# State-business relations in Russia in the 2000s: From the capture to a variety of exchange models?

Abstract: Using the data of a 2009 survey of 957 manufacturing enterprises, this paper examines relations between the state and business as well as differences in priority concerning the distribution of governmental support by federal, regional and municipal authorities. Regression analysis of this data reveals that a "model of exchange" is the generally predominant pattern as opposed to the "state capture" (in the case of big firms) and the "grabbing hand" (in the case of SMEs), both of which were typical of the 1990s. However, there are some differences in priorities at different levels of government. The federal government in 2007-2008 preferentially provided support to state-owned and mixed enterprises with stable employment, while regional authorities more often gave support to firms that were involved in modernization activities. These trends could pave the way for a shift in governmental policy at the regional level from the "state capture"/"grabbing hand" models to the Chinese-style "helping hand" model.

Director of Institute for Industrial and Market Studies, the University – Higher School of Economics, Moscow, Russia; email: <a href="mailto:ayakovlev@hse.ru">ayakovlev@hse.ru</a>.

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#### Introduction

The support given to firms by the Russian government at the federal, regional and municipal levels during the financial crisis in 2008-2009 has once again called attention not only to the nature and mechanisms of interaction between the state and business, but also to the authorities' priorities in doling out this support.

The government-business nexus is not a new issue in Russia. It has been actively investigated since the mid-1990s. On the one hand, a number of papers following the model formulated by J. Stigler [Stigler, 1971] have lent proof to the thesis of "state capture" by large firms – particularly at the regional level [Hellman et al., 2000; Frye, Zhuravskaya, 2000; Slinko et al., 2004]. From their analysis of empirical data from the 1990s, the authors of these papers maintained that government support had been given mainly to old, large-scale privatized enterprises that performed poorly but had "special relationships with authorities" enabling them to blackmail the latter with possible social repercussions if they did not deliver support. The "grabbing hand" model was much more typical in the case of small and middle-sized de novo firms in the 1990s [Frye and Shleifer, 1997; Shleifer and Vishny, 1998]. However, in a more recent paper, Timothy Frye presented a rather different hypothesis of a "system of exchange" between enterprises and regional authorities [Frye, 2002]. Using the 2000 survey data of 500 firms in 8 regions of the Russian Federation, he demonstrated that the firms that had received subsidies, tax relief and other types of government support also had to bear additional costs and obligations, such as price regulations, more frequent inspections and time lost in communication with the bureaucrats.

Later on, in the 2000s, the policy of government support in Russia showed some indications of change. In particular, according to the data of new enterprise surveys, regional authorities began giving assistance to growing firms that were restructuring and planning their investments (see [Frye et al., 2009], who arrived at a conclusion consistent with [Ahrend, 2008] based on an analysis of the macroeconomic data by region of the RF). These changes can be examined in terms of a "new industrial policy" and "second-best institutions", concepts that were elaborated by Dani Rodrik with regard to developing and emerging economies [Rodrik, 2004; Rodrik, 2008], or in the framework of the "helping hand" model according to Andrei Shleifer. They can also be interpreted as a Russian manifestation of the model of "fiscal federalism and political centralization", which has been used by many researchers to explain the successful economic reforms in China [Montinola et al., 1995; Qian, 1999; Blanchard and Shleifer, 2001]. On the basis of these studies, we can also conclude that the mechanisms for interaction between

business and the state work better at the regional level, contrary to the views predominant in the 1990s that regional administrations were "rent-seekers" and that the federal government was more efficient.

In this paper, we will try to determine which of the above-mentioned models – "state capture", "exchange between elites" or "new industrial policy" – best describes the mechanisms of interaction between business and the state at the federal, regional and municipal levels. In the next sections we will describe our data, research methodology and main hypotheses as well as the results of our empirical analysis. Our main findings will be given in the conclusion.

#### Data

We based our analysis on the results of a survey of 957 enterprise directors conducted in February-June 2009 by the U-HSE Institute for Industrial and Market Studies together with the Levada Center at the request of the Ministry of Economic Development for the second round of its monitoring of the competitive power of manufacturing industries. (The main results of the first round of the monitoring were described in [Golikova et al., 2007]; [Desai and Goldberg, 2007]).

According to the monitoring program, the 2009 survey questionnaire asked firms about the intensity of competition; capital investments; export and innovative activities; ownership and control structures; their interaction with authorities; market conditions for labor and other production factors; and major barriers to running a business. The questionnaire also included a special block of questions concerning the influence of the current crisis on the behavior of business enterprises.

The surveyed enterprises were located in 48 regions and represented eight manufacturing sectors: food products, textiles; wearing apparel; wood and products made of wood; chemicals and chemical products; basic metals and fabricated metal products; machinery and equipment; electrical equipment, electronic and optical products; and vehicles and other transport equipment. Company CEOs made up 67.5% of our respondents; deputy directors general in charge of economy and CFOs constituted 31%; and in 14 enterprises, the respondents held other positions.

The parameters of our sample can be described in the following terms: the average surveyed enterprise had 587 employees; 73% of them had been established before 1992 and 10% after 1998. The government held stakes of 11%, with foreign shareholders controlling 10% of the total firms in the sample. 41% of the enterprises were located in regions with "below average" investment potential, while 30% were in regions with "above average" potential (as graded by the rating agency of The Expert weekly magazine). Of the total number of surveyed firms, 28% were members of business groups; 54% exported their products in 2008; and about

two thirds were controlled by a single dominant shareholder or a consolidated group of owners. The enterprises employed about 8% of the average payroll across the whole sample, and in 2007, they produced about 6% of the total output of manufacturing industries.

# **Interaction between Firms and Authorities: Descriptive Statistics**

The questionnaire used in our survey enabled us to analyze relations between enterprises and authorities in several directions. Firstly, we asked the enterprises whether or not they had received support from federal, regional or local authorities in 2007-2008. Secondly, we asked if they had obtained any organizational support (meaning any sort of non-financial aid, including help in making contact with Russian and foreign partners, assistance in getting in touch with other government authorities, aid in attracting investors, etc.). Lastly, our questionnaire inquired whether the enterprise had provided any assistance to regional and/or local authorities in 2007-2008 for the social development of its region (including maintenance of social facilities and dwellings, sponsoring regional/municipal programs, etc.). In the event that such help had been given, we also asked the enterprises to give the approximate size of their contribution as a percentage of their average annual net profits.

Figure 1 presents the share of firms that received support from different levels of government in 2007-2008. One can see from these data that regional authorities played the most active role in giving support. In total, about 26% of the firms in our sample received help at this level; among them, 19% obtained organizational support and 14% were given financial support. Furthermore, at the regional and local levels, organizational forms of support were more common (this is most evident at the municipal level, where firms that received financial and organizational support differ in shares by a factor of 3 and greater). In contrast, the most frequently used tool at the federal level was financial support.

Another important factor of interaction between enterprises and authorities is the rendering of corporate support to regional and local authorities for regional social development. In 2007-2008, as seen in Figure 2, only 23% of the total firms gave no help to authorities at all. However, the majority of enterprises dedicated no more than 0.1% of their revenue from sales for assistance to authorities (33% of the respondents stated this directly, and the 24% who found it difficult to estimate their expenses can probably also be included in this group). Taking into account that in 2007-2008 the surveyed enterprises had an average profitability of sales of about 12%, we can assume that the majority of manufacturing firms allocated no more than 1% of their net earnings for the social development of their regions – which is not a very large amount by global standards.

Figure 1 Shares of enterprises that received financial and organizational support from the state in 2007-2009

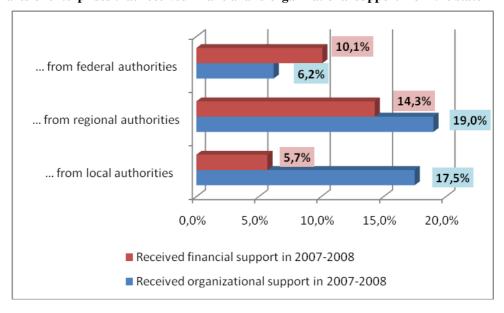
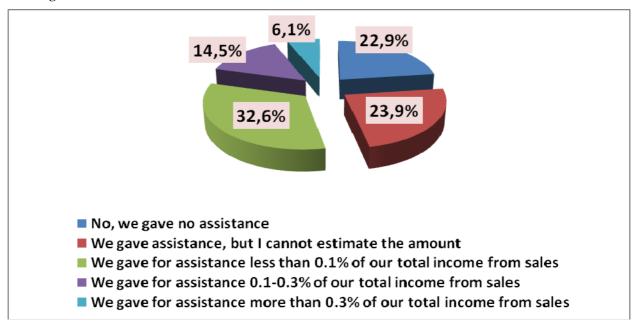


Figure 2 Rendering of support by enterprises to regional and local authorities for the social development of their regions



When analyzing the relations between enterprises and authorities, it is important to point out that this "socially responsible" behavior was frequently rewarded. For instance, from 27% to 34% of the firms that helped the authorities reported having received some type of government support at the regional level, as opposed to those that gave nothing for social development in their region (p<0.01). This correlation between rendering help to authorities and receiving support from them in return was also observed at the federal and local levels, but at a lesser level of significance (p<0.10 and p<0.05, respectively).

# **Empirical Strategy**

The two variables examined in the previous section – government support to enterprises and help given by the enterprises to authorities for social development – were used as key variables in our regression analysis of state-business interaction. Receipt of government support was used as a dependent variable. We used integral indicators showing both financial and organizational support. We examined the factors responsible for provision of assistance from the state at each level of government (federal, regional and local), and rendering help to the state served as one of the explanatory variables. However, at the same time, we used a fairly large set of other explanatory variables, which can tentatively be divided into three blocks: basic characteristics of enterprises, and their performance indicators including parameters of their "social" and "modernization" activities. (A formal description of these variables is given in Tables 1a and 1b in Appendix.)

In the first block, an enterprise was asked about its industrial affiliation, its size and year of foundation, the investment potential of its region of location, and the ownership structure (the government's stake in its capital as well as the presence of foreign shareholders). Our arguments for choosing these variables in particular for our "basic" model were as follows:

- The level of regional development (the facilities of the region in question, and preferential treatment of highly or poorly developed regions by the federal center) can affect the scale and types of government support;
- Large companies and state-owned enterprises usually have better access to government administration, and we therefore suppose that they will receive government support more quickly than smaller or private companies;
- Attracting foreign investment has supposedly been one of the cornerstones in Russia's economic policy for a long time. We therefore presume that enterprises with foreign stakes will receive preferential treatment in terms of obtaining government support;
- The enterprises whose history goes back to the Soviet era usually have closer ties with authorities, and for this reason they are more likely to become recipients of government support.

At the same time, we assumed that along with these basic factors, decisions to allocate government support could also depend on at least on two areas of enterprise activity: "social responsibility"/contacts with authorities and modernization activities (including capital investments, innovations, etc.).

To describe the "social activity" of the enterprises, along with the above-mentioned assistance to local and regional authorities for regional social development, we looked at two more factors from our questionnaire: conservation and/or creation of new jobs and membership of the respondent firms in business associations. Support of employment (conservation and/or

creation of new jobs) can be a component in the "system of exchange" between business and the state. In turn, business associations are one of important channels of interaction between enterprises and authorities [Pyle, 2006]. For example, according to the data of the 2005 Russian-Japanese survey, enterprises singled out contacts with authorities as the second most significant function of business associations [Dolgopyatova et al., 2009].

The enterprises' participation in modernization activities can be described in terms of many indicators. In this case, we based our analysis on three variables:

- Presence of exports (all other factors being equal, entry into export markets implies that an enterprise has a greater competitive edge);
- Capital investment activity in 2005-2008 (the respondent firms were divided into three groups those investing nothing at all, those investing little and those carrying out large investment projects);
- Innovation activity (we assigned to this category the firms that had introduced a new product or a new technology and had nonzero R&D expenditures).

We analyzed the determining factors at all three levels of government for giving support to enterprises using a set of probit regressions with marginal effects. We identified four models for each level of government. Model 1 was built solely of "basic" variables. In models 2 and 3, in addition to the basic variables, we included, respectively, variables of "social" and "modernization" activities. Model 4 embraced the whole set of variables, and this enabled us to test the robustness of the results obtained for models 1-3. Finally, in model 4a, for an additional robustness check, we assessed the influence of the same variables in an incomplete sample comprising only the private enterprises.

#### **Empirical Results and Discussion**

The main results of the regression analysis of the factors responsible for the allotment of government support are given in Tables 2-4. Having summed up the results, we can state the following.

The first point that is common to all levels of government is that government support is more frequently given to firms in the regions with low and average investment potential. This holds true for support at the federal level as well, which suggests to us that the federal government directs its support mostly towards the "equalization" of levels across regions rather than towards the creation of incentives for development. The second common point is that in all cases, old firms dating back to the Soviet era clearly have preferential access to government support. This difference (in the negative) is most evident in the category of firms established in 1991-1998. For the firms that became active in 1999 or later, the probability of obtaining support

is also lower than for old "Soviet" enterprises, but the corresponding coefficients are statistically significant only in the models of support from regional authorities.

**Table 2 Factors Responsible for Getting Support from Federal Authorities** 

	model	model	model	model	model		
Explanatory variables			1.1	2.1	3.1	4.1	4.1a
			Marginal effects				
average			-0.04	-0.03	-0.03	-0.03	-0.04*
Investment potential of a region <sup>a)</sup>		High	0.08***	-0.06**	0.08***	-0.06**	-0.06**
Size (natural logarithm of n	umber of em	ployees)	0.03***	0.02*	0.02	0.01	0.01
Time of establishment of 1991-1998			0.09***	- 0.09***	- 0.09***	- 0.09***	- 0.09***
a firm b)	1999 and later		-0.02	-0.02	-0.02	-0.02	-0.04
Government stake in capita	1		0.12**	0.11**	0.14***	0.13**	X
Foreign shareholder			0.05	0.04	0.04	0.03	0.04
Membership of a firm in business associations				0.03		0.02	0.02
Help to regional and local authorities				0.04		0.03	0.02
Changes in jobs c)	Preservation (+/-5% by 2007)			0.07**		0.06**	0.06**
	Creation of new jobs			0.07**		0.05	0.04
Investments in 2005-2008	Minor				0.03	0.03	0.03
d)	Large				0.05*	0.04	0.04
Presence of exports					-0.00	0.00	0.00
Actively innovating enterprise					0.06**	0.05	0.03
Control for sector included			yes	yes	yes	yes	yes
LL			-246	-224	-240	-221	-200
Pseudo R2 (Nagelkerke)			0,14	0,16	0,16	0,17	0,16
Number of observations			742	696	735	691	653

## Notes to this and following tables:

- a) In comparison with firms from regions with low investment potential;
- b) In comparison with firms established in 1990 and earlier;
- c) In comparison with firms having cut jobs in 2008 by 5% and more;
- d) In comparison with firms having made no investments in 2005-2008.

Statistical significance of regression coefficients: \*\*\* - p<0,01; \*\* - p<0,05; \* - p<0,10.

It is also interesting to note that in all models, the factor of enterprise size turned out to be ultimately insignificant. To be exact, enterprise size is positively correlated to the probability of receiving support at the federal and regional levels in models 1 and 3 (the "basic" one and the one with "social activity" variables). However, the influence of this factor became insignificant if the model included the variables of modernization and firm restructuring.

The federal level was found to possess some special features; we observed, for example, that this is the only level where definite privileges are given to firms with government stakes. At the same time, federal support is focused on firms that preserve jobs (the coefficient placed before the "job creation" variable is also positive, but less significant). On the other hand, "modernization" variables for federal support proved to be mostly statistically insignificant (the only exception is model 3, in which innovation activity was significant at the 5% level, and

large-scale investments were significant at the 10% level). This combination allows us to speak of a certain "conservative system of exchanges", i.e. when the federal government gives support to old enterprises and companies with government stakes in exchange for expected preservation of employment at the recipient firms.

**Table 3 Factors Responsible for Getting Support from Regional Authorities** 

		model	model	model	model	model 4.2a		
-		1.2	1.2   2.2   3.2   4.2					
Explanatory variables		Marginal effects						
Investment potential of a	average	-0.08**	-0.06*	-0.08**	-0.07*	-0.06		
region <sup>a)</sup>	high	-0.20***	-0.18***	-0.20***	-0.19***	-0.20***		
Size (natural logarithm of number of employees)		0.06***	0.05***	0.03*	0.02	0.01		
Time of establishment of a	1991-1998	-0.08**	-0.07*	-0.09**	-0.08*	-0.10**		
firm <sup>b)</sup>	1999 and later	-0.09*	-0.09	-0.10*	-0.10*	-012**		
Government stake in capital	-	0.09	0.14*	0.12*	0.19**	X		
Foreign shareholder		0.09	0.06	0.05	0.03	0.04		
Membership of a firm in busin	Membership of a firm in business associations		0.07**		0.06	0.06*		
Help to regional and local auth	norities		0.12***		0.10**	0.09**		
Changes in jobs <sup>c)</sup>	Preservation (+/-5% by 2007)		0.01		-0.01	0.01		
	Creation of new jobs		0.06		0.03	0.01		
Investments in 2005-2008 d)	minor			0.05	0.07	0.09*		
investments in 2003-2008	large			.013***	0.15***	0.17***		
Presence of exports				-0.07*	-0.06	-0.06		
Actively innovating enterprise				0.05	0.04	0.06		
Control for sector included		yes	yes	yes	yes	yes		
LL		-373	-342	-362	-221	-307		
Pseudo R2 (Nagelkerke)		0,10	0,12	0,12	0,17	0,15		
Number of observations		742	696	735	691	653		

**Table 4 Factors Responsible for Getting Support from Local Authorities** 

Explanatory variables		model	Model	model	model	model	
		1.3	2.3	3.3	4.3	4.3a	
		Marginal effects					
Investment potential of	average	0.04	0.05	0.04	0.04	0.03	
a region a)	high	-0.09***	-0.08**	-0.10***	-0.08**	-0.08**	
Size (natural logarithm of	of number of employees)	0.01	0.00	0.01	-0.01	-0.01	
Time of establishment	1991-1998	-0.07*	-0.06	-0.07*	-0.06	-0.06	
of a firm b)	1999 and later	-0.06	-0.05	-0.06	-0.05	-0.08	
Government stake in cap	oital	-0.02	-0.01	-0.00	0.03	X	
Foreign shareholder		0.15***	0.15***	0.14***	0.15***	0.18***	
Membership of a firm in business associations			0.05*		0.05	0.05	
Help to regional and loca	Help to regional and local authorities		0.07**		0.08**	0.07*	
	Preservation (+/-5% by 2007)		0.05		0.05	0.06	
Changes in jobs c)	Creation of new jobs		0.04		0.03	0.03	
Investments in 2005-	minor			0.06	0.05	0.04	
2008 <sup>d)</sup>	large			0.07*	0.06	0.06	
Presence of exports				-0.00	0.01	0.02	
Actively innovating enterprise				0.02	0.01	0.02	
Control for sector included		yes	Yes	yes	yes	yes	
LL		-329	-305	-325	-302	-282	
Pseudo R2 (Nagelkerke)		0,05	0,07	0,06	0,07	0,08	
Number of observations		742	696	735	691	653	

At the regional and local levels, the range of determining factors for giving government support to firms is very different. Firstly, the practice of rendering assistance to authorities for social development in a region appears statistically significant in all models. This can be taken as a clear sign that the "system of exchanges" actually exists. Secondly, membership in business associations is also an important pre-condition for receiving support from regional authorities, which corroborates the assumption that business associations are a channel for interaction between business and the state. However, contrary to reasonable expectations, preserving jobs appears to be inessential for obtaining support at the regional and local levels. The same holds true for government stakes in enterprise ownership – this factor affects provision of government support only in two of our models at the regional level. In other cases, the relevant coefficients are positive, but the influence of this factor on a dependent variable stays within the limit of statistical error.

At the same time, as opposed to measures of federal support at the regional and municipal levels, a number of variables describing "modernization" and "restructuring" activities appear to be significant at the enterprise level. For instance, the implementation of large-scale investment projects by enterprises in 2005-2008 was a highly significant factor for giving support in the framework of models for regional authorities. At the municipal level, enterprises with foreign stakes in their ownership structure were much more common recipients of support in 2007-2008.

On the other hand, this is a question of a cause-and-effect relationship: do regional and local authorities support firms that invest and enter new markets, or do these firms expand and invest due to government support? The data submitted to our study have a limitation: according to the nature of the study, we could question only "insiders" – i.e. the firms that were already present in regional marketplaces and had well-established ties with authorities, which allowed them to feel more comfortable than non-admitted "outsiders". A hypothesis about this kind of "alliance of insiders" (represented by regional authorities and local firms) was already put forth in [Yakovlev and Frye, 2010]. In favor of this hypothesis are the preferences for old enterprises established before 1991, which we revealed in our analysis at all levels of government. However, preferences for firms with foreign stakes contradict this hypothesis and at least give evidence for the existence of different criteria for the provision of government support at the regional and municipal levels.

## **Conclusion and Policy Implications**

In this paper, we examined forms of interaction between firms and authorities at different levels of government using the results of a survey of 957 industrial enterprises. Our results

enabled us to conclude that the dominant pattern of relations between enterprises and the government is the "model of exchange". In exchange for receiving support, recipient enterprises provide help for the social development of their respective regions or ensure the preservation of jobs.

Nevertheless, in 2007-2008 we clearly detected a divergence of priorities with respect to the provision of government support between the federal level on the one hand and the regional and municipal levels on the other. In the first case, the well-established "system of exchange" between the state and business was more conservative and focused on old enterprises, companies with government stakes, and firms that preserved jobs. In the second case, government support was more oriented towards modernization: the investment activity of firms and presence of foreign investors were among the criteria for its allocation. These results give us grounds to believe that a shift is taking place in governmental policy at the regional and local levels in Russia towards the "helping hand" model found in China.

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# Appendix

Table 1a. Basic parameters of firms received governmental support in 2007-2008

		Number	Financial support from			Organizational support from		
		of firms	federal	regional	local	Federal	Regional	Local
				authorities			Authorities	
All sample		957	10%	14%	6%	6%	19%	18%
Investment potential of a	low	396	13%	17%	5%	7%	25%	20%
region	average	274	11%	17%	8%	8%	22%	22%
	high	287	5%	7%	3%	4%	8%	10%
St	ratistical significance of differences		***	***	**		***	***
Number of employees 2007	Less 100	123	8%	10%	5%	3%	15%	16%
	101 - 250	303	10%	10%	4%	4%	14%	15%
	251-500	228	11%	19%	4%	4%	18%	18%
	501 - 1000	163	7%	20%	7%	6%	25%	25%
	1001 and more	138	14%	13%	11%	17%	29%	15%
St	atistical significance of differences			***	**	***	***	
Sector	Food industry	235	17%	22%	7%	4%	19%	22%
	Textiles and sewing	89	16%	25%	7%	4%	19%	18%
	Timber and woodworking	81	2%	7%	1%	1%	23%	16%
	Chemical production	88	5%	10%	1%	3%	18%	14%
	Metallurgy and metal working	98	1%	4%	4%	5%	14%	14%
	Electrical, electronic and optical equipment	117	22%	10%	7%	17%	21%	18%
	Transport vehicles and equipment	86	7%	12%	8%	8%	24%	19%
	Machinery and equipment	163	3%	13%	6%	6%	17%	15%
St	atistical significance of differences		***	***		***		
Time of establishment of a	1990 and before	701	12%	16%	6%	7%	21%	19%
firm	1991-1998	164	4%	9%	4%	2%	17%	16%
	1999 and later	92	7%	10%	8%	4%	11%	11%
St	atistical significance of differences		***	**		**		
Government stake in capital	No stake	708	9%	13%	4%	5%	17%	16%
	Government has stake in the firm	88	23%	19%	13%	22%	27%	22%
	n/a	158	9%	15%	9%	5%	23%	23%
St	atistical significance of differences		***		***	***	**	*
Foreign shareholder	No stake	675	9%	14%	4%	5%	16%	15%
	Foreigners have stake in the firm	78	12%	13%	9%	9%	26%	23%
St	atistical significance of differences				**		**	

Table 1b Performance indicators of firms received governmental support in 2007-2008

		Number of	Fina	Financial support from		Organizational support from		
		firms	federal	regional	federal	regional	federal	regional
				authorities			authorities	
Membership of a firm in	Non-members	573	10,0%	11,5%	5,1%	4,4%	15,0%	14,7%
business associations	Members	342	10,2%	19,3%	7,0%	8,8%	26,0%	21,9%
S	tatistical significance of differences			***		***	***	***
Assistance to the regional	No, we gave no assistance	219	7,8%	6,8%	3,7%	2,3%	10,5%	11,0%
and local authorities	We gave assistance, but I cannot estimate the amount	312	10,9%	15,4%	5,5%	6,4%	18,3%	18,6%
	We gave for assistance less than 0.1% of revenue from sales	139	11,6%	18,1%	5,8%	5,1%	23,9%	19,6%
	We gave for assistance 0.1-0.3% of revenue from sales	58	8,6%	19,0%	5,2%	5,2%	22,4%	19,0%
	We gave for assistance more than 0.3% of revenue from sales	229	10,9%	16,6%	7,9%	10,5%	24,5%	20,5%
Statistical significance of differences				***		***	***	*
Changes in jobs	Destruction of jobs (95% and less by 2007)	361	7,5%	12,7%	3,9%	3,6%	17,2%	15,2%
	Preservation (+/-5% by 2007)	365	12,1%	13,4%	5,2%	7,4%	18,9%	20,0%
	Creation of new jobs (105% and more by 2007)	191	11,5%	20,4%	9,4%	9,4%	25,1%	18,8%
S	tatistical significance of differences		*	**	**	**	*	
Investments in 2005-2008	No investment	284	6,4%	8,8%	5,3%	5,7%	13,4%	14,1%
	minor	277	11,6%	10,8%	5,1%	6,5%	19,9%	19,1%
	large	372	12,1%	21,8%	6,2%	6,2%	23,1%	18,8%
S	tatistical significance of differences		**	***			***	
Presence of exports in 2008	No export	493	11,4%	14,8%	5,3%	4,7%	16,1%	18,1%
-	10% of sales or less	240	7,5%	16,3%	4,2%	6,3%	20,0%	17,5%
	11% of sales or more	182	8,8%	12,1%	7,7%	8,2%	25,3%	16,5%
S	tatistical significance of differences						**	
ISO certification	No	487	10,5%	15,0%	4,5%	3,5%	16,3%	16,5%
	Yes	470	9,8%	13,6%	6,8%	8,9%	21,9%	18,5%
S	tatistical significance of differences					***	**	
Innovation activity	No	676	9,5%	12,9%	4,9%	3,9%	15,7%	16,6%
<u> </u>	Yes	281	11,7%	17,8%	7,5%	11,7%	27,0%	19,6%
S	tatistical significance of differences			**		***	***	