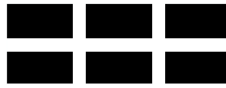

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Privatization and State Capacity in Postcommunist Society

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Abstract

Economists have used cross-national regression analysis to argue that postcommunist economic failure is the result of inadequate adherence liberal economic policies. Sociologists have relied on case study data to show that postcommunist economic failure is the outcome of too close adherence to liberal policy recommendations, which has led to an erosion of state effectiveness, and thus produced poor economic performance. The present paper advances a version of this statist theory based on a quantitative analysis of mass privatization programs in the postcommunist world. We argue that rapid large-scale privatization creates severe supply and demand shocks for enterprises, thereby inducing firm failure. The resulting erosion of tax revenues leads to a fiscal crisis for the state, and severely weakens its capacity and bureaucratic character. This, in turn, reacts back on the enterprise sector, as the state can no longer support the institutions necessary for the effective functioning of a modern economy, thus resulting in de-industrialization. Using cross-national regression techniques we find that the implementation of mass privatization programs negatively impacts measures of economic growth, state capacity and the security of property rights.

JEL Codes: B52, C31, H11, D02, D23, F02, P26, P51

Key words: privatization, transition economies, state capacity, property rights, institutions, growth

Introduction

Between 1989 and 1991, the Soviet empire disintegrated, leading to the emergence of markets and private property in all socialist economies except North Korea and Cuba. Western-trained economists provided the postcommunist policy elites with a blueprint for constructing capitalism amid the ruins of communism.[1] These economists created the so-called Shock Therapy policy package, which was adopted in some form by most of the postcommunist world (UNDP 1999: 30; Murrell 1996: 31; Greskovits 1998: 22-23). In the still-communist countries of Asia, markets and private property were being implemented more gradually, from 1978 onwards in China, and by the middle to late 1980's elsewhere in the region. After another decade and a half of liberalization and privatization, few analysts predict anything but a capitalist endpoint for the region.

Despite the widespread implementation of a liberal policy agenda, economic divergence in the postcommunist world has been greater than anyone predicted. The most unexpected outcome was what economists have termed the "postcommunist recession," an economic decline which amounted to a system-wide depression, leading to extensive de-industrialization. The affected countries experienced a catastrophic decline in the technological level of production, the effectiveness of state institutions, and levels of human capital (see UNDP 1999; Vorobyov and Zhukov 2000; Burawoy 2001a). In Russia, as in most of the Former Soviet Union (FSU) and South Eastern Europe, the poverty rate skyrocketed, increasing from 2 percent in the late 1980'sto 50 percent by the middle of the 90's (Milanovic 1998). Between 1989 and 1999, Russian per capita income fell by 38 percent, while male life expectancy declined by 5 years (World Bank 2004), ranking the country's overall life expectancy 122nd in the world, tied with North Korea and Guyana (Brainerd and Cutler 2005: 2).

Central Eastern Europe fared noticeably better. The region experienced a substantial but relatively lower increase in poverty, while life expectancy actually grew during the first decade of transition. In terms of economic development, Poland (followed closely by Slovenia) grew the most over this period, 39.3 percent, while Hungary, Slovakia, and the Czech Republic remained approximately at pre-transition levels. Central Eastern Europe also stands out with respect to the quality of the state and the protection of property rights, with the Central Eastern European states performing markedly better than the rest of Eastern Europe and the FSU (EBRD 1999).

East Asia, where a number of communist regimes remained in power, experienced very high average growth rates, ranging from a moderate 36 percent in Laos to an extraordinarily successful 119.7 percent in China.

Table 1 demonstrates the overall diversity of postcommunist performance.

Table 1: Mass privatization programs, economic growth, state capacity, and security of property rights

Country	Mass privatization	Growth of GDP per capita % (1989-2003)	Governance quality index (1999)	Insecure property rights (1999)
Russia	Yes	-20.66	1.16	41.6
Ukraine	Yes	-45.26	1.24	44.1
Belarus	No	7.16	1.57	31.1
Moldova	Yes	-49.56	0.82	33.1
Lithuania	Yes	-6.14 (1994-2003)	1.54	29.4
Estonia	No	10.45	1.95	8.3
Latvia	Yes	-9.89	–	24.8
Uzbekistan	No	-11.43	1.83	9.5
Kazakhstan	Yes	3.03	1.27	30.6
Turkmenistan	No	-5.14	--	--
Tajikistan	No	-49.22	--	--
Kyrgyz Republic	Yes	-33.38	0.85	38.7
Armenia	Yes	10.14	1.72	23.2
Georgia	Yes	-54.45	1.24	20.3
Azerbaijan	No	-7.17 (1992-2003)	1.53	–
Hungary	No	18.44	1.98	12.9
Poland	No	59.89	1.69	10.1

Czech Republic	Yes	11.24	1.59	22.2
Slovakia	No	11.79	1.65	13.7
Slovenia	No	46.52 (1993-2003)	1.95	11.4
Romania	Yes	-3.47	1.07	21.6
Bulgaria	No	-1.49	1.38	19.2
Bosnia Herzegovina	No	305.42 (1994-2003)	--	18.1
Macedonia	No	-9.01	--	22.8
Croatia	No	5.29	1.43	5.5
Albania	No	26.33 (1993-2003)	--	29.0
Mongolia	Yes	-10.51	–	–
Laos	No	59.26	–	–
Cambodia	No	44.53 (1993-2003)	--	--
China	No	198.92	--	--
Vietnam	No	113.25	–	–

Sources: World Bank (2004) and EBRD (1999).

A comparison of countries within each region reveals substantial variation that appears to follow no obvious pattern. The Czech Republic, for instance, one of Central Eastern Europe's most advantaged countries in terms of human capital levels, prior history of capitalism, debt burden, and location was the worst performer on indicators of growth, state capacity, and security of property rights in its region (EBRD 1999; World Bank and EBRD 2000). In the European part of the FSU, few analysts would have predicted Belarus to outperform Russia or Ukraine on these same indicators. Likewise, in Central Asia, it is unclear as to how Uzbekistan was able to fare better than the relatively modernized, oil-rich, and initially democratic Kazakhstan. These cases are but three examples of a large variety of unexplained postcommunist outcomes. We argue that a substantial part of the divergence in outcomes can be accounted for on the basis of particular government policies employed during the transition. The differential implementation of these policies in the 32 post-Soviet style economies[2] constitutes a quasi-natural experiment in the transition to capitalism that provides a rare opportunity for social scientists to investigate some of the causal processes of globalization and development.

Until now, sociologists have not offered many explanations of the postcommunist divergence, which is surprising, given sociology's great attention to changes in culture (e.g., Eyal 2000; Eyal et al. 1998, 2001; Kennedy 2002), stratification order (e.g., Gerber and Hout 2004; Nee 1989; Walder 1995a; Oi and Walder 1999; Róna-Tas 1994; Burawoy et al. 2000), circulation and reproduction of elites (e.g., Eyal et al. 1998, 2001) and structure of property in the post-Soviet style economies (e.g., Stark 1996; Stark and Bruszt 1998, 2001; Hanley et al. 2002; Walder 1995b; Oi 1992; Nee 1996; Borawoy and Krotov 1992; Burawoy 2001a, 2001b; King 2002). One possible explanation for this silence is that many sociologists have relied on ethnographic, survey, or network data collected in one or, at most, two countries, which for the most part precluded strong theorizing about postcommunist economic divergence due to a lack of comparable data.

Nonetheless, some robust results have emerged from this case study literature. Perhaps the most consistent findings pertain to the role of the state in causing postcommunist divergence: scholars have routinely observed the beneficial effect of the state in China (Walder 1985; Nee 2000; Burawoy 1996), and documented the destructive effect of a state weakened by liberal in the case of Russia (Burawoy and Krotov 1992; Burawoy 1996; Burawoy 2001a, 2001b; King 2002, 2003).

These findings stand in sharp contrast to the past decade of research by economists, who have offered an explanation of postcommunist divergence that confirms their original theory, utilizing cross-national regressions of annual statistical data reported by the international financial institutions. This original theory holds that, while countries did not start with identical initial conditions, and thus some had advantages over others, most of the variation in postcommunist performance is explained by how adequately liberal policy precepts were

implemented. Specifically, the claim is that the closer a given country adhered to the liberal policy agenda, the better was its performance during the transition era.

The neoclassical position stands in direct opposition to state-centered explanations, which, so far, remain unsupported by cross-national statistical analyses, even though such methods are otherwise highly prevalent in sociological research. The present paper corrects for this dearth by providing a straightforward statistical evaluation of the economic and sociological theories.

Our own theory holds that *the implementation of liberal policies creates severe supply and demand shocks for the enterprise sector, leading to technological downgrading and reliance on inefficient exchange relationships, such as barter, to maintain production. These conditions create a fiscal crisis of the state, which, in turn, erodes its bureaucratic capacity and strength. The ensuing weak, non-bureaucratic state further damages prospects of successful enterprise restructuring, especially in high-tech manufacturing. The result is a vicious cycle of declining state capacity and enterprise failure, resulting in system-wide de-modernization*. We test this theory by focusing only on one element of the liberal policy package, which also happens to be the most innovative one, namely, rapid, large-scale privatization programs, also referred to as mass privatization programs.

The remainder of this paper is structured into six parts. The first specifies in greater detail mainstream economic transition theory. The second elaborates the state-centered alternative. The third discusses the methodology and data used in the existing econometric analyses of postcommunist performance, arguing that these models use a vague and subjective independent variable, unsuitable for accurately evaluating policy performance, and a statistically inappropriate measure for the dependent variable that massively distorts the substantive findings. The fourth delineates our own variables, data, methods, and hypotheses. The fifth reports the

results of our regression models, showing that the implementation of mass privatization programs has led to (1) reduced state capacity, (2) inadequate protection of property rights and (3) lower economic growth. In the conclusion we delineate a number of theoretical and policy implications, and suggest directions for future research.

The Liberal Theory of Economic Transition

Shock Therapy was, above all else, a Smithian analysis: a successful transition to capitalism could be accomplished by relying on the power of market forces and private property, unleashed by a radical curtailment of the state's involvement in the economy. Shock Therapy, it was argued, would set free economic restructuring in the postcommunist world, leading to rapid growth and convergence with the West (Sachs 1994: 25). Note that this model is based on a dichotomy between *planned* and *market* economies, where the process of *transition* describes a linear move from the former towards the latter.

The heart of the theory, at a meta-theoretical level, is the Smithian notion that economic development can be achieved by combining free markets with private property. The 1999 edition of the European Bank for Reconstruction and Development's (EBRD) *Transition Report* succinctly sums up the consensus of foreign advisors and postcommunist policy elites at the start of the transition: "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" (1999: 167). For the analysts at the EBRD, of course, it went without saying that this scenario takes low inflation as a given, as stable money provides the foundation for the type of rational decision-making which is believed to be the primary mechanism of developmentally

beneficial restructuring. Within this framework, self-interested actors (i.e., private owners), responding to the "true" information of prices, pursue rational economic activity and, when aggregated at the national level, this will produce the most efficient outcome. The role of the state is limited to the protection of property rights and the provision of basic public goods. Internationally, each country comes to rely on doing what it does best, taking advantage of its real (i.e., non-socialist) comparative advantage. When brought down to a policy level, the argument is that, after macroeconomic stabilization measures are introduced, the priority should be on liberalizing (both externally and domestically) and privatizing the economy as quickly as possible.

The logic is elegant. Liberal reforms (rapid liberalization, privatization, and stabilization) would combine the advantage of "true prices" with "a fully private incentive structure," unleashing enterprise restructuring (EBRD 1999: 167; see also Sachs 1992, 1996; Frydman, Gray, and Rapaczynski 1996; Kosolowski 1992; Lipton and Sachs 1990a; Fischer and Gelb 1991; Blanchard et al. 1993: 10-11; Carlin, Reenen, and Wolfe 1994: 72). At the same time, mass privatization would destroy the strongest potential anti-reform coalitions. Unless firms were privatized and trade in their sectors liberalized during the brief window of opportunity afforded by the period of "extraordinary politics," managers and workers of state-owned enterprises could be expected to act in their own self-interest and seek to halt or even roll back privatization and liberalization efforts in order to put off the unpopular consequences of restructuring (e.g., lay-offs) (Lipton and Sachs 1990b: 298; see also Frydman, Rapaczynski, and Turkowitz 1997: 84; Blanchard et al. 1991: xiv).

Privatization, by creating a system of dispersed economic owners in economic competition with each other, is thought to create agents with an interest in a lawful and rational state that

provides an even playing field. These new capitalists would have a powerful interest in forging a "night-watchman state" (EBRD 1999).[3] Such a state, because it refrains from distorting markets, would create conditions for the optimal reallocation of capital and the continued restructuring of the enterprise sector. Since failing companies would no longer be rescued through government intervention, state capital would be replaced by financial market capital, as free competition would generate a complete set of markets, including a capital market (Lipton and Sachs 1990a: 102, 111), which would fund enterprise restructuring. Taken together, these conditions would create the optimal incentive structure for firms to restructure so as to reflect their real comparative advantage, thus laying the foundation for rapid economic growth and convergence (Sachs 1994: 25; Blanchard et al. 1991; EBRD 1999).

The mainstream economic argument combines a political economy approach to reform with a purely economic logic of transition. The key to this political economy is speed: privatization had to be accomplished during the period of "exceptional politics," when people were willing to put aside interests in their own security for the future benefit of society. It was understood that economic actors are rational utility-maximizers, and that self-interested behavior was bound to reassert itself sooner rather than later. Therefore, as there was no way of knowing how long this window of opportunity would last, governments had no choice but to pursue rapid large-scale privatization.

Economists and policy-makers have long known how to stabilize and liberalize economies (i.e., by raising interest rates, limiting monetary emissions, freeing prices, and opening up trade); in the postcommunist context, this could be accomplished through national parliamentary legislation. In contrast, the difficulties in privatizing a large number of state-owned enterprises in a short period of time were enormous. Margaret Thatcher only managed to privatize 20

companies over the course of eleven years. The postcommunist world, however, had thousands of large state enterprises and, unlike England, no existing class of capitalist owners. Furthermore, policy advisors by and large assumed that transition economies were too risky for foreigners to make large investments, and that, even if foreign direct investments were forthcoming, local nationalist forces would prevent large amounts of privatization to foreigners (Frydman, Pistor and Rapaczynski 1996). Thus, considering the potentially short-lived window of "exceptional politics," foreign investment was simply too slow to be viable strategy (Blanchard et al. 1991).

The solution was to implement mass privatization programs, which involved the rapid transfer of shares to firm insiders and citizens for nominal sums, thus creating a kind of "people's capitalism." However, it was assumed that competition, a free capital market, and unhindered firm exit and entry would quickly lead to a concentration of capital. Some argued that Western financial consulting firms should serve as asset management companies, in which ordinary people could invest their vouchers. Voucher or citizen privatization would thus legitimize the transition to capitalism by giving citizens and firm insiders a stake in privatization, while at the same time would providing an ingenious vehicle for the transformation of large amounts of state property during a short period of time.

The State-Centered Alternative

We build our theory on the basis of findings from qualitative sociological research. Burawoy and Krotov (1992) provide one of the first and most important sociological critiques of transition economics, relying on extensive ethnographic fieldwork in a number of firms of a Russian lumber conglomerate. They describe a situation where mainstream economic policies have ironically led to the realization of the classic communist dream of the "withering away" of the

state. Rather than producing a modern capitalist economy market, the reforms produced a system of "merchant capitalism," an account which Burawoy later reformulated as a theory of postcommunist "involution" that results from state failure (1996, 2001a).

According to the theory of merchant capitalism, Shock Therapy led to the destruction of the socialist planning apparatus. However, rather than markets emerging to take its place, the pathologies of the old economic system were exacerbated. The informal relationships that had emerged between enterprises as they were trying to solve the problems of the socialist shortage economy were recreated by postcommunist managers who, faced with the dismantling of the planning apparatus, relied on barter over market integration. Old socialist conglomerates, freed from central control, and still possessing monopoly power in their markets, acted to reinforce their positions of supremacy. The resulting disruption in supply chains led to greater anarchy of production, creating even greater worker control of the labor process than existed under socialism, and thus giving rise to a situation in which the workers became essentially merged with the means of production. As a result of these conditions, there were no systematic incentives or pressures for firms to reinvest in the means of production or to change products to maximize profits (as there are in Western capitalism). Instead, surplus was appropriated in the sphere of circulation by "merchant capitalists," a politically connected trade and financial elite, who then shipped their new wealth out of the country.

Burawoy (1996, 1999, 2001a, 2001b) develops this merchant capitalism thesis into a theory of postcommunist involution. His convincing comparison of Russia and China, although based only on Russian fieldwork, highlights the centrality of the state in explaining postcommunist divergence. Juxtaposing the two countries, Burawoy argues that "[a]t each step of the transition

the absence of an effective state explains the unintended consequences of reform as the acceleration of economic involution" (1996: 1111).

Even though involution was driven by state collapse, Burawoy insists that involution is not a feature of the transitional system, but rather an "emergent and enduring type [with] nothing inherently unstable about [it]" (1996: 1115). Thus, ironically, it is the weakened state itself which locks in permanent involution by continuing to bail out inefficient firms, thus recreating soft budget constraints. As a result, firms do not go out of business, and resources are not re-allocated to more efficient purposes. "Russia … ended up with a perverse combination of private property and soft budget constraints. The result is involution" (1996: 12).

We agree with much of Burawoy's analysis. Liberal policies successfully destroyed the planning apparatus but, unfortunately, did not confirm the belief that "markets spring up as soon as central planning bureaucrats vacate the field" (Sachs 1994: xii). Eliminating state involvement in the economy does not automatically produce Smithian behavior (specialization, innovation, accumulation, and rational profit-maximization). Rather, postcommunist actors were able to recreate socialist informal institutions to shield firms from exposure to the competitive market forces, as described by Burawoy and Krotov.

We also build off of Burawoy's concern for an effective state. This, of course, echoes a theme in sociological analyses of China (Walder 1995b; Nee 2000), comparative and historical sociology, and the sociology of development more generally (Evans 1995; Evans and Rauch 1999; Chibber 2002). We must, however, slightly modify the mechanisms outlined in Burawoy's theory. His analysis, ultimately, rests on the observation that in Russia, as opposed to China, there was no "communist party to fall back on" for maintaining political control, thus forcing the state to resort to firm bailouts to ensure domestic stability (1996: 115). We believe this argument

both over-emphasizes the hardness of budget constraints in the Chinese state-owned sector and under-emphasizes the hardness of these constraints in Russia. Even if Burawoy is empirically correct, isolating the existence of the communist party offers no vantage point for explaining differences between Russia and other East European countries, in which the communist parties had also disintegrated.

Our analysis differs from Burawoy's insofar as it places primacy not on the state's ability to produce hard budget constraints, but on the depressive effects of Shock Therapy on firms and, subsequently, state capacity via the mechanism of falling revenues and increased incentives for corruption. Fieldwork in Russian firms reveals a myriad of supply and demand shocks that hit firms following the implementation of liberal reforms (Burawoy and Krotov 1992; King 2002, 2003). By 1999, most Russian firms operated under substantially hardened budget constraints. While the state bailed out some major firms at points during the first half of the 1990's, the shortage of state revenue made these rescue operations, for the most part, a phenomenon of the past. Yet the central problem facing the economy was not the end of government bailouts, but a lack of state support for market institutions. Firms stayed alive, despite hardened budget constraints, largely by relying on non-market forms of exchange. They attempted to meet market demand to the extent possible, but this typically meant moving (far) down the technological ladder due to the disruption of complex high-tech supply networks.

Thus, we offer an alternative state-centered theory, building on Burawoy's analysis of postcommunist involution, which emphasizes supply and demand shocks to enterprises, as well as their indirect effect on state capacity as the main mechanism responsible for de-modernization.

The negative shocks to the domestic economy which follow rapid liberalization of prices and foreign trade, as well as the shock associated with the austerity of stabilization programs, have been extensively discussed by heterodox critics of the Washington Consensus (the most prominent is Nobel Laureate Joseph Stiglitz [2002]; but see also Gowan 1995, 1999; Andor and Summers 1998; Chossudovsky 1997; Amsden, Kochanowicz, and Taylor 1994; UNDP 1999). Given the often monopolistic structure of Soviet-style economies, rapid price deregulation led to a rapid increase in the price of inputs, creating a serious supply shock as producers became unable to afford adequate amounts of necessary inputs. The wholesale liberalization of imports created a large drop in aggregate demand for domestic producers since they now faced global competitors – some more technologically advanced, and others with cheaper labor.

In addition, a devastating shock resulted from the dismantling of the old COMECON trading system (the economic equivalent of the Warsaw Pact). Liberal advisors insisted on this step, as COMECON constituted the international extension of communist central planning, and thus did not reflect "real" prices (Gowan 1995). For many states, however, a vast majority of trade had taken place with former COMECON members, thus accounting for a large portion of overall economic activity. The breakdown of this trading system therefore further disrupted supply chains, and constituted a loss of markets.

The shock produced by the fiscal and monetary austerity entailed in stabilization packages is also well documented by these critics. With low monetary emissions, the radical curtailment of government subsidies, and the price of credit sharply increased, most firms ran into severe cash-flow problems and a shortage of capital for investments and day-to-day operations.

The third component of Shock Therapy, the one empirically examined in this paper, is the implementation of mass privatization programs, which have received much less attention than

the other “shocks” (but see Ellerman 2001, McDermott 2002; King 2001, 2002, 2003 for exceptions). These programs allowed large state-owned firms to be quickly privatized even though no class of domestic capitalists existed. As a result, firms privatized though such programs did not have owners with sufficient resources to restructure them.

Without any capital to carry out desperately needed restructuring, and without the injection of new managerial talent, many firms found themselves in untenable positions. Owners, managers, and workers, unable to work cooperatively to better their common cause, pursued short-term, self-serving strategies to accumulate wealth and survive the transition. Mass privatization also created minority owners with no capacity to monitor firm insiders or other owners. This outcome was inevitable because the institutions that protect shareholder rights and help to create markets in advanced capitalist systems did not yet exist (Hall and Soskice 2001; Elson 1991). This combination led to large amounts of asset stripping, wreaking havoc on the functioning of many firms.

These four shocks – swift and extensive liberalization, stabilization, mass privatization, and the loss of the COMECON trading system – all weakened firms. When these shocks overwhelmed upstream producers of crucial industrial inputs, an additional supply shock occurred for downstream industries. Many industrial-supply firms had what Williamson (1985) calls “asset-specific knowledge” – producing goods with knowledge of the specific, and sometimes unique, needs of their purchaser. These types of suppliers are very difficult to replace in the short term. Even if a firm finds a replacement, it will probably be a foreign company, and prices will probably be too high.

As a result of the multiple supply and demand shocks produced by liberal reforms, most firms experienced severe financial crises. Firms responded in a number of ways: a large share of

all wages went unpaid; firms reduced their demand for inputs, especially investment goods; and there was a huge decline in gross capital formation throughout Eastern Europe and the Former Soviet Union.[4] In addition to lowering production and investment, firms retreated to non-monetary (and thus non-market) mechanisms of exchange to ensure survival, and/or shifted to lower value-added production to earn actual currency.

As economic activity declined and crisis hit the enterprise sector, tax payments shrank due to the spread of hard-to-tax barter, and the decrease in value-added resulting from technological downgrading. In addition, the lowering of tariffs and the disbanding of monopolistic state-owned trading companies as part of liberalization programs also reduced state revenues. These effects combined to create a severe fiscal crisis.[5] In Russia, for example, receipts of the consolidated state budget declined from 41 percent of GDP in 1990 to only 26.8 percent in 1997, even as real GDP was halved (Vorobyov and Zhukov 2000: 5; EBRD 1999: 73). As a result, both state orders and state payments for the remaining orders collapsed, producing another major demand shock for firms.

The loss of tax revenue from enterprise failure, exacerbated by the rise of non-monetary transactions, inevitably weakened the state. This fiscal crisis, combined with a widespread hostility toward industrial and Keynsian policies, resulted in a lack of support for the institutions that enable firms to restructure in order to compete in high value-added goods on the liberalized domestic or world market. A particularly important instance of this phenomenon occurs when the state stops supporting the institutions that turn out skilled manpower – especially young experts – and enable R & D efforts.

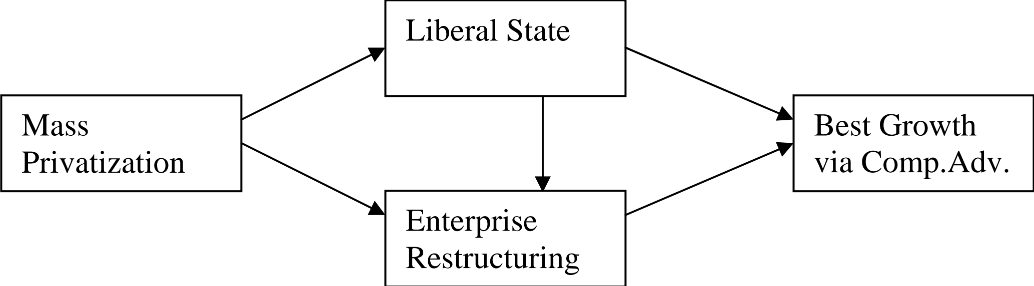
This fiscal crisis also meant that the state was increasingly unable to meet its formal obligations to its officers. The state began to break down since poorly paid (or unpaid) state

officials were easily corrupted. Its bureaucratic nature decomposed as it became riddled by patron-client ties between government officials and businessmen, which then created additional barriers to the operation of firms without such connections (for Russia, see the seminal works of Pappe 2000, and Reddaway and Glinski 2001). Private market success came to depend to a great extent on arbitrary political decisions and the exercise of private force. This lawless environment also reacted back on the enterprise sector, curtailing entrepreneurship and investment.

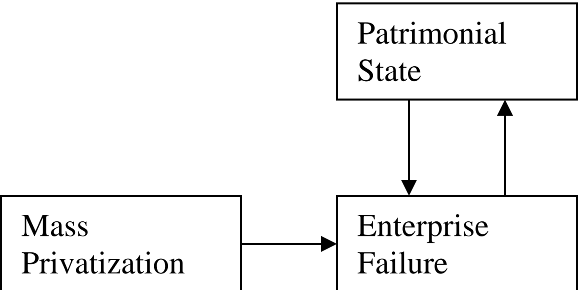
All these effects combined to create postcommunist de-modernization or involution. The competing causal effects of mass privatization are represented in figure 1.

Figure 1: The Consequences of Mass Privatization

The Mainstream Economic Framework



The State-Centered Framework



The Econometric Literature on Postcommunist performance

There is a substantial econometric literature using cross-national data that supports the mainstream economic position. This literature has three major strands. The first, the orthodox position, holds that the central determinant of postcommunist economic success is the implementation of liberal policies, which consist of various types of deregulation, stabilization, and privatization measures – collectively referred to as "liberalization" (de Melo and Gelb 1996; de Melo et al. 2001; Sachs 1996; Fischer, Sahay and Vegh 1996). A second group, the economic institutionalists, argues that economic reforms have basically no effect. What matters instead are history and geography, reflected in number of structural features referred to as "initial conditions" (Popov 2000; Stuart and Panayotopoulus 1999; Campos 2001). The orthodox position does not deny the importance of "initial decisions" but it emphasizes the pathologies of accumulation under socialism, most importantly "over-industrialization" and "lack of market experience." Accordingly, the postcommunist world is mostly paying the price of having an "artificially" high growth of living standards in the past. Finally, a third group argues for the joint importance of a wide variety of initial conditions and the implementation of liberalizing reforms (Falcetti, Raiser and Sanfey 2002).

There are two major problems with the econometric models. First, their measure of liberal reforms is subjective and imprecise. In its place, we offer a straightforward alternative that measures only the actual implementation of transition policies, avoiding the building-in of success into the indicator, and being precise enough to be of use for guiding public policy. Second, their dependent variable, annual growth rates, is inappropriate since the ultimate measure of interest is overall growth (i.e., modernization or de-modernization), which can be quite different from average annual growth.

The Liberalization Index

Within the economic literature, the specification of the independent variable, the measurement of liberalization, is almost always the same. Virtually all accounts use an index created by Martha de Melo and her colleague Alan Gelb (1996).[6] A close look at what this indicator actually captures reveals a highly flawed measure of social policy. The de Melo and Gelb composite liberalization index (LI) has three weighted components: (1) internal markets (liberalization of internal markets and the abolition of state trading monopolies) (weight .3); (2) external markets (liberalization of the foreign trade regime, elimination of export controls and taxes, and substitution of low-to-moderate import duties for import quotas and high import tariffs; current account convertibility) (weight .3); and (3) private sector entry (including progress of small-scale and large-scale privatization) (weight .4).

Added together, these components produce an index that ranges from 0 to 1 with 0 representing an unreformed economy and 1 an extensively reformed economy. The component measures are themselves abstracted from annual scores produced by the EBRD for its *Transition Report* series. These scores are admittedly subjective. De Melo and Gelb describe the index creation as follows:

> An extensive process of consultation was followed in assigning annual country rankings for each component of the LI [liberalization index]. First, the authors proposed rankings on the basis of their own knowledge and country reports. Second, the authors consulted World Bank and other country specialists on a country's pace of reforms over time and on its ranking relative to other transition countries known by the specialist. Third, revised rankings were submitted to a second round of comments from relatively senior experts who have a comparative perspective across a wide ranger of countries. And fourth, for the 25 countries in the CEE and FSU, a further adjustment was made based on the transition indicators in the EBRD's 1994 Transition Report and the accompanying text. This adjustment was designed to introduce further objectivity into the country rankings … *In the final analysis, the rankings reflect the author's judgment* [emphasis added] [1996:36].

A close look at some of the country scores undermines their validity. Take, for instance, the scores for privatization in Russia and Poland. According to country reports published by the EBRD, Russia, from 1992 to 1994, privatized 80 percent of its large enterprises via a mass privatization program. In Poland, by contrast, resistance to mass privatization plans delayed the program until 1995, and limited its scope to small and medium-sized firms worth only 10 percent of total state assets (Orenstein 2001; Kramer 1995). Yet, in terms of its privatization score (ranging from 0 to 1), de Melo and Gelb assigned Poland a .82 in 1992, whereas Russia received a .49; by 1994, Poland was a deemed a .86, and Russia only a .66. Thus, according to these indicators, one would get the impression that the Poland was in closer adherence to liberal policy precepts with regard to privatization than Russia, when in reality the reverse was true: by 1994, Russia had privatized 15,000 large state-owned enterprises and Poland almost none.

Overall, the LI covers a variety of different policies, some of which likely produced opposite effects. Moreover, the index contains an inherent bias toward success, as a number of its component indicators are indirect measures of a growing economy or an effective state, such as the measure of banking reform which indicates “significant lending to private enterprises” (EBRD 1999: 25), without doubt a feature of economies with an already large private sector. It also seems possible that the authors have a strong theoretical orientation and value commitment toward liberal economic orthodoxy, and sincerely believe the latter to produce developmentally beneficial outcomes (see the seminal works by Wedel [2001] and Kennedy [2002]). In the construction of subjective indexes, such perceptions might inadvertently enter the coding process.

A further problem with the LI is that it does not take into account the “double movement” identified by Polányi (1957). That is, the destabilizing effect free-market policies exert on

society, provoking a backlash that necessitates a partial reversal of those policies. For instance, as David Woodruff (1999) shows in *Money Unmade*, Russia's strict monetarist policies led to the proliferation of barter and the use of local monies. This, in turn, forced the government to print more rubles in an effort to renationalize the increasingly fragmented economy, thus, in effect, reversing the monetarist policies.

We argue that the only legitimate way to test for the effects of policies is to use variables that represent in a clear and straightforward way the actual implementation of concrete policies. Policies must be analyzed separately, not lumped together in a single variable, thus obscuring all kinds of potentially cross-cutting effects.

Annual Rates of Growth versus Absolute Rate of Growth

When measuring economic growth, most of the econometric literature relies on variables measuring annual rates of growth, such as annual change in GDP or GDP per capita. While annual rates of growth might be preferable to overall growth in very long time-series (Levine and Renelt), they are inadequate for describing the structural changes characteristic of economies in transition, or explaining the divergence of outcomes in the postcommunist world. Many transition economies experienced substantial de-modernization; for this reason, annual rates of growth are not an appropriate indicator of transition success, as the magnitude of the decline, and the erosion of the human and physical capacity for high-value added sectors make transition a "one-off" event. Consequently, we argue that the rate of growth over the entire period should be the variable of interest in statistical analyses of the transition to capitalism.

Using annual rates is also statistically inappropriate with regard to the postcommunist environment, because the steeper the economic decline of a given country during the early

transition years, the higher will be its subsequent short-run (i.e., annual) growth rates, for the economy is starting out at a lower base. An ordinary least-squares regression of the average annual growth rate following the transition recession recovery on the size of the total economic decline before the moment an upward growth trajectory is resumed confirms this idea. Each percent of decline in GDP per capita before the recovery is associated with an additional .082 percent of average annual growth rate thereafter (the model explains 26.03 percent of the variance); for the average mass-privatizing nation, which experienced about a 45 percent initial decline, this amounts to a 3 percent increase in subsequent annual growth.[7]

Data, Variables, and Hypotheses

Data

The analyses reported in this paper are based on a dataset of the social, economic, and political development of 30 transition and reform communist economies. This data is drawn from two principal sources: (1) the World Bank World Development Indicators Database (World Bank 2004), an annual compendium of economic, social, environmental, business, and technology indicators for 152 countries with populations of more than 1 million people; and (2) the World Bank/EBRD Business Environment and Enterprise Performance Survey (World Bank and EBRD 2000), a survey of over 4000 firms in 25 transition economies, conducted between 1999 and 2000, that examines a wide range of interactions between firms and the state.[8] In addition, variables were generated on the basis of historical records, including those provided by the various editions of the *Transition Report* (EBRD 1996, 199, 2000).

Dependent Variables

Economic growth. We use the percentage change in GDP per capita (constant 1995 USD) between 1989 and 2003 as a measure of economic growth. As noted above, doing so is preferable to using annual growth rates within the context of postcommunist transition.

State Capacity. Constructing valid and reliable measure of the bureaucratic nature of the state or of state capacity is notoriously difficult. The present analysis relies on a governance quality index developed by the EBRD as such measure. The index is a composite score ranging from 1 (ineffective) to 3 (highly effective), taken from the Business Environment and Enterprise Performance Survey, which averages a firm's perception of obstruction resulting from microeconomic and macroeconomic factors, physical infrastructure, and law and order (EBRD 1999: 116).

Property Rights. Strong bureaucratic states protect property rights and contracts. Drawing again from the Business Environment and Enterprise Performance Survey survey, we incorporate a variable that indicates the percentage of a country's firms which disagree or strongly disagree with the statement that their national government "will uphold contracts and property rights."

Independent Variable

Mass Privatization. A binary indicator is used to specify whether a given country implemented a mass privatization program, defined as a program that covered at least 25 percent of all large state-owned enterprises over a period of two years.

Control Variables

Initial development. We use initial GDP per capita (logged) prior to transition as a measure of controlling for initial differences in wealth between countries, a measure which economists like Barro (1991) have found to be associated with future growth rates.

Total Population. Total population prior to transition is included as a measure of country size.

Presence of Oil. A binary indicator is employed to account for the presence of large amounts of oil, as this may have a strong effect on a country's economic performance during the transition.[9]

Military Conflict. A variable measuring the sum of years of conflicts or ethnic violence, which are typically associated with major economic disruptions.

Transition Progress. An aggregate transition indicator is employed to control for transition progress to date. In its original form, this indicator is the average of eight component transition indicators of structural reforms published in the EBRD *Transition Report* series, measuring the extent of enterprise privatization and restructuring (three indicators), market liberalization and competition (three indicators), and financial sector reform (two indicators). For the present purpose, the component indicators for privatization progress were removed, making the aggregate indicator a measure of progress in areas other than privatization.[10]

Central and Eastern Europe and Baltic States. A binary indicator is used to identify Central and Eastern Europe and the Baltic States, as these countries were, on average, significantly more successful than other transition economies.

Hypotheses

We investigate the following hypotheses which were derived from our state-centered theory of transition:

> *Hypothesis 1:* Countries that implemented mass privatization programs will have lower growth of GDP per capita over the transition period than countries that did not implement mass privatization programs.
>
> *Hypothesis 2:* Countries that implemented mass privatization programs will have lower state capacity than countries that did not implement mass privatization programs.
>
> *Hypothesis 3:* Countries that implemented mass privatization programs will have worse enforcement of contracts and protection of property rights than countries that did not implement mass privatization programs.

Models were estimated using ordinary least-squares regression. In each case, the Breusch-Pagan/Cook-Weisberg test, as well as several graphical tools, were used to test for heteroskedasticity. Models in which heteroskedasticity was detected were re-estimated using robust errors. In addition, all models were tested for outliers and influential cases; removing influential cases, at no point, led to different substantive conclusions.

Results

Table 2 reports the coefficients for the regressions of economic growth on mass privatization and several additional explanatory variables.

Table 2: Coefficients for regressions of GDP per capita growth (1989-2003) on mass privatization and several control variables[16]

Variable	Model 1†	Model 2	Model 3	Model 4
Mass privatization	-46.209** (14.773)	-45.073** (13.156)	-51.209*** (12.005)	-48.681*** (11.942)
Initial GDP per capita (log)[17]	–	-11.543 (6.597)	-23.774** (7.510)	-27.129** (7.784)
Initial population (log)	–	15.130** (4.982)	14.774** (4.461)	14.467** (4.389)
Presence of oil	–	-24.423 (19.045)	0.884 (19.565)	2.855 (19.277)
Military conflict	–	-6.464 (3.423)	-6.140 (3.067)	-5.200 (3.093)
Transition progress	–	–	38.740* (14.694)	29.184 (16.074)
CEEB	–	–	–	26.842 (19.855)
Constant	28.799* (13.212)	-120.026 (107.604)	-123.415 (96.332)	-79.001 (100.184)
Adj. R2	0.180	0.528	0.622	0.635
N	30	30	30	30

Note: Numbers in parentheses are standard errors
p<0.05; ** p<0.01; *** p<0.001
† Indicates that robust errors were employed to correct for heteroskedasticity

Model 1 considers the effect of mass privatization programs without any control variables. The coefficient indicates that countries that implemented a mass privatization program, on average, experienced 46.2 percent less growth in GDP per capita during the period from 1990 to 2003 than countries that did not, a finding that is statistically significant. The model explains about 18 percent of the variation in the dependent variable. Model 2 introduces a series of additional explanatory variables, including initial GDP per capita, initial population, years of military conflict, and presence of oil. The coefficient for mass privatization remains negative and

statistically significant in light of these controls. In Model 3, we add transition progress to date as a further control variable.[11] Adding this explanatory variable increases both the negative magnitude and significance level of the mass privatization coefficient, indicating that its effect holds even when other reforms (i.e., stabilization and liberalization measures) are accounted for. Finally, in model 4, we introduce a control variable for Central and Eastern Europe and the Baltic States; doing so leaves the coefficient for mass privatization essentially unchanged, suggesting that this regional difference does not explain the previously observed results. Taken together, the results from table 2 thus demonstrate that mass privatization programs are associated with significantly lower economic growth over the transition period.

Table 3 reports the results of the regressions of governance quality on mass privatization programs and a series of additional explanatory variables.

Table 3: Coefficients for regressions of quality of governance index on mass privatization and several control variables

Variable	Model 5	Model 6	Model 7	Model 8
Mass privatization	-0.446** (0.118)	-0.365* (0.131)	-0.374** (0.137)	-0.361** (0.118)
Initial GDP per capita (log)	–	0.124 (0.087)	0.096 (0.110)	0.044 (0.119)
Initial population (log)	–	-0.044 (0.066)	-0.034 (0.072)	-0.034 (0.055)
Presence of oil	–	-0.025 (0.193)	-0.005 (0.204)	0.013 (0.113)
Military conflict	–	-0.003 0.040	-0.002 (0.041)	0.013 (0.053)
Transition progress	–	–	0.072 (0.164)	-0.047 (0.145)
CEEB	–	–	–	0.285 (0.240)
Constant	1.696*** (0.083)	1.411 (1.274)	1.282 (1.345)	1.895 (1.253)

Adj. R^2	0.412	0.371	0.333	0.368
N	20	20	20	20

Note: Numbers in parentheses are standard errors
* p<0.05; ** p<0.01; *** p<0.001

Model 5 indicates that mass privatization has a strong negative and significant effect on the indicator of state capacity, which amounts to more than a full standard deviation of the dependent variable (its minimum is .82, its maximum is 1.98, and its standard deviation is .344); the model explains a full 41.2 percent of the variation in state capacity. The introduction of several additional explanatory variables in model 6 reduces the negative magnitude of the privatization coefficient slightly but does not affect its significance level. These findings hold when transition progress (model 7) and regional variation (model 8) are taken into account, indicating that the observed negative effect of mass privatization programs on government effectiveness constitutes a robust finding. Countries that implemented a mass privatization program were thus more likely to experience a significant decline in government effectiveness.

Table 4 presents the results for the regressions of the second state capacity measure, property rights security.

Table 4: Coefficients for regressions of property rights security on mass privatization and several control variables

Variable	Model 9	Model 10	Model 11	Model 12
Mass privatization	14.094*** (3.338)	11.955** (3.256)	13.191*** (2.946)	13.180*** (3.013)
Initial GDP per capita (log)	–	-3.961 (2.091)	-0.495 (2.361)	-0.100 (2.543)
Initial population (log)	–	0.648 (1.699)	-0.389 (1.574)	-0.398 (1.610)
Presence of oil	–	4.082 (5.332)	1.510 (4.868)	1.289 (5.000)
Military conflict	–	-1.997 (1.031)	-2.206* (0.923)	-2.315* (0.969)

Transition progress	–	–	-9.167* (3.839)	-8.118 (4.460)
CEEB	–	–	–	-2.446 (4.923)
Constant	15.869*** (2.26)	38.158 (31.864)	52.168 (28.974)	47.423 (31.139)
Adj. R^2	0.423	0.496	0.600	0.582
N	24	24	24	24

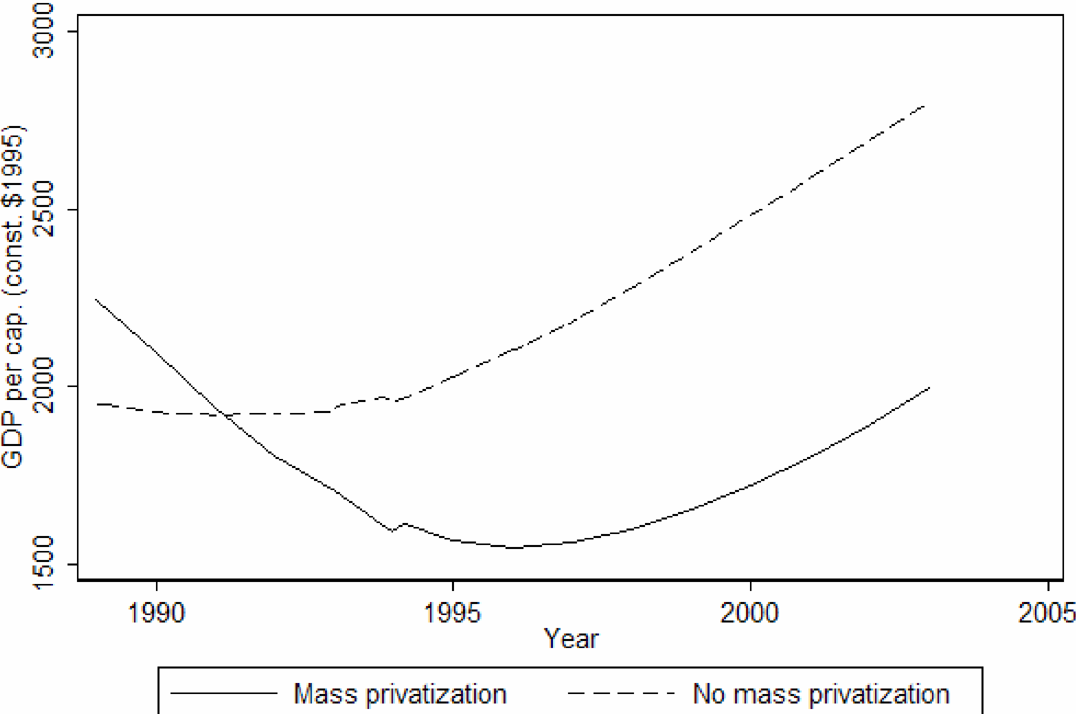
Note: Numbers in parentheses are standard errors
* p<0.05; ** p<0.01; *** p<0.001

Noting that higher values of the response variable denote less secure property rights, model 9 shows that mass privatization programs have a negative and highly significant effect on the security of property rights; the model accounts for approximately 42.3 percent of the variation in the response variable. In countries that adopted mass privatization programs, ceteris paribus, the percentage of firms reporting insecure property rights and contract enforcement was about 14 percent higher than in countries which did not implement such programs. Adding controls for initial development, country size, oil, and years of military conflict (model 10) produces a slightly lower but nonetheless significant coefficient for mass privatization; the explained variation increases to about 49.6 percent. Model 11 demonstrates that the observed relationship between mass privatization and property rights security holds, even when one controls for other reforms, which themselves appear to have a beneficial impact on property rights security.[12] The model accounts for roughly 60 percent of the variation in the response variable. Finally, model 12 reveals that the previous findings hold, even when the superior regional performance of Central and Eastern Europe and the Baltic States is taken into account. Altogether, the results reported in table 4 indicate strong support for the hypothesis that mass privatization programs are associated with reduced property rights and contract security.

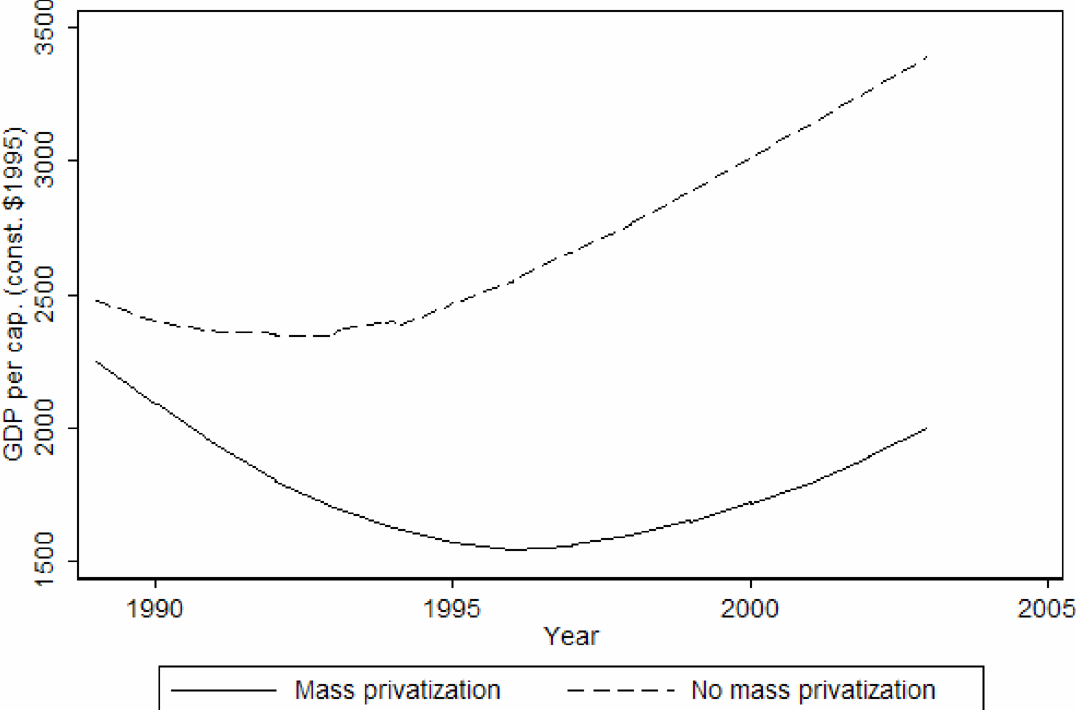
Taken together, findings constitute a strong confirmation of hypotheses 1, 2, and 3. Countries that implemented mass privatization programs experienced reduced economic growth, and are characterized by lower state capacity and worse enforcement of property rights and contracts than countries that did not implement such programs.

Let us now return briefly to the issue of growth rates. Figure 2 presents two graphs on the economic performance of postcommunist countries. The first graph represents the entire population of postcommunist countries, whereas the second graph excludes the East Asian cases. (Note that Mongolia, as a former satellite state of the FSU, was not removed). The graphs divide countries into mass privatizers and non-mass privatizers. In each graph, two locally weighted regression lines (lowess smoothing curves) are shown, which can be understood as representing the average of all countries in the respective privatization groups.[13]

Figure 2: Mass Privatization and Underdevelopment
GDP per capita



GDP per capita (without East Asia)



The graphs show that while the transition depression affected all countries, evident in the downward trajectory during the early years of transition, the mass-privatizing economies recovered substantially later than non-mass privatizers. Crucially, the subsequent rate of growth is not higher among countries which implemented a mass privatization program. (In fact, they grew at a slightly slower pace.) Thus, the argument made by advocates of Shock Therapy, that more radical reforms deliver higher long-term growth even if they are initially painful, is not confirmed by the graphical evidence reported here.

Discussion and Conclusion

We restricted our hypothesis-testing to only one element of a tripartite liberal reform package, namely, mass privatization programs. The liberal theory holds that mass privatization programs

improve the economic functioning of firms, secure the liberal character of the state, and neutralize political opposition in the transition to capitalism. Instead, as our findings demonstrate, the implementation of mass privatization programs hurt the enterprise sector, and contributed to the weakening of the bureaucratic character of the state and its ability to support the institutions necessary for a functioning capitalist economy. From the liberal perspective, this produces what can be termed the paradox of *the liberal path to patrimonialism.*

Because we have limited our analysis to mass privatization programs, the mainstream economic paradigm as such remains intact, even if rapid privatization is demonstrated to be an erroneous policy. From the beginning, privatizing the large number of state enterprises in the postcommunist world was by far the most challenging issue for economists and policy advisors. In fact, there was substantial disagreement among mainstream economists, as scholars such as Janos Kornai (1990: 11) warned against the rapid privatization of state property.

How is it possible that the econometric literature got the story so wrong? It turns out that it was not due to the subjective nature of the liberalization index, although using this variable has obvious disadvantages from a policy perspective, and certainly blurs the thinking about the corresponding causal relationships. Instead, the key issue was the econometricians' use of annual rates of growth rates as opposed to the growth rate over the entire transition period, as the former are distorted by the enormous (though varying) economic depression throughout the postcommunist world. It seemed perhaps intuitive to use annual growth rates as the dependent variable, as this is the norm in econometrics, and has the advantage of being less susceptible to issues of stationarity. However, this choice turned out to be highly inappropriate for the postcommunist context. While annual growth rates may be preferable for long-term analyses, they are not suitable for a relatively short period of time which was characterized by a major

disruption, because the greater the decline in growth during this disruption, the lower the starting point of the subsequent recovery, and the more rapid the annual rate of growth during that recovery.

Using annual rates of growth is not only statistically distorting, but it also obscures the economic reality of the transition. What matters in this regard is that in most postcommunist economies the manufacturing sector was hollowed out, the human capital base eroded, the bureaucratic effectiveness of the state was vitiated, and the overall living conditions of the general population deteriorated substantially.

While our findings indicate that mass privatization programs have a destructive effect on economy and state, we do not assert that the liberal endpoint is undesirable. We are, in fact, agnostic on this point. What we do demonstrate is that the liberal policy package accomplishes the opposite of its stated purpose. Thus, the policy implications of the present analysis are clear. Whenever designing liberalizing reforms of any sort, *far more attention must be paid to safe-guarding state revenues so as to protect its bureaucratic stability*. On a theoretical level, our analysis supports the position that state and market are not antagonistic entities as maintained by the mainstream economic perspective (Block 1994; Evans 1995; Fligstein 2001; Block and Evans 2005). It also supports the traditional sociological thesis of the importance of a bureaucratic state for successful capitalist development (e.g., Weber 1978; Evans 1995; Evans and Rauch 1999; Chibber 2002).

The present findings also falsify the political economy analysis of transition economists: delaying large-scale privatization did not lead to a reversal of the transition process. The incorrect predictions of this mode of theorizing, which constituted the justification for the Shock Therapy policy package and radical economic reforms in general, reveal the inadequacies of the

political analysis of many neoclassical economists. Given that the neoclassical model is based on the assumption of utility-maximizing individuals, it is indeed inexplicable why the actors in the state-owned sector of postcommunist countries that did not rapidly privatize did not form the expected anti-reform coalitions, or otherwise attempted to obstruct the implementation of reforms.

This result is not too surprising to sociologists, who have long since argued that political outcomes are not simply the aggregation of individual rational interests; in Weber's discussion of legitimacy, political outcomes are seen as the result of conflict and collaboration within the administrative elite. So long as this intra-elite situation remains stable, the relationship by means of which the ruled (masses) accept the commands of those with authority (elites) is likely to be maintained as well (Weber 1978).

According to neo-Durkheimian analyses of the transition to capitalism, the symbolic pollution of the planning system and the ideological sacredness of becoming a normal Western market economy had a major influence on political action in the postcommunist world. Consequently, the fear that substantial numbers of workers and managers might decide to reject the transition to markets and private ownership denies the importance of the ideational realm and the power of narratives (Kennedy 2002).

While we do not offer any such political analysis in the present paper, sociology, not neoclassical economics, seems to provide the correct theoretical tools for developing a realistic political economy analysis of postcommunism, and developing countries more generally. Such an analysis seeks to explain transition policies, to a large extent, as the result of structural forces. However, as Weber emphasized, structures merely load the historical dice for different outcomes, which are often the result of some strategic decision or historical accident. Such

strategic choices Weber thought of as the switching points on the train tracks of history. We believe that mass privatization was the biggest such switching point in the postcommunist context.[14] This policy, of the three initial policies in the liberal agenda, produced the least consensus among the actors responsible for its implementation, which is not surprising since this reflected the one unique feature of the postcommunist transition, namely, how do deal with the substantial capital accumulation that had already taken place outside of competitive markets, especially in the absence of a viable class of owners.[15] It should by now be clear that almost all other ways of dealing with the problem – that is, privatizing the state-owned sector – would have been preferable to mass privatization programs.

Notes

1. See anthropologist Janine Wedel's (2002) seminal account of this network of economists and postcommunist elites, and Kennedy's (2002) influential description of "transition culture."

2. We have no data on the former Yugoslavia, and we exclude East Germany because it was formally incorporated into one of the leading capitalist economies.

3. This is a reformulation of arguments made by Therborn (1978), Friedman (1962) and Hayek (1944).

4. For example, by the end of Russia's mass privatization program in 1994, investment had declined to 30 percent of its level in 1990. By 2000, it was at only 18 percent of its level in 1990.

5. Unfortunately, we do not have data on state revenues for most countries in the early nineteen-nineties, so we are unable to test these points directly in the analysis.

6. De Melo was Head Economist of the Policy Research Department for the EBRD, and part of the team of researchers that produced the analysis for the World Development Report *From Plan to Market* (1996). Both de Melo and Gelb were also affiliated with the Harvard Institute for International Development which was headed by Jeffrey Sachs at the time.

7. The full results are not reported in this paper but are available from the authors upon request.

8. The survey is based on face-to-face interviews with firm managers and owners; it is designed to generate comparative measurements in such areas as corruption, state capture, lobbying, and the quality of the business environment, which can then be related to specific firm characteristics and firm performance. The survey includes about 125 firms randomly sampled in each country, with larger samples for Poland and Ukraine (over 200 firms), and an even larger sample for Russia (over 500). While the survey excludes China and Vietnam, and consists exclusively of cross-sectional data, it provides exceptional coverage of the postcommunist world, and is therefore most appropriate for the purpose of the present paper.

9. Findings regarding the direction of this effect, however, are inconclusive. Assuming that the necessary infrastructure was in place, the presence of oil should have made the transition easier, given the value of oil as an export commodity. Some research (Gylfason 2001; Sachs and Warner 1995; Sala-i-Martin 1997), however, found that resource-rich economies have, on average, grown slower than those with poor resource endowments.

10. In their original form, the EBRD indicators range from 1 to 4+, where 4+ indicates that a given country's structural characteristics are comparable to those found in an advanced capitalist economy, and 1 corresponds to the conditions in an unreformed, centrally planned economy with state ownership as the dominant form of ownership. In order to facilitate statistical analysis, the transition indicators were linearized by assigning a value of +1/3 to a "+" sign, and a value of –1/3 to a "–" sign. Note that the transition indicator is merely used to

control for reform measures other than mass privatization programs; it is not conceived as a way of assessing the viability or timing of those reform measures and, in fact, it would be misleading to use it for this purpose as argued above.

11. As noted above, the transition indicator has a built-in positive bias; its coefficient should therefore not be taken at face value as it most likely provides an overstated estimate of the benefits of rapid economic openness.

12. Note that the coefficient of the transition indicator is only marginally significant (p=0.044), and that its significance disappears when the regional control variable is introduced in model 12.

13. These graphs are for heuristic purposes, and are not meant to imply causality. To make such claims, a proper time-series analysis would have to be performed, a task well beyond the space limitations of this article.

14. A logistic regression analysis with the adoption of a mass privatization program as the dependent variable fails to find any significant predictors. In a model which included as predictors share of urban population, initial GDP, total population, a measure of repressed inflation, a location variable indicating whether a country borders an advanced market economy, total growth over the four years prior to the transition, and an indicator of natural resource wealth, none of these variables produce statistically significant coefficients. Running each variable separately, only share of urban population had a statistically significant effect. If large urban populations are understood as a proxy for industrialization, it would follow that the more industrialized a given country, the greater its likelihood of implementing a mass privatization program. However, the predictor loses significance when East Asia is eliminated from the analysis.

15. To Russian historians and social scientists, there is no question that the decision to undertake mass privatization was by no mean pre-determined. There was, in fact, substantial conflict over this issue, and its resolution could well have turned out otherwise. Ultimately, this resolution occurred with the bombing of the Russian parliament by Yeltsin, and the agreement between Luzhkov and Chubais that mass privatization would be implemented in Russia as a whole, excluding Moscow (see the ample documentation of this point in Reddaway and Glinski [2001] and Medvedev [2000]).

16. Bosnia-Herzegovina was excluded from the analysis as the country was only founded in 1994 and, consequently, no meaningful data was available regarding the growth of GDP per capita between 1989 and 2003.

17. Initial GDP per capita and initial population were both log-transformed in order to correct for substantially skewed distributions.

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