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Pilferers or Paladins?
Russia's Managers in Transition

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Comments Welcome

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Pilferers or Paladins? Russia's Managers in Transition

Economic reform in Russia came on the heels of failed efforts between 1985 and 1991 to restructure the Soviet economy under the auspices of perestroika. To reduce the technological backwardness of Soviet industry, to enhance the growth in real GDP, and to improve the overall standard of living, Russia initiated the transition from central planning to a market-oriented economy in January 1992. While perhaps not the "shock therapy" adopted by Poland, Russia's economic reform efforts featured the immediate removal of most central price controls and a mass privatization program designed to proceed rapidly with respect to ownership transfer (*Voprosy ekonomiki* 1993, Frydman et. al 1993, Aslund 1994, Bornstein 1994, Lieberman and Nellis 1994, Millar 1994, Nelson and Kuzes 1994).

Ultimately, the success of economic reform in Russia will depend upon the production, employment, and distribution activities of firms. A wealth of literature describes the inefficient operation and performance of Soviet firms (Amann, Cooper and Davies 1976, Berliner 1957 1976 1989, Conyngham 1982, Granick 1954 1961 1989, Gregory and Stuart 1990, Hill and McKay 1988, Freris 1984, Kotkin 1991, Linz 1988 1992a 1992b, and Richman 1965, among others). Indeed, conventional wisdom suggests that restructuring, for most former Soviet firms, will be no small task (Ernst, Alexeev and Marer 1996, Gaddy 1996, Kuznetsov 1996, Slay 1996), especially if restructuring efforts in other transition economies serve as a guide (Brada et. al 1994, Estrin et. al 1993 1995, Culpan and Kumar 1995, Brezinski and Fritsch 1996). At a minimum, firms in existence at the beginning of the Russian transition process are likely to undertake changes in the volume and assortment of production, and in wage and employment patterns, in order to continue operations in the post-transition economy.

An additional player influencing the success of economic reform, the newly-created private firm, while not confronted with the daunting restructuring element, must still overcome numerous obstacles imposed by the unstable economic environment characteristic of Russia's transition.

Whether firm managers as a group are winners or losers in the economic reform process will be evaluated from the traditional perspective; that is, how do managers perform with respect to income, wealth, power, prestige and job security? However, a key distinction must be made between short-run and long-run winners. In the short-run, asset stripping may be the preferred managerial strategy,¹ but unless the manager is a very good overseer of his/her portfolio,

¹Anecdotes of asset stripping abound in the literature. See for example, Tedstrom (1991), Goldman (1994), Frydman et. al (1993). For a more positive assessment of managerial behavior, see Aslund (1995) and

these gains are likely to be ephemeral (Aghion, Blanchard and Burgess 1994). Moreover, asset stripping is likely to define a manager in only one or two dimensions of success -- income and wealth -- while security and prestige are likely to suffer. Second, we find it useful to distinguish between managers and firms. While winner implies survival, manager and firm survival are not one in the same. The difference stems, in part, from the relative mobility and/or adaptability of firms and managers.

Firm survival will require the adoption of production and employment strategies appropriate to the realities of the Russian transition economy. To date, Russia's transition economy has not provided fertile ground for firms to establish strong roots or to secure a stable foundation for operations. In many respects, at the initiation of transition in 1992, the ground was barren and the climate unsuited to firm survival.² Russia lacked the economic institutions necessary to introduce a market-oriented economy. Even now, Russia struggles to establish a fair and impartial legal structure (especially as it relates to property rights, contract law and bankruptcy law), and to create a viable commercial banking structure, wholesale distribution network, and communications network. Perhaps most importantly, Russia must create a system of corporate governance that will punish "bad" managers, those who engage in asset stripping or other activities purely for personal gain, *the pilferers*, and reward "good" managers, those who put existing assets into alternative productive uses, *the paladins*.

The sellers' market environment, persistent and pervasive shortages of nearly all goods and services, which characterized the Russian economy at the beginning of transition created virtually infinite opportunities for lucrative businesses to develop. Yet, any given firm's potential for capitalizing on those opportunities has been hampered by a punitive tax system,³ as well as a growing, and perhaps corrupt bureaucracy.⁴ The growth in bureaucracy illustrated in

Krueger (1995).

² Regarding the climate for business operations, only in 1992 was the activity of buying low/selling high removed from legal codebooks as a criminal offense (Anders 1995).

³ In 1995, firms reported making the following tax and mandatory contributions (regarding the tax base to which the rates apply vary: some are based on sales revenues, some on capital value, some on the wage fund, and in some instances it remained unclear what base to apply the rate): VAT 20% (in Moscow a special tax of 1.5 to 3% is added to standard VAT), property tax 1%, profits tax 35%, withholding tax 12%, excess wage tax 35% (this was dropped in 1996), transport tax 1%, pension fund contributions 29%, fund for employment contributions 2%, fund for obligatory medical insurance 3.6%, fund for social protection 5.4%, tax for housing maintenance 1.5%, tax for road maintenance 2%, education tax 1%, local community goals tax 1%, waste tax 10%, and a flat rate transport owners tax. Managers described facing a tax burden of more than 80% of their sales revenues.

⁴ In an effort to minimize the incentive of tax inspectors to take bribes, their salary has been set at 4-5 times the average wage based on the rationale that they will not "need" to take bribes because they received such a

Table 1 fails to capture inevitable delays and financial payments associated with regional and local authorities vying for ownership rights, or the arbitrary enforcement by the tax inspectorate of the frequently changing tax policy. Anecdotal evidence is unanimous in descriptions of obstacles imposed by corrupt bureaucrats.

Equally important to firm survival is the popular perception of appropriate and inappropriate business activities. The experience of cooperatives in the Soviet economy during perestroika begins to tell the tale of popular opposition to what are considered to be standard operating procedures for businesses in market economies (Jones and Moskoff 1991). In the Russian transition economy, until quite recently, firms that fulfilled middlemen activities or otherwise operated in ways that would be considered appropriate and efficient in a market economy were labeled as *mafija* in the Russian press (Millar 1996). While a detailed analysis of the impact of criminal elements (*mafija* or government officials) on the operation of Russian firms far exceeds the scope of this paper, it is important to note that the impact is not insignificant in terms of firm survival (Handelman 1995, Leitzel et. al 1995, Lee 1995, Shelley 1994, Waller 1995).

Managers as winners or losers in the Russian reform process depends in part on their initial conditions and in part on their ability to adapt to the new economic environment. Gregory (1989, 1990, 1991) argues that those in a position to control resources or property will be able to extract rents and thus emerge, at least in the short run, as winners.⁵ Winners can therefore include both pilferers and paladins.

This paper starts from the premise that Russian managers, both good and bad, have in the main been winners in the transition process so far. Do differential rewards now exist to separate good from bad managers, and thus provide incentive for "good" governance of Russian firms? We examine whether or not such an incentive is emerging in Russia's transition economy using case studies based on in-depth interviews with firm managers. The question of winners and losers among managers is central to the question of governance and also to the future of Russia's economic reform. Key to our analysis is the supposition that whether managers will be winners or losers in the long run involves an assessment of survival potential.

Survival potential is viewed as dependent upon macroeconomic conditions, firm characteristics and management characteristics (Aghion and Stern 1994, de Melo and Ofer 1994, Krueger 1995, Linz 1996). We use the latter two in an

good wage. However, this wage setting policy did not remove the opportunity to take bribes. The attractiveness of this job was illustrated in 1993 in St. Petersburg by the more than thousand individuals who applied for a single position in the tax inspectorate office.

⁵ Firms with export options were in the best position to become winners. Using fictitious prices for imports and exports, managers in the Ukraine were able to deposit in foreign banks more than \$15 billion (U.S.) between 1992 and 1995 (*Nacionalna* 1996).

**Table 1: Employment in the Russian Bureaucracy
(thousands)**

	1980	1985	1990	1991	1992	1993	1994
Housing & communal services	2,848	3,054	3,217	3,159	2,988	2,982	3,020
Public health, social security & physical culture	3,526	3,747	4,238	4,305	4,227	4,243	4,394
Government offices	1,335	1,412	1,806	1,722	1,519	1,649	1,659
Finance, credit & insurance	384	397	402	439	494	581	745
Other administration	806	902	1637	1501	1831	1317	1279
Bureaucracy employees % total workforce	12.1	12.7	15.0	15.1	15.3	15.2	16.2
Industry employees % total workforce	32.5	32.2	30.3	30.4	29.6	29.4	27.1

Source: *Trud i zanyatost' v Rossii* (Moscow: Goskomstat 1995), p. 18.

effort to evaluate the extent to which enterprise managers as a group will be sustainable winners, where winners is defined in terms of above-average income, wealth, power, prestige and job security. Our analysis focuses on the following five hypotheses: (1) managers are more likely than workers to be winners; (2) managers located in Moscow are more likely than those in the provinces to be winners; (3) managers in companies that received high priority in the Soviet economy are no more likely to be winners than managers who worked in (former) low priority sectors; (4) managers of state-owned enterprises are less likely to be winners than managers of privatized or private firms; and finally (5) managers who received western-style training are more likely to be winners than those who did not.

To facilitate our analysis of managers as winners or losers in the Russian economic reform process, we first explain the rationale underlying the five hypotheses. Section 2 describes the methodology we employ to test these hypotheses. In section 3 we present our results. In particular, we find strong support for managers dominating workers in terms of income: an average salary gap of 65% is the norm. This finding does not hold for job security; that is, managers as a group have not been guaranteed a job. In fact, the majority of managers in our sample had been recently installed in their current position. If this result holds for a more general population of firms, the turnover rate among managers exceeds 70%. We find strong support for the capitol city effect; that is, managers in Moscow receiving higher incomes than managers in outlying regions. Similarly, managers in Moscow were significantly more likely than those in the provinces to sustain higher production and employment levels, measures we use to signify status/prestige. We find strong support for an industry effect. Using the measures of above-average income, wealth, power, prestige and job security to designate winner, we find significant industry differences associated with priority designation in the former Soviet economy. Our data generate mixed results with respect to ownership and western-style training. The implications of these results are discussed in section 4 where we offer concluding remarks.

I. Pilferers versus Paladins

The centerpiece of perestroika, "The Law on State Enterprises" (1987), initiated the dismantling of central planning by conferring significant discretionary power on managerial, as opposed to ministerial, personnel.⁶ Policies adopted over the course of perestroika augmented managers' control over "their" enterprises. Managers gradually assumed many of the rights associated with private property ownership -- the right to residual income, and the right to alter, although not dispose of, property. In addition, citizens were granted the legal right to form cooperatives. With

⁶ For a discussion of this aspect of perestroika see Gregory (1991), Krueger (1993) and Aslund (1995).

profitability guiding their decision making, cooperatives operated essentially as private businesses. In many instances, managers of state-owned enterprises used rents from "their" company to form producers cooperatives, which acted as vehicles for transferring public assets into private hands.⁷ Subsequently, and somewhat unexpectedly, managers emerged in the early phase of the transition process (1992-1994) as one of the most powerful political lobbies in the country. Alund (1995, p. 300) argues that "managers viewed the transition as an opportunity to enrich themselves and did so by causing all kinds of distortions in the regulatory framework."

In contrast, workers as a class, with the exception of the coal miners union, have been unable to extract significant rent from the system.⁸ Workers are emerging in Russia's economic reform politically and economically much weaker than managers (Connors 1996). Evidence of this comparative weakness shows up most strikingly in industrial wages. Adjusted for inflation, industrial wages fell dramatically in the first two years of the transition process, and remain low in many branches of industry even today.⁹

Further evidence of the comparative weakness of workers relative to managers as winners in Russia's economic reform involves the numbers of each elected or appointed to local and national policy-making organizations. Prime Minister Victor Chernomyrdin, former director of *Gazprom*, and Vladimir Potanin, former director of *Uneximbank*, now deputy prime minister in charge of the economy, are two prime examples. Boris Berezovsky, recently reported to be the most influential businessman in Russia (*Moscow Tribune*, 22 November 1996), and now appointed as the new deputy secretary of the Security Council, represents another case in point. At the grassroots level, the number of seats in the Duma held by managers (former managers) elected in 1993 increased as a result of the December 1995 election.¹⁰

⁷ Tedstrom (1991, pp. 126-127).

⁸ See Alund (1995 and 1996) for an excellent description of rent seeking in Russia's transition.

⁹ Average wages for industrial workers rose by slightly over half of the price increase in 1992; for industrial managers, the average increase of salaries was nearly two-thirds (Goskomstat 1995, p. 55). Each year thereafter, average reported wage increases for industrial workers remained well below that of managers (p. 55). More importantly, however, wages frequently were not paid to workers in 1993 and 1994. Indeed, a recent article in *Wall Street Journal* (6 November 1996, p. A1) reports strikes in Russia in November 1996 for back pay (unpaid wages). Thus workers faced in essence a double inflation tax whenever wage payments were delayed: the first "tax" in the sense the wages did not keep up with inflation, the second "tax" in the sense that delayed wage payments were not augmented. Overall, average wages reported for industry during the transition period are far below those wages reported for employees in construction, transportation, credit and finance, and energy (p. 49). Only in science has the situation of relative wage decline been worse than in industry.

¹⁰ A similar phenomenon is observed in the Ukraine. Of the 450 deputies in the Rada, some 200 held the position of enterprise director in 1994. After the law passed in 1994 prohibiting deputies from holding full-time outside jobs, the number of directors fell to less than 5% of the deputies in the Rada.

Managers fared well in the 1996 election of governors, as well (Colton 1996, Nichols 1996, Woodruff 1996, Zlotnik 1996).

Similar results in the policymaking sphere are not evident for workers, even though Russian workers did get 5% of the popular "votes" in public opinion polls conducted in mid-1995 (Tesche 1995). Only now are organizational and institutional structures emerging which may permit workers to consolidate their power (Baglione 1996, Clark 1996, Senick-Goldstein 1996). Based on the literature, we would expect to find strong support using firm-level data that managers, both good and bad, will fare better during the transition than workers. Thus, our first hypothesis is that *managers are more likely than workers to be winners*.

Students of the economic transformation in Central and Eastern Europe, as well as the former Soviet Union, have noted that development in transition economies tends to proceed from the capitol and move outward to the provinces (Ellman 1994, Nuti 1994). Nowhere among the transition economies is this more true than in Russia. The vast majority of foreign investment is channeled through Moscow. In part, this is because Moscow leads all regions in the number of factories and research institutes in "hi-tech" areas, sectors where foreign investment is (after energy, precious metals, and raw materials) most likely. Hanson (1996) puts Moscow as the primary commercial hub in Russia, leading the country in foreign currency exchanges and foreign exchange market turnover.¹¹

By any measure, Moscow maintains its Soviet legacy as the financial, political, commercial and transportation center of the country.¹² Consequently, former state-owned and newly-created private firms in the capitol have better access to credit, skilled labor, and business support services, as well as better access to political favor (Nuti 1994). As access to capital and foreign markets strongly (positively) influence a firm's viability, we would expect that managers of firms in Moscow will fare better than their counterparts in the regions. Thus, our second hypothesis is that *managers located in Moscow are more likely than those in the provinces to be winners*. This hypothesis applies primarily to "good" managers who seek to restructure their firms. For "bad" managers who are likely to be living off of previously appropriated assets, the capitol may not be so hospitable, as prices (including bribes) are significantly higher, and thus purchasing power significantly reduced (Goskomstat 1996, pp 216-221).

Somewhat paradoxically, among firms existing at the beginning of the transition process, it is those that received

¹¹ Using 1993 data, Hanson's (1996) estimates suggest hard currency earnings in Moscow to be a major explanatory variable in the city's high per capita income.

¹² Only in 1993, for example, did Moscow time no longer dictate real time in Aeroflot schedules in Novosibirsk (a 4-hour time difference) and other outlying areas in Russia.

Table 2: Mean Workforce Size by Industry
(December 1992)

Industry	Far East		E. Siberia		W. Siberia		Urals		N. Caucasus		Volga	
	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size
Power	55	1810	61	1105	15	4836	15	2322	45	1060	612	1016
Fuel	39	2131	25	1774	198	2448	21	2080	66	2382	45	2467
Ferr./Nonferr. Mtlg.	23	1765	38	2290	37	2619	62	4167	14	2281	74	1491
Machine Bldg	117	646	195	964	399	1072	229	1415	348	1014	289	1645
Chemical	16	963	30	2795	72	1523	24	1245	52	987	64	2714
Forestry/Wood/Paper	251	578	572	677	420	472	163	543	137	473	258	332
Building/Cons. Materials	122	654	145	620	285	610	98	709	275	286	240	502
Light	57	580	80	729	167	612	75	848	162	769	204	841
Food	341	681	375	205	668	367	215	345	618	330	675	320
Printing	117	108	100	45	82	104	50	113	76	140	150	85
Consumer	23	126	11	181	75	266	0	-	48	618	23	86
Miscellaneous	164	537	79	237	93	742	57	1227	75	497	63	454
Total	1225	697	1711	648	2511	800	1009	1073	1916	621	2146	731
Industry	Black Earth		Volga Vyatka		Central		Northern		Northwestern		Total	
	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size
Power	26	863	19	707	105	981	26	634	35	576	463	1208
Fuel	8	194	12	1322	120	621	5	451	52	463	591	1799
Ferr./Nonferr. Mtlg.	17	3767	14	2477	62	1614	12	3983	22	1343	375	2403
Machine Bldg	221	1430	133	1087	1167	1198	83	647	417	1446	3598	1211
Chemical	25	2163	29	1892	200	1263	14	2212	52	903	578	1563
Forestry/Wood/Paper	115	203	226	439	547	482	262	1017	225	591	3176	553
Building/Cons. Materials	153	458	93	392	498	491	56	495	152	338	2117	492
Light	99	682	96	604	829	911	102	567	204	637	2075	782
Food	586	331	304	189	1128	284	183	411	336	355	5429	334
Printing	52	56	66	55	321	187	23	67	73	172	1110	121
Consumer	11	415	0	-	0	-	0	-	37	596	228	364
Miscellaneous	48	485	80	377	357	453	40	350	44	386	1000	504
Total	1361	620	1072	511	5334	700	806	738	1649	733	20740	711

higher priority under the Soviet centrally planned economy that have tended to fare the most poorly in Russia's economic reform.¹³ Excluding defense, in the Soviet economy, high priority tended to be given to firms in the energy, metals, machinery, and chemical industries (Amann and Cooper 1982, Thornton 1986). First on the list to receive raw materials, investment goods and other inputs, these firms also tended to be large in terms of workforce size in comparison with firms in other industries. As seen in Table 2, the positive correlation between priority designation and workforce size in the Soviet economy holds for all regions. Regression results based on these 1992 firm-level data indicate that industry explains about half of the variation in mean workforce size.¹⁴ For Moscow, the industry effect is smaller, explaining less than 20% of the variation in workforce size. However, when the data are pooled and a region dummy is created (0 if the firm is located in Moscow, and 1 otherwise), the coefficient on the region dummy indicates that mean workforce size is significantly higher in Moscow when industry is held constant.¹⁵ Combined with the literature (see, for example, Berliner 1988, Granick 1961, Kotkin 1991), these data support the proposition that a Soviet manager's prestige incorporated industry, workforce size and location elements.

In the Russian transition economy, only within the energy branch have existing firms managed to keep their heads above water.¹⁶ Most of their counterparts in metallurgy, machinery and chemicals are drowning under the weight of severely reduced demand and sales. Given the capital renovation required to give these firms a competitive edge, even drastic employment reductions and/or lower wages may not be sufficient to keep these firms afloat (Krueger 1995, Gaddy

¹³ The following serves to illustrate our point. An electronics company located in the Ukraine produced an assortment of output that included televisions. Its televisions were delivered (sold) in the Ukraine, in Russia, as well as in several Eastern European countries (as "second" tv, in these latter countries). This company was well-off in the Soviet economy: paying above average wages and salaries and providing employees with numerous social benefits. In the inflationary environment of the initial transition period, this company improved its financial position. People bought consumer durables (televisions), formerly *defitsitny*, as a hedge against inflation. In 1992, the company founded a bank. The firm's situation began to deteriorate with the loss of CMEA sales, but domestic sales offset declining CMEA sales in 1992. The deterioration worsened as foreign products entered the market. Consumers preferred foreign-made (higher quality) televisions, especially given the similarity in prices between domestic and foreign televisions. In 1994, the firm lost Russian sales in response to a punitive excise tax imposed by Ukrainian policymakers. Since that time, the company works at most 3 days per week, frequently shutting down operations altogether.

¹⁴ Dummy variables were created for each industry, with machine building designated as the comparison industry. Log of workforce size was used at the dependent variable. Sample size equaled 21,543 firms. For detailed regression results on the regions included in this study, see Linz (1996, Appendix A).

¹⁵ Only for ferrous/non-ferrous metallurgy and fuels is the mean workforce size significantly lower.

¹⁶ As reported by *The Economist* (26 October 1996, pp. 94-97), *Gazprom's* offering of 373 million shares was oversubscribed five-fold, with foreign investors paying four times the price at which *Gazprom's* shares were being traded domestically at the time. In fact, *Lukoil* and *United Energy Systems* (an electricity supplier), in combination with *Gazprom*, form the three major issuers of foreign debt in Russian industry.

1996, Linz 1996, Slay 1996). As the size of a manager's "empire" declines, and the prosperity of his or her "subjects" diminishes, there is a negative effect on income, power, status/prestige, and perhaps job security. Consequently our third hypothesis is that *managers in companies that received high priority in the Soviet economy are not more likely to be winners than managers who worked in (former) low priority sectors*. In short, we expect it less likely that managers in heavy industry, as a group, will be sustainable winners. Their prospects improve, however, if they are located in Moscow.

Privatization of state-owned enterprises and the entry of newly-created private firms represent a cornerstone to the transition from plan to market. In Russia, privatization proceeded rapidly: within two years, more than three-quarters of the targeted state-owned enterprises completed the ownership transfer process. While numerous studies predict efficiency gains to result from privatization (Galal et. al 1992, Hammond 1992, Megginson et. al 1994, Ott and Hartley 1991), studies conducted early in the transition process in former socialist centrally planned economies find little relationship between ownership and restructuring (Pinto et. al 1993, for example). That is, ownership status -- state or privatized -- was not a significant explanatory variable with respect to the experience of enterprise restructuring. More recent studies (Blasi 1996, Estrin et. al 1996, and Krueger 1995) find that ownership does "explain" production, employment, and distribution strategies adopted by Russian firms: privatized and privately-owned firms were more likely to be able to articulate what would be considered long-term survival strategies.¹⁷ Indeed, Estrin et. al (1996) conclude that the process of privatization "is the most significant way that firms have been developing a long-run strategy for the marketplace ... and is virtually a necessary and sufficient condition for long-run strategic thinking" (p.151).

Neither privatization nor strategic thinking are sufficient conditions for survival, however. Privatized firms with overhead costs exceeding 50% of total production costs may reflect a significant share of Russian firms. Analysis of the cost structure of ten privatized firms in defense-related production and heavy industry in the first quarter of 1995 yielded the results presented in Table 3. Additional figures provided by these firms paint an even dimmer picture of long-term survival prospects. These data reinforce the notion that managers of firms (outside of Moscow) in industries formerly accorded high priority are less likely to be winners. The point here is simply that ownership change alone may be insufficient for most firms, but to the extent that a new set of incentives emerge, managers of privatized firms are more likely to explore options for improving firm performance.

¹⁷ Of the 51 firms surveyed by Linz in 1995, less than one-quarter were willing or able to articulate a production or financial strategy for maintaining or enhancing market share (Linz 1996).

Table 3: Structure of Overhead Costs, 10 Privatized Firms
(percent, 1st quarter 1995)

Firm Type	Overhead cost as % total production cost	Percent distribution of overhead costs into select categories							
		Management salary payments	Auxiliary materials	Social insurance	Taxes/debt payments	Capital repair	Depreciation	Other payments	
Electronics/radar/other	41.41	10.58	4.10	4.12	9.92	0.58	4.65	7.46	
Electronics/radar/other	79.96	25.62	2.69	10.00	24.63	--	12.35	4.67	
Aviation	40.29	12.28	0.62	4.79	1.55	8.60	9.92	2.60	
Aviation	86.95	13.09	1.57	10.40	14.94	11.75	11.78	13.77	
Metallurgy	21.25	5.22	3.67	2.02	2.46	1.78	3.09	3.01	
Machine building	31.75	5.99	1.24	2.36	14.73	0.07	5.72	1.64	
Machine building	47.74	6.08	0.05	2.03	23.24	--	5.53	10.81	
Machine building	70.95	22.56	0.01	9.95	0.06	--	21.86	16.51	
Agricultural machinery	71.35	14.71	2.39	5.79	28.48	--	18.12	1.85	
Paint/chemicals	33.12	10.05	0.60	3.92	10.26	1.54	6.06	0.69	

Source: Select data from consulting/training project in Russia, May 1995.

Pro-active restructuring, that is, the introduction of new products, quality improvements, or other efforts to expand into new markets, is more likely to occur in privatized than in state-owned firms. Pro-active restructuring is likely to translate into improved enterprise operation and performance, which in turn enhances the status and wealth of managers. Based on the literature, we predict that firm-level data will document a positive relationship between private ownership and restructuring. Thus, we expect that *managers of state-owned firms are less likely to be winners, in a relative sense, than managers of privatized or private firms.* For state-owned firms where privatization is imminent, and managerial tenure uncertain, we would also expect asset stripping to occur. Even with inflation more or less stabilized, the chaotic economic environment provides strong incentive for those who can to establish a “nest egg.” Asset stripping, while enhancing managerial income and wealth, may not necessarily satisfy the other dimensions by which we measure winners: power, prestige, and job security.

The literature is unanimous with respect to the proposition that former state-owned firms in Russia must restructure in order to survive in the post-transition economy. A significant barrier to restructuring, and hence firm survival, is the stock of human capital of (former) Soviet managers. Soviet managers, the Red Executives described by Granick (1961), succeeded on the basis of their engineering and production knowledge, as well as their ability to finesse ministers and suppliers to obtain *defitsitnyi* inputs. Red executives did not need to take into account consumer preferences, nor to solve financial or marketing problems. Red executives did not prepare strategic plans for establishing or extending market share in the domestic or global economy. These skills were of little value in the Soviet centrally planned system. With the decentralization occurring during perestroika, and more dramatically during the early phase of Russia's transition process, the incentive emerged to acquire managerial skills appropriate to a market-oriented economy. Many managers were able to obtain training in western business schools (2 weeks to 2 months in Germany, the U.K, the U.S, and other countries), or in equivalent institutions established in Russia. We hypothesize that *managers exercising the option of participating in a western-style (market-oriented) training program are more likely to be winners than those who do not.*

Winners in Russia's economic reform are those who achieve and maintain above-average income, wealth, power, prestige and job security. The literature suggests that managers as a group, in comparison to workers, are likely to be winners. In fact, both good and bad managers have been winners in the short run. Not all managers are likely to be long-run winners, however. In the long run, we expect only the paladins to emerge as winners, contingent, of course, on the establishment of a conventional corporate governance system. We use firm-level surveys to evaluate whether the

foundation for such a governance system is currently in place. Firm-level data provide us with an opportunity to test, albeit roughly, the five hypotheses specified above.

II. Methodological Framework

There is a growing literature on Russian enterprise operations and managerial strategies that is based on survey data. Survey data are required to evaluate the firm-level impact of the Russian transition process, given the lacunae with respect to microeconomic data in official sources. In some instances, surveys of Russian enterprises focus on a particular type of firm: *privatized firms* (Blasi 1996, Buck et al. 1995, Dolgopyatova et. al 1994 1995, Nelson and Kuzes 1994, Webster et. al 1994), *private shops* (Barberis et al 1995), *private service firms* (de Melo and Ofer 1994), or *private manufacturing firms* (Webster and Charap 1994), for example. In other instances, surveys focus on particular regions (Vacroux 1994), particular sectors, such as firms in the military-industrial complex (Cooper 1991) or particular firms (Artemev and Hill 1991, Clarke et. al 1993, Nellis 1993).

We, too, use survey data to evaluate managers as winners or losers in Russian economic reform. The research project design involved in-depth interviews with top-level managers in four regions: Moscow, Rostov, Volgograd and Novosibirsk.¹⁸ The objective was to elicit information on how decisions are made at the firm level during the transition process. In particular, the project focused on production and employment strategies that firms adopted to survive.

A total of 159 interviews were conducted over the past three years. Interviews took 1-2 hours to complete and frequently involved 2-3 top-level managers. Each year we conducted several follow-up interviews with managers of firms from the previous year(s).¹⁹ Altogether, 123 firms participated in the survey project.

How were the participating firms selected? In each region, a local coordinator assisted in contacting firms and scheduling interviews. The coordinator was guided by the instruction of including both heavy and light industry firms in the target group, as well as small and large firms (in terms of workforce size). In all cases, potential participants were

¹⁸ The cities where the firms were located included: Moscow, Tver, Nizhny Novgorod, Rostov, Taganrog, Volgograd, Volzhsky and Novosibirsk. Despite the relative distance involved, and the fact that Nizhny Novgorod typically is not included in Moscow region, we do so in our analysis for two reasons. First, sample size is relatively small for Nizhny Novgorod. Second, Nizhny Novgorod was targeted as a leader in the reform process and thus should "perform" as well as Moscow. Where differences appear, they are noted in the text.

¹⁹ Follow-up interviews with the manager of the company did not necessarily involve the same person. This was especially true in privatized firms -- managers who headed the company during and immediately after privatization had been replaced by 1995 and 1996. The practice of installing a new, younger manager occurred most frequently in companies where employees had sold shares to outsiders; that is, where employee ownership had fallen to less than 30%, for example.

guaranteed confidentiality and anonymity with respect to reporting the results. This stipulation was made again by the interviewers (authors) at the beginning and end of each interview.

While the response rate to the question regarding willingness to participate in the project was greater than 70%, those firms identified as possible participants in the survey were not randomly selected from a known population. First, the population of firms in Russia is constantly in flux.²⁰ In each year we conducted interviews, it was impossible to obtain in advance a complete listing of all firms in the targeted regions. In part, this stems from the chaotic economic conditions associated with the transition process that make data collection by government agencies a low priority activity in Russia; the “no money, no numbers” syndrome. A private firm emerged in Moscow to fill this niche -- selling directories of firms by sector (industry, transportation, retail trade, and the like) for each region in Russia; each volume costing between \$10 and \$25. We obtained all 18 volumes of the 1992 directory of civilian manufacturing firms and several volumes of the 1995 directory. While covering only a fraction of the total population of firms in all sectors of the Russian economy, these listings do provide some insights into the characteristics of the firms from which we drew a least a portion of our sample.

Table 4 provides a brief description of the population of civilian manufacturing enterprises as of December 1995 in the four regions where we conducted our survey.²¹ Table 4, panel A, summarizes the distribution of firms by workforce size, using the firm size categories from Russia’s privatization program. These data indicate a relatively greater number of larger firms in Moscow than in the other three regions included in this study. Table 4, panel B, summarizes the distribution of firms by industry, as well as illustrates the incompleteness of the 1995 firm listing. In the 1992 listing of civilian manufacturing firms prepared by this same company (Business Information Agency), nineteen Moscow companies were listed in the power industry directory. For 1995, there are zero entries in this section of the directory! Unlike other small private businesses, hiding the location or activities of a power company would be challenging. Perhaps more than anything, this illustrates the reluctance of Russian firms to register with, or provide information to, any organization, be it government or private. Panel B also gives the mean workforce size by industry for the firms listed in the 1995 directory. In 5 of the 11 industries for which data are available, the mean workforce size in

²⁰ In part this stems from the Russian economic environment. For example, given the existing tax system in 1994/95, private firms found it profitable to create a new company after one year in order that the new company might buy the existing assets/property at “fire sale” prices and avoid paying the property tax.

²¹ “Moscow” in Table 4 refers only to those firms registered in the capitol city; not to those in the surrounding region.

**Table 4: Characteristics of Russian Firms
(June 1995)**

Distribution of Civilian Manufacturing Firms by Workforce Size

Number Employees	Moscow		Rostov		Volgograd		Novosibirsk	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
< 200 people	347	37.7	472	49.5	233	50.5	290	62.6
200 - 1000	406	44.1	349	36.6	169	36.7	124	26.8
1001 - 10,000	153	16.6	117	12.3	55	11.9	49	10.6
> 10,000	15	1.6	16	1.7	4	0.9	0	0
Total	921		954		461		463	

Mean Workforce Size by Industry

Industry	Moscow		Rostov		Volgograd		Novosibirsk	
	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size	Number of Firms	Mean Workforce Size
Power	0	n.a.	0	n.a.	13	1276	7	1053
Fuel	11	4404	72	3312	15	508	4	669
Ferrous/Nonferrous Metallurgy	45	1749	40	193	14	2873	115	770
Machine building	156	2441	206	1405	96	1101	0	n.a.
Chemicals	116	520	39	812	26	1721	17	1086
Wood/forestry/pulp/paper	97	489	89	536	64	250	81	289
Construction/const. materials	88	1071	125	1188	41	512	41	459
Light industry	161	856	107	634	32	710	44	417
Food industry	117	756	221	277	138	221	119	181
Printing	130	259	29	102	14	129	25	133
Miscellaneous	0	n.a.	26	355	8	663	10	1201
Total	921	12545	954	8814	461	9964	463	6258

Source: Calculated from firm-level data provided in vols. 3, 8, 10, 15 *Business Map 95* (Moscow: Business Information Agency, 1995).

Moscow is higher than in the other regions. Reflecting only a portion of the population of firms from which our sample was drawn, these data do provide a broad characterization which can be used for comparison purposes.

A second non-random selection aspect of our sample also must be taken into account when interpreting our results. Most firms willing to participate in the project were currently in operation and not facing a severe financial situation at the time the interview was conducted. Thus the sample is biased in favor of "successful" firms. In fact, three of the firms listed in Table 3 were contacted about participating in this survey. Two agreed, a metallurgy and a machine building firm; only the manager of the metallurgy firm, however, actually found the time to participate.

Third, newly-created private firms, more so than former state-owned (privatized, leased) firms, viewed participation as a "no gain" proposition since payments to participants were not possible. Consequently, managers of private companies were more likely to respond negatively at the initial contact. The relatively high response rate of private firms in 1996 is a direct result of working with a local coordinator who was the head of the Russian equivalent of a small business development association in that region. Such organizations (opportunities) did not exist in previous years.

What legitimately can be claimed from results based on 123 case studies? Since the sample was not randomly drawn from a well-defined population of firms, it is impossible to claim that the results obtained from the participating firms can be generalized to all firms in Russia, or even to those in the four regions in which the firms are located. It is possible, however, to assign confidence intervals around particular results. In particular, our analysis will focus on whether these managers as a group achieved and sustained above-average income, wealth, power, prestige, and job security, and/or whether there is significant variation by geographic location, industry or sector, ownership structure, or type of managerial training received.

Sample Description

Given the limitations of anonymity and confidentiality, perhaps the most informative way of describing our sample is to focus broadly on the workplace and management characteristics relevant to our analysis of managers as winners or losers in Russian economic reform.

Characteristics of the participating firms are presented in Table 5. Panel II describes the distribution of firms by geographic location. Of the 68 firms located in the Moscow region, less than half (29) are located in the capital. However, the number of Moscow firms is sufficiently large to test for the capital city effect posited by Ellman (1994) and Nuti (1994). The distribution of participating firms by ownership structure is reported in panel III. Of the 159 interviews

Table 5: Sample Description

	1994	1995	1996	Total
I. Number of firms	31	73 ^a	55 ^b	159
II. Location of firms				
Moscow region	21	24	23	68
Rostov region	4	17	17	38
Volgograd region	0	32	6	38
Novosibirsk region	6	0	9	15
III. Ownership				
state-owned	5	5	6	16
privatized	25	46	36	107
private	1	18	12	31
leased & other	0	4	1	9
IV. Workforce size				
< 200 people	3	32	16	51
200 - 1000 people	11	21	21	53
1001 - 5000 people	10	14	14	38
5001 - 10,000 people	4	1	3	8
> 10,000 people	3	4	1	8
V. Industry/sector				
heavy industry	17	25	22	64
light industry	9	16	10	35
food processing industry	5	14	10	29
service	0	16	9	25
other	0	2	2	4

^a 15 firms are follow up interviews from 1994.

^b 17 firms are follow up interviews from 1995, 4 follow up from 1994.

conducted, 112 were at former state-owned enterprises, now privatized or leased, and 16 at firms still owned by the state at the time the interview was conducted. A total of 31 interviews were conducted at newly-created private firms. Given this relative distribution of firm types, it will not be possible to statistically evaluate differences across all ownership structures. In this instance, we will rely on the "preponderance of evidence" as a signal of the relative strength or weakness of our results.

The importance of industry and workforce size in assessments of the relative prestige/status of Soviet managers is well documented. We have sufficient numbers of firms in the small, medium, and large workforce size categories (see panel IV) to make possible a comparison of findings on this dimension. That is, about one-third ($n = 41$) of the interviews were conducted at firms that employed fewer than 200 people at the time the interview took place. Not surprisingly, the majority of private firms fall into this workforce size category. About one-third ($n = 53$) were conducted at firms employing between 200 and 1000 workers. The balance of interviews were conducted at firms considered to be large (or extra large) by Soviet standards. None of the large (extra large) firms was state-owned at the time the interview took place.

Similarly, the distribution of firms by industry and sector reported in panel V indicate that it is possible to test for significant variation in our results between heavy and light industry, as well as between industry and services. A total of 64 interviews were conducted at firms that are categorized as heavy industry, 35 interviews were conducted at light industry firms, and 29 at firms in the food and food processing industry. Service sector activities included: publishing, retail sales, laundry, delivery, R&D, and legal and financial consulting, among others.

Regarding management characteristics, as in the Soviet economy, the vast majority of the top-level managers who participated in this project (with the exception of the chief bookkeepers) are male, with more than 15 years of schooling. The mean age of the managers of private firms was less than that of managers of privatized and state-owned firms. Yet, in the majority of cases, managers in privatized and state-owned firms had been recently installed. These data suggest a relatively recent turnover of top-level managers in firms existing at the beginning of the transition process. Less than half of the managers had participated in a western-style management training program. Of those who had, only 10% had been abroad for the training.

Hypothesis Testing

Firm-level data collected from 159 interviews conducted between 1994 and 1996 are used here to evaluate whether managers as a group received above-average income, wealth, power, prestige, or job security. Given these data,

however, we are obliged to use a number of strategies to “test” our hypotheses about within-group differences. In all instances we apply the “preponderance of evidence” test; that is, the degree of unanimity in response patterns as a means of evaluating the validity or robustness of a particular result. Second, where sample size permits, we use regression analysis or analysis of variance to assess the significance of differences in response patterns by geographic location, industry or sector, ownership structure, and training experience.

III. Empirical Results

Are managers winners or losers in Russian economic reform? Our analysis focuses on five hypotheses.

Hypothesis 1: managers are more likely than workers to be winners.

We were able to collect comparable wage data for workers and managers in about half of the participating firms; that is, we asked managers to report the average monthly wage and the average management salary at their company. It is likely that the discrepancy between the responses and reality was greater for reported management salaries than for workers' wages, although under-reporting might occur with respect to both, given the excess wage tax policy in place at the time the interviews were conducted. The gap in reported wages and salaries averaged about 65%, and varied somewhat by industry and ownership structure, as well as over time. That is, in 1994 the wage-salary gap averaged 50%. It should be noted that this group of firms included few privately-owned companies; firms where we would expect the gap to be highest. In 1995, for the firms reporting both sets of numbers, the wage-salary gap ranged from 25-30% in agricultural machinery and other heavy industry plants to a five-fold gap in privately-owned companies. Excluding the five outliers, those firms with a four- to five-fold wage-salary gap, the gap averaged about 55%. As expected, in firms where the product price was “controlled” either directly, or by the fact that the majority of sales were to state organizations (medical equipment, for example), the wage-salary gap was smallest. Similarly, in firms that had been closed for several months during the year in which the interview took place, the wage-salary gap was smallest. Among the privatized firms, the wage-salary gap was high (45-75%) in firms producing for consumers. Two privatized firms in heavy industry, a tractor components plant and a steel pipes plant, also reported a wage-salary gap exceeding 70%. In 1996, the average wage-salary gap exceeded 75%. We note that in both 1995 and 1996, about one-third of the firms responding to both wage and salary questions were privately owned. As measured by income, these results indicate that managers as a group would be categorized as winners. To the extent that wealth is highly correlated to income, it is likely that managers would be categorized as winners by this measure, also.

As measured by prestige or power, managers as a group in comparison to workers would be categorized as winners. Nothing in the interviews, nor in the Russian press, indicates a decline in the relative prestige associated with the occupation of enterprise manager. However, managers of private firms were more likely to attach an element of risk to their occupation than managers of privatized or state-owned firms. To the extent that power is measured by the ability to affect a particular outcome, managers as a group would be better positioned than workers. This is evident in managers' descriptions of policy-setting; even in privatized firms where employees were shareholders, managers attributed little, if any, power to employees in affecting production or employment outcomes. Moreover, managerial power in influencing local economic outcomes by establishing surrogate industrial currencies in lieu of the ruble is described in some detail by Woodruff (1996).

In terms of the last measure, job security, managers as a group may not fare much better than workers. In the majority of privatized firms participating in this project, the current manager had recently been installed. In privatized firms where employee ownership fell below 30% (from the 51% + of the shares that they had obtained during the privatization process), this situation was the norm.

Hypothesis 2: Managers in Moscow more likely than those in the provinces to be winners.

Our data reveal a clear capitol city effect on income, and on select measures of power and prestige. That is, we asked managers about average monthly wages paid to workers. Managers of firms that paid relatively high wages were located in Moscow. We asked about current production and employment levels relative to those of 1990. In Moscow, in comparison to the other regions included in this study, the percentage decrease in both production and employment that was reported by managers was less. In short, as seen in Table 6, managers in Moscow were more likely to avoid implementing wage, production or employment reductions. There is, no doubt, a significant amount of multicollinearity embedded in these results.²² A comparison of 1992 and 1995 firm-level data (*BusinessMap* 1993 1995), however, also captures the same trend: Moscow firms are more likely to maintain, on average, a larger workforce. Whether this means all reported workers are actually on the job and regularly receiving a wage is another matter entirely.

Moscow is reported to have among the highest office rental rates in the world. Leasing, therefore, represents an

²² A greater diversity of ownership structures was put in place in Moscow much earlier than in the rest of the country (Linz 1996, Appendix A). Thus the incentive to acquire western-style training and/or to lease or otherwise use public assets to establish a significant market share prior to the transition process would give Moscow firms/managers a competitive edge during the transition. In such a situation, these firms would be better positioned to avoid dramatic changes in production or employment, and better positioned to pay higher wages.

Table 6: Capital City Effect

Location	Dollar Wages	% Change Output Since 1990	% Change in Employment Since 1990
Moscow	159.16	13.17	4.69
Tver	-48.07*	-25.65	10.38
Novosibirsk	-15.39	-39.97	-21.89
Nizhny Novgorod	-77.41*	-35.94	-16.64
Rostov/Taganrog	-66.44*	-37.17	-43.44
Volgograd	-46.05*	-17.17	-39.26
Mean of Sample	118.18	-9.24	-10.26
Sample Size	143	85	118

* Statistically different from Moscow at 5% level or less.

attractive option for Moscow firms, and is particularly valuable for non-competitive or financially-distressed firms in the capitol city. Renting out space is more lucrative in Moscow, where the demand by both domestic and foreign firms is high, than in the provinces where the overall demand is much less. Leasing has the potential to generate a substantial cashflow. In 1995, one Moscow respondent reported financing a significant fraction of the company's (relatively high) wages from the (even higher) rents they charged for space in their facilities; exorbitant rents had become commonplace in central Moscow as early as 1993.

We do not claim that a Moscow address is sufficient to ensure success; managers in Moscow are not guaranteed winners. The unique situation in Moscow presents difficulties for financially-distressed firms. Such differences in economic circumstances emerged from the interviews with managers. For example, one manager lamented that due to Moscow's robust labor market, he was less flexible in scheduling production, and frequent shut downs induced his best workers to leave:

"Our competitor (in Volgograd) is more flexible. They can switch production more rapidly than us and pay a much lower, two times lower wage, without fear of the social costs of extensive layoffs. In Moscow, if we lay off workers, we cannot rehire them in 2-3 months because these workers can find other jobs (must find other jobs in order to live). In the Volgograd plant, workers who are laid off have few other opportunities."

Two other managers lamented the fact that superior job opportunities in Moscow had led to the erosion in the quality of their labor force. One manager from a small firm that had faced a 90 percent decline in output during the transition stated: "We are dying in the workplace, (which is now) mostly women. The average age of our workers is high. Young people are not coming here to apply for work; (we face) no opportunity for growth." The second manager is from a much larger firm which had witnessed a rather significant employment decline: workforce size fell from 11,000 employees in 1990 to 3,300 employees by the summer of 1996. The manager cited voluntary separations due to low wages as the primary reason why workers were leaving.

The transition process appears accelerated in the capitol city: non-competitive firms appear to decline more rapidly than their counterparts elsewhere, while up-and-coming firms pull ahead of the competition much faster than elsewhere. Moscow firms have more opportunities to take advantage of better access to reliable financing and face a more extensive market, albeit with more discriminating consumers. Hence the process of sorting out winners and losers among managers is more evident in Moscow. Managers in these rising firms have seen their empires grow in size and stature and have led the way to the ranks of the *nouveaux riche*. Managers of declining firms have seen severe declines in employment and relative standards of living of their workers.

Hypothesis 3: Managers in companies that received high priority in the Soviet economy are less likely to be winners than managers who worked in (former) low priority industries.

Our hypothesis that managers in industries accorded high priority in the former Soviet Union are no more likely to be categorized as winners than their low-priority counterparts is based on the premise that managerial status will be strongly influenced by firm performance. We expect to find differences across priority industries correlated to the technological level of the industry. That is, managers of firms in metallurgy where the technology level is relatively low, and thus the gap with world standards is less, are likely to be better off than managers of firms in electronics-related industry (televisions, computers, communications equipment and so forth). In the latter case, many of these firms are in the (former) military-industrial complex and have elected to expand their production of civilian consumer goods. In electronics-related industries, world-practice technology is higher than that available domestically, so firms in these "hi-tech" industries are unlikely to sustain their market share in the presence of foreign competition.²³

To evaluate relative firm performance by industry, we use three measures: average wages paid to all workers (measured in current dollars), percent change in employment (from 1990) and percent change in output (from 1990). Firms that pay higher average wages, and which have witnessed smaller employment and output declines, are more likely to be long-run survivors and hence emerge from the transition as "winners." The results of our empirical analysis are presented in Table 7.

Table 7 (panel A) is based on reported average monthly wages paid to workers in the firms surveyed in 1994, 1995 and 1996. Ruble wages were converted into current dollars using the IMF (CD-rom) ruble/dollar exchange rate from the second quarter of each year, the period in which most interviews took place. Firms were grouped by industry, and an industry mean wage calculated. Evident in panel A is the increase in average wages, as well as the increasing inequality across industries over time. Regression analysis shows that in 1994, average wages were not significantly higher in any industry represented by the firms in our sample than in the former high priority sector, machine building and metal working (MBMW). That is, the Soviet legacy of according high priority to MBMW appears to have carried over until 1994 in terms of wages. This would affect managerial income, wealth, prestige and power; thus managers in these industries initially would be classified as winners in the Russian economic reform process. By 1995, however, we

²³ The *Elex* company is a good example of this phenomenon. *Elex*, located in Alexandrov, just outside of Moscow, was the first large Russian company to be privatized. It terminated production of television sets and VCRs within one year. When Linz met with top-level managers in 1992, the director described the impossibility of competing with foreign products, wishing for a return to the technology blockade by the U.S. and other countries.

Table 7: Industry Effect

A. Average Employee Wages (Current Dollars)^a

Industry/Sector	1994	1995	1996
Machine Building	88.62	92.45	122.10
Const./Transportation	112.25	65.11	152.94
Chemical/Petrochem	133.34	168.40*	274.51*
Metals/Metallurgy	n.a.	99.43	166.67
Food Industry	121.00	111.93	220.91*
Light Industry	80.00	63.99	117.65
Consumer Durables	82.00	86.74	90.59
Other Industry	n.a.	90.91	98.04
Services	n.a.	125.00	111.52
Mean of Sample	101.36	101.34	147.93
Sample Size	22	71	49

B. Employment (% change from 1990)

Industry/Sector	1994	1995	1996
Machine Building	-22.04	-33.56	-49.45
Const./Transportation	-31.03	-64.00	18.75
Chemical/Petrochem	-10.00	-18.52	-11.28
Metals/Metallurgy	-10.00	-21.50	-25.00
Food Industry	53.61*	9.81*	188.02*
Light Industry	-16.16	-47.72	-35.45
Consumer Durables	-32.15	-53.33	-69.01
Other Industry	n.a.	-39.75	n.a.
Services	n.a.	-45.33	-39.33
Mean of Sample	-6.89	-29.52	9.03
Sample Size	27	48	42

C. Output (% change from 1990)

Industry/Sector	1994	1995	1996
Machine Building	-40.56	-48.24	-64.00
Const./Transportation	-25.50	-60.00	40.00
Chemical/Petrochem	-34.04	-55.00	-62.33
Metals/Metallurgy	n.a.	n.a.	-31.25
Food Industry	4.68	27.86	53.25*
Light Industry	-24.00	-45.75	-25.42
Consumer Durables	12.50	56.67	70.50*
Other Industry	n.a.	n.a.	n.a.
Services	n.a.	n.a.	50.00
Mean of Sample	-17.16	-10.42	-3.26
Sample Size	24	22	38

* Statistically different from MBMW at 5% level or less.

^a Calculated using IMF ruble-dollar exchange rate for second quarter of given year.

find that firms in chemicals/petrochemicals (also accorded high priority in the Soviet economy) were paying significantly higher wages than in MBMW, and significantly higher wages than most other industries represented by our sample as well. The wage differences increase by 1996, both in terms of magnitude and in terms of number of industries paying higher wages (e.g., food processing and metallurgy). We note that multicollinearity, to some extent, is affecting these results: a large fraction of our food industry observations come from Moscow and Tver (Moscow region), as are three of the five firms from the chemical/petrochemical industry. The fact that average wages in light industry and services are not significantly lower than MBMW speaks volumes about the growing status of managers in these sectors.

In Table 7, panel B, the percentage change in employment is reported by industry for the firms participating in this study. Managers were asked about workforce size in 1990, and workforce size at the time the interview was conducted. Thus in each year the numbers compare to 1990, not to the previous year. As is evident in panel B, in terms of workforce downsizing, there is significant variation over time and across industries or sectors of the Russian economy. For many firms in our sample, 1995 represents a watershed year. The biggest reductions in workforce size had occurred by mid-1995: the mean for 1995 is a nearly 30% reduction in workforce size in comparison to 1990; the mean for 1996 is less than 10% reduction in workforce size in comparison to 1990. Comparatively speaking, these firms had stabilized or increased their workforce by 1996. The two exceptions to this are MBMW, where employment was still declining in 1996, and firms in the food industry, where employment has grown continuously for all three years.

We follow a similar procedure for calculating percentage change in output: managers were asked about current production levels in comparison to the 1990 level. Overall, fewer managers responded concretely to this question than to the employment/workforce size questions. As seen in Table 7, panel C, although the sample size is relatively small, output fell by 20-40% in most industries in 1994; by 1995, the percentage change (reduction) in output in comparison to 1990 was 40-60%. Firms in the food industry and consumer durables provide exceptions to this trend, and by 1996, these results are statistically significant. That is, while other industries are following the general trend mapped out by MBMW, firms in the food and consumer durables industry are doing significantly better.

In sum, we found the largest declines in output in MBMW and in chemicals/petrochemicals (on average), and the largest declines in employment in MBMW, consumer durables and services, followed closely by light industry. Overall, Table 7 suggests consistent differences in potential survival rates between firms in MBMW and those in the food industry. This result is robust by all measures of survivability: average wages, changes in employment, and changes in output. Firms in the chemical/petrochemical branches seem to have fared better than their counterparts elsewhere, but

have nevertheless faced severe output declines. In terms of managerial fortunes, the stunning reversal in the fates of managers in MBMW and the once-lowly food processing branches is remarkable.

A concrete illustration of the differences in managerial situations comes from the experiences associated with a bakery and a machine tool company. The director of one of the bakeries in our sample had been removed from the party hierarchy for some transgression in the 1970s. Appointed as the director of the smallest bakery in the city, this individual fell to one of the lowest rungs on the ladder of success. The transition process brought about a reversal of monumental proportions. The bakery began paying among the very highest wages in the city, having increased overall employment by 5 times between 1990 and 1996. The company had almost no drop in total output; in fact, the company improved product quality and extended the assortment from black bread to a variety of breads and pastries. The company also introduced a new packaging process based on imported plastic materials. Wages paid by this bakery were sufficiently high that the manager not only was obligated to pay the excess wage tax (something of which the manager was proud), but which also attracted the attention of the local administration who wrote a letter suggesting that "perhaps the bakery might benefit from the managerial expertise of one or two of the best people from the local government."

In contrast, we offer interview evidence gathered from the management of one of the largest machine-tool manufacturers in the former Soviet Union. At the time the interview was conducted, this firm had experienced a 50% decline in output and an 80% decline in employment as compared to 1990. The company paid wages that were half that of the bakery. Moreover, wages generally were paid late and financed through bank loans. These wages differences are more remarkable when one notes that the vast majority of the employees in the bakery were young women; in the latter case they were older men. By 1995, the machine-tool firm was forced to vacate its managerial headquarters. All managerial and other staff were obliged to work at the production site.

Certainly in terms of status and prestige, based on the interviews we conducted, managerial personnel in the food industry appear to be winners relative to their counterparts in most branches of heavy industry. Our data also suggest that managers in the food processing branch have emerged as winners in terms of income. If these managers have obtained a significant ownership share of their company, and if this industry is indeed peppered with viable concerns, managers in this sphere will achieve long-run economic security, as well.

Hypothesis 4: Managers of state-owned enterprises are less likely to be winners than managers of privatized (former state-owned) or private firms.

Of the 159 interviews conducted, 102 were at privatized firms, 31 were at newly-created private firms, 16 were at state-owned firms, and 10 at firms that would be categorized as leased or other.²⁴ Our objective here is to utilize these data in order to determine whether ownership structure influences the potential of managers to be winners in Russian economic reform.

In order to determine whether ownership structure influences firm survival, and thus a manager's ability to emerge from the transition process as a winner, we used regression analysis to relate changes in employment, changes in output, and current wages paid to employees (measured in dollars) to ownership type: state-owned, privatized, private, and leased/other. Our regressions revealed no strong relationships between ownership type and survival potential, where survival potential is positively correlated with expanding (or minimally contracting) output, low change in employment level, and high average wages. There was a tendency for leased firms (those "privatized" before 1992) to pay higher wages and to have increased employment, especially in 1995 and 1996, but these results were not statistically robust. Moreover, certain ownership types tended to correlate with specific industries²⁵ and performance outcomes. For example, our privatized firms paid relatively low wages and had decreased employment substantially; however, this ownership category also correlated with firms in the poorly performing MBMW and light industry sectors. This simultaneity attenuates any survival effects that may result purely from differences in ownership.

Statistical analysis aside, interview evidence does tell an interesting tale about a particular type of firm: one that was leased prior to the initiation of economic reform, and then created a closed joint stock company prior to the privatization program implemented by Anatoly Chubais. The firms in our sample that were leased prior to the transition and later privatized tend to pay higher wages than most other firms in our sample. Moreover, many of these firms increased employment vis a vis the state-owned, newly-created or privatized firms in the sample. These differences are statistically weak and it should be noted that no significant differences were found relating ownership type to changes in output from 1990. The result that leased firms appear to be outperforming other types of ownership structures is at odds

²⁴ Firms in this category include: (i) those that were leased at time of interview, (ii) those at the time of the interview currently involved in the privatization process, and (iii) those that had begun "privatization" during perestroika by forming a workers' collective and leasing the facilities.

²⁵ Covariance analysis of ownership and industry generated correlation coefficients of .10 and .20 respectively for the ownership category *leased/other* and the industries of *consumer durables* and *food*. *State-owned* firms most likely in *construction/transportation* (correlation coefficient = .20) and *chemicals/petrochemicals* (correlation coefficient = .19). *Privatized* firms most likely in *machine building* or in *light industry* (correlation coefficients = .20 and .19, respectively). *Private* most likely in *services* (correlation coefficient = .50) or *other industry* (correlation coefficient = .20).

with most assessments of the leasing experiment and of governance structures in which insiders, especially nomenklatura, dominate privatization to the exclusion of other interest groups (Frydman et. al 1993, Brada 1996).

Upon reflection, there are several reasons why leased firms would do relatively well during the transition. Under the terms of the original experiment, leases were intended to be based on a competitive bidding process. However according to Frydman et. al (1994), no competitions were ever held and all leases were granted to insiders under the name of "work collectives." Eighty percent of the leasing agreements that were established contained redemption provisions which allowed leaseholders to purchase the leased equipment/property during, or at the end of, the lease.²⁶ Undoubtedly, self-selection took place, and managers of competitive firms would desire to participate in the experiment, while managers of non-competitive firms would opt out. Leaseholders were able to purchase their firms at rock bottom (1990 capital valuation) prices, in comparison to capital value prices which were later adjusted for inflation.

By essentially initiating the privatization process two to four years ahead of their peers, managers of leased firms would have had significant first-mover advantages. In the wide-open market of Russia's transition, these advantages would have been substantial. Moreover, the absence of bankruptcy laws and the continuance of state subsidies in the early phase of the transition not only provided a safety net, but also may have provided access to capital for those managers willing to restructure their operations. In such an environment, there was indeed little, if any, downside risk. As the transition progressed and subsidies were terminated, the economic and business environment imposed higher risks. Advantages confronting the leased-then-privatized firms were not available to most enterprises privatized under the Chubais program after 1992. Managers of leased enterprises appear to have had the best of all possible worlds: access to political and supplier networks; access that their newly-created counterparts lacked. These managers had a jump start on the transition process that their state-owned counterparts were denied.

Hypothesis 5: Managers who received western-style training are more likely to be winners than those who did not

About half of the managers were asked specifically if they had received any additional or specialized training in the past five years related to successfully performing the management functions at their company. Not unexpectedly, all managers expressed concern regarding the difficulty of successfully performing the job. Quite lengthy were the discussions of the punitive tax system, the numerous inspections by local and other officials, inter-enterprise arrears, lack

²⁶ Leasing of state-owned enterprises began in the early 1990s under decrees passed in 1989. Leasing became quite common, accounting for 13% of industrial output by February 1992 (Frydman et. al 1993, p. 22).

of payment from state organizations, impossibly high interest rates, unstable political conditions, and so forth. All agreed that they would need additional and on-going training to survive in such a world.

Regarding the correlation between training and above-average income, wealth, power, prestige and job security, there appears a significant amount of multicollinearity. That is, those managers who received training outside of Russia (less than 10% of those responding to the question) were affiliated with privately-owned firms that could finance such a trip. Most managers who received additional and/or specialized training within Russia, either traveled to Moscow, or participated in locally-provided sessions, funded and instructed in part by western organizations. Because the company paid the expense, these managers also are linked to financially viable firms. However, even though these data cannot be used to support the causality between western-style training and "winning," neither can they be used to support the reverse -- that is, managers without western-style training will be losers in Russia's economic reform. Quite the contrary, several managers who had not received specialized training were in charge of firms that were performing rather well. Similarly, other managers able to articulate the kind of financial, production, and employment strategy that one would expect to be associated with western-style training, had not, in fact, received any such training. The fact that their firm was performing rather poorly at the time, a metallurgy firm, for example, had more to do with the nature of market conditions.

What we had hoped to capture with the question was the propensity of the manager to successfully adapt to changing economic conditions. What we discovered was that this was only one of many signals of managerial adaptability. Used alone, it identifies managers of relatively rich firms, who may be using the experience to acquire additional training/experience/contacts, or who may be using the experience simply to acquire goods unavailable locally or take a break from the day-to-day operations of the company.

IV. Conclusions

Although our data are insufficient to unambiguously assess whether managers will emerge as long-run winners, our results suggest that, relative to other segments of society, they are winners in Russia's transition. A significant fraction of these managers have built their position through illegitimate means stripping assets from state-owned or worker-owned establishments. Moreover, many managers engaged in the less criminal, but perhaps more profitable, activity of writing the regulations and influencing the distribution of assets during privatization, seizing sizeable fractions

of their firms for themselves.²⁷

However unequal the initial distribution of wealth may have been during the early phase of the transition, a significant fraction of managers are making the best use of the resources at their disposal. These managers are pro-actively restructuring the operations of their firms, adding employment and paying above average wages, raising "all boats." Directors who fail to take advantage of these opportunities are increasingly being replaced by coalitions of younger middle managers, outsiders and workers.²⁸ In this sense Russia's economy is establishing, however slowly and imperfectly, an incentive regime that is rewarding good managers and punishing bad ones.

Pro-active restructuring remains elusive, however, for managers in many branches of heavy industry. Long term survival for many firms in these industries is doubtful. Managers in these sectors have, without doubt, suffered losses in prestige and security during the transition, whether or not they will eventually become impoverished remains to be seen.

The sustainability of the robust economic situation in Moscow, with correspondingly differential rewards for managers in the capitol is also uncertain. Several managers indicated in 1995 and 1996 that the Moscow market had become saturated and was "no longer interesting for us." This firm which was based in Moscow was seeking to expand into other regions of the country and had recently set up operations in Nizhny Novgorod and St. Petersburg. If this is a widespread sentiment, we would expect the capitol city effect to diminish in the next several years, leading to some leveling in income and price differentials between the Moscow and the regions.

²⁷ One manager interviewed in 1996 explained the common practice of delayed wage payments was the result of managers using their power to literally starve workers out of their holdings of company stock in order to gain controlling interests.

²⁸ Blasi et al (1997, p. 203) reports that one third of firms in the Russian National Survey had replaced their director by 1996.

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