Institutional Determinants of New Firm Entry in Russia: A Cross Regional Analysis*

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Abstract

We analyse a three-year panel data set of Russian firms spanning from 2000 to 2002 and we investigate the effect of regional institutional and economic factors on entry rates across time, industries and regions. The paper builds on a novel database and exploits inter-regional variation in a large number of institutional variables. We find entry rates in Russia are not especially low by international standards and are correlated with natural entry rates, institutions and firm size. Furthermore, industries that - for scale and technological reasons - are characterised by higher entry rates will experience lower entry within regions affected by higher business risk. In other words industries that naturally have low entry barriers are most affected by business constraints.

Keywords: Entry Rate, Business Environment, Tobit Model
JEL Classification: D21, L26, P31

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1 Introduction

This paper analyses empirically the effect of formal and informal institutional quality on *de novo* firm entry rates in an emerging economy. Entry of new firms is often held to be beneficial for economic efficiency and growth because new entrants stimulate competition and efficiency and may also generate, disseminate and apply innovative ideas (Audretsch and Acs (1991)). The competitive process of firm creation and demise, however, does not exist in a *vacuum* and weak institutions may debilitate entry and enhance the market power of incumbent firms, with harmful implications for welfare. Even in developed economies, the efficiency enhancing impact of entry relies on the operation of strong anti-monopoly laws but entry barriers may be even higher in emerging markets. In this paper we explore the determinants of entry across time, industries and regions in the largest transition economy, Russia (Shleifer and Treisman (2005)). In order to do so, we exploit the concept of "natural entry rates" (Klapper, Laeven and Rajan (2006)) in advanced Western countries as a benchmark to assess the impact of institutional variations on regional entry rates in a single national economic entity. We focus both on formal institutional barriers, indicated by level of economic development, industrialization rate, urban population share, poverty rate[1], as well as less formal institutional measures of the business environment variables, such as legislative, political, economic, social and criminal risk[2].

As Russia is a single political unit, much of the formal regulatory and institutional framework is common across all regions, though being federal, some aspects are decentralised. The Russian constitution gives the central government exclusive authority in regulation of foreign trade, legal framework of a single market as well as financial, currency and customs regulations (OECD (2002)). However, the remaining great diversity among Russian regions allows us to explore the impact of institutional variation on entry rates in a novel way. Previous studies (Djankov, La Porta, Lopez-de-Silanes and Shleifer (2002), Klapper, Laeven and Rajan (2006)) have analysed cross-country variations in entry rates and suggested a link between entry rates and the domestic institutional context. These studies, however, could only partially control for macroeconomic policy differences, trading regimes and numerous other country specific factors. Our paper contributes to the debate on the institutional effect on entry by exploring entry rates within a single country, which allows us to address regional economic heterogeneity explicitly and to investigate regional institutional variation.

[1]This is, for example, important in order to distinguish "export led" from "market seeking" entry's strategies, as referred in the wide Foreign Direct Investment literature.

[2]For a review on the effect of institutions on economic performance and development see the Symposium on Institutions and Economic Performance, Benerjee and Ghatak (2005).

Our approach is facilitated by the use of novel and comprehensive longitudinal enterprise data set of firms. Using it allows us to establish that entry rates are not in fact particularly low in Russia, despite deficiencies in the formal institutional environment. However, regional variation in institutional quality impacts on entry rates relative to the levels that would pertain in Western economies. Industries that are characterised by higher entry rates in Western economies experience lower entry in regions with weaker institutions and higher business risk. The results are robust across a variety of measures of "natural entry rates" and of institutional quality.

The paper is organised as follows: in the second section we briefly review the literature on entry in connection with institutions and the business environment; in the third section the data set is described and the magnitude of entry is reported across regions, industry and time; section four is dedicated to the empirical strategy and section five to regression results; we draw our main conclusions in section six.

2 Literature

The literature on entry of new firms into a market focuses around the notion of barriers to entry, which can be defined in terms of a cost for a new entrant which is not borne by the incumbent (Bain (1968); Stigler (1968)). Barriers therefore generate rents for incumbents (Gilbert (1989)). Bain (1949) identified the main determinants of entry to be economies of scale, product differentiation and absolute cost advantage of established firms. A considerable literature has emerged to analyse these phenomena in a strategic and multi-firm setting (e.g. Dixit (1979) and Dixit (1981); Aghion and Bolton (1987); Gilbert and Vives (1986), Carlton (2004)). The models have also been widely tested on developed economy data (e.g. Orr (1974); Dunne, Roberts and Samuelson (1989); Geroski (1991); Caves (1998)) on the basis of equations linking entry rates to measures of, for example, scale economies, sunk costs, market structure and a variety of additional variables.

Since De Soto (1990) path-breaking work, analysts of entry in emerging markets have suggested that regulation of entry represents a further entry barrier. It is argued that regulation is introduced by policy makers in the interests of those that introduce it, namely the pursuit of their own rents (bribes) (Shleifer and Vishny (1993), European Bank for Reconstruction and Development (2005)). This implies that higher levels of regulation will raise entry costs and reduce the rates of entry. North (1991) has highlighted the impact of informal as well as formal institutions, which suggests that entry barriers may also be higher in countries where the general business environment is weaker. Weak legal and institutional environments raise the cost of doing

business, for example the costs of enforcing contracts, and are typically associated with higher level of corruption (Friedman, Johnson, Kaufmann, and Zoido-Lobaton (2000)). Importantly, these additional costs seem likely to bear more heavily on entrants than incumbents, who have developed expertise of operating in this environment analogously to their experience in operating the technology. Hence poor institutional environments are likely to enhance the advantages to incumbents yielded by higher levels of regulation.

The empirical evidence on emerging markets strongly supports the predictions with respect to regulations, but the argument with regard to institutions has rarely been tested, but see Campos and Iootty (2007). Thus Djankov, La Porta, Lopez-de-Silanes and Shleifer (2002) report data on regulations of entry (start-ups) in 85 countries and find that there is a positive relationship between the size of informal economy (in turn highly correlated with corruption), and the burden of the entry regulation, measured by the number of procedures, time and cost of starting a firm. Klapper, Laeven and Rajan (2006) also find that regulations hinder entry, notably those which are in naturally "high entry" industries. However, regulations are found to be not always welfare reducing; labour regulations reduce entry into labour intensive sectors but property rights protection increases entry in R&D intensive sectors (Bertrand and Kramarz (2002)). Ciccone and Papaionnaou (2007) find that entry rates are higher when the time for registering new business is lower although this is also influenced by demand and technology factors. According to the 'Doing Business' statistics compiled by the World Bank, Russia registers a high number of procedures to be implemented in order to open a new business (especially for screening), but does not impose high barriers in terms of registration's time and cost. For example advanced Western countries such as Austria and Italy impose significantly higher entry barriers in terms of registration's time and fees. According to these statistics, it appears that Russia is only partially constrained by the regulatory environment, at least as far as entry of new firms is concerned. However, the same country scores relatively high in corruption levels as well as prevalence of informal economy[3]. This suggests that Russia is a good place to test the impact of formal and informal regulatory barriers.

The discrepancy between relatively low formal regulations cost and high corruption index can be explained by the high impact of informal institutions. As argued by Aidis and Estrin (2006) and Aidis, Estrin, and Mickiewicz (2008), some studies tend to analyse *de jure* regulations by partially failing to measure the real costs to entry. Transition countries, such as Russia, are characterised *de facto* by a much more complex system of entry barriers or entry fostering mechanisms. According to

[3]E.g. Index of Economic Freedom, Heritage Foundation and The Wall Street Journal Index.

these authors, institutional environment, informal networks and entrepreneurial activity play an important role in the process of entrepreneurship development. Formal and informal institutions - laws and social norms - work side by side, whilst it is very difficult to disentangle their marginal effect on firms' economic performance. What is more, Aidis and Adachi (2007) argue that the *Doing Business* Statistics compiled by the World Bank could be misleading. In Russia "regulatory uncertainty, lack of enforcement, regional differences and unfair playing fields" are broadly diffused and they are constantly affecting the process of opening and running a new business. Furthermore, industry variation could be very high; for example, the IT sector appears to be relatively less affected by entry barriers, even if it is still affected by bureaucrats rent-seeking behaviour.

Similarly, Tybout (2000) points out that in least developed countries the cost of entry varies with firm size and prevalence of shadow economy in a specific sector. In such countries antitrust enforcement is very weak, the reason being that large firms lobby legislative bodies to restrain entry of new firms, and to strengthen the incumbents' power. Formal business licensing and labour laws constraints have a relatively less important role. In other words, a judicial system is not working in a vacuum: embedded social norms and informal institutions (networks, shared business practices, etc.), play a crucial role. The difficulty lies in disentangling and measuring their effect.

Most recent studies have highlighted different aspects concerning the diffusion of new entrepreneurs in connection with institutions: Klapper, Laeven and Rajan (2006) focus on entry regulations' effect on entry rates at the level of the country by exploiting a difference in difference approach; Berkowitz and DeJong (2005) show that Russian regional entrepreneurial activity exhibits a statistically and quantitatively significant relationship with subsequent growth; Aidis, Estrin, and Mickiewicz (2008) analyse the link between institutions and entrepreneurial activity using the Global Entrepreneurship Monitor; the CEFIR (2007) Study of Administrative Barriers to SMEs in Russia states that the enforcement of new regulations is lagging behind and there is an "increase in subjective perception of problems associated with corruption and unfair rule of the game for SMEs growth and development", especially in recent years.

Therefore the question remains on how to apply these findings of the literature on regulation and entry to the transition countries context. In Russia, for example, the business environment is affected by high entry barriers and one might expect to find low entry rates. However, it will be shown that this does not appear to be the case.

3 Data Description

Russian regions provide a useful laboratory for research on potential factors affecting entry rates. The large number of regions and the difference in their economic and institutional environments (Popov (2001)) allows us to disentangle various institutional factors and measure their effects on entry rates . The diversity of economic conditions and the large scope for regional governments to influence local institutions have resulted in significant divergence of regional development paths. Regions differ in their wealth, populations' income levels, risk of social tensions and administrative barriers to start-ups. For example, while several regions have been shown to have a legislative climate favourable to investors, such as Nizny Novgorod, Yaroslavl and Moscow regions, others, such as Kursk and Magadan regions lag behind. At the same time, the financial resources of rich regions such as Tyumen oblast significantly exceed those of poor territories, such as the Ingush Republic. Below we will explore how these differences affect entry rates in these regions. To our knowledge this is the first attempt to measure effect of institutions on entry rates in Russia. Although previous attempts include work by Berkowitz and DeJong (2005) on entrepreneurial activity in Russian regions, this paper approximates new start ups by the number of SMEs already operating in the region.

In order to explore the link between entry and institutional environment we compile a dataset containing information on entry rates by industry, regions and years. The data set covers measures of business environment as well as structural socio-economic variables at the level of the region. To build our dataset we drew on three data sources: 1) Ruslana database, 2) Russian State Statistics Agency and 3) Expert RA regional database.

The firm level panel data used in this paper is drawn from Ruslana database[4] and consists of firm level balance-sheet information spanning from 1997 to 2005, covering around 70 % of registered firms in Russia in its latest release. Data cover industries down to 4 digits and provide information on shareholders, company's finances, employment count, firm's location, legal status of the firm (e.g. limited liability companies, single proprietorship, etc.), year of incorporation (as declared by the firm), and company name. This database closely matches information provided by Amadeus data base[5] and this will allow us to compare Russian entry rates to statistics provided by other studies (e.g. Klapper, Laeven and Rajan (2006)) using the same definitions, methodology and variables. However, unlike Amadeus, Ruslana does not have any firm size restrictions; smaller firms are included in the data set.

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[5] © copyright Bureau van Dijk.

Notwithstanding the theoretical possibility to construct a panel between 1997 and 2005 (9 years), the 1997, 1998 and 1999 data have been excluded from the analysis because of mis-reporting and missing values. The sample is reduced dramatically in 1999 (the year after the 1998 crisis) and this induces a strong selection effect on the remaining firms. The firms reporting financial data in 1999 are likely to be less severely affected by the crisis, while a significant part of the sample did not report financial details. We avoid this effect by including observations on firms which report from 2000 onwards, when a consistent number of firms re-entered the database. As far as entry is concerned, we want to assess its magnitude as independently as possible from sample selection due to the shake-out of the 1998 crisis. Furthermore, virtually no firm reports year of incorporation after 2002 and therefore the available years for the analysis are restricted to 2000, 2001 and 2002.

Measurements of socio-economic characteristics of the regions were sourced from Russian State Statistics Agency's publications (former Goskomstat). Information from the Russian State Statistics Agency was compiled for the period of 1995-2005, covering all of the 89 Russian regions. This data set includes information on nominal gross regional product (GRP), GRP growth, industrial production volume and industrial production growth, urbanisation level (measured as percent of city dwellers in total regional population), consumer price growth, number of heavy crimes and share of population with incomes below poverty level. From this data, we have constructed a real GRP per head variable by, first, deflating nominal GRP using regional GRP price growth figures and later dividing by the population count.

Information on institutional variables was sourced from a leading Russian Ranking Agency, Expert RA. Their measurement of institutional quality, calculated in the form of regional indices, provides an indication of the business environment influencing business decisions, foremost the decision to enter a market. The agency calculates two sets of indices. One, the *economic risk index*, measures the likelihood of losing one's investment or profits derived from investment. The other, the *economic potential index*, takes into account each region's macroeconomic standing. In total, 17 different indices are provided, each representing a weighted sum of several indicators[6]. The indices are a combination of quantitative measures and qualitative information. They are based on statistics provided by various government agencies and on analysis of regional leg-

[6]Investment potential includes 8 sub-indexes, and a summary investment potential, namely: Human Capital (education level); Consumer (Total PPP of the population); Industrial Output; Financial; Institutional (development of market institutions); Innovation (modernization level, # new innovations); Infrastructure (location, internet, mobile network); Natural Resources (availability of natural resources); and Summary Investment Potential. Risk Assessment includes 7 sub/indexes, and a summary risk index, namely: Legislative (regulation); Political (polarization of election outcomes); Economic; Financial; Social; Criminal; Ecological; and Summary Risk Index.

	Hum. Cap.	Cons.	Ind.	Fin.	Inst.	Innov.	Infrastr.	Nat. Res.
Consumer Potential	0.95	1.00						
Industrial Output	0.91	0.95	1.00					
Financial	0.84	0.87	0.88	1.00				
Institutional	0.94	0.93	0.89	0.81	1.00			
Innovation	0.83	0.81	0.77	0.68	0.78	1.00		
Infrastructure	0.37	0.32	0.26	0.21	0.30	0.54	1.00	
Natural Resources	0.31	0.36	0.37	0.39	0.32	0.07	-0.43	1.00
Overall Potential	0.94	0.96	0.96	0.91	0.91	0.80	0.33	0.41

Table 1: Institutional Potential Indexes (2000): Correlation Table

islative documents and press articles. The weights attributed to different indicators which compose each of the 17 indices are determined through a survey of managers and specialists in both Russian and international consulting firms. For example, legislative risk index is based on analysis of legislative documents enacted by regional government bodies, and takes into account establishment of free economic zones, as well as the extent of regulation of production activities and investment. Political risk index reflects polarisation of election outcomes, political inclinations of regional heads, political views of the electorate, popularity of local administration, ethnic tensions, court action undertaken against regional government and cabinet reshuffles. Similarly, social risk is a composite measure of poverty levels, living costs and the state of regional heating system. Crime risk index reflects the number of murders and serious crimes committed in the region, while economic risk index measures economic stability and development of market institutions. Likewise, human capital potential reflects educational level of the population in a given region, while industrial potential takes account of industrial output produced in the region. The 17 indices are provided in form of a rank and thus constitute an ordinal measure of quality of regional institutions[7].

Despite evident shortcomings, such as the subjectivity of weights, these data are well suited for our needs as they approximate institutions likely to hinder or promote entry of new firms. However, these indexes are correlated with each other, as shown in Tables 1 and 2. Among investment potential rank indexes only natural resources and infrastructure are relatively uncorrelated with the overall index, while the other indicators show a correlation above 0.80. On a slightly different note, the risk rank shows a more idiosyncratic pattern, whereby ecological risk is relatively uncorrelated whilst all the others tend to move together.

We are able to exploit regional variations in Russia because regional authorities have significant discretion in such areas of joint responsibility as ownership, land use and management, mineral resources, as well as in establishing general principles of

[7]The only exception is an additional overall regional risk index, which is a cardinal measure.

	Legislative	Political	Economic	Financial	Social	Criminal	Ecological
Political	-0.03	1.00					
Economic	0.00	0.41	1.00				
Financial	0.07	0.39	0.46	1.00			
Social	0.18	0.07	0.07	0.27	1.00		
Criminal	0.15	-0.04	0.06	0.43	0.42	1.00	
Ecological	0.01	-0.31	-0.38	-0.46	0.18	-0.11	1.00
Overall Risk	0.40	0.28	0.27	0.58	0.70	0.59	0.07

Table 2: Institutional Risk Indexes (2000): Correlation Table

taxes and levies. Moreover, regional authorities have formal power and responsibility over local financial aid and subsidies, government procurement, investment and trade promotion, control over natural resources, environment protection and licensing. Control over these areas has led to significant diversity in regional legislation and administrative practices affecting entry of new firms into the market. The OECD (2002) report on trading policy in Russian regions illustrates the diversity of institutional setting. For example, Cheliabinsk oblast introduced additional procedures and higher fees than those stipulated by federal law for such activities as employment services, international tourism, passenger transportation as well as production and marketing of alcohol. Primorskiy krai decreed higher fees for licensing pharmaceuticals, while Nizhny Novgorod extended licensing requirements for engineering systems, building and road maintenance. The republics of Udmurtia and Mordova introduced regional certification of companies, effectively restricting entry.

As Table 3 demonstrates, the differences in institutional and economic variables are large between regions and over time. Thus, while one of the risk-free regions, Moscow city, has an investment risk index of 0.71 (low count denoting low risk for this index), Briansk region has an index of 1.65, more than two times that of Moscow city. The subset of indicators, which constitute investment risk index shows a similar divergence. While Novgorod region recorded a total of 2.69 murders and attempted murders per each 10,000 of its population in 2002, Moscow city registered only 1.23. Similarly, while Moscow city is one of the regions registering high on economic potential index with 18.28 in 2002, Briansk scores low with an index of 0.60 in 2002. Likewise, while Moscow city leads with a number of patents granted per 10000 population, Briansk and Novgorod are lagging behind. In fact, the number of patents in Moscow adjusted by population count, granted in 2002, exceeds those granted in Novgorod in the same year by 8 times and those granted in Briansk by 23 times.

Variation across time is also considerable. For example the share of insolvent enterprises in the total number of regional enterprises and organizations grew from 39 percent in 2000 in Briansk to 50 percent in 2002. At the same time, the number of

	Briansk		Krasnodar		Novgorod		Moscow city	
	2000	2002	2000	2002	2000	2002	2000	2002
1) Ec. Pot.	0,64	0,60	2,10	2,04	0,48	0,48	16,97	18,28
2) Vol. Inn.	1269	3882	28	553	11659	28122	11390	3430
3) N° patents	0,181	0,145	0,527	0,894	0,344	0,403	4,889	3,337
4) Motorways	178	184	137	143	156	158	n/a	n/a
5) Exp.& Sav.	1116	2168	1675	3130	1590	2718	10826	17209
6) **Risk index**	**1,65**	**1,26**	**0,83**	**0,90**	**0,76**	**0,73**	**0,71**	**0,74**
7) Murders	1,36	1,40	1,72	1,37	2,45	2,69	1,32	1,23
8) Ec. crimes	24	21	14	13	20	26	28	20
9) Insolvency	39,10	50	28,70	31,70	44,00	44,90	26,50	28,80
10) Pop.('000)	1438	1379	5007	5124	727	695	8537	10358

Table 3: Regional Differences in Institutional and Economic Variables.1 Economic potential (share in total); 2 Volume of innovative products, Rb thousand per 10000 population; 3 Number of patents granted per 10000 population; 4 Density of motorways, km per 1000km2 of region's territory; 5 Nominal expenditure and savings, Rb; 6 Risk index, Russia=1; 7 Number of murders and attempted murders per 10000 population; 8 Number of economic crimes per 10000 population; 9 Share of insolvent enterprises in the total number of enterprises and organizations (%); 10 Population, thousand.

patents granted per 10000 population in Krasnodar grew from 28 to 553 (however, this might be endogenous to entry). The change in summary indices, reflecting a change in institutional quality in the period of 2000-2002, is quite noticeable in a number of regions. From 2000 to 2002, the investment risk index for Briansk improved by 0.385 from 1.645 to 1.260, and for Smolensk it improved by 0.347 from 1.287 to 0.940. At the same time Koriak autonomous region and Tyumen region fared worse in the summary investment risk index. Koriak autonomous region saw its investment risk increase by 0.680 points from 1.690 to 2.370 and Tyumen region saw investment risk grow from 0.970 to 1.210.

In addition to differences in formal regulation, regional authorities exercise informal control over local market institutions, which affect ease of creating and operating a firm. As a result, the number of inspections and the costs of obtaining a license may differ from one region to another. For example, an average small company in Kurgan oblast in 2001 was inspected 10 times compared to 2.5 times in Samara oblast over the same time period (CEFIR (2007)).

4 Estimation Strategy

We use two measures of the entry rate; entry over one year and entry spanning a two year period. Entry 1 year rate is the number of companies with incorporation year $= T$ divided by the number of companies with the incorporation year $\leq T$. Entry 2

years rate is the number of companies with incorporation year $= T$ or $T-1$ divided by the number of companies with the incorporation year $\leq T$. We compute entry within the same industry, region and year: industries are denoted by the subscript i, i.e. 58 Nace 2 digit industries dummies (excluding such sectors as agriculture, mining, utility, financial intermediation and public administration); regions are denoted by r, i.e. 87 regions dummies (Nenets AO and Komi Permiatsk AO are missing); time is denoted by t, i.e. year 2000, 2001 and 2002[8].

The dataset provides a large number of observations, distributed across virtually all Russian regions, and allows us to observe the formal act of entry since it provides the date of firm's registration. However, incorporation in the early years of the transition might mostly indicate privatisation, but, since our dataset covers the 2000-2002 period, we avoid this pitfall, as the dominant share of Russian economy was privatized by 1997. We also cannot distinguish between new entry and legal change of name, which may have occurred in later years. The legal change of name, however, is often a result of change of ownership and thus represents a new way of recombining a firm's resources and introduction of a new strategy. While this does not constitute a *de novo* entry as such, it still often signifies entry of a new player or a new approach to the market.

There may be problems for the measure of entry rates for small firms, defined as those with less then 50 workers. The number of small firms entering in the unregistered big informal sector is likely to be very large, and this would not be captured by our self-declared year of incorporation variable. Therefore, we also estimated our econometric models on a four dimensional database (region, industry, year *and* firm-size), which increases the size of the sample and captures the differential effect of institutions on entry-size categories. In fact, the new LHS variable is defined in the following way: entry 1 year rate is the number of companies with incorporation year $= T$ of a *specific* size category divided by the number of companies with the incorporation year $\leq T$ of the same size category. We decided to adopt the standard size taxonomy of $s1 < 50$, $s2 = [51 - 250]$, $s3 > 250$.

The measurement of entry therefore exploits three dimensions: time, industry, and regional variation. Table 4 reports Russian entry rates by year with international comparisons. It is noteworthy to highlight the similarity of entry rates values between countries: Russia appears to register "Western levels" entry rates in the 2000-2002 period and higher rates than a comparable transition country, Ukraine. However, note that high entry rates do *not* imply high survival rates. In fact net entry rates could well be different among Russia and Western economies (see Brown and Earle (2006)

[8]The theoretical overall number of data of the database is therefore 3 x 58 x 87 = 15138. However there are missing industries in some regions. Our dataset contains over 5000 observations and over 9000 when we account for the size effect.

and Rutkowski and Scarpetta (2005))[9]. Table 5 and 6 report entry rates for Russia, Ukraine, Europe and USA by 2-digit industries.

In order to test the relationship between entry and institutions, we run a Tobit estimation [10] model for the truncated [0.1] LHS entry variable computed from the year of incorporation declared by the firm[11]. We exploit the Klapper, Laeven and Rajan (2006) methodology drawn from the *difference in difference* approach used by Rajan and Zingales (1998) by including the interaction term $[Institution_{r,t-1} \times Nat-Entry_i]$. This specification is equivalent to testing whether institutions affect differently entry rates *given* the "natural entry rate" [12], the latter reflecting the long run barriers to entry pertaining in a developed market economy. The specification includes macro regions fixed effects (out of 87 oblast, the regions are grouped in 13 macro-groups, by following an administrative criteria adopted by the central government, $D_{Mr} \in [1, 13]$), industry fixed effects (53 Nace 2-digit industries, excluding agriculture, mining, utility, financial intermediation and public administration that show a structurally lower entry rate, $D_i \in [1, 53]$), time fixed effects (3 years, $D_t \in [1, 3]$) as well as Goskomstat regional variables $\mathbf{X_{r,t-1}}$, namely[13]: logarithm of the value added at the level of the sector and region (at time t)[14]; logarithm of the population at the level of the region (at time t-1); logarithm of the industrialization rate (at time t-1); logarithm of the gross regional product per capita at 2000 constant prices (at time t-1); logarithm of the growth rate of the gross regional product (at time t-1); logarithm of the % city population (at time t-1); logarithm of the % of people below the poverty line (at time t-1); logarithm of the crime rate on 1000 inhabitants (at time t-1).

We also performed two main robustness checks as far as the measurement of institutions and the natural entry rates are concerned: institutions variables are loaded, either as potential or as risk ranking and natural entry rates are sourced either from USA or EU data[15].

[9]The corresponding values for the 2 years entry rate, show similar patterns between Ukraine, Europe and USA, whilst Russia entry rates are higher. This is most probably due to the post 1998 shake-out effect: the number of firms re-entering the market in the 1999 and 2000 year were abnormally high due to the rebound from the end of the crisis, and therefore can hardly be considered a long run steady-state value.

[10]Bootstrapped S.E. with 100 repetitions.

[11]Date of incorporation reported by a sub-sample of around 15%.

[12]For example, consider two sectors only, with natural entry rates of 0 and 1, respectively. The interaction term $[Institution_{r,t-1} \times 1 = Institution_{r,t-1}]$ will capture exactly the impact of institutions on the 100% entry sector with respect to the no entry one $[Institution_{r,t-1} \times 0 = 0]$.

[13]The selected regional variables show a correlation level below a 0.5.

[14]It captures an industry specific convergence effect: we correct for the possibility that sectors that are large relative to the rest of the economy experience lower entry rates

[15]Aghion, Blundell, Griffith, Howitt and Prantl (2004) analyse entry determinants using both structural variables *and* exogenous variation *via* instrumental variable estimation, in order to tackle potential reverse causality (entry might improve institutions). We might also be subject to reverse

The following model is estimated (the subscript "i" stands for industry, "r" stands for region, "Mr" stands for macro-region and "t" stands for time, bold variables indicate matrices or vectors):

The Baseline Regression

$$\begin{aligned} Entry_{r,i,t} &= \sigma(Inst_{r,t-1} \times Nat - Entry_i) \\ &+ \sum_{Mr=1}^{R} \beta_{Mr} D_{Mr} + \sum_{i=1}^{I} \beta_i D_i \\ &+ \sum_{t=1}^{T} \beta_t D_t + \mathbf{BX_{r,t-1}} + \epsilon_{r,i,t} \end{aligned} \tag{1}$$

The Firm Size Effect Regression

$$\begin{aligned} Entry_{r,i,s,t} &= \sum_{s=1}^{3} \sigma_s(Inst_{r,t-1} \times Nat - Entry_i) \\ &+ \sum_{Mr=1}^{R} \sum_{s=1}^{3} \beta_{Mr,s} D_{Mr,s} + \sum_{i=1}^{I} \sum_{s=1}^{3} \beta_{i,s} D_{i,s} \\ &+ \sum_{t=1}^{T} \beta_t D_t + \mathbf{BX_{r,t-1}} + \epsilon_{r,i,s,t} \end{aligned} \tag{2}$$

Size Categories: $s1 < 50$, $s2 = [51 - 250]$, $s3 > 250$

Il the latter equation the regional RHS variables and the time dummies are unmodified, whilst the interaction term between institutions and the natural entry rate, as well as the macro-region, and industry dummies, are included for all the 3 size categories [16].

5 Results

The results of the estimation of the two basic regressions 1 and 2 are reported in Tables 7 and 8, respectively. The dependent variable is the 1 year entry rate[17]. Table 7 concerns the three dimensional data base (region, industry and time), whilst Table 8

causality if a sector-region specific entry rate potentially affect the institutional environment of the *whole* region, that we think to be unlikely. However, we are aware that this effect cannot be excluded.

[16] See for example Aghion, Fally and Scarpetta (2007).

[17] We also checked for the use of 2 years entry rate as LHS variable, as explained in the text. The conclusions are fully consistent with the 1 year entry results (available on request).

concerns the four dimensional data base (region, industry, time *and* size). Each table reports four columns, according to the different specification of the interaction term: (1) Overall Potential indicator interacted with USA natural entry rates by sector; (2) Overall Risk indicator interacted with USA natural entry rates by sector; (3) Overall Potential indicator interacted with EU natural entry rates by sector; (4) Overall Risk indicator interacted with EU natural entry rates by sector. In fact, we are interested in studying the sign of the σ and σ_s coefficients in equations 1 and 2, respectively[18].

Do Institutions matter? A major issue for our empirical work concerns whether industries characterised by higher 'natural entry rates' will suffer relatively more in terms of entry if based in regions with low investment potential (high investment risk). Since a high value for the institutional variables indicates worst regions, a negative sign on the interaction term would corroborate this hypothesis. In order to answer the question, we should therefore look at the top panel of table 7. The estimated coefficients for all columns are negative and significant and are in the range 0.012 - 0.028. We can interpret the relationship between institutions and entry by using a numerical example: within an industry characterised by a natural entry rate of around 10% (for example the computer service sector, 10.73%, table 5, part II), an increase in the investment constraints of 10 positions (in the regional ranking list) entails a decrease of entry rates of around 1.2 - 2.8%[19]. However the institutional constraint should be interpreted as a short run effect, with the expectation that the computer service sector would converge, eventually, to its long run natural entry rate; in a perfect world of no institutional differences among regions, we should observe each sector approaching its natural entry rate.

Do institutions affect different firm size in different ways? The top panel of Table 8 further investigates the relationship between institutions and entry, by looking

[18]The regressions controlling for industry fixed effects, time fixed effects and 87 Regions fixed effects (instead of the 13 Macro Regions fixed effect) wash out all the effect for the institutional and regional variables, because of the relatively short time span of the sample (3 years), i.e. the Goskomstat and Expert RA institutional variables at the level of the region do not show sufficient time variation in order to be statistically different from a sheer regional fixed effects. Including 87 fixed effect dummies and those regional variables would generate multicollinearity.

[19]We also looked at regressions based on sub-indexes, results available on request. For the Institutional Potential Rank and Criminal Risk Rank sub-indexes there is a positive and significant coefficient on the interaction term. This is not surprising given the fact the former is accounting for the number of entrepreneurs not registered as legal entity (informal sector), and this is strongly influenced by the under-estimation of small firms entry. The latter is highly correlated with mafia and network activities (Centre for Economic and Financial Research at New Economic School (2007), Monitoring the Administrative Barriers to Small Business Development in Russia. Round 6, http://www.cefir.ru/index.php?l=eng&id=260.) and therefore higher "corruption" could, paradoxically, enhance entry.

Countries	NACE	One Year Entry Rate
Russia	15-93	7.02%
(2000-2002)	1-93	6.79%
Ukraine	15-93	5.52%
(2000-2004)	1-93	5.80%
Europe	15-93	7.09%
(1998-1999)		
U.S.A.	15-93	6.65%
(1998-1999)		

Sources: Ruslana for Russia and Ukraine, Dun and Bradstreet for Europe and USA.

Table 4: Comparing Entry Rates

at the effect of the interaction between regional institutions and natural entry rate for three firm size categories. We believe that firm dimension could well drive the above mentioned relationship, due to differences in institutions. Two results are noteworthy. First, the estimated coefficients for all columns are negative and significant in the medium and big firm category, whilst the small sized firm coefficient is not always significant. Second, the magnitude of the coefficients - included in a range between 0.013 - 0.045 - shows that small firms (with 0-50 employees) appear to be less constrained by the institutional context, while medium (51-250 employees) and large firms (over 250 employees) show moderate and high responsiveness, respectively. Summing up, there is a limited effect of institutions on small firms' entry. If we consider medium and big firms, the latter are the most affected by adverse business environment. These results are consistent with the fact that small firms' entry rates are underestimated and that small firms tend to rely relatively more on informal institutions, as pointed out by Aidis and Estrin (2006) and Aidis, Estrin, and Mickiewicz (2008).

Do structural variables matter? As far as the structural regional variables are concerned, we should look at the bottom panel (structural $\mathbf{X_{r,t-1}}$) of tables 7 and 8. The value added variable is always negative and significant , and this is a signal that there is an industry specific convergence effect: sectors that are relatively large in the region register less entry (as in Klapper, Laeven and Rajan (2006)). There is a positive effect of the size of urban population and a negative effect of the industrialization (less industrialized regions register higher entry rates). The coefficients on poverty and crime are negative, and the coefficients on GRP per capita and population size are positive, but not always significant. Surprisingly, the regional level of growth (GRP growth) does not appear to affect on entry though this could also be a consequence of the limited time span of the data base. Structural variables are therefore important in explaining the overall process of opening a new business in Russian regions.

6 Conclusions

We exploited a comprehensive database on Russian firms to compute entry rates by region, industry and time. We find Russian entry rates are not in fact low by international standards - when small firms are included in the dataset - and are high in comparison with Ukraine. This runs counter to expectations in the literature (Aidis and Adachi (2007)). We go on to show that entry rates can be explained by structural barriers as well as institutional determinants at the level of the region. We regress the entry LHS variable in a Tobit model by exploiting regional and time variations of RHS variables on hard economic data as well as soft institutional indicators. On the one hand, the regional levels of industrialisation, urbanisation, poverty and registered crime do impinge significantly on entry. On the other hand, we demonstrate that entry is negatively affected by the business environment, which we interpret as reflecting the quality of regions' institutions. We show that industries which, for technological and structural reasons, are characterized by high 'natural entry rates' will experience lower entry rates in regions with higher business risk (lower business potential). These results are robust to: the use of both the one year entry and two year entry rates as LHS variable; the use of both the EU and the USA entry rates by industry as a proxy for natural entry rates; the use of both the risk rank indicators and potential rank indicators as RHS. When the firm size dimension of the database is further exploited, a higher relative effect of entry barriers for medium and large firms prevails. This could be partially explained by the fact that small firms tend to rely more on informal institutions.

It is not necessarily the case that our findings indicate competitive processes are healthy in Russia. While entry rates are high in Russia, it is possible that exit rates are also high, implying low *net* entry rates and a rather limited impact of competitive pressures on the behaviour of incumbents. This is consistent with the view of Geroski (1995),

> 'it is a little difficult to reconcile high entry barriers with high entry rates, not least because entry are commonly thought of as an obstacle which prevent firms from entering a market. If, however, barriers to entry are thought of as an obstacle which prevents new firms from surviving long in the market, then the data present less that a puzzle'.

Dosi and Lovallo (2000) quote Geroski (1991) and Geroski (1995) in their review of the four major stylized facts emerging from the literature on entry: 1) there is low survival rate for new entrants; 2) different measures of entry (gross, net, entry rates, penetration rates) are not correlated among themselves (however, entry rates

tend to be very correlated with exit rates); 3) different type of entrants (e.g. de novo vs. diversifying; low vs. high tech industry) imply different probability of success; 4) the effect of entry on market performance is fairly modest. Dosi and Lovallo (2000) provide an interesting perspective on the link between nature of the decision biases of individuals and organizations and the pattern of corporate entry, exit and industrial dynamics, that is missing in other part of the literature. This appears to be of particular importance in the analysis of transition countries such as Russia, burdened by uncertain and fast changing business environment and institutions.

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Industry	NACE Code	RUSSIA (2000-2002)					UKRAINE (2000-2004)							Europe (1998-1999)		U.S.A. (1998-1999)
		2000	2001	2002	Age 1	Age 1&2	2000	2001	2002	2003	2004	Age 1	Age 1&2	Age 1	Age 1&2	Age 1
Agriculture	1	3.41	6.00	4.25	4.58	10.75	40.84	4.66	1.35	0.89	1.10	9.48	20.02	-	-	-
Forestry	2	9.78	8.81	1.86	6.45	19.52	1.28	0.00	0.00	0.00	0.00	0.25	1.25	-	-	-
Fishing	5	6.40	11.33	2.34	6.50	16.81	18.18	0.00	0.00	8.33	0.00	5.26	14.03	-	-	-
Mining of Coal	10	3.92	11.66	0.00	5.26	15.78	2.22	4.16	2.08	0.00	0.00	1.68	5.04	-	-	-
Extr. Oil-Gas	11	9.76	4.30	5.82	6.47	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
Mining of Uranium	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
Mining of Metal	13	3.70	0.90	5.04	3.25	6.50	6.66	0.00	0.00	0.00	0.00	1.33	4.00	-	-	-
Other mining	14	10.34	6.10	2.76	6.12	16.58	5.88	0.00	5.26	2.56	2.50	3.19	9.04	-	-	-
Food & Beverages	15	6.57	4.78.	2.00	4.36	12.55	5.65	3.41	3.37	1.44	1.12	2.97	7.17	4.63	9.78	5.24
Tobacco	16	7.70	0.00	0.00	2.47	8.64	0.00	14.28	0.00	0.00	0.00	2.94	5.88	15.23	16.12	7.45
Textiles	17	7.40	7.12	2.74	5.65	15.20	5.17	1.51	7.46	5.55	4.00	4.73	10.65	4.82	9.37	6.92
Wearing Apparel	18	6.89	2.87	1.10	3.54	9.87	2.94	2.77	1.83	0.00	0.00	1.47	4.24	4.83	9.56	6.44
Luggage, Handbags	19	7.19	4.46	1.29	4.30	12.25	0.00	0.00	0.00	0.00	0.00	0.00	1.14	6.12	8.48	9.06
Wood & Cork	20	10.57	6.80	0.95	5.89	17.81	10.00	12.90	6.34	4.61	1.49	6.84	16.28	5.62	11.09	5.98
Pulp & Paper	21	10.05	8.06	2.02	6.50	17.35	11.62	5.88	9.25	5.26	1.72	6.46	14.82	5.74	9.32	5.26
Publishing	22	6.07	5.00	0.85	3.88	13.77	7.69	9.375	3.03	1.47	2.81	4.67	9.96	5.71	11.15	5.49
Coke, Refined Oil	23	11.39	5.81	3.37	6.69	18.89	4.76	0.00	0.00	0.00	4.16	1.77	2.65	7.11	10.78	5.80
Chemicals	24	7.50	5.05	0.91	4.37	13.44	9.40	5.51	2.30	2.94	2.15	4.31	10.32	4.64	9.53	6.08
Rubber & Plastic	25	11.54	7.31	1.64	6.58	18.12	14.28	8.79	8.51	3.92	1.94	6.95	17.17	5.17	11.15	4.46
Non Metallic Prod.	26	10.64	8.92	2.79	7.17	19.07	7.97	5.30	2.51	3.05	1.78	3.97	8.58	4.90	9.33	5.79
Basic Metal	27	7.90	4.64	2.86	5.02	12.76	9.37	5.79	1.42	0.00	2.81	3.79	9.03	7.33	12.54	4.90
Fabricated Metal	28	7.39	3.93	1.73	4.22	13.64	9.41	7.62	8.49	3.63	0.90	5.80	12.76	5.99	11.58	5.71
Mach. & Equipment	29	5.90	4.20	1.35	3.76	11.19	4.86	3.85	1.27	1.25	1.23	2.44	5.72	4.86	10.46	4.30
Office Machinery	30	5.15	3.80	0.94	3.24	9.74	0.00	5.55	5.55	0.00	0.00	2.27	6.81	9.33	15.53	8.67
Electrical machinery	31	5.26	2.83	0.93	2.95	9.33	5.05	4.54	2.67	1.73	2.58	3.26	7.60	5.82	11.06	5.92
Radio & TV	32	4.36	0.99	0.65	1.98	6.38	0.00	2.32	4.65	2.27	2.22	2.34	5.16	14.35	7.14	8.45
Medical & Optical	33	5.26	2.17	0.20	2.50	8.40	9.09	2.22	2.17	2.12	0.00	3.05	7.86	5.62	9.97	5.72
Motor Vehicles	34	8.75	2.92	0.54	3.90	11.70	8.82	2.70	2.70	9.75	0.00	4.73	11.05	10.78	5.47	5.20
Other Transport	35	4.50	4.60	2.03	3.67	9.68	4.28	3.79	5.06	1.23	1.21	3.06	6.90	6.94	12.90	7.96
Furniture	36	9.96	6.26	0.90	5.50	17.25	10.58	6.38	2.08	3.92	2.88	4.99	12.47	5.90	11.73	7.92

Table 5: Entry Rates (Part I)

Industry	NACE Code	RUSSIA (2000-2002)					UKRAINE (2000-2004)							Europe (1998-1999)		U.S.A. (1998-1999)
		2000	2001	2002	Age 1	Age 1&2	2000	2001	2002	2003	2004	Age 1	Age 1&2	Age 1	Age 1&2	Age 1
Recycling	37	8.72	7.96	2.12	6.10	18.90	14.28	11.11	5.55	0.00	5.26	6.90	13.79	-	-	-
Elect. Gas Water S.	40	5.12	9.48	5.64	6.76	16.05	5.75	6.66	0.66	0.66	0.00	2.70	5.94	-	-	-
Coll. Pur. of Water.	41	4.12	10.90	9.32	8.30	16.00	0.00	1.92	0.00	0.00	0.00	0.38	1.92	-	-	-
Construction	45	9.71	6.84	2.27	6.05	17.16	6.46	3.81	6.28	3.80	2.65	4.50	10.98	6.51	13.56	8.14
Sale Motor Vehicles	50	14.29	10.37	3.73	8.92	24.11	10.00	6.84	7.69	7.05	2.27	6.51	15.36	6.21	13.15	5.05
Wholesale Trade	51	19.36	13.73	5.87	12.28	31.16	11.57	12.34	11.28	8.72	4.70	9.35	20.39	7.00	14.65	5.35
Retail Trade	52	7.42	5.22	2.51	4.92	13.46	7.72	7.17	4.45	2.66	4.41	5.13	11.25	7.55	15.01	7.19
Hotel & Restaurant	55	7.58	3.97	1.08	4.09	11.44	0.00	10.52	0.00	5.00	0.00	3.12	6.25	7.42	14.73	5.95
Land Trans. Pipeline	60	5.45	3.99	1.75	3.64	10.60	4.87	4.93	2.64	1.73	0.43	2.86	7.87	7.82	15.56	8.41
Water Transport	61	3.17	4.65	4.44	4.10	12.05	0.00	0.00	0.00	0.00	10.00	2.17	2.17	7.12	11.67	5.61
Air Transport	62	4.59	6.06	2.00	4.20	11.53	7.69	0.00	0.00	0.00	0.00	1.44	4.34	8.62	13.53	6.19
Supporting Transp.	63	6.55	6.59	1.17	4.62	14.00	5.88	4.91	8.06	2.34	6.47	5.52.	11.05	6.95	14.20	6.77
Post & Telecom.	64	5.67	3.29	1.35	3.34	10.44	14.28	4.16	8.33	4.00	3.84	6.66	12.50	14.00	26.71	10.09
Financial Interm.	65	12.57	8.96	3.06	7.76	21.81	20.00	0.00	0.00	22.00	0.00	8.57	22.85	-	-	-
Insur. & Pens. F.	66	22.22	0.00	7.14	9.09	18.18	0.00	6.25	0.00	5.88	0.00	2.46.	4.93	-	-	-
Auxiliary Fin. Serv.	67	11.76	10.99	4.29	8.77	20.31	0.00	0.00	0.00	18.18	0.00	4.08	10.20	-	-	-
Real Estate	70	5.72	4.37	1.83	3.90	11.66	12.35	15.23	4.67	0.00	0.92	6.40	13.75	8.20	15.76	5.33
Rent Machinery	71	11.51	7.50	1.86	6.55	21.03	12.5	18.18	0.00	15.38	13.33	12.06	24.13	9.18	17.66	6.34
Computer Serv.	72	9.60	6.04	1.48	5.51	17.18	9.52	15.38	0.00	0.00	3.33	5.18	15.55	12.49	22.19	10.73
R. & D.	73	4.50	1.39	0.69	0.21	6.95	4.39	0.00	3.12	1.03	1.02	1.88	5.45	10.29	16.76	6.53
Other Business Act.	74	8.13	5.91	2.38	5.39	15.61	11.26	5.55	6.06	7.65	2.57	6.38	15.13	8.76	16.98	6.46
Public Administr.	75	0.00	0.00	0.00	0.00	3.22	0.00	0.00	0.00	0.00	0.00	0.00	2.85	-	-	-
Education	80	3.01	2.03	0.24	1.71	7.10	0.00	0.00	4.54	0.00	0.00	0.90	2.70	-	-	-
Health & Social W.	85	6.70	3.98	1.17	3.86	11.80	20.00	2.94	2.94	2.77	2.77	5.88	12.94	-	-	-
Sewage & Refuse	90	6.78	5.66	1.87	4.68	12.50	12.5	0.00	0.00	0.00	0.00	2.5	5.00	-	-	-
Memb. Organisations	91	6.18	2.59	0.85	3.00	13.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
Recreational	92	7.14	3.69	0.73	3.74	12.50	14.28	6.45	0.00	2.94	0.00	4.43	10.75	-	-	-
Other Services	93	8.19	4.50	0.90	4.42	11.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.29	16.76	6.53
Sub-TOTAL	15-93*	10.83	7.85	3.13	7.02	19.04	8.00	7.07	6.04	4.45	2.87	5.52	12.54	7.09	13.27	6.65
TOTAL	1-93**	10.28	7.65	3.11	6.79	18.41	12.80	6.42	5.00	3.76	2.45	5.80	13.15	-	-	-

Table 6: Entry Rates (Part II)

Entry rates at 2 digit NACE Industry level for 1 year old (Age 1) and 2 years old (Age 1 & 2) firms. See text for further details. *Sources*: Ruslana Database (2000-2004) and Klapper, Laeven and Rajan (2006).

EFFECT of INSTITUTIONAL VARIABLES on ENTRY

	Dependent variable: Entry Rates (r,i,t)			
	(1)	(2)	(3)	(4)
Interaction:	Pot.R.-USA	Risk.R.-USA	Pot.R.-EU	Risk.R.-EU
$(In_{r,t-1} \times E_i)$	-0.028***	-0.012**	-0.020**	-0.013***
	(0.010)	(0.005)	(0.009)	(0.004)
$D_{Mr}\diamondsuit$	Y	Y	Y	Y
$D_i\diamondsuit$	Y	Y	Y	Y
$D_t\diamondsuit$	Y	Y	Y	Y
Structural $\mathbf{X_{r,t-1}}$:				
Value Added$\natural$	-0.045***	-0.044***	-0.045***	-0.044***
	(0.011)	(0.011)	(0.010)	(0.011)
Population	0.012	0.056***	0.022	0.056***
	(0.021)	(0.010)	(0.020)	(0.011)
Industrialisation	-0.336***	-0.287***	-0.323***	-0.288***
	(0.068)	(0.055)	(0.071)	(0.056)
GRP pc	0.003	-0.004	0.005	-0.006
	(0.019)	(0.020)	(0.021)	(0.019)
GRP growth	0.146	0.159	0.146	0.163
	(0.120)	(0.126)	(0.123)	(0.135)
% City Pop.	0.434**	0.475***	0.444***	0.478***
	(0.189)	(0.158)	(0.162)	(0.184)
% Poverty	-0.249**	-0.280**	-0.254*	-0.282**
	(0.125)	(0.134)	(0.137)	(0.129)
% Crime	-0.159	-0.167	-0.165	-0.167
	(0.188)	(0.201)	(0.180)	(0.166)
Obs.	5069	5069	5069	5069
Pseudo R^2	0.24	0.24	0.24	0.24

Table 7: Tobit Regression: LHS One year Entry Rate in the region, industry and year. Bootstrapped S.E. in parenthesis. Coefficients significant at ***p=.01, **p=.05 and *p=.10. $\diamondsuit$ The null hypothesis of joint zero coefficients for the D_{Mr}, D_i and D_t, respectively, is always rejected. $\natural$ The Value Added variable is sector-specific and at time t, i.e. $VA_{r,i,t}$.

EFFECT of INSTITUTIONAL VARIABLES on ENTRY by SIZE CATEGORIES

	Dependent variable: Entry Rate (r,i,t,s)			
	(1)	(2)	(3)	(4)
Interaction:	Pot.R.-USA	Risk.R.-USA	Pot.R.-EU	Risk.R.-EU
$[In_{r,t-1} \times E_i] \times s1$	0.014	-0.013*	0.005	-0.015**
	(0.011)	(0.007)	(0.009)	(0.006)
$[In_{r,t-1} \times E_i] \times s2$	-0.035**	-0.022*	-0.035***	-0.025***
	(0.014)	(0.011)	(0.013)	(0.009)
$[In_{r,t-1} \times E_i] \times s3$	-0.051***	-0.032***	-0.045***	-0.030***
	(0.011)	(0.010)	(0.012)	(0.009)
$D_{Mr,s}\diamondsuit$	Y	Y	Y	Y
$D_{i,s}\diamondsuit$	Y	Y	Y	Y
$D_t\diamondsuit$	Y	Y	Y	Y
Structural $\mathbf{X_{r,t-1}}$:				
Val. Added$\natural$	-0.071***	-0.068***	-0.071***	-0.068***
	(0.007)	(0.009)	(0.007)	(0.008)
Population	0.009	0.032***	0.002	0.031***
	(0.018)	(0.012)	(0.019)	(0.012)
Industrialisation	-0.237***	-0.169***	-0.239***	-0.172***
	(0.060)	(0.066)	(0.075)	(0.063)
GRP pc	0.055**	0.041*	0.053**	0.040*
	(0.021)	(0.022)	(0.023)	(0.022)
GRP growth	0.029	0.073	0.037	0.078
	(0.129)	(0.153)	(0.153)	(0.147)
% City Pop.	0.526***	0.450***	0.512***	0.449***
	(0.137)	(0.134)	(0.131)	(0.133)
% Poverty	-0.059	-0.085	-0.061	-0.084
	(0.143)	(0.140)	(0.161)	(0.142)
% Crime	-0.278*	-0.145	-0.277*	-0.118
	(0.158)	(0.185)	(0.165)	(0.155)
Obs.	9861	9861	9861	9861
Pseudo R^2	0.15	0.15	0.15	0.15

Table 8: Tobit Regression: LHS One year Entry Rate in the region, industry, year and size category. Bootstrapped S.E. in parenthesis. Coefficients significant at ***p=.01, **p=.05 and *p=.10. $\diamondsuit$ The null hypothesis of joint zero coefficients for the $D_{Mr,s}$, $D_{i,s}$ and D_t, respectively, is always rejected. $\natural$ The Value Added variable is sector-specific and at time t, i.e. $VA_{r,i,t}$.