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Patrick Hamm,[a] Lawrence P. King,[b] and David Stuckler[b]

Abstract

Why did the transition from socialism to capitalism result in improved growth in some countries and significant economic decline in others? Scholars have advanced three main arguments: (1) successful countries rapidly implemented neoliberal policies; (2) failures were not due to policies but to poor institutional environments; and (3) policies were counterproductive because they damaged the state. We present a state-centered theory and empirically demonstrate for the first time one of several possible mechanisms linking neoliberal policies to poor economic performance: mass privatization programs, where implemented, created a massive fiscal shock for post-communist governments, thereby undermining the development of private-sector governance institutions and severely exacerbating the transformational recession. We performed cross-national panel regressions for a sample of 25 post-communist countries between 1990 and 2000 and found that mass privatization programs negatively affected economic growth, state capacity, and property rights protection. We further tested these findings with firm-level data from a representative survey of managers in 3,550 companies operating in 24 post-communist countries. Within countries that implemented mass-privatized programs, newly privatized firms were substantially less likely to engage in industrial restructuring but considerably more likely to use barter and accumulate tax arrears than their state-owned counterparts.

Keywords

economic performance, mass privatization, post-communism, state capacity

Between 1989 and 1991, the Soviet empire disintegrated. Western-trained neoliberal economists provided the blueprint for constructing capitalism amid the ruins of state socialism. They advocated shock therapy: rapid privatization, liberalization of prices and trade, and fiscal and monetary austerity (United Nations Development Programme 1999). Although sociologists and economists critiqued these policies and their pace (e.g., Burawoy and Krotov 1992; Kornai 1990, 1995; Stark 1992), a group of neoclassical economists at Harvard and MIT believed they were necessary; this perspective was also dominant among economists working

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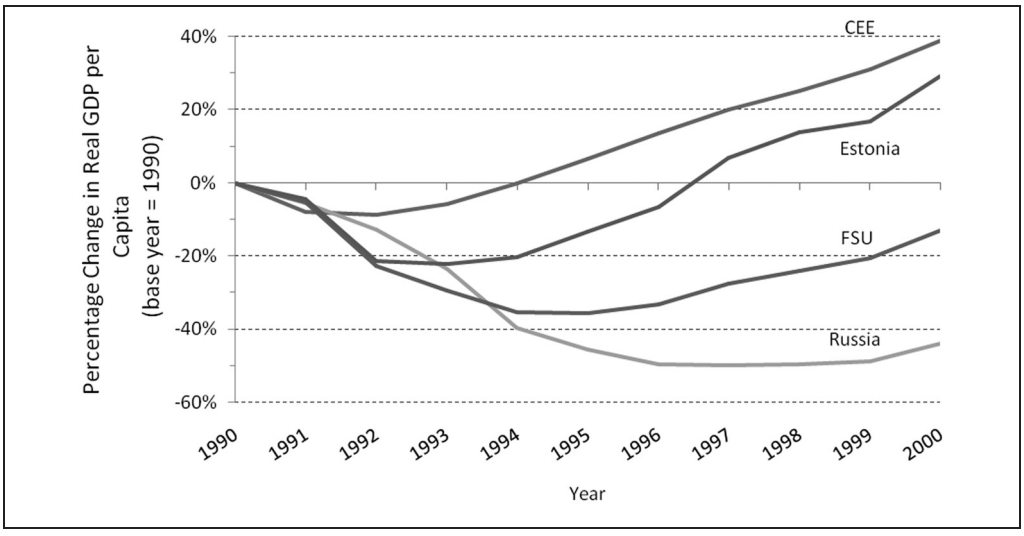

Figure 1. Trends in Post-Communist Growth, 1990 to 2000
Note: Central and Eastern European countries (CEE) include the Czech Republic, Hungary, Poland, Slovakia, and Slovenia. Former Soviet countries (FSU) for which data are available since 1990 include Armenia, Azerbaijan, Belarus, Estonia, Georgia, Latvia, Lithuania, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine, and Uzbekistan. Percentage changes are scaled to GDP per capita in 1990 using constant 2000 international dollars as reported in the April 2008 edition of the World Bank World Development Indicators database.

for international financial institutions (Cohen 2001; Wedel 2001).[1] As Lawrence Summers (1994:252–53) put it, ''Despite economists' reputation for never being able to agree on anything, there is a striking degree of unanimity in the advice that has been provided to the nations of Eastern Europe and the former Soviet Union. . . . [P]rivatization, stabilization, and liberalization . . . must all be completed as soon as possible.'' Most post-communist countries implemented versions of the shock therapy package. Of the three major policies, privatization proved to be the most difficult to implement and yielded the greatest variance in outcomes.

Despite initial optimism, economic performance was disastrous in most post-communist countries, as Figure 1 shows. Between 1990 and 1996, per capita income in Russia and most of the former Soviet Union (FSU) fell by over 30 percent (Rosefielde 2001)—slightly less than the decline in the United States during the Great Depression (see Part A in the online supplement for a graphic comparison [http://asr.sagepub.com/supplemental]).

Yet, not all countries fared as poorly. Estonia's economy, which recorded an initial 20.2 percent drop in GDP between 1990 and 1994, fully recovered by 1997 and, by 2000, had achieved 29.3 percent higher per capita income levels than in 1990. Poland, Hungary, the Czech Republic, Slovakia, and Slovenia experienced the lowest declines in per capita incomes, bottoming out at roughly 10 percent in 1992. By 1994, these countries surpassed pre-transition income levels, and for the next six years they experienced balanced growth (recording a 39.8 percent increase in per capita income between 1990 and 2000).

INITIAL THEORIES OF ECONOMIC TRANSITION

Neoliberal policy recommendations were grounded in the notion that economic

development could be achieved by relying on the power of market forces and private property, unleashed by a radical curtailment of the state. Neoliberals argued that rapid liberalization of prices and trade, alongside privatization and macroeconomic stabilization, would set free economic restructuring, leading to growth and convergence with the West (Sachs 1994). The European Bank for Reconstruction and Development's (EBRD) 1999 *Transition Report* summarizes the consensus of foreign advisors and post-communist 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'' (p. 167).

Economically, proponents expected neoliberal reforms to combine the advantage of ''true prices'' with ''a fully private incentive structure,'' thus promoting enterprise restructuring (EBRD 1999:167; see also Blanchard et al. 1993; Carlin, van Reenen, and Wolfe 1994; Fischer and Gelb 1991; Frydman, Gray, and Rapaczynski 1996; Kosolowski 1992; Lipton and Sachs 1990a; Sachs 1992a, 1996). Neoliberals also advanced a rationale of political expediency: they believed that a period of ''extraordinary politics'' following the collapse of communism gave elites a brief window of opportunity to implement reforms, after which managers and workers of state-owned enterprises might seek to halt, or even roll back, privatization and liberalization efforts in order to prevent layoffs and other social costs (Lipton and Sachs 1990b:298; see also Blanchard et al. 1991; Frydman, Rapaczynski, and Turkowitz 1997). As Sachs (1992b:71) noted at the time, ''The need to accelerate privatization is the paramount economic policy issue facing Eastern Europe. If there is no breakthrough in the privatization of large enterprises in the near future, the entire process could be stalled for years to come. Privatization is urgent and politically vulnerable.'' Similarly, Ira Lieberman, a senior official at the World Bank's mass privatization advisory program, stated that ''there was a concern by Russian reformers, above all, that the communists might soon take control again; their desire, therefore was to move as rapidly as possible, i.e., to create 'facts on the ground' that made a market economy irreversible'' (Lieberman, Kessides, and Gobbo 2008:61).

The need for rapid privatization posed considerable challenges. While economists and policymakers had long understood how to stabilize and liberalize economies (by raising interest rates, limiting monetary emissions, freeing prices, and opening up trade), the attempt to privatize an entire economy within a few years was unprecedented, and doing so without an existing class of private investors seemed almost impossible. According to three senior World Bank bureaucrats involved in the implementation of mass privatization, ''It quickly became apparent that the 'Classical privatisation' model practiced in the UK and New Zealand and emulated by other countries such as Mexico and Argentina would simply not work in the region. . . . [T]here were too many state-owned companies . . . that needed to be privatised rapidly. Implementing privatisation on a case-by-case basis over many years risked missing the 'window of opportunity' for real structural change'' (Lieberman et al. 2008:12).

One attractive option was privatization to foreign owners. Policymakers soon determined, however, that many local elites would reject foreign capital due to economic nationalism, and foreigners would not purchase vast swaths of unprofitable and technologically obsolete Soviet firms. Employee share ownership programs—another quick method of privatization—concentrated individual employee-owned shares and protected them from takeover attempts by outside investors, but they were considered unacceptable because entrenched labor interests might discourage foreign investment and prevent

restructuring (Ellerman 2003). Management and employee buyouts could be equally fast but were rejected as a stand-alone option. To be viable from a neoliberal policy standpoint, individual shares would have to be transferable, and sale to outside owners encouraged, so that capital markets could develop.

With foreign investment unlikely and exclusive insider ownership undesirable, policymakers decided on *mass privatization,* which would give firm insiders and citizens vouchers redeemable for shares at nominal cost (or in many cases, free of charge). Whole sectors of the economy could be rapidly privatized using these vouchers.[2] While most countries adopted several different privatization strategies, as described in Part B of the online supplement, mass privatization was by far the most innovative method and was implemented by approximately half of the post-communist world to varying degrees (see Table C1 in the online supplement).

Would privatization, implemented prior to restructuring and in the absence of capitalist institutions, be adequate to generate growth? Or would there be governance problems, information deficits, and potential market failures? The neoliberal answer resembled a political Coase theorem: ''Privatization . . . offers an enormous political benefit for the creation of institutions supporting private property because it creates the very private owners who then begin lobbying the government . . . to create market-supporting institutions. . . . [Such] *institutions would follow private property rather than the other way around*'' (Shleifer and Vishny 1998:10–11; emphasis added).

Although neoliberal ideas dominated transition policy formation, they were criticized from the beginning by gradualist voices emphasizing the importance of state-guided institutional reform (e.g., Burawoy and Krotov 1992; Murrell 1992; Stark 1992). The gradualist position held that *in the absence of a supportive institutional environment*, radical reforms would be damaging: privatization might lead to asset-stripping rather than investment, and rapid reforms might create economic winners who would subsequently engage in predatory behavior. China's trajectory was frequently cited as evidence for the benefits of gradual reform (e.g., Burawoy 1996).

Shock therapy advocates won the policy debate in most countries. However, instead of improved performance throughout the post-communist region, there ensued great economic decline followed by considerable divergence in subsequent recovery. How did scholars explain this variation in outcomes?

POSTMORTEM LITERATURE: MAIN EXPLANATIONS OF POST-COMMUNIST ECONOMIC PERFORMANCE

Gradualists and shock therapy advocates both claimed that the facts vindicated their original positions. Shock therapists, however, made one important concession: institutions and other initial conditions mattered more than they had previously acknowledged. As the economist Milton Friedman (2002:xviii) put it when reflecting on post-communist Russia, ''It turns out that the rule of law is probably more basic than privatization. Privatization is meaningless if you don't have the rule of law. What does it mean to privatize if you do not have security of property, if you can't use your property as you want to?'' Shock therapy advocates now agreed with gradualists that various initial conditions played a role in explaining the variation in economic performance. That is, some countries were predisposed to restructure their economies more effectively and achieve competitiveness in globalized markets because of their particular historical and cultural legacies.

Proposition 1: Faster and More Extensive Privatization Led to Better Performance

Despite this concession, shock therapists continued to assert that faster and more

extensive reforms lead to better performance. They therefore claimed their initial theories were not in need of fundamental revision. Instead, they argued that variation in performance could be explained by a combination of initial conditions and insufficient implementation of reforms. The seminal statement of this position can be found in the EBRD's 1999 *Transition Report: Ten Years of Transition*, which became part of a growing body of empirical studies supporting these claims (see also De Melo, Denizer, and Gelb 1996; De Melo et al. 2001; De Melo and Gelb 1996; Sachs 1996). This view emphasized corruption as a key factor in undermining reforms, especially in the case of Russia (Åslund 1999). Although proponents acknowledged that ''the benefits of privatization are larger in countries with an effective legal framework and secure property rights'' (International Monetary Fund 2000:105), shock therapists never considered mass privatization detrimental and argued that countries are ''better off after the flawed privatizations they carried out than they would have been had they avoided or delayed divestiture'' (Nellis 2008:81). Supporting this position, two econometric analyses claim that voucher privatization has been beneficial to growth (Bennett et al. 2004; Bennett, Estrin, and Urga 2007). In summary, the original proponents of shock therapy would advocate the same strategy again: ''No country has suffered from too radical reforms. Things have gone wrong because the move to the market was not radical enough'' (Åslund 2002:445).

Proposition 2: Privatization Failed to Create Necessary Governance Institutions

Gradualist scholars felt equally vindicated. Nobel laureate Joseph Stiglitz's seminal paper ''Whither Reform? Ten Years of the Transition'' (2000), for example, argued that prioritizing privatization over establishing a proper institutional framework promoted widespread corruption. Due to information asymmetries and lack of an effective governance framework, the new private owners had incentive and opportunity to pursue rent-seeking and asset-stripping. Stiglitz claimed these tendencies were exacerbated by the liberalization of capital accounts, which facilitated transferring money abroad. Strict monetary policy further encouraged predatory behavior, as high interest rates prevented new firm owners from attracting capital needed for restructuring. Unless accompanied by adequate institutional reforms, privatization would therefore lead to lower economic growth.

Other gradualists claimed that rapid liberalization generated supply shocks in industries that were subject to ''pre-transition distortions'' in the form of subsidies and trade protection (Popov 2007:1). Rapidly eliminating subsidies and deregulating prices left firms in these sectors with insufficient time to restructure, driving them out of business or into the barter economy. Because some investment capital would have been generated by the savings of these noncompetitive firms had they remained protected, overall investment levels plummeted. Slower liberalization would have limited this decline, thus mitigating the severity of the economic downturn (Popov 2007).

Several sociologists have advanced similar arguments, substituting the term state for institutions. Burawoy (1996) and Nee (2000) argued that the state's bureaucratic capacity was a crucial factor in determining economic success or failure. Burawoy (1996), in a seminal article comparing China's and Russia's transitions, argued that Russia performed poorly because neoliberal reforms damaged the state right when the economy was being privatized, thereby creating the perverse combination of private property with soft budget constraints. This resulted in ''economic involution'' (Burawoy 1996:1105), a process in which firm managers failed to utilize state subsidies to increase production, opting instead to pursue asset-stripping and transfer wealth out of the economy. In

China, conversely, the state was able to decentralize property relations to the local administrative level, thereby hardening budget constraints (Walder 1995). Nee (2000) advances the broader argument that China's evolutionary transition strategy permitted reformers to utilize preexisting state structures to build a market economy, whereas Russia's attempt to simultaneously reform economic and political institutions deprived policymakers of their governance tools.

Proposition 3: Initial Conditions, Rather Than Reform Paths, Were Main Determinants of Economic Outcomes

One group of authors claimed that the only relevant factor in explaining performance was different countries' respective starting points (Ganev 2007; Popov 2000; Stuart and Panayotopoulos 1999). Popov (2000), for example, argued that democracy without the rule of law creates massive opportunities for corruption, thereby undermining subsequent reform efforts. Fish (2005) contended that Russia's natural resource wealth, coupled with its weak legislature and delayed economic reforms, further spurred corruption and prevented the emergence of viable governance institutions. Other scholars have emphasized the importance of social structural factors, particularly the power of the former *nomenklatura*. In countries where the *nomenklatura* were sufficiently powerful, they were able to convert their social and political capital into private economic wealth (Eyal, Szelényi, and Townsley 1998; King 2003); in the process, they deliberately destroyed the institutions that prevent economic crimes (Ganev 2007). The outcome was a form of capitalism driven by agents with an inappropriate habitus: because their wealth had largely been obtained by illegal means and might be subject to future dispossession, former *nomenklatura* were incentivized to transfer capital abroad instead of investing in their enterprises.

A variant of the social structural perspective stresses the importance of alliances between firm managers and foreign capital in facilitating successful firm restructuring (King 2000, 2001a, 2001b, 2002). Countries that managed to attract sufficient foreign direct investment (FDI) were able to compensate for the depressive effects of shock therapy. Subsequent work combined this assessment with the view that neoliberal policies were detrimental, arguing that countries in which the *nomenklatura* struck a bargain with enterprise managers (e.g., Russia) effectively discouraged FDI and ultimately experienced deindustrialization (King 2003; King and Szelényi 2005). In other countries (mostly in Central Europe), an alliance of technocrats and dissidents was able to block the *nomenklatura*'s bid to gain ownership of the means of production and instead created the political and social conditions for large-scale foreign investment (King 2002; King and Szelényi 2005; King and Sznajder 2006). This perspective argues that FDI, combined with state-guided enterprise restructuring, accounts for the success stories of post-communist development. While these social structural explanations have substantial merit, they cannot account for differences in performance among countries with *similar* social structural conditions. In particular, they cannot explain intra-FSU or intra-CEE (Central and Eastern European) variation.

A STATE-CENTERED THEORY OF TRANSITION

In this article, we advance a neo-Weberian theory of post-communist economic collapse that focuses on the bureaucratic character and capacity of the state. For Weber, modern rational capitalism is characterized not only by capitalist property relations (private ownership of the major means of production), but also by the presence of a *strong bureaucratic state* (Weber 1958a, 1958b). In this view, modern states hold monopolies on legitimate

violence within their territories, issuing money, and taxing the population. Modern states' bureaucratic nature is created by separation of the office from the officeholder and use of formal rules in decision-making (Weber 1978). The rights of the office as well as the material goods it commands thus cannot be used at the discretion of the officeholder, especially not for personal gain. Weber believed that bureaucracies function well when they have an educated staff with an *esprit de corps* and sufficient material resources. When we speak of a ''strong'' state in this article, we mean a state that has what Mann (1986) termed *infrastructural power*: the ability to penetrate society and realize its objectives.

A bureaucratic state is essential to modern capitalism because in its absence, individual capitalists might resort to *political capitalism*—the use of personal relationships with state officials to create extra-market opportunities for profitable activity (Weber 1966, 1978). In this scenario, sustained innovation and specialization are neglected, as capitalists circumvent market competition by pursuing political accumulation and strengthening their ties to government officials instead of carrying out productive investments. In addition, Weber recognized the essential role of strong nation-states in supporting capitalist growth by protecting and nurturing infant industries. Many other authors have emphasized the importance of states in providing fertile conditions for economic growth through the creation and maintenance of institutions, including adequate legal and regulatory frameworks, counter-cyclical demand stimulation, reliable information diffusion, a skilled and healthy workforce, and new technology development (for a review, see Block and Evans 2005).

Our theoretical account is directly at odds with neoliberal explanations, because we argue that the closer a given country's policies approximated the neoliberal goal of mass privatization, the worse its subsequent economic performance. This explanation is consistent with institutionalist and corruption-centered perspectives but goes beyond them by arguing that mass privatization *itself* damaged existing state institutions and increased corruption. We contribute to the (sociological) statist and social structural accounts by identifying an important mechanism responsible for the deleterious outcomes experienced by many transition societies: mass privatization leading to declining state revenues.

Countries that pursued mass privatization severely damaged their state capacity in two ways. First, privatization eliminated the profits of state-owned enterprises as a source of state revenue. Second, it created enterprises lacking strategic owners, which prompted severe agency problems, increasing the risk of firm failure, recourse to the nonmonetary economy, and nonpayment of taxes. The combined impact on the state's budget led to a fiscal crisis, which weakened development of the very institutions needed for governing the private sector and undermined morale among the post-Soviet bureaucracy. Declining state capacity—fiscally and bureaucratically—promoted corruption and weak institutions, both of which contributed significantly to poor economic outcomes. The result was a vicious cycle of mutual reinforcement between a failing state and a failing economy. Figures 2 contrasts this theoretical logic with the neoliberal account.

HYPOTHESES

Our theoretical framework suggests that mass privatization programs exert direct and indirect effects on post-communist state capacity. In the following section, we develop specific hypotheses concerning each causal pathway and contrast them with competing predictions.

Direct Effects of Mass Privatization on State Capacity

We argue that a post-socialist country's choice to rapidly privatize its enterprise holdings immediately reduced that state's financial

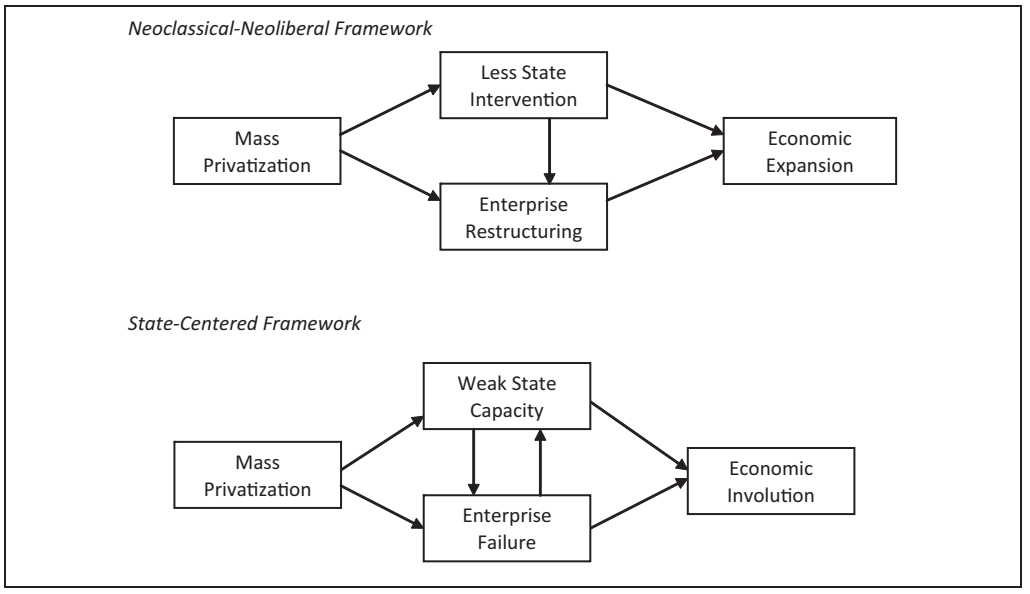

Figure 2. Effects of Mass Privatization on Firms, the State, and Growth

capacity, due to high budgetary dependence on the earnings of state-owned firms. Advocates of neoliberal policies did not expect this fiscal shock to be particularly devastating for two reasons. First, proponents believed socialist states had been engaging in value-subtracting behavior by expending vast amounts of resources to prop up inefficient firms producing unneeded goods (Gaddy and Ickes 2002). Radical privatization therefore had the potential to generate huge savings for the state. Second, they expected rising tax revenues from the superior growth of *de novo* private firms and the improving performance of privatized state enterprises to compensate for revenue shortfalls.

Indirect Effects of Mass Privatization on State Capacity

To avoid a state fiscal crisis as a result of mass privatization, the enterprise sector would have to grow and be taxed effectively. We argue that mass privatization accomplished precisely the opposite: worse enterprise performance coupled with the state's declining capacity to tax firms.

Mass privatization programs, by design, led to greatly dispersed firm ownership. The new owners had only limited incentive to monitor firms, and more important, they lacked the capacity to exercise control over managers and employees (Ellerman 1998). McDermott (2002) demonstrated that in the Czech Republic mass privatization greatly complicated corporate governance, causing assets to go unutilized because of ambiguous ownership situations that discouraged foreigners from investing.[3] Well-functioning regulatory and credit rating agencies or an independent business press might have mitigated the violation of shareholder rights, yet these institutions did not exist.

In most cases, newly mass privatized firms were cut off from state subsidies. Unlike firms privatized to strategic owners, however, they did not have access to resources such as investment capital, new managerial talent, or marketing networks, which would have been crucial for restructuring overstaffed and inefficient Soviet-era factories into globally

competitive firms (King 2003). Faced with this situation, owners, managers, and workers, unable to work cooperatively for the betterment of their firms, tended to pursue short-term parasitic strategies to accumulate wealth, such as asset-stripping. Technologically obsolete firms now faced substantial external shocks and major internal problems.

Some firms responded to these multiple crises by reviving the practice of barter, which had evolved under the planning system to rectify deficiencies in the central allocation of resources (Kornai 1980). Failing post-communist firms retreated to nonmarket mechanisms of exchange. They bartered and tolerated arrears from their customers, in turn failing to pay their suppliers and creating chains of inter-enterprise debt. Firms produced goods for the black market to avoid taxation and often fell behind on tax payments for legally produced goods. Some firms even started using nonofficial money printed by local governments. In effect, firms began to flout the government's monopoly on creation of money and taxation of the economy (Woodruff 1999). We refer to these micro-strategies as *nonmarket* restructuring, which we distinguish from market-oriented strategies of developing new product lines, gaining quality accreditations, and increasing sales. These latter strategies are typical of firms in Western capitalism and generate more economic value for future taxation than do nonmarket activities. Furthermore, nonmarket transactions are much harder to tax than are normal monetary transactions. Firm-level responses to mass privatization thus further strained the state's resources.

The resulting fiscal crisis meant the state was increasingly unable to pay its own staff. Undercompensated government bureaucrats were easily corrupted and provided favors and advantages to businessmen in exchange for bribes or other unofficial payments (Pappe 2000; Reddaway and Glinski 2001). In *patrimonial capitalism,* as Szelényi and his collaborators call it, personal ties between economic and political actors replace bureaucratic organization (Eyal et al. 1998; King 2002, 2003; King and Szelényi 2005).

Based on these considerations, we specify the following hypotheses:

Hypotheses 1: Mass privatization reduces state capacity.

Hypothesis 2: Mass privatization reduces economic growth.

Hypothesis 3: Mass privatized firms are more likely to use nonmonetary exchanges and owe the government tax arrears.

Hypothesis 4: Mass privatized firms are less likely than state-owned firms to pursue market-oriented restructuring.

METHODS

Our analysis uses a multilevel approach, incorporating country- and firm-level data. This enables us to address fallacies that could arise from analysis of national-level data (overlooking mechanisms) or individual-level data (overlooking systemwide processes). Simultaneously, it allows us to model the causal mechanisms by which effects of privatization on firms affect the state, and effects of privatization on the state affect firms.

Cross-national data. On the national level, we report time-series and cross-sectional models using data on the social, economic, and political development of 25 post-communist countries, drawn from the World Bank World Development Indicators Database (2008 edition). In addition, we generated a novel measure of mass privatization based on historical records, including reports from the *Transition Report* series (EBRD 1994–2005). Table 1 summarizes the variables used in the cross-national models. We first analyze the entire sample of countries (Tables 3 and 4). However, given historical differences between FSU satellite countries and core republics, we also provide separate

Table 1. Variables Used in Cross-National Regressions

Variable	Description	Source
Response Variables		
Government efficiency	How would you rate the efficiency of the government in delivering services? (q48b), reverse coded	BEEPS
Weak contracts	To what degree do you agree with this statement? "I am confident that the legal system will uphold my contract and property rights in business disputes." (q23a)	BEEPS
Unofficial payments	On average, what percent of revenues do firms like yours typically pay per annum in unofficial payments to public officials? (q27)	BEEPS
Real government spending	Government spending in constant 2000 dollars, expressed as a percentage of 1992 spending	WDI
Real GDP per capita	GDP per capita in constant 2000 dollars, expressed as a percentage of 1990 GDP per capita	WDI
Explanatory Variables		
Mass privatization	Dummy variable indicating mass privatization programs covering at least 25 percent of large enterprises (see Table C1 in the online supplement for coding)	Authors' coding
Price liberalization	EBRD index of price liberalization	EBRD
Democratization	Cumulative civil liberties and political rights score	Freedom House
Oil	Presence of oil	Authors' coding
War	Military or ethnic conflict	Authors' coding
Urbanization	Urban population as a percentage of total population	WDI
Education	Tertiary education gross enrollment rate	WDI
Former Soviet Union	Dummy indicating whether a country was part of the Former Soviet Union	Authors' coding
Initial GDP per capita	Level of GDP in 1990	WDI

Note: EBRD is the European Bank for Reconstruction and Development (EBRD 1994–2005); WDI is the World Bank World Development Indicators database (2005 and 2008 editions); BEEPS is the World

analyses for the non-FSU and FSU blocks of countries (see Part E in the online supplement). We restricted our study to the period between 1990 and 2000. The starting point is justifiable in view of missing data for many countries in 1989 (moreover, several post-Soviet countries did not yet exist). By the late 1990s, the transitional recession was over in all countries of the post-communist world, and a new set of political and economic dynamics had emerged to create what Szelényi and Wilk (2010) term the Second Transition (involving the reform of social institutions such as the education and health sectors). While this region's economic trajectories have displayed significant path-dependence, this dependence is not absolute. Political and economic developments are increasingly driven by other factors—for instance, the change in relative prices following Russia's sovereign debt default and devaluation in 1998, the strong rise in oil and other commodity prices from the late 1990s onward, or the most recent global financial meltdown, which affected post-communist economies very unevenly. We therefore end our time series in 2000 (although extending it does not affect our statistical findings).

Two variables require further discussion: our measures of privatization and state capacity. Almost all existing analyses of privatization in the post-communist world use the EBRD's indices of privatization progress. Our results are robust to use of these

variables, but the EBRD measures are of limited analytic value because they do not distinguish between different privatization methods. Moreover, as Stuckler, King, and Patton (2009) demonstrate, the residuals of a regression of these indicators on growth are nonrandom and are predicted by prior economic growth (implying that EBRD bureaucrats coded economically successful countries as being more effective privatizers than they actually were).

Therefore, in addition to investigating the commonly used EBRD indices, we constructed a measure to reflect as accurately as possible the actual implementation of large-scale mass privatization programs. To do so, we specified whether a given country implemented a mass privatization program covering at least 25 percent of its large enterprise sector.[4] Ideally, we would have used data on the rate of privatization for each country, as the number of existing firms (denominator) and the number of privatized firms (numerator) were changing. However, inconsistencies in government reporting of privatization and firm data to the international financial institutions made calculation of such a rate impossible for many countries. According to staff members at the EBRD, texts of its *Transition Report* series provide the entirety of the organization's data on privatization, reporting public- and private-sector shares in several different ways: total assets of firms, total number of firms, and percent of total employment. All of these measures have advantages and disadvantages, but they are not commensurate. Table C1 in the online supplement reports our own best estimates of post-communist privatization, along with our coding decisions for each country. We confirmed the coding of our variable with the senior official overseeing mass privatization implementation at the World Bank, Ira Lieberman; he agreed with our coding of countries' privatization programs, with the possible exception of Romania.

Constructing valid and reliable measures of the bureaucratic nature of the state or of state capacity is notoriously difficult. We used a variety of subjective measures of state capacity aggregated from firm-level survey data (perception of government efficiency, property rights enforcement and contract security, and prevalence of corruption), as well as an objective measure for the time-series analysis (total government spending). Comparative studies frequently measure state capacity by expressing government spending as a percentage of GDP. This is sensible, but it assumes there are no significant changes in the denominator during the period under investigation; given the significant economic contraction experienced by most countries in the post-communist world, this approach is not reasonable for the purpose of our study. In Russia, for instance, changes in the ratio of government spending to GDP were driven partially by deliberate attempts to reduce the size of government, but primarily by the rise of the shadow economy and the state's inability to collect taxes (Popov 2004). Given these complications, we followed existing literature in measuring state fiscal capacity by considering changes in total government spending over the course of the transition.

Firm-level data. Our firm-level data are from the World Bank/EBRD Business Environment and Enterprise Performance Survey (BEEPS) of 4,106 large and medium firms in 26 transition economies. Conducted between 1999 and 2000, the survey examines key aspects of governance and institutional support provided by the state, including business regulation and taxation, the legal and judicial system, infrastructure, and financial services (World Bank and EBRD 2011). Specifically, BEEPS assesses how ''the growth of firms, including their decisions to invest and to innovate, and the growth of firms' revenues and productivity are affected by the functioning of government institutions, financial markets, and physical infrastructure'' (World Bank and EBRD 2011). The survey is based on face-to-face interviews with firm managers and owners. It was designed to generate comparative measurements in areas such as corruption, state capture, lobbying, and quality of the business

environment and reports a series of specific firm characteristics and performance measures. One strength of the survey in measuring corruption is its emphasis on the experience of service-users and managers, rather than experts' and households' perceptions. (Research finds the latter two generate a significant positive growth bias in studies of economic performance [see Knack 2007; Kurtz and Schrank 2007]). The survey includes about 125 randomly sampled firms from each country, with larger samples for Poland and Ukraine (more than 200 firms), and an even larger sample for Russia (more than 500). Of the firms surveyed, 16 percent were privatized, 14 percent were state-owned, and the remaining 70 percent were new private firms (World Bank and EBRD 2011). We excluded Serbia and Turkey from our study, leaving a sample of 3,891 firms, of which 3,550 had complete data on the factors of interest.

If a firm was privatized in a country that we coded as having implemented a mass privatization program and this firm reported no foreign investment, we treat it as having been privatized via mass privatization. This creates a conservative bias in the variable, as many such firms were not in fact privatized by this method in mass-privatizing countries (see Parts B and C in the online supplement). Firms privatized by other methods likely suffered much less severe principal-agent problems (e.g., if they were privatized directly to firm insiders), or at least had access to new capital and markets (e.g., if they were acquired by a strategic owner) (King 2001b).

Tables 1 and 2 describe the variables used in the cross-national and firm-level regressions; all equations and further details about our modeling framework are provided in Part D of the online supplement.

RESULTS OF THE CROSS-NATIONAL ANALYSIS

Table 3 shows results of our regressions of three subjective indicators of a strong bureaucratic state on mass privatization and several controls (transition policies, resource wealth, military conflict, demographic factors, membership in the FSU, and initial transition conditions). We found that aggregated survey respondents from countries undertaking mass privatization were more likely to believe the government was inefficient (Model 1), would not protect property rights or contracts (Model 2), and would be more prone to rely on unofficial payments to public officials (Model 3).

Comparing Satellite and Core Countries of the Former Soviet Union

Table 4 reports regression results for the full sample of countries over time. Countries that underwent mass privatization, *ceteris paribus*, exhibited about 20 percent lower government spending than those that did not (Models 5 and 6). Countries that liberalized prices also displayed substantially lower levels of government spending. Because government spending is a component of GDP, we would expect GDP to decline by the amount attributable to mass privatization multiplied by the fraction of government spending in GDP. We found that mass-privatizing countries experienced, on average, a greater than 16 percent decrease in GDP per capita (Models 8 and 9). Price liberalization had a similar-sized negative effect, corroborating a finding by Popov (2007). However, these firms would have been exposed to the potential adverse effects of mass privatization on the entire domestic enterprise sector.

Table E1 in the online supplement presents results of our regressions of government spending on mass privatization using the split sample. We found that in FSU countries, mass privatization was associated with a 22.8 percent drop in real government spending per capita from 1992 to 2000 (Model 12). Not surprisingly, oil was linked to greater government spending (capturing the spike in oil prices during the late 1990s). Similarly, greater

Table 2. Variables Used in Firm-Level Logistic Regressions

Variable	Description / Survey Question	Coding
Dependent Variables		
Barter	What share of your firm's sales are now conducted in barter, offsets or bills of exchange (money surrogates)? (q67a)	0 = no barter 1 = barter
Investment increased	By what percentage has your investment increased/decreased over the past three years? (q50c/q50d)	0 = investment decreased/ stayed the same 1 = investment increased
Sales increased	By what percentage have your sales increased/decreased over the past three years? (q50c/q50d)	0 = sales decreased/stayed the same 1 = sales increased
Employment increased	By what percentage has your employment increased/decreased over the past three years? (q50c/q50d)	0 = employment decreased or stayed the same 1 = employment increased
Overdue taxes	Is the amount of payments overdue (by more than 90 days) by your company to government taxes substantial, manageable, modest or non-existent? (q53a)	0 = non-existent 1 = substantial, manageable, or modest
New product development	Has your company undertaken the successful development of major new product line in the last three years? (q54)	0 = no 1 = yes
Product upgrade	Has your company undertaken the successful upgrading of existing product line in the last three years? (q54)	0 = no 1 = yes
Explanatory Variables		
Privatized	Dummy variable indicating firm was established by privatization of a state-owned firm (q7)	0 = not privatized 1 = privatized
Foreign	Dummy variable indicating foreign ownership	0 = <100% foreign ownership 1 = 100% foreign ownership
Sector dummies	Dummy for firm sector, including agriculture, manufacturing, mining, construction, trade, retail, transport, finance, power and other sectors	0/1
Firm age	In what year was your firm founded? (q6)	Age
Technology	Dummy for whether firm has Internet access (qS.17)	0 = no access 1 = access
Size	Scale of full-time employees, ranging from 1 (1–9) to 7 (500 or more) (qS.5)	Number
$Size^2$	Squared scale of full-time employees, ranging from 1 (1–9) to 7 (500 or more)	
Large	Dummy for >200 employees	0 = <200 employees 1 = ≥200 employees
Firm trades with the state sector	Does your company trade with the state sector	0 = no 1 = yes

(continued)

Table 2. *(continued)*

Variable	Description / Survey Question	Coding
Firm receives subsidies	Does your enterprise receive subsidies (including tolerance of tax arrears) from local or national government (q65a)	0 = no 1 = yes
New general manager	Dummy for whether there had been a change in the general manager within the last three years (q8)	0 = no 1 = yes
Domestic monopoly	Dummy for whether firm has 100 percent of market share (q61)	0 = <100% market share 1 = 100% market share

Source: World Bank and EBRD 2000.

Table 3. Effect of Mass Privatization on Subjective Measures of State Capacity

	(1) Govt. Inefficiency	(2) Poor Property Rights	(3) Unofficial Payments
Mass privatization	.188*	.274**	.073*
	(.071)	(.082)	(.029)
Price liberalization	–.003	–.063	.066
	(.069)	(.115)	(.049)
Democratization	.016	–.014	–.012
	(.017)	(.029)	(.012)
Presence of oil	.055	.005	–.098
	(.080)	(.118)	(.078)
Military conflict	–.002	–.019	.005
	(.014)	(.018)	(.021)
Urbanization	.001	.001	–.003
	(.002)	(.004)	(.002)
Education	–.003	.002	–.003
	(.003)	(.004)	(.002)
Former Soviet Union	–.063	–.077	.099
	(.097)	(.105)	(.049)
Initial GDP per capita	–.000	–.000	.000
	(.000)	(.000)	(.000)
Constant	.781	.427	.193
	(.475)	(.858)	(.336)
Observations	23	23	23
R^2	.644	.663	.589

Note: Robust standard errors are in parentheses.
* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

democratization implied an average increase in government spending per capita of 4.82 percent among FSU countries ($p = .008$) but had no effect among non-FSU countries ($\beta = –4.31$, $p = .39$). We found no statistically significant effect for mass privatization in non-FSU countries once controls were implemented (Model 15). Price liberalization, however, did have a negative effect in this region. Given that the average increase in the EBRD liberalization score for non-FSU countries was 1.97 (range 0 to 4), this is substantial.

Table 4. Effect of Mass Privatization on Real Government Spending per Capita and Real GDP per Capita, 1990 to 2000 (full sample)

	Government Spending			GDP per Capita		
	(4)	(5)	(6)	(7)	(8)	(9)
Mass privatization	−25.007**	−19.884**	−21.063*	−13.299**	−14.914***	−16.307***
	(7.607)	(6.926)	(8.775)	(4.118)	(4.145)	(4.365)
Price liberalization		−13.254***	−7.820*		−6.277**	−7.561***
		(3.588)	(3.974)		(2.150)	(2.285)
Democratization		2.760	.798		1.286	.011
		(1.889)	(2.118)		(.872)	(.925)
Oil		−14.378	14.126		−1.807	−.621
		(11.135)	(17.299)		(7.154)	(12.389)
War		6.677	−5.460		−6.664	−11.744
		(12.283)	(13.232)		(4.137)	(6.193)
Urbanization		.175	−.476		.199	−.143
		(.473)	(.501)		(.292)	(.394)
Education		1.625***	2.045***		1.105***	.983***
		(.365)	(.423)		(.152)	(.266)
Initial GDP per capita		.002	.002		.001	.004**
		(.004)	(.002)		(.002)	(.001)
Country-year trends	No	No	Yes	No	No	Yes
Nation-years	242	242	242	253	253	253
Nations	24	24	24	25	25	25
R^2	.036	.397	.723	.117	.365	.782

Note: Robust standard errors in parentheses are clustered by country to reflect non-independence of sampling; random-effects models presented, controls for country-specific fixed effects do not change the coefficient on mass privatization (Hausman-Taylor $\chi^2(1) = 1.18$, $p = .28$). Real government spending per capita is expressed as a percentage of 1992 government spending. Real GDP per capita is expressed as a percentage of 1990 GDP.
* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

Table E2 in the online supplement presents results of our random-effects regressions of real GDP per capita on mass privatization. We found that privatization was associated with a 13.1 percent drop in real GDP per capita (Model 18), supporting the notion that mass privatization negatively affected growth through a reduction in state fiscal capacity, without a simultaneous compensation in benefits to investment, consumption, or exports. When holding constant trends in government spending, thus effectively blocking the mass privatization–state capacity–growth channel, we found no effect of mass privatization on growth among FSU countries ($\beta = -5.01$, $p = .24$; full results not reported).

Robustness Checks

We performed a series of robustness checks on our cross-national findings. First, we removed potential outliers according to a liberal definition of standard deviations in the residuals of greater than |2| (dropping Armenia in 1992, 1993, and 2000; Azerbaijan in 1992; Georgia in 1991 and 1994; and Tajikistan in 1991); we found that coefficients for mass privatization increased ($\beta = -17.2$, $p < .001$). Second, we introduced a set of country dummies, which left our coefficients for mass privatization unchanged. Third, we replicated our cross-national results using the EBRD index of privatization, producing results consistent with findings reported in Table F1 in the online supplement. In light of these robustness checks, the cross-national evidence supports our neo-Weberian theory linking mass privatization to declines in state capacity and growth.

RESULTS OF FIRM-LEVEL ANALYSIS

For the micro-analysis, we adopted the modeling strategy used in King and Sznajder (2006). We considered multiple indicators of firm performance and controlled for variables commonly used in firm-level analysis, all of which are summarized in Table 2.

Table 5 presents our firm-level results. Enterprises privatized to domestic owners in countries that implemented mass privatization programs were 78 percent more likely to engage in barter than state-owned firms (Model 22), and 56 percent more likely to have overdue taxes (Model 30). They were also 41 percent less likely to have invested (Model 24), 36 percent less likely to have increased sales (Model 26), 58 percent less likely to have hired new employees (Model 28), 36 percent less likely to have developed a new product line (Model 32), and 26 percent less likely to have upgraded existing products (Model 34). Conversely, foreign-invested firms were 62 percent less likely to have engaged in barter (Model 22) and 53 percent less likely to have owed taxes (Model 30). Our micro-level findings are thus consistent with results from the cross-national analysis, indicating that adverse outcomes were significantly more prevalent among the firms we treat as having been mass privatized, whereas privatization to foreign owners (likely strategic investors) had positive effects on firm performance.

Political Economy of Mass Privatization and Potential Endogeneity

It is conceivable that our country- and firm-level results are misleading due to a sick-patient effect. That is, countries with weak states might have chosen mass privatization because they lacked the capacity to implement any other method of privatization. If these countries were going to suffer negative consequences regardless of their privatization strategy, the detrimental effects we attribute to mass privatization might simply be the result of an underlying lack of state capacity and thus be unrelated to the method of privatization.

We assessed the possibility of a sick-patient effect by reviewing the existing

Table 5. Firm-Level Logistic Regressions Results

	Barter		Investment		Sales		Employment		Overdue Taxes		Prod. Development		Prod. Upgrade	
	(22) MP	(23) Non-MP	(24) MP	(25) Non-MP	(26) MP	(27) Non-MP	(28) MP	(29) Non-MP	(30) MP	(31) Non-MP	(32) MP	(33) Non-MP	(34) MP	(35) Non-MP
Privatization	1.777***	1.087	.588***	.856	.639***	.821	.422***	.388***	1.555**	1.390**	.643**	.928	.736*	.859
	(.258)	(.179)	(.071)	(.100)	(.070)	(.126)	(.051)	(.104)	(.223)	(.167)	(.087)	(.199)	(.100)	(.113)
FDI	.378***	.834	.961	1.428	1.738*	1.030	1.863	1.496	.466*	1.700	1.140	1.415	1.157	.865
	(.107)	(.309)	(.215)	(.605)	(.488)	(.424)	(.924)	(.603)	(.154)	(.611)	(.320)	(.495)	(.307)	(.307)
Agriculture	4.321***	.609	1.168	.653	1.988	1.038	.966	.785	3.130**	.914	2.439	2.280*	.928	.706
	(1.055)	(.176)	(.500)	(.244)	(.852)	(.368)	(.236)	(.218)	(1.167)	(.279)	(1.164)	(.878)	(.294)	(.258)
Manufacturing	1.849*	.957	1.765	.739	1.889	.871	1.929	1.152	1.407	1.289	4.754***	2.495**	4.069***	2.349***
	(.485)	(.265)	(.666)	(.211)	(.782)	(.217)	(.652)	(.190)	(.312)	(.443)	(1.775)	(.741)	(1.118)	(.567)
Mining	1.672	1.540	.934	.234	.949	.087	1.219		2.930	3.184	2.421	.948	1.670	.410
	(.852)	(1.369)	(.879)	(.243)	(.544)	(.112)	(.914)		(3.077)	(2.869)	(1.741)	(.901)	(.870)	(.393)
Construction	3.236***	.895	1.172	.656	1.486	.828	1.795**	1.088	1.430	1.672	1.797	1.067	1.241	.979
	(.996)	(.190)	(.581)	(.233)	(.631)	(.333)	(.390)	(.286)	(.373)	(.541)	(.852)	(.405)	(.361)	(.290)
Trade	1.909*	.753	1.696	.832	2.162*	1.251	1.916*	1.483	1.273	1.324	3.039*	1.370	1.206	.801
	(.481)	(.281)	(.505)	(.264)	(.673)	(.407)	(.540)	(.474)	(.291)	(.330)	(1.448)	(.361)	(.383)	(.206)
Retail	.859	.570*	2.006	.510	1.827	.709	1.858	.999	1.603	.666	2.009	1.138	1.334	1.115
	(.203)	(.151)	(.813)	(.176)	(.723)	(.219)	(.598)	(.199)	(.499)	(.222)	(.841)	(.276)	(.432)	(.279)
Finance	.255	.157***	1.929	.596	1.876	1.204	2.610**	2.881**	.396	.929	2.139	1.938	2.057	1.150
	(.224)	(.072)	(.670)	(.328)	(1.334)	(.881)	(.885)	(1.019)	(.432)	(.344)	(.948)	(1.005)	(.884)	(.659)
Power/energy	1.014	.285	.518	.702	.773	.590	.613	1.206	1.265	1.411	1.739	3.104	2.164	1.974
	(.652)	(.290)	(.727)	(.642)	(.742)	(.548)	(.787)	(.782)	(1.161)	(1.581)	(.823)	(2.233)	(1.393)	(2.369)
Other sector	.956	.629	1.577	.711	1.809	.966	1.685	1.491	.861	1.168	1.964	1.461	1.312	1.214
	(.358)	(.239)	(.702)	(.254)	(.650)	(.339)	(.623)	(.403)	(.191)	(.494)	(.923)	(.305)	(.380)	(.201)
Firm age	.997	1.018*	.993	.996	.995	.992**	.988*	.992*	1.001	1.008*	.991*	.997	.999	.999
	(.004)	(.007)	(.005)	(.003)	(.003)	(.003)	(.005)	(.004)	(.004)	(.004)	(.004)	(.004)	(.003)	(.004)

(continued)

Table 5. *(continued)*

	Barter		Investment		Sales		Employment		Overdue Taxes		Prod. Development		Prod. Upgrade	
	(22) MP	(23) Non-MP	(24) MP	(25) Non-MP	(26) MP	(27) Non-MP	(28) MP	(29) Non-MP	(30) MP	(31) Non-MP	(32) MP	(33) Non-MP	(34) MP	(35) Non-MP
Technology	.893	1.709*	2.258***	2.069***	2.432***	1.898***	2.338***	2.272***	.818	.698	1.676***	1.572*	2.108***	1.864***
	(.094)	(.457)	(.486)	(.414)	(.440)	(.362)	(.287)	(.434)	(.086)	(.183)	(.260)	(.313)	(.321)	(.301)
Size	2.578*	1.459	1.102	1.268	1.132	1.324	2.213*	2.084	.998	1.807*	1.025	.897	1.508	.760
	(1.026)	(.404)	(.229)	(.342)	(.323)	(.336)	(.727)	(.804)	(.327)	(.456)	(.286)	(.175)	(.449)	(.272)
$Size^2$	.917	.970	.998	.967	1.004	.978	.925	.900*	1.047	.920*	1.014	1.030	.957	1.055
	(.041)	(.033)	(.027)	(.028)	(.035)	(.030)	(.037)	(.045)	(.052)	(.031)	(.037)	(.026)	(.038)	(.042)
Large	.928	.898	.914	1.202	.873	1.145	.958	1.444	.429	1.446	1.013	.729	1.502	.524***
	(.253)	(.322)	(.201)	(.304)	(.189)	(.293)	(.255)	(.415)	(.222)	(.473)	(.309)	(.233)	(.536)	(.095)
Firm subsidy	1.611*	.915	1.358	.967	1.222	.913	.933	.844	1.173	1.854**	1.213	1.040	1.357	.862
	(.372)	(.255)	(.289)	(.168)	(.184)	(.152)	(.181)	(.145)	(.355)	(.360)	(.354)	(.249)	(.435)	(.143)
State trade	2.533***	2.338***	1.101	1.191	1.338**	1.218	1.301*	1.314	1.332*	.863	1.283	1.332	1.044	1.265
	(.335)	(.307)	(.227)	(.176)	(.147)	(.228)	(.157)	(.263)	(.176)	(.171)	(.174)	(.233)	(.137)	(.247)
New GM	1.678*	1.190	.860	.905	.980	.916	.935	.930	1.452	1.377*	1.232	.772	.769	.871
	(.337)	(.176)	(.108)	(.195)	(.144)	(.119)	(.096)	(.159)	(.414)	(.217)	(.161)	(.135)	(.152)	(.083)
Dom. monopoly	.800	.743	.692	.934	.698	.892	.846	.932	1.075	1.300	.577**	.937	.679	.731
	(.204)	(.128)	(.195)	(.210)	(.165)	(.177)	(.168)	(.163)	(.188)	(.357)	(.098)	(.182)	(.167)	(.128)
Observations	1,823	1,684	1,834	1,664	1,836	1,680	1,836	1,653	1,804	1,672	1,839	1,711	1,839	1,711

Note: MP = mass privatized. Exponentiated coefficients; standard errors are in parentheses.
* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

literature on the political economy of mass privatization. Leading historical accounts of property reform in the post-socialist world, as well as a large body of single-country case-study research, indicate that privatization strategies were politically motivated outcomes of conflicts among elites and, sometimes, other interest groups. Significantly, the choice to mass privatize was not predetermined by a weak state or any other structural feature (for Russia, see Klebnikov 2000; Medvedev 2000; Reddaway and Glinski 2001). A glance at the regional diversity of privatization strategies supports this claim: countries in every region of the post-communist world adopted mass privatization, from the authoritarian states of Central Asia, to the managed democracies of the European FSU, to the liberal democracies of Central Europe.

While space does not permit a detailed discussion of the political economy of mass privatization for all cases, we cite analyses for 10 post-socialist countries that implemented mass privatization programs, which consistently suggest that privatization was driven by political motives (including ethnic, fiscal, anti-Russian, and interest group politics). We also provide a detailed discussion of the Russian case, given that country's regional importance and former political centrality. These materials can be found in Part G of the online supplement.

The majority of scholars familiar with privatization strategies in the post-communist world agree that mass privatization was chosen not because a state lacked the capacity to implement alternative methods, but because of political motives—in particular, the desire to break the power of anti-reform coalitions and make the transition irreversible.[5] Indeed, it surely would have been easier to leave large enterprises under state ownership indefinitely, until an acceptable strategic owner emerged, as governments did in Belarus, Slovenia, Uzbekistan, and Poland.

Although policy choices partially depend on initial circumstances, notions of historical causality—in which such decisions are strictly determined by structural forces—fell out of sociological favor decades ago. Virtually the entire field of political and historical sociology has strongly rejected structural analysis that has no place for contingency and agency in explaining historical outcomes (see, e.g., Moore 1978; Zeitlin 1984; for a review of trends in historical sociology, see Clemens 2007). Therefore, positing that a radical and innovative privatization program that was controversial and fiercely contested was inevitable strikes us as implausible.

Nonetheless, we investigated this possibility statistically by testing whether a range of commonly used initial conditions, including four measures of state capacity, were associated with adoption of mass privatization programs (see Table H1 in the online supplement). The only statistically significant finding relates to government transparency and points in the opposite direction (i.e., more transparent states were more likely to adopt mass privatization programs).

Next, we turned to evaluating a series of common hypotheses proposed in the literature to explain underlying causes of why some countries adopted mass privatization but others did not: regional diffusion, ethnic politicking, and pressure from international creditors. As the probit model reproduced in Table H2 of the online supplement shows, countries were more likely to pursue mass privatization if they were members of the FSU (about three times more likely—a regional diffusion effect); displayed greater degrees of ethno-linguistic fractionalization (both undermining civil society resistance and incentivizing domestic elites to use mass privatization to oust ethnic Russians from privileged managerial positions); had greater levels of democratic participation (used to legitimate the new regime and to consolidate democracy); and had borrowed from the International Monetary Fund in the previous year (pressure from external actors).

Overall, these findings are consistent with our understanding of privatization as

a political decision, driven by domestic reformers aiming to legitimate new regimes or weaken political opponents, and in part facilitated by foreign actors.

Based on these models, we constructed a new variable assessing the *hazard of implementing mass privatization.* This approach captures observable factors that increased the likelihood of pursuing this policy (described earlier) and unobservable factors (obtained from the error term). In a second step, we added this control to our main equations for estimating the effect of mass privatization on GDP. As Part I in the online supplement shows, the effect we recorded was even larger than our original estimates (–42.7 percent, $p < .001$), indicating that factors that predisposed countries to implement mass privatization would have been associated with higher GDP if mass privatization had not been implemented.

In summary, we found neither historical nor statistical evidence indicating a greater propensity among weak states to adopt mass privatization as a property reform strategy. Even if this hypothesis were true, our findings would still demonstrate that mass privatization contributed to a further weakening of state capacity via enterprise failure and reduced tax revenue. Even if weak states had been more likely to rely on mass privatization, choosing this method inflicted further damage on their state capacity (as can be inferred from our firm-level findings).

Political Economy of Firm Selection for Privatization

There is also potential for a selection bias acting at the firm-level. Countries implementing mass privatization programs may have selectively privatized weak and underperforming firms. As a result, any effect associated with privatization may simply reflect that bias. To address this possibility, we review evidence showing that (1) valid information on firm performance was unavailable, making firm selection based on performance very unlikely; (2) as a corollary, comparative firm-level data on pre-privatization conditions do not exist across countries; (3) to the extent firm selection may have occurred, there is evidence firms were chosen on a sectorwide basis rather than a firm-specific one; and (4) in the limited cases where within-sector firm selection occurred, better performing firms tended to privatize first.

First, to our knowledge, no firm-level dataset in existence contains the information on pre-privatization conditions needed to address the issue of potential endogeneity of firm selection on a cross-national basis. For the theoretical and empirical reasons described below, we believe it would be very difficult, if not altogether impossible, to construct such a dataset.

In theory, to capture initial firm conditions, one must accurately assess the value of fixed capital for individual firms, which could be used to predict a firm's competitiveness in a liberalized market. In practice, however, accurate and detailed firm-by-firm data did not exist prior to privatization, as socialist central planners were generally not well-informed about individual enterprises' resources (for a review of the literature, see Szelényi, Beckett, and King 1994). Bauer (1983) describes the *plan bargain*—a system of organizational arrangements in which managers had economic incentives to stockpile resources and conceal information from central planners (see the seminal work of Kornai 1980). In the period leading up to privatization, the partial marketization of the *perestroika* reforms engendered further information asymmetries, as managers began to set up separate corporate vehicles for the purpose of asset-stripping (Ganev 2007; Medvedev 2000). In some cases, managers and firm insiders undervalued firms by falsifying records, permitting them to buy the firm via privatization at a bargain price. Given this combination of factors, it is highly unlikely that states would have been able to use detailed information on firm performance as a criterion for firm selection. The Czech Center for Coupon Privatization, for example,

published information on firms to be included in mass privatization with the explicit caveat that ''much of the data [are] of dubious quality and may not be relevant in a rapidly changing economic situation'' (Shafik 1995:1144).

The greatest obstacle to constructing a suitable dataset, however, is the inherent difficulty in using market economy performance evaluation criteria to measure the performance of firms prior to privatization. Although accounting records of late-socialist state enterprises included metrics of revenues, costs, profit, and productivity, these data cannot be analyzed through the performance lens used to evaluate firms in a free-market economy. As Held and Hill (1989:31) note in a study of the Soviet economy, ''state-owned firms realise a money surplus only when the relation between the state-decreed purchase and sales prices allows for it. They are not free to employ the techniques of competition vis-à-vis sellers and buyers.''

Given these inherent limitations in the available data, few existing firm-level studies have attempted to statistically address potential endogeneity of performance-based selection for privatization. Djankov and Murrell (2002), who conducted a meta-analysis of the existing research on privatization and firm restructuring, report that half of the more than 100 studies surveyed do not mention the issue of endogeneity at all. Hanousek, Kočenda, and Svejnar (2007)—who represent, to our knowledge, the first dataset designed to control for endogeneity, using firm-level initial (pre-privatization) conditions in a study of the Czech Republic—note in their literature review that many studies ''have not been able to control adequately for endogeneity of ownership [firms not being selected for privatization at random],'' and of those that do, ''many treat the issue in a relatively haphazard way'' (pp. 2–3).

Because we cannot address firm selection statistically, endogeneity remains a logical possibility, albeit we believe an unlikely one. Mass privatization, by design, did not occur on a case-by-case basis but instead followed a sectoral strategy. As Lieberman (1997:2) explains in the introduction to a World Bank volume on the experience of mass privatization in transition economies: ''Mass privatization is largely a systems approach to privatization. . . . The programs usually start with a selection process—for example, all medium-size and large enterprises in the tradables sector except very large or 'strategic' enterprises.''

Studies evaluating the determinants of privatization confirm that mass privatization was typically carried out on a sectoral basis. In a study of Russian mass privatization, for example, Nureev and Runov (2002) compare lists of enterprises not subject to voucher privatization (by industry) at different points in time and infer from changes in these lists a desire of officials to privatize the most delicate enterprises last (i.e., assets in the oil, energy, chemical and petrochemical, aviation, and nuclear sectors).[6] To the extent that sequencing occurred, a bias would have operated *across* sectors (e.g., privatizing agriculture early but delaying manufacturing); we are able to control for this in our analysis by using firm-sector dummy variables.

To the extent variation in privatization existed *within sectors*, research indicates that ''better'' firms were privatized first. That is, some countries selectively delayed privatization of the largest, most interlinked state-owned enterprises (considered ''too big to fail'') but rapidly privatized smaller and more dynamic firms (King 2000). Gupta, Ham, and Svejnar (2008:204), in a recent analysis of government priorities and firm sequencing in the Czech mass privatization program, report ''strong evidence that the Czech government privatized first firms that were more profitable.'' Szentpéteri and Telegdy (2010) report similar results in a study of Romanian mass privatization, although they note that an overarching objective of the government in selecting firms was employment preservation, which outweighed even potential efficiency gains from

privatization. To our knowledge, no existing research or data suggest that firms with the least potential were selectively privatized under mass privatization programs.

As a final robustness check, we used the statistical method of constructing a measure of the hazard of privatization described earlier but applied to the firm-level. Again, we used a two-step procedure: first, we estimated the probability that a firm was privatized based on a set of observed characteristics of the firm, including its performance. Then, we used this model to combine observed and unobserved characteristics into a new variable, the hazard of privatization, and incorporated it into the models assessing the relationship between privatization and firm performance. As Part J in the online supplement shows, none of our earlier results were qualitatively altered; in the case of barter, our results became stronger because we found firms with greater underlying hazard of privatization to have lower risks of negative outcomes. This finding is consistent with existing scholarship on firm selection and further suggests that any unobserved firm-selection bias was in the opposite direction of our hypothesis.

DISCUSSION AND LIMITATIONS

Based on country- and firm-level evidence, our analysis indicates that mass privatization negatively affected state capacity via two central mechanisms. Mass privatization directly weakened the state's revenue base, and this decline was not offset by enterprise growth because, as we demonstrated, mass privatization also had negative effects on the business environment. The available data on state capacity are limited, but we employed six different measures in our analysis. Using cross-national longitudinal data, we showed that mass privatization created a fiscal shock to the state that significantly diminished government revenues and spending. Using firm-level data, we determined that mass privatization negatively affected state capacity in three areas: government inefficiency, unofficial payments/bribery, and weakened protection of property rights. Finally, we presented evidence that privatized firms were more likely to rely on barter and accumulate tax arrears, both of which indicate the state's weakened capacity to maintain control of its own fiscal and monetary system.

These findings contrast with the neoliberal prediction that mass privatization would promote firm restructuring and combat weak corporate governance, ultimately leading to stronger growth. They are, however, consistent with the leading postmortem explanations (by economists and sociologists) insofar as weak institutions and poor governance were major causes of the post-communist economic recession. Our model goes beyond this understanding by showing that the capacity of post-communist states, itself contingent on domestic policy choices, played a crucial role in determining subsequent economic performance. Thus, while we agree with sociological work emphasizing the centrality of the state, we isolate fiscal effects of mass privatization as a key mechanism producing poor economic and political performance.

Our results also support the gradualist and statist critiques of rapid liberalization, as well as social structural analyses emphasizing the importance of FDI. Although not a central focus of this article, in many of our models, the EBRD liberalization index had a large negative effect on both government spending and GDP growth. The micro-data also provide some evidence for the beneficial effects of FDI: foreign-invested firms bartered less and paid their taxes more promptly than did domestic-owned companies. Including FDI as a percent of GDP in the regression models had no effect (results not reported), likely because foreign investment was simply not prevalent enough in mass-privatizing countries to make a difference. Indeed, mass privatization's designers viewed it as an

alternative to waiting for foreign investors, whom they expected to be hesitant to invest in gigantic Soviet-era combines during a time of considerable political and economic uncertainty. The decision to mass privatize was thus also a decision not to rely on FDI.

One limitation of our study is that, while we documented effects of mass privatization on a variety of measures of state capacity at the national and firm levels, we did not model the causal chain to demonstrate the effect of state capacity on economic growth (beyond a direct effect on lower government spending, which, by design, is a substantial component of GDP). However, as noted earlier, social scientists and policymakers have increasingly recognized that state capacity is a crucial determinant of, and precondition for, balanced economic growth—a trend also reflected in recent policy reports of the World Bank (1997, 2002). Additionally, corroborating our firm-level insights, our macro-level path analysis supports the hypothesis that the effect of mass privatization on growth operated principally through a reduction in state capacity (as measured by per capita spending); preliminary evidence from this region also shows that government spending has had economically stimulating effects.[7] Although we used six indicators of state capacity, the enterprise- and country-level measures are limited (especially the fiscal indicators). Future studies should attempt to better assess bureaucratic capacity and its variations across countries and over time.

Still, it is conceivable that a potential unobserved third factor accounts for the observed link between mass privatization and weakened state capacity. If this hypothesis were correct, however, this factor would arguably constitute no more than a distant determinant on the causal chain. Given that mass privatization was implemented across subregions with divergent historical trajectories, it is unlikely that a single underlying factor simultaneously affected state capacity and the privatization strategy chosen by different post-socialist governments. Our models and a detailed comparative review of the historical cases indicate that domestic intra-elite competition, ethnic politics, and regional diffusion all played significant roles in determining the method of privatization. At the firm-level, there is also potential for selection based on performance, leading to spurious estimates of effects of privatization. However, just as data were unavailable to policymakers in assessing pre-privatization performance and market values of firms (and thus this was unlikely to have been a major component of selection), so, too, is this information not accessible to researchers today. Where information is available, its validity is dubious, as managers and firm insiders with vested interests made deliberate attempts to falsify records and undervalue firms in order to purchase them at bargain prices. Moreover, mass privatization programs were designed to privatize entire sectors (Lieberman 1997) (which we control for using firm-sector dummy variables); to the extent that within-sector selection occurred, better-performing firms tended to be privatized earlier in the process. Nevertheless, as with nearly any statistical analysis, there is a possibility that both our cross-national time series and our firm-level results are subject to endogeneity—in the former case due to spurious causality (ecological fallacy), and in the latter case due to selection biases. Future research should attempt to refine our understanding of the political economy of mass privatization and, in particular, the issue of firm selection. While we do not suggest mass privatization was the only factor reducing state capacity, we are confident we have demonstrated it was a key factor undermining state capacity and, as a result, economic growth.

Finally, two unusual country cases merit a brief discussion. The most important outlier of the post-communist world, that is, the country that implemented mass privatization according to our definition but nonetheless had good overall performance and managed to attract a large amount of FDI, is the Czech

Republic. The Czech Republic was the second-richest country in the region, owed little external debt, had a long and celebrated history of industrial production stemming from its time as the economic powerhouse of the Austro-Hungarian Empire, had a ready-made pre-communist legal tradition of contract and property rights, and had a privileged location bordering Germany. Still, by 1999, the Czech Republic recorded the worst scores in Central and Eastern Europe on protection of property rights, government effectiveness, and rate of growth. Moreover, case-study data demonstrate that companies privatized through vouchers experienced substantial governance problems (King 2001a, 2001b; McDermott 2002), and many voucher-privatized firms were renationalized before ultimately being sold to foreign investors.

Another, perhaps less obvious, outlier is China. Although some Chinese reformers did consider mass privatization as a policy option in the period leading up to 1989, systematic efforts to privatize the country's medium- and large-scale state enterprises did not begin until about 1995. We excluded China from our analysis of mass privatization programs, but including it would have invariably strengthened our statistical findings, given our coding method and the fact that China has been the fastest-growing economy in the world and is widely acknowledged to have a better-performing state than most other post-Soviet countries (see Burawoy 1996). Nonetheless, we include a brief overview of Chinese privatization in Part G of the online supplement, as we believe it constitutes an illustrative comparative case.

CONCLUSIONS

As our findings show, mass privatization programs directly undermined state fiscal capability. They also damaged the enterprise sector, and thus indirectly contributed to a further weakening of the state's bureaucratic capacity and its ability to support the institutions necessary for a functioning capitalist economy. Rather than accelerating the formation of private property and securing a smooth transition to Western-style capitalism, as advocates of mass privatization intended, these programs precipitated state withdrawal and pushed countries in the direction of crony or political capitalism. A large and growing body of empirical evidence shows that a different type of capitalism, emphasizing patron-client ties and a nonbureaucratic state, emerged in parts of the FSU and Eastern Europe. Meanwhile, countries that proceeded more gradually in creating a private sector, such as Poland and Slovenia, are now much closer to the Western capitalist ideal, with a relative separation of politics and economics (for details, see the literature review in King and Szelényi 2005). To be sure, we are not claiming that mass privatization is the only path to post-communist patrimonialism (Bulgaria, for instance, constitutes a clear case of patrimonial capitalism but did not implement a mass privatization program). Yet by contributing to a fiscal crisis and creating severe governance problems, mass privatization certainly provided a fertile ground for activities conducive to patrimonialism (e.g., funneling assets, official corruption, solicitation of kickbacks, and privatizing the means of administration).

Of course, there was widespread *horizontal* corruption during the Soviet era (e.g., gifts or informal payments made to service providers), which occurred as a rational response to the shortage economy. Prior to privatization, however, it was extremely rare to see *vertical* corruption, such as bribing police officers (see Reddaway and Glinski 2001). Post-transition, the state and the enterprise sector became riddled with patron-client relationships (for reviews, see Ganev 2007; King and Szelényi 2005). Furthermore, while reliable comparative data on corruption levels is hard to obtain (given the unobservable nature of successful corruption), Popov (2004) finds that various proxy measures (e.g., unofficial payments, barter,

homicide, and crime rates) have recorded dramatic increases since the beginning of the transition. Our analysis begins to explain how this further deterioration in governance occurred.

Our results do not indicate that mass privatization was the only determinant of post-communist economic performance. We are, however, claiming that it explains a substantial amount of the variation in performance. Future analysis might arrive at a more differentiated picture by employing improved measures of other types of transition policies (e.g., price and trade liberalization). Undoubtedly, external factors, such as relative prices, are causally important as well. Finally, as sociologists we never doubted that initial conditions are important, and our Hausman-Taylor tests indicate that we have statistically accounted for the most relevant ones in our models that were disaggregated into former Soviet core and satellite countries.

Our findings have several theoretical and policy implications. For sociological theory, our analysis supports the position that states and markets are not antagonistic entities as maintained by the neoliberal perspective (Block 1994; Block and Evans 2005; Evans 1995; Fligstein 2001). It also supports the traditional sociological thesis of the importance of a bureaucratic state for successful capitalist development (e.g., Evans 1995; Evans and Rauch 1999; Weber 1978). Regarding public policy, our analysis suggests that when designing major economic reforms, particularly concerning private-sector development, safe-guarding government revenues and state capacity ought to be a high priority. Counting on a future burst of productivity from a restructured private economy to compensate for declining tax revenues appears a risky proposition, given the post-communist experience.

Our analysis cannot resolve whether neoliberal predictions about privatization in Eastern Europe were logically faulty per se or whether their implementation—the privatization process—crucially modified its outcomes. Two central predictions of the theory of mass privatization as a property reform strategy, that the state's fiscal shock would be compensated by (1) savings from overcoming inefficient planning and (2) additional revenues raised from the superior growth of *de novo* private firms, are not borne out in available data. As Kogut and Spicer's (2002) qualitative study of mass privatization in Russia and the Czech Republic found, privatization had adverse effects on governance and restructuring. Our data corroborate this finding across the region and further show that tax collection was more difficult among newly privatized firms.

Privatization will likely remain a salient issue in coming years. As three senior World Bank officials note in a recent volume on privatization in transition economies, ''What still amazes many of us who worked on privatization throughout this period in the transition countries is how quickly the transformation happened. However, there is more to do with respect to privatization in many countries in the region and transition economies elsewhere in the world'' (Lieberman et al. 2008:59). As recently as 2008, Egypt considered implementing a mass privatization program, distributing public company shares to some 40 million Egyptian citizens (Saif and Choucair 2008). Morocco and Tunisia contemplated similar policies following the 2011 Arab Spring and invited the EBRD to consult on the process (EBRD 2011). Whenever such large-scale economic restructurings take place, there is potential for unintended consequences that can fundamentally alter a program's implementation and outcomes. Only if we carefully measure the economic, political, and social consequences of past reform strategies will we be able to avoid repeating their mistakes in the future.

Authors' Note

Authors' names are listed in alphabetical order to reflect equal contributions.

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Notes

1. Using a network analysis of citation patterns, Kogut and Spicer (2005) demonstrate how a small subset of contributions to the debate over transition policies, primarily by Harvard economists and staff members at the World Bank and International Monetary Fund, shaped and legitimated the neoliberal policy package.
2. Two of the principal advisors described the program's differences from prior (Western) instances of privatization: ''We are advocating the rapid conversion of state enterprises into corporate form and the distribution of tranches of shares to various groups in the population, including workers, commercial banks, pension funds, and mutual funds. This strategy differs substantially from the standard methods of privatisation that have been used in the West: the sale of shares in an initial public offering and private placements to investor groups. The free distribution of shares helps to sidestep the difficult, costly, and time-consuming process of enterprise valuation, as well as the scarcity of financial capital in private hands in Eastern Europe. More importantly, corporatization combined with the free distribution of shares can occur quickly. Rapid privatisation is needed to combat the inevitable social, political, and economic problems associated with the lack of corporate governance'' (Lipton and Sachs 1990b:333).
3. McDermott (2002) is part of a small group of scholars who criticized mass privatization for its potential to obstruct governance. Ellerman (1998, 2003) was the first to provide a theoretical argument for expecting a governance disaster following mass privatization due to inevitable principal-agent problems. Spicer, McDermott, and Kogut (2000) reported supporting evidence from several sectoral case studies in Hungary, the Czech Republic, and Slovakia, while Kogut and Spicer (2002) provided extensive elite interview data from the Czech Republic and Russia, showing that mass privatization created governance patterns that inhibited investment due to uncertainty over asset ownership. King provided further case-study evidence for the Czech Republic (2001b) and Russia (2003), linking firm failure to diffused ownership structures resulting from mass privatization. Our own theory can be seen as an extension of this body of work, offering systematic quantitative support for the basic proposition and extending the theory to emphasize fiscal effects of mass privatization.
4. For a country to be coded as having implemented a mass privatization program, the government had to have formally declared such a program. Some countries had announcements but the actual program was never implemented, or not implemented among large enterprises (e.g., in the case of Polish mass privatization [see King and Sznajder 2006]). In practice, all mass privatization programs that were implemented combined vouchers with different management and employee ownership programs (see Hanley, King, and Tóth 2002; King 2001a, 2001b, 2002, 2003; King and Sznajder 2006).
5. In fact, existing scholarship indicates that state capacity was generally much higher prior to the transition to capitalism. As Ganev (2007:1) points out, ''a consensus has coalesced around the viewpoint that the transformative processes . . . precipitated a rapid and radical weakening of state structures.'' Popov (2004) summarizes the available statistical evidence for Russia, demonstrating that state capacity collapsed during the transition. While there was some variation in state capacity during the late socialist period, we do not believe it can account for the sharp divergence in subsequent performance. To the extent that variation existed, we expect to capture it in our statistical analysis controlling for initial GDP and level of education.
6. For country-specific evidence suggesting that firm selection for mass privatization was largely sector-based, please refer to Arakelyan (2005) for Armenia; Shafik (1995) for the Czech Republic; Bell (1997) for Georgia; Zhandossov (2011) for Kazakhstan; Jermakowicz and Pańków (1995) for Kyrgyzstan; Mygind (1999) for Latvia; Terterov and Reuvid (2005) for Lithuania; Gutsu (1996) for Moldova; Shen (1997) for Romania; and Pivovarsky (2001) for Ukraine.
7. This relationship is best investigated by calculating the Keynesian multiplier (i.e., the additional growth associated with $1 of government spending). Government spending is considered a stimulus when $1 of additional government spending is associated with >$1 of economic growth. When evaluating this relationship cross-nationally using our fixed-effects model, the coefficient describing this relationship is 1.55, indicating that each $1 of government spending is associated with a $1.55 increase in overall growth. In other words, after subtracting government spending from GDP, each $1 of government spending is associated with a $.55 increase in investment, consumption, or net exports.

References

Arakelyan, Vazgen. 2005. ''Privatization as a Means to Property Distribution in the Republic of Armenia and in the Russian Federation.'' PhD Dissertation, Faculty of Economics and Administration, University of Tampere, Finland.

Åslund, Anders. 1999. ''Why Has Russia's Economic Transformation Been So Arduous?'' Presented at the Annual World Bank Conference on Development Economics, Washington, DC, April 1999.

Åslund, Anders. 2002. *Building Capitalism: The Transformation of the Former Soviet Bloc*. Cambridge: Cambridge University Press.

Bauer, Tamás P. 1983. ''The Hungarian Alternative to Soviet-Type Planning.'' *Journal of Comparative Economics* 7:304–316.

Bell, Stuart. 1997. ''Country Studies: Georgia.'' Pp. 197–200 in *Between State and Market: Mass Privatization in Transition Economies*, edited by I. W. Lieberman, S. S. Nestor, and R. M. Desai. Washington, DC: World Bank.

Bennett, John, Saul Estrin, James Maw, and Giovanni Urga. 2004. ''Privatization Methods and Economic Growth in Transition Economies.'' Discussion Paper 4291. Center for Economic and Policy Research.

Bennett, John, Saul Estrin, and Giovanni Urga. 2007. ''Methods of Privatization and Economic Growth in Transition Economies.'' *Economics of Transition* 15:661–83.

Blanchard, Olivier, Maxim Boycko, Marek Dabrowski, Rudiger Dornbusch, Richard Layard, and Andrei Shleifer. 1993. *Post-communist Reform: Pain and Progress*. Cambridge, MA: MIT Press.

Blanchard, Olivier, Rudiger Dornbusch, Paul Krugman, Richard Layard, and Lawrence Summers. 1991. *Reform in Eastern Europe*. Cambridge, MA: MIT Press.

Block, Fred. 1994. ''The Role of State in the Economy.'' Pp. 691–711 in *Handbook of Economic Sociology*, edited by R. Swedberg and N. Smelser. Princeton, NJ: Princeton University Press.

Block, Fred and Peter Evans. 2005. ''The State and the Economy.'' Pp. 505–526 in *Handbook of Economic Sociology,* 2nd ed., edited by R. Swedberg and N. Smelser. Princeton, NJ: Princeton University Press.

Burawoy, Michael. 1996. ''The State and Economic Involution: Russia through a China Lens.'' *World Development* 24:1105–1122.

Burawoy, Michael and Pavel Krotov. 1992. ''The Soviet Transition from Socialism to Capitalism: Worker Control and Economic Bargaining.'' *American Sociological Review* 57:16–38.

Carlin, Wendy, John van Reenen, and Toby Wolfe. 1994. ''Enterprise Restructuring in the Transition: An Analytical Survey of the Case Study Evidence from Central and Eastern Europe.'' Working Paper No. 14. London: European Bank for Reconstruction and Development.

Clemens, Elisabeth S. 2007. ''Toward a Historicized Sociology: Theorizing Events, Processes, and Emergence.'' *Annual Review of Sociology* 33:527–49.

Cohen, Stephen F. 2001. *Failed Crusade: America and the Tragedy of Post-Communist Russia.* New York: W.W. Norton.

De Melo, Martha, Cevdet Denizer, and Alan Gelb. 1996. *From Plan to Market: Patterns of Transition*. Washington, DC: World Bank.

De Melo, Martha, Cevdet Denizer, Alan Gelb, and Stoyan Tenev. 2001. ''Circumstances and Choice: The Role of Initial Conditions and Policies in Transition Economies.'' *The World Bank Economic Review* 15:1–31.

De Melo, Martha and Alan Gelb. 1996. ''A Comparative Analysis of Twenty-Eight Transition Economies in Europe and Asia.'' *Post-Soviet Geography and Economics* 37:265–85.

Djankov, Simeon and Peter Murrell. 2002. ''Enterprise Restructuring in Transition: A Quantitative Survey.'' *Journal of Economic Literature* 40:739–92.

Ellerman, David. 1998. ''Voucher Privatization with Investment Funds: An Institutional Analysis.'' World Bank Policy Research Working Paper No. 1924.

Ellerman, David. 2003. ''On the Russian Privatization Debate.'' *Challenge* 46:6–28.

European Bank for Reconstruction and Development (EBRD). 1994–2011. *Transition Report,* various editions. London: EBRD.

Evans, Peter B. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton, NJ: Princeton University Press.

Evans, Peter B. and James E. Rauch. 1999. ''Bureaucracy and Growth: A Cross-National Analysis of the Effects of 'Weberian' State Structures on Economic Growth.'' *American Sociological Review* 64:748–65.

Eyal, Gil, Ivan Szelényi, and Eleanor Townsley. 1998. *Making Capitalism without Capitalists*. New York: Verso.

Fischer, Stanley and Alan Gelb. 1991. ''The Process of Socialist Economic Transformation.'' *Journal of Economic Perspectives* 4:91–106.

Fish, M. Steven. 2005. *Democracy Derailed in Russia: The Failure of Open Politics*. Cambridge: Cambridge University Press.

Fligstein, Neil. 2001. *The Architecture of Markets: An Economic Sociology of Twenty-First-Century Capitalist Societies.* Princeton, NJ: Princeton University Press.

Friedman, Milton. 2002. ''Economic Freedom Behind the Scenes.'' Pp. xvii–xxi in *Economic Freedom of the World: 2002 Annual Report*, edited by J. Gwartney and R. Lawson, with C. Edwards, W. Park, V. de

Rugy, and S. Wagh. Vancouver, Canada: Fraser Institute.

Frydman, Roman, Cheryl Gray, and Andrzej Rapaczynski. 1996. *Corporate Governance in Central Europe and Russia.* Budapest: Central European University Press.

Frydman, Roman, Andrzej Rapaczynski, and Joel Turkowitz. 1997. ''Transition to a Private Property Regime in the Czech Republic and Hungary.'' Pp. 41–102 in *Economies in Transition: Comparing Asia and Eastern Europe*, edited by W. Thye Woo, S. Parker, and J. D. Sachs. Cambridge, MA: MIT Press.

Gaddy, Clifford G. and Barry W. Ickes. 2002. *Russia's Virtual Economy*. Washington, DC: Brookings Institution Press.

Ganev, Venelin I. 2007. *Preying on the State: The Transformation of Bulgaria after 1989*. Ithaca, NY: Cornell University Press.

Gupta, Nandini, Jhon C. Ham, and Jan Svejnar. 2008. ''Priorities and Sequencing in Privatization: Evidence from Czech Firm Panel Data.'' *European Economic Review* 52:183–208.

Gutsu, Vladimir. 1996. ''Note on Privatization in Moldova.'' Pp. 344–53 in *Economic Transition in Russia and the New States of Eurasia*, edited by B. Kaminski. Armonk, NY: M.E. Sharpe.

Hanley, Eric, Lawrence P. King, and János István Tóth. 2002. ''The State, International Agencies, and Property Transformation in Postcommunist Hungary.'' *American Journal of Sociology* 108:129–67.

Hanousek, Jan, Evžen Kočenda, and Jan Svejnar. 2007. ''Origin and Concentration: Corporate Ownership, Control and Performance in Firms after Privatization.'' *Economics of Transition* 15:1–31.

Held, Karl and Audrey Hill. 1989. *From 1917 to Perestroika: The Victory of Morality over Socialism.* Munich, Germany: Resultate Gesellschaft fuer Druck und Verlag.

International Monetary Fund (IMF). 2000. *World Economic Outlook, October 2000: Focus on Transition Economies.* Washington, DC: IMF.

Jermakowicz, Władysław W. and Julian Pańków. 1995. ''Privatization in the Kyrgyz Republic.'' *Russian and East European Finance and Trade* 31:31–72.

King, Lawrence P. 2000. ''Foreign Direct Investment and Transition.'' *European Journal of Sociology* 41:189–224.

King, Lawrence P. 2001a. ''Making Markets: A Comparative Study of Postcommunist Managerial Strategies in Central Europe.'' *Theory and Society* 30:494–538.

King, Lawrence P. 2001b. *The Basic Features of Post-Communist Capitalism: Firms in Hungary, the Czech Republic, and Slovakia.* Westport, CT: Praeger Press.

King, Lawrence P. 2002. ''Post-communist Divergence: A Comparative Analysis of Russian and Polish Capitalism.'' *Studies in Comparative International Development* 37:3–34.

King, Lawrence P. 2003. ''Shock Privatization: The Effects of Rapid Large Scale Privatization on Enterprise Restructuring.'' *Politics and Society* 31:3–34.

King, Lawrence P. and Iván Szelényi. 2005. ''Post-Communist Economic Systems.'' Pp. 206–229 in *Handbook of Economic Sociology,* 2nd ed., edited by N. J. Smelser and R. Swedberg. Princeton, NJ: Princeton University Press.

King, Lawrence P. and Aleksandra Sznajder. 2006. ''The State-Led Transition to Liberal Capitalism: Neoliberal, Organizational, World Systems and Social Structural Explanations of Poland's Economic Success.'' *American Journal of Sociology* 12:751–801.

Klebnikov, Paul. 2000. *Godfather of the Kremlin: The Decline of Russia in the Age of Gangster Capitalism.* New York: Harcourt.

Knack, Stephen. 2007. ''Measuring Corruption: A Critique of Indicators in Eastern Europe and Central Asia.'' *Journal of Public Policy* 27:255–91.

Kogut, Bruce and Andrew Spicer. 2002. ''Capital Market Development and Mass Privatization Are Logical Contradictions: Lessons from the Czech Republic and Russia.'' *Industrial and Corporate Change* 11:1–37.

Kogut, Bruce and Andrew Spicer. 2005. ''Taking Account of Accountability: Academics, Transition Economics and Russia.'' INSEAD Working Paper.

Kornai, János. 1980. *Economics of Shortage*. New York: Elsevier North-Holland.

Kornai, János. 1990. *The Road to a Free Economy: Shifting from a Socialist System.* New York: W.W. Norton.

Kornai, János. 1995. *Highway and Byways: Studies on Reform and Post-Communist Transition.* Cambridge, MA: MIT Press.

Kosolowski, Rey. 1992. ''Market Institutions, East European Reform, and Economic Theory.'' *Journal of Economic Issues* 26:673–705.

Kurtz, Marcus J. and Andrew Schrank. 2007. ''Growth and Governance: Models, Measures, and Mechanisms.'' *Journal of Politics* 69:538–54.

Lieberman, Ira W. 1997. ''Introduction: Mass Privatization in Comparative Perspective.'' Pp. 1–15 in *Between State and Market: Mass Privatization in Transition Economies*, edited by I. W. Lieberman, S. S. Nestor, and R. M. Desai. Washington, DC: World Bank.

Lieberman, Ira W., Joannis Kessides, and Mario Gobbo. 2008. ''An Overview of Privatization in Transition Economies.'' Pp. 9–80 in *Privatization in Transition Economies: The Ongoing Story*, edited by I. W. Lieberman and D. J. Kopf. Amsterdam and Boston: Elsevier.

Lipton, David and Jeffrey Sachs. 1990a. ''Creating a Market Economy in Eastern Europe: The Case of Poland.'' *Brookings Papers on Economic Activity* 1:75–133.

Lipton, David and Jeffrey Sachs. 1990b. ''Privatization in Eastern Europe: The Case of Poland.'' *Brookings Papers on Economic Activity* 2:293–333.

Mann, Michael. 1986. *The Sources of Social Power*. Cambridge: Cambridge University Press.

McDermott, Gerald. 2002. *Embedded Politics: Industrial Networks and Institution Building in Post-Communism.* Ann Arbor: University of Michigan Press.

Medvedev, Roy A. 2000. *Post-Soviet Russia: A Journey through the Yeltsin Era*. New York: Columbia University Press.

Moore, Barrington, Jr. 1978. *Injustice: The Social Bases of Obedience and Revolt*. White Plains, NY: M.E. Sharpe.

Murrell, Peter. 1992. ''Evolution in Economics and in the Economic Reform of the Centrally Planned Economies.'' Pp. 35–53 in *The Emergence of Market Economies in Eastern Europe*, edited by C. Clague and G. C. Rausser. Cambridge: Blackwell.

Mygind, Niels. 1999. ''Privatization, Governance and Restructuring of Enterprises in the Baltics.'' CEES Working Paper No. 30. Copenhagen: Copenhagen Business School.

Nee, Victor. 2000. ''The Role of the State in Making a Market Economy.'' *Journal of Institutional and Theoretical Economics* 156:64–88.

Nellis, John. 2008. ''Leaps of Faith: Launching the Privatization Process in Transition.'' Pp. 81–136 in *Privatization in Transition Economies: The Ongoing Story*, edited by I. W. Lieberman and D. J. Kopf. Amsterdam: Elsevier.

Nureev, R. M. and A. B. Runov. 2002. ''Rossiya: Neizbejna li deprivatizaciya.'' *Voprosi Economiki* 6:1–31.

Pappe, Yakov. 2000. *Oligarchi: Ekonomicheskaya Chronika 1992–2000* (Oligarchs: An Economic Chronicle 1992–2000). Moscow: VSE.

Pivovarsky, Alexander. 2001. *How Does Privatization Work? Ownership Concentration and Enterprise Performance in Ukraine*. Washington, DC: International Monetary Fund.

Popov, Vladimir. 2000. ''Shock Therapy Versus Gradualism: The End of the Debate (Explaining the Magnitude of Transformational Recession).'' *Comparative Economic Studies* 42:1–57.

Popov, Vladimir. 2004. ''The State in the New Russia (1992–2004): From Collapse to Gradual Revival?'' *PONARS Policy Memo 342*.

Popov, Vladimir. 2007. ''Shock Therapy versus Gradualism Reconsidered: Lessons from Transition Economies After 15 Years of Reforms.'' *Comparative Economic Studies* 49:1–31.

Reddaway, Peter and Dmitri Glinski. 2001. *The Tragedy of Russia's Reforms: Market Bolshevism against Democracy*. Washington, DC: United States Institute of Peace Press.

Rosefielde, Steven. 2001. ''Premature Deaths: Russia's Radical Economic Transition in Soviet Perspective.'' *Europe-Asia Studies* 53:1159–76.

Sachs, Jeffrey. 1992a. ''The Economic Transformation of Eastern Europe: The Case of Poland.'' *Economics of Planning* 25:5–19.

Sachs, Jeffrey. 1992b. ''Accelerating Privatization in Eastern Europe: The Case of Poland.'' *New European Law Review* 1:71–89.

Sachs, Jeffrey. 1994. *Understanding Shock Therapy*. London: Social Market Foundation.

Sachs, Jeffrey. 1996. ''Transitions at Mid Decade: Economic Transition in Central and Eastern Europe.'' *AEA Papers and Proceedings* 86:128–33.

Saif, Ibrahim and Farah Choucair. 2008. ''Egypt's Privatization Initiative Raises Questions.'' *Arab Reform Bulletin*, December 5.

Shafik, Nemat. 1995. ''Making a Market: Mass Privatization in the Czech and Slovak Republics.'' *World Development* 23:1143–56.

Shen, Raphael. 1997. *The Restructuring of Romania's Economy: A Paradigm of Flexibility and Adaptability*. Westport, CT: Praeger.

Shleifer, Andrei and Robert W. Vishny. 1998. *The Grabbing Hand: Government Pathologies and Their Cures*. Cambridge, MA: Harvard University Press.

Spicer, Andrew, Gerald A. McDermott, and Bruce Kogut. 2000. ''Entrepreneurship and Privatization in Central Europe: The Tenuous Balance between Destruction and Creation.'' *Academy of Management Review* 25:630–49.

Stark, David. 1992. ''Path Dependence and Privatization Strategies in East Central Europe.'' *East European Politics and Societies* 6:17–51.

Stiglitz, Joseph E. 2000. ''Whither Reform? Ten Years of the Transition.'' Proceedings of the World Bank annual Conference on Development Economics (1999). Washington, DC: World Bank.

Stuart, Robert C. and Christina M. Panayotopoulos. 1999. ''Decline and Recovery in Transition Economies: The Impact of Initial Conditions.'' *Post-Soviet Geography and Economics* 40:267–80.

Stuckler, David, Lawrence King, and Greg Patton. 2009. ''The Social Construction of Successful Market Reforms.'' Working Paper no. 199. Political Economy Research Institute, University of Massachusetts, Amherst.

Summers, Lawrence. 1994. ''Comment.'' Pp. 252–55 in *The Transition in Eastern Europe.* Vol. 1, *Country Studies*, edited by O. Blanchard, K. Froot, and J. Sachs. Chicago: University of Chicago Press.

Szelényi, Iván, Katherine Beckett, and Lawrence P. King. 1994. ''The Socialist Economic System.'' Pp. 234–51 in *The Handbook of Economic Sociology*,

edited by N. J. Smelser and R. Swedberg. Princeton, NJ: Princeton University Press.

Szelényi, Iván and Katarzyna Wilk. 2010. ''From Socialist Workfare to Capitalist Welfare State.'' Pp. 565–86 in *The Oxford Handbook of Comparative Institutional Analysis*, edited by G. Morgan, J. Campbell, C. Crouch, O. K. Pedersen, and R. Whitley. Oxford: Oxford University Press.

Szentpéteri, Ádám and Álmos Telegdy. 2010. ''Political Selection of Firms into Privatization Programs; Evidence from Romanian Comprehensive Data.'' *Economics and Politics* 22:298–328.

Terterov, Marat and Jonathan Reuvid. 2005. *Doing Business with Lithuania*. London: GMB Publishing.

United Nations Development Programme (UNDP). 1999. *Transition 1999: Europe and CIS Human Development Report*. New York: UNDP RBEC.

Walder, Andrew G. 1995. ''Local Governments as Industrial Firms: An Organizational Analysis of China's Transitional Economy.'' *American Journal of Sociology* 101:263–301.

Weber, Max. 1958a. ''Politics as Vocation.'' Pp. 77–128 in *For Max Weber: Essays in Sociology*, edited by H. Gerth and C. Wright Mills. New York: Oxford University Press.

Weber, Max. 1958b. ''Bureaucracy.'' Pp. 196–244 in *For Max Weber: Essays in Sociology*, edited by H. Gerth and C. Wright Mills. New York: Oxford University Press.

Weber, Max. 1966. *General Economic History.* Translated by F. H. Knight. New York: Collier Books.

Weber, Max. 1978. *Economy and Society.* Edited by G. Roth and C. Wittich. Berkeley: University of California Press.

Wedel, Janine R. 2001. *Collision and Collusion: The Strange Case of Western Aid to Eastern Europe.* New York: Palgrave.

Woodruff, David. 1999. *Money Unmade: Barter and the Fate of Russian Capitalism.* Ithaca, NY: Cornell University Press.

World Bank. 1997. *The State in a Changing World*. Washington, DC: World Bank and Oxford University Press.

World Bank. 2002. *Building Institutions for Markets*. Washington, DC: World Bank and Oxford University Press.

World Bank. 2005, 2008. *World Development Indicators Database*. Retrieved September 4, 2006; July 22, 2009 (http://data.worldbank.org/data-catalog/world-development-indicators).

World Bank and EBRD. 2000. *The Business Environment and Enterprise Performance Survey (BEEPS).* Retrieved August 10, 2004 (http://data.worldbank.org/data-catalog/BEEPS).

World Bank and EBRD. 2011. ''Nuts and Bolts of the BEEPS Survey.'' *Transition* 14:15. (http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/05/17/000090341_20040517131501/Rendered/PDF/284250English0Transition014014161.pdf).

Zeitlin, Maurice. 1984. *The Civil Wars in Chile*. Princeton, NJ: Princeton University Press.

Zhandossov, Damir. 2011. ''Privatization in Kazakhstan during the Transition to Capitalism.'' M.Phil. Thesis, Department of Development Studies, University of Cambridge.

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