# Shock Privatization: The Effects of Rapid Large-Scale Privatization on Enterprise Restructuring

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The neoliberal-inspired "shock therapy" policies were designed to allow efficiency considerations to shape the new capitalist economies. Most experts theorized that these policies would enable postcommunist countries to close the gap with the West. After more than a decade, this prediction has been falsified. Fieldwork in 25 Russian firms demonstrates that the neoliberal prescription of mass privatization creates shocks that make successful enterprise restructuring almost impossible. Instead, most firms lower their technological level of production and retreat to nonmarket activity to survive. The result is a poorer economy with less growth potential and thus increased divergence with the West.

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With the collapse of communism, free-marketers trumpeted the eminent ful-fillment of a centuries-old quest for modernization. A "democratically based rise in living standards" would accompany the transformation from Eastern European backwardness to "normal" capitalism, as found in Western Europe and the United States.¹

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Neoliberal economists designed the radically antistatist "shock therapy" policy package, which served as a blueprint for this change. For the second time in the twentieth century, Eastern Europe experienced a revolutionary transformation, resulting in an economic catastrophe. The postcommunist bloc experienced the biggest contraction ever recorded in the absence of war. The neoliberals argue that the transition was unsuccessful because postcommunist governments did not faithfully implement their policy advice. I challenge this position. A crucial component of the shock therapy package, rapid large-scale privatization, dramatically undermines the ability of enterprises to restructure and is therefore a major contributor to the economic debacle.

Part 1 of this article reviews the theory of shock therapy, focusing on privatization policy and enterprise restructuring. Part 2 discusses some methodological issues in the study of the transition. Part 3 presents the case-study material. It then specifies an inductively derived model of the consequences of rapid large-scale privatization for enterprise restructuring. The conclusion discusses the implications of this model for the neoliberal project.

#### THE NEOLIBERAL THEORY OF TRANSITION

The "big-bang" or shock therapy policies of the first postcommunist governments—stabilization, liberalization, and privatization—were crafted to allow "efficiency" considerations to shape the organizations of the new capitalist economies. Once the incentive structure was "correct" and the market was allowed to allocate resources, a new efficient set of organizations would replace the deformed and inefficient state-owned enterprises (SOEs) inherited from socialism.<sup>2</sup> The model is exceedingly parsimonious: "Private ownership would ensure profit-oriented corporate governance, while liberalization of trade and prices would set free the competitive market forces that reward profitable activities. Firms would have therefore both internal and external incentives to restructure."<sup>3</sup> After a relatively brief period of economic contraction, when resources would "reallocate" according to each country's comparative advantage, postcommunist economies would enter a growth trajectory that would close the developmental gap with Western Europe.

It follows that SOEs should be privatized as quickly as possible. Economically, neoliberals regard private businesses as vastly more efficient than SOEs. First, political factors are expected to impinge on the operation of the firm, leading to a suboptimal use of resources (e.g., firms may not shed labor as necessary or put off other types of unpopular restructuring). Second, public ownership means that the state will continue to bail out firms in one way or the other (i.e., "soft-budget constraints" will not be hardened), and therefore firms will not survive on the basis of their efficiency. Third, state ownership creates opportunities for "rent-seeking" officials who will engage in corruption. Similarly, state bureaucrats, because they do not directly benefit from the operation of SOEs, do not have the necessary

incentive structure to properly monitor the "agents" in charge of the day-to-day operation of the firm, providing opportunities for corruption by managers and employees.

All of these economic arguments favor the privatization of as many SOEs as possible and as quickly as possible. However, for the neoliberals, rapid privatization was even more urgent for political reasons. Unless it was done quickly, they warned, "the political battle over privatization will soon lead to a stalemate in the entire process, with the devastating long-term result that little privatization takes place at all." Managers and workers in inefficient SOEs will have an interest in derailing privatization and maintaining state subsidies and protection. Thus, one of the aims of rapid privatization is "to decrease the *political* power of the state sector." Because of the great urgency of privatization, it "must take place before firms have been restructured."

For the most prominent and influential neoliberals, such as Jeffrey Sachs, Anders Aslund, Olivier Blanchard, and Lawrence Summers, privatization could not proceed as it has in the West, where firms are sold one at a time to the highest bidder. There were simply far too many SOEs and not enough capitalists. As a result, "If the government becomes enmeshed in case-by-case bargaining, there will be no end in sight." Thus, a significant amount of the shares of SOEs must be given away. In addition to transferring some shares to firm insiders to buy their support for privatization, this would involve some type of "mass privatization" scheme, in which citizens would receive (or buy for a nominal fee) vouchers or coupons that could be exchanged for shares of privatized enterprises. In addition to its speed, this solution would "gain popular support" for the transition to a private economy.

The idea that some set of SOEs should continue to exist in the medium to long term was anathema, and "flies in the face of everything we know about the behavior of states around the world." While neoliberals recognized that various market institutions would also have to be created, these would have to wait while the fundamental task of forging a system of private property and market integration was accomplished. The institutions that facilitate firm restructuring were among those postponed. Thus, the shock therapy policy package contained a huge lacuna: How were firms expected to find the resources for desperately needed restructuring?

Clearly, mass privatization would create owners who were devoid of the financial resources or expertise to restructure their privatized enterprises. Moreover, the state would not be providing any investment capital since one of the main tasks of transition was to drastically curtail state subsidies to industries. Indeed, a central goal of the transition was the creation of a state that "restricts itself to providing basic public goods, such as contract enforcement, law and order, and some regulations, and . . . leaves most allocative decisions to the private sector." <sup>10</sup>

Capital for firm restructuring, and thus strong economic growth, would have to develop as a result of "the power of natural market forces." Rapid liberalization

(both externally and internally) and macroeconomic stability would lead to competition, which would lead to "the rapid emergence of markets for goods, labor and capital, thereby creating an appropriate environment for the massive reallocation necessary for a fundamental transformation of the economy." While a small amount of this capital would come from foreign direct investment, most would simply arise from the efficient allocation of domestic resources: "Using the resources at hand more effectively has historically been far more important quantitatively than capital formation." <sup>12</sup>

Western governments and financial institutions advocated the neoliberal vision of a rapid market-led transition, and it guided the policies adopted by most transition governments.<sup>13</sup> This included adherence to mass privatization programs, and "by 1996 almost every transition economy had either introduced such a program or was considering doing so."<sup>14</sup>

Unfortunately, shock therapy was a clear failure by even the most conservative measure of development, an increase in economic growth. To use Schumpeterian language, destruction occurred in a spectacular fashion, while the expected creation has for the most part failed to materialize. The level of real GDP in 1999 compared with 1989 was only 67 percent for the former Soviet Union, Central and Eastern Europe, and the Baltic states combined. From 1988 to 1994, the poverty rate increased from 4 percent to 32 percent. From 1989 to the mid-1990s, the number of people living on less than four dollars a day increased by more than ten times, to 147 million. Far from narrowing, the gap between the postcommunist world and the West increased significantly. The severity of this economic crisis—and the devastating loss of human welfare that accompanied it—was never hinted at in the literature on transition. In

The neoliberals explained the obvious failure of the economic transition in Russia and other postcommunist countries by claiming that local elites failed to adequately implement either stabilization or liberalization policies.<sup>17</sup> This article contributes to another understanding of the postcommunist disaster, emphasizing the deleterious consequences of rapid large-scale privatization.

#### METHODOLOGICAL ISSUES

There have been two basic methodological approaches that scholars have used in studying economic change and performance in postcommunist society. One group (made up primarily of economists and political scientists) relies on crossnational pooled times-series regression analysis using country-level macroeconomic data. Another group (consisting mostly of sociologists and anthropologists) uses ethnographic case studies.

The most influential economists and political scientists studying the transition use cross-national pooled time-series regression analysis. <sup>18</sup> However, this technique may provide no more real information than giving a rough indication of covariation—the same thing that would be accomplished by several two-by-two

tables that might accompany a brief discussion of particular historical cases. First, the macroeconomic data they use have major reliability and validity problems. <sup>19</sup> In addition, this method requires the unrealistic assumption of an independence of cases. <sup>20</sup> Finally, the method increases the degrees of freedom in an unreliable way (by relying on an arbitrary division of time that corresponds to annual statistics, when restructuring processes vary in length and obviously take much longer than a year).

The other major approach to the study of transition uses ethnographic case studies.<sup>21</sup> Not only does this method yield far more valid data; it provides information on the mechanisms that are responsible for any observed empirical correlations.<sup>22</sup> At the very least, this method is warranted to balance out the voluminous scholarship on transition outcomes using the correlational method.

Still, it can be very difficult to generalize from a small number of cases. This problem is acute in the postcommunist setting, where previous research indicates a great diversity of organizational forms. For this reason, I analyze a data set consisting of twenty-five case studies of Russian firms (see appendix A for a description of these cases). This reflects a "breadth" versus "depth" trade-off in terms of economic organizations; twenty-five cases are investigated instead of one or two cases studied at much greater depth. Beyond the need to safeguard against generalizing from an exceptional case, the questions of concern here—the determinants of firm restructuring—necessitated a fair number of firms that differed in ways that might be important. I wanted cases that were situated in a number of different sectors to protect against powerful sectoral effects. I also chose them from a number of different places to guard against potential regional effects. In addition, because postcommunist firms have a variety of ownership structures and organizational forms, I needed a relatively large number of firms to try to capture some of this diversity.

What is lost in these "shallow" case studies is the very large number of repeated interactions between the social scientist and the subjects that occur in classical ethnographies. However, such intense interaction primarily helps the scientist understand the meaning system used by actors, something clearly not relevant for this study.<sup>24</sup>

The firms I studied were randomly selected within particular sectors in several regions. <sup>25</sup> I picked the sectors because they represented both high-tech and low-tech industries and because they matched case studies I had previously conducted in Central Europe. <sup>26</sup> I chose regions based on convenience (accessible by the train or bus from Moscow and St. Petersburg) as well as variation (thus Samara was included). Admittedly, this sample is biased toward the European part of the Soviet Union, as well as the areas surrounding Moscow and St. Petersburg. However, this bias works in my favor. Moscow is the richest and most dynamic part of Russia. This should give the firms in my sample from Moscow and Vladamir Oblasts a major advantage, as being next to a growing region should provide access to consumer markets and investment capital. <sup>27</sup>

#### CASE-STUDY DATA

The strategy for presenting the case-study data will be very straightforward. First, I will describe two typical firms. These case studies indicate the conventional way in which postcommunist firms adjusted to the new economic environment created by shock therapy and especially to privatization. The study tests the validity of this description by looking closely at the "outliers," the firms that did not follow the usual pattern, thus establishing the limitations of the inductively derived explanation.

# Typical Firms

At the Russian firm Recorder, in Vladamir Oblast, just a few hours outside Moscow, I interviewed the head of the union and the three top executives of the firm, which produced the first radio transmitters in the Soviet Union and which, by the 1970s, had turned into a famous brand-name producer of television sets (in addition to maintaining its production of radio equipment for military use). It had twelve thousand employees when it was privatized in 1993. The head of the union summed up a long story with, "For the worker collective, the change was very tragic."

For this company, the liberalization of trade in 1992 produced a devastating fall in demand for its products. As the market opened and TVs from Asia flooded in, "demand for TVs fell off entirely." The shock of liberalization was matched by the fall in aggregate demand that accompanied the implementation of shock therapy in the Russian economy. According to the firm's manager, there had been a big problem with market demand, and it was very difficult to buy TVs. The firm let many purchasers take TVs on credit, and this turned into massive losses.

The next year, in 1993, the company was privatized through the transfer of 100 percent of the shares to the work collective. At the time of privatization, the enterprise became a holding company, and the actual factory was split up into forty-five different independent firms, each under the direction of different managers but each owned by Recorder, which in turn belonged to a holding company owned by the worker collective. These firms rented the space and everything they used from the large factory itself. The most important effect of this ownership transformation is completely absent in neoliberal transition theory: the new owners of this large, historically important high-technology company had absolutely no resources to restructure their enterprise. Clearly, the neoliberal emphasis on markets makes this mistake possible—it would be difficult for a Marxist or Weberian to leave out capital in the analysis of the transition to capitalism.

The factory soon fell prey to the opportunistic behavior of firm insiders. After privatization, there was a massive looting of the enterprise. This activity brought production literally to a halt, as parts of the conveyer belt, as well as other equipment and tools, were stolen. Indeed, without access to funds for restructuring and

facing intense competition from more efficient producers around the world, it simply became rational for the new owners (and thus employees as well) to strip much of the firm's assets for a one-time monetary gain.

The fiscal crisis and the institutional breakdown of the Russian state further impeded the firm's progress. It is crucial to realize that this was, in turn, in large measure a consequence of similar financial crises at other privatized firms, which were unable to pay taxes. Thus, the firm experienced a major indirect demand shock from rapid large-scale privatization when the state stopped paying for its orders for military radio equipment. This was matched by an indirect supply shock, when the local bank with which the firm had arranged a loan for restructuring went bankrupt. Another indirect supply shock occurred when the upstream producer of cathode-ray tubes was privatized and converted into a beer factory. The only appropriate tubes were made in Germany and were far more expensive than the previously used Russian ones.

As a result of these financial shocks, the factory went into a tailspin. By 1996-97, it had stopped paying workers, who began to sell their shares for almost nothing to members of the administration. The company came under the control of two hundred firm insiders. About ten thousand workers left. Half were laid off, and half left through attrition. Tellingly, while production workers were fired, the one group of workers that grew in size was the guards. Indeed, there were many noticeably larger and healthy-looking armed young men wearing military fatigues serving in this capacity.

In 1997, the holding company officially declared bankruptcy. As a result, some shares were exchanged for debt with various other businesses, but these new owners remained passive. Of the forty-five subcompanies created after privatization, only five survived. The biggest one was producing and selling TVs under the brand name Recorder. Workers now earned, on average, only 800 rubles a month (\$28.57 in June 2000), with seven hundred pensioners receiving only 350 rubles (\$12.50). And while most workers were actually paid their wages, this was not the case for everyone. The union head, for example, had not been paid in a year and a half.

Recorder responded to the opening of the market and privatization by with-drawing from the market and downgrading technologically. Like many other Russian firms, it engaged in barter, had large accounts receivable and payable, and engaged in periodic debt swaps. Thus, the activity of the firm disproved the neoliberals' logic. Merely withdrawing soft-budget constraints did not make a firm market dependent.

Recorder also withdrew from the labor market. Rather than forming a contract with labor (in which wages were exchanged for work), the firm retained its workers by securing their access to the means of subsistence. Specifically, it distributed 40-to-60-square-meter garden plots. Neoliberals did not anticipate this type of firm behavior because, like Smith, they believe "market" activity to be "natural."

Contra Sachs, markets apparently do not "spring up as soon as communist bureaucrats vacate the field." <sup>28</sup>

At the same that that the company partially withdrew from the market to survive, it switched to a much lower level of technological production. Whereas the firm used to be an integrated producer of TVs, creating great value added by making most of the parts, it now served only as an assembly platform (and the state does not even receive a tariff on these assembled parts, which are produced in Korea and smuggled into Russia!).

The degeneration of Recorder devastated the city. The loss of ten thousand jobs, in a city of only seventy thousand, generated a human disaster. And, of course, the fate of Recorder was more or less the fate of the other firms in the city and in the oblast as well. Thus, one interviewee reported, the local birthrate dropped significantly. The electricity was shut off every day, and hot water was available only from 5 P.M. to 10 P.M. twice a week. The local hospital gave patients only tea, with sugar going only to those with insurance. According to the interviewee, "In the winter you can survive if you can keep the windows closed."

Most of the Russian cases displayed roughly the same pattern of change that Recorder experienced. We can see this in a textile company, Crystal, also in Vladamir Oblast. Established in 1859, the company was privatized in 1991 by transferring all shares to the worker collective. However, as was the pattern in nineteen of the twenty-five Russian firms, the work collective lost control of the firm to outside groups. In this case, 49 percent of the shares went to the worker collective, and the controlling 51 percent belonged to a Moscow-based investment group. According to the current director, this Moscow firm took over the company in 1994-95, when it bought some shares from organizations that had previously bought up the shares from workers. In the director's words, "Buyers came to the factory—'Mr. Working Class, you don't have enough money to buy bread, we are ready to buy your stocks.' "Like the worker collective, the new owners also failed to make any investment in the firm, and its decline accelerated.

When the firm was privatized, there were 4,500 workers. This was reduced to 1,040 by the summer of 2000. Most were not fired but simply left because of wage delays and attrition. Like Recorder, the firm was initially done in by the fall in demand. It produced fabric for industry, and, as industry died in Russia, so did the firm's market (it shrank fivefold from the mid-1990s). As with Recorder, privatization resulted in a lack of funds for investment, and according to the director the factory "was an open territory, there was lots of theft." Again, the presence of large young men in military fatigues was striking.

The firm also felt the effects of the decline of the Russian state. At Crystal, as with a full twelve out of twenty-five case studies, managers reported that they increasingly had trouble finding the skilled manpower that used to come from the local polytechnical institute, a victim of the local government's fiscal crisis. This firm survived by withdrawing from the market economy through wage arrears,

tolerating and engaging in nonpayments (it owed money to 150 different creditors by 1997), and engaging in debt swaps. When it arranged its bankruptcy, the Moscow financial concern that initially bought the company organized it (and, of course, secured a fee for this). The interviewee was the third director of this firm since the bankruptcy and was placed there by this Moscow firm.

The new director managed to lead a reorganization of production. He sold the firm's old equipment and much of its land, going from a large factory to a "minifactory," further reducing the firm by three hundred employees. It now produces a variety of cotton fabrics, which are sold by their owner in Moscow. This firm has thus managed to restructure to meet the demands of the market but only by engaging in low-wage, low-value-added exports at a lower level of technological sophistication than before.

While this firm is clearly capitalist, the expected long-term growth in labor productivity will be limited both by an inability to secure the specialists needed for new processes and the lack of a source of investment capital to replace machinery. The labor force still had to be monitored by armed guards—hardly the mark of modern capitalist economic activity. Indeed, according to the director, they used such simple technology that they will not "have to change their production methods for 80 years." A major challenge for the firm, according to the director, was to find a source of funds for replacement parts. In his estimation, it "did not seem like the owner will want to invest" even this minimal amount in the plant.

Thus, Crystal and Recorder followed the overwhelming pattern in the Russian cases—new private owners had no resources to restructure their companies—leading to asset stripping, market withdrawal, and downgrading the technological profile of production.

# A MODEL OF THE NEGATIVE EFFECTS OF RAPID LARGE-SCALE PRIVATIZATION

Abstracting from these case studies, I develop a model of the effects of rapid large-scale privatization. While the shock therapists outlined a number of negative economic consequences of continued state ownership, they failed to anticipate the negative effects of giving away ownership in large enterprises too quickly. These negative effects consist of both direct and indirect supply and demand shocks.

Figure 1 demonstrates the causality of the direct aggregate demand shock resulting from rapid large-scale privatization (shock privatization). Most important, shock privatization means that the resulting private corporation will not have an owner or owners with sufficient resources to restructure the company. In the absence of a strategic foreign investor, no domestic individuals would have been able to accumulate the huge funds necessary to restructure the industrial giants of the Soviet-style economies. This is, of course, a consequence of attempting to "make capitalism without capitalists."<sup>29</sup>

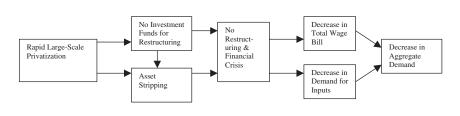


Figure 1. Direct demand shock from rapid large state-owned enterprise privatization.

This lack of investments contributes to the next effect: a situation in which the new owners, managers, and workers are very likely to have incentives to behave parasitically by stripping the firm's assets. A typical postcommunist firm begins life as a privatized enterprise facing the devastating crises induced by stabilization and liberalization shocks, as well as the aggregate demand and supply problems that grow as rapid large-scale privatization proceeds throughout the economy. Without any capital to carry out desperately needed restructuring, and without the injection of any new managerial talent, many firms find themselves in completely untenable positions.

It is only logical that owners, managers, and workers, unable to work cooperatively through the firm to better their common cause, look to find solutions to their personal problems: to accumulate wealth or at least to survive the transition. Shock privatization also frequently creates outside owners who have very poor arrangements for monitoring managers or even for monitoring other owners. This was virtually inevitable since there was almost none of the enormous business information infrastructure, or the legal institutions geared to the protection of shareholders' rights, that help "make markets" in advanced capitalist systems. The combination of these two conditions led to large amounts of asset stripping in the postcommunist economy, wreaking havoc on the functioning of many firms. This is a paradox from the neoliberal perspective; while they argue that maintaining state ownership is a recipe for rent-seeking behavior, quickly eliminating such ownership creates an environment that encourages corruption.

All of these effects combine to create newly privatized firms that are unable to carry out desperately needed restructuring. Most postcommunist firms experienced a long period of decline prior to the change of systems. Many had never been modernized and were continuing to use old machines that were made decades ago. Not surprisingly, the restructuring of such firms typically required huge investments. These firms could not afford to meaningfully restructure, and they also suffered from severe financial crises that threatened their day-to-day operations. A phrase frequently heard in the interviews with managers and union leaders from Russian firms is that their companies entered into a period of "standing still." That is, the firms were technically bankrupt, paid no wages, and sold

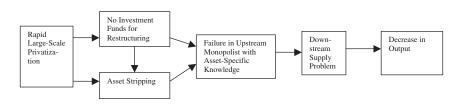


Figure 2. Direct supply shock from rapid large state-owned enterprise privatization.

nothing. Firms typically responded in two ways. First, there was the massive decrease in wage payments, primarily through wage arrears. Second, firms reduced their demand for inputs. In combination, these responses created a crisis in demand for both consumer and intermediary goods markets. This fall in demand only further weakens the performance of firms, creating a negative demand spiral.

This direct demand shock stemming from shock privatization is paralleled by a direct supply shock. Figure 2 shows the causal process inducing this shock. In this causal sequence, shock privatization, through the same three mechanisms, negatively affects a firm's financial well-being and its ability to continue production. In some cases, this will create severe supply problems for industries that use the firm's products in their own production processes. Many firms produce goods with the knowledge of the specific needs of their purchaser. By definition, these types of suppliers will be very difficult or impossible to replace in the short term. Even if the firm finds another producer of the specific input from a foreign supplier, the cost may be prohibitively high. A similar problem can emerge even for more standardized products. Shock privatization can destroy the only domestic producer of some input, while a foreign-produced substitute might be too expensive for domestic firms.

These direct supply and demand shocks are matched by indirect supply and demand shocks. Figure 3 describes the causal logic behind the indirect demand shock. This causal path is a consequence of the direct demand and supply shocks that afflicted firms in postcommunist society. As firms entered into financial crisis and technical bankruptcy, often the first thing they stopped was the payment of taxes, which at any rate were contracting along with the economy. This had the rather immediate and obvious effect of drastically reducing state orders from enterprises; or, in many cases, the orders were maintained but the state stopped paying for them. Given the enormous fall in state revenues, a subsequent fall in state spending could only follow, creating a substantial crisis in aggregate demand.

This indirect demand shock was matched by an indirect supply shock, as diagrammed in Figure 4. In this final component of the privatization shock, the direct

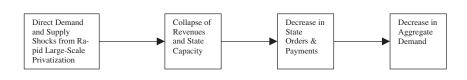


Figure 3. Indirect demand shock from rapid large state-owned enterprise privatization.

demand and supply shocks from rapid large-scale privatization contributes to the severe fiscal crisis of the state. This loss of revenues quickly leads to a lack of state support for the basic institutions that enable firms to continue production, let alone successfully restructure by raising their quality and changing their product lines. Specifically, the state stops supporting the educational institutions that turn out technically trained manpower, creating shortages of skilled labor and leaving firms unable to fill orders.<sup>31</sup>

Of course, some might suspect that this last effect, an inability to secure skilled manpower, simply reflects the pervasive complaint by managers throughout the capitalist West about labor markets. In Russia, however, managers reported that up until the present, they could rely on the local institutes to produce replacements for their retiring skilled workers. One might still wonder why the Russian firms were unable to hire or retrain some of the many skilled workers that were let go from firms. However, since there is almost no functioning real-estate market for average Russians, workers cannot simply pack up and move to another city to look for employment. They would most likely have no place to live. The firm would thus need the resources to build new housing for them (a strategy that one firm attempted).<sup>32</sup>

Appendix B summarizes the presence of these shocks in the twenty-five case studies. Twenty-one out of twenty-five firms reported a complete lack of capital for investment (and, in many cases, for day-to-day operating expenses) after privatization. Twelve firms reported that they had a serious shortage of young skilled manpower, which interfered with production. Eight firms reported that the state did not pay for its orders, and another eight firms admitted significant levels of asset stripping. Finally, three firms suffered a loss of crucial inputs at a price they could afford. Any one of these shocks could be enough to throw the firms into a severe financial crisis and/or technical bankruptcy. In addition, these firms were also subject to liberalization and stabilization shocks. Finally, any firms that managed to avoid these shocks individually were still devastated by the disintegration of the national economy.

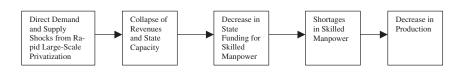


Figure 4. Indirect supply shock from rapid large state-owned enterprise privatization.

While the magnitude of the crisis created a severe contraction of production, the firms' response is just as important. The neoliberal theory of "reallocation" did not work in most cases. There was not the wholesale reallocation of resources for more profitable uses, let alone more "efficient" ones. Eight years after shock therapy was launched, there was no evidence of a new private sector picking up the slack. Instead, Russia experienced a massive de-modernization.

The story at Recorder and Crystal was typical of most other firms that underwent a similar pattern of restructuring. First, they pursued negative restructuring by laying off workers and selling or renting out property. Then, when they still could not survive on the market, they withdrew to nonmarket mechanisms of survival. When they ran out of cash and credit, they started to use barter to keep production going. Firms also stopped paying each other, and interenterprise arrears began to grow. Periodically, debt swaps were organized. These extra-monetary processes vitiated the neoliberal attempt to control the money supply and institute hard budget constraints.

They also retreated to the nonmarket mechanism of directly providing for their workers' subsistence in an effort to retain them. Firms in some cases provided housing and in almost all cases helped provide food. Sometimes, firms grew their own livestock, and in other cases they engaged in barter with other firms to secure food to be distributed at the plant. Most firms also helped provide access to land for subsistence farming. This included not only granting garden space but also helping to arrange for the provision of water and power for these plots. Many firms also organized the collective farming of potatoes. This became more popular as workers could no longer afford the fuel they needed to get to their gardens and prevent their vegetables from being stolen. In the words of the head of the union at a bus factory (case 17), "Without the potatoes, we would not survive."

To the extent that the firms managed to somewhat stabilize their situations and resume production, most did so through a massive downgrading of the technological process. In only four of the twenty-five cases was there any resumption of investment in the production process. For the rest of the firms, there was either no change in the production technology or there was a reorientation to low-tech production, typically the assembly of foreign-produced parts. Thus, in the Recorder

case study, where the old firm designed and built almost all the components of TVs and various radio technologies, the new firm's main activity consisted of assembling smuggled South Korean components into TVs for sale in Moscow. In another example (case 5), a heavy-engineering firm went from producing parts for the space shuttle to refurbishing old German machinery for re-export to the Third World. As in the Recorder example, this contraction and technological downgrading meant a much lower standard of living for those reliant on the firm. In this formerly high-tech company, the director reported that he started to provide containers of milk to his workers at the beginning of their shifts because they were often so hungry they could not concentrate. However, he soon had to replace the containers with pitchers, so that the workers would be forced to drink the milk themselves rather than bring it home to their children. Walking around the factory, I observed the employees using machine tools without wearing gloves or goggles. Again, this example was not from some marginal firm on the Russian periphery but from what had been a leading firm only several hours from Moscow.

In most firms, there was a significant reduction in the technological component of production and thus in labor productivity. Even if a firm continued to produce in its traditional line, it was typically on a much smaller scale, resulting in underused productive capacity (and thus lower labor productivity). And, of course, lower labor productivity means less wealth creation and ultimately a much poorer society.<sup>33</sup>

To attempt to demonstrate the validity of the above interpretation of the case studies, this article will examine the three most successful cases of firm restructuring—where firms were able to reorganize production and invest in new technology that made it possible for them to restore their financial stability. What was it about these firms that enabled them to be more successful than the other cases?

#### CASES OF SUCCESSFUL RESTRUCTURING

There were only three firms from the case studies that could be described as successful. They were successes in the minimal sense that they managed to actually make investments in upgrading the production process and were able to restore their financial stability.

# The Joint Venture

One firm (case 18), situated near St. Petersburg, produced cardboard and paper for the Russian market. It had declined from a peak of 2,300 employees in the 1980s to 1,070 by 1990. It was the only firm among the case studies to increase its number of employees in the postcommunist period, to 1,900 by the summer of 2000.

The interviewee at this firm, who was the head of the trade union and a member of the privatization committee, did not provide a precise breakdown of ownership,

but the initial story was similar to the other firms in the case studies. In 1992, a majority of shares went to the work collective, 5 percent went to the administration, and 18 percent were auctioned by the government. Shortly after privatization, the factory was pulled down with the rest of the economy in 1993. The firm experienced the same problems as other firms and was unable to modernize because it lacked investment funds. During this period of crisis, the firm retreated to the barter economy (which subsumed about 60 percent of production from 1993 to 1997). It accrued significant debts and often could not pay its partners. It also had salary arrears. Workers continued to survive by supplementing their pay by growing food on free garden plots. The firm also secured land for collective potato farming.

Shares of the company were bought up by outside organizations. By 1996-97, there was a big financial crisis precipitated by a flood of foreign products. The firm had problems paying workers, and the labor collective began to sell off shares. By the summer of 2000, the work collective had less than 1 percent of the shares left (which it kept to guarantee a seat at shareholders' meetings). Almost all shares are held by three large partners, which together form a joint venture. One owner is a domestic bank, and another is a Swiss-Russian organization, which together form a joint stock company, with majority ownership. The other dominant owner is a major German cardboard producer. The new owners removed the director who had been working there from 1990 to 1996 (for some unspecified illegal activities).

In the first year of the new ownership, they spent U.S.\$18 million to modernize their equipment.<sup>34</sup> As a result, the next year they regained their lost market and made headway in some new sectors. Only once since the new owners arrived did they have salary arrears, and salaries have increased yearly by 25 to 30 percent, while investments have continued at U.S.\$10 to \$15 million per year. Most of this investment capital came from the three big owners, although some of it was made with bank credits (some from the bank with an ownership stake and some from other banks). They planned to start exporting once they further upgraded their quality.

The difference between this firm and others was clearly the fact that it had a source of investment capital as well as experienced and knowledgeable owners. The biggest single holder was a German multinational with both investment capital and expertise in the production line. Russia's extremely low levels of foreign direct investment make this type of firm a rarity. In addition, this firm had access to very cheap Russian wood. Despite the advantages of foreign ownership, the firm was still embedded in a domestic market that had been hobbled by shock therapy, and it had some problems as a result of this. It still engaged in barter, despite the expense and inefficiency. The firm's biggest problem, however, was a shortage of young specialists. Undoubtedly, this shortage was hampering the firm's ability to raise quality enough to capture shares of the Western European

market.<sup>36</sup> The firm was responding to this problem by creating courses for young specialists and making contracts with polytechnic universities and other institutes and universities to pay for the higher education of their specialists.

# Domestic Ownership in a Privileged Natural-Resource Sector

This company (case 25), though not a recipient of foreign direct investment, had another feature that mitigated the effects of shock therapy. Founded in 1948 as an SOE, it produced rock bits for gas and oil drilling. From the system change until 1994, the company made no new investments. Its restructuring activity consisted of giving away its "social objects" (such as kindergartens, apartments, house of culture, dormitories, and children's camps), thereby reducing its labor force from six thousand to three thousand employees. The company was privatized in January of 1994 in fairly typical fashion: 51 percent of the shares were given to the labor collective, and 49 percent remained with the state ministry of property. The state ministry subsequently sold this stock through an auction. From January to September 1994, the company's inability to sell its products led to a crisis.<sup>37</sup> There were four months of lost wages, and the company operated only three days a week. As a result, the workers "need[ed] to sell their shares."

Managers bought these shares. They called the first assembly of stock owners in September of 1994. The old director was removed, and the new top management moved in. The main block of shares remained with management in the summer of 2000, and only one outside owner had 10 percent of the stocks and thus the right to representation on the board of directors. Eight of the nine board members were from the factory and "[held] big blocks of stock." The new director, who had been the deputy chief engineer, had the biggest share.

The new management/ownership team led the firm back to health. The first move was the simplification of the management structure and the creation of a marketing division, which helped the new management solve the firm's sales problem. As a member of the board of directors explained, the old director "didn't know how to market—didn't have that ideology." The company has been able to pay workers' wages, and salaries have increased every three to four months. The firm also started to use barter and began to organize debt swaps with other firms (sometimes with the aid of the local government).

Starting in 1995, there was a large amount of investment in an effort to upgrade the company's quality in order to receive international certification. The company bought foreign drills, which it reverse engineered, allowing it to obtain major international quality certificates (API and ISO) by 1997. Most of its production was sold on the Russian market (by the summer of 2000, the company provided more than 80 percent of the bits used for exploration and development drilling in Russia and 60 percent of the rock bits used by domestic mining, water-well, and construction industries). Still, it was increasingly able to export because of its international certification. Its biggest foreign customers were from the former

Soviet Union (in particular, Turkmenistan), but it also sold in Poland, Hungary, Bulgaria, Syria, Turkey, Yemen, Iran, Iraq, China, Vietnam, Algeria, Egypt, Korea, and even in the United States, Germany, Italy, and Greece.

The firm continued to grow (after stabilizing at 2,900 employees) and has constantly made investments in the production process, increasing the flexibility of production. It tried to progressively eliminate debt swaps and barter. By the summer of 2000, the latter accounted for only 5 percent of the firm's activity. Things were going smoothly until August of 1998, when the devaluation of the ruble almost pushed the company to bankruptcy because it had loans in U.S. dollars. However, the devaluation also effectively eliminated foreign competitors, and this allowed it to totally dominate the domestic market. In 1999, the company opened up its second line of production, which had been closed since the initial crisis, aided by a tax break from the local government. By the summer of 2000, the company had capital funds in excess of a trillion rubles. Given its advantage in labor costs compared with its Western competitors, the firm may well be able to expand exports in the future.

The distinguishing feature of this firm was its close connection to the privileged sector of the Russian economy: the energy sector accounted for more than 50 percent of all profits in the country.<sup>38</sup> Because of its privileged sectoral location, the firm was able to build on its very high levels of inherited human capital to make high-quality, high-tech goods and eventually to restore its financial stability.

## Strong Inside Ownership in a Low-Tech, High-Demand Sector

Another firm, a furniture producer (case 11), was founded in 1961. During the socialist period, it was part of a big furniture conglomerate, which eventually broke up in 1991 during privatization. At the time, the factory had 3,600 employees. Five percent of the shares were given to the administration according to seniority and salary "and favors made to the plant." Five percent went to the local government, 1 percent to the former head of the conglomerate, and the rest were distributed to workers with at least 10 years of service. What was exceptional about the firm was that this ownership pattern remained unchanged over the next 10 years. Despite efforts by outside organizations to purchase shares and the management's attempt to buy shares from those with drinking problems, the union was able to dissuade workers from selling.

Because there was a huge demand for furniture during the perestroika years, the firm had cash reserves, which it used in the early 1990s to modernize part of its production by purchasing German and Italian machinery. Despite this investment, the firm was swept up with the plummeting economy, and by 1993 it had lost most of its main market, Moscow. It survived in typical Russian fashion: by engaging in barter with suppliers and customers, paying employees in kind, and piling up some debts (especially for electricity). Unlike most of the other firms in the case studies, wage arrears lasted only a few days.

In 1993, the firm decided to hire a Western management firm, which studied the firm for a year before making recommendations for restructuring. The production of stuffed furniture (which was of lower quality than imported furniture but equally expensive) was eliminated. The firm concentrated on the full circle of production of wood furniture, including plywood and fiber-wood production, and the fabrication of wooden plates. It sold both finished furniture and wooden plates at significantly lower prices than imports.

It also reduced the workforce based on economic criteria (it eliminated parts of production that were deemed too costly, in terms of energy, and too labor intensive). At first, the firm "didn't want to fire anyone, but [it] was a question of survival." In 1994, it laid off those who were eligible for pensions. In 1995, it fired people with drinking and discipline problems. Then, starting in 1996, it began laying off those who were the least qualified. The workforce was reduced to 2,200 by the summer of 2000.

The firm made constant improvements in the production process, purchasing only foreign equipment. As one manager explained, they "are more expensive but also more precise than the Russian equivalents." One major investment was the purchase of ultraviolet drying machines, which gave their furniture a polished look. All of these investments were made out of retained earnings. While the interviewees claimed that the total amount of these investments was a "trade secret," they did reveal that they were just finishing a major investment project that cost U.S.\$2.5 million.

The firm also increased cooperation with foreign partners. In 1995, it formed a small joint venture with an Italian firm that imported metal parts and appliances for kitchen furniture. However, only thirty employees were involved in this activity. It was also cooperating with a German producer of laminating paper, which was about to begin a direct investment by building a production facility on the grounds of the factory. The Russian firm will thus eliminate a costly part of production in exchange for the contribution of land for the project. The German partner will have 100 percent ownership in the new company but will sign long-term supply contracts with the firm at favorable prices.

After 1994, the firm attempted to export to Norway, Portugal, and Poland, but by 1996 rail tariffs made this too expensive. Thus, it focused on rebuilding its domestic market by increasing the quality of its furniture, and it regained its 50 percent share of the Moscow market by 1998. The level of production exceeded the level achieved in 1991, and revenues constantly expanded. The company was planning on expanding production and sales by another 50 percent in 2000 (this very high level of growth was partly a result of the 1998 devaluation, which priced most imports out of the domestic market). The employee-owners benefited from this growth; their average salary of 3,000 rubles per month (about U.S.\$120) was nicely supplemented by company dividends, which since 1992 have averaged 8,000 rubles a year.

This firm was different from the others primarily because it maintained the initial distribution of shares and disproved the argument that workers would fail to invest in labor-reducing technology. It overcame their lack of managerial knowledge by "purchasing" such expertise from the West. Workers proved capable of being effective owners, and this prevented the pathologies of parasitic ownership found at other firms. As the deputy director explained, one of the firm's advantages over competitors was that management "didn't sell their technologies—so they are ahead of the competition and have the best technologies." Again, this firm seemed fairly unusual. According to a deputy director, rank-and-file workers of all the other firms that split from the conglomerate ended up selling their shares, and their firms have since gone bankrupt.<sup>39</sup> It is also relevant that the largest input was a natural resource. Access to cheap Russian wood, combined with high freight costs for furniture, gave this firm a decisive advantage in the domestic market over imports.

These three firms were the most successful among the 25 case studies. 40 What distinguished these firms were conditions that counterbalanced or neutralized the supply and demand shocks stemming from their mass privatization. The first two had privileged access to investment capital stemming from foreign ownership or their attachment to the overwhelmingly most profitable sector of the economy. It is also likely that the foreign investment in the paper plant was premised on this company's access to cheap timber. The furniture firm benefited from strong insider ownership and was in a sufficiently low-tech sector that its accumulated reserves were sufficient for restructuring. Access to cheap Russian wood, along with high shipping costs for furniture, gave them additional advantages. These conditions seemed to eliminate the opportunistic behavior of managers and workers.

The investigation of these "outliers" leads to a qualification of the inductively derived model of shock privatization. Two types of firms are likely to be able to withstand (eventually) the direct and indirect supply and demand shocks that follow from shock privatization. First, firms attached to raw-materials sectors of the Russian economy have an advantage that cannot be eliminated by these shocks. Eventually, foreign capital or well-connected domestic groups will most likely move in to take advantage of these resources. Second, firms producing basic commodities in relatively low-tech sectors that do not rely on complicated high-tech supply chains should be able to recover. They will have significant cost advantages over imports based on their location and will thus be likely to survive. The firms that will be least likely to survive are those in high-tech sectors that do not rely on natural resources. The highly educated technical and scientific workforce that these firms depend on will be increasingly difficult to secure as the financially strapped state cuts budgets for higher education. Eventually, the economy will look like many in the less developed world: a dominant raw-material export sector and a secondary, far less profitable sector producing low-cost, basic goods for the domestic population, goods that have "natural protection" based on transportation costs and knowledge of local tastes.

This model is based on only twenty-five cases, out of an economy made up of thousands of firms. However, the analysis is consistent with available macroeconomic data. The firm-level financial crisis was quite extensive and widespread. By 1998, the average wage paid in Russian firms was only 49 percent of the level in 1990. By 1998, Russian investments fell an astounding 78 percent compared with 1990. The indirect demand shock from the decrease in revenues and the subsequent decrease in state orders are also detectable. By 1997, receipts of the consolidated state budget fell from 41 percent of GDP in 1990 to 26.8 percent in 1997. General government final consumption expenditure in current U.S. dollars fell from 90 billion in 1991 to 43 billion in 1998. Finally, there is evidence consistent with the indirect supply shock created by the loss of skilled manpower. The number of technicians in research and development per million people in Russia fell from 1,340 in 1991 to only 600 in 1997. Equally astounding, the percentage of enrollment in tertiary education declined from 62 percent to 41 percent between 1990 and 1996.

There is no evidence that the problems with postcommunist firms are going away, as the "market" takes hold. In Russia, for example, nonpayment was supposed to be a transitory phenomenon, as the forces unleashed by "the market" should have driven such firms out of business. While these arrears were 6.7 percent of GDP in 1994, by the end of 1997 they were 28.2 percent and in 1999 they were 45.8 percent!<sup>45</sup> The trend in the prevalence of barter is similar. Estimates of the share of barter in sales went from 6 percent in 1992 to 17 percent in 1994 to 51 percent in 1998.<sup>46</sup> Thus, barter exploded after the serious inflationary problems were solved (in 1994) but after the mass privatization program was mostly complete.<sup>47</sup>

## CONCLUSION

The neoliberal policy package of shock therapy sought to achieve a rapid transition to private property and market integration. A crucial component of this policy advice was the rapid privatization of large SOEs prior to their restructuring and without regard to their sale price. The political justification for this policy, the need to privatize quickly lest an antireform coalition gain power, has been clearly falsified by the historical record. This article also provides evidence that the economic consequences of this type of privatization can be truly devastating.

The case studies provide evidence that the rapid privatization of large enterprises according to the neoliberal blueprint produces multiple supply and demand shocks, which make it very difficult, if not impossible, for firms to successfully restructure.<sup>49</sup> Only firms in the raw-materials sector, or those producing simple goods with "natural protection," have much of a chance. As a result, most firms partially withdrew from the capitalist market economy to survive. To the extent that firms reoriented to the new economy, they typically did so by employing less technically sophisticated labor processes.

Unfortunately, a vibrant nonprivatized private sector that could efficiently employ the freed-up resources from the privatized enterprises did not emerge. There is neither a large amount of greenfield foreign direct investment nor a surging de novo small and medium-sized enterprise sector. The simple truth is that the general economic collapse, combined with the deterioration of infrastructure, the lack of credit, 50 and the inability of the state to provide a crime-free environment, has kept foreign direct investment out and new legitimate enterprise formation to a minimum. The employees that leave the privatized SOEs are not starting future Microsofts at their dachas. If they are lucky, they wind up emigrating. If not, they typically end up barely surviving via petty trading or simply living off their garden plots and charity. As a result, much less wealth is generated in the Russian economy, and what is created primarily benefits a very small elite.51

In retrospect, the postcommunist countries should have followed Janos Kornai's advice that the state should

handle the wealth it was entrusted with carefully until a new owner appears who can guarantee a safer and more efficient guardianship. The point now is not to hand out the property, but rather to place it in the hands of a really better owner.<sup>52</sup>

This would mean trying to restructure SOEs prior to privatization and actively seeking out strategic investors. For a big country like Russia, a large SOE sector would inevitably exist for quite a while. However, despite neoliberal warnings, history shows that this is not incompatible with economic development: the postwar economic booms in France, Italy, Finland, and Austria were led by dominant state-owned sectors.<sup>53</sup>

This is not to argue that mass privatization was the only reason for the disastrous performance of most postcommunist economies. Many other factors undoubtedly were involved.<sup>54</sup> The most prominent alternative to the neoliberal explanation of insufficient adherence to shock therapy comes from institutionalists. As the Nobel laureate Joseph Stiglitz explains, "Many countries that followed the dictums of liberalization, stabilization, and privatization . . . still did not grow. The technical solutions were evidently not enough. An economy needs an institutional infrastructure."<sup>55</sup> Typically, the institutionalists argue that "the speed of the transition . . . turned out to be a secondary issue for performance."<sup>56</sup>

This is not the case: an emphasis on speed, at least in terms of large and medium enterprise privatization, damages the prospects for institution building. Specifically, mass privatization creates a fiscal crisis for most enterprises, which in turn creates a fiscal crisis for the state. The state, consequently, has no money to build (or maintain) the institutions necessary for economic growth.<sup>57</sup>

APPENDIX A
Case Study Information

Case	Location	Size (Employees)	Main Activity	
1	Moscow Oblast	1,030	Clothes production	
2	Moscow Oblast	5,100	Airplane parts production	
3	Vladamir Oblast	2,000	TV/radio production	
4	Vladamir Oblast	1,200	Textile production	
5	Vladamir Oblast	5,000	Tractor production	
6	Vladamir Oblast	600	Machine tools production	
7	Vladamir Oblast	1,040	Textile production	
8	Vladamir Oblast	575	Radio parts production	
9	Moscow Oblast	1,000	Scrap aluminum production	
10	Moscow Oblast	3,000	Harvester production	
11	Moscow Oblast	2,200	Furniture production	
12	Moscow	500	Paint production	
13	St. Petersburg	600	Brick production	
14	St. Petersburg	700	Ceramic basin production	
15	Leningrad Oblast	1,200	Machinery production	
16	Leningrad Oblast	550	Ceramic tile production	
17	Leningrad Oblast	250	Bus production	
18	St. Petersburg	1,900	Cardboard and paper production	
19	Samara	7,500	Mechanical car parts production	
20	Samara	1,800	TV production	
21	Samara	900	Valve production	
22	Samara	400	Clothing production	
23	Samara	600	Machinery production	
24	Samara	2,900	Oil drill bits production	
25	Samara	150	Machinery production	

APPENDIX B
Reported Privatization Shocks in Russian Case Studies

		Loss of	ss of		
Case	Asset Stripping	No Investment	Loss of Inputs	State Sales/ Receipts	Lack of Skilled Labor
2		Yes		Yes	Yes
3	Yes	Yes	Yes	Yes	
4	Yes	Yes		Yes	
5		Yes			
6		Yes			
7	Yes	Yes			Yes
8	Yes	Yes		Yes	
9					
10	Yes	Yes	Yes		
11					
12		Yes			Yes
13					
14	Yes	Yes			
15		Yes			Yes
16		Yes			
17		Yes		Yes	Yes
18	Yes				Yes
19					Yes
20		Yes	Yes	Yes	Yes
21		Yes			Yes
22		Yes		Yes	
23	Yes	Yes			Yes
24					
25		Yes		Yes	Yes

#### NOTES

- 1. Jeffrey Sachs,  $Understanding\ Shock\ Therapy$  (London: Social Market Foundation, 1994), 25.
- 2. Jeffrey Sachs, "The Economic Transformation of Eastern Europe: The Case of Poland" (Frank E. Seidman Distinguished Award in Political Economy, acceptance paper by Jeffrey Sachs). (Memphis, TN: P. K. Seidman Foundation, 1991), 3; Jeffrey Sachs, Reforms in Eastern Europe and the Former Soviet Union in Light of the East Asian Experiences (Cambridge, MA: National Bureau of Economic Research, 1996); David Lipton and Jeffrey D. Sachs, "Creating a Market Economy in Eastern Europe: The Case of Poland," Brookings Paper on Economic Activity 1 (1990): 75-133; David Lipton and Jeffrey Sachs, "Privatization in Eastern Europe: The Case of Poland," Brookings Papers on Economic Activity 2 (1990): 293-333; R. Frydman, C. Gray, and A. Rapaczynski, Corporate Governance in Central Europe and Russia (Budapest, Hungary: CEU Press, 1996); Rey Kosolowski, "Market Institutions, East European Reform, and Economic Theory," Journal of Economic Issues 26 (1992): 673-705; Stanley Fischer and Alan Gelb, "The Process of Socialist Economic Transformation," Journal of Economic Perspectives 4 (1991): 91-106; Olivier Blanchard et al., Postcommunist Reform: Pain and Progress (Cambridge, MA: MIT Press, 1993), 10-11; Carlin, Reenen, and Wolfe, "Enterprise Restructuring in the

Transition: An Analytical Survey of the Case Study Evidence from Central and Eastern Europe," working paper no. 14, European Bank for Reconstruction and Development, London, 1994, 72; European Bank for Reconstruction and Development, *Transition Report* (London: EBRD, 1999); see also Kenneth Spenner et al., "Strong Legacies and Weak Markets: Bulgarian State-Owned Enterprises during Early Transition," *American Sociological Journal* 63, no. 4 (1998): 599-617; Peter Murrell, "What Is Shock Therapy? What Did It Do in Poland and Russia?" *Post-Soviet Affairs* 9 (1993): 111-40; Peter Gowan, "Neoliberal Theory and Practice for Eastern Europe," *New Left Review* 213 (1995): 3-60.

- 3. European Bank for Reconstruction and Development, Transition Report, 16.
- 4. Lipton and Sachs, "Privatization in Eastern Europe," 298.
- 5. Roman Frydman, Andrzej Rapaczynski, and Joel Turkowitz, "Transition to a Private Property Regime in the Czech Republic and Hungary," in *Economies in Transition: Comparing Asia and Europe*, edited by Wing Thye Woo, Steven Parker, and Jeffrey D. Sachs (Cambridge: MIT Press, 1997), 84.
  - 6. Blanchard et al., Postcommunist Reform, xiv.
  - 7. Lipton and Sachs, "Privatization in Eastern Europe," 298.
- 8. Ira Liberman, Stilpon Nestor, and Raj Desai, eds., *Between State and Market: Mass Privatization in Transition Economies* (Studies of Economies in Transformation 23) (Washington: World Bank, 1997), 1. Foreign direct investment could not be a solution since at the beginning of the transition, "countries were perceived as too risky for foreign investment" (Ibid., 8). Moreover, it was assumed that nationalism would make large amounts of privatization through foreign direct investment unpopular.
- Frydman, Rapaczynski, and Turkewitz, "Transition to a Private Property Regime,"
- 10. Timothy Frye and Andrei Shleifer, "The Invisible Hand and the Grabbing Hand," *American Economic Association* (Papers and Proceedings) 87, no.2 (1997): 354.
  - 11. Lipton and Sachs, "Creating a Market Economy in Eastern Europe," 102, 111.
  - 12. Blanchard et al., Postcommunist Reform, 81.
- 13. United Nations Development Program, *Human Development Report for Central and Eastern Europe and the CIS* (New York: UNDP, 1999), 30.
- 14. Saul Estrin and Robert Stone, "A Taxonomy of Mass Privatization," in Liberman, Nestor, and Desai, eds., *Between State and Market*, 173.
- 15. European Bank for Reconstruction and Development, *Transition Report Update* (London: EBRD, 2000), 4; UNDP, *Human Development Report*, iv, 21.
- 16. Janos Kornai, "Transformational Recession: A General Phenomenon Examined through the Example of Hungary's Development," discussion paper no. 1, Collegium Budapest/Institute of Advanced Study, Budapest, Hungary, 1993, 2.
- 17. Anders Aslund, P. Boone, and S. Johnson, "How to Stabilize: Lessons from Postcommunist Countries," *Brookings Papers on Economic Activity* 81, no. 1 (1996): 217-34; Martha De Melo, C. Denizer, and A. Gelb, "From Plan to Market: Patterns of Transition" (Washington, DC: World Bank, 1996); Stanley Fischer, Ratna Sahay, and Carlos A. Vegh, "Stabilization and Growth in Transition Economies: The Early Experience," *Journal of Economic Perspectives* 10, no.2 (1996): 45-66; Jeffrey Sachs, "The Transition at Mid Decade," *American Economic Review* 86, no. 2 (1996): 128-33; Jeffrey Sachs and Andrew Warner, "Achieving Rapid Growth in the Transition Economies of Central Europe," working paper 116, Stockholm Institute of East European Economics, Stockholm, Sweden, November 1996; Marcelo Selowski and Richard Martin, "Policy Performance and Output Growth in Transition Economies," *American Economic Review* (Papers and Proceedings) 87, no. 2 (1997): 349-53.

- 18. For example, Sachs, *Reforms in Eastern Europe*; Martha De Melo and Alan Gelb, "A Comparative Analysis of Transition Economies in Europe and Asia," *Post-Soviet Geography and Economics* 37, no.5 (1996): 265-85.
  - 19. Indeed, one detailed review concluded,

Unfortunately the date at which one might have reasonable confidence in the quality of any given data is highly variable across countries and data sets. In addition, some aspects of any given data may have become reliable earlier than other aspects of the same collection effort. Thus there is no way to avoid systematic evaluation of the reliability of each individual data set in the context of each actual or proposed use. (see Randall K. Filer and Jan Hanousek, "Data Watch: Research Data from Transition Economies," William Davidson working paper no. 416, University of Michigan Business School, Ann Arbor, 2001, 38)

Needless to say, such an evaluation will not be found in any papers using this technique. Data from all years for all countries are simply thrown into the data set. Given the problems with the data, however, it is quite possible that the variation in official statistics observed between countries and in different years might simply reflect differences in the construction of official statistics in these countries at different times more than any actual differences in what these statistics are trying to measure.

- 20. For example, analysts must make the rather heroic assumption that the effects of economic policy in Russia do not have a major, or possibly even a determining, impact on other states of the former Soviet Union or Eastern Europe. This potential lack of independence extends to other groups of countries, such as the Czech Republic and Slovakia or the states of the former Yugoslavia.
- 21. Michael Burawoy and Pavel Krotov, "The Soviet Transition from Socialism to Capitalism: Worker Control and Economic Bargaining," *American Sociological Review* 57 (1992): 16-38; David Woodruff, *Money Unmade* (Ithaca, NY: Cornell University Press, 1999); and see the collection of studies in Michael Burawoy and Katherine Verdery, *Uncertain Transitions: Ethnographies of Change in the Postsocialist World* (Boston: Roman and Littlefield, 1999).
- 22. See Peter Hedstrom and Richard Swedberg, eds., *Social Mechanisms: An Analytical Approach to Social Theory* (Cambridge: Cambridge University Press, 1998).
- 23. See Lawrence P. King, *The Basic Features of Postcommunist Capitalism: Firms in Hungary, the Czech Republic, and Slovakia* (Westport, CT: Praeger, 2001).
- 24. This argument might be used to advocate the use of firm-level survey data instead of a relatively large number of case studies. An appreciation of the postcommunist business environment, especially in Russia, should give pause to this strategy. The processes being investigated in this article—the transformation of ownership, investment, profits, and asset stripping—do not lend themselves to study with survey methods, especially in the "low trust" contexts of many postcommunist countries. This is especially true with ownership, which in the Russian context is often deliberately hidden. In many of the case studies, the interviewees claimed not to know the identity of outside owners or refused to provide specific information. In more than 90 similar case studies I conducted in Central Eastern Europe, no interviewee refused to give this information. This may be due in some measure to the fact that in these countries, this information is for the most part legally available in court registries and other organizations, while this is not the case in Russia. Indeed, a small test survey fielded at twenty-five Russian firms failed to yield any useful information on ownership. In addition, it would be very difficult to construct an adequate sample frame given the large amount of illegal or "gray economy" activity and the prevalent postcommunist practice of splitting one enterprise up into a number of legally separate firms for tax purposes. Also, since managers who have committed economic crimes may

not care to fill out a survey about such activities, it would be very difficult to rule out systematic response-rate bias. The semistructured interview method is superior in eliciting more accurate responses on these crucial questions by allowing for clarifying questions and additional probing, guided in part by nonverbal cuing in face-to-face discussion.

- 25. The sample frame was developed by the director of ASTI, a Moscow-based independent labor newsletter.
- 26. King, *The Basic Features*; and Lawrence King, "Making Markets: A Comparative Study of Postcommunist Managerial Strategies in Central Europe," *Theory and Society* 30, no. 4 (2001); Eric Hanley, Lawrence King, and Janos Istvan Toth, "The State, International Agencies, and Property Transformation in Post-Communist Hungary," *American Journal of Sociology* 108, no. 1 (July 2002).
- 27. Moscow's relatively strong performance is the exception that proves the rule. Luzhkov (Moscow's mayor) steadfastly refused to implement Chubais's mass privatization scheme. Yeltsin's compromise gave Moscow to Luzhkov and the rest of the country to Chubais
  - 28. Sachs, Understanding Shock Therapy, xii.
- 29. Gil Eyal, Ivan Szelenyi, and Eleanor Townsley, *Making Capitalism without Capitalists: Class Formation and Elite Struggles in Postcommunist Central Europe* (London: Verso, 1998).
- 30. Oliver Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications* (New York: Free Press, 1975).
- 31. In addition, the lack of state funding has meant a shriveling up of government support for nonprivate research and development institutions, as well as the drastic curtailment of state credits to fund either firm restructuring or firm research-and-development efforts.
- 32. I am further convinced that this is actually a consequence of shock privatization and not a universal managerial gripe because managers did not make the same complaint at twenty-five similar firms in Poland, which did not experience extensive rapid large-scale privatization; see Lawrence P. King, "Postcommunist Divergence: A Comparative Analysis of Russian and Polish Capitalism," *Studies in Comparative International Development* 37, no.3 (2002): 3-34.
- 33. Only the elimination of the "hidden unemployment" in socialist firms contributed to an increase in labor productivity as measured by output per unit of labor. But this does not result in greater wealth creation per unit of labor.
- 34. They modernized, but they could not have replaced all of their equipment for this much. They had two lines of production—each centered on a giant paper machine. According to interviews at two paper multinationals in Poland in the summer of 2001, these machines were perfectly fine for producing at Western European quality levels and cost about U.S.\$150 million to replace.
- 35. Russia's cumulative foreign direct investment inflow per capita from 1989 to 1999 was only U.S.\$71, compared to an average of U.S.\$668 for Central and Eastern Europe and the Balkans (EBRD, *Transition Report Update*, 15).
- 36. They have a location similar to the leading Scandinavian producers in terms of transportation costs, and they have among the cheapest raw material inputs in the world. For example, they pay \$9 per cubic meter of fiber, compared with \$25 in Poland (according to an interview with the CEO of a major multinational paper producer in Poland conducted in the summer of 2001 in Swiecie, Poland).
- 37. The interviewee also acknowledged that members of the management "stole from the company . . . legally" by renting a section of the factory and selling the production on their own.
  - 38. Williamson, Markets and Hierarchies.

- 39. Unfortunately, without far more extensive research there is no way to know if this firm's survival was a contingent event (based on something like a particularly skilled union leadership) or was structured in some way.
- 40. One other firm (case 19), a producer of alternators and starter engines, was able to make investments in new technology. However, it still had significant financial problems and flirted with bankruptcy. These investments were organized by the car giant Autovaz, which purchased 80 percent of their products. The car sector was one of the most heavily protected in Russia, and the oligarch Boris Berezovsky initially built his fortune by controlling the distribution of these cars by colluding with Autovaz management, who sold the cars far below cost; see Paul Klebnikov, *Godfather of the Kremlin: Boris Berezovsky and the Looting of Russia* (New York: Harcourt, 2000).
- 41. Alexander Vorobyov and Stanislav Zhukov, "Russia: Globalization, Structural Shifts and Inequality," CEPA Working Paper Series 1, working paper no. 19 (New York: New School University, 2000), 6, 9.
- 42. World Bank, *World Development Indicators* [CD-Rom] (Washington, DC: World Bank, 2001).
  - 43. Ibid.
- 44. World Bank, World Development Indicators [CD-Rom] (Washington, DC: World Bank, 1999).
  - 45. Vorobyov and Zhokov, "Russia," 24.
- 46. Daniel Treisman, "Inter-Enterprise Arrears and Barter in the Russian Economy," *Post-Soviet Affairs* 16, no. 3 (2000): 230.
- 47. This runs counter to the neoliberal position (and indeed the orthodox Keynesian position) that barter is the rational response when money is too unstable a medium in which to conduct transactions (David Lipton and Jeffrey Sachs, "Prospects for Russia's Economic Reforms," *Brookings Papers on Economic Activity* 2 (1992), 220).
- 48. Poland and Slovenia were very slow to privatize their state-owned enterprises (Mark Kramer, "Polish Workers and the Postcommunist Transition," *Europe-Asia Studies* 37, no. 4 (1995): 654; Joze Mencinger, "Privatization Experiences in Slovenia," *Annals of Public and Cooperative Economics* 67 (1996): 415-28), but they have not reversed course to a market economy.
- 49. While this evidence is drawn only from Russian case studies, it is worth noting that none of the cross-national regression equations purportedly demonstrating that a failure to carry out shock therapy is responsible for poor performance includes a variable for the speed of large-enterprise privatization.
- 50. While there has been a proliferation of banks, their primary function is processing payments, not "attracting deposits and issuing credits"; see Vladimir Popov, "The Financial System in Russia Compared to Other Transition Economies: The Anglo-American Versus the German-Japanese Model," *Comparative Economic Studies* 41, no.1 (1999): 8.
- 51. The proportion of the population below the poverty line from 1993 to 1995 shot up to 50 percent from just 2 percent in the period from 1987 to 1998; see UNDP, *The Human Development Report CD-ROM* (New York: United Nations Publications, 1999). Other estimates, including those from pro-"reform" sources, place the rate much higher. An imminent historian concludes that "some 75 to 80 percent of Russians now live below or barely above the minimum subsistence level"; see Stephen F. Cohen, *Failed Crusade: America and the Tragedy of Postcommunist Russia* (New York: Norton, 2000), 184. Life expectancy in Russia in 1997 was 66.9 years, down a full 2.3 years from 1989 (World Bank, *Development Indicators*, 1999). This puts Russian life expectancy below that of the Chinese (69.8 years) and Vietnamese (67.4 years). By 1999, Russian life expectancy had fallen still more, to 65.9 years in 1999; see "An Ailing Russia Lives a Tough Life That's Getting

Shorter," *New York Times*, 3 December 2000, 1. At the same time, Russian inequality has skyrocketed to the level found in Brazil and South Africa; see Vorobyov and Zhukov, "Russia." 28).

- 52. Janos Kornai, *The Road to a Free Economy: Shifting from a Socialist System* (New York: Norton, 1990), 11.
- 53. Heschel Hardin, *The Privatization Putsch* (Halifax, Canada: Institute for Research on Public Policy, 1989), 2.
- 54. Other components of shock therapy may be at fault. Some argue that stabilization policies were too drastic and unduly cut aggregate demand (Alice Amsden, Jacek Kochanowicz, and Lance Taylor, *The Market Meets Its Match: Restructuring the Economies of Eastern Europe* (Cambridge, MA: University of Harvard Press, 1994); Lazlo Andor and Martin Summers, *Market Failure: Eastern Europe's "Economic Miracle"* (London: Pluto, 1998). Others suggest that radical trade liberalization devastated domestic firms before they had a chance to restructure; see Andor and Summers, *Market Failure*; Michel Chossudovsky, *The Globalization of Poverty: Impacts of IMF and World Bank Reforms* (London: Zed, 1997); Peter Gowan, *The Global Gamble: Washington's Faustian Bid for World Domination* (London: Verso, 1999). This article is consonant with these critiques. Together, they suggest that shocks created by neoliberal transition policies may well have overwhelmed postcommunist enterprises and that "natural market forces" alone were not up to the task of transforming the postcommunist economies in a positive way.
- 55. Joseph Stiglitz, "Development Based on Participation—A Strategy for Transforming Societies," *Transition* 9, no. 6 (1998): 2.
- 56. Vladimir Popov, "Shock Therapy versus Gradualism: The End of the Debate Explaining the Magnitude of Transformational Recession," *Comparative Economic Studies* 42 (spring 2000): 1. Stiglitz, however, does believe that speed matters.
- 57. This phenomenon can be clearly seen in the case studies, where the dearth of skilled manpower resulting from the absence of state funding for local polytechnic institutes created a major problem for many firms.

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