the international affairs of the state (Michailova and Nechaeva, 2014).

Thus, the internationalization history of Russia is closely connected with the privatization processes. It occurred after the collapse of the Soviet Union, and mainly considers the expansion of companies based on natural resources such as Gazprom, Lukoil, Norilsk Nickel and others.

The role of the government remains important in the activities and strategies of Russian MNCs. The Russian government gives preference to the CIS countries, rather than the rest of the world, not only because of geographic proximity or similar language, but also because of strong political connections.

4. CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

This dissertation investigates the distinctive role of foreign direct investment in the economic development of the Russian Federation, highlighting significant deviations from traditional FDI theories. The study determined the main features of Russian outward FDI, emphasizing the unique factors that differentiate Russia from other economies and challenging the applicability of classic models such as the Investment Development Path and the OLI-framework.

The inadequacy of traditional theories like the IDP, which describes a sequential evolution of FDI from inward to outward, is evident in their failure to capture Russia's unique trajectory. Unlike many economies, Russia has often exhibited higher levels of outward FDI compared to inward FDI, primarily driven by geopolitical considerations and strategic resource acquisition, rather than typical economic development stages. The study's parallel regression analysis further reveals that the OLI-framework, which emphasizes Ownership, Location, and Internalization advantages, does not sufficiently account for Russian FDI patterns. Specifically, location advantages seem not play a significant role for Russian multinationals.

The characteristics of Russian OFDI are shaped by significant geopolitical factors, such as Western sanctions and international political dynamics, which compel Russian multinationals to seek investment opportunities in non-traditional markets. This behavior challenges the assumptions of classical FDI models that focus primarily on economic motivations. Russian companies strategically use FDI to secure access to critical resources and technology, rather than simply seeking new markets. This strategy marks a departure from

traditional models, which typically associate outward FDI with market-seeking motives prevalent in other emerging economies.

Thus, reviewing the initial hypotheses of this dissertation, the findings confirm the first two hypotheses, demonstrating that the IDP model is inadequate for capturing the unique FDI patterns of the Russian economy, which are significantly influenced by geopolitical considerations and state ownership. These findings underscore the role of non-traditional factors, such as political alliances and state-directed strategies, in shaping Russian outward FDI. However, the third hypothesis is rejected (Table 12). This highlights a divergence from typical economic motivations and emphasizes the strategic and geopolitical nature of Russian FDI. Thus, it is concluded that a comprehensive understanding of Russian FDI necessitates a framework that encompasses both economic and non-economic factors, accounting for the country's complex motivations and global strategy.

Table 12. Hypothesis review

Hypothesis Number	Short Description of Hypothesis	Status
H1	The IDP model is inadequate for identifying the development stage of the Russian economy due to unique economic and geopolitical characteristics.	Accepted
H2	Geopolitical considerations and state ownership significantly influence the patterns and destinations of Russian OFDI.	Accepted
H3	Russian investment is significantly attracted to locations with favorable economic conditions in the host economy, reflecting strong economic fundamentals.	Rejected

Source: author's own work

The rise of new actors in global capital movement, particularly from BRICS nations like Russia and China, has redefined the landscape of international investments. Russian corporations, often state-owned, are becoming significant global players as their cross-border investment activities increase.

The unique relationship between these multinational corporations and the state necessitates a modification of existing conceptual approaches to understanding FDI, with a focus on the specific characteristics of these firms and their connections to state objectives.

Thus, the findings emphasize the need for a revised theoretical framework that captures the unique characteristics of Russian FDI. Policymakers should focus on fostering an environment that supports the strategic objectives of Russian firms, particularly in sectors with competitive advantages. An important task is to ensure the coherence of Russia's investment policy at both international and national levels, while also enhancing the effectiveness of Russian companies' strategies for international business development and improving corporate governance of foreign assets. Ultimately, achieving these strategic goals requires political will and professional dedication to reform and innovation.

4.2 Recommendations and implications

The findings from this study provide valuable insights into the unique nature of Russian outward foreign direct investment and offer several implications for policymakers and businesses aiming to optimize the benefits of OFDI. The research demonstrates that traditional FDI theories often do not adequately capture the specific characteristics and strategic motivations driving Russian multinationals. Therefore, a tailored approach to understanding and managing OFDI is essential for maximizing its positive impact on the Russian economy.

To begin with, it is crucial for the Russian government and policymakers to develop a comprehensive FDI strategy that aligns with the distinctive features of Russian firms. This strategy should emphasize the importance of ownership and internalization advantages, rather than relying solely on location

advantages. Such a strategy would help Russian multinationals better leverage their proprietary technologies and resources, facilitating more effective competition in global markets.

The study highlights the significant role of geopolitical factors and the need for Russian firms to adapt by exploring investment opportunities in non-traditional markets. Therefore, policymakers should focus on building robust diplomatic and economic ties with emerging markets, especially in Asia, Africa, and Latin America. Developing bilateral agreements and trade partnerships with these regions can open new avenues for Russian investments, reducing reliance on traditional Western markets.

The findings of this study can guide future research into the development of a new theoretical framework that accurately reflects the nuances of Russian OFDI. Researchers and academicians can build on this work to explore the long-term effects of FDI on the Russian economy, particularly considering ongoing geopolitical changes and economic sanctions. Additionally, future studies could examine the role of domestic policies and technological advancements in shaping Russia's investment strategies.

Overall, this research contributes to a deeper understanding of the complexities of Russian OFDI. By embracing a tailored approach to FDI and implementing targeted policies, Russia can harness the full potential of OFDI to drive sustainable economic growth and innovation.

4.3 Limitations and future research directions

As with any research, this study has certain limitations that must be acknowledged. One of the primary limitations is that the study's focus on Russian outward foreign direct investment may not fully capture the diverse

range of factors influencing FDI flows across different regions and sectors. Given Russia's vast geographical and economic landscape, future research could benefit from a more granular approach, examining specific industries or regional dynamics within Russia to provide a more comprehensive understanding of OFDI patterns.

Furthermore, the data used in this study may be subject to inaccuracies due to methodological differences between sources such as the Central Bank of Russia and OECD. Future studies could aim to standardize data collection methods or incorporate additional data sources to enhance the robustness of findings.

Future research could conduct comparative studies between Russia and other emerging economies, such as other BRICS countries, to explore how geopolitical factors and domestic policies uniquely shape FDI strategies. Utilizing advanced statistical techniques could provide deeper insights into these comparative dynamics.

Moreover, this study challenges the applicability of traditional FDI theories, such as the Investment Development Path and the OLI-framework, to the Russian context. Future research could work towards developing a theoretical framework that better reflects the nuances of Russian OFDI.

Thus, this study provides a foundation for future research aimed at deepening the understanding of Russian OFDI. By addressing the limitations identified here and exploring new theoretical and empirical avenues, future research can contribute to more effective policymaking and strategic planning for Russia's global economic engagement.

5. NEW SCIENTIFIC RESULTS

Based on the research conducted, the following new scientific results can be stated, providing fresh insights into the nature and drivers of Russian OFDI:

1. Based on my research, I proved that the data of the Organization for Economic Cooperation and Development and the Central Bank of Russia differ significantly, which stem from the unique characteristics of Russian OFDI, in addition to the relationship with offshore financial centers. For this very reason, these differences represent a significant limitation in the accurate assessment of the presence of Russian capital in OECD countries, which requires caution when interpreting OFDI data.
2. During my research, I verified with the help of SPSS that there is no statistically significant correlation between NOI and GDP by performing a multiple linear regression analysis. This insignificance indicates that the traditional IDP model, which has been widely used in other economies, does not adequately capture the specificities of Russian OFDI.
3. With my research, I confirmed that Russian OFDI is not significantly driven by the attractiveness of the host countries, and I also proved that Russia's investment character is unique, which does not correspond to traditional economic theories, such as the OLI framework.

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