

Determinants of location choice of Chinese, Japanese and US direct investment in Russia

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Abstract

This paper analyzes empirically the determinants of Chinese, Japanese and US FDI location choice among Russian regions using a firm-level data set obtained from Russian State Statistical Agency. Firstly, we find that the important factors of FDI location choice for all three countries studied considered include both traditional determinants of location choice (market potential and quality of transportation infrastructure in a particular Russian region), institutional factors (democracy development in the region), and within-industry agglomeration effects. In addition, we find that while positive agglomeration effects dominate among foreign firms from the same country of origin investing in Russia, competition effects (i.e. negative agglomeration effects) prevail among foreign firms from different countries.

Keywords: FDI location choice, China, Russia, Japan, USA, conditional logit model

1. Introduction

Foreign Direct Investment (FDI) is one of the recent phenomena in the global economy. FDI has become very important in transmission of economic resources between countries. Especially emerging economies consider FDI as a vital channel for economic development. A large amount of research has appeared in recent years on potential determinants of FDI and FDI location in emerging economies (see e.g. Bevan *et al.* 2004; Frenkel *et al.* 2004; Meyer & Nguyen, 2005; Kang & Lee, 2007; Majocchi & Strange, 2007).

Russia, being a transition economy and former socialistic super power, has attracted a special attention from academic scholars in this stream of research. Though Russia did not manage to attract significant amounts of FDI during its transition, in recent years FDI flows into Russian economy have been growing considerably. In the international arena, Russia has ranked among the largest FDI recipients since 2006 (Curtis *et al.* 2009). Becoming more and more attractive FDI destination, Russia intrigues international scholars investigating FDI determinants. To the best of our knowledge previous empirical studies analyzed regional distribution of aggregate FDI across Russia, i.e. they did not differentiate between countries of origin of FDI. In this study we partly address this issue analysing determinants of Chinese, Japanese and United States of America (US) FDI location choice across Russian regions.

Why we focus on those countries? China is rapidly becoming an important source of outward FDI (OFDI). China's OFDI flow and stock now stand as the 4th and 6th largest, respectively, among developing countries. Most of the increase in China's OFDI has taken place since 2000 when China officially initiated a `go global` strategy to promote its OFDI¹. According to China FDI Statistics report of Ministry of Commerce and China Statistics Bureau (Morck *et al.*, 2007), among top destinations of Chinese FDI in the period of 2003-2004 were Hong Kong, Cayman Islands, British Virgin Islands, USA and Russia. However the share of Russia in Chinese OFDI has been the smallest among entitled countries and amounted only to 1,4%. This partly explains why Chinese investment in Russia received scant attention. However, in recent study, Korniyenko and Krkoska (2008) analyze China's direct investment in Russia and suggest that Russia is an important target market for Chinese investors.

Japan and the USA, being among major source countries of FDI in the world economy, are also major trading and investment partners of China (Greaney & Li, 2009; Kawai & Zhai, 2009). In this

¹ <http://www.oecd.org/dataoecd/28/10/40283257.pdf>

paper we suggest that due to high economic dependence between these countries, their international investment strategies might be also interrelated. In particular we study if there are cross-country within-industry agglomeration effects of FDI between China, Japan and USA in Russia (either positive or negative). Though in prior research agglomeration economies have been recognized as an important determinant of FDI location choice (see e.g. Head *et al.*, 1995; Cheng & Kwan, 2000; Guimarães *et al.*, 2000; Sun *et al.*, 2002; Du *et al.*, 2008), to the best of our knowledge, there has not been a study focusing on cross-country agglomeration effects.

Our main empirical findings can be summarized as follows. Firstly, we find that market potential, quality of transportation infrastructure, democracy development and agglomeration effects in a particular Russian region are important factors of location choice of foreign investment from all three countries considered. Secondly, we find that while agglomeration effects dominate among foreign firms from the same country of origin investing in Russia, competition effects (i.e. negative agglomeration effects) prevail among foreign firms from different countries.

2. Literature review

The factors determining the FDI location choice have been extensively studied in the FDI literature in the two recent decades (Coughlin *et al.*, 1991; Friedman *et al.*, 1992; Wheeler & Mody, 1992; Head *et al.*, 1995; Chen, 1996; Cheng & Kwan, 2000; Crozet *et al.*, 2004; Boudier-Bensebaa, 2005; Hilber & Voicu, 2007; Kang & Lee, 2007; Chen, 2009. Kang & Lee (2007) classify the main determinants of FDI location choice suggested in prior research into following categories: market-access factors, labor costs, infrastructure, government policies, agglomeration effects and market potential effects. In addition, institutional factors affecting FDI location choice have started to gain research interest in the recent years (see e.g. Du *et al.*, 2008; Meyer & Nguyen, 2005; Bevan *et al.*, 2004). Moreover, the

geographical coverage of studies on FDI location choice is quite wide. Studies empirically focusing on emerging economies have analyzed FDI performance of a number of transition economies on national level (Bevan *et al*, 2004) or location choice on a sub-national level within a single country (Boudier-Bensebaa, 2005; Meyer & Nguyen, 2005; Du *et al*, 2008).

Institutions and FDI location choice

The impact of institutions on FDI location choice and FDI performance of different countries is a complex issue due to the multidimensional nature of institutions. As a consequence, the indicators applied to measure institutions have varied across different studies. Some researchers have selected a set of measures representing either formal or informal institutions, the geographical focus being often in emerging economies (Bevan *et al.*, 2004; Meyer & Nguyen, 2005; Du *et al.*, 2008). Others have focused on a single institutional factor, such as corruption, and its relationship to FDI behavior (see e.g. Habib & Zurawicki, 2002; Egger & Winner, 2005; Meschi, 2009).

Most studies have found a positive relationship between the quality of institutions and FDI performance, but for informal institutions such as corruption the existing evidence is contradictory (Meschi, 2009). Similarly, the impact of democracy, which is closely related to corruption, on FDI location choice is a topic for debate. Opponents of multinational corporations (MNCs) in developing and transition countries claim that MNCs support repressive regimes and/or neglect democratic rights (see e.g. Greider, 1998). However existing empirical evidence does not support this view. There have been only few empirical studies on the impact of democracy on foreign investment. Rodrik (1996) found that countries with weaker democratic rights attract less US capital. Later, Hurms and Ursprung (2002) showed that democratic rights and foreign investment are positively associated in their country sample of 62 emerging markets and developing economies. Busse (2004) confirmed the empirical

findings by Rodrik (1996) and Harms and Ursprung (2002) in the sample of 69 emerging market and developing economies in the period from 1971 to 2001. The mentioned studies explore the impact of international variation of the level of democratization on foreign investment. However, political systems vary not only internationally, but also within individual countries (especially federations). Developing and transition countries often demonstrate the co-existence of significantly different political systems in different regions of the same country (Libman, 2008). In this paper we argue that differences in democracy development within a large federation like Russia matter for foreign investment location choice across that country. A recent study (Karhunen & Ledyeva, 2010), using aggregate data from the same data set, finds strong evidence that Russian regions with higher democracy attract more foreign investment. Thus we expect that regional democracy development is positively related to the location choice of foreign investment across Russia.

Agglomeration effects and location choice

Agglomeration has been recognized as one of the important determinants of firm location choice. The new economic geography literature (Krugman, 1991) has suggested that investment location decisions by multinationals may be explained by agglomeration economies (Cantwell & Iammarino, 2000). There are numerous empirical studies analyzing the effect of agglomeration on FDI location choice (see e.g. Head *et al.*, 1995; Cheng & Kwan, 2000; Guimarães *et al.* 2000; Sun *et al.*, 2002; Du *et al.*, 2008). In general studies about the impact of different aspects of agglomeration phenomenon on FDI location choice confirm that agglomeration economies tend to have a self-reinforcing effect on foreign investment, since positive externalities tied to the economic agglomeration seem to be crucial for firm productivity (Ellison & Glaeser, 1997).

In general agglomeration is the clustering of economic activity, created and sustained by some sort of circular logic (Fujita *et al.* 1999, p.16). In turn, according to Majocchi and Presutti (2009) “agglomeration economies emerge when many different economic units, with common characteristics, collect near each other due to the presence of factors like knowledge spillovers but also specialized labour markets, supplier networks and so on”.

In this paper we study agglomeration economies which appear as a result of clustering of economic activity within the same industry/sector. In particular we analyze *localization* economies of scale. These are specialized economic advantages stemming from close geographic proximity that benefit specific industries only (Morosini, 2004). According to Marshall there are three key explanations of localization economies of scale. First, firms locate close together geographically because this allows them to develop a pool of specialized labor that is highly skilled for the specific needs of an industry. Second, these firms can provide non-traded input specific to an industry, i.e. they can experience economies of scale in developing and using common technologies or a particular capital infrastructure. Third, firms that join together geographically can generate a maximum flow of information and ideas (i.e. technological and knowledge spillovers arise).

Prior research supports the positive relationship between localization economies (industrial clustering) and location choice of FDI. For instance, Head *et al.* (1995) find industry-level agglomeration benefits play an important role in the location choice of Japanese manufacturing plants in the US. Majocchi and Presutti (2009) found that investments by multinationals are attracted by those areas that combine industrial cluster characteristics with an agglomeration of foreign firms. In our paper we further refine the analytical framework of analyzing the impact of industry-level agglomeration on FDI location choice. In particular we distinguish between two types of such effects. First effect comes from foreign investors of the same country of origin in the same industry. Second effect comes from foreign investors of the countries which are considered to be important trading and

investment partners for that particular foreign investor, i.e. so called cross country agglomeration effect. In our study we focus on three such partners: China, Japan and the USA.

While the first effect is quite well documented in the FDI location choice literature, the second one has not yet attracted much attention. Therefore we introduce some relevant arguments for the inclusion of this effect into our empirical analysis. In particular we argue that the localization economies` effects coming from the foreign investors of trade and investment partners` countries can be two-fold. On the one hand they can be positive since all three Marshall`s explanations apply quite well to such effects. On the other, there are grounds for negative effects (i.e. competition effects). According to Hannan and Freeman (1977) the more overlapping the organizations` domains, the more they require similar resources to operate and the more intense their competition will be. Tsang and Yip (2009) further argue that “Since physical location is a key domain of a firm`s operation, the closer together the firms, the more strongly they will compete against each other. This suggests that proximity is closely associated with intensity of competition.” We argue that these competition effects are stronger for the second type of outlined effects. The presence of foreign investors of the same country of origin most likely will not create too much competition since it is reasonable to suggest that closely located foreign investors of the same country of origin and in the same industry will more tend to cooperate than compete. However the strength of competition effects relative to agglomeration effects can be larger for the foreign investors from other countries. It is more likely that foreign investors in the same industry and from different countries will treat each other as competitors in the same host location.

3. Empirical model specification

We model the location decision of foreign direct investors in Russia as a McFadden (1974) conditional logit model where the dependent variable is the region chosen by each investor. We assume that each investor chooses the region that would give the greatest profit. Then, to measure the profitability of each investment, the profits of investor i in region r is taken to depend on the sets of explanatory variables. We present the probability of region r for investor i as follows:

$$\beta x_{ir} + \varepsilon_{ir} \quad (1)$$

where x_{ir} is a vector of attributes specific to the r th region as preserved by the i th investor. ε_{ir} is an idiosyncratic shock. Using properties of type I extreme-value (or Gumbel) distribution, the probability that investor i chooses region r from among the choices in his choice set R_i is:

$$P(y_i = r) = P_{ir} = P[x_{ir}\beta + \varepsilon_{ir} \geq \max_{k \in R_i, k \neq r} (x_{ik}\beta + \varepsilon_{ik})] = \frac{\exp(x_{ir}\beta)}{\sum_{k \in R_i} \exp(x_{ik}\beta)} \quad (2)$$

where y_i is a random variable that indicates the choice made. In our model there are 76 choices (i.e. regions) in each investor's choice set, R_i . Maximum likelihood techniques use these probabilities to estimate the coefficients. The model is estimated in SAS using PROC MDC.

Since the dependent variable of conditional logit model depends on the profit that investor gets investing into a particular region, the set of explanatory variables is assumed to affect two basic factors which influence profit: the revenues accrued and costs borne by the investors.

4. Data and variables

Our initial data set consists of about 24 000 firms with foreign ownership that were registered in Rosstat (the Russian State Statistical Agency) by the year of 2008. For each of these firms we have data on capital structure up to 10 founders/investors (country of origin, share of capital) on the registration date. In this study our empirical analysis is based on Chinese, Japanese and US direct investors (founders) of those firms (i.e. with share of capital more than 10%). Since we focus on FDI location choice we analyze only those foreign investors who have equal to or more than 10% share in the capital of a particular firm registered in Russia. We also excluded from the analysis firms with multiple foreign ownership (when foreign capital of a firm is represented by several foreign firms/multinational companies either from the same country or from different countries), i.e. we retain only foreign companies that are fully owned by one foreign entity (MNE, foreign company) and joint ventures between one foreign company/MNE and any number and any type (company, citizen, authority) of Russian partner/s.

Explanatory variables have been selected according to the existing literature on location choices of FDI, data availability and particularities of Russian economy. These include traditional factors directly affecting expected costs and revenues of the investment, institutional characteristics of the region, and agglomeration effects.

First, we introduce the variables, which reflect the FDI gravity model's hypothesis either through profits or direct costs. On the profit side, we expect that larger market size should make MNCs' location more profitable, as larger sales would allow investors to recover the fixed set-up cost of foreign production (Basile *et al.* 2008). Our market potential variable *MARKET* is the first principal component of three variables (gross regional product, total population and population density in a region i ($i=1, \dots, 76$)). The same indicator for market potential of Russian regions has been used in the study of Iwasaki and Sukanuma (2005) and Ledyeva (2009). The proportion of variance of the first

component reaches 80%, and furthermore, its eigenvector and component loading show that this variable is suitable as a general index of the market size. The variable is taken as average for the period of 1995-2008.

Moreover, we expect that a better educated labor force should increase the productivity and thus the profitability of a firm's activities in a given region, i.e. the impact of population's educational background on location choice should be positive. Our educational background of population variable *EDU* is measured by the share of population with at least medium level of professional education to population with no professional education in a particular Russian region in the year of 2002.

On the cost side we introduce four variables, which affect either transportation costs or costs for acquiring factors of production. The first one is the distance between host Russian region and home country, which is expected to influence transportation costs of a foreign investor. We include this *DIST* variable for Chinese and Japanese models but not for the USA since in the latter case it is not possible to find a reasonable distance measure due to data limitations. USA has a very large territory (as Russia) and thus the adequate measure of distance between USA and particular Russian region should also take into account a location in the USA (e.g. state, city). However we do not have such a data and thus we drop this variable from the USA model. The distance for China is measured as: 1 – border regions; 2 – other regions in the Far East; 3 – Siberian regions; 4 – other Russian regions. The distance for Japan is measured as: 1 – Far Eastern regions; 2 – Siberian regions; 3 – Other Russian regions.

Second, we introduce two variables to measure the level of transport infrastructure's development in a particular Russian region, which should have an impact on transportation costs of a foreign investor. The first one *PORT* reflects the presence of a sea port in a particular Russian region (equals to one if there is at least one sea port in a region and 0 otherwise). The second one *ROADS* reflects the development of railways and highways in a region and is measured by average density of

railways and highways, as average for the period of 1990-2007. We expect both indicators to be positively related to the dependent variable.

Third, we suggest that natural resources` availability is positively associated with location choice, since, firstly, it lowers the costs associated with obtainment of natural resources needed for local production and, secondly, a foreign firm might be interested in natural resources themselves (i.e. in their export to its home country). We measure natural resources` potential variable *RES* by *Expert* journal average regional natural resources potentials` ranks of the period of 1995-2007 (from 1 to 89: 1 corresponds to the highest potential and 89 – to the lowest potential).

Institutional variables

In addition to traditional explanatory variables applied in FDI and location choice literature, we include in our model a number of explanatory variables measuring the institutional conditions in the host region. In general we expect that the foreign investor would select a region with more favorable institutional environment.

First, we expect that the predictability of the regional investment legislation would affect the choice of region where to invest. This is measured by regional legislative risk as calculated by online *Expert* journal. Regional legislative risk *LEG* is a rank from 1 to 89 for a particular Russian region where a firm is located as average for the period of 1995-2007. 1 is assigned to a region with the smallest risk and 89 – to a region with the largest risk.

Second, we expect that the general quality of market economy institutions in the region is positively related to the decision to select it as foreign investment location. We measure this with the regional institutional potential *INST* variable, which is calculated by online *Expert* journal and measures the level of development of main market economy institutions in the region. The variable is a

rank from 1 to 89 for a particular Russian region where a firm is located. 1 is assigned to a region with the highest potential in Russia and 89 – to a region with the lowest. The rank is taken as average for the period of 1995-2007.

Third, we control for regional bureaucracy's size and democracy development. We suggest that bureaucracy creates additional costs for establishing and running a company and therefore we expect size of bureaucracy to be negatively correlated with location choice dependent variable. Following Libman (2008) we measure the size of bureaucracy *BUR* by the share of public officials in the population of respective region, reported by ROSSTAT.

Finally, as discussed in the literature review, we expect that regional democracy development is positively related to the location choice of foreign investment across Russia. We measure democracy *DEM* in a Russian region by the index developed by Moscow Carnegie Center. The description of the index is represented in Appendix 1.

Agglomeration effects

The last set explanatory variable *AGGL* measures the agglomeration effects on location choice. Building on the literature review made for the paper, we include two potential types of effects in our model. First, the *within-industry* agglomeration effects coming from foreign firms from the same country of origin is measured by the number of foreign investors of the same origin in a Russian region in a corresponding industry in the year before the year of entrance of the investor. Second, the agglomeration effects coming from foreign firms from *other countries* is measured by the number of foreign investors of the corresponding country in a Russian region in a corresponding industry in the year before the year of entrance of the investor.

5. Results

The estimation results are presented in Table 1. The descriptive statistics and correlation matrices of the dependent and explanatory variables of the corresponding three samples are presented in Appendix 2.

Table 1 Results: conditional logit model

	China	USA	Japan
MARKET	0.11 (0.001)***	0.19 (<.0001)***	0.19 (0.005)***
EDU	0.78 (0.06)*	0.57 (0.03)**	-1.07 (0.14)
DIST	-1.74 (<.0001)***		-2.03 (<.0001)***
PORT	-0.15 (0.43)	0.81 (<.0001)***	3.2 (<.0001)***
ROADS	0.005 (<.0001)***	0.003 (<.0001)***	0.01 (0.0005)***
RES	0.01 (0.004)***	0.01 (0.001)***	0.03 (0.0003)***
LEG	-0.02 (0.004)***	0.004 (0.34)	0.04 (0.0002)***
INST	-0.003 (0.66)	-0.03 (<.0001)***	0.03 (0.06)*
BUR	-1.73 (0.01)***	0.67 (0.14)	-2 (0.12)
DEM	0.06 (0.001)***	0.05 (<.0001)***	0.16 (<.0001)***
AGGL	0.17 (<.0001)***	0.01 (<.0001)***	0.48 (<.0001)***
Cross-country agglomeration effects			
China		-0.27 (<.0001)***	-0.6 (<.0001)***
USA	-0.005 (0.02)**		-0.06 (<.0001)***
Japan	-0.04 (0.03)**	-0.17 (<.0001)***	
N.obs.	416	1117	154

Note: Due to high correlation between cross-country agglomeration indicators (China, Japan, USA) we include them separately into the basic model.

Our findings can be summarized as follows. The market potential is an important factor in determining location choice of foreign investors across Russia for all three countries. The coefficients of the variable are positive and strongly statistically significant at the 1% level, confirming the hypothesis that foreign investment location choice is positively related to the host region's market potential. The magnitude of the coefficients is actually the same for USA and Japan and slightly smaller for China,

which indicates that local demand affects foreign investment from the latter country at a bit lower degree.

Moreover, we find quite a convincing evidence of a positive effect of a labor quality as captured by the variable EDU on Chinese and US direct investment. However, this result does not hold for Japan, which contradicts previous studies (Woodward, 1992; Smith & Florida, 1993; Fung *et al.*, 2002).

Regarding the variables expected to directly influence the costs of investment, the coefficients of the DIST variable are negative and strongly significant at 1% level both for China and Japan. This result goes in line with gravity theory of FDI. Furthermore, the PORT variable is positive and highly significant for USA and Japan but insignificant for China. The latter result could be expected since China has long river and land borders with Russia and therefore is able to use transportations means other than port (i.e. land or river transport). In contrast, TRANS variable which reflects the level of development of car and railway roads is positive and highly statistically significant for all three countries. This indicates strong importance of this variable for foreign investment location choice. Interestingly, resource potential is negatively associated with foreign investment location choice, i.e. the lower the potential the higher the possibility of foreign investment location. This might be explained by the existing restrictions for foreign investment into resource industries in Russia. Another plausible explanation is that investment into resource industries is, as a rule, very concentrated. Hence, resource-rich regions may attract more FDI in terms of value, but fewer investments when measured by the number of firms.

When looking at the results for the institutional variables, it is interesting that the legislative risk indicator LEG has the expected sign (and this result is statistically significant at 1% level) only for China. For USA it is not statistically significant and for Japan it is even positive, indicating that Japanese direct investment flows into Russian regions with higher legislative risk. The latter result

might be due to data artifact since most Japanese investment flows into the Far Eastern Russian regions which in general have unfavorable investment climate. In contrast, the institutional potential variable INST has the expected sign at 1% level significance only for USA. For China it is not different from zero and for Japan it is positive. The explanation for the latter result might be the same as for the result for Japan for legislative risk. Moreover, another explanation for the unexpected results for regional legislative risk and institutional potential might be the use of averages, which may bias the empirical results since there are regions in Russia where those indicators have changed dramatically during the analyzed period. In our further updating of this paper we will try to incorporate time variation of those indicators.

Furthermore, of the two other measures for institutional quality, the size of bureaucracy BUR is negatively associated with the dependent variable only for China. This finding calls for more elaboration in the further updating of this paper. Regarding the democracy index DEM, we find that it is positively related to foreign investment location choice at 1% level of significance for all three countries. If to compare the coefficients` magnitude it is especially important for Japan. This result goes in line with earlier research findings (see Karhunen and Ledyeva, 2010).

Finally, we find rather strong evidence that within-industry agglomeration effects coming from foreign firms from the same country of origin are positive. However, competition effects strongly dominate with respect to foreign firms from the other two countries included in our analysis.

6. Discussion and conclusions

This paper empirically analyzed the determinants of FDI location choice on sub-national level, using a firm-level data set obtained from Russian State Statistical Agency (ROSSTAT). We argue that in a geographically large country with a federative structure, foreign investors need to consider the

investment climate not only on national but also on sub-national level. In particular we focus on the distribution of FDI among Russian regions from three source countries, namely China, Japan and the USA. These countries appear to be ones of the major economic players in the world economy at present. Furthermore, they are important trade and investment partners for each other and thus comparison of their international investment strategy is of both theoretical and practical interest.

In our empirical analysis we explored the significance of different types of factors on location choice, including traditional FDI determinants, institutional conditions in the host region and agglomeration effects. Our most important findings can be summarized as follows. First, our results support earlier findings that on the national level, a major part of FDI to Russia is motivated by market-seeking (see e.g. Ledyeva, 2009). This is demonstrated by the importance of market potential as determinant of location choice within Russia for investors from all three countries. This finding is supported by the industry distribution of the investing firms from the US, Japan and China, where trade and services dominate over manufacturing sectors.

As it comes to FDI motivated by resource-seeking, the Chinese and the US investors seem to be attracted by regions with labor resources of higher quality. However, taken that Russia has not become a major destination of labor-intensive production, this finding may be explained as being linked to the market potential. Those regions, where the market potential (measured in terms of gross regional product, total population and population density) is higher, are by rule the most developed regions in the European part of Russia with large metropolises and urban population with better education level. Moreover, our finding that the resource potential of a region negatively associates with location choice further supports the view that most FDI to Russia from the three countries selected is market-seeking. Here, one explanation is that although extractive industries in Russia are major recipients of FDI in terms of value, most of this investment is actually made by large Russian natural resource companies through their foreign affiliates. In addition, due to the high capital intensity of these industries, the

investments are made by a limited number of companies. In other words, larger amount of FDI does not indicate larger amount of investing firms in this case.

Second, our findings indicate that “geography matters” in the location choices of foreign investors among Russian regions. This is shown by the fact the foreign investors from China and Japan, the two countries sharing a border with Russia in the east, prefer the Russian regions closest to them. Moreover, another evidence of the role of geography is the importance of port in the region for investors from the US and Japan, which do not share a land border with Russia as China does. Furthermore, our results also illustrate the regionalized nature of the Russian market and economy. First, the high importance of regional transport infrastructure indicates that the foreign investors often follow a regional strategy in Russia. Due to the large geographical area of Russia, few foreign investors have enough resources to conquer the Russian market as a whole but they tend to focus on regional markets instead. Second, the positive within-industry agglomeration effects for investors from the same country together with the negative agglomeration effects for investors from different countries, indicate that due to the large size of the Russian market foreign investors from a given country may “coin” a selected region for its foreign investment. Here again, geographical proximity is one explanation for the agglomeration of firms from China and Japan in the eastern regions of Russia.

Finally, our findings regarding the impact of regional institutions on location choice indicate that in some cases the geographical proximity and natural resources may compensate the low quality of institutions when selecting the region where to invest. This is shown in our data in the case of Japan. Moreover, our finding concerning the level of market economy institutions and its positive impact on location choice only for the US investors supports the view that it is not necessarily the quality of institutions in the host region, but the institutional distance between the home and host country that matters. On the other hand, our findings concerning the impact of democracy on location choice,

partially contradict this argument. The democracy development in the host region is positively related to all three countries, although not all of them are democracies.

To sum up, our results illustrate the complexity of location choice and the variety of determinants that a foreign investor needs to simultaneously consider when making the location decision. Further analysis is needed to identify the conditions under which each of the determinants prevail in the decision-making. These include the industry, investment motivation and other firm-specific factors. In our further elaboration of this paper we will try to tackle this issue for the investors from China, US and Japan in Russia.

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Appendix 1: **Moscow Carnegie Center's democracy index's description (Libman, 2008)**

The index is based on a survey of a panel of experts carried out for each year and region in the period of 1991-2004. We utilize the index as the average for this period. The experts were requested to evaluate each region by a 5-point-scale (with 5 being the highest indicator) for the following ten dimensions:

1. Regional political organization: real balance of power between the executive and the legislative, elections / appointments of crucial political actors, independence of courts and police, protection of citizens rights;
2. Openness of regional political life: transparency of regional politics and its involvement in the overall national politics;
3. Freedom of elections at all levels (national, regional, local);
4. Political pluralism: existence of stable political parties, representation of parties in regional legislatures;
5. Independence of the media;
6. Corruption: this indicator refers mostly to the state capture in a broader sense, i.e. interconnections between political and business elites and their interventions in the political decision-making;
7. Economic liberalization: the indicator does not really reflect common usage of the term, but rather refers to the specific directed interventions of regional administration, ignoring property rights of influential players (e.g. potential opposition);
8. Civil society: NGOs, referenda, freedom of public political activities;
9. Elites: existence of a mechanism of leader changes through elections, existence of multiple political elites;
10. Freedom of local municipalities vis-à-vis their dependence from the regional government.

The sum of these ten indicators yields the final index.

Appendix 2: Descriptive statistics

Table A2_1 Descriptive statistics and correlation matrix for China

	Mean	StdDev	DV	Market	DIST	EDU	PORT	TRANS	LEG	INST	RES	BUR	DEM	China	Japan	USA
DV	0,01	0,11	1,00	0,19	-0,11	0,11	0,04	0,03	0,00	-0,09	0,00	-0,08	0,01	0,26	0,18	0,19
Market	0,00	1,58		1,00	0,10	0,37	-0,02	0,42	0,17	-0,54	0,18	-0,43	0,17	0,31	0,38	0,48
DIST	3,30	1,00			1,00	-0,12	-0,16	0,61	0,02	-0,02	0,58	-0,36	0,07	-0,09	0,03	0,05
EDU	0,57	0,22				1,00	0,33	0,05	-0,05	-0,33	-0,03	-0,16	0,42	0,16	0,13	0,17
PORT	0,21	0,41					1,00	-0,20	-0,10	-0,14	-0,26	0,01	0,13	0,05	-0,02	-0,02
TRANS	140,19	100,06						1,00	0,04	-0,20	0,59	-0,42	-0,01	0,09	0,16	0,21
LEG	34,67	14,08							1,00	-0,02	-0,03	0,04	-0,08	0,03	0,08	0,09
INST	35,31	17,26								1,00	0,06	0,54	-0,49	-0,13	-0,10	-0,13
RES	39,94	22,03									1,00	-0,19	0,06	0,04	0,11	0,14
BUR	0,44	0,16										1,00	-0,21	-0,14	-0,13	-0,17
DEM	29,00	5,79											1,00	0,01	0,01	0,03
China	0,11	1,01												1,00	0,71	0,70
Japan	0,05	1,00													1,00	0,95
USA	0,59	8,85														1,00

Table A2_2 Descriptive statistics and correlation matrix for Japan

	Mean	StdDev	DV	Market	DIST	EDU	PORT	TRANS	LEG	INST	RES	BUR	DEM	China	Japan
DV	0,00	1,58	1,00	0,37	0,10	-0,02	0,42	0,17	-0,54	0,18	-0,43	0,17	0,29	0,42	0,44
Market	0,57	0,22		1,00	-0,12	0,33	0,05	-0,05	-0,33	-0,03	-0,16	0,42	0,15	0,15	0,16
DIST	3,30	1,00			1,00	-0,16	0,61	0,02	-0,02	0,58	-0,36	0,07	-0,08	0,02	0,04
EDU	0,21	0,41				1,00	-0,20	-0,10	-0,14	-0,26	0,01	0,13	0,04	-0,01	-0,02
PORT	140,19	100,06					1,00	0,04	-0,20	0,59	-0,42	-0,01	0,09	0,17	0,19
TRANS	34,67	14,08						1,00	-0,02	-0,03	0,04	-0,08	0,03	0,08	0,08
LEG	35,31	17,27							1,00	0,06	0,54	-0,49	-0,12	-0,12	-0,12
INST	39,94	22,03								1,00	-0,19	0,06	0,04	0,11	0,13
RES	0,44	0,16									1,00	-0,21	-0,13	-0,15	-0,16
BUR	29,00	5,79										1,00	0,01	0,01	0,03
DEM	0,08	0,87											1,00	0,67	0,70
China	0,06	0,88												1,00	0,92
Japan	0,51	8,21													1,00

Table A2_3 Descriptive statistics and correlation matrix for USA

	Mean	StdDev	DV	Market	EDU	PORT	TRANS	LEG	INST	RES	BUR	DEM	China	Japan	USA
DV	0,01	0,11	1,00	0,54	0,22	0,00	0,25	0,09	-0,18	0,17	-0,21	0,06	0,22	0,43	0,31
Market	0,00	1,58		1,00	0,37	-0,02	0,42	0,17	-0,54	0,18	-0,43	0,17	0,26	0,51	0,35
EDU	0,57	0,22			1,00	0,33	0,05	-0,05	-0,33	-0,03	-0,16	0,42	0,14	0,19	0,12
PORT	0,21	0,41				1,00	-0,20	-0,10	-0,14	-0,26	0,01	0,13	0,05	-0,02	-0,02
TRANS	140,19	100,06					1,00	0,04	-0,20	0,59	-0,42	-0,01	0,07	0,22	0,15
LEG	34,67	14,08						1,00	-0,02	-0,03	0,04	-0,08	0,02	0,09	0,07
INST	35,31	17,26							1,00	0,06	0,54	-0,49	-0,11	-0,14	-0,09
RES	39,94	22,03								1,00	-0,19	0,06	0,03	0,15	0,10
BUR	0,44	0,16									1,00	-0,21	-0,11	-0,18	-0,12
DEM	29,00	5,79										1,00	0,01	0,03	0,01
China	0,07	0,75											1,00	0,65	0,67
Japan	0,51	7,11												1,00	0,91
USA	0,03	0,67													1,00