

“Loans for Shares” Revisited

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Abstract

The “loans for shares” scheme of 1995-6—in which a handful of well-connected businessmen bought stakes in major Russian companies—is widely considered a scandalous affair that had disastrous consequences for the Russian economy. Fifteen years later, I reexamine the details of the program in light of evidence available today. The critics were right that the scheme’s execution appeared corrupt. However, in most other regards the conventional wisdom turns out to be wrong. The stakes involved represented a small fraction of the market; the pricing in most cases was in line with international practice; and the scheme can only explain a small part of Russia’s increasing wealth inequality. The biggest beneficiaries were not the so-called “oligarchs,” but Soviet-era industrial managers. After the oligarchs consolidated control, their firms performed far better than comparable state enterprises and helped fuel Russia’s rapid growth after 1999.

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On November 3, 1995, in the remote Siberian town of Surgut, an auction took place for the right to lend the cash-strapped Russian government tens of millions of dollars. As collateral for the loan, the government had pledged a 40 percent stake in the country's fifth largest oil company, Surgutneftegaz. Two bidders made it into the auction room; a third had been disqualified because of problems with the applicant's paperwork. Had any others planned to fly out from Moscow to participate, they would have had trouble: the local airport mysteriously chose to close that day. When, late in the evening, the participants emerged, the winner turned out to be Surgutneftegaz's own pension fund.

Thus began what came to be known as "loans for shares." This program, under which stakes in 12 companies were eventually sold to selected private investors, quickly took on mythic proportions in accounts of Russia's economic transformation. Widely condemned, it became a symbol of all the errors and sins—real or alleged—of Yeltsin's reformers. The program was a "Faustian bargain," wrote one journalist, a "fiendishly complicated scheme," in which the liberal ministers had sold their souls to a cabal of unscrupulous tycoons, who—switching metaphors—quickly metamorphosed into a "Frankenstein's monster." It "deformed" the economy, "impoverished" the population, and laid "a corrupt, inegalitarian foundation for everything that came after it" (Freeland, 2000, pp.22-3, 169-89). Under loans for shares, contended one Nobel-prize-winning economist, the country's best firms were stripped of their assets. "The enterprises were left on the verge of bankruptcy, while the oligarchs' bank accounts were enriched" (Stiglitz, 2002, p.160).

Given the resonance the program had—and continues to have even 15 years later—it is worth revisiting the details to see how well the popular image fits the facts. Based on what we

now know, were the claims of the program's critics justified? Do the interpretations offered at the time fit the evidence available today?

The facts of the scheme were actually quite simple. The government gave—usually minority—tranches of shares in 12 large, state-owned corporations to certain businessmen to manage in trust, in return for loans to the federal budget totaling about \$800 million. Besides Surgutneftgaz, the companies included the oil corporations LUKoil, Yukos, Sidanko, and Sibneft as well as the nickel producer Norilsk Nickel and the Mechel and Novolipetsk Steel Works. If the government did not repay the loans by September 1996, the creditors were then allowed to auction off the tranches and keep 30 percent of any profit. In the event, the government did not repay the loans, and the creditors sold the stakes, usually to themselves. Competition was kept to a minimum through careful rigging of the auctions.

In this paper, I attempt to answer five questions. How large were the stakes involved? Did the auction winners underpay, and if so, by how much? Why did the government agree to the program? How was it implemented? And what consequences did it have for the companies involved, for the country's rate of growth, and for economic inequality? I find that the critics were correct that the scheme's execution appeared corrupt. It is also true that in the three years after the auctions, the winners did their utmost to squeeze out minority shareholders in ways fair and foul.

Beyond that, however, the conventional wisdom appears wrong on numerous points. I find that: the program's scale was far more modest than suggested at the time; the pricing was, in most cases, in line with international practice; the biggest winners were not the so-called "oligarchs," but entrenched Soviet-era managers; subsequent performance of the main loans for shares firms was far better than that of similar companies that remained state owned; and the dramatic output increases of the oligarch firms helped fuel Russia's impressive growth after 1999. In short, the way implementation of the scheme was handed over to interested parties was a

scandal, but there is little evidence that the program had most of the negative consequences attributed to it. On the contrary, it helped catalyze Russia's eventual rebound.²

HOW LARGE WERE THE STAKES INVOLVED?

Journalists characterized the 12 companies whose shares were pledged as the “crown jewels” and “behemoths” of the Russian economy (e.g. Freeland, 2000, p.170). From the coverage, one could easily get the impression that a large slice of Russia's industrial base changed hands in the operation. In fact, although some of the companies were significant ones, the scale was rather more modest.

The original plan had foreseen inclusion of 43 enterprises (Kokh, 1998, p.108). But the managers of most of these managed to arrange the exclusion of their companies, bringing the total down to 16. Four of these failed to attract a single bid. Of the 12 companies for which there were bids, most were already trading on Moscow's stock markets as of late 1995. If one values the shares pledged by the government at their market prices when the program began, their total value came to about \$1.5-1.9 billion, or 8-10 percent of the total capitalization of the Russian stock market at that time.³ For comparison, an estimated \$2.5 billion worth of stock in just the

² For an authoritative account of the ideas behind Russian privatization and how it was implemented in practice, see Boycko et al. (1995).

³ The figure is only approximate, since share prices were not available for two of the 12 companies—Sidanko, and the much smaller Nafta-Moskva. The market capitalizations of the stakes in the other 10 companies on October 2, 1995, as recorded in the database of the magazine *Ekspert*, sum to \$1.45 billion (<http://raexpert.ru/ratings/expert400/1995/capitalization/>), or 7.6 percent of the total market capitalization of \$19 billion (*Russian Economic Trends*, 1996, p.114). Supposing that Sidanko would have been valued similarly to the oil companies Yukos, Sibneft, or Surgutneftegaz, the 51 percent stake in it would most likely have had a market value of

company Gazprom was given away by the government in return for privatization vouchers around this time (see below).

Of course, the market was tiny in 1995. If one values the companies at their capitalization ten years later in 2005—after the new owners had restructured the companies and rising commodity prices had driven share prices much higher—the stakes would constitute a similarly small fraction of the market. At that point, the stakes pledged would total about seven percent of the market’s capitalization (or about 9.5 percent if one uses the value of Yukos in 2003, before the government began dismantling it).⁴ The total revenues of the 12 companies in 1995 amounted to less than nine percent of Russian GDP.⁵ By itself, the national electricity company EES had

somewhere between \$200 million and \$400 million. The market value of a 15 percent stake in Nafta-Moskva, an oil products trading company, would have been much lower. It is very unlikely that the total would have exceeded 10 percent of the market.

⁴ Calculated from the *Ekspert* database, www.expert.ru/ratings/. I take total market capitalization as \$548.6 billion, from the World Bank’s *World Development Indicators*. In 2005, figures are available for Sidanko, but not for Nafta-Moskva and the North-West shipping Company. These were small, and would not change the result much.

⁵ Figures from the *Ekspert* database and Sibneft’s 1996 financial statement. Revenues for the shipping companies and Nafta Moskva were not available, but since they did not make it onto *Ekspert*’s list of the 200 companies with the highest revenues, their revenues must have been lower than those of the 200th firm on the list. Supposing each of these four firms had revenues equal to those of the 200th firm, I arrive at a total of 8.97 percent of GDP. Of course, GDP measures value added, whereas the firms’ revenues do not take into account costs, so the nine percent figure exaggerates their contribution to GDP.

higher revenues than all 12 companies together. In short, the program involved several major firms, but the stakes transferred amounted to only a relatively small portion of the economy.

DID THE WINNERS UNDERPAY, AND IF SO BY HOW MUCH?

There are various ways one might assess the value of the stakes. One method would be to compare the Russian companies involved to others with similar assets in other parts of the world. Journalists looked at the valuations of Western oil companies per barrel of oil reserves and concluded that the Russian oil companies were grossly underpriced.

However, such comparisons are extremely misleading. The value of a company is not simply the sum of its assets. One must also factor in its liabilities and the risks. Many of the corporations whose shares were pledged had staggering debts, for which a new owner would become responsible. One subsidiary of Sibneft owed \$2 billion (Sborov, 1996). According to Khodorkovsky, when he bought into Yukos the company's debts came to \$3 billion (Pirani, 2000). Potanin said that Norilsk Nickel was losing \$800 million a year, and that its debts totaled \$2 billion (Brady, 2000, p.222). Even if they were exaggerating, the liabilities were known to be enormous and rising.

As for the risks, these piled up, layer upon layer. First, there was political risk. In late 1995, the Communist candidate, Gennady Zyuganov, was widely expected to win the June 1996 presidential election and to annul the loans for shares deals, most likely without compensation. For this reason, most foreign investors would not touch them. Berezovsky lobbied all his contacts in the West—at Mercedes, Daewoo, and in investment banking in New York—looking for partners to help bid for Sibneft. He found no takers. When he tried to persuade George Soros to put in \$10-15 million, the veteran investor advised him instead to sell out and flee Russia before a Yeltsin defeat. “This package is worth nothing,” Soros reportedly told Berezovsky's associate Alex Goldfarb. “I'll bet you a hundred to one that the Communists will win and cancel all these

auctions. And my advice to Boris is this: he should not do it either. He is putting into this all he has got, and he will lose it all.”⁶ Khodorkovsky also said he tried to find partners in the West, but the bankers he approached “looked at us as if we were crazy.”⁷

Even if Zyuganov and the Communists did not win power, to restructure the companies and make them profitable, the winners of the auctions would have to fight punishing battles against the entrenched, Soviet-era managers, with their contacts in local law enforcement and sometimes organized crime. In 1995, the main oil producing unit of Yukos, Yuganskneftegaz, was selling its output through a network of Chechen gangsters (Panyushkin, 2006, pp.82-92). Most of the oligarchs survived assassination attempts. There was no guarantee that the new stakeholders would prevail in the struggle for control. Meanwhile, the incumbent managers would be stripping value from the firms, selling their assets to keep them from the new investors. Simultaneously, the winners might face “greenmail” from minority shareholders, who would block restructuring in the hope of being bought out at an exorbitant price.⁸

A third layer of risk resulted from the dramatic fluctuations in the prices of the commodities that the pledged enterprises produced. Oil and nickel prices had plunged in the 1990s. They would fall still further in 1998. Not surprisingly, profits at these companies and their

⁶ This is Goldfarb’s account (see Goldfarb and Litvinenko, 2007, p.56). In his book *Open Society: Reforming Global Capitalism*, Soros writes that he abstained from investing in Russia at this time because “I did not like what I saw,” and recalls telling Berezovsky in January 1996 that if Zyuganov was elected, Berezovsky “would hang from a lamppost” (Soros, 2000, p.243).

⁷ Quoted in Freeland (2000, p.184).

⁸ Khodorkovsky claimed to be a victim of such greenmail in 1999 when the investor Kenneth Dart, who owned about 12 percent of three Yukos subsidiaries, sought to block restructuring unless he was bought out at a premium. Yukos engaged in various tricks to reduce Dart’s stake, and eventually settled with him. See Hoffman (1999) and Landers (2000).

share prices varied with the prices of their main products. At the same time, even a non-Communist government would be tempted to solve its budget problems by increasing taxation of the oil and minerals sectors. Thus, it was not clear how high after-tax profits would be even if commodity prices recovered.

To summarize, for these companies to become profitable with high share prices the Communists would have to lose the 1996 election, mineral prices would have to recover, the government would have to refrain from punitive taxation, and the new outside investors would have to succeed in forcing out entrenched managers and organized crime, overcoming “greenmail” from minority shareholders, and restructuring the companies. Given the low probability that all these things would come to pass, it is not surprising that the stakes sold for less than they might have been worth in a world with less risk. Nor is it surprising that in a number of cases, stakes in similar companies that the government tried to sell in these years failed to attract any buyers at all. In 1997, auctions of stakes in Tyumen Oil, Eastern Oil, Slavneft, LUKoil, and Rosneft all had to be postponed or cancelled for lack of bids (*Russian Economic Trends*, 1998a, p.90).

Another way to value companies is by reference to their market value at some point in the future. Thus, observers often claimed that the loans for shares stakes were sold very cheaply because the companies’ capitalizations later increased. Reporters expressed outrage that in late 1997 some of the loans for shares companies were valued at many times their capitalization in late 1995 when the program started (e.g. Klebnikov, 2000, p.207). Again, this ignores the risks involved. In fact, Russian markets crashed soon after the high 1997 valuations. By 1998 and 1999, the capitalizations of some of these companies had fallen far *below* their values when the loan auctions took place.⁹

⁹ According to the *Ekspert* database (www.expert.ru/ratings/), at the end of 1999 the capitalization of Yukos was \$235 million (compared to \$646 million in October 1995); that of

Indeed, any investor who had been willing to take risks similar to those the oligarchs took and had guessed as well as they did could have become comparably rich. The stocks of most publicly traded Russian companies appreciated astronomically in the years after 2000. Anyone who invested the same amount and bought a basket of Russian stocks on the market in 1998 would have been a billionaire ten years later.¹⁰ Most Western investors in 1998 were fleeing the Russian market. Had the oligarchs been as faint-hearted and sold out at that point, they would have *lost* millions of dollars from loans for shares. If one maintains that the oligarchs underpaid in 1995-6, then one must apparently also hold that those private investors who bought shares in the same companies on the open market in 1998 for even less than the oligarchs had paid were guilty of even greater underpayment.

The standard way to value firms is to look at what others were willing to pay for shares in them—that is, their share price and market capitalization—at a given moment. One assumes that the average buyer takes into account the company's debt, the risks involved, and other relevant considerations. If one calculates the value of the loans for shares stakes based on the companies' market capitalizations as of late 1995, one arrives at the figures shown in Table 1.

Norilsk Nickel was \$472 million (compared to \$694 million in October 1995); that of LUKoil was \$5.4 billion (compared to \$7.7 billion in 1995). The lower valuations could reflect mismanagement by the winning bidders. However, it was most likely caused in large part by lower commodity prices and a fall in international investors' interest in emerging markets.

¹⁰ Had an investor spent \$150 million on a basket of stocks tracking the RTS index at the bottom of the market in September 1998, his holdings would have been worth \$8.4 billion in May 2008; if he had made the same investment in November 1995, they would have been worth \$5.2 billion in May 2008. Even if he was tricked out of some of the value by dilution of shares or other sharp dealings, he would probably still be a billionaire.

Table 1 Estimating the value of the “loans for shares” stakes

	Shares pledged, % of total	Amount loaned, \$ mn	Total price received by state as of sale, \$ mn	Est. stock market valuation of stake Oct 1995, \$ mn	Est. stock market valuation of stake, Aug-Sep 1996, \$ mn	Est. discount (1995 valuation), %	Est. discount (1996 valuation), %
<i>Won by “oligarchs”</i>							
Yukos	45	159	159.8	290.5	298.4	45	46
Sibneft	51	100.1	107.3	128.1	230.0	16	53
Sidanko	51	130	130	n.i.	n.i.	n.i.	n.i.
Norilsk Nickel	38	170.1	230.2	263.6	321.1	13	28
Novolipetsk Metal	14.84	31	31	31.6	33.4	2	7
Murmansk Shipping	49	4.125	n.i.	10.9	n.i.	n.i.	n.i.
Northwest Shipping	25.5	6.05	n.i.	8.4	n.i.	n.i.	n.i.
<i>Won by company management—“red directors”</i>							
LUKoil	5	35.01	41.02	383.0	339.7	89	88
Surgutneftegaz	40	88.3 ^a	88.3	288.3	795.2	69	89
Nafta Moskva	15	20.01	n.i.	n.i.	n.i.	n.i.	n.i.
Novorossiysk Shipping	45	22.65	n.i.	38.1	40.1	n.i.	n.i.
<i>Won by other</i>							
Mechel	15	13.3	n.i.	2.5	n.i.	n.i.	n.i.
Total		780		1,445	2,058		

Sources: *Russian Economic Trends* (1997, p.108; 1998a, p.88; 1998b, p.44); *The Moscow Times* (August 1, 1996; August 30, 1996; September 3, 1996); *Ekspert* database. Total price received by state is adjusted for the creditor’s 30 percent commission on the sale. n.i.: no information. ^a winner also had to pay off \$227 million of the company’s tax arrears within 10 days.

On this basis, it appears that the winners received a discount relative to the current share price of about 13 percent for the stake in Norilsk Nickel, 16 percent for that in Sibneft, 45 percent for that in Yukos, 69 percent for that in Surgutneftegaz, and 89 percent for that in LUKoil. If we value the companies instead at their market capitalizations in August-September 1996 (the deadline for the government to repay the loans and reclaim the shares) the discount would be somewhat higher in most of these cases: 28 percent for Norilsk Nickel, 46 percent for Yukos, 53 percent for Sibneft, 88 percent for LUKoil, and 89 percent for Surgutneftegaz.¹¹ For these five

¹¹ In addition, some of the winning bidders were required to make large investments in the companies, which I do not take into account in calculating the discounts. Of course, they, as the

companies, based on the 1995 capitalizations, the total discount received came to about \$727 million; using 1996 valuations, it was \$1.36 billion.

If one accepts these rough estimates, they suggest several things. First, by this metric, the winners did pay less than the market value of the shares. Again, however, some context is useful. In fact, some discount is virtually universal in IPOs or major share issues by state-owned companies, and the discount tends to be large in developing and middle income countries. A discount is considered necessary to ensure the placement of large blocks of shares simultaneously. Laurin et al. studied privatizations in 10 emerging markets (other than Russia) and found that on average state companies that were privatizing underpriced their share offerings by about 34 percent relative to the stock price after the first day (Laurin et al., 2004, p.415). This was exactly the same average discount on share issue privatizations estimated by Jones et al. from data on 630 share offerings in both developed and emerging markets (Jones et al., 1999; Megginson, 2005, p.212). Ariff et al. examined 29 privatizations in Malaysia and Singapore and found that on average the Malaysian shares were sold at a 57 percent discount and the Singapore shares at a 29 percent discount.¹² In this light, most of the discounts for the Russian loans for shares companies do not look completely out of line.

Second, Table 1 suggests that the biggest winners from the program were not the so-called oligarchs—outside investors who raised their seed capital in trade and banking—but the “red directors”—insiders who used the program to consolidate control over companies they already managed. However one estimates the discounts, by far the largest went to the managers of LUKoil and Surgutneftegaz, who bought shares in their own corporations—in Surgutneftegaz’s

shareholders, would benefit from the value created by such investments. In some cases, it was reported that the investments were not made.

¹² That is, one day after the share issues, the Malaysian shares were worth 134 percent more and the Singapore shares were worth 42 percent more (Ariff et al., 2007).

case, using money from the firm's own pension fund. Valued at October 1995 share prices, the winners of the stakes in LUKoil and Surgutneftegaz got a total discount of \$542 million; on their stakes in Yukos, Sibneft, and Norilsk Nickel, Khodorkovsky, Berezovsky, and Potanin received a total discount of \$185 million.

For comparison, consider again the privatization of Gazprom, the most valuable corporation controlled by red directors. Of the 58.9 percent of the company's shares given away for privatization vouchers in the early 1990s, 10 percent were initially transferred to the company itself in return for vouchers and later sold at very low prices to affiliated firms "owned largely by relatives and associates of top Gazprom executives."¹³ Another 15 percent were distributed to the company's workers. Another 33.9 percent were sold at voucher auctions run by the company in different regions of Russia. In October 1995 as the loans for shares auctions got underway, Gazprom's market capitalization was \$4.3 billion.¹⁴ Thus, value worth \$2.5 billion was given away for vouchers, at least \$1 billion of this to the management and workers. Next to this, the roughly \$185 million discount to the three oligarchs looks somewhat less dramatic.

HOW WAS THE PROGRAM IMPLEMENTED?

The way the auctions were conducted—both those for the right to lend and those for the shares—gave the impression of blatant cronyism (Hoffman, 2003, pp.312-20). The winners often turned out to be front companies for the auctioneers themselves. Winning bids came in just marginally above the starting price. In some cases, arbitrary conditions were imposed that would be hard for any but the designated winner to fulfill. Surgutneftegaz held its auction in a remote Siberian

¹³ *Novie Izvestia*, 2 September 1999, pp.1-2. For more details on the voucher sales, see Shepherd (1993).

¹⁴ *Ekspert* database on capitalization, <http://raexpert.ru/ratings/expert400/1995/capitalization/>.

location and allegedly arranged the closure of the local airport. Some would-be participants were disqualified on what appeared to be technicalities or on grounds that might equally well have applied to the winners.¹⁵ More than once, a disqualified investor dramatically tore open his envelope to reveal a bid for tens or even hundreds of millions of dollars more than the winner had offered (Kokh, 1998, pp.121-6). The abuses were no worse than those occurring in thousands of companies around the country that were being privatized by insiders to themselves or their associates. But they were more public. For those eager to discredit privatization, the seamy spectacle was a godsend.

WHY DID THE GOVERNMENT AGREE TO THE SCHEME?

The idea for loans for shares, by all accounts, came from the banker Vladimir Potanin. Why did privatization chief Anatoli Chubais and then the rest of the government agree? Those involved mention several interconnected reasons. First, the authorities were desperate to raise money. Large revenues from privatization had been factored into the budget, and were vital to finance the deficit and prevent a relapse into hyperinflation, which was finally subsiding in 1995. But the Duma had imposed a ban on privatizing stakes in oil companies, and privatization had all but ground to a halt.¹⁶ As of September 1995, privatization had generated only 162 billion rubles (about \$36 million) of the 8.7 trillion rubles budgeted (about \$1.9 billion) (Brady, 2000, p.135). Without the roughly \$800 million provided by the banks in loans for shares, the government probably could not have sustained its victory over inflation.

¹⁵ Some of the apparent technicalities may not have been so technical; there were genuine questions about whether some of the bidders actually had the cash to pay the amounts they said they wanted to bid.

¹⁶ For the ban, see the Federal Budget Law, in *Rossiyskaya Gazeta*, April 13, 1995, Article 12.

Second, the privatizers were eager to inject competent management into the major industrial companies and begin restructuring. The old managers were diverting assets, running up billion dollar debts, and not paying their workers. Dislodging the more corrupt and incompetent red directors would get much harder if, as expected, the Communists increased their control over parliament in the December 1995 election. These enterprises would remain stuck in the state sector for years, unreformed, inefficient, and holding back any recovery rather than fueling it. Loans for shares was a way to circumvent the Duma's ban on privatizing oil companies and get private entrepreneurs into management positions. This was the argument that Chubais emphasized in discussions with international institutions such as the World Bank and IMF.¹⁷

Third, the program had an explicitly political subtext. With the presidential election around the corner, winning the support of the new private business elite was thought crucial to Yeltsin's reelection. The two-stage set-up of the program—with the loans made before the election, but the auction of the shares only after it—gave the participants a strong interest in preventing a Zyuganov victory. Although critical of how the auctions were conducted, Yegor Gaidar, the former prime minister, agreed that without the scheme “Zyuganov's chances of winning the elections would have been substantially better, and maybe he would have been unbeatable.”¹⁸

Although co-opting the new private business sector does seem to have been part of the motivation, this raises further puzzles. Even without loans for shares, the tycoons would surely have supported Yeltsin; they had plenty of other reasons to fear the restoration of communism. In the event, even those who lost out in loans for shares rallied to Yeltsin's side. Vladimir Gusinsky did not win anything, but he nevertheless pressed his NTV television network into service for the

¹⁷ Personal communication from Martin Gilman, IMF representative in Russia at that time, June 23, 2009.

¹⁸ Quoted in Hoffman (2003, pp.312-3).

campaign. Moreover, if David Hoffman of *The Washington Post* is correct that the oligarchs actually made net profits from the election campaign through special deals with low-cost government bonds, then additional financial sweeteners were hardly needed to win their support.¹⁹

Even if such electoral considerations motivated the program's introduction, they do not explain why the government did not raise the money to repay the loans in August 1996 after Yeltsin had been reelected and the danger of Communist *revanche* had passed. Admittedly, the government was extremely short of cash. But had it raised the eight hundred million dollars to repay the loans, it could have earned even more by reselling the stakes to the highest bidder. The market price of some of these had risen considerably since the previous year. Instead, Potanin, one of the winners, was brought into the government.

Until Chubais or another insider publishes a frank memoir, we will not know the answer to this. Critics of the government often imply that the reason was straightforward corruption on the part of individuals involved. But no concrete allegation of a payoff has surfaced. This is somewhat surprising given that Gusinsky and Berezovsky fell out with the government reformers in 1997 over the sale of a stake in the communications monopoly Svyazinvest to Potanin and used their press holdings to deluge their adversaries with mud.²⁰ At that time, the two media magnates

¹⁹ See Hoffman (2003, pp.348-51). On the other hand, in April 1996, after the head of the privatization agency, Aleksandr Kazakov, and prime minister Chernomyrdin discussed out loud the possibility of paying back the loans rather than letting the banks sell the shares, the magnates did begin an odd flirtation with Zyuganov, issuing an appeal to all sides to cooperate and meeting with the Communist leader to discuss such cooperation (*Moscow Times*, 1996; Gurushina, 1996). Whether they were trying to scare the Kremlin by this is not clear.

²⁰ Gusinsky had not participated in loans for shares, and so could have accused the government of corruption in this without incriminating himself.

publicized the fact that advances of \$90,000 had been paid to five members of the privatization team for chapters they were to write in a book on privatization.²¹ However, these honoraria were alleged to be hidden payoffs related to the Svyazinvest deal, not to the original loans for shares transactions. Ironically, what caused the oligarchs' ire over the Svyazinvest deal was that it had been completely honest: the price was very high, and there was no rigging of the bids in Gusinsky's favor.²²

My guess is that in the summer of 1996, the key players were simply too preoccupied with getting Yeltsin heart surgery and keeping him alive to contemplate reversing the loans for shares deals. They only had a couple of months between Yeltsin's election victory and the deadline for repaying the loans. The battle with the loans-for-shares winners would have been bruising, as demonstrated by the clashes later over Svyazinvest. With the president extremely sick, the reformers may have simply thought such a course too dangerous.

HOW DID THE CHANGE IN OWNERSHIP AFFECT THE COMPANIES' PERFORMANCE?

Did the new owners depress investment and output growth and strip their corporations' assets, as the critics claimed? In fact, the oligarch-controlled companies performed extremely well, and far better than many comparable enterprises that remained controlled by the state or by their Soviet-era managers.

Initially, the oligarchs faced formidable challenges—wrestling control from the existing management teams, cleaning out organized crime from the factories, dealing with the corporations' massive debts, and consolidating ownership. The first priority of Khodorkovsky,

²¹ Such honoraria were perfectly legal, but seemed large. The recipients said they were donating 95 percent of the amount to charity. The book was published in 1999.

²² See Hoffman's detailed account (2003, pp.372-96).

Potinin, and Berezovsky was to increase their stakes in the companies and in their subsidiaries, and they pursued this end aggressively, breaking or at least bending the law where necessary. In some cases, the oligarchs diluted the ownership of minority shareholders through additional share issues. The tricks they used were not particularly original—they had been tried and tested in economically rising countries around the world, including in the US oil industry of the early 20th Century, where business tactics included extortion, theft, and even murder (Landers, 2000). Of course, their lack of originality does not make such practices any more defensible.

After they had consolidated their ownership, the Russian tycoons ran their companies far better than they had been managed before the takeover. They were interested in attracting foreign investors and reselling stakes for a profit. To do this, they needed to restructure their companies, introduce international standards of accounting and disclosure, and appoint independent board members. Yukos and Sibneft brought in the oil service firms Schlumberger and Halliburton to help extract oil more efficiently. Khodorkovsky hired 20 executives from French, US, and other foreign firms (Landers, 2000). Their output soared. Yukos under Khodorkovsky underwent a striking transformation from one of the most disreputable companies to a leader in transparency and corporate governance.

Between 1996 and 2001, reported pretax profits of Yukos, Sibneft and Norilsk Nickel rose by 36, 10, and 5 times respectively (this despite only a modest increase in the oil price from \$21 to \$24 a barrel).²³ By 2005, profits at Sibneft and Norilsk had grown another 55 and 96 percent respectively (by that time Yukos had been dismembered by Putin's tax collectors). Productivity—measured in dollars of revenue per worker—rose much faster in oligarch-owned oil companies than in similar state-owned enterprises or those still under Soviet-era management,

²³ Profits calculated from figures in *Ekspert* database, www.expert.ru/ratings/, deflating by the CPI; oil price is annual average price for Brent crude, from *BP Statistical Review of World Energy*, June 2009.

which also did better than the state-owned enterprises (see Figure 1). The stock prices of the privatized companies also exploded upwards. Between the end of 1996 and the end of 2003, Sibneft's market capitalization increased by more than 10 times, and that of Yukos by more than 50 times in dollar terms.²⁴ (During this period, the RTS market average increased by about three times.) Nor was it the case that the oligarchs had simply chosen for themselves the companies with the best prospects. As Figure 1 shows, productivity in the oligarchs' oil companies when they bought their stakes in 1996 was lower than that in either the largest state-owned companies or those controlled by red directors.²⁵

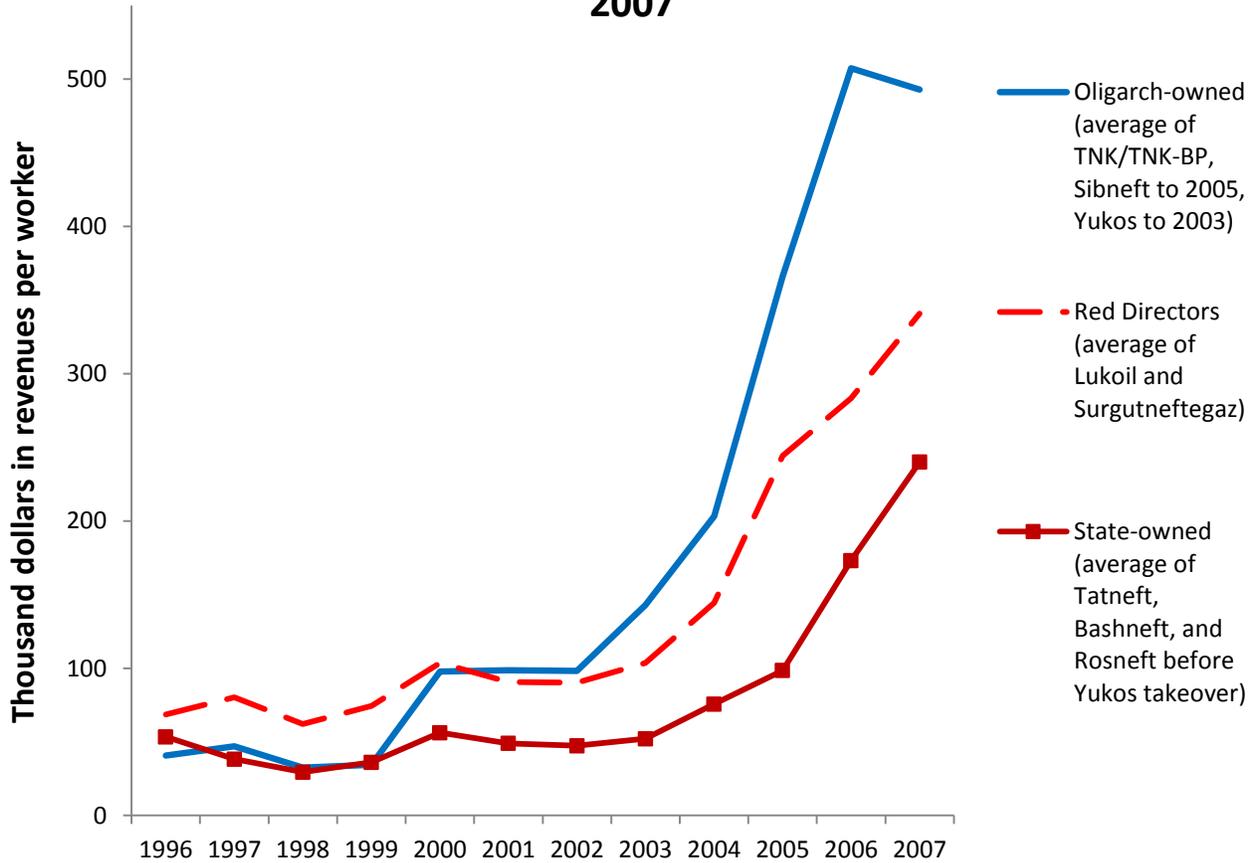
Were the oligarchs stripping assets from the companies they controlled? They certainly reduced the value of the shares held by minority shareholders initially. After the 1998 crisis, they defaulted on loans to Western banks. But after the oligarchs consolidated control, their companies' audited financial statements suggest that far from stripping assets, they were actively investing, building plants, replacing equipment, and developing their property. Between 1998 and 2003, annual "upstream" investment in the two oligarch-controlled oil companies Yukos and Sibneft increased by about 140 percent (see Table 2). In the first 10 months of 2003 (before the Kremlin's assault), Yukos' upstream investments came to \$1.1 billion, substantially more than those of any other Russian oil company. By 2005, Norilsk Nickel was investing more than \$700

²⁴ Calculated from *Ekspert* database, www.expert.ru/ratings/, which gives capitalization for Sibneft and Yukos respectively in 1996 as \$1.29 bn and \$646 mn, and in 2003 as \$13.2 bn and \$32.8 bn.

²⁵ A number of other studies have also found better performance in the oligarch-owned companies than in other Russian-owned companies (although those owned by foreign investors tend to do best of all). See Guriev and Rachinsky (2005) and Boone and Rodionov (2001).

million a year. There is no evidence here that the oligarchs' companies were increasing their capital spending more slowly than their counterparts.²⁶

Figure 1. Productivity of Russian oil companies, 1996-2007



Source: Calculated from *Ekspert* database (www.expert.ru/ratings/), checked where possible against audited company financial statements; press reports for some employment figures.

²⁶ My point here is not that the oligarchs were investing more than the Soviet era managers of LUKoil and Surgutneftegaz; as Table 2 shows, they were also investing a lot.

Table 2 Assets and investment of three “loans for shares” companies

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Yukos											
Total assets, bn \$	4.7	5.2	5.3	6.0	10.3	10.5 ^b	14.4 ^b	18.5 ^f			
Net additions to property, plant, equipment mn \$			194	226	589 ^b	954 ^b	1263 ^b				
Upstream capital spending, mn \$			467	92	295	592	742	1,124 ^e			
Sibneft											
Total assets, bn \$	7.6	5.6 ^d	5.0	4.3	4.6	5.7	7.5	8.2	10.3	10.6	14.1
Capital expenditures, mn \$	725 ^a	535 ^a	191 ^a	120	231	619	959	985	889	1525	1067
Upstream capital spending, mn \$			194	73	203	534	494	459 ^e			
Norilsk Nickel											
Total assets, bn \$				6.6	7.2	10.9 ^c	9.7	11.3	13.6	14.7	16.3
Additions to property, plant, equipment, mn \$			117	146		482	348	440	618	773	743
Memo:											
LUKoil											
Upstream cap. spending, mn \$			447	284	718	1,118	737	794 ^e			
Surgutneftegaz											
Upstream cap. spending, mn \$			627	573	1,114	1,374	1,155	922 ^e			

Sources: Company annual reports and audited financial statements, adapted and updated from Shleifer and Treisman (2005); Grace (2005, p.122); upstream capital spending from OECD (2004).

^a net additions to capital assets; purchase of capital assets.

^b as in 2002 Annual Report.

^c restated in 2002 Annual Report.

^d book assets reduced by \$1.3 bn because of accounting change.

^e Jan-October 2003.

^f as of third quarter.

In fact, the most serious asset stripping scandals involved companies in which the state retained large stakes. In the 1990s, Gazprom’s management was accused of diverting assets into a network of companies owned by the managers (Åslund, 2007, p.142). Assets of the state-owned airline Aeroflot fell between 1997 and 2002.²⁷ Indeed, it is striking how differently the oligarchs behaved in companies they owned and in those where they merely influenced the management (such as Aeroflot, where Berezovsky had partial control). The claim that they privatized firms in order to strip assets gets it backwards. They—along with the red directors—stripped assets from *state*-controlled companies in order to accumulate funds to buy shares when such enterprises were sold. The need to stop such theft was one of the main reasons to hasten privatization.

²⁷ Data from Aeroflot’s annual financial statements.

HOW DID THE OLIGARCHS' CONTROL OVER MAJOR COMPANIES AFFECT THE RUSSIAN ECONOMY?

Did the after-effects of loans for shares depress economic growth? In fact, the opposite is true. Russia's rapid growth in the years from 1999 to 2004 was catalyzed by the extremely high growth of oil production in the oligarchs' companies. Between 1999 and 2003, revenues of Yukos, Sibneft, and Norilsk Nickel grew much faster than GDP.²⁸ The output of oil and gas condensate of the companies sold to oligarchs in loans for shares (Yukos, Sibneft, Sidanco) rose by 62 percent between 1999 and 2003; output of the two companies sold to red directors (LUKoil and Surgutneftegaz) rose in the same years by 46 percent; that of the three state-owned oil companies Rosneft, Tatneft, and Bashneft rose by just 15 percent (OECD, 2004, p.85).

Did loans for shares "impoverish" the population? It is hard to see how. The proportion of the population with incomes below the poverty line averaged 28 percent in the four years before loans for shares; in the four years after the program, the proportion averaged 24 percent. Since then, the poverty rate has fallen to 13 percent (Goskomstat Rossiiskoy Federatsii, various years). What about inequality? The wealth of Russian big businessmen did expand dramatically in the years after the loans for shares sales, and this must have exacerbated wealth inequality. However, this was true of both those who participated in loans for shares and the many more who did not. Fortunes were created by the rise in world commodity prices, the restructuring of Russian enterprises, and the consequent ascent of the Russian stock market. By 2008, there were 87 Russians on *Forbes'* list of the world's 1,125 billionaires. Of these, only eight had anything to do

²⁸ My calculations from the *Ekspert* database, www.expert.ru/ratings/.

with the loans for shares auctions.²⁹ In fact, only three of the seven original oligarchs that Berezovsky mentioned in his famous 1996 *Financial Times* interview—in which he claimed that he and six other bankers together controlled half the Russian economy—won anything in loans for shares.³⁰ Two—Mikhail Fridman and Pyotr Aven—complained angrily about their exclusion.

²⁹ These were Boris Berezovsky, Roman Abramovich, David Davidovich (of Abramovich's Millhouse), Vladimir Potanin, Potanin's partner Mikhail Prokhorov, Vagit Alekperov and Leonid Fedun of LUKoil, and Vladimir Bogdanov of Surgutneftegaz. See http://www.forbes.com/2008/03/05/richest-people-billionaires-billionaires08-cx_1k_0305billie_land.html.

³⁰ See Freeland et al. (1996). The seven bankers mentioned were Berezovsky, Mikhail Khodorkovsky (of Bank Menatep), Mikhail Fridman and Pyotr Aven (of Alfabank), Vladimir Gusinsky (of Most Bank), Aleksandr Smolensky (of Stolichny Bank), and Vladimir Potanin (of Oneksimbank). Berezovsky's claim was demonstrable nonsense. Even if we assumed—wrongly—that they had full control already over the companies in which they were managing stakes under the loans for shares program, the total revenues of the seven tycoons' main industrial properties in 1996 would come to about six percent of GDP (or 7.7 percent of total value added of the non-state sector). This is the total for Norilsk Nickel, Novolipetsk Metal Works, Sidanko, Yukos, Sibneft, AvtoVAZ, Mechel, Apatit, and Aeroflot, calculated using the *Ekspert* database. Including the revenues of their banks, television companies, and shipping companies (for which figures were not available) would increase the total, but it is hard to imagine it would end up above 10 percent of GDP. If we take into account that oil companies often engaged in transfer pricing, so that part of the value was realized by trade companies rather than the oil company itself, this could conceivably raise the oligarchs' holdings to 15 percent of GDP. Still the 50 percent claim was widely repeated as if credible by both the tycoons' promoters and their detractors.

Even Berezovsky only got in at the last minute. The loans for shares winners were a small subset of Russia's wealthy at the time, and an even smaller subset today.

CONCLUSION

In the loans for shares program of 1995-6, stakes in state-owned enterprises valued by the market at around \$1.5-1.9 billion were sold to a mix of brash private entrepreneurs (“oligarchs”) and Soviet-era industrial managers (“red directors”) for about \$850 million.³¹ The details of the arrangement and the way the auctions were conducted suggested blatant cronyism. Although the discounts on market prices for the stakes sold to the red directors were unusually large, the discounts on the sales to the oligarchs were in the range customary for emerging market privatizations. The value of the stakes involved—amounting to less than 10 percent of total market capitalization at that time—was less than the market value of the shares in the single company Gazprom that were given away for free in return for privatization vouchers.

Those companies acquired by the oligarchs—after an initial period in which minority investors were squeezed out, often in disreputable ways—performed extremely well, reorganizing their operations and increasing productivity far faster than similar companies that remained state owned, and somewhat faster than those that were privatized to Soviet-era managers. The oligarchs' companies were the driving force behind the commodity boom of the early 2000s. Their very success made them attractive targets for takeovers—hostile or otherwise—by the new security service businessmen of President Putin's entourage.

³¹ To get the \$850 mn figure, I have added the loan amounts for Mechel, Nafta Moskva, and Murmansk, North-West and Novorossiysk Shipping to the total price received by the state for the other stakes, since I could find no information that the holders of the shares in these five companies had paid more than this in the subsequent auctions for the shares.

The Russian oligarchs were hardly a unique phenomenon. As La Porta et al. have shown, concentrated ownership is common in most developing and many developed countries (La Porta et al., 1999). In Mexico, to take just one example, powerful families hold monopolies over the production of everything from cement to tortillas, and television is a duopoly of two competing tycoons (Coster, 2007). Telecommunications is dominated by Carlos Slim Helú—currently the world’s richest man, according to *Forbes*—whose career path surely rivals that of any Russian oligarch. In 1990, when Slim’s personal friend, Mexican President Carlos Salinas, privatized the national telephone company Teléfonos de México, or Telmex, Slim won, paying \$1.76 billion, in an auction that the loser claimed had been rigged.³² In 2009, Telmex’s market capitalization was about \$19 billion. That year, Slim’s companies controlled 92 percent of all the landline phones in Mexico and 73 percent of all its cell phones (Luhnow, 2007). When a rival took Telmex to court for monopolistic practices, Slim’s company got a judge to issue an arrest warrant for the rival’s top lawyer on trumped up charges, according to *The Wall Street Journal*. In 2000, President Vicente Fox appointed a former Telmex employee as his minister of communications (Luhnow, 2007). Similar stories of rapid ascents to billionaire status, apparently facilitated by personal connections and controversial privatization deals, can be told about dozens of businessmen throughout Latin America and Asia.

If the facts as presented in this article are correct, why were the scale, significance, and negative impact of the loans for shares program so exaggerated by contemporary opinion-makers? For different reasons, the mystique of the all-powerful oligarchs appealed to almost everyone (Treisman, 2010). It paid off richly, first of all, for the oligarchs themselves. Besides gratifying their vanity, it attracted investment partners and won these recent outsiders, who a few years earlier had been driving cabs or selling automobile parts, the respect and assistance of lower

³² Lacey (2009). Slim and Salinas both deny that there was anything untoward about the deal.

level bureaucrats. Among many ordinary Russians, it resonated with the suspicion of wealth and enterprise engendered by decades of communist socialization. For the Communists, the image of a clique of super-capitalists—many of them Jewish—manipulating the president was almost too good to be true.³³ For Western journalists, the oligarch saga made for a simple story that could explain the corruption and chaos of Russian politics to readers in terms of a few vivid personalities. For reformers in the government such as Boris Nemtsov, the oligarchs became a convenient excuse for failure and a target against whom public anger could be deflected.

In fact, the biggest winners from loans for shares—as from most controversial policies in the 1990s—were not the upstart entrepreneurs but the aristocrats of the old Soviet order who had occupied the commanding heights of industry as the ancien regime collapsed. Vagit Alekperov, the last acting Soviet oil minister, built the company LUKoil out of the country’s best oil fields and refineries, and then left government to become its president. In the course of privatization, LUKoil’s managers and employees obtained a major stake in the company—at least 36 percent as of 1996, by one estimate—only one seventh of this via loans for shares (Lane, 1999, p.28). By 2004, Alekperov had personally acquired 10.4 percent of the shares, which by 2008 would be worth \$6.7 billion.³⁴ Vladimir Bogdanov was the director of the oil company Surgutneftegaz in the late 1980s when reforms began. He shepherded the firm through privatization, using the

³³ Many of the top oligarchs had at least one Jewish parent. Casting a broader net, Sergey Braguinsky (2009) examined the backgrounds and history of 296 leading Russian business people from the period after 1995. He found a clear division between one class of “insider” businessmen, who had been in high administrative posts or enterprise management before 1991, and the “outsiders,” who were “younger, had higher human capital (i.e. had higher degrees from elite universities or institutes), and were disproportionately of Jewish ethnicity.”

³⁴ See Maass (2004). LUKoil’s market capitalization was \$64.4 billion in 2008 (*Ekspert* database, www.expert.ru/ratings/).

company's pension fund to buy 40 percent of the shares in loans for shares, at a very large discount on the market price. By 2008, Bogdanov's personal wealth was estimated by *Forbes* at \$2.6 billion (*Forbes*, 2008).

The red directors did not need loans for shares to achieve their objectives. In fact, they could usually entrench themselves even more effectively using the worker buyouts and voucher auctions of the mass privatization program. Viktor Chernomyrdin, the last Soviet gas minister, packed together the plants, refineries, and pipelines of the Soviet gas industry into the enormous, monopolistic concern, Gazprom. Later, as prime minister, he oversaw the company's privatization, in which almost 60 percent was given away for vouchers, much of it to the company's managers and employees. Rem Vyakhirev, Chernomyrdin's successor as Gazprom CEO, persuaded the government under prime minister Chernomyrdin to let him manage the remaining state-owned shares under a controversial trust arrangement. To prevent his ouster, he set up the rules so that the company's CEO could not be replaced without the unanimous agreement of the Board of Directors—a body that included himself (Panyushkin and Zygar, 2008, p.105). By 2008, the company was the world's fifth most highly valued, with a capitalization of \$307 billion.³⁵ Oleg Soskovets, the general director of the Karaganda Metals Factory in Kazakhstan, and then the last Soviet minister of metallurgy, served as Russia's first vice premier from 1993 to 1996. His deputy at the Karaganda Factory, Vladimir Lisin, ended up one of Russia's leading steel magnates, with an estimated personal fortune in 2008 of \$24 billion.³⁶

Some of the red directors undoubtedly transformed themselves into effective, modern managers, able to operate competently in a market environment. However, especially in the early years, their success had more to do with insider status. Their impact on the government's economic policy was incomparably greater than that of the oligarchs. It was thanks to their

³⁵ See *Forbes*, www.forbes.com/lists/2008/18/biz_2000global08_The-Global-2000_MktVal.html.

³⁶ The estimate is that of *Forbes*, as reported in *Moscow Times*, 2008.

lobbying that oil and gas prices were not liberalized for years in the early 1990s, creating billions of dollars of arbitrage profits for those in control of the plants. Soskovets obtained tax exemptions for the metals industry that, according to Åslund, were worth about two percent of GDP (Åslund, 2007, p.138). By contrast, the three years after loans for shares saw the oligarchs repeatedly thwarted in their designs and subjected to intensifying pressure to pay their companies' tax debts.³⁷

The loans for shares scheme was a public relations disaster. It did not by itself discredit privatization with the Russian public. Surveys show that privatization is unpopular in *all* the postcommunist countries of Eastern Europe, and less unpopular in Russia than in some others such as Hungary that had relatively uncontroversial privatizations.³⁸ But the negative image of the program became a resource for populists to exploit. It remains valuable to those in Russia who

³⁷ Three did, at one point or other, serve as executive branch officials. In 1992, Mikhail Khodorkovsky was an advisor to the Russian energy minister. For about six months in 1996-7, Vladimir Potanin served as deputy prime minister. Boris Berezovsky also served for about a year as deputy secretary of the Security Council. These jobs gave them the opportunity to lobby from inside the tent rather than from outside and to meddle in personnel matters. However, I am not aware of any decisions that were made under their influence while they were in government that the Prime Minister or President was not inclined to make anyway. In fact, the oligarchs lost almost all the main fights they were involved in during this period (see Treisman, 2010).

³⁸ Denisova and colleagues (2007) surveyed the populations of 28 countries and found that on average only 19 percent thought that privatized companies should be left in the hands of their current owners without any change. In Russia, the proportion saying this was 18.5 percent, in Hungary 13.3.

wish to improve perceptions of the current regime by contrasting it with the perceived corruption of the Yeltsin administration.

REFERENCES

Ariff, Mohammad, Dev Prasad, and George S. Vozikis, “Are Government-Linked IPOs Underpriced? A Three Country Privatization Effort Comparison,” *International Entrepreneurship and Management Journal*, **3**: 293–307, 2007.

Åslund, Anders, *Russia’s Capitalist Revolution: Why Market Reform Succeeded and Democracy Failed*. Washington, DC: Peterson Institute for International Economics, 2007.

Boone, Peter and Denis Rodionov, “Rent Seeking in Russia and the CIS,” Moscow: Brunswick UBS Warburg, 2001.

Boycko, Maxim, Andrei Shleifer, and Robert Vishny, *Privatizing Russia*. Cambridge, MA: MIT Press, 1995.

Brady, Rose, *Kapitalizm: Russia’s Struggle to Free its Economy*, New Haven: Yale University Press, 2000.

Braguinsky, Sergey, “Post-Communist Oligarchs in Russia: Quantitative Analysis,” *Journal of Law and Economics*, **52**: 307-49, May 2009.

Coster, Helen, “The World’s Richest People: Slim’s Chance,” *Forbes*, 26 March, 2007, available online at http://www.forbes.com/free_forbes/2007/0326/134.html.

Denisova, Irina, Markus Eller, Timothy Frye, and Ekaterina Zhuravskaya, “Who Wants to Revise Privatization and Why? Evidence from 28 Post-Communist Countries,” *American Political Science Review*, **103**, 2: 284-304, 2009.

Forbes, “The World’s Billionaires, 2008,” available online at www.forbes.com/lists/2008/10/billionaires08_Vladimir-Bogdanov_ITZ4.html.

Freeland, Chrystia, *Sale of the Century: Russia’s Wild Ride from Communism to Capitalism*. New York: Crown Books, 2000.

Freeland, Chrystia, John Thornhill and Andrew Gowers, “Moscow’s Group of Seven,” *Financial Times*, November 1, 1996.

Goldfarb, Alex and Marina Litvinenko, *Death of a Dissident: The Poisoning of Alexander Litvinenko and the Return of the KGB*. New York: Simon & Schuster, 2007.

Goskomstat Rossiiskoy Federatsii, *Rossiysky statistichesky yezhegodnik*, various years.

Grace, John D, *Russian Oil Supply: Performance and Prospects*. Oxford: Oxford University Press, 2005.

Guriev, Sergei and Andrei Rachinsky, “The Role of Oligarchs in Russian Capitalism,” *Journal of Economic Perspectives*, **19**, 1: 131-50, 2005.

Gurushina, Natalia, “Government Discusses Privatization,” *OMRI Daily Digest*, 78, April 19, 1996.

Hoffman, David, “Out of Step With Russia? Outsider's Battle Over Stake in Oil Giant Offers A Glimpse of Nation's Uncertain Capitalist Ways,” *The Washington Post*, April 18, 1999.

Hoffman, David, *The Oligarchs: Wealth and Power in the New Russia*. New York: Public Affairs, 2003.

Jones, Steven L., William L. Megginson, Robert C. Nash, and Jeffrey M. Netter, “Share Issue Privatizations as Financial Means to Political and Economic Ends,” *Journal of Financial Economics*, **53**, 2: 217-53, 1999.

Klebnikov, Paul, *Godfather of the Kremlin: Boris Berezovsky and the Looting of Russia*. New York: Harcourt, 2000.

Kokh, Alfred, *The Selling of the Soviet Empire*. New York: SPI Books, 1998.

Lacey, Marc, “Carlos Slim Helú: The Reticent Media Baron,” *The New York Times*, February 15, 2009.

Landers, Jim, “Oil Overflows in Siberia but Investing in it Is Risky Business,” *The Dallas Morning News*, June 23, 2000.

Lane, David, *The Political Economy of Russian Oil*. New York: Rowman & Littlefield, 1999.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, “Corporate Ownership around the World,” *Journal of Finance*, **54**: 471-517, 1999.

Laurin, Claude, Anthony E. Boardman, and Aidan R. Vining, “Government Underpricing of Share Issue Privatizations,” *Annals of Public and Cooperative Economics*, **75**, 3: 399-429, 2004.

Luhnow, David, “The Secrets of the World’s Richest Man: Mexico’s Carlos Slim makes his billions the old-fashioned way: monopolies,” *The Wall Street Journal*, August 4, 2007.

Maass, Peter, “The Triumph of the Quiet Tycoon,” *New York Times Sunday Magazine*, August 1, 2004.

Megginson, William L., *The Financial Economics of Privatization*. New York: Oxford University Press, 2005.

Moscow Times, “Kazakov wants oil stocks back,” *The Moscow Times*, April 10, 1996.

Moscow Times, “1 billion not enough for Forbes’ 100,” *The Moscow Times*, April 21, 2008.

OECD, *Economic Surveys: Russian Federation*. Paris: OECD, 2004.

Panyushkin, Valery, *Mikhail Khodorkovsky: vznik tishiny*. Moscow: Sekret Firmy, 2006.

Panyushkin, Valery and Mikhail Zygar, *Gazprom: novoe russkoe oruzhie*. Moscow: Zakharov, 2008.

Pirani, Simon, “Oligarch? No, I’m Just an Oil Magnate,” *The Guardian*, June 6, 2000.

Russian Economic Trends, 5, 2, 1996.

Russian Economic Trends, 6, 3, 1997.

Russian Economic Trends, 7, 1, 1998a.

Russian Economic Trends, 7, 4, 1998b.

Sborov, Leonid, “Bolshoy biznes: pamyati zalogovykh auktsionov,” *Vlast*, September 10, 1996.

Shepherd, Leslie, “Russia Moves to Privatize Natural Gas Monopoly” Associated Press, April 5, 1993.

Shleifer, Andrei and Daniel Treisman, “A Normal Country: Russia After Communism,” *Journal of Economic Perspectives*, 19, 1: 151-74, 2005.

Soros, George, *Open Society: Reforming Global Capitalism*. New York: Public Affairs, 2000.

Stiglitz, Joseph, *Globalization and its Discontents*. New York: W.W. Norton, 2002.

Treisman, Daniel, *The Return: Russia's Journey from Gorbachev to Medvedev*. New York: The Free Press, 2010.