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Institutions and Entrepreneurship Development in Russia: A Comparative Perspective

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Institutions and Entrepreneurship Development in Russia: A Comparative Perspective ¹

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Abstract

In this paper we use a comparative perspective to explore the ways in which institutions and networks have influenced entrepreneurial development in Russia. We utilize Global Entrepreneurship Monitor (GEM) data collected in 2001 and 2002 to investigate the effects of the weak institutional environment in Russia on entrepreneurship, comparing it first with all available GEM country samples and second, in more detail, with Brazil and Poland. Our results provide strong evidence that Russia's institutional environment is important to explain its relatively low levels of entrepreneurship development, where the latter is measured in terms of both number of start-ups and of existing business owners. In addition, Russia's business environment contributes to the relative advantage of entrepreneurial insiders (those already in business) to entrepreneurial outsiders (newcomers) in terms of new business start-ups.

Keywords: Entrepreneurship, Institutions, Networks, Russia, Poland, Brazil

JEL Codes: P36, O17, M13

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1. Executive Summary

The work of both William Baumol (1990, 1993, 2005) and Douglass North (1990, 1994, 1997, 2005) has highlighted the relationship between the institutional environment and entrepreneurship development. In this paper, we explore this relationship empirically in Russia, relative to other transition and emerging economies. A number of studies have indicated the hostile nature of the business environment in Russia, though there is surprisingly little evidence about its impact on entrepreneurial behavior. We attempt to fill this knowledge gap by specifically testing two hypotheses regarding this relationship.

Drawing on the extensive body of literature highlighting different aspects of the institutional environment in Russia, our first part of hypothesis one stipulates that, due to these conditions, characterized for example by high levels of corruption and the weak rule of law, entrepreneurial entry levels will be low relative to countries with a stronger institutional framework. In the second part of hypothesis one, we explore the effects of legal origin, namely the centralized planning system vs. other legal forms such as English and French. We investigate to what extent this institutional factor contributes to lower levels of entrepreneurship in all the formerly centrally planned countries, as well as in Russia.

Our second hypothesis focuses on the possible influence of networks on entrepreneurship development in Russia. Networks, in the peculiarly Russian form of ‘blat’, continue to be used to circumvent the inadequacy of the institutional environment. However, though ‘blat’ is a tool that can be utilized by entrepreneurs, it tends to be based on strong network ties and to be opportunistic in character and this results in its effectiveness being the greatest for the narrow circles of the Russian elite. For non-elite individuals, the paucity of alternative mechanisms for establishing strong and weak network ties that would assist in both overcoming bureaucratic barriers and providing the necessary resources (information, finance and labor) in a weak institutional environment seems to be a major impediment to business entry.

For our analysis, we use the Global Entrepreneurship Monitor’s (GEM) dataset collected in 2001 and 2002. The findings from our empirical analysis of Russian entrepreneurs lead us to several key insights. Firstly, entrepreneurship levels in Russia are low not only when compared to similar relatively large emerging economies such as Poland and Brazil but also when compared to a number of other countries that have transitioned from a centrally planned economy to a free-market one. The strong ties between businesses and state administration in Russian economy also seems to provide greater opportunities for existing entrepreneurial insiders to develop new ventures rather than newcomers taking the plunge of establishing start-ups.

2. Introduction

In this paper, we explore the patterns of entrepreneurial development in Russia; a context where it can be argued that many of the preconditions for a workable free-market economy are lacking (see Desai, 2006). Our approach builds on Baumol (2005) and North (1990) in highlighting the impact of economy wide institutional incentives as well as institutional structures on entrepreneurial activity and development. This paper supplements the relatively sparse existing empirical literature on entrepreneurship development within weak institutional environments (Johnson et al. 1999, 2000; McMillan and Woodruff 1999, 2000; Djankov et al. 2005, 2006). By using data on entrepreneurship in Russia collected as a part of the Global Entrepreneurship Monitor (GEM), we investigate the ways the Russian

context, with its institutional weaknesses and history of networks and ‘blat’², influence the characteristics of individuals embarking on entrepreneurial activities. We do this in a comparative way by contrasting entrepreneurial development in Russia with Poland and Brazil. Poland illustrates the case of a country that has also switched from a centrally planned economic system to a free-market system while Brazil is comparable to Russia as another middle income country exhibiting similar levels of GDP per capita but lower level of corruption. Smallbone and Welter (2001) argue that family tradition was of particular importance in Poland, which permitted the continuation of small-scale private activities throughout the communist era. Russia of course, was under communist rule for much longer and lacked this tradition (Puffer and McCarthy 2001; see also: Szelenyi, 1988; Webster, 1992)³.

As with the other centrally planned countries, Russia’s inherited ideology was not conducive for entrepreneurial development. In the Soviet period entrepreneurs were equated with ‘speculators’ and often deemed criminals for making a profit. The Soviet state was built on an ideology that stifled independent innovative culture and allowed for a punishment-oriented ‘inspection culture’ to develop, where discretionary power of officials led to corruption and importance of networks⁴. The economy was run bureaucratically and the concentration of reward on plan attainment suppressed the appetite for risk taking and instead bred habits of obedience and ‘playing it safe’ (Ellman, 1994). As a result, in North’s terms, the weakness of formal institution enforcement (e.g. commercial law) combined with the informal norms and values (negative attitudes towards entrepreneurship) to create an atmosphere that is less conducive to the development of new entrepreneurial firms. Many authors have pointed to some of the existing barriers to entrepreneurship in current day Russia such as the lack of property rights enforcement (Puffer and McCarthy 2001; Aidis and Adachi 2005)⁵, and the emergence of a ‘grabbing hand’ model of government intervention (see Shleifer and Vishny, 1999) which is characterized by corrupt behavior occurring in a disorganized way that leads to the personal enrichment of government officials, to the detriment of the rule of law and private business development (Frye and Shleifer, 1997).

Shleifer and Treisman (2005) argue that Russia is not such an outlier and fulfils the characteristics of a middle-income country. Baumol however might be persuaded to conclude that Russia does not fulfill the preconditions he set forth for the existence of a ‘workable free-market economy’ (2005). Moreover, it is often argued that Russia has not been able to develop high levels of productive entrepreneurship with the formal institutional environment being identified as the main barrier to entrepreneurship development within its new institutional environment (Djankov and Murrell, 2002), though there is surprisingly little empirical evidence. We attempt to fill this gap by specifying and testing hypotheses about the

² “ ‘By blat’ (*po blatu*) means ‘by acquaintance’ (*po znakomstvu*) and would be used to mean ways of obtaining (*dostat’*) or arranging (*ustroit’*) something using connections” (Ledeneva, 2006, p. 213).

³ Roberts and Zhou (2000) find that some former Soviet Union countries (now Commonwealth of Independent States) saw different entrepreneurial strategies than advanced reformers such as Hungary. First, the former are more likely to start in trading and then diversify. Thus a ‘generic businessman, always trading, maybe opening a restaurant one year, a taxi business the next, then maybe buying a meat-processing plant...’ (ibid: 194). Second, entrepreneurs in former Soviet countries are more likely to pursue entrepreneurial careers as a part-time occupation while being employed elsewhere. Finally, while Central European firms mostly operate in the official economy, Russian entrepreneurs conduct a significant proportion of their business in the second economy.

⁴ Puffer and McCarthy note that in Russia the environment was traditionally hostile towards entrepreneurship, even in the tsarist era when modest entrepreneurial activity was conducted primarily by minority ethnic groups (2001:29).

⁵ However, when the government initiates such disputes as in the Yukos case, even the informal route for resolution becomes ineffective.

nature and determinants of entrepreneurship in Russia relative to other comparable emerging and transition economies, using a data set collected by the Global Entrepreneurship Monitor (GEM).

The remainder of this paper is structured as follows. In section three we discuss the theoretical inspiration for our empirical analysis based on institutional theory. Section four presents a brief literature review that illustrates the specific Russian context and develops our hypotheses. The data used to test our hypotheses are discussed in the fifth section and the results are presented in the sixth, before conclusions are drawn in the seventh.

3. Institutional theory and entrepreneurship development

The work of William Baumol (1990, 1993, 2005) and Douglass North (1990, 1994, 1997, 2005) provide the most significant theoretical insights about entrepreneurial development in differing institutional environments. According to North, entrepreneurs are the main agents of change. Organizations such as firms set up by entrepreneurs will adapt their activities and strategies molded to fit the opportunities and limitations provided through the formal and informal institutional framework. Though ideally, formal rules are designed to facilitate exchange reducing transaction costs, they are also likely to affect individuals or groups in different ways. Formal rules and institutions, since individuals create them in their own private interest, do not necessarily operate in the interest of social wellbeing (North 1994).

Baumol (1993) follows a similar logic but provides greater analysis of the types of entrepreneurship that can emerge under different institutional environments. Institutions are important as the structures that provide the incentives for different types of economic activity. In an environment where the benefits and rewards for rent-seeking activities outweigh their costs, unproductive entrepreneurship i.e. entrepreneurship that benefits the entrepreneur but not the economy will flourish. Similarly, if the benefits of engaging in illegal entrepreneurial activity outweigh their costs, entrepreneurs tend to be more inclined to engage in destructive entrepreneurship i.e. entrepreneurship that is detrimental for economic development. Conversely if the incentives are for 'productive' entrepreneurship (contributing positively to growth) then this form will predominate. In each case entrepreneurs will weigh the incentives present in the environment both in the form of regulations (formal rules according to North) as well as in terms of the prevailing cultural values and norms (informal rules according to North). This does not mean that the same individual will engage in productive, unproductive or destructive entrepreneurship depending on the incentive structure; rather, different individuals will embark on entrepreneurial activities under different incentive structures.

Both North and Baumol emphasize the role that the institutional environment plays in fostering and forming entrepreneurial development. The work of both suggests that in weak institutional environments (i.e. where the incentives for productive entrepreneurship are weak), productive entrepreneurship will be at low levels. This is the main issue that we will explore in our empirical analysis.

4. Hypotheses and Control Variables

A considerable literature indicates that weak institutions, notably the quality of the commercial code, the strength of legal enforcement, administrative barriers, extra-legal payments and lack of market-supporting institutions, may represent a significant barrier to entrepreneurship (see e.g. McMillan and Woodruff (1999, 2002), Djankov *et al* (2004)). In a study comparing new firms in Poland, Slovakia, Romania, Russia and Ukraine, Johnson *et al*.

(2000) show that insecure property rights, in addition to weaknesses of macroeconomic stability and inadequate financing, inhibit the development of the private sector.

These institutions are especially problematic in Russia, where the system is marred with inconsistencies and many Soviet regulatory documents are still in force. As a consequence it is not always clear which regulations apply in a specific case, creating confusion for regulators and the regulated community alike (OECD 2005). In fact, ‘No one really knows which laws and regulations are implemented and observed, although it is clear that many are not implemented at all, or only partially’ (ibid.). It is not surprising that under the current situation, ‘*Russian entrepreneurs fear bureaucrats more than criminals*’⁶ (Smolchenko 2005) and corruption is commonplace. Law enforcement is also rather arbitrary: according to Radaev, over 80 percent of Russian entrepreneurs have suffered from broken contracts (2002). An earlier study by Johnson *et al.* (1999) indicates that relational contracting (i.e. contracts informally enforced through networks) plays a significant role in the transition economies, especially in countries like Russia where the court systems are inadequate. Similarly, as McMillan and Woodruff (2002) argue, reputational incentives substitute for court enforcement of contracts. These factors can form further barriers to entry (Aidis and Adachi 2005). These studies highlight the importance of a stable rule of law in terms of enforcement of property rights and a functioning court system for private business development. Based on studies compiled by the World Bank, the institutional environment in Russia remains poor in terms of final percentile rank, even relative to the transition economies of Central and Eastern Europe, though some improvement has taken place (Kauffman, *et al.* 2005).

As shown in Table 1, indicators measuring voice and accountability, political stability and regulatory quality have all deteriorated since 1998; the percentile rank for government effectiveness, rule of law and control of corruption have improved but the rank remains strikingly low.

Table 1: Governance Indicators for Russia in 1998 and 2004 compared

Governance Indicator	Year	Percentile Rank (0 – 100)
Voice and Accountability	2004	25.7
	1998	41.4
Political Stability	2004	21.8
	1998	23.6
Government Effectiveness	2004	48.1
	1998	23.5
Regulatory Quality	2004	30.5
	1998	31.5
Rule of Law	2004	29.5
	1998	22.7
Control of Corruption	2004	29.1
	1998	25.7

Source: Kauffman *et al.* (2005) http://info.worldbank.org/governance/kkzz2004/sc_chart.asp

Key: Voice and Accountability measure political, civil and human rights; Political Stability measures the likelihood of violent treats to, or changes in, government including terrorism; Government Effectiveness measures the competence of the bureaucracy and the quality of public service delivery; Regulatory Quality measures the incidence of market-unfriendly policies; Rule of Law measures the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence; Control of Corruption measures the exercise of public power for private gain, including both petty and grand corruption and state capture.

⁶ Based on a survey carried out by OPORA in 2001 (A Russian NGO representing small and medium sized enterprises). See also OPORA (2005).

The level of corruption is also high in Russia. According to the Corruption Perceptions Index compiled by Transparency International, transition countries generally exhibit higher levels of corruption compared to most advanced western countries, however the highest corruption levels occur in the former Soviet region of the Commonwealth of Independent States (CIS). Moreover, Russian entrepreneurs have also been found to be more corrupting than the population as a whole (Djankov *et al.* 2005), perhaps because they are more susceptible to extortion by the government officials. Recent evidence suggests that corruption is on the increase in Russia. The Business Environment and Enterprise Performance Survey (BEEPS) conducted by the European Bank for Reconstruction and Development (EBRD) indicates that in 2005 more than 39 percent of the respondents in Russia agreed that they have to make some irregular payments or gifts for activities related to customs, taxes, licenses, regulations and services frequently. The average percentage of corruption for transition countries as a whole was under 21 percent and decreasing.

Tanzi (1998) argues that corruption reflects the multidimensional impact of poor institutions and Djankov *et al.* (2002) provide empirical evidence for this, showing that corruption reflects an inefficient, overregulated environment with officials endowed with discretionary power. Incidence of corruption may prevent businesses from growing above some threshold level, since otherwise business owners may be expropriated by corrupt officials, especially the tax administration (Barkhatova, 2000; Aidis and Mickiewicz, 2006). Moreover, expectations of such behavior may discourage potential entrepreneurs from starting a business. In an environment of weak formal institutional enforcement and high corruption, business interactions based on trust are especially important. However, as Radaev (2005) notes, Russia bears the characteristics of a distrustful society since the formal rules and regulations are unpredictable and contradictory and reciprocal trust in business-to-business relationships is low: as Radaev notes, 'honesty does not pay' (2005:114).

To a degree, the explanation of Russia's poor institutional environment relates to its long communist heritage, which the country shares with the whole group of the post-Soviet economies. The work of La Porta *et al.* (1999) has addressed the relationship between legal origin and institutional development. According to La Porta *et al.* (1999) legal origin can be viewed as a proxy for the government's proclivity to intervene in the economy and the stance of the law toward security of property rights. They developed five broad categories by which to classify different legal systems, according to their origins as English, French, German, Scandinavian and Socialist (post-Soviet). In a related empirical analysis, Djankov *et al.* (2002) utilises La Porta's classifications to demonstrate that countries of French, German and Socialist legal origin have more entry regulations than English legal origin countries, while countries of Scandinavian legal origin have about the same. In order to deepen our analysis of Russia's institutional environment and entrepreneurship development, we incorporate La Porta *et al.*'s (1990) legal origin categories to investigate if Russia's situation is unique vis-à-vis other former socialist economies. In line with our discussion above, we hypothesize that the Soviet heritage shared with other countries is not alone sufficient to explain why Russia differs in terms of its level of entrepreneurship.

Accordingly, we postulate that:

Hypothesis 1a: Due to their weak institutional environments, entrepreneurial development will be lower in former Soviet-type economies than in other emerging markets at comparable levels of development.

Hypothesis 1b: Levels of entrepreneurial activity will be even lower in Russia than in other former socialist economies in Central and Eastern Europe.

In the literature on developed western economies, networks are argued to assist entrepreneurs in accessing the resources needed for business formation (Aldrich *et al* 1987). Thus, Johannisson postulates that the 'birth of a new venture' is the 'institutionalization of a part of the entrepreneur's personal network into a venture' (2000:37). Networks have been found to be important for access to resources (such as information, finance and labor) and to enhance the entrepreneur's opportunity recognition capabilities (Hills *et al* 1997). Ardichvili *et al* (2003) identify social networks as an antecedent for entrepreneurial alertness that constitutes a necessary condition for opportunity recognition. Some scholars have argued that a cohesive or densely embedded network provides a competitive advantage for entrepreneurs (Coleman 1988, 1990; Walker *et al* 1997; Ahuja 2000), while others have suggested that sparsely connected networks full of 'structural holes' provide competitive advantage (Burt 1992). For example, Singh *et al* (1999) have found that the size and number of weak ties in an entrepreneur's social network were positively related to the number of new venture ideas and opportunities recognized. Moreover, network entrepreneurs were found to identify significantly more opportunities than solo entrepreneurs.

In the Russian context, people developed networked strategies, as a way to obtain scarce resources within the malfunctioning Soviet system, and these took the form of 'blat' (Ledeneva 2006). In the transition period, however, blat has not been able to evolve into a substitute for the weak and malfunctioning market-based institutional environment. To the contrary, it has evolved into a sophisticated form of corruption available only to the elite (Hsu 2005). The reason for blat's shift from providing access to scarce resources for the masses to becoming a tool effective only for the elite is mainly attributed to two factors. Firstly, blat was never rooted in a moral system: even during the Soviet regime, it was seen as 'antisocial' and as a way of 'cheating the system', thus carrying amoral connotations (Ledeneva 1998). It was therefore easily manipulated towards opportunistic activities focused exclusively on personal gain (Hsu 2005). Secondly, since blat has operated by utilizing strong ties, those individuals closest to individuals with power i.e. the elite, are able to benefit more than less well-connected individuals. Thus blat networks functioning in the new Russian free-market context have supported personal and group benefits based on strong ties, with disproportionate gain for elite groups. This has serious implications for entrepreneurship development in Russia since it suggests that, given the current strong-tie based network system, only the individuals in the inner circle of the elite can successfully utilize networked strategies for business formation.

Studies in Russia have found evidence to support the importance of networks for business performance. Batjargal (2003) uses a social embeddedness approach to examine the impact of entrepreneurs' social capital on their firm's performance in Russia. Based on interviews conducted in 1995 and 1999, he finds that relational embeddedness (the quality of personal relations on economic actions) and resource embeddedness (networks allowing access and use of resources) have direct positive impacts on firm performance whereas structural embeddedness (the structure of the overall network of relations) has no direct impacts on performance (as measured by revenue and profit margin). Similarly, case study material supports the notion that having the right network connections facilitates business success in Russia whereas not having access to networks may make private businesses more vulnerable to rent-seeking officials (Kets de Vries and Florent-Treacy 2003). Aidis and Adachi (2005) find that networks between enterprises and officials are significant for business survival and growth, so new businesses without such connections are more likely to fail. Glasser (2004) and Djankov *et al.* (2006) find, in their comparative study of entrepreneurs in Russia and China, that social networks play a fundamental role in explaining entrepreneurship in both contexts. For example, they establish that in Russia, having a father who was a communist party member increases the likelihood of becoming an entrepreneur:

even though the communist party has lost its pre-eminence, the informal networks it established remain powerful.

However, surprisingly little work has been done on the influence of networks for business entry in Russia. The literature from developed economies highlights the importance of networks, especially weak ties for opportunity recognition and for obtaining access to resources needed to start-up a business. Given the Russian context of weak institutions, poor regulatory enforcement, high levels of corruption and the lack of rule of law, the role of networks would seem of even greater importance at the start-up phase for business development. Yet, as Puffer and McCarthy have noted, ‘commitment and trust among network members in Eastern European business networks are typically low, the ties extremely weak, the network knowledge poor and participants few’ (2001: 32). Trust in the Russian business environment seems to develop only through repeated business interactions allowing little opportunities for newcomers to enter the market (Radaev 2005). Since trust in newcomers is low, one would expect existing entrepreneurs (i.e. entrepreneurial insiders) would have a greater advantage to extending their entrepreneurial activities vis-à-vis new entrepreneurs (entrepreneurial outsiders).⁷ To summarize, we identify three distinct reasons, why ‘entrepreneurial insiders’ (those already in business) may have relatively more advantage over newcomers in starting new ventures in Russia (as compared with other countries). Namely:

1. Those without access to existing business networks are more vulnerable to opportunistic behavior of the extortion-seeking officials (Kets de Vries and Florent-Treacy, 2003; Aidis and Adachi, 2005).
2. In the environment of weak formal enforcement of property rights, the latter is partly substituted by relational contracting enforcement via business networks (Johnson *et al.*, 1999; McMillan and Woodruff, 2002).
3. Trust is a substitute for weak institutions. However, there is a low level of trust in Russian society, and it takes long time to establish it through repeated business interactions, therefore those already in business network have a significant advantage over newcomers (Radaev, 2005).

This leads us to formulate our second hypothesis:

Hypothesis 2: Those already embedded in entrepreneurial networks have a significant advantage in Russian firm start-ups.

While the institutional context may differ considerably, there seems no reason to hypothesize that most of the characteristics favoring entrepreneurial activity in other economies would be systematically different in the Russian context. We therefore control in our regression analysis for many of these, subject to the limitations of the dataset in providing suitable proxies.

Firstly, the literature notes the importance of individual factor supply characteristics. According to Reynolds *et al.* (2002) men are about twice as likely to be involved in entrepreneurial activities as women. Similarly, most research indicates that men have a higher probability of becoming entrepreneurs than women (Minniti *et al.* 2005; Verheul *et al.* 2006). Moreover, the likelihood of becoming self-employed varies with age. Relatively more business owners are in the 25 – 45 year old age category (Storey 1994; Reynolds *et al.* 1999)

⁷ One recent study contradicts these findings however: Chepurensko and Malieva (2005) provide some evidence that personal trust may be less important for Russian SMEs at start-up than previously thought.

and relatively more nascent business owners are even younger, between 25 – 34 years of age (Delmar and Davidsson 2000).⁸ We control for age and gender in the regressions.

Human capital is an important aspect of successful entrepreneurship, though the empirical findings for developed economies about the impact of human capital measured in terms of education on entrepreneurship are mixed. Thus, Robinson and Sexton (1994) and Cooper and Dunkelberg (1987) find that the decision to become self-employed is influenced by education while the results of Delmar and Davidsson (2000) and Davidsson and Honig (2003) show a clear education effect for nascent entrepreneurs. However in a cross-country study, Uhlaner and Thurik (2005) find that a higher level of education is accompanied by lower rates of self-employment. Some country variations have also been noted. De Wit and van Winden (1989) and Blanchflower (2004) find that education is positively correlated with self-employment in the US but is negatively correlated in Europe. More recent evidence compiled by Parker (2005) suggests that on average, entrepreneurs tend to be more educated than non- entrepreneurs.

The transition countries including Russia fare relatively well in terms of formal measures of education. Literacy rates are high and educational standards are comparable to Western Europe (see Estrin *et al.*, 2006). Also, Russia has a high proportion of students in ‘hard’ subjects - science, mathematics and engineering (see World Bank, 2005). Indeed the high levels of education are one of the main characteristics distinguishing Russia from most other emerging markets, which it resembles more closely in terms of institutional development. One might therefore expect that the relatively high proportion of educated people in the population, and especially those with advanced levels of technological training, would offset to some extent the unpromising institutional environment. There is some evidence already for this view: Barberis *et al* (1996), find that human capital was an important ingredient for successful new entry by small firms in Russia.

Financial sectors are underdeveloped in transition economies. In such environment, trade credit (loans from firm to firm along the supply chain) substitute for bank credit and reinvestment of profits for outside equity. Strategies documented in the literature include engagement in trade and diversification of activities as a means of capital accumulation and hedging against risks (Smallbone and Welter 2001) and using network-based transactions to substitute for missing or costly markets (Stark 1996; Batjargal 2003). In an environment where outside financing is restricted, informal investors or business angels play an especially important role in providing financing for business start-ups. Former business angels who start-up their own private ventures may also signal individuals who have access to their own private sources of funding and we control for these in our empirical work.

The hostile conditions under which entrepreneurs operate suggests that business owners will also exhibit skepticism towards the national government in terms of their ability and/or willingness to support (or simply not interfere with) private business development, though they may have great confidence in their own abilities. We control for entrepreneurial confidence in our regressions.

5. Data and empirical strategy

The Global Entrepreneurship Monitor (GEM) generated the dataset we utilise in our empirical work. GEM is an ongoing multinational project created to investigate the incidence and causes of entrepreneurship within and between countries. Data are generated by surveys, which rely on stratified samples of at least 2,000 individuals per country. The dataset includes

⁸ As demographic structure of Russia, with a relatively low proportion of young people may be an additional obstacle to entrepreneurship, it is particularly important to control for age in our empirical tests.

a number of individual social and economic characteristics and perceptions. The key advantage of the GEM methodology is that the sample is drawn from the whole working age population in each country and therefore captures both entrepreneurs and non-entrepreneurs. While data on business ownership and individual business financing is included, entrepreneurial activity is primarily viewed as *new, nascent* start-up activity. More specifically, nascent entrepreneurs are defined as those individuals between the ages of 18 – 64 years who have taken some action toward creating a new business in the past year. To qualify for this category, these individuals must also expect to own a share of the business they are starting and the business must not have paid any wages or salaries for more than three months (Minniti *et al.*, 2005b). Established entrepreneurs are defined as individuals who own or manage a company and have paid wages or salaries for more than 42 months (*ibid.*).

We use the GEM dataset for Russia collected in 2001 and 2002. In addition, for a comparative perspective we utilise all available data from the 2001-2005 surveys. Our survey database includes the following individual country samples (all have at least 2,000 observations): Argentina, Belgium, Brazil, Canada, Denmark, Finland, France, Georgia, India, Ireland, Island, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Portugal, South Africa, Sweden, United Kingdom, United States (2001), Slovenia (2001-2005), Hungary (2001, 2002, 2004, 2005), Poland (2001 and 2002), Spain (2001 and 2004), Australia (2001 and 2005), Latvia (2005). 2001 survey results are publicly available and were accessed online; we merged these with surveys results from 2002-2005, which were made available to us by the GEM team. We do not utilise 1999 and 2000 results, as these contain a smaller number of countries, which are all included in the 2001 round, so add little to the institutional variation in which we are interested. In addition, they cover a smaller number of variables. All individual level control variables are taken directly from the GEM database. Table 2 provides some characteristics of the data used.

Table 2. General characteristics of the cross-country sample

Variables	Definition	Mean	SD	Number of observations
Institutional variables				
	Corruption perceptions index (Transparency International); higher score represents <i>less</i> corruption (i.e. <i>better</i> institutions)	6.43	1.97	104,112
Legal Origin variables				
English*	1 = English legal origin, zero otherwise.	.29	.45	104,112
French*	1 = French legal origin, zero otherwise.	.25	.43	104,112
German*	1 = German legal origin, zero otherwise	.11	.31	104,112
Scandin*	1 = Scandinavian legal origin, zero otherwise	.07	.25	104,112
Socialist*	Socialist legal origin**, zero otherwise.	.29	.45	104,112
Economic Development				
	GDP per capita, purchasing power parity, constant at 2000 \$ USD***. 2005 figures are estimates based on 2005 real GDP growth rates [♦] and 2005 population figures [♠]	20,209	7892,0	104,112

Personal characteristics

Male	1= male, zero otherwise.	.48	.50	104,112
Business owner	1= current owner/manger of business, zero otherwise.	.10	.30	104,112
Business angel	1 = business angel in past three years, zero otherwise.	.02	.15	103,546
Knows entrepreneur(s)	1 = personally knows entrepreneur(s) in past two years, zero otherwise.	.33	.47	97,443
In employment	1 = respondent is either in full time or part time employment, zero otherwise.	.51	.50	98,685
Low education	1 = respondent has not a post secondary or higher educational attainment, zero otherwise.	.62	.48	98,906
Young (<45)	1 = the exact age of the respondent at time of the interview is less than 45	.56	.50	100,110

We utilize the whole dataset to test hypotheses 1a and 1b, to explore whether the rate of entrepreneurial start up in Russia is systematically different from that in other countries when we control for the standard determinants e.g. gender, education and age. For hypothesis 2, we need to investigate if the way some of these personal characteristics affecting entrepreneurship differ between Russia and the other countries. Our empirical strategy for this is to compare Russia with two other economies. The first is Brazil. It is the country in our sample that is closest to Russia in its level of GDP per capita which, as documented in empirical literature, is significantly (and negatively) linked to the level of entrepreneurship (Parker, 2004). Because of the similar level of GDP, and also because it is also a relatively large country, the Russia – Brazil comparison has been discussed in the past, notably by Shleifer and Treisman (2005). However, while Russia and Brazil are similar in many respects, they differ in terms of institutional quality, with Brazil characterized by significantly lower levels of corruption.⁹

Our second comparator is Poland, a country that is also similar to Russia in terms of income per capita, but unlike Brazil shares with Russia the institutional past of a command economy system. While considerably smaller than Russia, the Polish economy is the second largest in the post-communist group. In addition, its common history with Russia goes far beyond the Soviet period. Between 1831 and 1915, most of Poland shared Tzarist institutions with Russia, the impact of which is still detectable. The contrast between a similar heritage and the different paths of post-socialist transition have made the Russia-Poland comparison common in the transition literature (Mickiewicz, 2006). A comparison of macro level indicators, and the mean values and standard deviations for all the main independent variables employed in our empirical work for the three countries is reported in Table 3.

⁹ Shleifer and Treisman (2005) quote a United Nations survey on urban corruption to claim that the level of corruption is *lower* in Russia than in Brazil. In our comparison of corruption level, we rely on Transparency International (TI), which defines corruption as “the misuse of public power for private benefit, for example bribing of public officials, kickbacks in public procurement, or embezzlement of public funds” (Lambsdorff, 2005: 4). Transparency International index relies on methodology, which combines information from ten different surveys of corruption, where a score for any country is included only when there is an overlapping assessment of a country at least by three independent surveys. For that reason, while not entirely without methodological problems, TI index is the most reliable and widely used. We have more confidence in it than in the source quoted by Shleifer and Treisman. Moreover, recent data from the BEEPS survey, discussed in Kauffman et al. (2005), as quoted above, demonstrate that Russia continues to lag behind in terms of several measures of institutional quality, indicating that the assessment by Shleifer and Treisman may be overoptimistic.

Table 3. General characteristics of the Russian, Polish and Brazilian samples

Variables	Definition	Russia	Poland	Brazil
Institutional variables				
	Corruption perceptions index (Transparency International); higher score represents <i>less</i> corruption (i.e. <i>better</i> institutions) (2001)	2.3	4.1	4.0
Economic Development				
	GDP per capita, purchasing power parity, constant at 2000 \$ USD***. 2005 figures are estimates based on 2005 real GDP growth rates * and 2005 population figures*.	7,383	10,600	7,423
Entrepreneurial activity				
		Mean (SD)	Mean (SD)	Mean (SD)
Start-up	1= the respondent has been active in starting a new business in the past year, zero otherwise (this corresponds to 'nascent entrepreneurship' in GEM terminology)	.035 (.183)	.030 (.171)	.097 (.295)
Business owner	1= current owner/manger of business, zero otherwise.	.048 (.213)	.072 (.258)	.083 (.275)
Personal characteristics				
		Mean (SD)	Mean (SD)	Mean (SD)
Male	1= male, zero otherwise.	.475 (.499)	.491 (.500)	.594 (.491)
Young (<45)	1 = the exact age of the respondent at time of the interview is less than 45	.599 (.490)	.520 (.500)	.705 (.456)
Low education	1 = respondent has not a post secondary or higher educational attainment, zero otherwise.	.194 (.395)	.241 (.428)	.905 (.294)
Family optimism	1 = Family financial situation will improve in the next 12 months, zero otherwise.	.398 (.490)	.198 (.398)	.544 (.498)
Country optimism	1 = Country financial situation will improve in the next 12 months, zero otherwise.	.398 (.490)	.115 (.319)	.319 (.466)
Business angel	1 = business angel in past three years, zero otherwise.	.021 (.143)	.014 (.117)	.008 (.089)
Knows entrepreneur(s)	1 = personally knows entrepreneur(s) in past two years, zero otherwise.	.333 (.471)	.300 (.458)	.347 (.476)
In employment	1 = respondent is either in full time or part time employment, zero otherwise.	.607 (.488)	.464 (.499)	.579 (.494)
Prev. shut down	1 = shut down business in past three years	.008 (.087)	.007 (.084)	
Number of observations		4202	4000	2000

Notes:

For Poland and Russia, the mean and standard deviations values relate to pooled 2001-2002 sample. For Brazil, the 2002 sample was not available at time of writing, thus the values relate to 2001.

There are three exceptions: the two variables measuring optimism and the indicator of previous shut down were available for one year only, for Poland and Russia. In addition, the information on previous shut down was not available for Brazil.

6. Empirical Findings

In this section, we test the two hypotheses developed in the second section. We first address the two parts of Hypothesis 1, using information about the rate of formation of new firms in Russia in comparative perspective using the cross-country sample. Next we address hypothesis 2 by exploring the differences in characteristics between individuals undertaking various forms of entrepreneurial activity, comparing Russia, Poland and Brazil.

After a catastrophic period of macro-economic performance subsequent to transition from communism, the Russian economy had begun to recover during the mid-1990s, only to suffer a major slump following the financial crisis in 1998 (EBRD, 2002). However, the devaluation at that time, and subsequent increases in the price of oil and other raw materials inaugurated a long period of relatively fast growth in Russia, from 1999, which has been maintained until this day. The macro-economic environment was therefore relatively benign for new firm creation during most of this period, including in 2001 and 2002, which were the dates of the GEM surveys we utilize.

6.1 Specification of Equations

We test Hypothesis 1 by exploring how the levels of entrepreneurial activity, proxied by new firm startup, varies across countries and legal arrangements, in an equation which also controls for the characteristics of entrepreneurs in each country. Thus in Table 4 we report four probit estimations, where we regress the startup dummy on a variety of specifications of country level dummies augmented by the available individual characteristics of potential entrepreneurs. These characteristics include personal characteristics such as age, gender, education, employment status as well as proxies for financial characteristics and networks. This design enables us to control for underlying differences in country populations than can affect probability of the entrepreneurial entry and focus on the residual cross-country differences, which can be largely attributed to the institutional environment.

Specification (1) in Table 4 offers the simplest test of Hypothesis 1b, where we introduce just one single dummy representing the Russian sample, to test whether Russian entrepreneurial entry rates are significantly lower than anywhere else. In specification (2) we add legal origin dummies, which include the socialist origin. A negative significant coefficient on the socialist origin dummy would provide support for Hypothesis 1a. We also include independently a Russian dummy variable to represent the incremental country specific difference in entrepreneurial entry, once we control for the joint effect for the post-Soviet economic legacy, to test Hypothesis 1b. We can also test Hypotheses 1a and 1b in specification (3), which is identical to specification (2) except that we control explicitly for Brazil to investigate whether it displays any of the characteristics of Russia with respect to entrepreneurship. Finally, in specification (4) we replace the socialist (Soviet) legal origin dummy with a set of country dummies, so as to test Hypotheses 1a and 1b for each available transition economy separately.

Table 4. Probit regression results. Dependent variable: Start-up

	(1)		(2)		(3)		(4)	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Male	0.155 ***	0.013	0.155 ***	0.014	0.149 ***	0.014	0.149 ***	0.014
Business owner	0.619 ***	0.017	0.620 ***	0.017	0.624 ***	0.017	0.624 ***	0.017
Business angel	0.656 ***	0.029	0.646 ***	0.029	0.652 ***	0.029	0.652 ***	0.029
Knows entrepreneur(s)	0.444 ***	0.014	0.475 ***	0.014	0.473 ***	0.014	0.471 ***	0.014
In employment	0.182 ***	0.014	0.177 ***	0.014	0.170 ***	0.014	0.172 ***	0.014
Low education	-0.184 ***	0.013	-0.144 ***	0.014	-0.169 ***	0.014	-0.165 ***	0.014
Young (<45)	0.223 ***	0.014	0.225 ***	0.014	0.219 ***	0.014	0.219 ***	0.014
Russia	-0.561 ***	0.068	-0.353 ***	0.070	-0.354 ***	0.070	-0.747 ***	0.069
French			-0.209 ***	0.017	-0.264 ***	0.018	-0.264 ***	0.018
German			-0.220 ***	0.022	-0.218 ***	0.022	-0.218 ***	0.022
Scandin			-0.390 ***	0.028	-0.392 ***	0.028	-0.391 ***	0.028
Socialist			-0.400 ***	0.019	-0.393 ***	0.019		
Latvia							-0.332 ***	0.058
Poland							-0.388 ***	0.039
Hungary							-0.462 ***	0.029
Slovenia							-0.342 ***	0.028
Brazil					0.445 ***	0.040	0.443 ***	0.040
Constant	-1.936 ***	0.017	-1.786 ***	0.019	-1.762 ***	0.0194	-1.764 ***	0.019
Log likelihood	-21708		-21435		-21377		-21371	
Number of observations	87929 ***		87929 ***		87929 ***		87929	
LR chi ²	5817		6361		6477		6489 ***	
Pseudo R ²	0.118		0.129		0.132		0.132	

Tests for linear restrictions (based on specification (4)), rejecting Ho - Russia the same as:

	Chi ²		Chi ²	
Latvia	21.84 ***	French legal origin	48.00	***
Poland	21.48 ***	German legal origin	55.99	***
Hungary	15.19 ***	Scandin. legal origin	23.75	***
Slovenia	31.08 ***			
Brazil	223.85 ***			

To test Hypothesis 2, we estimate a series of probit models that explore the differences in characteristics between the individuals involved in either active start-ups or having established new firms and those of the population as a whole. In each case, we run the same models for Russia, Poland and Brazil and focus on differences in estimated coefficients between the three countries. We first estimate the equations for the pooled 2001-2002 samples, controlling for annual effects, and next run single year comparisons which enable us to check which effects are time invariant and to introduce some variables that were not available for both years. We estimate equations of the form:

The probability of being an entrepreneur/business owner = f (Network position, Personal characteristics, Financial characteristics, Personal attitudes).

The two dependent variables measure different aspects of entrepreneurial activity in terms of start-ups and business-owners. All the variables used are defined in table 3. Hypothesis 2 is based on the argument that the Russian business environment relies disproportionately on networks and informal contacts, and this is likely to affect entrepreneurial activity. We have two variables related to the network position of the potential entrepreneur. First, for new business startup, we use an indicator for the current business owner. It has been noted that entrepreneurs in Russia often already have entrepreneurial experience, which may be of particular significance in the Russian business environment because of the need for networks. Second, we have an indicator for personal knowledge of other entrepreneurs (we do not use this variable in our models for established new firms, to avoid endogeneity problems).

The dataset contains a number of the variables controlling personal characteristics already used in the literature, such as gender, age, human capital (educational attainment) and employment status. For the 2001 sample we also have two measures of ‘optimism’, one related to the respondent’s view of his or her own situation (‘financial situation will improve in the next twelve months’) and the other to the business environment (‘Russia’s financial situation will improve in the next twelve months’). However, we are unable to control for the possible endogeneity of household income and income from entrepreneurial activities, and we therefore choose to report regressions which omit household income¹⁰. Our proxy for financial resources is a dummy variable that denotes previous provision of funds for businesses (business angels).

For 2002 samples we have an indicator businesses that have shut down in the last three years. The relevance of this last variable relate to the fact that failed entry leads to more realistic assessment of business environment. If failed entrepreneurs do not try again, it may imply the business environment remains hostile to entrepreneurship.

Finally Russia is diverse regionally and though the sampling procedure concentrated on a few oblasts only, we controlled further for regional heterogeneity by including regional dummy variables. However, it turned out that given our model specifications, the regional heterogeneity is already well captured via individual level characteristics, and the set of regional dummies we applied turned out to be jointly highly insignificant. Accordingly, and to make the specifications compatible with the Polish and Brazilian samples (for which regional controls were not available), we omit the regional dummies. The results are not affected by this omission, apart from personal optimism, where inclusion of regional dummies seems to induce a multicollinearity problem resulting in lower significance (alternative specifications available on request).

¹⁰ Inclusion of household income does not affect the conclusions with respect to the hypotheses.

6.2 Rates of Entrepreneurship in Russia, Socialist Economies and Developed Economies

The results are reported in table 4. The independent variables are all highly significant, as are the regressions with the pseudo- R^2 ranging from 0.118 in specification (1), with the least country specific controls, to 0.132 in specifications (3) and (4). We find support for Hypothesis 1b in all four specifications, in that the estimated coefficient on the Russia dummy variable is always negative and significant at the 99% level. The most convincing result in this respect is in specifications (2) and (4), which simultaneously test hypotheses 1a and 1b. We find that the socialist heritage has indeed led to lower start up rates in all the post-communist countries, whether we take them as a group (specification (2)) or separately (specification (4)), which confirms Hypothesis 1a, but even then the Russia dummy is independently significant, supporting Hypothesis 1b. Thus, when we control for national differences in the characteristics of entrepreneurs, we find post-Soviet economies to be characterized by significantly lower entrepreneurial entry rates (as compared with English origin countries taken as benchmark), and even then there is an additional, significant negative effect for Russia. However, specifications (1)-(4) compare country effects with the benchmark English legal origin group so it might be argued that the significance of the Russian dummy coefficients does not strictly establish that Russia is different from other legal origin groups and individual countries. A more exact test is to impose pair-wise linear restrictions on corresponding coefficients. We report these at the bottom of Table 5. Russia is found to be different from all other legal origin groups, as well as from all other post-Soviet economies and Brazil, once again confirming the two hypotheses. While all differences are highly significant, one may note that the difference between Russia and Brazil is stronger than the difference between Russia and other post-communist economies (for the former, the corresponding χ^2 equals 224, while for the latter it remains in the range of 15-31). Clearly, post-Soviet countries share the anti-entrepreneurial legacy of the past. However, unlike Russia (and other CIS economies) the economies of Central Europe have already come some way in overcoming it.

6.3 Testing the importance of the embeddedness in entrepreneurial networks

The findings of our regressions, for ‘active startups’ and ‘created new firms’, are reported in Table 5-8. We run the same models for Russia, Brazil and Poland in each specification, using probit methods to compare the characteristics of this involved in entrepreneurial activity with those in the population as a whole. The results for active startups are reported in Tables 6-8 and those for established new firms in Table 8. The pooled samples for 2001 and 2002 are reported in Tables 5 and 8, and the single year comparisons for startups only in Tables 6 and 7.

The tables taken together contain several important findings that we take as evidence confirming our Hypothesis 2. The first is that the Russian startup regressions produce a much better fit than the Polish and Brazilian ones (Tables 5-7). For the Russian samples, the pseudo R Square for the active startup equations range from 32%-38%, while it remains between 14% and 16% for the Polish sample and 8%-9% for the Brazilian sample. Arguably, a less random pattern of entrepreneurship may itself be taken as a rough indicator of some rigidity in entry. Clearly, some well-identified individual characteristics prevent some people from becoming entrepreneurs in Russia, while that same phenomenon is less likely to occur in Poland and even less so in Brazil.

The most significant and robust result confirming Hypothesis 2 relates to the phenomenon of ‘insider entrepreneurship’ in Russia. While in Brazil and Poland, the

probability of new startup is not related to the current business ownership, in Russia, those who are not current business owners are far less likely to start new firms. The same result is obtained consistently when we move from pooled samples to annual samples and when we vary the specifications. That strongly suggests network effects. In addition, knowing other entrepreneurs is also more important in Russia than it is in the two other economies, though the positive impact on startup probability is significant in all three countries.

In Poland, failed entrepreneurs who have shut down their businesses in the past three years are very likely to try again. No such significant effect can be detected in Russia (we do not have this variable for Brazil). The phenomenon of 'serial entrepreneurship' naturally follows from the fact that even failed project result in some enhancement in 'entrepreneurial capital' and the corresponding experience may prove useful enhancing the chances of success and implying that the individual has incentives to enter the entrepreneurial sector again. This argument should hold, unless the experience collected in the previous entrepreneurial entry is negative and points to some strong barriers in the business environment difficult to overcome to the 'entrepreneurial outsider'.

In addition, a few other results merit discussion. Entrepreneurial entry in Russia is less likely for individuals with lower level of education, the effect is less strong in Poland and absent in Brazil. This implies some higher relative advantage associated with education in Russia. This could relate to the relatively high quality of education in Russia and the strong scientific educational base. However, that does not explain the difference between Russia and Poland, as the relative quality of education in the latter economy is similar. A more likely explanation therefore is that higher education is a proxy for another network effect. It is reasonable to expect that people with higher level of educational attainment are more likely to have better contacts with the state administration and other key players in the local business environment, enhancing their entrepreneurial opportunities. From the policy perspective the result is worrisome as low education is also closely correlated with poverty and low-income level.

Our results indicate that, as in Western countries, respondents engaged in active start-ups are more likely to be male. However, this effect is stronger for Russia than for both Poland and Brazil – it is insignificant for the two latter countries.

According to our findings, young people in Poland and Brazil are more likely to be involved in startups, while the same effect is insignificant for Russia and the sign of the coefficient is ambiguous (Table 5). Again, this pattern may be consistent with the network (insiders-outsiders) argument. It is likely that older people in Russia may have a strong advantage in terms of networks and contacts with state bureaucracy that may facilitate start-ups.

The findings on existing businesses differ from the pattern related to start-up just discussed. Interestingly, unlike startups, in Russia young people (i.e. below 45 years of age) are more likely to run established businesses than in Poland and Brazil (Table 9). This apparent contradiction may be explained once we take into account that age may mask some cohort effects. In Russia, the phenomenon of private entrepreneurship was about nine-ten years old at time of sampling. In contrast no Soviet-type restrictions ever existed in Brazil and there were also significantly weaker in Poland during the Soviet period. Assuming that many people tend to remain in the entrepreneurial sector, the time pattern of economic liberalization implies we would find more young existing entrepreneurs in Russia at time of sampling.

With respect to personal optimism, and attitudes towards the Russian business environment, the impact on entrepreneurship is similar in the three countries. For respondents who have actually managed to create a new firm, we identify a positive impact from personal optimism. These results are in line with the findings of Puffer and McCarthy (2001) in Russia and the preliminary findings of Djankov *et al.* 2006 as well as the general findings of the

relationship between optimism and the propensity to become an entrepreneur (Parker 2004; Parker 2006). On the other hand, a positive attitude to the future of an economy as a whole is still not significantly associated with entrepreneurial activity for any of the three country samples. Thus in all these countries, personal optimism may play a positive role in converting aspirations to reality for entrepreneurs. One should note however a potential endogeneity (simultaneity) problem with this variable. However, entrepreneurs do not have any systematically different perception about the future business prospects of Russia to the rest of the population. If anything, in both Poland and Russia, they are more pessimistic about the economic future of their countries, which would suggest the importance of the push factors, however the coefficients are marginally insignificant.

Table 5. Probit regression results. Dependent variable: Start-up

	Russia 2001-2		Poland 2001-2		Brazil 2001	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Business owner	1.387474 ***	0.120324	0.084815	0.141075	-0.12915	0.138707
Male	0.2480449 *	0.099847	0.137701	0.088179	0.116791	0.092142
Young (<45)	0.1490918	0.114749	0.303244 **	0.097855	0.184389 +	0.10221
Low education	-0.3702584 *	0.169547	-0.25709 +	0.137019	0.027486	0.161244
Business angel	0.605582 ***	0.164882	0.954118 ***	0.201614	0.712165 *	0.338407
Knows entrepreneur(s)	0.882158 ***	0.112351	0.70103 ***	0.090829	0.486311 ***	0.083212
In employment	0.0843237	0.11526	-0.00332	0.094367	0.50725 ***	0.098655
Year 2001 dummy	0.3670117 ***	0.106423	0.17169 +	0.088928		
Constant	-3.090432 ***	0.168593	-2.57757 ***	0.123806	-2.09694 ***	0.171836
Log likelihood	-392.29494		-465.367		-581.928	
Number of observations	4096		3982		1999	
LR chi2	415.77 ***		146.1 ***		105.24 ***	
Pseudo R2	0.3464		0.1357		0.0829	

Table 6 Probit regression results. Dependent variable: Start-up

	Russia 2001		Poland 2001		Brazil 2001	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Business owner	1.203 ***	0.170	-0.011	0.200	-0.135	0.140
Male	0.236	0.151	0.194	0.124	0.109	0.093
Young (<45)	-0.084	0.170	0.131	0.138	0.147	0.104
Low education	-0.531 *	0.258	-0.088	0.166	0.016	0.162
Personally optimistic	0.462 **	0.168	0.522 ***	0.140	0.219 *	0.088
Optimistic about the economy	-0.114	0.156	-0.145	0.178	0.141	0.088
Business angel	0.728 **	0.239	0.957 ***	0.252	0.734 *	0.343
Knows entrepreneur(s)	0.800 ***	0.178	0.619 ***	0.131	0.482 ***	0.084
In employment	0.448 *	0.197	-0.061	0.132	0.508 ***	0.099
Constant	-2.951 ***	0.262	-2.380 ***	0.160	-2.231 ***	0.178
Log likelihood	-184.999		-245.153		-576.160	
Number of observations	1302.000		1701.000		1999.000	
LR chi ²	175.410 ***		87.130 ***		116.770 ***	
Pseudo R ²	0.322		0.151		0.092	

Table 7. Probit regression results. Dependent variable: Start-up

	Russia 2002		Poland 2002	
	Coef.	Std. Err.	Coef.	Std. Err.
Business owner	1.425 ***	0.269	0.275	0.223
Male	0.301	0.199	0.153	0.141
Young (<45)	0.327	0.235	0.564 ***	0.165
Business angel	1.270 ***	0.368	0.422	0.483
Knows entrepreneur(s)	0.977 ***	0.241	0.766 ***	0.144
In employment	-0.282	0.210	-0.003	0.148
Prev. shut down	0.316	0.495	1.271 **	0.424
Constant	-3.141 ***	0.316	-2.879 ***	0.194
Log likelihood	-95.947		-181.467	
Number of obs	1698		1980	
LR chi ²	117.74 ***		66.61 ***	
Pseudo R ²	0.380		0.155	

Note: Educational dummy for Russia eliminated during the estimation, as it completely determines the outcome for this particular model.

Table 8. Probit regression results. Dependent variable: Business owner

	Russia 2001-2		Poland 2001-2		Brazil 2001	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Male	0.221 **	0.082	0.177 **	0.069	0.072	0.101
Young (<45)	0.363 ***	0.097	-0.294 ***	0.071	-0.134	0.103
Low education	-0.359 **	0.131	-0.465 ***	0.114	0.043	0.172
Business angel	1.664 ***	0.146	1.286 ***	0.183	1.007 **	0.351
In employment	0.641 ***	0.114	1.244 ***	0.095	1.380 ***	0.161
Year 2001 dummy	0.565 ***	0.090	0.233 ***	0.069		
Constant	-3.023 ***	0.148	-2.348 ***	0.103	-2.476 ***	0.216
Log likelihood	-557.916		-834.443		-493.660	
Number of observations	4116		3989		1999	
LR chi ²	294.280 ***		394.610 ***		151.840 ***	
Pseudo R ²	0.209		0.191		0.133	

7. Implications and Future Directions: The importance of networks in weak institutional environments

There are two distinctive features of networking in the Russian economy. First, the scale of the phenomenon is much wider. Networks do not complement the markets (to create synergies) but often substitute them, creating significant transaction costs. Second, the nature of the networking differs. Russia is characterized by an intrusive and hostile business environment, in which contacts with both other existing businesses and state administration play a decisive role in networking. Much of the networking activity is not in the efficiency/real productivity-enhancing sphere but in the form of unproductive activities in the 'control' sphere. In the context of previous discussion however, it is likely that in Russia, association with the business-government web of interests and connections is a more fundamental aspect of networking. The above discussion as well as our empirical results indicates the need for developing a new direction for research in contexts such as Russia where the institutional environment is weak and property rights are poorly enforced.

Our results suggest that the negative environment for business, and especially entrepreneurial activity, in Russia has led to low levels of entrepreneurship. Moreover, drawing on a sample that allows us to compare the characteristics of entrepreneurs in Russia with those of the rest of the population, we find that the relatively few who undertake some form of entrepreneurial activity in Russia are different in several interesting ways from their counterparts in more business friendly environments; they are relatively more likely to be old, male and educated than in comparator countries.

More importantly, the lack of effective and extensive networks seems to play a critical role in inhibiting entrepreneurship development in Russia. Our results indicate that those who are already in the business sector, more than in other countries, dominate entrepreneurial entry in Russia. Knowing other entrepreneurs also plays more important role in Russia, and previous failed entrepreneurial attempt is not significantly associated with 'serial entrepreneurship' unlike the comparator countries. 'Entrepreneurial outsiders' who attempted to break into the web of business- and government administration- connections and failed are less likely to try again in Russia.

This paper contributes to the existing literature by further exploring the influence of combination of weak institutions and corresponding network structures on entrepreneurial development. Our results indicate that in the case of Russia, this combination is especially detrimental for entrepreneurial start-ups and development. Further research in this area is needed to pin down more carefully the relationship between institutional development and levels of entrepreneurial activity and how additional factors such as the presence and strength of informal networks may act as substitutes for dysfunctional institutions in a different way for business insiders and for the newcomers.

Additional empirical work in transition countries and emerging economies on the effects of different levels of institutional development and types of network relations specifically focused on business entry using a comparative approach could also provide further insights into this important relationship. In future surveys, it would be interesting to supplement the questions on contacts with other businessmen with questions on contacts with government officials.

While we document the difference between Russia and other GEM countries available at the time of writing, it would be interesting to compare Russia with a larger number of post-Soviet economies. For instance, preliminary evidence for Ukraine demonstrates, in line with our argument, that corruption may have a serious negative development on entrepreneurship (Akimova, 2001).

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