

**Restructuring of State-Owned Enterprises
in Central and Eastern Europe and Former Soviet Union,
with application to Cuba**

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Abstract

This paper evaluates the transformation of the “nucleus”¹ of central planning—state-owned industrial enterprises—in select countries of Central and Eastern Europe (CEE) and Former Soviet Union (FSU): Lithuania, Belarus, Slovakia, and Bulgaria. By using firm-level data from the World Bank Business Environment and Enterprise Performance Survey (BEEPS), three questions are tested: do private firms perform better than state firms; do firms that restructured organizationally perform better than firms that didn’t; are private firms more likely to restructure organizationally? Alongside traditional findings that private firms of CEE and FSU had higher revenue margins and undertook strategic initiatives more often, I found that organizational restructuring had a significant positive impact on firm performance as well. Meanwhile, there was no interaction between ownership type and organizational restructuring. In light of such findings for the case study of the Cuban economy, I conclude that the lack of distinct ownership reform for state-owned industrial enterprises in Cuba is not detrimental to their performance if major organizational restructuring takes place. An applied focus on organizational restructuring serves as a critique of policy literature that recommends privatization.

Part I. Introduction

The economies of central planning are based on coordinated management of supply side for goods, while in the free market economies the supply side is adjusted to the needs of

¹ The term “nucleus” is used by Maurice Ernst, Michael Alexeev, and Paul Marer in *Transforming the Core: Restructuring Industrial Enterprises in Russia and Central Europe*.

consumers. In the latter part of 20th century, the socialist economies came to emphasize industrialization, economies of scale, and production of heavy industrial outputs and primary commodities at large state-owned enterprises, while the market economies of the world experienced an increase in their respective service industries and high value-added sectors, with an increasing role of the small, medium, and large enterprises in the private sector. As the socialist countries undertook transition and integration into market economy at the end of the century, the specific processes and outcomes of political, economic, and politico-economic transformations differed from country to country and cross-regionally. This paper examines how the “nucleus of central planning”—state-owned enterprises—underwent transformation and restructuring in four countries of Central and Eastern Europe (CEE) and Former Soviet Union (FSU), in comparison and contrast to their Caribbean counterpart with a similar level of economic development today: Cuba.

In the first section, I will contrast the transitional paths of Lithuania, Belarus, Slovakia, and Bulgaria, with a focus on transformation and adjustment of state-owned enterprises to market economy. I use these four countries because according to my analysis, their level of economic development at the outset of transition most closely resembles that of Cuba at the beginning of the twenty-first century. The key argument of a neoliberal economic paradigm is that private ownership structure leads to better economic performance than state ownership because of economic incentives for profit that come with direct private ownership. This is why privatization was so feverishly advised and seen as key to a successful economic transition. I will empirically test this claim based on two pooled rounds of firm-level data from Business Environment and Enterprise Performance Survey (BEEPS) in the four CEE and FSU countries, Lithuania, Belarus, Slovakia and Bulgaria. I measure performance with two factors: (1) revenue

margins, i.e., percent by which the sales price exceeds operating cost, and (2) strategic product initiative, i.e., development of a major new product line or upgrading of an existing product line. Following traditional theory, I expect private firms to have higher revenue margins than state enterprises; I also expect that private firms will undertake strategic product initiatives more frequently than state firms.

Beyond measuring firm performance solely in terms of revenue margins, I also favor a broader analysis that incorporates measuring organizational restructuring initiatives among state enterprises and private companies alike, looking for a relationship between organizational restructuring and enterprise performance regardless of ownership type. Based on the notion that organizational structure is closely linked to efficiency, I argue that state-owned enterprises of the Soviet era were structured for maximum efficiency under the centrally-planned economy², and the old organizational structure was not optimal for good performance in a market economy. Therefore, when testing the impact of organizational restructuring on performance, I expect to find that firms that undertook organizational restructuring had higher revenue margins and undertook strategic product initiatives more often than firms that did not restructure. I also consider the interaction between ownership type and organizational restructuring, as this interaction is crucial to determine whether it is ownership, restructuring, or a conditional dependence of one on the other that actually influences firm performance.

In the second section, I will recount Cuba's transition so far, focusing on the "adjustment" reforms of the Special Period, FDI inflows, and recent economic initiatives in order to evaluate the Cuban strategy of a gradual transition that focused on external sector reforms and

² despite large inefficiencies that persisted due to the nature of central planning per se

the overlooked reforms for large and inefficient domestic industries. Furthermore, I critique various policy options in light of CEE and FSU experiences in terms of strategy type, effects of ownership on firm's revenues, and the effects of restructuring on firm's revenues. The last section concludes and highlights implications, underscoring the importance of a Cuban context. Alongside expectations that private enterprises have higher revenue margins, and that restructuring is higher correlated with profitability than ownership type, I use the Cuban case study application to ultimately address the overarching implication: is privatization truly best for transition, or might there be an alternative restructuring option that avoids privatization costs and leads to a comparable level of firm performance?

Part II. Transition, Privatization, and Restructuring in CEE and FSU

Background and Literature Review

There are numerous theoretical frameworks for conceptualizing transition in Central and Eastern Europe. I find an overview presented by Maurice Ernst, Michael Alexeev and Paul Marer (1996) most useful, distinguishing among three frameworks that work both theoretically and in practice. Under *shock therapy*, an emphasis is placed on rapid liberalization and privatization, under explicit initiatives of a post-Communist government. The lynchpin of the *order will emerge out of chaos* framework is a distrust of governments and faith in market mechanisms more so than under *shock therapy*, as the markets develop capitalist norms while the government assumes a passive role. The *gradual* approach, on the other hand, emphasizes that developing practices of a market economy take a long time, and advocates for a proactive stop-and-go government role in harnessing market incentives.

Privatization was a common strategy for state owned enterprises because change of ownership is closely associated with an increase in profitability and improvement in efficiency. The driving force behind such improvements is supposed to be the managers: once privatization transfers both control and cash flow rights to private individuals, they are “expected to show a greater interest in profits and efficiency than in pleasing the government with higher output or employment.” (Boubakri and Cosset, 1).

In general, four kinds of restructuring can take place at the enterprise level. A firm can engage in strategic restructuring by developing and implementing a comprehensive, long-term business strategy in response to an opportunity, by producing new product lines, new processes, new technologies, the development of new markets, and substantial downsizing. On the other hand, a firm can engage in defensive restructuring with the goal of enterprise survival, exemplified by neglecting investment to pay wages or selling real estate. Passive restructuring is another option that frequently takes place, which is an erosion of assets for personal gain (by design or happenstance), also referred to as “asset stripping.” Lastly, restructuring through privatization can occur as a result of bankruptcy procedures. (Ernst, Alexeev and Marer)

Ernst, Alexeev and Marer find that the scope, speed, and efficiency of restructuring depend mainly on four sets of interdependent variables: (1) privatization strategy; (2) the nature of the budget constraint facing enterprises, policies concerning enterprise bad debts, and the efficiency of financial intermediation; (3) corporate governance arrangements; and (4) other aspects of a country’s macroeconomic policies and institutional framework. Once restructuring is implemented, however, firms become more successful. Joseph Brada (2004), in fact, demonstrated that in Czech Republic, Hungary, and Poland, successful firms were those which

strengthened their marketing function, reorganized their internal decision making and information systems, invested in human resources and created effective mechanism of corporate governance. Contrary to frequent prescriptions of downsizing as a key feature of organizational restructuring, Brada also found that the shedding of workers and large investments in capital and technology were less important features of successful restructuring.

In a study of seventy-nine privatized firms from twenty-one developing countries, Boubakri and Cosset found that such firms experienced significant increases in profitability, operating efficiency, capital investment spending, output (adjusted for inflation) and employment, thus concluding that type of ownership matters for firm performance. Specifically among transition countries, Simon Commander and Jan Svejnar (2007) find that private foreign ownership increased performance, while domestic private ownership had mixed results, and state ownership was correlated with a lower profitability.

Country Selection for a Cuban application

In this section I explain how I selected the four countries for Cuban case study of state-owned enterprises. I am using Cuba's current level of economic development because the level of state ownership among the enterprises is very high, and equivalent to the level of state ownership at the outset of transition in the countries of Central and Eastern Europe and Former Soviet Union. Moreover, in basic economic and geographical terms, Cuba's current level of development in terms of basic indicators, such as GDP, GDP growth rates, population, and labor force composition, is most similar to that of Lithuania, Belarus, Slovakia, and Bulgaria at the outset of transition. This is especially important for a comparison-and-contrast analysis of

countries cross-regionally and with temporal differences: Cuba versus Central and Eastern Europe; post-2000 versus early 1990s.

In the table, no shade denotes a very close match, light shade denotes a mediocre match, while dark shade denotes a bad match to Cuba's statistic. The selection of closest match countries was based on relative closeness of all statistics, with special emphasis placed on GDP, population, GDP per capita, and employment composition by sector, and less emphasis on land area and growth rates. I decided against a comparison of Cuba and a Central Asian country like the Kyrgyz Republic due to historical differences in terms of exposure to capitalism before the socialism, geographical difference with respect to potential for western investment, as well as cultural and religious differences that could affect firm behavior.³

Table A: Cuba vs. Central Europe

<i>Country</i>	<i>CUBA</i>	<i>Czech Republic</i>	<i>Hungary</i>	<i>Slovakia</i>	√
<i>Ideal comparison base year</i>	2008	1990	1989	1990	
<i>Land area (sq.km)</i>	110,860	78,870	93,030	49,030	
<i>Population (million)</i>	11.394	10.363	10.398	5.283	
<i>Labor force composition by sector</i>	Year: 2000-2006 28-20% in agric., 40-19% in ind., 32-61% in serv.	1990: 10% in agric., 48% in ind., 42% in serv.,	1990: 18% in agric., 28% in ind., 54% in serv.,	1990: 12% in agric., 34% in ind., 54% in serv.,	
<i>GDP (PPP)</i>	\$51.11 billion	\$120.34-\$136.16 billion	\$99.86-\$127.1 billion	\$48.415-\$59.329 billion	
<i>Per capita GDP (PPP)</i>	\$4,500	\$12,627-\$15,474	\$9,9604-\$12,224	\$9,041-\$11,508	
<i>GDP growth rate</i>	7%	0% after “-“ growth	1% and then dropped	1% and then dropped	

Chosen: Slovakia

Table B: Cuba vs. the Baltic

<i>Country</i>	<i>CUBA</i>	<i>Lithuania</i>	√ <i>Estonia</i>	<i>Latvia</i>
<i>Ideal comparison base year</i>	2008 or 2002-2006 approximation	1991	1991	1991
<i>Land area (sq.km)</i>	110,860	65,608	45,443	64,894

³ CEE data is from WDI; Cuba data from EIU

<i>Population (million)</i>	11.394	3.704	1.561	2.662
<i>Labor force</i>	Year: 2000-2006 28-20% in <i>agric.</i> , 40-19% in <i>ind.</i> , 32-61% in <i>serv.</i>	1990: 19% in <i>agric.</i> , 29% in <i>ind.</i> , 52% in <i>serv.</i>	1990: 12% in <i>agric.</i> , 46% in <i>ind.</i> , 52% in <i>serv.</i>	1990: 16% in <i>agric.</i> , 39% in <i>ind.</i> , 45% in <i>serv.</i>
<i>GDP (PPP)</i>	\$51.11 billion	\$34.144-\$40.427 billion	\$10.850-\$12.84	\$18.574-\$21.993
<i>Per capita GDP (PPP)</i>	\$4,500	\$9,218-\$10,915	\$6,951-\$8,230	\$6,951-\$8,262
<i>GDP growth rate</i>	7%	-6 and then dropped	-8 and then dropped	-13 and then dropped

Chosen: Lithuania

Table C: Cuba vs. South-East Europe

<i>Country</i>	<i>CUBA</i>	<i>Belarus</i> ✓	<i>Bulgaria</i> ✓	<i>Romania</i>
<i>Ideal comparison base year</i>	2008	1991	1991	1991
<i>Land area (sq.km)</i>	110,860	208,578	110,990	238,390
<i>Population (million)</i>	11.394	10.189	8.635	23.185
<i>Labor force</i>	Year: 2000-2006 28-20% in <i>agric.</i> , 40-19% in <i>ind.</i> , 32-61% in <i>serv.</i>	1990: 19% in <i>agric.</i> , 45% in <i>ind.</i> , 36% in <i>serv.</i>	1990: 18% in <i>agric.</i> , 45% in <i>ind.</i> , 37% in <i>serv.</i>	1990: 28% in <i>agric.</i> , 45% in <i>ind.</i> , 27% in <i>serv.</i>
<i>GDP (PPP)</i>	\$51.11 billion	\$45.219-\$53.541 billion	\$45.005-\$53.287 billion	\$115.527-\$136.788 billion
<i>Per capita GDP (PPP)</i>	\$4,500	\$4,436-\$5,252	\$5,214-\$6,173	\$4,983-\$5,900
<i>GDP growth rate</i>	7%	-1 and then dropped	-9 was the lowest point	-13 was the lowest point

Chosen: Belarus & Bulgaria

Table D: Cuba vs. Central Asia

<i>Country</i>	<i>CUBA</i>	<i>Kyrgyz Republic</i>	<i>Kazakhstan</i>
<i>Ideal comparison base year</i>	2008	1991	1991
<i>Surface area (sq.km)</i>	110,860	200,842	2,737,743
<i>Population (million)</i>	11.394	4.423	16.450
<i>Labor force</i>	Year: 2000-2006 28-20% in <i>agric.</i> , 40-19% in <i>ind.</i> , 32-61% in <i>serv.</i>	1990: 33% in <i>agric.</i> , 28% in <i>ind.</i> , 39% in <i>serv.</i>	1990: 23% in <i>agric.</i> , 36% in <i>ind.</i> , 41% in <i>serv.</i>
<i>GDP (PPP)</i>	\$51.11 billion	\$85.955-\$101.773 billion	\$70.022-\$83.908 billion
<i>Per capita GDP (PPP)</i>	\$4,500	\$1,912-\$2,264	\$4,257-\$5,040
<i>GDP growth rate</i>	7%	-8 and then dropped	-11 was the lowest point

Chosen: none

The countries selected also represent a fairly diverse combination of transition possibilities in terms of economic reforms and privatization. Among the four, Lithuania is the classic scenario of a successful privatization, with some corruption but mostly fair distribution of

state resources to private citizens. Bulgaria, on the other hand is a case that highlights the shortcomings of privatization. In Slovakia and Belarus, on the other hand, economic reforms and restructuring happened at a slow pace, Belarus taking the more gradual approach of the two, whereas Lithuania and Bulgaria are usually classified as fast-paced reformers. Similarly to Cuba, Slovakia and Lithuania had a relatively extensive experience with capitalist before the Soviet era. Belarus, however, did not have a significant experience with capitalism and cultural factors will be at play.

By selecting countries with various transition paths, and testing the empirical hypothesis along these differing paths, will provide a more complete representation of possibilities that lie ahead of Cuba today. For instance, if I compared Cuba to the successful reformers of Central Europe that underwent rapid privatization, such as the Czech Republic, Hungary, and Poland, I would conclude that ownership would be a determining factor for firm performance. However, by comparing Cuba to an ‘average’ of experiences of Lithuania, Belarus, Slovakia and Bulgaria, I eliminate the pre-selection bias that favors a particular outcome based on the set of countries.

Empirical Analysis

In this section I present the results from the following three tests:

	<i>Research Question</i>	<i>Independent Variable</i>	<i>Dependent Variable</i>	<i>Hypothesis</i>
<u>Test 1</u>	How does ownership type affect firm	Ownership Type	Firm performance	Private firms performed better than state firms

	performance?			
	1A ⁴ . How does ownership type affect profit margins?	State vs. Private	Profit margin	Private firms had higher profit margins than state firms
	1B. How does ownership type affect product initiative?	State vs. Private	Strategic product initiative	Private firms undertook strategic product initiatives more frequently than state firms
<u>Test 2</u>	How does organizational restructuring affect firm performance?	Organizational Restructuring	Firm performance	Restructured firms performed better than firms that didn't restructure
	2A. How does ownership type affect profit margins?	Restructured vs. Non-Restructured	Profit margin	Restructured firms had higher profit margins than non-restructured firms
	2B. How does ownership type affect product initiative?	Restructured vs. Non-Restructured	Strategic product initiative	Restructured firms undertook strategic product initiatives more frequently than non-restructured firms
<u>Test 3</u>	3. How does ownership type affect organizational restructuring?	State vs. Private	Organizational Restructuring	Private firms undertook organizational restructuring more frequently than state firms

Data and Methodology

I use Business Environment Enterprise Survey (BEEPS), a firm-level survey conducted jointly by the World Bank and the European Bank for Reconstruction and development in 1999, 2002, and 2003. For this analysis, I pool two latest rounds of BEEPS, from 2002 and 2005, where a total of 405 firms participated in Lithuania, 575 firms in Belarus, 390 firms in Slovakia, and 550 firms in Bulgaria. By design, BEEPS survey pool consists of about 80-90% private firms, and no more than 30% state entities. This skews the dataset in favor of private enterprises, and reduces the sample size for state-owned enterprises. For the purposes of this research, it

⁴ Results presented in the Appendices correspond: Appendix 1A tests Research Question 1A, Appendix 1B tests Research Question 1B, etc.

would have been beneficial to have a 50-50 proportion among private and state entities. However, the advantages of using BEEPS outweigh the shortcomings—for example, BEEPS allows for a cross-country comparison among twenty-seven transition countries, of which I look at four.

The variables I utilize in my tests are ownership type, organizational restructuring, strategic product initiative, and profit margins, as well as firm size, sector, and firm age that I control for. Private ownership includes “single proprietorship”, “partnership”, “cooperative”, a “privately-held corporation”, a “corporation listed on a stock exchange”, and “other private” as noted in the BEEPS questionnaire⁵, while state ownership includes “state/municipal/district owned”, “corporatized state-owned enterprise”, and “other state.” Organizational restructuring is measured by the question⁶: “which of the following best describes the organization of departments (in terms of the allocation of responsibilities, budgetary resources and staff) within your firm over the last 36 months,” where answers that denote some change, major change, or completely new reallocation of responsibility and resources are considered firms that restructured organizationally. Strategic product initiative is comprised of either⁷ “developing a major new product line” or “upgrading an existing product line”, and profit margins are defined in BEEPS as “percent by which sales price exceeds operating cost.”⁸

The controls are the following: small firm size denotes 2-49 employees, medium denotes 50-249 employees, and large is 250-9,999 employees⁹. Firms with over 10,000 employees were ineligible for the BEEPS. Sectors controlled for include mining, construction, manufacturing,

⁵ Question S2a in both 2002 and 2005 rounds of BEEPS, survey questionnaire

⁶ Question 87 in the 2002 round, and question 62 in the 2005 round of BEEPS, main questionnaire

⁷ Question 85a in the 2002 round, and question 60a in the 2005 round of BEEPS, main questionnaire

⁸ Question 23 in the 2002 round, and question 14 in the 2005 round of BEEPS, main questionnaire

⁹ Question S4a2 round of BEEPS and S4b in the 2005 round of BEEPS, survey questionnaire

transport and communication, wholesale and retail, real estate and renting, hotel and restaurants, as well as “other.” Lastly, firm age is derived from the question¹⁰ by calculating so that a firm established prior to 1991 is classified as old, a firm established in 1991 through 1997 is classified as mid-aged, and a firm established after 1997 is classified as new. I

There are several shortcomings of the data to be noted. Most detrimentally, firms sampled were determined by a simple random sample. Since the sample size per each country is not very large—about 200 observations for every round—once I control each test for two factors, the subset comparison pairs have relatively small sample sizes, at times as few as thirty observations in a subset. Although I corrected for this problem by pooling the data from the 2002 round together with the 2005 round of BEEPS by selecting identical questions, sample size remained small and presents a shortcoming. It is especially the case with state-owned subsets, because of original BEEPS design that favored a sample with about 90% private enterprises. As such, each subset is not representative of all the firms in that country, and this needs to be kept in mind when applying the conclusions to the Cuban context.

As far as methodology is concerned, I will compare profit margins, percent engaging in a product initiative, and percent engaging in organizational restructuring, and compare output in various instances, both in terms of patterns as well as statistical significance. I use a one-sided two-sample T test wherever profit margin is a dependent variable, and a chi-squared test in the remaining tests of initiative and restructuring, where both independent and dependent variables are binomial. It is therefore a combination of descriptive statistics and a comparison of means methodology. Regression analysis will not be used for simplicity of results. While the lack of

¹⁰ Question S1a in both 2002 and 2005 rounds of BEEPS, survey questionnaire

regression analysis can be seen as an unusual departure from similar research literature that uses BEEPS, I am nevertheless able to obtain sufficient evidence to support or reject the hypotheses. In this sense, this paper contributes methodologically to previous research by avoiding regression and applying solely the basic statistical techniques.

Results

Test 1: How does ownership type affect firm performance?

In all four countries tested, private firms had higher profit margins than state enterprises, once I controlled for firm size and sector. This was particularly the case in Lithuania and Belarus where in no size-sector combination did state enterprises have higher profit margins than private enterprises (see below). Most size-sector combinations in Lithuania, Belarus, Bulgaria, and Slovakia exhibited a pattern where private firms had higher revenue margins than state firms. In Lithuania, private small firms in wholesale-retail and real estate-renting sectors, private medium-sized manufacturing firms, and private large construction firms all exhibited higher means than their state counterparts, and that difference was statistically significant. Likewise in Belarus, small construction and other firms, medium firms in the manufacturing and hotel-restaurant sectors, as well as large manufacturing firms all had profit margins that were statistically higher.

This leads to a strong overall conclusion that private firms had higher profit margins, which supports the original hypothesis. Select results are presented below, for this and other tests; refer to Appendix 1A for all country-level results and p-values.

Country:
Lithuania

Table 1. Profit margin, controlled for Firm Size and Sector

Size:	small	medium	large
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<i>Sector:</i>		obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev
<i>Mining</i>	State	0			0			0		
	Private	5	12.00%	7.59	1	0.00%		0		
<i>Construction</i>	State	2	6.00%	1.41	2	5.00%	7.07	2	2.00%**	2.83
	Private	25	12.40%	8.13	18	8.94%	9.95	4	13.00%**	5.72
<i>Manufacturing</i>	State	7	11.71%	10.11	2	1.00%*	1.41	1	10.00%	
	Private	44	16.86%	14.32	15	12.93%*	10.89	16	16.44%	13.75
<i>Transport and comm.</i>	State	1	5.00%		3	6.33%	3.21	7	1.71%	2.36
	Private	36	12.31%	11.75	4	15.00%	12.91	1	8.00%	
<i>Wholesale and retail</i>	State	6	8.67%**	6.86	0			0		
	Private	57	17.77%**	9.98	25	15.76%	11.47	8	22.00%	13.28
<i>Real estate and renting</i>	State	12	5.83%**	7.02	2	7.50%	10.61	0		
	Private	25	16.08%**	14.63	2	17.50%	3.54	3	7.00%	2.65
<i>Hotels and restaurants</i>	State	1	0.00%		1	10.00%		0		
	Private	42	29.33%	16.92	9	28.11%	18.46	0		
<i>Other</i>	State	3	16.67%	14.43	0			4	23.75%	32.16
	Private	3	20.00%	5	1	16.00%		0		

**statistically significant at 0.05 level

*statistically significant at 0.1 level

Country:
Belarus

Table 2. Profit Margin, controlled for Firm Size and Sector

<i>Sector:</i>	Size:	small			medium			large		
		obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev
<i>Mining</i>	State	0			0			0		
	Private	0			0			0		
<i>Construction</i>	State	10	11.20%*	7.5	5	10.60%	6.84	17	11.59%	10.46
	Private	95	17.54%*	14.48	15	16.87%	12.54	8	13.25%	9.92
<i>Manufacturing</i>	State	0			5	10.00%*	4.69	9	9.67%**	6.24
	Private	55	20.20%	12.72	8	19.88%*	15.82	20	22.70%**	17.64
<i>Transport and comm.</i>	State	0			0			4	13.75%	13.15
	Private	33	12.72%	10.22	19	15.16%	11.03	1	10.00%	
<i>Wholesale and retail</i>	State	5	15.00%	5	4	19.75%	10.72	5	12.60%	10.53
	Private	133	16.54%	11.77	30	15.97%	13.83	5	14.00%	6.52
<i>Real estate and renting</i>	State	2	22.50%	24.75	2	17.50%	3.53	0		
	Private	36	21.67%	15.08	0			1	18.00%	
<i>Hotels and restaurants</i>	State	2	25.00%	21.21	6	12.33%*	5.92	2	20.00%	14.14
	Private	0			3	30.33%*	27.06	1	40.00%	
<i>Other</i>	State	2	2.50%**	3.54	1	20.00%		0		
	Private	30	13.67%**	10.98	0			0		

<i>Mining</i>	State	0	0.00%	0	0	0.00%	0	0	0.00%	0
	Private	0	0.00%	0	0	0.00%	0	0	0.00%	0
<i>Construction</i>	State	4	40.00%**	10	3	60.00%*	5	13	76.47%	17
	Private	72	75.79%**	95	14	93.33%*	15	6	75.00%	8
<i>Manufacturing</i>	State	0	0.00%	0	4	80.00%	5	9	100.00%	9
	Private	48	87.27%	56	8	100.00%	8	20	100.00%	20
<i>Transport and comm.</i>	State	0	0.00%	0	0	0.00%	0	3	75.00%	4
	Private	23	69.70%	33	13	68.42%	19	1	100.00%	1
<i>Wholesale and retail</i>	State	4	80.00%	5	3	75.00%	4	3	60.00%	5
	Private	81	60.90%	133	19	63.33%	30	4	80.00%	5
<i>Real estate and renting</i>	State	0	0.00%	2	0	0.00%	2	0	0.00%	0
	Private	20	55.56%	36	0	0.00%	0	1	100.00%	1
<i>Hotels and restaurants</i>	State	2	100.00%	2	5	83.33%	6	1	50.00%	2
	Private	0	0.00%	0	3	100.00%	3	0	0.00%	1
<i>Other</i>	State	1	50.00%	2	1	100.00%	1	0	0.00%	0
	Private	24	80.00%	30	0	0.00%	0	0	0.00%	0

**statistically significant at 0.05 level

*statistically significant at 0.1 level

As I measure firm performance by both higher profit margins and a higher rate of undertaking strategic product initiatives, the data from these four countries provides evidence in support of private ownership type, and supports the hypothesis that private firms performed better during transition.

Test 2: How does organizational restructuring affect firm performance?

There is no sufficient evidence to conclude that organizational restructuring heavily influenced profit margins. However, there is some evidence that organizational restructuring accounted for higher profit margins in firms established prior to 1991, with no specific conclusions drawn for new enterprises and enterprises established 1991-1997. This evidence mildly supports the original hypothesis that organization restructuring has a positive influence on profit margins.

Looking at the small-sized firms of Lithuania (Appendix 1A-i), both private and state-owned, a conclusion can be reached that the effect of organizational restructuring on firm performance depended on firm age. For instance, as seen from the table below, twenty small Lithuanian firms established prior to 1991 that undertook organizational restructuring had an average profit margin of 20.2%, while nineteen small Lithuanian firms established prior to 1991 that did not restructure organizationally had a significantly lower profit margin, 7.8%. On the other hand, small Lithuanian firms established after 1997 that restructured organizationally had an average profit margin of 14.4%, while same newly-established firms that did not restructure had a significantly higher profit margin, 20.5%. This could be because newly-established firms were already structured to operate in a market economy, and had relatively high profit margins regardless, as opposed to old firms that benefited from organizational restructuring due to the low starting point of inappropriate organization.

Country:
Lithuania

Table 4. Profit Margin, controlled for Firm Size and Firm Age

Age	Size:	small			medium			large		
		obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev
Old (1800-1990)	Restructured	20	20.20%**	13.93	17	8.41%	7.13	16	15.25%	21.75
	Non-Restructured	19	7.84%**	8.02	10	8.50%	9.48	5	9.20%	6.76
Mid (1991-1996)	Restructured	74	17.21%	14.26	26	15.38%	12.85	17	14.80%	13.35
	Non-Restructured	81	17.47%	13.8	15	16.73%	13.82	3	10.00%	17.32
New (1997-2005)	Restructured	38	14.42%*	8.59	15	15.84%*	12.97	5	13.60%	6.87
	Non-Restructured	42	20.52%*	17.54	2	26.00%*	33.94	0		

**statistically significant at 0.05 level

*statistically significant at 0.1 level

Similarly, Slovakian old large firms that restructured organizationally also had higher profit margins than old firms that stagnated in the Soviet-style organizational structure, 16.5% vs. 8.6% margins (Appendix 2A-iii).

In the other two countries tested, however, equally clear patterns based on firm age did not emerge: in Bulgaria (Appendix 2A-iv), there was no trend or statistical significance, and in Belarus (Appendix 2A-ii), most enterprises seemed to have similar profit margins regardless of restructuring, with the exception two statistically significant cases: (1) small firms established in 1991-1997 that restructured had significantly *lower* profit margins than small firms of the same age that did not change their organizational structure; (2) large new firms that restructured had significantly *higher* profit margins than those that didn't. Overall, however, Belarusian average profit margins ranged from 14% to 20% for both old and new firms, and this surprisingly high level of performance needs to be further examined.

With respect to strategic product initiative, there was a clear pattern in all four countries that restructured firms were more likely to develop a new product line or upgrade an existing product line, in contrast to firms that did not restructure organizationally, with numerous size-age combinations significant at 0.01, 0.05, and 0.1 levels. For example, in Bulgaria (below), in seven out of nine size-age combinations, restructured firms had a significantly larger share of strategic product initiation than non-restructured firms. Slovakia and Lithuania demonstrated similar outcomes (Appendix 2B-iii and Appendix 2B-i).

Country:
Bulgaria

Table 5. Strategic Product Initiative: development of new product line or upgrading of an existing product line, controlled for Firm Size and Firm Age

Age	Size:	small			medium			large		
		obs.	%	n	obs.	%	n	obs.	%	n
Old (1800-1990)	Restructured	23	76.67%**	30	19	61.29%	31	23	88.46%**	26
	Non-Restructured	19	46.34%**	41	13	59.09%	22	10	62.50%**	16
Mid (1991-1996)	Restructured	51	70.83%**	72	11	100.00%**	11	8	100.00%**	8
	Non-Restructured	54	42.19%**	128	4	66.67%**	6	3	37.50%**	8
New	Restructured	19	63.33%	30	9	90.00%*	10	6	100.00%**	6

(1997-2005)	Non-Restructured	49	51.58%	95	3	50.00%*	6	2	50.00%**	4
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**statistically significant at 0.05 level
*statistically significant at 0.1 level

Only in Belarus (Appendix 2B-ii) were there three instances where non-restructured firms undertook product initiatives more frequently, with only one such contradicting instance statistically significant: old Belarusian medium-size firms that restructured had lower rate of strategic product initiative than their restructured counterparts. However, because of the specifics of the Belarusian experience, this single contradiction may be overlooked.

In conclusion to testing the second hypothesis, which stipulates that organizational restructuring positively affects firm performance, the data from the four countries provides sufficient evidence to support this hypothesis when firm performance is measured by both profit margins and strategic product initiatives, and is controlled for firm size and age.

Test 3: How does ownership type affect organizational restructuring?

When testing the impact of two independent variables on one dependent variable individually, it is necessary to check for the interaction between two independent variables so as to better evaluate the results. This test is conducted to check for such interaction between ownership type and organizational restructuring. Based on the neoliberal logic, private ownership should account for organizational restructuring, as the new management would seek to reorganize the firm to maximize profits.

However, I do not find sufficient evidence that supports this hypothesis in the data. Not a single country demonstrates an overarching trend. Belarus and Bulgaria have one size-sector instance each where private firms had a higher frequency rate of organizational restructuring that is statistically significant: small private construction firms in Belarus (Appendix 3-ii) were *more*

likely to restructure organizationally, and likewise large private manufacturing firms in Bulgaria (Appendix 3-iv). In Lithuania (Appendix 1-i), however, the statistically significant results were contradictory to Belarus and Bulgaria: small Lithuanian manufacturing private enterprises were *less* likely to restructure than their state counterparts, and likewise, medium private real estate enterprises were also *less* likely to restructure organizationally. Lastly, in Slovakia (Appendix 3-iii), half of the instances showed a pattern that supports the hypothesis, while the other half of the instances showed a pattern that rejects the hypothesis, thus an inconclusive result, which additionally confirms a lack of interaction between ownership type and organizational restructuring.

Significance

To sum up, firm-level data from four CEE and FSU countries—Lithuania, Belarus, Slovakia, and Bulgaria—demonstrated that: (1) private firms performed better than state-owned enterprises; (2) enterprises that restructured organizationally performed better than enterprises that did not restructure organizationally; (3) there is no interaction between ownership type and organizational restructuring. The lack of interaction between the two independent variables tested allows for a more solid analysis of individual influence that ownership type and organizational restructuring have on firm performance. While the first finding confirms previous research, the second finding is the most important because no research has been published that addresses organizational restructuring using BEEPS data.

If organizational restructuring accounts for better firm performance as much as ownership type, this marks a significant contribution to anti-privatization literature. Positive empirical significance of organizational restructuring means that privatization might not be the

best way to manage transition of state-owned enterprises. This conclusion is contrary to the neoliberal paradigm that favors privatization, and empirically supports the gradual approach as a transition strategy. With the common dismissal of shock therapy that took place in CEE, other countries with all or some elements of a centrally planned economy undertook differing transition paths—China, Vietnam, and Cuba just to name a few. I now turn to the Cuban case study of industrial transition with the importance of organizational restructuring in mind.

Part III. Application to Cuba

In this section I will recount Cuba's transition paths in light of reforms and FDI inflows, so as to apply the lessons from the empirical results obtained in the previous section to the Cuban scenario. Here, I will highlight the successful transformation of the Cuban external sector, and critique insufficient reform in the domestic economy, where large inefficiencies and low productivity persist. I argue that since organizational restructuring has an equally important impact on firm performance as the ownership type, the lack of distinct ownership reform for state-owned industrial enterprises in Cuba is not detrimental to their performance if major organizational restructuring takes place in order to accommodate a domestic economy that is increasingly based on market mechanisms.

Background and Literature Review

The Special Period

With the fall of the Soviet Union, Cuba lost the dominant market for its exports, the major supplier of agricultural and industrial inputs, and the principal source of investment capital.

Cuba's real GDP fell by 35% in 1989 (Morris, 37), and this made Cuba one of the worst-hit transition economies. Cuba's economic dependence on the Soviet Union left many legacies, including an economy specialized in sugar production, dependence on CMEA-imported machinery, and numerous other distortions in industrial production. For example, the 2001 report on Cuba from the Economic Commission for Latin America and the Caribbean (ECLAC) outlined: considerable dependence on external sources of raw materials and components for products; technologically obsolete industrial plants and equipment; few domestic linkages in the industrial structure, where few large-scale companies demonstrated excessive vertical integration; diminished plant efficiency; and distortions in the qualifications of management-level personnel" (Gonzales, 98). Some of these embedded economic inefficiencies have been targeted by state-led economic reforms, and some have been eroding due to drastically increased inflows of foreign direct investment; nevertheless, numerous economic inefficiencies remain, particularly amongst Cuba's industries that are 80% state-owned.

Main changes in Cuba's economic strategy throughout the Special Period entailed import-substitution, acquisition of hard currency, and limited reforms intended to take advantage of market mechanisms that already existed informally. Although Cuban policy-makers have described these economic reforms as an "adjustment" to the external conditions rather than "liberalization," Morris argues that these measures enabled Cuba to achieve a relatively rapid integration of its external sector with the global market economy. With increased FDI inflows and priority placed on exports to generate hard currency, Morris argues that numerous "Cuban enterprises and whole industries have restructured in order to adjust from producing quotas under the COMECON arrangements to the world market demand".

Some of changes are due to state-led reforms, such as decentralizing the decision-making process in enterprises linked to the external trade, so that managers negotiate directly with foreign suppliers and customers. Additionally, the government has encouraged competition among state enterprises. With the creation and expansion of joint ventures in specific external sectors of the economy, the FDI inflow has led to a transformation of Cuba's productive structure, thus changing the economic system and business culture by bringing "exposure to international business practice and much needed modernization." (Morris, 37) In fact, this allowed for revival of tourism and nickel industries, which in turn has had an effect on industries connected with international trade and payments. According to Morris, the new types of semiautonomous state-owned corporations have appeared in telecoms, the power industry, oil and gas, the financial system, and among trading companies. All in all, these state-led reforms and the FDI inflow has resulted in a dramatic change in productivity of the external sector, with the new productivity level exceeding that of the rest of the economy, and slowly pulling the rest of the economy up with the spillover effects.

On the other hand, McCarthy underscores the diminished productivity in the sugar industry, and argues that similar levels of inefficiency exist in the rest of Cuban industrial and agricultural sectors. Simple downsizing of the sugar industry where worst-performing mills are closed down will not correct the problem of declining output and inefficiency, he argues (Gonzales, 100). As such, McCarthy has a much more pessimistic outlook on the success of Cuban reforms. However, there seems to be a consensus among numerous Cuban scholars that

FDI inflows have been very significant to both the performance and restructuring of the Cuban economy, albeit very limited in the domestic sector¹¹.

Domestic Economy

While the external sector of the Cuban economy has received praise from nearly every scholar, the domestic economy remains embedded with productivity problems. First and foremost, continued state control and planning poses the greatest hindrance to economic performance. The low level of domestic investment, low productivity, and lack of domestic entrepreneurship are evidence to that. A commonly criticized factor is lack of small- and medium-scale private enterprises¹², which have prevented entrepreneurial skill from developing within a legal framework. While there has been some significant reform in the domestic sector—opening of free agricultural markets, legalization of self-employment, and permission for small private restaurants and bed and breakfasts—the limits imposed by the state on the opening the domestic economy to foreign businesses are often cited as crucial inhibitors to better domestic performance.

According to Ritter, petroleum extraction and food production have been the most successful areas of domestic economy. Food production has nearly recovered due to the establishment of agricultural markets, while petroleum extraction has been a result of a joint venture with Sheritt International, and now domestic petroleum extraction generates about 70% of Cuba's electricity (Ritter, 12). Furthermore, a prominent reform aimed at improving efficiency of the domestic enterprises has been the *perfeccionamiento empresarial* (business improvement)

¹¹ Ritter also views FDI inflows as the engine of recent economic growth

¹² Both Morris and McCarthy see small- and medium- enterprises as key to recovery of the domestic economy

program, through which capitalist-style accounting and management incentives were mandated to run military-owned factories that produce for the domestic sector. However, much of the inefficient and bureaucratic management of state enterprises remains intact, argues Morris; even if there was organizational restructuring, Morris predicts that enterprise autonomy cannot actually increase if the prices remain fixed and inputs are still largely dictated by planning authorities. Jose de Cordoba (2006) of the Wall Street Journal, on the other hand, is of a different opinion and sees the program as a very positive step. Thus, despite improvements in food production and petroleum extraction, numerous other state industries of the Cuban domestic economy are in need of further reform measures aimed at increasing productivity and growth.

Lessons for Cuba

McCarthy notes that “up until Special Period, Cuba’s development policies were not in the direction designed to enable the industries to compete in an increasingly global economy,” (Gonzales and McCarthy, 95) which analytically puts Cuba in the same category with numerous transition countries that were structured for heavy industrial specialization of production within the Soviet bloc. But the Cuban scenario is also unique, as it is well argued by Morris, in the sense that it did not follow the traditional transition blueprint that includes privatization and price liberalization. The U.S. embargo, geographical location and current trading partners, history, and different socio-political dynamics between government and society are just a few additional factors among many on the list that define Cuban ‘exceptionalism,’ as outlined by Bert Hoffman and Laurence Whitehead (2007).

Nevertheless, Cuban transition strategy has been that of gradualism, most similar to Belarus out of the four countries compared to in this paper. An emphasis on organizational

restructuring, which is the focus of this paper, is in line with logic of gradual managed transition that Cuba has been pursuing. Therefore, it is at minimum appropriate to apply the empirical results from a different context that evaluated firm performance based on organizational restructuring as opposed to ownership type alone. Indeed, lessons from CEE and FSU, applied through the dimension of gradual organizational restructuring, are much more appropriate than shock-therapy lessons from CEE and FSU, and bring more practical conclusions for the Cuban case study.

Recall that in the previous empirical section, I found that private enterprises of Lithuania, Belarus, Slovakia, and Bulgaria performed better than state enterprises, while the enterprises that restructured organizationally performed better than non-restructured enterprises, especially enterprises established under the Soviet regime. I also found that there was no interaction between the two. These outcomes bring several lessons for stagnating Cuban enterprises. On a general level, a stagnating Cuban enterprise should perform better—in terms of revenue margins and product initiatives—as the level of private ownership increases, and/or as organizational restructuring takes place in order to rearrange production based on demand, as opposed to set production targets.

With respect to a more detailed sectoral application, private ownership was beneficial to construction firms in all four countries: private large construction firms in Lithuania (Appendix 1A-i) and small construction firms in Belarus (Appendix 1A-ii) exhibited higher means than their state counterparts; small-sized and medium-sized private construction firms in Belarus (Appendix 1B-ii) had a higher rate of product initiative, as well as medium-sized construction firms in Slovakia and Bulgaria (Appendix 1B-iii and Appendix 1B-iv). In 1996, Cuban construction industry employed ten percent of the labor force; in 2006, “the turnaround in the

Cuban economy has led to a spurt in construction activity—mostly hospitals and social infrastructure projects” reports the Indian embassy in Havana in a report aimed at increasing investment from India. Based on the findings from the construction industries in Lithuania, Belarus, Slovakia, and Bulgaria, elements of private ownership should be further emphasized for the construction industry in Cuba, in order to maximize revenues and develop new products, and therefore expand production, increase employment and wages.

As for private ownership, recent reform that allowed for limited self-employment such as plumbing and small-scale restaurants can be seen as a first step towards an expansion of a private sector. Such small reform by itself, however, will not generate any significant improvements in firm performance. Neither would organizational restructuring like *perfeccionamiento empresarial* have any desired impact as long as the enterprises don’t obtain greater autonomy in their production decision-making, as noted Morris. Instead, a continued build-up and expansion of a small private sector, coupled with a gradual organizational transformation of state-owned enterprises and the centrally planned market as a whole, would be more plausible given the Cuban setting and empirical experience of CEE and FSU countries outlined in this paper.

In an article titled “Can Raúl Castro Revive Cuba's Private Sector?” Raj M. Desai argues for privatization alongside restructuring, yet the strategy Desai outlines differs greatly from the conclusions reached on the basis of empirical study of restructuring in CEE and FSU presented earlier in this paper. Desai uses the experience of Serbia and advises Cuba to first restructure state-owned enterprises to separate successful elements of the firm from non-salvageable ones. Next, Desai recommends privatizing successful sub-enterprises and liquidating the loss-bearing rest. However the approach of maximum privatization is not feasible in a Cuban scenario, where the issues of restitution and Cuban-American involvement are closely linked and are therefore

highly controversial because they bear high level of political risk. Therefore, in the Cuban case, private ownership can only take root at small family-scale level first, which is why legalization of self-employment constitutes the first step that could then be gradually expanded into private ownership of small- and medium-scale enterprises.

Additionally, the type of restructuring suggested by Desai is not likely to be an appropriate measure of organizational transformation that can take place in Cuba. If Cuban state-owned enterprises were to be partitioned into “good” and “non-salvageable,” with the latter liquidated, thousands of people would become unemployed overnight, which is not a direction the Cuban people or the Cuban government would most likely follow. Therefore, for the organizational restructuring to take place in Cuba, the unemployment it generates would need to be minimized without compromising the outcome of restructuring itself. The latter condition is especially difficult to fulfill, but might be successful if the level of management autonomy were to increase at the enterprise level—similarly to the quasi autonomy of enterprises that operate in the external sector—thus allowing for greater flexibility in production quantities, prices, and products.

As defined by the BEEPS survey, organizational restructuring was measured in terms of change in the organization of departments (in terms of the allocation of responsibilities, budgetary resources and staff) within the firm over the last 36 months. S. Estrin *et al.* (1995) argues that the principal factors that promote short-term adjustment, including a change on management structure or organizational structure, were the degree of autonomy enjoyed by managers. Managerial autonomy, in turn, was related to the clarity of property rights, and Brada noted that an increase in managerial autonomy does not necessarily mean change of ownership, but rather a credible set of new owners or a state’s ownership that is sufficiently well-defined to

prevent managers or workers from appropriating the firm or its revenues” (60). As such, I argue that one way to motivate the firm to restructure is to allow for a greater degree of managerial autonomy, which can theoretically be done without a change in ownership.

It is important to note that the aim of *perfeccionamiento empresarial* program was exactly that. While Morris sees it as a failure, de Cordoba argues that the use of military to improve business efficiency has been very beneficial, while the program lasted. According to Philip Peters, cited by de Cordoba, some 1,400 state companies out of about 3,000 were being evaluated for or being run under *perfeccionamiento* management techniques by 2000. Moreover, 679 entities under *perfeccionamiento empresarial* in 2004 represent “26% of Cuba's companies, 25% of Cuba's sales, 37% of its hard-currency revenues, 42% of profits and 39% of hard-currency profits” (Amuchastegui, 2004). Peters also had heard that using such techniques tripled profits in just two years by 2001. However, I was unable to find any reliable Cuban firm-level data to further evaluate the success of the program quantitatively.

While none of the measures described above would lead to a dramatic performance improvement, the ultimate aim with organizational restructuring is to create a smooth but definite and complete transformation. The advantage of such approach is avoiding costs to society that a rapid approach brings, such as corruption and inequality in case of privatization, inflation, and in the case of Cuba—political instability in case of Cuban-American involvement.

Part IV. Conclusion

*“We in the airports, hotels, and other tourist jobs are very lucky.
We are paid 10 times more than people in state enterprises.
I think the Cuban economy can be better,
so we can all be more equal”*

These are the words of a Cuban pastry chef I happened to have an espresso with at the Havana International Airport, which also highlight the bottom line importance of economic performance to an ordinary person in Cuba. The average standard of living has not yet recovered to the pre-1989 level, income inequality gap has dramatically increased given the boom of tourism, and racial tensions have re-surfaced in the Cuban society, exacerbated by remittance dollars and tourism industry. Although majority of people who work in the state-owned enterprises also earn additional income on the side, state jobs are seen as economically disadvantageous.

Improving the performance of industrial state-owned enterprises that constitute a large portion of the Cuban economy would in turn raise the low standard of living. The specific focus on domestic economy is important in the Cuban scenario because it is key in addressing the growing income inequality gap referred caused by the tourism industry, which the opening quote refers to. In transition economies of Central and Eastern Europe, governments that were able to maintain a good social welfare system throughout transition had stronger regime legitimacy among the people who were used to a protective government under socialism,¹³ which in turn allowed for political stability that attracted FDI, among other contributions. Similarly, continuity in the elements of the socialist model that people favor in Cuba as well—such as social welfare,

¹³ For example, see Drakhoupil for a discussion of Czech Regime transformation. The Klausian government of the Czech Republic pursued a very welfare-oriented and protectionist economic transition path domestically, while combining it with a liberal and monetarist policy for the external sector. Although such Klausian regime did not last beyond the span of several elections, the political regime that followed kept numerous social elements, but on a workfare—not welfare—basis.

education, and healthcare—would ensure a stable transition in adapting to a world market economy. A firm control on the income inequality gap would also contribute to political legitimacy and stability. The most prudent way to affect the income inequality gap, in my opinion, is by successfully addressing the performance of domestic industries that employ a significant portion of 4.6 million people in the Cuban workforce (ECLAC 18).

For example, one action to accelerate the performance of the Cuban construction industry, which already is exhibiting great performance potential predicted by empirical studies, is by focusing on a larger private ownership (FDI share) and/or promoting measures that allow a greater managerial autonomy of construction businesses. At the same time, however, a control over corruption is equally important in the Cuban scenario because of the work-intensive nature of the industry, and the alarmingly large inequality gap it could create. Therefore, the difficulty lies in balancing incentives for profits with disincentives created by higher taxes, an important potential subject for future study.

In this study, I found confirmation that private firms of CEE and FSU had higher revenue margins and undertook strategic initiatives more often, two measure of firm performance that I applied. Additionally, I found that organizational restructuring had a significant positive impact on firm performance as well. Meanwhile, there was no interaction between ownership type and organizational restructuring, meaning that better firm performance from private enterprises was not due to the fact that private ownership led to restructuring in the first place. On the contrary, state enterprises in the four countries were equally likely to restructure when compared to private enterprises. In light of such findings for the case study of the Cuban economy, I conclude that the lack of distinct ownership reform for state-owned industrial enterprises in Cuba is not detrimental to their performance if major organizational restructuring takes place. Instead, the

specific strategy to be executed—incremental change in ownership, or a change in organizational structure—should be an industry-based decision that takes various economic factors into account.

Although there is no reliable firm-level data for Raul Castro's initiative aimed at improving the efficiency of military (state) enterprises in Cuba, *perfeccionamiento empresarial*, the program employed some elements of motivating organizational restructuring to increase profits, while excluding the change of ownership. The speculative success of the program cited by several U.S.-based scholars, makes it a perfect subject for future empirical analysis, if reliable firm-level data can be obtained.

I acknowledge that there are numerous data and comparability limitation in the analysis presented in this paper. Most importantly, the small sample size does not allow for generalizations. Additionally, numerous scholars are cautious about applying lessons from a different context, as historical, cultural, institutional factors often play a crucial role—even among the transition countries of the same geographic regions the variety of transition outcomes per se shows the complexity of various factors involved. Yet the conclusions reached underscored the importance of testing a non-conventional factor—organizational restructuring—as opposed to testing for ownership type only, a traditional determinant in the literature. As such, this paper not only adds evidence to support the gradual approach to transition, but also demonstrates that organizational restructuring is a viable complement to minimal privatization, if not an alternative, to improve performance of state-owned enterprises.

References

- Amuchastegui, Domingo. "Perfeccionamiento empresarial makes little headway in Cuba despite success." CubaNews. August 1, 2004. <http://www.thefreelibrary.com/Perfeccionamiento+empresarial+makes+little+headway+in+Cuba+despite...-a0120351764>.
- Brada, Josef C. "Privatization, Restructuring, Corporate Governance and the Behaviour of Firms in Transition Economies" in *Change Management in Transition Economies: Integration Corporate Strategy, Structure, and Culture* edited by Heinz-Jürgen Stüting et al. Palgrave Macmillan, 55-70. New York: 2004.
- Boubakri, Narjess, and Jean-Claude Cosset. "Privatization in Developing Countries: An Analysis of Performance of Newly Privatized Firms." *Public Policy Journal*. Note No. 156. November 1998.
- Commander, Simon and Jan Svejnar. "Do Institutions, Ownership, Exporting and Competition Explain Firm Performance? Evidence from 26 Countries." IZA Discussion Paper 2637. February 2007.
- De Cordoba, Jose. "Cuba's military puts business on front lines." *The Wall Street Journal*. November 16, 2006. <http://www.post-gazette.com/pg/06319/738513-28.stm>.
- Desai, Raj R. "Can Raúl Castro Revive Cuba's Private Sector?" Brookings. March 2008. http://www.brookings.edu/papers/2008/03_cuba_desai.aspx.
- Drakhoupil, Jan. "On the State of the State: The Czech Transformation and the Moment of Convergence in the Visegrád Region" in *State and society in post-socialist economies* (pp. 69-91) by John Pickles, ed. Palgrave. New York: 2008.
- Dominguez, Jorge I., Omar Everleny Perez Villanueva, et al., eds. *The Cuban Economy at the Start of the Twenty-First Century*. Harvard University Press. Cambridge: 2004.
- Economist Intelligence Unit, The Economist.
- Embassy of India. "Annual Commercial and Economic Report, 2006." <http://www.indembassyhavana.cu/Page/Annual%20Commercial%20report1.doc>
- Ernst, Maurice, Michael Alexeev, and Paul Marer. *Transforming the Core: Restructuring Industrial Enterprises in Russia and Central Europe*. Westview Press. Boulder: 1996.
- Estrin, S., J. Brada, A. Gelb and I. Singh, eds. *Restructuring and Privatization in Central Eastern Europe: Case studies of firms in transition*. M.E. Sharpe. New York: 1995.

- Gonzales, Edward and Kevin F. McCarthy. *Cuba After Castro: Legacies, Challenges, and Impediments*. RAND Corporation. Arlington: 2004.
- Grahovac, Borislav. *East and West European Public-Private Partnerships: Public Companies in Restructuring and Privatization*. Nova Science Publishers. New York: 2003.
- Hoffmann, Bert and Laurence Whitehead. *Debating Cuban Exceptionalism*. Palgrave Macmillan. New York: 2007.
- Morris, Emily. "Howe Exceptional is the Cuban Economy?" *Debating Cuban Exceptionalism*. Palgrave Macmillan. New York: 2007.
- Ritter, Archibald R.M. *The Cuban Economy*. University of Pittsburgh Press. Pittsburgh: 2004.
- "Statistical Yearbook for Latin America and the Caribbean, 2007" Economic Commission for Latin America and the Caribbean (ECLAC). March 2008.
- Szreder, Mirosław, ed. *East European Enterprises in the Process of Transformation to a Market Economy*. Nova Science Publishers. New York: 1998.
- WDI Online, "World Development Indicators," The World Bank.
- .

Appendix 1, for Test 1

Appendix 1A

Appendix 1A-i

Country: Lithuania

Years, pooled: '02 & '05

		Profit Margin, controlled for Firm Size and Sector									controlled for sector only		
Sector:	Size:	small			medium			large					
		obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev
mining	State	0			0			0			0		
	Private	5	12.00%	7.59	1	0.00%		0			6	10.00%	8.36
construction	State	2	6.00%	1.41	2	5.00%	7.07	2	2.00%	2.83	6	4.33%	3.93
	Private	25	12.40%	8.13	18	8.94%	9.95	4	13.00%	5.72	47	11.13%	8.73
manufacturing	State	7	11.71%	10.11	2	1.00%	1.41	1	10.00%		10	9.40%	9.39
	Private	44	16.86%	14.32	15	12.93%	10.89	16	16.44%	13.75	75	15.98%	13.69
transport & comm.	State	1	5.00%		3	6.33%	3.21	7	1.71%	2.36	11	3.27%	3.19
	Private	36	12.31%	11.75	4	15.00%	12.91	1	8.00%		41	12.73%	11.59
wholesale & retail	State	6	8.67%	6.86	0			0			6	8.67%	6.86
	Private	57	17.77%	9.98	25	15.76%	11.47	8	22.00%	13.28	90	17.59%	10.71
real estate & renting	State	12	5.83%	7.02	2	7.50%	10.61	0			14	6.07%	7.12
	Private	25	16.08%	14.63	2	17.50%	3.54	3	7.00%	2.65	30	15.27%	16.64
hotels & restaurants	State	1	0.00%		1	10.00%		0			2	5.00%	7.07
	Private	42	29.33%	16.92	9	28.11%	18.46	0			51	29.12%	17.02
other	State	3	16.67%	14.43	0			4	23.75%	32.16	7	20.71%	28.49
	Private	3	20.00%	5	1	16.00%		0			4	19.00%	4.55
Total State		32	8.47%	8.55	10	5.60%	5.34	14	8.64%	21.03	56	8.00%	12.31
Total Private		242	18.10%	14.11	75	14.84%	12.87	32	16.25%	12.46	349	17.23%	13.74

Comparison of Means

Two-sample T-test

Size:

Profit Margin, controlled for Firm Size and Sector

small

medium

large

Sector		t	P	Sig. level	t	P	Sig. level	t	P	Sig. level
mining	State vs. Non									
construction	State vs. Non	1.0921	0.1426		0.5393	0.2981		2.4674	0.0346	5%
manufacturing	State vs. Non	0.8939	0.1879		1.5065	0.0764	10%			
transport & comm	State vs. Non				1.112	0.1584				
wholesale & retail	State vs. Non	2.1743	0.0168	5%						
real estate & renting	State vs. Non	2.2905	0.0141	5%	1.2649	0.1667				
hotel & restaurants	State vs. Non									
other	State vs. Non	0.378	0.3623							

Appendix 1A-ii

Country: Belarus

Years, pooled: '02 & '05

Profit Margin, controlled for Firm Size and Sector

Size:		small			medium			large			controlled for sector only		
Sector:		obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev
mining	State	0			0			0			0		
	Private	0			0			0			0		
construction	State	10	11.20%	7.5	5	10.60%	6.84	17	11.59%	10.46	32	11.31%	8.89
	Private	95	17.54%	14.48	15	16.87%	12.54	8	13.25%	9.92	118	17.16%	13.94
manufacturing	State	0			5	10.00%	4.69	9	9.67%	6.24	14	9.79%	5.55
	Private	55	20.20%	12.72	8	19.88%	15.82	20	22.70%	17.64	83	20.77%	14.19
transport & comm.	State	0			0			4	13.75%	13.15	4	13.75%	13.15
	Private	33	12.72%	10.22	19	15.16%	11.03	1	10.00%		53	13.55%	10.39
wholesale & retail	State	5	15.00%	5	4	19.75%	10.72	5	12.60%	10.53	14	15.50%	8.79
	Private	133	16.54%	11.77	30	15.97%	13.83	5	14.00%	6.52	168	16.36%	12
real estate & renting	State	2	22.50%	24.75	2	17.50%	3.53	0			4	20.00%	14.72
	Private	36	21.67%	15.08	0			1	18.00%		37	21.57%	14.88
hotels & restaurants	State	2	25.00%	21.21	6	12.33%	5.92	2	20.00%	14.14	10	16.40%	11.04
	Private	0			3	30.33%	27.06	1	40.00%		4	32.75%	22.62
other	State	2	2.50%	3.54	1	20.00%		0			3	8.33%	10.41

Private	30	13.67%	10.98	0			0			30			19.80%	14.19
<i>Total State</i>	21	13.67%	10.98	23	13.52%	7.23	37	11.95%	9.75	81	12.84%	9.38		
<i>Total Private</i>	383	17.75%	13.15	75	16.93%	13.68	36	19.39%	15.07	494	17.75%	13.36		

Comparison of Means

Profit Margin, controlled for Firm Size and Sector

Two-sample T-test		small			medium			large		
Size:										
Sector		t	P	Sig. level	t	P	Sig. level	t	P	Sig. level
mining	State vs. Non									
construction	State vs. Non	1.3603	0.0884	10%	1.0529	0.1531		0.3762	0.3551	
manufacturing	State vs. Non				1.339	0.1038	10%	2.139	0.0208	5%
transport & comm	State vs. Non									
wholesale & retail	State vs. Non	0.2909	0.3858		-0.5237	0.302		0.2528	0.4034	
real estate & renting	State vs. Non	-0.0743	0.4706							
hotel & restaurants	State vs. Non				1.6631	0.0701	10%			
other	State vs. Non	1.6959	0.0501	5%						

Appendix 1A-iii

Country: Slovakia

Years, pooled: '02 & '05

Profit Margin, controlled for Firm Size and Sector

Size:		small			medium			large			controlled for sector only		
Sector:		obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev
mining	State	0			0			0			0		
	Private	0			0			0			0		
construction	State	0			1	0.00%		0			1	0.00%	
	Private	22	14.86%	13.05	13	15.46%	12.63	1	10.00%		36	14.94%	12.56
manufacturing	State	0			4	25.00%	16.83	6	16.00%	18.01	10	19.60%	17.21
	Private	24	20.58%	12.27	13	15.92%	17.21	21	15.62%	13.02	58	17.74%	13.73
transport & comm.	State	0			3	6.67%	11.55	5	9.00%	17.46	8	8.13%	14.62
	Private	15	12.47%	11.55	5	13.00%	8.37	4	7.50%	9.57	24	11.75%	10.45
wholesale & retail	State	1	30.00%	81	0			0			1	30.00%	

	Private	15.62	16.25%		14	11.57%	14.15	3	9.67%	8.39	98	14.86%	15.77
real estate & renting	State	6	4.83%	6.34	13	3.08%	6.63	4	2.50%	5	23	3.43%	6.1
	Private	61	18.39%	15.3	11	13.00%	14.46	2	6.50%	0.71	74	17.27%	15.1
hotels & restaurants	State	1	10.00%		0			0			1	10.00%	
	Private	24	21.79%	20.72	3	5.00%	8.66	1	10.00%		28	19.57%	20.06
other	State	2	30.00%	42.43	2	0.00%	0	2	1.50%	2.12	6	10.50%	24.28
	Private	17	14.18%	11.85	2	25.00%	35.36	0			19	15.32%	14.35
<i>Total State</i>		10	12.90%	19.08	23	6.96%	12.22	17	9.06%	14.78	50	8.86%	14.5
<i>Total Private</i>		247	17.21%	15.51	61	13.82%	14.43	32	13.13%	11.65	340	16.22%	15.05

Comparison of Means

Profit Margin, controlled for Firm Size and Sector

Two-sample T-test		small			medium			large		
Size:										
Sector		t	P	Sig. level	t	P	Sig. level	t	P	Sig. level
mining	State vs. Non									
construction	State vs. Non									
manufacturing	State vs. Non				-0.9266	0.1844		-0.0581	0.4771	
transport & comm	State vs. Non				0.9085	0.1993		-0.153	0.4414	
wholesale & retail	State vs. Non									
real estate & renting	State vs. Non	2.1407	0.018		2.2209	0.0185	5%	1.0631	0.1738	
hotel & restaurants	State vs. Non									
other	State vs. Non	-1.37	0.094	10%	1	0.2113				

Appendix 1A-iv

Country: Bulgaria

Years, pooled: '02 & '05

Profit Margin, controlled for Firm Size and Sector

Size:		small			medium			large			controlled for sector only		
Sector:		obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev	obs.	%	St.Dev
mining	State	0			1	10.00%		0			1	10.00%	
	Private	1	30.00%		4	12.75%	2.63	0			5	16.20%	8.04
construction	State	5	24.00%	17.1	2	15.00%	7.07	1	0.00%		8	18.75%	15.75

	Private	23	13.82%	11.57	5	18.00%	20.49	6	15.83%	7.36	34	14.79%	12.28
manufacturing	State	1	15.00%		5	15.20%	6.72	4	20.00%	4.08	10	17.10%	5.65
	Private	41	17.00%	9.61	25	17.28%	14.5	31	16.64%	12.19	97	16.96%	11.73
transport & comm.	State	3	9.00%	8.54	3	14.00%	5.29	5	6.80%	8.44	11	9.36%	7.65
	Private	38	18.47%	13.54	5	14.00%	11.94	1	35.00%		44	18.34%	13.41
wholesale & retail	State	2	10.00%	14.14	3	8.33%	7.64	2	20.00%	14.14	7	12.14%	10.75
	Private	174	15.06%	11.63	11	18.36%	6.89	12	15.17%	11.95	197	15.34%	11.41
real estate & renting	State	5	5.00%	5	4	13.00%	9.48	1	0.00%		10	7.70%	8
	Private	36	16.14%	14.83	1	30.00%		1	40.00%		38	17.13%	15.09
hotels & restaurants	State	1	30.00%		0			0			1	30.00%	
	Private	36	21.33%	15.49	9	23.33%	23.32	0			45	21.73%	17.04
other	State	8	15.00%	34.64	6	15.33%	25.23	4	1.25%	2.5	18	12.06%	26.79
	Private	21	23.81%	23.45	1	30.00%		0			22	24.09%	22.92
<i>Total State</i>		25	14.28%	21.69	25	13.08%	13.17	17	9.35%	10.92	67	12.58%	16.24
<i>Total Private</i>		371	16.86%	13.42	61	18.28%	14.65	51	17.02%	12	438	17.05%	13.42

Comparison of Means

Profit Margin, controlled for Firm Size and Sector

Two-sample T-test		small			medium			large		
Sector	Size:	t	P	Sig. level	t	P	Sig. level	t	P	Sig. level
mining	State vs. Non									
construction	State vs. Non	-1.6389	0.0566	10%	0.1928	0.4274		-0.5402	0.2963	
manufacturing	State vs. Non				0.3107	0.3792				
transport & comm	State vs. Non	1.1849	0.1216							
wholesale & retail	State vs. Non	0.6232	0.267		2.1939	0.0243	5%	-0.5211	0.3059	
real estate & renting	State vs. Non	1.6505	0.0534	10%						
hotel & restaurants	State vs. Non									
other	State vs. Non	0.7911	0.2179							

Appendix 1B

Appendix 1B-i

Country: Lithuania

Years, pooled: '02 & '05

Initiative: development of major new product line or upgrading of an existing product line, controlled for Firm Size and Sector

Sector:	Size:	small			medium			large			controlled for sector only		
		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
mining	State	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
	Private	3	60.00%	5	1	100.00%	1	0	0.00%	0	4	66.67%	6
construction	State	2	100.00%	2	1	50.00%	2	2	100.00%	2	5	83.33%	6
	Private	11	44.00%	25	9	50.00%	18	3	75.00%	4	23	48.94%	47
manufacturing	State	3	42.86%	7	2	100.00%	2	1	100.00%	1	6	60.00%	10
	Private	31	70.45%	44	14	93.33%	15	16	100.00%	16	61	81.33%	75
transport & comm.	State	0	0.00%	1	1	33.33%	3	5	71.43%	7	6	54.55%	11
	Private	15	41.67%	36	4	100.00%	4	1	100.00%	1	20	48.78%	41
wholesale & retail	State	1	16.67%	6	0	0.00%	0	0	0.00%	0	1	16.67%	6
	Private	34	59.65%	57	19	76.00%	25	5	62.50%	8	58	64.44%	90
real estate & renting	State	9	75.00%	12	1	50.00%	2	0	0.00%	0	10	71.43%	14
	Private	13	52.00%	25	2	100.00%	2	2	66.67%	3	17	56.67%	30
hotels & restaurants	State	0	0.00%	1	0	0.00%	1	0	0.00%	0	0	0.00%	2
	Private	21	50.00%	42	6	66.67%	9	0	0.00%	0	27	52.94%	51
other	State	1	66.67%	3	0	0.00%	0	4	100.00%	4	5	71.43%	7
	Private	2	66.67%	3	1	100.00%	1	0	0.00%	0	3	75.00%	4
<i>Total State</i>		16	50.00%	32	5	50.00%	10	12	85.71%	14	33	58.93%	56
<i>Total Private</i>		132	54.55%	242	56	74.67%	75	27	84.38%	32	215	61.60%	349

Initiative, controlled for Firm Size and Sector

Chi2 Test	Size:	small			medium			large		
		Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level
mining	Non vs. State									
construction	Non vs. State	2.3262	0.127		0	1		0.6	0.439	

manufacturing	Non vs. State	2.0698	0.15	0.1417	0.707			
transport & comm	Non vs. State	0.7008	0.403	3.7333	0.053	5%	0.381	0.537
wholesale & retail	Non vs. State	4.0618	0.044					
real estate & renting	Non vs. State	1.7794	0.182	1.333	0.248			
hotel & restaurants	Non vs. State	0.9773	0.323	1.6667	0.197			
other	Non vs. State	0.6667	0.414					

Appendix 1B-ii

Country: Belarus

Years, pooled: '02 & '05

Initiative: development of major new product line or upgrading of an existing product line, controlled for Firm Size and Sector

Sector:	Size:	small			medium			large			controlled for sector only		
		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
mining	State	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
	Private	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
construction	State	4	40.00%	10	3	60.00%	5	13	76.47%	17	20	62.50%	32
	Private	72	75.79%	95	14	93.33%	15	6	75.00%	8	92	77.97%	118
manufacturing	State	0	0.00%	0	4	80.00%	5	9	100.00%	9	13	92.86%	14
	Private	48	87.27%	56	8	100.00%	8	20	100.00%	20	76	91.57%	83
transport & comm.	State	0	0.00%	0	0	0.00%	0	3	75.00%	4	3	75.00%	4
	Private	23	69.70%	33	13	68.42%	19	1	100.00%	1	37	69.81%	53
wholesale & retail	State	4	80.00%	5	3	75.00%	4	3	60.00%	5	10	71.43%	14
	Private	81	60.90%	133	19	63.33%	30	4	80.00%	5	104	61.90%	168
real estate & renting	State	0	0.00%	2	0	0.00%	2	0	0.00%	0	0	0.00%	4
	Private	20	55.56%	36	0	0.00%	0	1	100.00%	1	21	56.76%	37
hotels & restaurants	State	2	100.00%	2	5	83.33%	6	1	50.00%	2	8	80.00%	10
	Private	0	0.00%	0	3	100.00%	3	0	0.00%	1	3	75.00%	4
other	State	1	50.00%	2	1	100.00%	1	0	0.00%	0	2	66.67%	3
	Private	24	80.00%	30	0	0.00%	0	0	0.00%	0	24	80.00%	30
<i>Total State</i>		11	52.38%	21	16	69.57%	23	29	78.38%	37	56	69.14%	81
<i>Total Private</i>		269	70.23%	383	57	76.00%	75	32	88.89%	36	358	72.47%	494

		Initiative, controlled for Firm Size and Sector								
Chi2 Test	Size:	small			medium			large		
Sector		Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level
mining	Non vs. State									
construction	Non vs. State	5.7971	0.016	5%	3.268	0.071	10%	0.0064	0.936	
manufacturing	Non vs. State				1.7333	0.188				
transport & comm	Non vs. State							0.3125	0.576	
wholesale & retail	Non vs. State	0.743	0.389		0.2104	0.646		0.4762	0.49	
real estate & renting	Non vs. State	2.3457	0.126							
hotel & restaurants	Non vs. State				0.5625	0.453		0.75	0.386	
other	Non vs. State	0.9874	0.32							

Appendix 1B-iii

Country: Slovakia

Years, pooled: '02 & '05

		Initiative: development of major new product line or upgrading of an existing product line, controlled for Firm Size and Sector											
		small			medium			large			controlled for sector only		
Sector:	Size:	obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
mining	State	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
	Private	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
construction	State	0	0.00%	0	0	0.00%	1	0	0.00%	0	0	0.00%	1
	Private	19	86.36%	22	11	84.62%	13	1	100.00%	1	31	86.11%	36
manufacturing	State	0	0.00%	0	3	75.00%	4	4	66.67%	6	7	70.00%	10
	Private	21	87.50%	24	12	92.31%	13	19	90.48%	21	52	89.66%	58
transport & comm.	State	0	0.00%	0	3	100.00%	3	4	80.00%	5	7	87.50%	8
	Private	10	66.67%	15	3	60.00%	5	4	100.00%	4	17	70.83%	24
wholesale & retail	State	1	100.00%	1	0	0.00%	0	0	0.00%	0	1	100.00%	1
	Private	53	65.43%	81	12	85.71%	14	3	100.00%	3	68	69.39%	98
real estate & renting	State	3	50.00%	6	9	69.23%	13	1	25.00%	4	13	56.52%	23
	Private	50	81.97%	61	7	63.64%	11	1	50.00%	2	58	78.38%	74
hotels & restaurants	State	0	0.00%	1	0	0.00%	0	0	0.00%	0	0	0.00%	1

	Private	17	70.83%	24	3	100.00%	3	1	100.00%	1	21	75.00%	28
other	State	1	50.00%	2	0	0.00%	2	1	50.00%	2	2	33.33%	6
	Private	13	76.47%	17	1	50.00%	2	0	0.00%	0	14	73.68%	19
	<i>Total State</i>	5	50.00%	10	15	65.22%	23	10	58.82%	17	30	60.00%	50
	<i>Total Private</i>	186	75.30%	247	49	80.33%	61	29	90.63%	32	264	77.65%	340

Initiative, controlled for Firm Size and Sector												
Chi2 Test		Size:		small			medium			large		
Sector		Chi2	Pr.	Sig. level			Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level
mining	Non vs. State											
construction	Non vs. State						3.9487	0.047	5%			
manufacturing	Non vs. State						0.8827	0.347		2.0963	0.148	
transport & comm	Non vs. State						1.6	0.206		0.9	0.343	
wholesale & retail	Non vs. State	0.5249	0.469									
real estate & renting	Non vs. State	3.3772	0.066	10%			0.0839	0.772		0.375	0.54	
hotel & restaurants	Non vs. State	2.2135	0.137									
other	Non vs. State	0.6466	0.421				1.333	0.248				

Appendix 1B-iv

Country: Bulgaria

Years, pooled: '02 & '05

Initiative: development of major new product line or upgrading of an existing product line, controlled for Firm Size and Sector													
Size:		small			medium			large			controlled for sector only		
Sector:		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
mining	State	0	0.00%	0	0	0.00%	1	0	0.00%	0	0	0.00%	1
	Private	1	100.00%	1	3	75.00%	4	0	0.00%	0	4	80.00%	5
construction	State	2	40.00%	5	0	0.00%	2	0	0.00%	1	2	25.00%	8
	Private	13	56.52%	23	2	40.00%	5	3	50.00%	6	18	52.94%	34
manufacturing	State	0	0.00%	1	3	60.00%	5	4	100.00%	4	7	70.00%	10
	Private	31	75.61%	41	20	80.00%	25	24	77.42%	31	75	77.32%	97
transport & comm.	State	1	33.33%	3	1	33.33%	3	3	60.00%	5	5	45.45%	11

	Private	17	44.74%	38	5	100.00%	5	0	0.00%	1	22	50.00%	44
wholesale & retail	State	1	50.00%	2	1	33.33%	3	2	100.00%	2	4	57.14%	7
	Private	87	50.00%	174	7	63.64%	11	11	91.67%	12	105	53.30%	197
real estate & renting	State	3	60.00%	5	1	25.00%	4	1	100.00%	1	5	50.00%	10
	Private	19	52.78%	36	1	100.00%	1	1	100.00%	1	21	55.26%	38
hotels & restaurants	State	1	100.00%	1	0	0.00%	0	0	0.00%	0	1	100.00%	1
	Private	20	55.56%	36	7	77.78%	9	0	0.00%	0	27	60.00%	45
other	State	7	87.50%	8	6	100.00%	6	3	75.00%	4	16	88.89%	18
	Private	11	52.38%	21	1	100.00%	1	0	0.00%	0	12	54.55%	22
<i>Total State</i>		15	60.00%	25	13	52.00%	25	13	76.47%	17	41	61.19%	67
<i>Total Private</i>		200	53.91%	371	46	75.41%	61	39	76.47%	51	285	59.01%	483

Chi2 Test		Initiative, controlled for Firm Size and Sector								
		small			medium			large		
Sector	Size:	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level
mining	Non vs. State				1.875	0.171				
construction	Non vs. State	0.4507	0.502		1.12	0.29		0.875	0.35	
manufacturing	Non vs. State	2.8869	0.089		0.9317	0.334		1.129	0.288	
transport & comm	Non vs. State	0.1468	0.702		4.4444	0.035	5%	1.2	0.273	
wholesale & retail	Non vs. State	0	1		0.8838	0.347		0.1795	0.672	
real estate & renting	Non vs. State	0.0921	0.762		1.875	0.171				
hotel & restaurants	Non vs. State	0.7831	0.376							
other	Non vs. State	3.0348	0.081	10%						

Appendix 2, for Test 2

Appendix 2A

Appendix 2A-i

Country: Lithuania

Years, pooled: '02 & '05

Profit Margin, controlled for Firm Size and Firm Age (Year Founded)

		Profit margin, controlled for Firm Size and Firm Age (Year Founded)									controlled for sector only		
Size:		small			medium			large					
Age		obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev
Old (1800-1990)	Restructured	20	20.20%	13.93	17	8.41%	7.13	16	15.25%	21.75	53	14.92%	15.74
	Non-Restructured	19	7.84%	8.02	10	8.50%	9.48	5	9.20%	6.76	34	8.24%	8.09
Mid (1991-1996)	Restructured	74	17.21%	14.26	26	15.38%	12.85	17	14.80%	13.35	117	16.47%	13.75
	Non-Restructured	81	17.47%	13.8	15	16.73%	13.82	3	10.00%	17.32	99	17.13%	13.81
New (1997-2005)	Restructured	38	14.42%	8.59	15	15.84%	12.97	5	13.60%	6.87	58	14.72%	9.65
	Non-Restructured	42	20.52%	17.54	2	26.00%	33.94	0			44	20.77%	17.93
Total Restructured		132	16.86%	12.87	58	13.46%	11.79	38	14.86%	16.56	228	15.67%	13.32
Total Non-Restructured		142	17.08%	14.86	27	14.37%	14.33	8	9.50%	10.58	177	16.33%	14.66

Comparison of Means

Two-sample T-test

Profit Margin, controlled for Firm Size and Firm Age (Year Founded)

		Size:			small			medium			large		
Age		t	P	Sig. level	t	P	Sig. level	t	P	Sig. level	t	P	Sig. level
Old	Restructured vs. Non	-3.3707	0.0009	1.00%	0.0275	0.489		-0.6031	0.276				
Mid	Restructured vs. Non	0.1122	0.45		0.3148	0.377		-0.5632	0.2901				
New	Restructured vs. Non	1.94	0.0278	5%	0.88	0.196	10%		0.0009				

Appendix 2A-ii

Country: Belarus

Years, pooled: '02 & '05

Profit Margin, controlled for Firm Size and Firm Age (Year Founded)

		Size:			small			medium			large			controlled for sector only		
Age		obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev

Old	Restructured	12	15.42%	16.44	21	14.81%	12.58	36	13.81%	14.41	69	14.39%	14.06
(1800-1990)	Non-Restructured	24	16.38%	14.89	13	17.77%	12.78	13	15.00%	10.8	50	16.38%	13.18
Mid	Restructured	103	14.69%	9.96	28	17.29%	13.09	11	20.63%	9.28	142	15.66%	10.67
(1991-1996)	Non-Restructured	86	17.35%	12.54	18	15.39%	13.69	2	30.00%	0	106	17.25%	12.69
New	Restructured	87	19.89%	15.07	10	15.20%	11.43	9	15.67%	14.89	106	19.08%	14.73
(1997-2005)	Non-Restructured	92	19.29%	13.29	8	15.75%	11.78	2	10.00%	14.14	102	18.83%	13.16
<i>Total Restructured</i>		202	13.97%	12.98	59	16.05%	12.49	56	15.44%	13.68	371	16.53%	12.99
<i>Total Non-Restructured</i>		202	18.12%	13.16	39	16.26%	12.73	17	13.17%	11.39	258	17.71%	12.96

Comparison of Means

Two-sample T-test		Profit Margin, controlled for Firm Size and Firm Age (Year Founded)								
		small			medium			large		
Age	Size:	t	P	Sig. level	t	P	Sig. level	t	P	Sig. level
Old	Restructured vs. Non	0.1758	0.4307		0.6627	0.2561		0.2718	0.3935	
Mid	Restructured vs. Non	1.6249	0.0529	10%	-0.4713	0.3199		1.3772	0.0979	10%
New	Restructured vs. Non	-0.279	0.3903		0.1	0.46		-0.4897	0.318	

Appendix 2A-iii

Country: Slovakia

Years, pooled: '02 & '05

		Profit Margin, controlled for Firm Size and Firm Age (Year Founded)											
Size:		small			medium			large			controlled for sector only		
Age		obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev
Old (1800-1990)	Restructured	8	11.88%	13.61	12	6.42%	7.54	15	16.53%	14.67	35	12.00%	12.85
	Non-Restructured	24	14.08%	13.24	19	12.63%	16.19	9	8.56%	10.58	52	12.60%	13.89
Mid (1991-1996)	Restructured	49	16.98%	15.71	22	13.32%	15.59	12	11.75%	14.63	83	15.25%	15.49
	Non-Restructured	96	14.86%	13.62	17	13.00%	15.92	6	5.83%	6.65	119	14.14%	13.77
New (1997-2005)	Restructured	25	18.32%	15.93	8	14.25%	13.06	6	12.17%	11.14	39	16.54%	14.64
	Non-Restructured	55	22.36%	18.87	6	9.67%	8.52	1	0.00%		62	20.77%	18.51
Total Restructured		82	16.89%	15.51	42	11.52%	13.41	33	14.00%	13.88	157	14.85%	14.73
Total Non-Restructured		175	17.77%	15.74	42	12.36%	14.97	16	7.00%	8.93	233	15.56%	15.47

Comparison of Means

Profit Margin, controlled for Firm Size and Firm Age (Year Founded)

Two-sample T-test			Size:	small			medium			large		
				t	P	Sig. level	t	P	Sig. level	t	P	Sig. level
Age												
Old	Restructured vs. Non		0.4059	0.3438		1.2417	0.1121		-1.4196	0.0849	10%	
Mid	Restructured vs. Non		-0.8391	0.2014		-0.0626	0.4752		-0.9328	0.1824		
New	Restructured vs. Non		0.9304	0.1775		-0.7451	0.2353					

Appendix 2A-iv

Country: Bulgaria

Years, pooled: '02 & '05

Profit Margin, controlled for Firm Size and Firm Age (Year Founded)

Size:		small			medium			large			controlled for sector only		
Age		obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev
Old	Restructured	30	15.87%	18.45	31	13.35%	8.96	26	12.65%	10.23	87	14.01%	13.23
(1800-1990)	Non-Restructured	41	17.20%	14.34	22	13.31%	15.59	16	14.50%	9.93	79	15.73%	13.87
Mid	Restructured	72	14.40%	10.45	11	29.54%	19.93	8	20.00%	17.73	91	16.73%	13.42
(1991-1996)	Non-Restructured	128	16.13%	13.7	6	18.83%	16.86	8	10.63%	12.66	142	16.50%	13.73
New	Restructured	30	20.43%	12.88	10	15.90%	9.63	6	13.37%	11.48	46	18.56%	12.13
(1997-2005)	Non-Restructured	95	18.05%	15.49	6	20.83%	16.25	4	14.75%	17.99	105	18.09%	15.48
<i>Total Restructured</i>		132	16.10%	13.31	52	17.27%	13.55	40	14.28%	12.2	224	16.05%	13.16
<i>Total Non-Restructured</i>		264	16.99%	14.44	34	16.00%	15.69	28	16.29%	11.84	326	16.82%	14.33

Comparison of Means

Profit Margin, controlled for Firm Size and Firm Age (Year Founded)

Two-sample T-test		Size:			small			medium			large		
Age		t	P	Sig. level	t	P	Sig. level	t	P	Sig. level			
Old	Restructured vs. Non	0.3413	0.367		0.1638	0.4353		0.5742	0.2845				
Mid	Restructured vs. Non	0.9295	0.1769		-1.1131	0.1416		0.0811	0.4682				
New	Restructured vs. Non	-0.7623	0.2237		0.7699	0.2271		0.1176	0.4547				

Appendix 2B

Appendix 2B-i

Country: Lithuania

Years, pooled: '02 & '05

Initiative, controlled for Firm Size and Firm Age (Year Founded)

Size:	small	medium	large	controlled for sector only
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Age		obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev	obs.	Mean	St.Dev
Old (1800-1990)	Restructured	12	60.00%	20	11	64.71%	17	16	100.00%	16	39	73.58%	53
	Non-Restructured	7	36.84%	19	5	50.00%	10	5	100.00%	5	17	50.00%	34
Mid (1991-1996)	Restructured	51	68.92%	74	10	76.92%	26	12	70.59%	17	83	70.94%	117
	Non-Restructured	34	41.98%	81	12	80.00%	15	2	66.67%	3	48	48.48%	99
New (1997-2005)	Restructured	24	63.16%	38	13	86.67%	15	4	80.00%	5	41	70.69%	58
	Non-Restructured	20	47.62%	42	0	0.00%	2	0	0.00%	0	20	45.45%	44
<i>Total Restructured</i>		87	65.91%	132	44	75.86%	58	32	84.21%	38	163	71.49%	228
<i>Total Non-Restructured</i>		61	42.96%	142	17	62.96%	27	7	87.50%	8	85	48.02%	177

		Initiative, controlled for Firm Size and Firm Age (Year Founded)								
Chi2 Test	Size:	small			medium			large		
	Sector	chi2	Pr.	Sig. level	chi2	Pr.	Sig. level	chi2	Pr.	Sig. level
	Old Restructured vs. Non	2.0915	0.148		0.564	0.453				
	Mid Restructured vs. Non	11.336	0.001	1%	0.0526	0.819		0.0187	0.891	
	New Restructured vs. Non	1.9463	0.163		7.3667	0.007	1%			

Appendix 2B-ii

Country: Belarus

Years, pooled: '02 & '05

		Initiative, controlled for Firm Size and Firm Age (Year Founded)									controlled for sector only		
Age	Size:	obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
Old (1800-1990)	Restructured	11	91.67%	12	13	61.90%	21	27	75.00%	36	51	73.91%	69
	Non-Restructured	14	58.33%	24	12	92.31%	13	11	84.62%	13	37	74.00%	50
Mid (1991-1996)	Restructured	83	80.58%	103	21	75.00%	28	11	100.00%	11	115	80.99%	142
	Non-Restructured	59	68.60%	86	11	61.11%	18	1	50.00%	2	71	66.98%	106
New (1997-2005)	Restructured	59	67.82%	87	9	90.00%	10	9	100.00%	9	77	72.64%	106
	Non-Restructured	54	58.70%	92	7	87.50%	8	2	100.00%	2	63	61.76%	102
<i>Total Restructured</i>		153	75.74%	202	43	72.88%	59	47	83.93%	56	243	76.66%	317
<i>Total Non-Restructured</i>		127	62.87%	202	30	76.92%	39	14	82.35%	17	171	66.28%	258

Chi2 Test			Initiative, controlled for Firm Size and Firm Age (Year Founded)								
			small			medium			large		
Size:			chi2	Pr.	Sig. level	chi2	Pr.	Sig. level	chi2	Pr.	Sig. level
Sector											
Old	Restructured vs. Non		4.1891	0.041	5%	3.8132	0.051	5%	0.5072	0.476	
Mid	Restructured vs. Non		3.5989	0.058	10%	0.9983	0.318		5.9583	0.015	5%
New	Restructured vs. Non		1.598	0.206		0.0281	0.867				

Appendix 2B-iii

Appendix 2B-iii		Country: Slovakia						Years, pooled: '02 & '05					
		Initiative, controlled for Firm Size and Firm Age (Year Founded)											
Size:		small			medium			large			controlled for sector only		
Age		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
Old (1800-1990)	Restructured	4	50.00%	8	11	91.67%	12	12	80.00%	15	27	77.14%	35
	Non-Restructured	15	62.50%	24	12	63.16%	19	5	55.56%	9	32	61.54%	52
Mid (1991-1996)	Restructured	43	87.76%	49	18	81.82%	22	11	91.67%	12	72	86.75%	83
	Non-Restructured	62	64.58%	96	10	58.82%	17	5	83.33%	6	77	64.71%	119
New (1997-2005)	Restructured	24	96.00%	25	8	100.00%	8	5	83.33%	6	37	94.87%	39
	Non-Restructured	43	78.18%	55	5	83.33%	6	1	100.00%	1	49	79.03%	62
Total Restructured		71	86.59%	82	37	88.10%	42	28	84.85%	33	136	86.62%	157
Total Non-Restructured		120	68.57%	175	27	64.29%	42	11	68.75%	16	158	67.81%	233

Chi2 Test		Size:	Initiative, controlled for Firm Size and Sector								
			small			medium			large		
Sector			chi2	Pr.	Sig. level	chi2	Pr.	Sig. level	chi2	Pr.	Sig. level
Old	Restructured vs. Non		0.3887	0.533		3.122	0.077	10%	1.6269	0.202	
Mid	Restructured vs. Non		8.7198	0.003	1%	2.504	0.114		0.2813	0.596	
New	Restructured vs. Non		4.0096	0.045	5%	1.4359	0.231		0.1944	0.659	

Appendix 2B-iv

Country: Bulgaria		Years, pooled: '02 & '05	
Initiative, controlled for Firm Size and Firm Age (Year Founded)			
Size:	small	medium	large
			controlled for sector only

Age		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
Old (1800-1990)	Restructured	23	76.67%	30	19	61.29%	31	23	88.46%	26	65	74.71%	87
	Non-Restructured	19	46.34%	41	13	59.09%	22	10	62.50%	16	42	53.16%	79
Mid (1991-1996)	Restructured	51	70.83%	72	11	100.00%	11	8	100.00%	8	70	76.92%	91
	Non-Restructured	54	42.19%	128	4	66.67%	6	3	37.50%	8	61	42.96%	142
New (1997-2005)	Restructured	19	63.33%	30	9	90.00%	10	6	100.00%	6	34	73.91%	46
	Non-Restructured	49	51.58%	95	3	50.00%	6	2	50.00%	4	54	51.43%	105
<i>Total Restructured</i>		93	70.45%	132	39	75.00%	52	37	92.50%	40	169	75.45%	224
<i>Total Non-Restructured</i>		122	46.21%	264	20	58.82%	34	15	53.57%	28	157	48.16%	326

		Initiative, controlled for Firm Size and Sector								
Chi2 Test	Size:	small			medium			large		
	Sector	chi2	Pr.	Sig. level	chi2	Pr.	Sig. level	chi2	Pr.	Sig. level
	Old Restructured vs. Non	6.5936	0.01	1%	0.026	0.872		3.965	0.046	5%
	Mid Restructured vs. Non	15.163	0	1%	4.1556	0.041	5%	7.2727	0.007	1%
	New Restructured vs. Non	1.2699	0.26		3.2	0.074	10%	3.75	0.053	5%

construction	Non vs. State	1.2706	0.26		0	1		
manufacturing	Non vs. State	5.9963	0.014	5%	0.6974	0.404	0.1417	0.707
transport & comm	Non vs. State	0.7831	0.376		0.583	0.809	0.6857	0.408
wholesale & retail	Non vs. State	2.3019	0.129					
real estate & renting	Non vs. State	1.1376	0.286		4	0.046	5%	
hotel & restaurants	Non vs. State	0.8903	0.345		0.2778	0.598		
other	Non vs. State	3	0.083	1%				

Appendix 3-ii

Country: Belarus

Years, pooled: '02 & '05

Restructuring (Some or Major), controlled for Firm Size and Sector

Sector:	Size:	small			medium			large			controlled for sector only		
		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
mining	State	0	0.00%	0	0	0.00%	0	0	0.00%	0			
	Private	0	0.00%	0	0	0.00%	0	0	0.00%	0			
construction	State	3	30.00%	10	2	40.00%	5	13	76.47%	17			
	Private	60	63.16%	95	8	53.33%	15	6	75.00%	8			
manufacturing	State	0	0.00%	0	4	80.00%	5	7	77.78%	9			
	Private	30	54.55%	55	6	75.00%	8	18	90.00%	20			
transport & comm.	State	0	0.00%	0	0	0.00%	0	2	50.00%	4			
	Private	13	39.39%	33	11	57.89%	19	1	100.00%	1			
wholesale & retail	State	2	40.00%	5	2	50.00%	4	4	80.00%	5			
	Private	63	47.37%	133	20	66.67%	30	2	40.00%	5			
real estate & renting	State	1	50.00%	2	1	50.00%	2	0	0.00%	0			
	Private	15	41.67%	36	0	0.00%	0	1	100.00%	1			
hotels & restaurants	State	1	50.00%	2	3	50.00%	6	2	100.00%	2			
	Private	0	0.00%	0	2	66.67%	3	0	0.00%	1			
other	State	1	50.00%	2	0	0.00%	1	0	0.00%	0			
	Private	13	43.33%	30	0	0.00%	0	0	0.00%	0			
<i>Total State</i>		8	38.10%	21	12	52.17%	23	28	75.68%	37			

<i>Total Private</i>	194	50.65%	383	47	62.67%	75	28	77.00%	36
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Restructuring, controlled for Firm Size and Sector										
Chi2 Test		Size: small			medium			large		
Sector		Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level
mining	Non vs. State									
construction	Non vs. State	4.1447	0.042	5%	0.2667	0.606		0.0064	0.936	
manufacturing	Non vs. State				0.0433	0.835		0.7798	0.377	
transport & comm	Non vs. State							0.8333	0.361	
wholesale & retail	Non vs. State	0.105	0.746		0.4293	0.512		1.6667	0.197	
real estate & renting	Non vs. State	0.054	0.816							
hotel & restaurants	Non vs. State				0.225	0.635		3	0.083	10%
other	Non vs. State	0.0339	0.854							

Appendix 3-iii

Country: Slovakia

Years, pooled: '02 & '05

Restructuring (Some or Major), controlled for Firm Size and Sector													
Size:		small			medium			large			controlled for sector only		
Sector:		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
mining	State	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
	Private	0	0.00%	0	0	0	0	0	0.00%	0	0	0.00%	0
construction	State	0	0.00%	0	30	0.00%	1	0	0.00%	0	0	0.00%	1
	Private	9	40.91%	22	8	61.54%	13	1	100.00%	1	18	50.00%	36
manufacturing	State	0	0.00%	0	2	50.00%	4	5	83.33%	6	7	70.00%	10
	Private	9	37.50%	24	6	46.15%	13	14	66.67%	21	29	50.00%	58
transport & comm.	State	0	0.00%	0	3	100.00%	3	3	60.00%	5	6	75.00%	8
	Private	4	26.67%	15	3	60.00%	5	4	100.00%	4	11	45.83%	24
wholesale & retail	State	1	100.00%	1	0	0.00%	0	0	0.00%	0	1	100.00%	1
	Private	25	30.86%	81	5	35.71%	14	1	33.33%	3	31	31.63%	98
real estate & renting	State	3	50.00%	6	5	38.46%	13	2	50.00%	4	10	43.48%	23
	Private	23	37.70%	61	7	63.64%	11	2	100.00%	2	32	43.24%	74

hotels & restaurants	State	0	0.00%	1	0	0.00%	0	0	0.00%	0	0	0.00%	1
	Private	4	16.67%	24	1	33.33%	3	1	100.00%	1	6	21.43%	28
other	State	0	0.00%	2	1	50.00%	2	0	0.00%	2	1	16.67%	6
	Private	3	17.65%	17	1	50.00%	2	0	0.00%	0	4	21.05%	19
<i>Total State</i>		4	40.00%	10	11	47.83%	23	10	58.82%	17	25	50.00%	50
<i>Total Private</i>		78	31.58%	247	31	50.82%	61	23	71.88%	32	132	38.82%	340

Restructuring, controlled for Firm Size and Sector											
Chi2 Test		Size:	small			medium			large		
Sector		Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level	
mining	Non vs. State										
construction	Non vs. State				1.4359	0.231					
manufacturing	Non vs. State				0.0782	0.893		0.6217	0.43		
transport & comm	Non vs. State				1.6	0.206		2.0571	0.151		
wholesale & retail	Non vs. State	2.1804	0.14								
real estate & renting	Non vs. State	0.3477	0.555		1.5105	0.219		1.5	0.221		
hotel & restaurants	Non vs. State	0.1984	0.656								
other	Non vs. State	0.4191	0.517		0	1					

Appendix 3-iv

Country: Bulgaria

Years, pooled: '02 & '05

Restructuring (Some or Major), controlled for Firm Size and Sector													
Size:		small			medium			large			controlled for sector only		
Sector:		obs.	%	n	obs.	%	n	obs.	%	n	obs.	%	n
mining	State	0	0.00%	0	0	0.00%	1	0	0.00%	0	0	0.00%	1
	Private	0	0.00%	1	2	50.00%	4	0	0.00%	0	2	40.00%	5
construction	State	3	60.00%	5	1	50.00%	2	0	0.00%	1	4	50.00%	8
	Private	8	34.78%	23	1	20.00%	5	3	50.00%	6	12	35.29%	34
manufacturing	State	1	100.00%	1	3	60.00%	5	1	25.00%	4	5	50.00%	10
	Private	17	41.46%	41	20	80.00%	25	22	70.97%	31	59	60.82%	97

transport & comm.	State	2	66.67%	3	2	66.67%	3	2	40.00%	5	6	54.55%	11
	Private	13	34.21%	38	4	80.00%	5	0	0.00%	1	17	38.64%	44
wholesale & retail	State	1	50.00%	2	2	66.67%	3	1	50.00%	2	4	57.14%	7
	Private	52	29.89%	174	6	54.55%	11	7	58.33%	12	35	32.99%	197
real estate & renting	State	2	40.00%	5	3	75.00%	4	1	100.00%	1	6	60.00%	10
	Private	11	30.56%	36	1	100.00%	1	0	0.00%	1	12	31.58%	38
hotels & restaurants	State	0	0.00%	1	0	0.00%	0	0	0.00%	0	0	0.00%	1
	Private	11	30.56%	36	4	44.44%	9	0	0.00%	0	15	33.33%	45
other	State	3	37.50%	8	2	33.33%	6	3	75.00%	4	8	44.44%	18
	Private	7	33.33%	21	1	100.00%	1	0	0.00%	0	8	36.36%	22
<i>Total State</i>		12	48.00%	25	13	52.00%	25	8	47.06%	17	33	49.25%	67
<i>Total Private</i>		120	32.35%	371	39	63.93%	61	32	62.75%	51	191	39.54%	483

Restructuring, controlled for Firm Size and Sector										
Chi2 Test		small			medium			large		
Sector	Size:	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level	Chi2	Pr.	Sig. level
mining	Non vs. State				0.833	0.361				
construction	Non vs. State	1.095	0.295		0.63	0.427		0.875	0.35	
manufacturing	Non vs. State	1.3659	0.243		0.9317	0.334		3.3227	0.068	10%
transport & comm	Non vs. State	1.2625	0.261		0.1778	0.673		0.6	0.439	
wholesale & retail	Non vs. State	0.3801	0.538		0.1414	0.707		0.0486	0.825	
real estate & renting	Non vs. State	0.1808	0.671		0.3125	0.576		2	0.157	
hotel & restaurants	Non vs. State	0.4348	0.51							
other	Non vs. State	0.0445	0.833		0.5556	0.212				