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# **STRUCTURAL DECISIONS OF MULTINATIONALS IN REGIONS WITH WEAK COURTS**

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## **STRUCTURAL DECISIONS OF MULTINATIONALS IN REGIONS WITH WEAK COURTS<sup>3</sup>**

We investigate the impact of court conditions on multinational decisions on entry, subsidiary size and entry mode across subnational regions in Russia. We apply the literature on heterogeneous firms and the institution-based view of investor behavior, which predict that higher institutional costs raise the size and productivity cut-off of start-up subsidiaries. Our empirical results based on microestablishment data of foreign-owned firms in Russia show that a weaker judicial framework and stronger political power of the local governor significantly de-stimulate entry. The majority of multinationals enter Russia, which is viewed as a high-risk country, through large and very large subsidiaries wholly owned by the foreign parents. Variation of the business strategies of multinationals between regions is largely explained by regional court conditions, as foreign investors adapt their strategic decisions to compensate court deficiencies by increasing the size of the subsidiary and acquiring local institutional knowledge through partnership with resident firms. We also find that structural adjustments to court risks are typical for horizontal investments, which only serve the host market.

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Keywords: Multinational enterprise, foreign direct investment, production location decision, affiliate size decision, entry mode decision, institutions, Russia.

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## Introduction

It is taken for granted that multinational firms prefer to invest in locations where protection of property rights is strong and that institutions, which provide such strength, are most influential in creating incentives to invest (La Porta et al., 2008). Since developing countries, with relatively weak institutions, host more than half of global FDI flows, it is important to understand how multinationals design their entrance strategy when protection of property rights is less than perfect, so that host countries can optimize their policies for FDI promotion. Our main research objective here is to study how institutions for the protection of property rights determine how multinationals structure their entry. We are particularly concerned with decisions by multinationals regarding the size of a start-up subsidiary and readiness to accept local partners as co-owners. Do foreign investors establish large or small plants in places with weak rule of law? Do they maximize control by means of a wholly owned subsidiary or do they prefer to have resident partners in a joint venture (JV) framework?

In this paper, we chart the extent to which the size and scope of a multinational affiliate is determined by the quality of Russian regional courts, which are the principal institution for enforcing property rights and resolving various commercial disputes in Russian regions. There are several reasons why Russia is a good testing ground for the effect of property risks on structural decisions by multinationals. Russia has experienced relatively high entry rates by multinational capital and frequent instances of economic and political distress, which varied significantly across subnational regions. The country has problems in its judicial system, including bias in regional courts. Focus on a single country is justified by the fact that the institutional gap between subnational regions in a single country is not too great, so it is possible to track nuances in the reaction of multinationals to differences in the level of property protection.

In Russia, a regional commercial court hears disputes over contracts and property, tax, land, antitrust regulation, problems with registration and licensing, customs control and insolvency. Many authors point to the inconsistency of court practice in Russia, despite positive evolution of the court system in recent years, and stress that the degree of consistency and of efficiency in enforcing contracts and providing remedy for torts differs across subnational regions in spite of laws that are *de jure* uniform. The failure of some regional courts is often explained by their close links to regional or federal authorities, and by poor qualification of judges, who often have a background in law enforcement. A recent survey of foreign-owned firms in Russia (Ernst&Young, 2015) shows that inefficiency of the state apparatus and court system causes difficulties for the business operations of multinationals: 77% of respondents name the unstable and inconsistent regulatory framework as the most serious threat, followed by corruption risk (50% of respondents) and selective enforcement (33%).

The link between the protection of property rights and size/scope decisions of multinationals in transition countries remains relatively understudied in the literature. This paper contributes to the research gap and provides evidence of the effect of courts on structural FDI decisions in a transition economy.

We model the decision of multinationals to invest and the choice of the size and mode of entry on the basis of theoretical literature, which establishes that heterogeneous firms sort into various modes of international activities (Melitz, 2003, Helpman et al., 2004). The literature suggests that the largest and most productive multinationals are more likely than others to open an affiliate in unattractive place, because their scale and efficiency give them additional bargaining power and resources to cover the costs of weak institutions. We suggest that regions with a poor judicial system will attract fewer multinationals and most of affiliates will be large-sized.

A high degree of control may also be an advantage in a poor business environment, although the previous literature is inconclusive as to whether multinationals judge a wholly owned subsidiary or a JV to be the best option in this case. Institutional and transaction-cost theories suggest that JVs are preferable in challenging environments, mainly due to complementary institutional experience of the local partner. However, extensions of the heterogeneity model predict higher probability of creation rather than acquisition (JV) in unfavorable location.

We use plant-level RUSLANA data, collected by Bureau van Dijk for FDI affiliates in Russia, which entered between 2001 and 2014, and the BEEPS V data from the World Bank and EBRD for measurement of features of the court system in Russian regions. The empirical findings broadly confirm the theoretical predictions: strong and independent courts significantly increase entry in a region, and locations with a weaker judiciary host larger parent firms and larger subsidiaries. Wholly-owned subsidiaries are most popular overall, although multinationals choose JVs with a local partner in a region where courts are particularly weak. Finally, investor sensitivity to weak courts is greater among horizontal ventures, which target local demand, than among exporting affiliates.

The remainder of this paper consists of five sections. First, we draw on the theoretical and empirical literature to develop predictions about structural decisions by multinational firms when setting up affiliates. We then explain how our dataset was constructed from plant-level data with the subsequent addition of sectoral and regional indicators and report descriptive statistics of dependent and independent variables. That is followed by presentation and discussion of the main results of the empirical estimation. The final section concludes

## **2. Related literature**

The bedrock assumption for our paper is that a multinational creating an affiliate in a tough political environment faces threats from state control of the local legal system and possible failure

of the authorities to provide a low cost and fair enforcement mechanism. “Creeping” expropriation and powerful local businesses with unfair competitive resources have become serious political risks of late (Oetzel, 2005), and firms are more likely to enter locations with strong legal institutions. If the legal system is weak, the foreign investor takes hazard-mitigating actions (Henisz and Williamson, 1999; Henisz, 2000), which increase its bargaining power, either by establishing a larger affiliate and/or by choosing the most appropriate mode of entry.

The advantages of a larger affiliate in less attractive locations are described by the literature on firm heterogeneity, which predicts selection of firms into different modes of trade and FDI depending on productivity and scale advantages (Helpman et al., 2004). Their model explains the structure of international trade and investment by productivity differences inside sectors. For each location, there is a productivity cut-off, and only firms with productivity above this level will be able to cover entry and maintenance costs associated with creating a subsidiary in that location. Bad locations will have higher productivity cut-off thresholds. So only productive firms open an enterprise in a place with very high entry and maintenance costs, and less productive firms can only afford to enter more cost-attractive locations. Improvement of relevant features of the host location may result in the entry of less productive multinationals. Further analysis (Yeaple, 2009) shows that productivity sorting extends to the scale of affiliates set up by multinational enterprises: not only do more productive firms own affiliates in a larger set of countries, but their affiliates are larger than those of less productive firms.

One question might be whether the effects of weak courts on size decisions will be the same for export-oriented affiliates and affiliates oriented to the local market. The models on firm heterogeneity exclude vertical motives for FDI, assuming that multinational firms do not export from their foreign subsidiaries. However, many subsidiaries in our data are exporting, and it is clearly interesting to know whether they are more or less tolerant of weak courts than horizontal investments and whether a parent setting up an exporting subsidiary is choosier in its location decisions (Pandya, 2016).

As regards the choice between joint ventures or wholly-owned foreign subsidiaries, our baseline theory assumes that firms do not engage in cross-border acquisitions and enter through greenfields. However, Nocke and Yeaple, 2007 and Nocke and Yeaple, 2008 make extensions to the model in Helpman et al 2004, acknowledging that cross-border acquisition is a viable alternative to greenfields and that a joint venture adds location-specific complementarities, such as knowledge of local conditions. The key prediction is that greenfield investments are systematically more efficient than cross-border acquisitions. So multinationals may choose acquisition in preference to greenfield FDI in developed countries, but are more likely to opt for the latter in developing countries where risks are already high (see Yeaple 2013 for a detailed survey of the literature).

Property-rights theory of the firm (Grossman and Hart, 1986, Hart and Moore, 1990) reaches a similar conclusion: ownership of assets is a source of power when contracts are incomplete, so creation will be a better decision than acquisition in a tough environment.

Institutional theory (North, 1990) and transaction cost theory (Williamson, 1979) predict a different outcome for the choice between JV/wholly owned subsidiary. In this framework, high-quality institutions are associated with low production costs and low transaction costs. Each alternative mode of entry has its own combination of benefits and costs, and they in turn depend on firm efficiency. Specifically, the choice can be separated into two effects (Henisz, 2000): political hazards increase the probability of a JV rather than a majority-owned subsidiary, but the positive effects of this choice may be offset if the JV partner attempts to expropriate assets and profits. In general, this literature establishes that a JV is a better solution for an environment characterized by high uncertainty and governance problems (Kogut, 1988), and multinationals, which enter locations with weak institutions, will minimize political risks through partnerships with resident firms despite higher risk of opportunistic behavior and higher transaction costs. JVs offer the advantages of greater lobbying power and political risk management (Demirbag et al, 2010), as well as greater resilience to expropriation, which is politically costlier for the host government if a local firm is affected (Henisz, 2000).

The greater probability of a JV as opposed to a greenfield in a bad location may also be explained by greater flexibility in choice of where to locate a greenfield. This mechanism will enable multinationals to avoid establishing new plants in bad regions, while acquisition (for creation of a JV) is location-specific, and the desired partner may already be located in a difficult place.

Two empirical studies, which confirm the theoretical prediction of the model in Helpman et al, 2004, are particularly relevant for our work. Firstly, Yeaple, 2009, shows on the data of U.S. multinationals that more productive firms own affiliates in a larger set of countries and their affiliates are larger than those of less productive firms. The smallest and least productive U.S. multinationals are attracted to the “best” countries, and this mechanism is mostly related to the fixed costs of producing abroad. Secondly, Chen and Moore, 2010, show on French microdata that more productive multinationals are more likely than less productive firms to invest in “tough” locations, including countries with weak governance structure. They also show that efficiency and scale of the affiliate are positively correlated.

Among studies on transition countries, we note the work by Demirbag et al, 2015, who explain growth prospects of FDI subsidiaries in the transition periphery and find evidence for the relative tolerance of large firms to locations with weak institutions. Oetzel, 2005, reports in her qualitative study of multinationals in Costa Rica that smaller subsidiaries face greater political risk than larger ones irrespective of the size of the multinational parent, and explains this by lack of

bargaining power, which leaves small subsidiaries more exposed to bureaucratic delays and red tape. As regards ownership structure, Demirbag et al, 2010, report higher probability of JVs among multinational subsidiaries in Turkey due to political constraints. A similar finding is reported by Meyer et al, 2009, for the emerging economies of India, South Africa, Vietnam and Egypt.

The literature, which uses Russian data, provides evidence that commercial courts in Russia are politicized and that they depend on federal authorities and regional governors (Solomon, 2008, Paneyakh, 2016). Courts suffer from a high level of corruption and incompetence of judges (Black et al, 2000). Regional authorities sometimes behave in a destructive way, expropriating profits within their territories and being drawn into the illegal seizure of economic assets (Frye and Schleifer, 1997; Rochlitz, 2014). Application of commercial law is often selective and biased in favor of the state. For example, Lambert-Mogiliansky et al, 2007 show that commercial court judges are biased in favor of strong regional governors when they hear cases under the Russia's 1998 bankruptcy law.

Recent studies show that weak institutions de-stimulate entry of multinationals in Russian regions (Ledyeva et al., 2013; Bessonova and Gonchar, 2015). Pressure from regulatory and enforcement agencies reduce the accumulated FDI stock across regions (Kuzmina et al, 2015). The choice between establishment of a JV or a wholly-owned subsidiary depending on subnational institutions in Russia is studied in the paper by Karhunen et al, 2013. The authors conclude that the larger the legislative risk in a Russian region, the higher the probability that a JV will be established in that location rather than a wholly-owned subsidiary.

We are not familiar with any works that explain the size decision of multinationals by the strength of the local court system in Russia. The only relevant paper, by Bruno et al, 2013, investigates how the political environment affects new firm entry in Russia (both domestically owned and foreign firms are included) across regions and firm-size classes. The authors report that greater democracy acts to stimulate entry by small-sized firms and reduces entry by medium and especially large firms. Change of the regional governor, interpreted in this study as greater political fluidity, also increases entry by small firms.

We formulate our hypotheses within the context of theories about heterogeneous firms as follows:

H1. In a large transition country, multinational firms prefer to invest in those subnational regions, which can provide a fair, unbiased court system, free of corruption and politicized justice.

H2. If the courts are weak, the investor will choose to establish a larger subsidiary.

H3. A foreign firm is more likely to set up a wholly foreign-owned subsidiary to increase its bargaining power if the risks associated with weak courts are high.

H4. Decisions on affiliate size and entry mode in response to court conditions are sensitive to the type of investment and vary between exporting and non-exporting subsidiaries

### **3. Data and descriptives**

The construction of our data set combines several sources. Enterprise-level data of foreign subsidiaries in Russia are extracted from the RUSLANA database, maintained by Bureau Van Dijk. RUSLANA is based on official registry data and consists mainly of annual accounts. It enables identification of multinational affiliates, defined as legal entities in which no less than 10% of total capital belongs to foreign investors. The use of plant-level data helps to mitigate spatial and sectoral problems of official statistics on FDI flows, because we may identify and exclude round-tripping investments, reveal the exact location and performance of subsidiaries and avoid systematic bias of statistics on FDI flow in favor of large-scale projects in the oil and gas industry.

Our initial dataset includes all affiliates for the benchmark year 2016, with entry data from 2001 to 2014. We take the date of affiliate incorporation to be the entry date, and assume that all key decisions about the entry, including size and mode, are taken one year prior to entry. The time-lagged measurements exclude possible reverse causality between size and entry decision.

The data needed to be cleaned in various ways. First, we drop observations from countries, considered by the Russian finance ministry as tax havens, because most of these investors are either round-tripping firms of Russian origin, whose entry and structural decisions differ from those of “genuine” foreign investors, or they represent short-term investments of a speculative nature. About 44% of observations were identified as round-trips and removed from the dataset. Second, for specifications which require performance data, we restrict the dataset to establishments that report turnover for the year of entry. For each establishment, we use information about its location in the subnational region, main 4-digit sectoral code, ownership, mode of entry, export and import activities, and turnover. Financial measures are deflated by a GDP deflator. In addition, RUSLANA provides its own estimates of affiliate size, grouping affiliates into four size categories from “small” to “very large” by combining information about sales, employment and asset value (such information is available for a greater number of firms than turnover figures).

Our data allow us to identify various types of FDI entry: new plants, which belong to one foreign investor; mergers and acquisitions with other foreign firm; and JVs with resident participants. Since we are interested mainly in complementary institutional capabilities, which the resident partner may contribute in locations with inadequate courts, we did not carry out the traditional classification into greenfield and M&A investments. In our sample, we coded JVs as plants, jointly owned by foreign and local investors, as opposed to all other forms of entry (wholly owned plants with one or several foreign shareholders).



The resulting sample of foreign subsidiaries consists of between 2,089 and 11,270 firms, depending on the number of missing observations for dependent and independent variables. The largest sample is used in the specification, which explains entry decisions by multinationals, and the smallest sample is used in the specification, which uses the value of affiliate sales as a dependent variable. The data show that behavior of foreign investors changed substantially over time: the highest number of entries in the whole period of observation was in 2007, after which the entry rate declined significantly. Large and very large affiliates dominate among entrants throughout the whole period of observation (Figure 1).

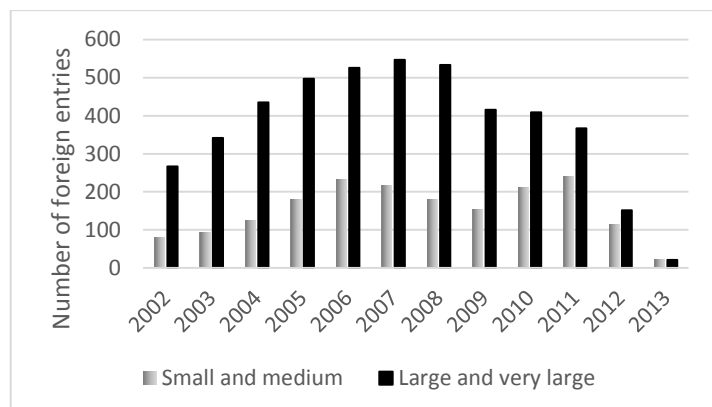


Figure 1. Distribution of entries by the size groups of affiliates between 2002 and 2013

Wholly owned foreign subsidiaries lead in the sample: only one third of entries are joint ventures with resident firm. We also control the model for trade characteristics: 16% of affiliate firms are involved in exports and 36% in imports.

We construct the dataset of shareholders as well as the affiliate dataset. We take the home country, performance data (sales and total asset value), and main business of the parent firm from RUSLANA. Overall the dataset includes entries from 51 countries, among which Germany leads as the home country. When a subsidiary is owned by more than one parent firm, we select the largest parent by total assets. Bureau van Dijk data for multinationals in Russia has the disadvantage of a large number of missing values for size of the parent firm. To address this issue, we fill some of the missing observations with performance data for parent firms from AMADEUS data for European investors, and Thomson and Reuter for other home countries. This reduces the number of missing observations. We used asset value as a measure of parent size for the dataset of shareholders, which consists of 2,690 observations.

We now turn to the regional indicators that are included in the model as predictors. Some of them capture standard location factors, which explain most of the variation in geographical distribution of entry by multinationals in Russia. Gross regional product per capita and local population account for market size and local fixed costs. These measurements are borrowed from

official statistics. We also control the models for the distance between the capital of the host region and the capital of the home country, using the Euclidian distance between geographical coordinates.

Our main regional indicator of interest is the quality of the judicial system. It is difficult to quantify court-related hazards directly, especially at the subnational level. We therefore rely on managerial perceptions about the judicial system and employ data of the BEEPS V for Russia, conducted in 2011-2012, in which firms were distributed randomly across sectors, regions and size groups, and we assume that the regional mean perception of the quality of courts reflects the situation in respect of protection of property rights. In total the recent BEEPS V data included 4220 firms in 33 two-digit sectors and 37 regions of Russia. By using the BEEPS V data, we avoid an endogeneity problem, which usually arises when the decisions of firms are explained by their perception of institutional hazards. Also, World Bank and EBRD estimates are publicly available and may influence the actual choices by multinationals of location in Russia.

The survey instrument allows us to estimate three negative characteristics of courts: unfairness, unjustified delays and inefficiency. They are measured as a weighted regional mean of the share of firms, which strongly disagree with the statements that the court system is, respectively, “fair, impartial”, “quick”, and “capable of enforcing its decisions”. In addition, we can measure the regional mean of the share of firms, which think that other firms in their sector make payments for dealing with courts, which we use as a proxy for corruption in courts. We assume that this indicator is closer to experienced corruption than variables, based on perceptions of corruption in courts. All four measurements related to courts are directly linked to the cost of contract enforcement and capture regional variation in the rule of law (Figure 2).

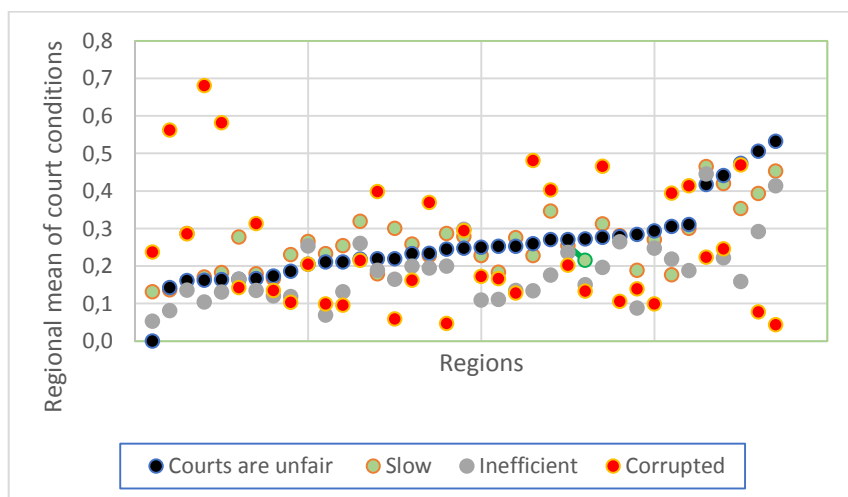


Figure 2. Regional variety of court conditions in Russia. Source: our estimations based on BEEPS survey on Russia, 2012.

Descriptive statistics (Table 1) show that skepticism about quality of the legal system is typical throughout Russia and that it varies between regions. On average 20.6% firms report that the court system in Russian is unfair and a larger share (23.1%) report delays in courts. As regards corruption in courts, the mean share of firms in our data reporting informal payments when dealing with courts is 18%, but the figure for the worst three regions is above 50% (Primorsky Territory in the Far East with 56%, Irkutsk Region in Siberia with 58% and Rostov Region in southern European Russia with 68%), while the top three regions report only 4-5%.

One question might be why the structure of protection of property rights is so different across regions when commercial law, for the most part, is universal all over the country? Several factors may be cited: the organization of the court system, dependence of commercial courts on regional authorities and overall institutional diversity at the subnational level. A claimant in a commercial dispute must file a suit in a regional court of the first instance in the region where the relevant affiliate is registered, so regional courts are unavoidable. Administration of justice may reflect the relative political strength of the regional governor and dependence on regional regulators. Informal rules for enforcing contracts by courts, qualification and remuneration of judges, and local competition all cause diversity of the court system between regions.

We control the model for political strength of the regional governor to see if this can account for regional bias in courts. We do this by measuring how long the governor had already been in power at the time of entry of the foreign investor, supposing that the longer the governor stays in power, the easier it is for him/her to influence courts. If a strong regional governor causes bias in commercial court decisions, one would expect less entries to such a region and larger size of multinational affiliates there. In our descriptive data (the sample of subsidiaries), there is a negative correlation between governor strength and the share of firms which strongly disagree with the statement “The court system is fair, impartial and uncorrupted”.

**Table 1. Descriptives and summary statistics**

Variables	Description	Source	Mean	St.dev.	Min	Max
Subsidiary size Log turnover	Logarithm of real turnover of the subsidiary	RUSLANA	7.06	2.55	-1.38	17.18
Subsidiary size dummy	Dummy for the size of the subsidiary; 0 - small or medium plant; 1 - large or very large plant	RUSLANA	0.72	0.45	0.00	1.00
Parent size Log assets	Logarithm of real total assets of the largest shareholder	RUSLANA and AMADEU.S.	12.05	3.28	1.37	21.65
Joint venture	Dummy for joint venture with a resident partner=1; others=0	RUSLANA	0.34	0.47	0.00	1.00
Exports	Dummy for export operation of the subsidiary	RUSLANA	0.16	0.37	0.00	1.00
Imports	Dummy for import operation of the subsidiary	RUSLANA	0.36	0.48	0.00	1.00

Barrier index	Simple average of fourteen regional indexes of barriers to enterprise performance. For each barrier, the regional index was calculated as a weighted average of answers by all firms in the region. Barriers include: access to finance, access to land, business licensing and permits, corruption, courts, crime, theft and disorder, customs and trade regulations, electricity, human skill, labor regulations, political instability, practices of competitors in the informal sector, tax administration and transport.	Own calculations based on BEEPS data	1.05	0.21	0.26	1.91
Unfair courts	Share of firms in the region, which strongly disagree with the statement “The court system is fair, impartial and uncorrupted”	Own calculations based on BEEPS data	0.21	0.06	0.07	0.53
Delays in courts	Share of firms in the region, which strongly disagree with the statement “The court system is quick”	Own calculations based on BEEPS data	0.23	0.05	0.13	0.47
Inefficiency of the courts	Share of firms in the region, which strongly disagree with the statement “The court system is able to enforce its decisions”	Own calculation based on BEEPS data	0.15	0.06	0.05	0.45
Corruption in courts	Share of firms in the region, which think that other firms in their industry make payments/gifts in dealing with courts	Own calculations based on BEEPS data	0.18	0.12	0.04	0.68
Log (Population)	Logarithm of the population of the region in the year prior to the year of foreign entry	Rosstat	15.57	0.80	13.58	16.29
Log (GDP per capita)	Logarithm of real gross regional product in the year prior to the year of foreign entry	Rosstat	-2.53	0.68	-4.01	-1.55
Governor, years in office	How long the governor had been in office by the time of foreign entry	Own calculations based on HSE regional dataset	8.22	5.71	0.00	21.00
Distance	Logarithm of the Euclidian distance between the regional capital and the capital of the main shareholder's country	Own calculations based on Vincenty's equations	7.50	0.86	5.62	9.73
Average firm size in industry and region	Logarithm of the mean real sales of all plants within the 4-digit sector and region in the year prior to the year of foreign entry	Own calculations based on RUSLANA dataset for the full population of firms	9.91	1.98	0.00	21.64

On the other hand, a different outcome is possible: a longer term in office may enable regional governors to attract FDI and develop institutions, which protect foreign investors. For example, Moon, 2015, argues that “autocrats” with long time horizons tend to provide strong protection of property rights as they expect long-term benefits from foreign investment.

In addition to court conditions, we include an indicator, which measures further institutional settings in the region, to test if the scale and scope of court decisions are determined not only by the

state of property right protection, but also by broader institutional provisions. This “barrier index” is constructed as a simple mean for several regional indexes, measuring responses of firm managers to questions about barriers to business operations associated with access to land and finance, licensing and permits, courts, crime, customs regulation, labor force qualification and labor regulation, political instability, shadow economy, tax administration, transportation and electricity.

Next, we control the model for the minimal scale economy in the region/sector pair, and expect that this measurement will capture the structural specificity of the Russian economy, which is still dominated by large enterprises. We construct our measure of the minimal scale economy by averaging all sales of all firms in the region, which belong to 4-digit sectors, from the total population of firms reported by RUSLANA.

#### **4. Research design.**

We test the four hypotheses described in the literature review section, and assume the presence of exogenous governance costs associated with weak protection of property rights, as expressed by poor quality of regional courts. The research strategy permits analysis of the effects of court conditions on decisions by multinationals on entry, affiliate size and mode of entry.

Our first dependent variable is the decision to enter the subnational region, which is captured by a dummy variable, equal to 1 if the region  $R$  was chosen by the investor in year  $t$  and 0 otherwise. We assume that the foreign firm has already decided to invest in Russia and is choosing between available subnational alternatives. We explain this choice by the characteristics of the alternatives and characteristics of the new subsidiary within the framework of the alternative specific form of a conditional logit model, first introduced by Daniel McFadden. We choose this model, because it allows the inclusion of both choice- and plant-specific characteristics. Furthermore, we are mostly concerned with the investors’ average preferences when they select location, rather than with a substitution pattern between alternatives. In this function, the probability of choosing the region  $R$  from all the alternatives for each investment decision depends on how court conditions differ between the alternatives and on other choice-specific and plant-specific variables. We estimate the random utility model, in which each subsidiary has the possibility of being established in one of Russia’s subnational regions:

$$U_{iR} = \beta X_{Rt} + a_i Z_i + \varepsilon$$

where  $U$  is a random utility gained by subsidiary  $i$  from choosing destination  $R$  from 1 to 37 alternatives;  $X_{Rt}$  is the vector of alternative-specific regressors at the time of entry;  $Z_i$  is a vector of subsidiary-specific regressors, which do not vary across regions, and  $\varepsilon$  is the error term. Following

McFadden, 1974, the probability  $Pr(y_{it} = R^*)$  that a subnational region  $R^*$  may be chosen as a location for subsidiary at time  $t$  can be expressed:

$$Pr(y_{it} = R^*) = \frac{e^{\beta X_{R^*t} + a_i Z_i}}{\sum_{R=1}^{37} e^{\beta X_{Rt} + a_i Z_i}} \quad (1)$$

Next, we explain the size decision of a multinational and measure it by the magnitude of its production activity expressed either by log subsidiary turnover, or the classification by size groups of subsidiaries, based on combined consideration of employment and sales, or by the log total asset value of the parent firm:

$$\begin{aligned} \ln(\text{Sales}_i) = & a_1 \text{Courts}_R + a_2 \text{Barriers}_R + a_3 \text{Governor}_R + a_4 \text{Market}_R + a_5 \text{Cost}_R + a_6 \text{Distance}_i \\ & + a_7 \text{Min\_Scale}_{Rn} + a_8 \text{Trade}_i + \sum_t \beta_t \text{Year\_Dummy}_t + \sum_n \gamma_n \text{Sector\_Dummy}_n + \varepsilon_i \end{aligned} \quad (2a)$$

$Pr(\text{size}_i = \text{large or very large} | X_i)$

$$\begin{aligned} = & G \left\{ a_1 \text{Courts}_R + a_2 \text{Barriers}_R + a_3 \text{Governor}_R + a_4 \text{Market}_R + a_5 \text{Cost}_R + a_6 \text{Distance}_i \right. \\ & \left. + a_7 \text{Min\_Scale}_{Rn} + a_8 \text{Trade}_i + \sum_t \beta_t \text{Year\_Dummy}_t + \sum_n \gamma_n \text{Sector\_Dummy}_n \right\} \end{aligned} \quad (2b)$$

where  $X_i$  is the vector of all explanatory variables and  $G(z) = \exp(z)/(1 + \exp(z))$ .

$\ln(\text{Total Assets of Parent firm}_i)$

$$\begin{aligned} = & a_1 \text{Courts}_R + a_2 \text{Barriers}_R + a_3 \text{Governor}_R + a_4 \text{Market}_R + a_5 \text{Cost}_R + a_6 \text{Distance}_i \\ & + a_7 \text{Min\_Scale}_{Rn} + a_8 \text{Trade}_i + \sum_t \beta_t \text{Year\_Dummy}_t + \sum_n \gamma_n \text{Sector\_Dummy}_n \\ & + \sum_k \theta_k \text{Country\_Dummy}_k + \varepsilon_i \end{aligned} \quad (2c)$$

The following variables are used as predictors. First, we use four variables, which measure regional court conditions (*Courts*), and more general institutional conditions in the region (*Barriers*). Then we use the same standard gravity variables as in the equation 1: *Market* denotes size of the regional market and *Cost* reflects the marginal production cost in the given location with its level of development. By controlling the model for the regional development level, measured by GRP per capita, we exclude the possibility that our result for the court variables is driven by regional economics (distressed regions may have weaker courts and simultaneously attract fewer multinationals). We include the *Distance* between the region and the home country and expect that affiliates in distant locations will have higher monitoring costs, higher fixed costs of investment and

higher trade costs (for trading firms). The *Governor* variable measures the duration in office of the regional governor and may be expected to affect the way the quality of local courts condition the size and mode of entry. The *Min\_scale* variable measures the mean size of the enterprises in the given pair of region/sector and controls for the region-specific market structure. *Trade* measures involvement of the subsidiary in import activities.

We also use several controls to account for the effects of industry, which capture unobservable technological specificity of enterprise assets and time-related characteristics, which may be associated with the turnover of the subsidiary. In the model specification, which regresses the log total asset value of the parent firm, we add extra controls for country-level effects, for which we coded dummies for the home country of the largest shareholder. In all linear models, we correct standard error for heteroskedasticity and cluster  $\varepsilon$  within regions.

The next estimated equation is the probability of establishing a joint venture with a resident partner.

$$\begin{aligned} \Pr(\text{Structure}_i = JV|X_i) &= G \left\{ a_1 \text{Courts}_R + a_2 \text{Barriers}_R + a_3 \text{Governor}_R + a_4 \text{Market}_R + a_5 \text{Cost}_R + a_6 \text{Distance}_i \right. \\ &\quad \left. + a_7 \text{Min_Scale}_{Rn} + a_8 \text{Trade}_i + \sum_t \beta_t \text{Year\_Dummy}_t + \sum_n \gamma_n \text{Sector\_Dummy}_n \right\} \end{aligned} \quad (3)$$

where  $X_i$  is the vector of all explanatory variables and  $G(z) = \exp(z)/(1 + \exp(z))$ .

It uses the same predictors as equation 2b in one specification, and additionally includes control for the subsidiary size in the second specification. This is an important control, not only because, in general, larger firms are more likely to be greenfields, while smaller firms tend to be joint ventures. If our previous results prove that poor judicial quality conditions affiliate size, then the probability of a joint venture should decrease with increase of affiliate size, if court conditions and the choice of a joint venture are positively correlated.

In order to test robustness of the results obtained and whether they obtain for both exporting and non-exporting subsidiaries, we run the above models on two subsamples, consisting of exporting and non-exporting enterprises.

## 5. Findings

### 5.1. How do local courts affect the probability of multinational entry?

In Table 2 we report five specifications for estimation of the probability of entry of a foreign firm in a Russian region conditioned by the quality of local courts and a broader range of regional institutions. Our measurements of the judicial system are correlated; so we have included them in regressions one by one. The results confirm the prediction from the previous literature that weak

institutions de-stimulate entry: the index, which measures institutional barriers, is negatively and significantly associated with the probability of entry. Moreover, three measurements of our main predictors of interest – unfair courts, delays and inefficiency of the judicial system – significantly de-motivate foreign entry.

We also obtained some evidence that multinationals prefer regions with good courts and politically weak governors, supporting the idea that the longer the governor stays in power, the easier it becomes for him/her to influence courts. This result may be compared with the result obtained by Lambert-Mogiliansky et al, 2007: the authors found variety between regions as to the incidence of firm bankruptcies, which were more frequent in regions with politically strong governors and weak courts. In our case, foreign entry is less likely in regions with “politically popular” (long-established) governors and weak courts. Additionally, if we follow the hypothesis developed in Bruno et al, 2013, and assume that period in office of the governor measures political fluidity, then our results are in line with that study, which also finds that political fluidity reduces the entry costs and increases the probability of new firm entry.

Contrary to expectation, the probability of entry is unaffected by the level of experienced corruption in courts. This suggests either that courts are not as corrupt as it is broadly assumed in the literature (Hedley, 2016, makes this argument), or that multinationals already expect high levels of corruption when they decide to invest in Russia, and subnational varieties of experienced corruption (measured as the mean reported share of requested bribes in the region) are not effective in explaining entry.

**Table 2. Location choice depending on the court conditions in the region**

	(1)	(2)	(3)	(4)	(5)
Barrier index	-0.784*** (0.064)				
Unfair courts		-6.612*** (0.269)			
Delays in courts			-5.147*** (0.270)		
Inefficiency of courts				-2.610*** (0.208)	
Corruption in courts					0.019 (0.124)
Log (Population)	1.259*** (0.032)	1.180*** (0.029)	1.012*** (0.028)	1.095*** (0.028)	1.145*** (0.029)
Log (GDP per capita)	1.274*** (0.037)	1.073*** (0.037)	1.481*** (0.034)	1.314*** (0.034)	1.379*** (0.041)
Governor, years in office	-0.034*** (0.003)	-0.029*** (0.002)	-0.033*** (0.002)	-0.035*** (0.003)	-0.035*** (0.003)
Distance	-2.121*** (0.031)	-1.929*** (0.031)	-1.993*** (0.031)	-2.075*** (0.031)	-2.117*** (0.032)
Average firm size in industry and region	0.094*** (0.007)	0.089*** (0.007)	0.093*** (0.007)	0.096*** (0.007)	0.093*** (0.007)



Imports <sup>1</sup>	yes	yes	yes	yes	yes
Number of observations	441,447	441,447	441,447	441,447	441,447
Number of firms	11931	11931	11931	11931	11931
Number of regions	37	37	37	37	37

**Note:** Alternative specific conditional logit estimations; standard errors in parentheses; \*\*\* coefficient significant at 1% level, \*\*significant at 5% level, \*significant at 10% level. “Imports ” is a case-specific variable, coefficients were estimated separately for each of regional alternatives

Traditional controls in this model are signed as predicted in the literature on location choice: larger and more developed markets increase the probability of entry. Entry by foreign firms decreases as distance between parent and affiliate increases.

To sum up, we find that the entry decisions of multinationals are dependent on the quality of regional courts, which can safely be assumed to be a key institution protecting property rights and foreign investors. The hypothesis of differing attractiveness of regions due to political strength of the governor is also supported by the data.

## 5.2. How large should subsidiaries be in a location with weak and dependent courts?

In this section, we investigate how multinationals react to a weak judicial system when they choose the size of their subsidiary. From the theoretical perspective, we might expect that the same coefficients for indicators of local courts, found significant in Table 2, will have the opposite signs in Tables 3 and 4. Specifically, we would expect that both parent and subsidiary need to be larger in case of entry to a location with dependent and unfair courts, to that the newcomer can use additional market and bargaining power to cope with the weak courts.

The obtained results closely confirm the predictions in related theoretical works by Helpman et al, 2004, and Yeaple, 2009. For instance, all three measurements of court conditions, which were found to be significantly and negatively associated with the likelihood of entry (columns 2-4 in Table 2), appear positive and significant in logit specification of equation 2b (Table 3, columns 7-9). In OLS specification, when the sample size is three times smaller than in logit specification, the logarithm of affiliate sales is strongly and positively associated with unfair courts (column 2 in Table 3).

The overall institutional indicators, which were negatively associated with the probability of entry, do not change their sign but they lose significance in the model that explains subsidiary size. It would appear, therefore, that the investor is guided by a broader range of regional characteristics when it takes the decision to enter than when it decides on size of the subsidiary. The decision on size is mostly dependent on critical institutions responsible for contract enforcement and the protection of property rights

The economic significance of these results is as follow. An increase in perceptions of court unfairness by one unit (0.1) raises the probability of establishing a large and very large subsidiary by 2.7 percentage points (column 7 in Table 3). In linear specification, the turnover of a subsidiary, which is located in a region experiencing a 0.1 increase in perceptions of court unfairness (this is a 10% increase on a cumulative scale) will increase by 12% (column 2 in Table 3).

One of the judicial conditions in a region – corruption in courts, measured as a share of firms in the region reporting instances of payments when firms in their sector deal with commercial courts – gives unexpected results. Contrary to expectation and contrary to theoretical prediction, a higher level of experienced corruption is associated with smaller size of the subsidiary (columns 5 and 10 in Table 3), and this result is robust for various specifications and subsamples of the model. This seemingly contradictory result may be explained by different reaction of large and small subsidiaries to problems, which emerge in regional courts. As Oetzel, 2005 reports in her qualitative study, smaller subsidiaries are more vulnerable to various political risks and can be held hostage to long bureaucratic processes (obtaining various permissions, etc.). While large firms with much bargaining power have various levers for solving such problems, smaller subsidiaries have to solve them by making unofficial payments, including payments to courts, in order to “oil the system”. So petty corruption would be more typical of smaller firms.

**Table 3. Effects of court quality on subsidiary size**

	OLS estimation. The dependent variable is log turnover					Logit estimation, probability of large and very large plant				
	Coefficients					Average marginal effects				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Barrier index	-0.094 (0.252)					-0.036 (0.027)				
Unfair courts		1.220* (0.693)					0.270*** (0.095)			
Delays in courts			0.488 (0.926)					0.263*** (0.101)		
Inefficient courts				0.690 (0.793)					0.250*** (0.082)	
Corruption in courts					-2.079* (1.165)					-0.233*** (0.058)
Governor, years in office	0.002 (0.011)	-0.001 (0.011)	0.002 (0.011)	0.002 (0.012)	0.007 (0.014)	0.002* (0.001)	0.002 (0.001)	0.002 (0.001)	0.002* (0.001)	0.003** (0.001)
Ln (Population)	0.214 (0.241)	0.145 (0.243)	0.190 (0.254)	0.191 (0.252)	0.234 (0.172)	0.051*** (0.014)	0.036*** (0.013)	0.044*** (0.012)	0.043*** (0.012)	0.050*** (0.013)
Ln (GDP per capita)	-0.026 (0.327)	0.090 (0.325)	-0.005 (0.339)	0.017 (0.349)	-0.319 (0.234)	0.019 (0.017)	0.043** (0.017)	0.024 (0.016)	0.034** (0.016)	-0.015 (0.019)
Distance	0.165*** (0.047)	0.145** (0.054)	0.157*** (0.050)	0.156*** (0.051)	0.177*** (0.047)	0.032*** (0.007)	0.028*** (0.007)	0.029*** (0.007)	0.030*** (0.007)	0.033*** (0.007)
Imports	0.776*** (0.119)	0.772*** (0.120)	0.775*** (0.119)	0.774*** (0.119)	0.766*** (0.119)	0.265*** (0.011)	0.261*** (0.011)	0.262*** (0.011)	0.262*** (0.011)	0.261*** (0.011)
Mean firm size in sector/region	0.108*** (0.038)	0.109*** (0.037)	0.107*** (0.037)	0.106*** (0.038)	0.107*** (0.037)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)
Sector dummies	Yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Year dummies	Yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Constant	0.838 (4.514)	2.043 (4.544)	1.135 (4.743)	1.213 (4.702)	-0.173 (3.031)					
Number of observations	2.089	2.089	2.089	2.089	2.089	6.356	6.356	6.356	6.356	6.356
R-sq.	0.076	0.077	0.076	0.076	0.080					

Notes: The comparison group in the logit regression is medium and small plants. Standard errors in parentheses; \*\*\* significant at 1% level. \*\*significant at 5% level. \*significant at 10% level. Robust and standard errors clustered by region are reported for OLS estimation

In other words, when regional courts are perceived as unfair, selective and inefficient, a multinational may set up a larger subsidiary, and the bargaining power thus obtained makes it possible to do without the “helping hand” of corruption in courts.

The other relevant finding is the reverse sign of the coefficient of bilateral distance, which was found in the previous section to be a significant de-stimulating factor for foreign entry (columns 1-5 in Table 2) and here - a strong motivator to establish a larger subsidiary (columns 1-10 in Table 3). This leads us to conclude that geography is probably the most important institution in a huge country such as Russia and captures many unobservable spatial conditions, from climate and infrastructure to democracy and human skills.

Turning to the traditional spatial variables of interest, our expectation that economic improvements lead to reduction of the average size of a start-up subsidiary was not fully confirmed. We can only assert higher probability of a large and very large subsidiary in a large region, and this result is only robust in the logit specification of the model.

Next, we test if the impact of court quality on size persists when we replace the size of the subsidiary by the size of the parent firm, as foreign subsidiaries may rely on the bargaining power of their parents rather than on their own power. The parent size in this case is measured by the logarithm of the total asset value of the largest foreign shareholder

Table 4 reports the effect of regressing the size of the parent firm, which takes the decision to enter a Russian subnational region, on the same regional predictors as in the previous table, with additional control for the home country of the foreign investor.

**Table 4. Court effects on parent size**

Dependent variable – log total asset value	(1)	(2)	(3)	(4)	(5)
Obstacle index	-0.476 (0.434)				
Unfair courts		2.967*** (1.079)			
Delays in courts			1.184 (1.368)		
Inefficient courts				0.043 (1.424)	
Corruption in courts					-0.590 (0.899)
Ln (Population)	0.048 (0.158)	0.019 (0.135)	0.018 (0.149)	-0.027 (0.130)	-0.023 (0.143)
Ln (GDP per capita)	0.290 (0.180)	0.501*** (0.155)	0.354* (0.175)	0.392** (0.167)	0.312 (0.207)
Governor, years in office	-0.010 (0.013)	-0.016 (0.012)	-0.013 (0.013)	-0.012 (0.013)	-0.011 (0.013)
Distance	0.122 (0.207)	0.115 (0.202)	0.151 (0.209)	0.161 (0.208)	0.171 (0.215)
Imports	0.763*** (0.075)	0.759*** (0.075)	0.767*** (0.074)	0.765*** (0.074)	0.762*** (0.075)
Mean firm size in sector/region	0.045 (0.031)	0.046 (0.032)	0.042 (0.031)	0.043 (0.031)	0.043 (0.032)
Sector dummies	yes	yes	yes	yes	yes
Year dummies	yes	yes	yes	yes	yes
Country dummies	yes	yes	yes	yes	yes
Constant	9.807*** (2.673)	9.773*** (2.338)	9.481*** (2.901)	10.479*** (2.458)	10.208*** (2.724)
Number of observations	2,630	2,630	2,630	2,630	2,630
R-sq.	0.336	0.337	0.336	0.335	0.335

Note: OLS estimations; standard errors (robust and clustered by region) are reported in parentheses; \*\*\* coefficient significant at 1%, \*\*significant at 5%, \*significant at 10%.

The results confirm that bigger investors enter regions with weaker judicial systems. If the measurement of court unfairness grows by one percent, the size of the parent multinational increases by almost three percent. The cumulative index of barriers to business activities is not statistically significant in explaining parent size. Moreover, parent size is unrelated to proximity, political strength of the local governor and even to the market size.

So the hypothesis of a strong link between decisions on subsidiary size and problems with property protection is supported by the data. As predicted by the theory, better property protection, measured in our case by court conditions, is found to reduce the scale threshold and stimulate entry by smaller-sized firms. This is not the case for experienced corruption in courts, which does not prevent entry, but is strongly associated with smaller firms. In other words, smaller subsidiaries are less well prepared to deal with unfair and selective courts than larger subsidiaries, and when small

subsidiaries enter, they are more frequently forced to buy better treatment in courts by means of money or gifts.

### **5.3. Joint venturing with a resident partner**

The regressions reported in Table 5 explain how mode of entry is determined by court conditions in a region. We report the results of the logit model in two specifications – a model, which employs the same controls as in the previous regressions, and a model, in which we additionally control for the subsidiary size. The sample is significantly larger in the first case, because measures of the turnover are available for a smaller number of firms. But the results of the two specifications are close, despite the big difference in sample size.

**Table 5. Choice of joint venture as an entry mode depending on the court conditions in the region, logit regression, average marginal effects**

Dependent variable – joint venture dummy	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Barriers	0.168*** (0.022)	0.170*** (0.050)								
Unfair courts			0.351*** (0.079)	0.279* (0.162)						
Delays in courts					0.074 (0.083)	0.215 (0.178)				
Inefficient courts							-0.092 (0.067)	-0.045 (0.148)		
Corruption in courts									-0.067 (0.046)	0.018 (0.109)
Governor, years in office	0.002 (0.001)	-0.003 (0.002)	0.002 (0.001)	-0.002 (0.002)	0.002** (0.001)	-0.002 (0.002)	0.002** (0.001)	-0.002 (0.002)	0.002** (0.001)	-0.002 (0.002)
Ln (Population)	-0.042*** (0.011)	-0.030 (0.029)	-0.010 (0.010)	0.014 (0.025)	-0.000 (0.010)	0.025 (0.025)	-0.001 (0.010)	0.023 (0.025)	0.002 (0.010)	0.023 (0.025)
Ln (GDP per capita)	-0.075*** (0.014)	-0.039 (0.033)	-0.090*** (0.014)	-0.068** (0.032)	-0.115*** (0.013)	-0.091*** (0.030)	-0.117*** (0.013)	-0.090*** (0.030)	-0.127*** (0.015)	-0.086** (0.034)
Distance	0.011** (0.005)	0.025** (0.012)	0.008 (0.005)	0.025** (0.013)	0.012** (0.005)	0.027** (0.012)	0.013** (0.005)	0.030** (0.012)	0.013** (0.005)	0.030** (0.012)
Imports	-0.096*** (0.009)	-0.058*** (0.020)	-0.094*** (0.009)	-0.057*** (0.020)	-0.092*** (0.009)	-0.057*** (0.020)	-0.091*** (0.009)	-0.057*** (0.020)	-0.092*** (0.009)	-0.057*** (0.020)
Mean firm size in sector/region	-0.000 (0.002)	0.000 (0.006)	0.001 (0.002)	0.001 (0.006)	0.000 (0.002)	0.001 (0.006)	0.000 (0.002)	0.001 (0.006)	0.000 (0.002)	0.001 (0.006)
Size of affiliate, Ln turnover		-0.016*** (0.004)		-0.017*** (0.004)		-0.016*** (0.004)		-0.016*** (0.004)		-0.016*** (0.004)
Sector dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Year dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	11,270	1,976	11,270	1,976	11,270	1,976	11,270	1,976	11,270	1,976

Note: Logit estimations. The comparison group is a plant owned by one or several foreign subsidiaries. Marginal effects are evaluated at the average value of independent variables. The second column for each outcome reports the marginal effects for independent variables, when the affiliate size is controlled for. Standard errors in parentheses; \*\*\* coefficient significant at 1%, \*\*significant at 5%, \*significant at 10%.

The results show that a one unit difference (0.1) in the perception of court unfairness has average marginal effect of an increase by 2.8-3.5 percentage points in the probability of  $y=1$  (probability of entering via a JV with a local partner). Additionally, we see in Table 5 that an unfair and partial court system in a region is not the only statistically significant institutional predictor of the need for a resident partner. The accumulated barrier index, which measures more general institutional conditions in the region, including obstacles related to regional institutional governance, infrastructure and human skills, is statistically significant for the choice to enter via a JV.

As regards economic and geographical indicators, our findings concur with the previous literature that JVs are more likely to be established in regions with lower costs and smaller markets. The probability of JV investment grows with distance between the home and host locations. Sectoral impact on choice of entry mode is also significant: subsidiaries specialized in wholesale trade, transportation and services are less likely to be organized as joint ventures.<sup>5</sup> Contrary to expectation, we did not find strong support for the influence of political conditions on choice of entry mode.

The finding that weak courts and overall weak institutions are crucial for the choice in favor of a JV survives if we include subsidiary size in the set of predictors. Control for subsidiary size slightly weakens the marginal effects of the probability of the JV choice depending on court conditions, suggesting that the size control may capture part of the structural effects of weak courts. We may also suggest that decisions on size and entry mode are interdependent when courts are weak, and the multinational has to balance the perceived risks of court-related hazards, such as government expropriation and contractual risks, against the risks of higher transaction costs and possible opportunistic behavior of the JV partner.

These findings are not consistent with our hypothesis based on the literature on heterogeneous firms, but rather confirm institutional and property right theories as regards the entry mode decision. However, we cannot ignore the empirical fact that the majority – two thirds of multinationals – enter Russia via wholly-owned foreign subsidiaries or JVs with other foreign partners, sacrificing local institutional knowledge for control and lower risk of opportunistic behavior of the resident joint venture partner. So we would suggest that JVs with a resident partner are more common when the subnational institutional barriers and property risks are extraordinary (higher than the usual level faced by a firm investing in Russia). In this case multinationals minimize institutional and property risks through partnerships.

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<sup>5</sup>The results on sector and year dummies are not reported due to lack of space, but are available upon request



#### 5.4. Do the results hold good for exporting subsidiaries?

We know from related studies that institutional determinants of affiliate size and decisions on entry mode may be sensitive to the type of investment and vary between trading and non-trading subsidiaries. We therefore re-estimate equations 2b and 3 for two different subsamples: exporting and non-exporting affiliates (Table 6).

**Table 6. Effects of court quality on size and entry mode for exporting and non-exporting subsidiaries, average marginal effects**

Dependent variables	Exporting subsidiaries		Non-exporting subsidiaries	
	(1)	(2)	(3)	(4)
	Size dummy	Joint venture dummy	Size dummy	Joint venture dummy
Obstacle index	-0.010 (0.029)	0.003 (0.042)	-0.052 (0.034)	0.220*** (0.026)
Unfair courts	0.083 (0.099)	- 0.060 (0.140)	0.248** (0.123)	0.547*** (0.094)
Delays in courts	-0.031 (0.104)	- 0.079 (0.149)	0.320** (0.129)	0.164* (0.097)
Inefficient courts	-0.052 (0.101)	- 0.203 (0.138)	0.310*** (0.101)	0.045 (0.075)
Corruption in courts	-0.239*** (0.076)	- 0.026 (0.108)	-0.222*** (0.072)	0.057 (0.062)
Number of observations	1,373	1,757	4,973	9513

Note: Logit estimations. The comparison group for size is medium and small plants, for the entry mode it is wholly-owned foreign subsidiaries. Each coefficient is estimated in a separate regression; other controls are included, but not reported. Standard errors in parentheses; \*\*\* coefficient significant at 1%, \*\*significant at 5%, \*significant at 10%.

The results confirm that entry decisions related to court hazards depend greatly on the nature of the planned business activity in the host country. While our previous findings are mostly driven by horizontal non-exporting subsidiaries, we find that decisions on the creation of exporting subsidiaries are less constrained by court conditions in the region. This is true for all measurements of courts except for experienced corruption, which is strongly associated with the probability of establishing a smaller subsidiary, whether exporting or non-exporting. This result confirms our previous assumption that smaller firms lack bargaining power and are more likely to be harassed by corrupt regional bureaucrats than bigger and more powerful affiliates of foreign firms, irrespective of their trading status.

The re-estimation of the third equation, which explains the probability of JV entry mode for exporting and non-exporting subsidiaries (columns 2 and 4 in Table 6), shows that increases in court-related hazards are only associated with greater probability of choosing a JV with a local firm in case of non-exporting subsidiaries. Exporting subsidiaries do not seem to be interested in

local institutional knowledge and prefer tight control over their assets. Also, subsidiaries with global reach may have greater bargaining power than purely horizontal projects.

## **6. Conclusion**

In this paper, we have investigated the importance of institutions in the structure of implants by multinationals in Russia and specifically the role of regional court quality in determining heterogeneity in the scale and scope of FDI by multinationals. This paper makes several contributions to the literature. First, it provides institutional analysis at enterprise level, integrating variation of subnational institutions for the protection of property rights in one country and variation in the features of microestablishments. So we have attempted to bring together institutional analysis and the concept of heterogeneous firms. We take account of features of the region, sector, parent firm and subsidiary. Second, we explain entry decisions and choice of entry mode by the predictors of court conditions, which are particularly important for multinational business, avoiding more general institutional concepts based on less specific measurements, such as democracy or the rule of law.

The majority of multinationals enter Russia, which is a high-risk country, through large and very large subsidiaries organized as wholly-owned foreign enterprises. The observed variation of multinational business strategies across subnational regions is largely explained by court conditions, as foreign investors adapt to weak courts by setting up a large subsidiary and acquiring local institutional knowledge through partnership with resident firms. As shown in the models, the same institutional factors, which discourage entry, are found to encourage larger size and partnership as hazard-mitigating choices. However, such structural adjustments to court risks are typical of horizontal investments, which cater exclusively to the host market.

The research also suggests that decisions of foreign investors on size and entry mode are not influenced by all of the possible risks in the host location, but by specific institutional features, related to property protection, and are relevant mostly for investments of a horizontal type.

The findings of this study are of obvious policy relevance and may contribute to the debate on the role of foreign investments in transition economies. The results emphasize the high social and economic cost of impartial courts, and the significant role, which foreign ownership plays in shaping the structure of the host economy and in microeconomic response to weak institutions. It would be difficult for public policy to act simultaneously on climate, geography and all of the institutional barriers, which affect foreign entry. However, the government can do much to counter detrimental effects on property protection caused by biased and corrupt regional courts.

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