

# The Grand Experiment That Wasn't? New Institutional Economics and the Postcommunist Experience\*

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Within the academy, the collapse of communism was greeted with optimism that the “natural experiment” underway in Eastern Europe and the former Soviet Union would put to rest long-running debates about the origins and consequences of various institutions stressed by Douglass North and other new institutionalists. With the advantage of hindsight, this optimism appears to have been somewhat misplaced. Identification of causal effects has proven difficult, and few debates have been definitively resolved. Scholars who hoped to identify the effect of constitutions have progressively pushed back the causal apparatus, such that today the emphasis is as much on the pre-communist experience as on the postcommunist transition. At the same time, the advent of new data and a change in focus to within-country institutions have begun to pay dividends for the study of another key institution: property rights at the level of the firm. In the pages that follow, we trace this evolution of the literature, showing how the study of transition has responded and contributed to our understanding of key political and economic institutions.

## **1 A natural experiment?**

Before the first Soviet tank withdrew across an East European border and the last Trabant rolled off a dusty East German production line, a wave of anticipation swept the social sciences. As everyday observers, scholars watched history unfold with the anxious hope that the Cold War was drawing to a close. As academics, however, there was another, more immediate reason to celebrate the fall of the Berlin Wall and the collapse of the Soviet Union: the promise of a large-scale, country-level experiment in political and economic change.

It is sometimes said that social scientists have natural-science envy. This may be true. But the attraction is not the rigor of the scientific method or the mathematical modeling. We have plenty of each. For many, it is instead the elegance of the randomized medical trial, the parsimony of the vacuum chamber—the confidence that one can actually isolate and test a causal theory. Although laboratory experiments play a central role in behavioral economics and psychology, and field experiments are becoming increasingly common in development

economics and political economy, there are many important topics that are simply off-limits to randomized control trials. It would be clearly unethical (not to mention impractical), for instance, to randomly sew civil war across countries in order to observe its socio-economic consequences.

Unfortunately, for those interested in the New Institutional Economics identified with Douglass North and others, many ideas about which we care fall into this category. By the time we observe them, institutions have often existed for decades or centuries, enmeshed in complex feedback loops that make it extremely difficult to isolate origins, causes, and effects. Moreover, institutions are not the only determinants of economic performance: geographic and economic endowments, for example, also play a role, often in interaction with institutions. How do we disentangle the impact of institutions from the role played by other factors, and what drives institutional change? Even when we can identify the unique origin of a particular institution, its very selection may represent the negotiation between actors with an eye toward its future consequences. In these cases, is it the institution that we should credit for economic outcomes, or would another institution have accomplished the same goals, given the bargaining power and goals of the actors who constructed it?

And then it happened. . . Beginning in 1989, the hammer and sickle came crashing down in the Eastern Bloc, with 27 newly formed countries emerging from the wreckage. Each would transition from its communist past, meaning it would simultaneously choose new sets of economic and political institutions. Because students of transition were there at the creation, we would be able to observe, in our lifetimes, the choice, crystallization, and impact of these institutions. Nina Bandelj described the rare opportunity to observe institutional creation: “Social scientists rarely come across a natural experiment setting that allows them to examine the conditions under which a market comes into existence *de novo*” (Bandelj, 2004, p. 3). Similarly, Jeffrey Checkel expressed the excitement over the promise of a relatively controlled environment, writing that “[t]he revolutions in Eastern Europe and the dissolution of the USSR. . . present a golden opportunity—a theorist’s dream—to control better for the

independent effect of the different variables” (Checkel, 1993, p. 297).

They were not alone. A Google Scholar search of “natural experiment” and “former Soviet Union” today yields more than 900 academic books and articles, including work by some of the most prominent names in economics, sociology, psychology, and even the natural sciences. Among the purported experiments available for study are those that examine key arguments from the New Institutional Economics, not least of which is the centrality of property rights to economic growth (North and Thomas, 1976). Heading an ambitious project that began in cooperation with the late William Riker, for example, David Weimer welcomed the “extraordinary ‘natural experiment’ for comparative study on a grand scale of the political economy of property rights” (Weimer, 1997, p. xv). With 27 transition countries unwinding years of state-ownership and central planning, fundamental decisions needed to be made about ownership and defense of private property. Weimer’s research team saw a unique opportunity to observe how these decisions affected business investment and economic growth. Among the project’s many contributions were investigations into the process of privatization and the creation of property rights anew (Frye, pp. 84–108), the origins of credible commitments to protect the property of citizens and investors (Diermeier, Ericson, Frye, and Lewis, pp. 20–42; Weingast, pp. 43–49), the role of political organizations such as legislatures in defining and defending property rights (Kiernan and Bell, pp. 113–138), and the interaction between property rights and contracting institutions (Ericson, pp. 150–178).

Others aimed even more broadly, targeting the fundamental relationship between economic and political institutions and GDP growth (Wolf, 1999; Fidrmuc, 2001; Pomfret, 2003; Krammer, 2008; Eicher and Schrieber, 2010). Pääkkönen (2008) summarized the key assumption behind the enterprise:

[T]he troublesome simultaneity of human capital and institutions is more or less controlled, since the level of human capital in the beginning of transition was high and roughly at the same levels across the countries. Yet we witness markable

[sic] differences in the growth performance, not explained by the differences in the initial human capital (p. 2).

Of course, some scholars used the term “natural experiment” more metaphorically than literally, as a close examination of the quote from Weimer above demonstrates. Moreover, there were some notable early contributions that stressed the importance of historical legacies for postcommunist outcomes, including the design of privatization policies (Stark, 1992; Earle, Frydman and Rapaczynski, 1993). Nonetheless, the general optimism that the collapse of communism could teach us something about institutions had much to do with the belief that the postcommunist experience approximated the conditions of a controlled laboratory experiment: “what [communism] left behind was, in institutional terms, a *tabula rasa*” (Elster, Offe and Preuss, 2000, p. 25).

Heightening this sense of opportunity was a contemporaneous development in the social sciences: the publication in 1990 of Douglass North’s *Institutions, Institutional Change, and Economic Performance* (North, 1990). Although North’s work was already well known among many economists and political scientists, for numerous scholars this landmark work clarified the questions of transition. (An admittedly conservative Google Scholar search of “Douglass North” and “postcommunism” yields nearly 800 hits.) The determinants of economic performance included not only formal but informal institutions, including culture, beliefs, and other topics hitherto relegated to the “softer” social sciences. Politics and economics were intertwined. Transition was therefore not merely a question of economic and political liberalization, but a “process of large-scale institutional change” (Dewatripont and Roland, 1996).

Moreover, the fact of institutional change could not be taken for granted, even with the collapse of the Berlin Wall. As North wrote,

Even the Russian Revolution, perhaps the most complete formal transformation of a society we know, cannot be completely understood without exploring the survival and persistence of many informal constraints (p. 37).

Surely the same was true of the velvet revolutions of 1989 and the disintegration of Soviet communism in 1991.

In the pages that follow, we track the research agenda that grew out of the East European and post-Soviet experience. We ask: What has postcommunism taught us about institutions, institutional change, and economic performance? Rather than an exhaustive survey of the literature, we focus on two institutions central to the New Institutional Economics and the postcommunist transition: constitutions and private property. In both cases, we show that although the heuristic of the natural experiment was appealing, in practice it has often proved misleading. Countries and firms started the postcommunist transition with extremely different baselines, so that very little was actually held constant across units in the switch to market-based economic systems; institutions were selected based on initial conditions that often had independent effects on outcomes; and institutions and outcomes have interacted repeatedly over time. As a result, much of the optimism over what seemed like an unparalleled opportunity to resolve long-standing debates has been lost.

Nevertheless, some progress has been made, especially as new data have become available and attention has shifted to within-country studies, where more heterogeneity can be held constant. Moreover, the postcommunist experience has generated more than its share of anomalous behavior, and we have learned something about institutions in attempting to explain these outcomes. As we will show, the more vigorously we push to explain postcommunist outcomes, the more that we are forced to confront and understand the full spectrum of issues raised by Douglass North over the course of his career. Indeed, one might argue that this is the primary contribution to the social sciences of the transition experience: to illustrate that we cannot understand social outcomes without understanding the process of institutional change.

## 2 The constitution experiment

The postcommunist transformation was (at the very least) a “dual transition,” with simultaneous change in both political and economic institutions. From a Northian perspective, the key insight was that these transitions were not separable. Modern economic growth is tied to the existence of political constitutions that encourage investment and the development of markets (North and Weingast, 1989; Weingast, 1993, 1995). One of the great questions of the early transition era followed directly from this understanding: which constitutional arrangements were most likely to lead to economic reform and long-run growth?

The debate over constitutional arrangements had its roots in a well-developed literature in comparative politics, much of it based on the Latin American and East Asian experience. Following the literature, we focus on two key features of constitutions: form of government and electoral system.<sup>1</sup> With respect to form of government, there was strong disagreement among scholars as to whether presidential or parliamentary systems were better able to generate democratic stability and economic growth (Lijphart, 1992; Stepan and Skach, 1993; Linz, 1994). One group argued that strong presidencies, defined as those with few constraints placed on them by other institutions, could undersupply public goods and therefore undermine political stability in developing states (e.g., Linz and Valenzuela, 1994; Przeworski et al., 1996). By contrast, other scholars emphasized the ability of citizens in presidential systems to identify the particular actors responsible for policy decisions, thereby providing presidencies with greater transparency and accountability (Shugart and Carey, 1992, p. 42–46), which could generate better public-goods provision and stability.

The debate over electoral systems echoed that over form of government, with a contrast drawn between systems that offer greater representation and those that provide more accountability. Because proportional-representation systems more precisely translate parties’ vote shares into parliamentary seat shares, they facilitate the greatest spectrum of policy

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<sup>1</sup>Some of these arguments have subsequently been worked out formally; see, for example, Persson and Tabellini (2000).

views in the legislature (Lijphart, 1984, 1994; Huber and Powell, 1994; Powell and Vanberg, 2000), providing greater opportunities for to exploit policy trade-offs when designing reforms and offering additional checks on opportunistic behavior. On the other hand, majoritarian systems promote greater accountability. Voters can identify the policy-maker responsible for particular policies, and if s/he does not do their bidding, they can vote him or her out in the next election (Carey and Hix, 2009).

The debate over constitutional arrangements in Eastern Europe and the former Soviet Union drew on these broader arguments in the literature. Echoing North and Weingast, one group of scholars held that constitutions that bound the hands of the executives were necessary for economic reform. This “credible commitment school,” best exemplified by the work of Jon Elster (Elster, 1993, 1997; Elster, Offe and Preuss, 2000), favored strong legislatures and proportional-representational systems, as these features were most likely to tie the hands of policy-makers and force legislative compromise. Thus, the goal of constitutions is to prevent self-dealing by politicians or revisions of existing law and contractual commitments (Elster, 1993), a feature that Weingast (1993) termed “negative constitutionalism.” Elster (1992) conjectured that among postcommunist states, those with weaker executive powers were more likely to achieve successful economic reform and growth. Stephan Haggard (1997) made this point explicitly, suggesting that the higher number of veto players in parliamentary regimes implies a limited ability to renege on commitments to reform.

A second group of scholars, which Hellman (1996) referred to as the “stopgap constitutionalists,” contended that transition required strong executive power in the short-term. Foremost among the advocates of this approach was Stephen Holmes (1993*a,b,c*, 1995). As Przeworski (1991) noted (though he himself was not an advocate of a strong presidency), output was expected to follow a “J-curve” during the transition period, with short-term declines balanced against long-term growth. Economic reform therefore required that the government be isolated from electoral pressure as unemployment and the subsequent pain of economic dislocation rose.

The stopgap constitutionalists made two recommendations. First, they argued for an interim period before binding constitutions were enacted to allow policy-makers maximum insulation from political pressure and flexibility in responding to societal demands. The classic example of this approach is Poland, which operated for five years under a “Little Constitution. Second, scholars argued for especially strong executives, who could presumably drive through economic reforms in the face of entrenched interests and creatively identify compromises between contending groups. To demonstrate this point, Holmes cited the example of the Russian reformer Yegor Gaidar, whom he suggested would never have risen to the premiership in a parliamentary system, and whose achievements would not have been so far-reaching had he not been able to hide behind Yeltsin’s charisma (Holmes, 1993*c*, p. 125).<sup>2</sup>

## 2.1 Early evidence

Both proponents of binding constraints and super-presidentialism looked to the postcommunist experiment as an opportunity to test and presumably find support for their respective theories. On the eve of transition, Jon Elster, a key participant, wrote hopefully of the opportunity:

Under these conditions, the constitution-making processes in Eastern Europe amount to a gigantic natural experiment. The countries in question present an optimal degree of diversity for comparative analysis: they are neither too similar nor too different. The focus of comparison is twofold. On the one hand, one can examine the processes of constitution-making. On the other hand, one can study and compare the outcome of these processes (Elster, 1991, p. 449).

In a well-known article drawing on data from the transition period, Joel Hellman (1996) seemed to resolve the debate, offering the first empirical data from the transition experience to test the two competing theories. Using a measure of progress in economic reform from the

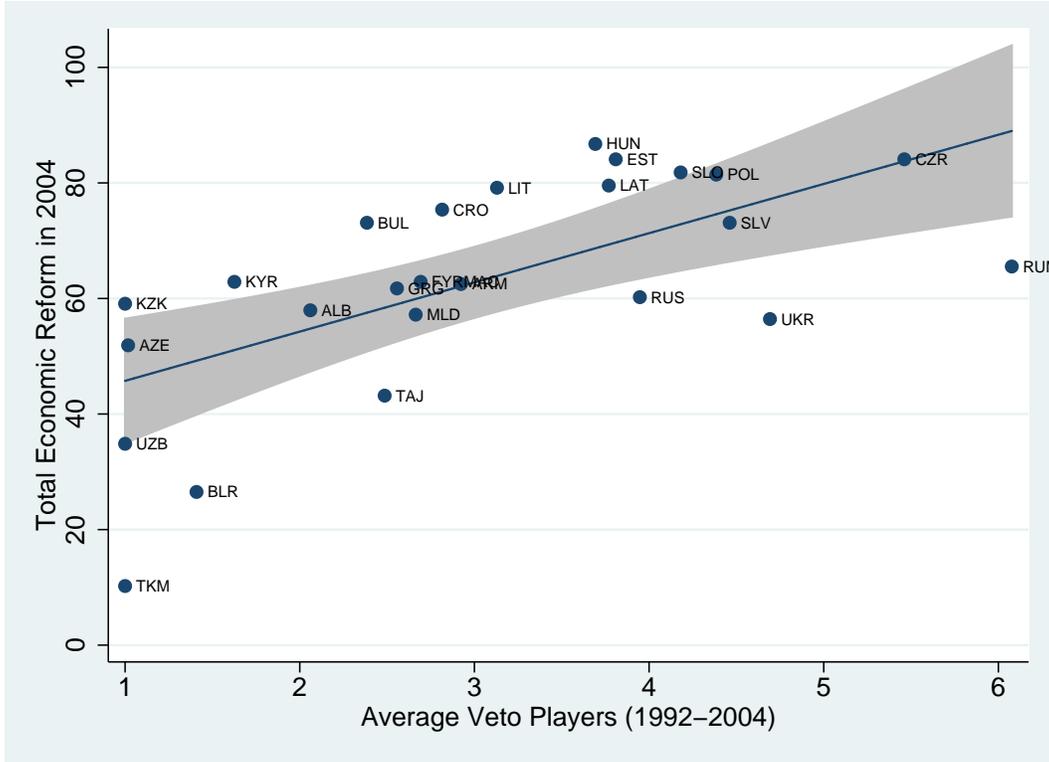
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<sup>2</sup>The debate between these two camps can be understood as a question of emphasis—whether *ex post* or *ex ante* political constraints are more important. See, e.g., Dewatripont and Roland (1992, 1995).

EBRD as his dependent variable, Hellman demonstrated that economic reform was not impacted directly by when or if a new constitution was implemented. Yet he did find significant evidence that higher levels of executive power (operationalized by the number of constraints on executive decision making) were negatively correlated with progress in economic reform, and that the negative effects were stronger in those countries that postponed writing new constitutions. This seemed to be a victory for the credible-commitment school.

In a related contribution, Hellman (1998) argued that the case for a strong presidency was based on a fundamental misunderstanding of transition dynamics. Not all citizens suffered from early, partial reforms. Rather, the initial benefits of transition were often captured by interest groups, who could then use their newfound economic power to block further reform. The poster children for these winners were the Russian oligarchs, who used enormous economic resources acquired through privatization to subsequently block trade liberalization and other policies that would have reduced their rents (Åslund, 1995). Hellman presented evidence that this outcome was less likely in states with parliamentary systems, as such constitutions tended to promote coalition governments and offered more constraints on executive power.

Hellman's early finding that postcommunist states with more veto players not only had fewer reform reversals but implemented more reform to begin with has held up over time, with Frye and Mansfield (2003) fleshing out the result for the specific case of trade policy. Figure 1 depicts the basic relationship, which is robust to the inclusion of numerous controls. Given the strong theoretical prior that reform should be less likely with numerous veto players (Tsebelis, 2002), this stands as a key finding of the transition experience. Gehlbach and Malesky (2010) formalize Hellman's logic, showing that the ability of special interests to lobby for inefficient policies may be reduced when veto players are numerous; intuitively, the larger the number of veto players, the more actors that special interests must pay off. When "partial reform" is inefficient, as in postcommunist countries, this implies a greater



**Figure 1:** Bivariate relationship between average veto players and economic reform in 2004. Veto players is the CHECKS measure from the Database of Political Institutions (Beck et al., 2001). Economic reform is the EBRD Average Transition Indicator, rescaled to take values from 0 to 100.

likelihood of full reform.<sup>3</sup>

## 2.2 Contamination of the experimental setting

Notwithstanding the strong association between constitutional choice and economic-reform outcomes, early contributions to the study of constitutions in the transition setting raised more questions than they answered. Credible commitment theorists, stopgap constitution-  
 alists, and even Hellman side-stepped the important question of how particular democratic institutions had come into being in the first place. There was little exploration of a critical Northian concern: why do some states choose the “right” institutions, whereas others do not? North himself quoted William Riker in expressing his skepticism that one could easily identify the effect of constitutions on outcomes (North, 1990, p. 60):

<sup>3</sup>Gehlbach and Malesky test the predictions of their model using panel data from postcommunist countries, employing various strategies to control for the possible endogeneity of veto players to economic reform.

The question is: Does constitutional structure cause a political condition and a state of public opinion or does the political condition and the state of public opinion cause the constitutional structure? This at first sounds like the chicken and egg problem in which there is no causal direction; but I think that usually there is a cause and that constitutional forms are typically derivative” (Riker, 1976, p. 13).

At the very onset of the transition era, a spirited debate took place in the *Slavic Review* that pitted Valerie Bunce, a specialist on Eastern Europe and the former Soviet Union, against Philippe Schmitter and Terry Karl, experts on Europe and Latin America, respectively. Schmitter and Karl had offered up the transition countries as a test case for evaluating theories of transition from authoritarianism that had emerged from the Latin American and Southern European experience, claiming:

Indeed, by adding post-communist regimes to their already greatly expanded case base, transitologists and consolidologists might even be able to bring the powerful instrumentarium of social statistics to bear on the study of contemporary democratization. For the first time, they could manipulate equations where the variables did not outnumber the cases and they could test their tentative conclusions in cultural and historical contexts quite different from those which generated them in the first place (Schmitter and Karl, 1994, p. 177).

Bunce resisted in a piece comically entitled “Should Transitologists be Grounded?” (Bunce, 1995), pointing out that while she agreed with the idea that similar experiences should be compared across regions, there were a number of reasons to suspect that Eastern Europe and the former Soviet Union offered less-than-ideal test cases. Bunce made two points that are critical for understanding the utility of the natural-experiment heuristic. First, she argued that there was considerable heterogeneity across countries that would be very difficult to hold constant in any empirical study, referring to “the sheer magnitude of

diversity in the region and its correlation with religious, political, socio-economic and spatial markers” (p. 126). Second, and related, Bunce suggested that the “points of departure” for the outcomes to be explained were very different across the 27 states in the region.<sup>4</sup>

These concerns become apparent when we take stock of the numerous contributions that claim to exploit the postcommunist “natural experiment.” In many cases, different scholars hold constant and problematize precisely the same variable. For instance, tests of the impact of institutions on economic growth and investment typically assume that we can treat the distribution of “institutions” (sometimes more accurately described as governance or economic reform) as exogenous. On the other hand, as discussed above, scholars such as Elster (1991) and Weimer (1997) believe the natural experiment is the selection of those institutions in the first place.

If Elster and Weimer are correct, we cannot possibly consider “institutions to growth” analyses as natural experiments, as the setting violates the assumption of “as-if” randomness that defines such research designs (e.g., Acemoglu, 2005; Dunning, 2005). Once we know the factors that undergird institutional choice, such as the preferences and relative strength of actors at the bargaining table, we must consider the possibility that these same factors are responsible for economic performance. Geddes (1995), for example, argues that countries choosing parliamentary systems already had a high level of societal consensus in support of economic reform prior to choosing institutions. Of course, those seeking to understand institutional choice have an analogous problem: why do regimes at the start of the reform process differ in the preferences and bargaining power of key political actors?

The selection of electoral systems can be similarly influenced by the underlying goals and power of political actors (Benoit, 2007). Benoit and Hayden (2004) explore the evolution of Poland’s electoral system, demonstrating that in each of five major episodes of electoral

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<sup>4</sup>Consider, for example, the size of the informal sector (i.e., economic actors who neither pay taxes nor take advantage of certain public services), a key outcome of institutional design in the postcommunist setting. One cannot equate the growth of the informal economy with its size later in the transition period (Johnson, Kaufmann and Shleifer, 1997) if some countries started out with more informal activity than others (Alexeev and Pyle, 2003).

reform, party voting over electoral rules was determined by expectations of how electoral systems would translate into seat shares. In a related study, Bryon Moraski (2006) shows that regional politicians in Russia were able to accurately forecast the types of electoral rules that would best serve their interests, and that they selected electoral systems based on these forecasts (regional outsiders favored proportional representation, whereas old-regime politicians opposed it).

That the selection of institutions is non-random is neatly illustrated by Kopstein and Reilly (2000), who demonstrate that a simple measure of geographic distance from Vienna or Berlin is more strongly correlated with economic reform than is Hellman’s careful measure of executive strength, implying that legacy and geography (including the possibility of EU accession) shape institutions and choices.

As the saying goes, “there are turtles all the way down.” In other words, each causal factor is itself the result of a deeper cause. Experiments are designed to short-circuit these causal chains, following an intervention from its origin to the resulting effect. The so-called “natural experiment” from communism, however, did not break these long-run causal chains, randomly distributing institutions across the region. Rather, the collapse of Soviet communism appears simply to have mediated the long-run historical trajectory.

### **2.3 Institutional legacies**

As the endogeneity of institutions in transition became evident, subsequent work chose to focus on the evolution of institutions themselves. For scholars working in this tradition, it is not coincidental that the states that built constitutions with strong legislatures were the leading economic reformers, as both institutional development and reform are likely correlated with various unobserved characteristics.

The starting point for much of this analysis is Steven Fish’s observation that the first postcommunist elections are strongly correlated with future reform trajectories (Fish, 1998). Fish argued that a strong turnout for reformists in the initial elections led to three secondary effects: radical economic reform programs, reformation or marginalization of the old com-

munists, and the emergence of noncommunist politicians. Fish tested this argument with cross-country data, finding that the initial election outcome outperformed various other potential determinants of reform progress, including religious tradition and level of economic development.

In an oft-cited piece, Kitschelt (2003) criticized such “tournaments of variables” that included factors at different conceptual distances from what the authors were trying to explain, thereby allowing proximate explanations such as initial election outcomes to obscure the effect of deeper determinants. From this perspective, the real cause of economic reform can only be discovered if we ask: why did initial election results vary so much across postcommunist countries?

Darden and Grzymala-Busse (2006) provide an answer to this question, arguing that school curricula at the initial moment of mass literacy shaped values and beliefs in subsequent generations in ways that can be traced to policy preferences at the onset of the postcommunist period. In particular, where mass literacy was first achieved through curricula with nationalist content (i.e., those describing the pre-communist heritage of the regime), subsequent anticommunist convictions tended to be stronger. As a result, the seat share of non-communist factions in the first postcommunist election was greater in countries that had pre-communist literacy campaigns. These countries, the authors argue, were especially good candidates for the creation of democratic institutions and market economies.

Darden and Grzymala-Busse’s study exposes the role of beliefs in institutional change, a central theme in Douglass North’s more recent work (see especially North, 2005). This theme has been taken up by other scholars. Herrera (2005), for example, has shown in a study of Russian sovereignty movements that regional activism is determined by subjective beliefs about relative economic position rather than by objective economic conditions. (p. 12). Similarly, Darden (2009) traces the evolution of economic institutions to the beliefs of political elites of how best to bring about economic growth. Of course, ideas change over time, a pattern demonstrated by Aligica and Evans (2009) and their colleagues at Collegium

Budapest, who have set about documenting the paradigm change in the social sciences (particularly economics) prior to and after economic reform.

The concern with nationalism in Darden and Grzymala-Busse's work is also present in the work of Frye (2010), who presents a novel approach to identifying the effect of political institutions on economic reform. In Frye's theory, nationalist sentiment in the communist era determines the degree of political polarization in the transition period, but the degree of democracy determines the impact of polarization on reform choices. In particular, polarization between liberal and ex-communist factions generates ambiguity over future policy, which reduces the anticipated returns to investment for businesses and entrepreneurs. Democracy augments this effect, as political competition increases the likelihood of a change in government.

Other notable work on legacies has shown that the sources of today's political and economic institutions extend back further still, to the experience with democracy in the interwar period (Pop-Eleches, 2007) and the pre-World War I empires that eventually gave birth to today's nation-states (Grosjean, 2010). What helps all of these pieces stand apart is that they provide a specific causal pathway (e.g., nationalist education) by which a temporally distant variable (e.g., the timing of mass literacy) can affect contemporary outcomes of interest (e.g., the evolution of political and economic institutions).

## **2.4 Conclusions**

Looking back on the literature on macro-political institutions in postcommunist countries, one might say that the field has finally caught up with Douglass North. What began as a spirited debate over the impact of constitutions on economic reform quickly gave way to a realization that the constitutions themselves were subject to non-random selection. The causal apparatus has been progressively pushed back, to the point where the literature today is as likely to credit nineteenth-century empires as postcommunist policies for economic growth. Along the way, scholars have gained an appreciation for the role of ideas in economic change, with decisions about political and economic institutions rooted in beliefs about the

way the world works.

In principle, one could go two directions from here. First, in the spirit of much modern empirical political economy (e.g., Acemoglu, Johnson and Robinson, 2001, 2002), one might exploit what we have learned about the long-run determinants of political institutions to identify their effects, thus returning to the research program established at the start of the transition period. In practice, this is more difficult than it sounds, as the typical analysis includes more than one potentially endogenous variable, and the various long-run determinants often seem to run through similar channels (Gehlbach and Malesky, 2010). With very few exceptions (e.g., Frye, 2010), there has been little work of this sort.

The second option is to continue to focus on the long-run determinants of institutional change. This is largely the direction the field has gone, which strikes us as a positive development. Given that we know so little about the evolution of institutions, a sustained research program along these lines has the potential to tell us much that we do not know. Of course, the more we learn about the sources of institutions, the better we will be able to identify their effects, so this direction is complementary to the first.

### **3 The property-rights experiment**

As political constitutions were being rewritten in the early 1990s in Eastern Europe and the former Soviet Union, an equally momentous change was taking place at the level of the firm. Across the postcommunist world, programs of mass privatization were transferring ownership of state-owned enterprises, large and small, to private economic actors. What impact this ultimately had on property rights and firm behavior is a second great question of transition.

At some level, there was less initial uncertainty about the ownership experiment than there was about the constitution experiment. Growth rates had been declining for years in the socialist bloc, as intensive (total factor productivity) growth failed to replace extensive (factor) growth (Kornai, 1992). The inefficiencies of state ownership were well documented—

such concepts as the soft budget constraint (Kornai, 1986; Dewatripont and Maskin, 1995) and the ratchet effect (Berliner, 1952; Weitzman, 1980; Freixas, Guesnerie and Tirole, 1985) had long since passed into general usage. Few doubted the superiority of a system of private property rights.

What was contested was how to transition from the current system to a “private property regime” (Frydman and Rapaczynski, 1994), where private property would predominate and the state would support the rights of private owners. To some extent, the debate merely echoed larger questions about the appropriate insulation of reformers (see above) and speed of reform (for a review, see Earle and Gehlbach, 2003). In addition, however, there were specific issues of privatization policy design: whether to privatize to domestic or foreign owners, whether to allocate shares through vouchers or auctions, whether to grant special privileges to owners and managers of the enterprise, and so forth.<sup>5</sup> These decisions were potentially consequential not only for their direct impact on corporate governance and thus firm performance, but because the initial distribution of property rights could affect the lobbying power of economic actors and thus the general shape of postcommunist political economies (Sonin, 2003; Hoff and Stiglitz, 2004). (For the most part, these debates concerned the transformation of existing firms rather than entry of new firms; see, for example, Fischer and Gelb [1991]. We return to the issue of entry further below.)

From the perspective of the firm, the key questions at the beginning of the transition period thus related to *how* ownership should be transferred to private actors rather than *if* they should. There was, moreover, reason to think that these questions could be answered. Unlike earlier privatizations in Western Europe and Latin America, programs to transfer ownership rights in postcommunist countries involved thousands of firms, not dozens. Moreover, the diversity of methods possible in principle was matched in practice: voucher giveaways to outsiders in Czechoslovakia, voucher giveaways to insiders in Russia, sales to foreigners in

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<sup>5</sup>Roland (2000) provides a typology. For a discussion of how these debates played out on the ground, see Boycko, Shleifer and Vishny (1995), Shleifer and Treisman (2000), and Appel (2004).

Hungary, and so forth.<sup>6</sup>

### 3.1 Identifying privatization effects

In retrospect, of course, the obvious problem in evaluating different theories of privatization was that firms were not randomly selected for privatization. This greatly complicated the task of identifying the effects of ownership on firm performance, and thus of comparing outcomes across different privatization methods. But this did not prevent the emergence of numerous empirical studies of privatization, some of which dealt with the selection issue more explicitly than others. By the early 2000s, there had been sufficient work to take stock. Two comprehensive surveys of the empirical literature came to similar conclusions (Megginson and Netter, 2001; Djankov and Murrell, 2002). In general, privatization is associated with improved productivity and other measures of firm performance. The effects are more pronounced when firms were privatized to outsiders, who are more inclined to undertake restructuring, and especially when privatization involved sales to foreigners. Concentrated ownership is better than diffuse ownership.<sup>7</sup>

In important respects, these conclusions mirrored the expectations of much work on privatization-policy design. But a new puzzle emerged from these initial empirical studies: the positive estimated effect of privatization did not extend to all countries where it was undertaken. As with many other elements of transition performance, Eastern Europe seemed to outperform the former Soviet Union. Although differences in the allocation of shares could have directly accounted for some of the variation—insider privatization in Russia was subject to particular criticism—the effect of owner type itself varied across countries.

Moreover, the results were consistent with strong evidence that the business environment was systematically less friendly to private enterprise in the former Soviet Union (Frye and Shleifer, 1997; European Bank for Reconstruction and Development, 1999). Social science had changed in the first decade of transition, with a renewed emphasis on institutions, due

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<sup>6</sup>For a comprehensive description, see Frydman, Rapaczynski and Earle (1993*a,b*) and Earle et al. (1994).

<sup>7</sup>For somewhat later reviews, see Guriev and Megginson (2007) and Estrin et al. (2009).

in no small part to the publication in 1990 of North's *Institutions, Institutional Change, and Economic Performance*. The strong suspicion was that institutional variation was responsible for the sharp divergence in privatization performance across countries. At this juncture, however, there were few studies that directly measured the impact of institutions on performance, leading the authors of one of the surveys to term institutions the “elusive determinant” (Djankov and Murrell, 2002, p. 779).

In any event, the data used in these early studies of privatization—typically cross sections, with state-owned enterprises in one sector sometimes compared to privatized firms in another—were generally not of sufficient quality to convince skeptics of the empirical patterns that had emerged. There was reason to suspect that governments had chosen more productive firms for privatization, or firms whose productivity was growing more quickly. The mere existence of a positive correlation between privatization status and productivity was no evidence of a causal effect. Moreover, even where identification issues at the firm level had been addressed in a more-or-less convincing fashion, there remained the problem of identifying the institutions responsible for observed variation in privatization effectiveness. Most estimates of privatization effects were country-level, there were relatively few countries with comparable firm-level data, and cross-country inference had its own inference problems, as documented in the previous section.

There the problem might have stood. Mass privatization was one of the great social experiments of recent decades, yet it was not a natural experiment. Early empirical work had uncovered some striking regularities, but given fundamental inference problems, a passive reader of the literature could be excused for falling back on prior beliefs. Finally, as a student suggested to one of us, transition was over—it was time to move on to other topics.

Fortunately for the study of institutions, not everyone tired of transition so quickly. Years of effort finally paid off in datasets worthy of the questions being asked of them—some of the best data in the world today come from postcommunist countries. Armed with long panels and able to compare ownership across firms in the same sector, scholars were able to

employ various program-evaluation techniques (including models with firm-specific trends, as described below) to more convincingly identify privatization effects (in particular, see Brown, Earle and Telegdy, 2006, 2010). The new studies upheld some previous results, overturned others, and raised new questions.<sup>8</sup>

Most important for the study of institutions, however, the basic question of cross-country variation in privatization effectiveness persisted. The estimates in Brown, Earle and Telegdy (2010) suggest that privatization to domestic owners resulted in an increase in multifactor productivity of 14%–24% in Romania, 5%–15% in Hungary, and 2%–4% in Ukraine, versus a decrease in productivity of 3%–5% in Russia. (The ranges here reflect differences based on whether the specification incorporates firm-specific time trends or only firm fixed effects.) To some extent, this reflects the basic East-West divide that characterized progress in reform more generally, though few would have argued that Romania was a more radical reformer than Hungary, or Ukraine than Russia.

### **3.2 Explaining privatization effects**

Of course, if cross-country inference is difficult with 25+ observations, it may be hopeless with four. The new data presented a way out of this cul-de-sac. Unlike earlier studies, which tended to be based on surveys of firms in a relatively small number of regions in any particular country, the industrial-census data used in the more recent literature are comprehensive with respect to regional coverage. With over 250,000 firm-year observations in the Russian data, for example, it is possible to estimate privatization effects for nearly every one of Russia's approximately 80 regions.<sup>9</sup> Within-country comparison of the resulting estimates can hold constant the macroeconomic environment and other confounding variables, while taking advantage of substantial institutional heterogeneity across regions.

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<sup>8</sup>One striking finding, documented in Brown, Earle and Telegdy (2010), is that privatization tends not to reduce employment—increased scale generally compensates for increased productivity.

<sup>9</sup>Russia's federal system includes semi-autonomous regions located within larger regions. Moreover, there has been some consolidation of regions in recent years. For both reasons, counts of regions vary from study to study.

Brown, Earle and Gehlbach (2009) present a methodological framework for such studies. Starting with firm-level data, their estimating equation is

$$x_{jt} = \mathbf{f}(k_{jt}, l_{jt}) + \mathbf{Y}\gamma + \mathbf{w}_t\alpha_j + F_{jt}\phi + D_{jt}\mathbf{I}\vartheta + D_{jt}\mathbf{R}\delta + \eta_{jt}, \quad (1)$$

where  $j$  indexes firms and  $t$  indexes time periods. The variable  $x_{jt}$  is output,  $\mathbf{f}$  is a vector of industry-specific production functions,  $k_{jt}$  is capital stock,  $l_{jt}$  is employment,  $\mathbf{Y}$  is a vector of industry-year interaction dummies,  $\mathbf{w}_t$  is a vector of aggregate time variables, and  $F_{jt}$  is an indicator of whether the firm was foreign-owned at the end of year  $t - 1$ . (With relatively few foreign privatizations in the dataset, the effect of foreign ownership is assumed to be constant across regions.) The variable  $D_{jt}$  is an indicator for domestic private ownership,  $\mathbf{I}$  is a vector of industry dummies, and  $\mathbf{R}$  is a vector of region dummies; the interaction of industry dummies with the domestic-privatization indicator controls for variation across regions in industrial composition. Selection bias is corrected for by letting  $\mathbf{w}_t \equiv (1, t)$ , which implies a model with firm fixed effects and firm-specific trends. Brown, Earle and Telegdy (2006) show that once these two idiosyncratic factors are taken into account, there is no statistically significant difference in the behavior of preprivatization productivity across privatized and state-owned firms.

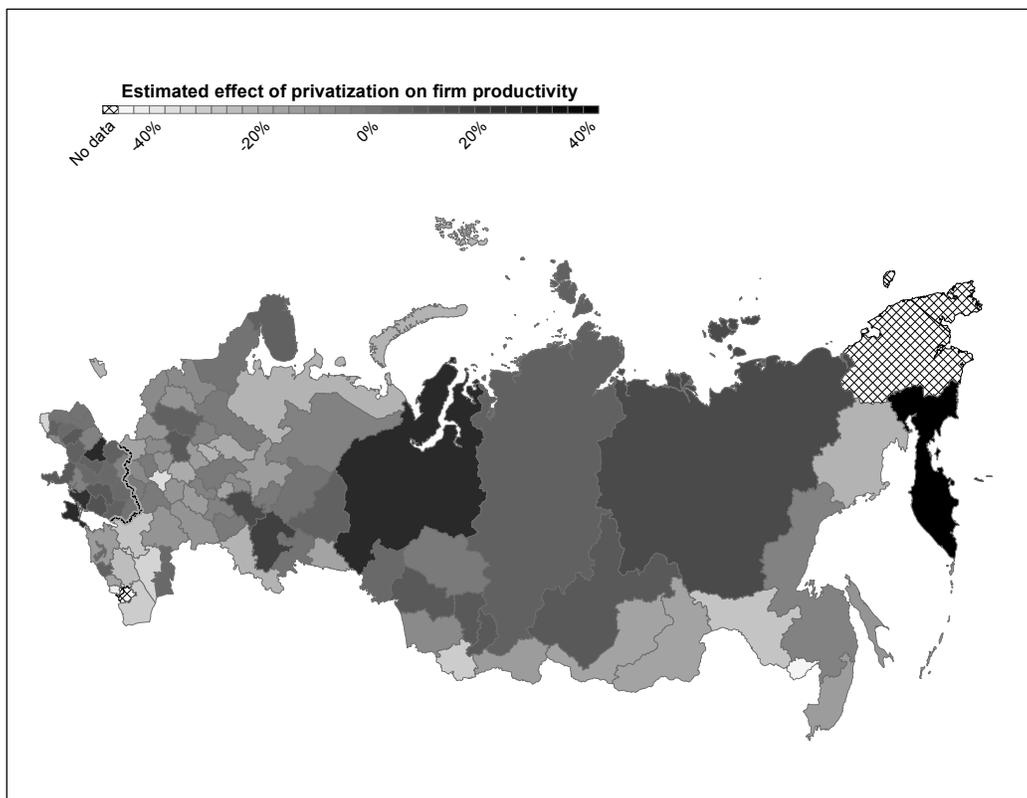
Estimation of Equation 1 produces region-level estimates of the effect of domestic privatization on firm productivity. In the second step of their two-step procedure, Brown, Earle, and Gehlbach then estimate

$$\hat{\delta}_r = \mathbf{Z}_r\mu + \varepsilon_r, \quad (2)$$

where  $\hat{\delta}_r$  are the first-stage estimates of the region-level effect of domestic privatization on multifactor productivity and  $\mathbf{Z}_r$  is a vector of regional characteristics.<sup>10</sup> Identification rests on finding regional characteristics that are plausibly exogenous to privatization performance.

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<sup>10</sup>A potential complication in estimating this equation is that the precision of first-stage estimates of  $\delta_{rt}$  is generally greater in regions with more firm-year observations, implying that  $\varepsilon_{rt}$  has smaller variance in such regions. Brown, Earle, and Gehlbach show that their results are robust to second-stage estimation by FGLS, using an estimator first suggested by Hanushek (1974).



**Figure 2:** Estimated effect of domestic privatization on firm productivity from firm-level regression with firm fixed effects and firm-specific time trends, Russia and Ukraine. Estimates control for country-sector privatization effects.

Although still in its infancy, this approach holds the potential to identify institutional determinants of variation in privatization performance. Figure 2 illustrates pooled estimates of regional privatization effects for Russia and Ukraine. Two features stand out. First, the country-level estimates in Brown, Earle and Telegdy (2006) mask enormous variation across regions in the estimated effect of domestic privatization on firm productivity. The regional estimates vary from a reduction in productivity of 40 percent to an increase of 40 percent. Second, this variation appears to be systematic. With exceptions, regions with positive (negative) estimated privatization effects are generally located next to other regions with positive (negative) estimated effects. To the extent that institutional and other characteristics are distributed smoothly across regions, this suggests that underlying factors may be driving the effect of privatization on firm performance.

Brown, Earle and Gehlbach (2009) focus on one such characteristic: the ability of the state to provide a supportive business environment to privatized firms. Notwithstanding the often high levels of social spending in postcommunist countries, the public administrations of postcommunist states are in fact not large by world standards (Schiavo-Campo, de Tommaso and Mukherjee, 1997; Brym and Gimpelson, 2004). This was especially true during the first decade of transition, as the vacuum left by party bureaucracies was not quickly filled by civil servants. Together with the liberalization of economic activity, this often meant a failure of the state to provide basic regulatory functions (Frye, 2000; Grzymala-Busse and Jones Luong, 2002).

In this context, the size of regional public administrations is potentially consequential for the postcommunist business environment. Many basic regulatory functions, including licensing and the control of energy tariffs, are at least partially under the control of regional bureaucracies. Brown, Earle and Gehlbach (2009) present survey evidence that firms spend less time and money obtaining permits and pay fewer kickbacks to government officials where regional bureaucracies are relatively large—the ability of any individual bureaucrat to hold up a firm may be smaller when there are more officials to whom that firm can appeal (Shleifer and Vishny, 1993). This may be especially consequential for private (as opposed to state-owned) enterprises, which in principle have the greater incentive to engage in restructuring and other activities that increase productivity, but which may find it difficult in practice to do so in the absence of a supportive state.

Consistent with this theoretical perspective, Brown, Earle and Gehlbach (2009) find that privatization performance is much more effective in regions with relatively large regional bureaucracies, with a one-standard deviation increase in public-administration employment associated with a 9-percentage-point increase in the estimated effect of privatization on firm productivity. Their identification strategy rests in part on the fact that the size of regional bureaucracies appears to be historically determined, driven by development priorities during

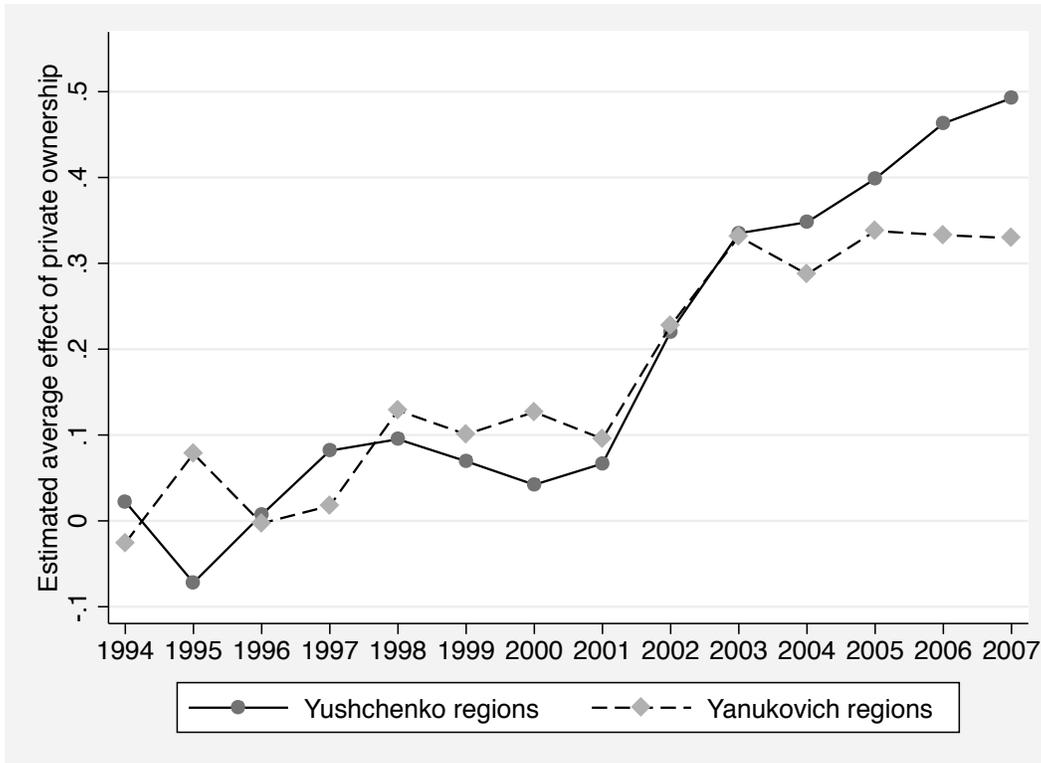
the communist era.<sup>11</sup> Although there is substantial growth in public administrations during the transition period, this trend is almost completely secular: the relative size of bureaucracies changes very little from year to year. While one should be cautious about generalizing this result in the absence of empirical evidence from other contexts, it does suggest that the size of the state apparatus may be an important determinant of how the state interacts with private economic actors.

Two other recent papers adopt a similar research design to explore the impact of institutions on firm performance. The first of these, Earle and Gehlbach (2012), generalizes the methodology above to estimate region-year privatization effects, this time in Ukraine. These estimates in hand, Gehlbach and Earle then explore the consequences for the relative performance of privatized firms of a particular moment of institutional change: Ukraine’s 2004 Orange Revolution. Ukraine is a country with generally few constraints on opportunistic behavior by office holders, implying that property rights are dependent on connections to the current governing elite; echoing an earlier period of English history, “ownership rights var[y] with the power of the lord” (North, Wallis and Weingast, 2009, p. 157). The Orange Revolution disrupted these connections for a large class of business owners concentrated in regions supportive of Viktor Yanukovich, the chosen successor of President Leonid Kuchma and eventual loser in 2004’s presidential elections. Mass “reprivatization” of previously privatized enterprises, although ultimately not carried out, was seriously debated after the seizure of power by Viktor Yushchenko and his Orange coalition partners. Consideration of this policy, which was seen as a serious assault on private property rights, has been blamed for the collapse in growth in 2005 (Åslund, 2005).

Consistent with this interpretation, Gehlbach and Earle show that the relative performance of privatized enterprises in regions supportive of Yanukovich declined following the Orange Revolution, relative to similar regions supportive of Yushchenko. Figure 3 illustrates the result. To identify this effect, Gehlbach and Earle rely upon the strong ethnic character

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<sup>11</sup>Brown, Earle, and Gehlbach also exploit scale economies in public administration to develop instruments based on regional population density and the number of subregional jurisdictions.



**Figure 3:** Average effect of privatization on firm productivity, by year.

of voting in Ukraine’s 2004 presidential election: Yushchenko did better in regions with few Russians. Controlling for industrial composition, which might be related to a region’s “Russianness” through historical patterns of settlement and development, there is little reason to think that changes in the performance of privatized firms after the Orange Revolution depend directly on ethnicity.

The second paper, by Bruno, Bychkova and Estrin (2008), examines entry of new firms rather than transformation of existing firms. Generally neglected at the beginning of the transition, entry has proved to be an important part of the restructuring of the enterprise sector in postcommunist countries. As with privatization performance, however, there is substantial variation in entry rates across and within countries. In a manner similar to Rajan and Zingales (1998), Bruno, Bychkova, and Estrin measure the difference across regions from the “natural” entry rate in particular sectors (defined as the entry rate in the United States), which they then relate to subjective measures of economic “potential” and

“risk,” interpreted as the quality of local institutions. Their primary finding is that the quality of institutions is important for entry of firms in sectors that should have high entry rates, but that it matters little when entry is expected to be minimal. Although they cannot completely rule out reverse causation, they argue that any such effect is likely to be minimal, given that their institutional measures are defined for the region as a whole, whereas relative entry rates are estimated at the level of region-sector.

### **3.3 Conclusions**

As this brief overview illustrates, the primary challenge in such work is identifying plausibly exogenous variation in institutions at the subnational level. Although qualitatively the same problem as that confronting cross-country studies, there is reason to believe that it may be easier to address these issues in within-country studies, which hold a great deal of heterogeneity constant. This approach does leave certain questions aside (e.g., the impact of macroeconomic environment on privatization performance), but it seems particularly well suited to exploring the effect of political institutions on the emergence of private property rights. Data and research design have finally caught up with one of the big questions of transition.

Work to date on these issues has examined only a narrow range of institutional features and outcomes. One missing piece of the puzzle is variation across sectors rather than regions in the effect of privatization on firm performance. Although the region-level estimates discussed above control for sector-specific privatization effects, explaining these differences has not been a priority of existing research. Yet survey evidence suggests that governments in post-Soviet countries (though not those in Eastern Europe, for reasons connected to the initial creation of tax systems in the early transition period) disproportionately protect sectors that are important sources of tax revenue (Gehlbach, 2008), consistent with North and Thomas’s argument that “the fiscal needs of government may induce the protection of certain property rights which hinder rather than promote growth” (North and Thomas, 1976, p. 8). We might therefore expect privatization effects to be different in sectors that are important

to the state for revenue or other reasons.

For a reader of Douglass North, it is also striking that the role of beliefs is at best implicit in existing studies. Support for revising privatization is far stronger in Ukraine and Russia than in Hungary and Romania (Denisova et al., 2009), with much support for this policy the apparent consequence of beliefs that state-owned enterprises work better (Denisova et al., 2010). As the results from Ukraine discussed above illustrate, fear that privatization may be revised can negatively affect the performance of privatized firms, which in turn could reinforce beliefs that private ownership is ineffective. Understanding such equilibrium effects should be a high priority for future research.

#### **4 The grand experiment**

For scholars working on the postcommunist transition during the 1990s, Douglas North's *Institutions, Institutional Change, and Economic Performance* was arguably one of two works that helped to set the intellectual agenda. The other was János Kornai's *The Socialist System* (Kornai, 1992). Released nearly contemporaneously, the books shared more than space on a shelf of recent publications. Each transcended traditional disciplinary boundaries to argue for the importance of understanding the interrelationship of economics, politics, and social norms. And each suggested that more intellectual energy should be directed at examining the institutions that underpin economic systems, not just the policies and outcomes that are their visible manifestation.

Like North, Kornai argued that mere changes in policy were insufficient to improve economic performance. That had been tried repeatedly in the communist bloc: market socialism in Hungary, self management in Yugoslavia, Jaruzelski's decentralizing reforms in Poland, *glasnost*' and *perestroika* in the Soviet Union. Without fail, the results were disappointing, often exacerbating rather than solving such chronic problems as widespread shortages and the production of inferior consumer goods. Given strong complementarities among elements of the socialist system, only wholesale change in the underlying institutions

could fundamentally reorient the political economies of the region.

The problem, as Douglas North has repeatedly demonstrated, is that we know very little about what facilitates the emergence of institutions conducive to sustained economic growth. Expectations early in the transition period that the postcommunist experience would provide a definitive answer to this question proved too grand. Far from a natural experiment, the transformation of institutions in Eastern Europe and the Soviet Union was more like a poorly constructed science-fair project, with multiple treatments, none randomly assigned. Although much has been learned despite these difficulties—we have a better sense of the historical determinants of constitutions, we know much more about the impact of privatization on firm performance—at this juncture the advance in knowledge seems unequal to the scale of the transition itself.

For the truth is that something remarkable was achieved, especially in the western half of the postcommunist world. Writing a decade and a half after the collapse of the Berlin Wall, Kornai documented the uniqueness of the transition in Central Eastern Europe (Kornai, 2006). Both political and economic institutions have changed fundamentally, with greater competition in each sphere. This change was largely non-violent, it was not coerced by a foreign power, and it occurred during a very short period of time. None of the other “great transformations” combined all of these elements: not the advent of modernity in Europe, not the changes in China after Mao, and certainly not Lenin and Stalin’s transformation of Russia.

From the perspective of North, Wallis, and Weingast (North, Wallis and Weingast, 2009), if not yet “open-access orders,” with free and mutually reinforcing entry of organizations into the economic and political spheres, some postcommunist countries are at least on the “doorstep.” Just as interesting, there is enormous variation within as well as across countries in the nature of political and economic institutions. This variation, and the advent of new data that take advantage of the scale of the postcommunist experience, hold the promise of further insights into the nature of institutions and institutional change.

Even where the transformation has been disappointing (if not, in retrospect, surprising), the collapse of socialism has taught us something about the “natural state” that characterizes most countries, with restricted entry of political and economic organizations. Russia and most other post-Soviet republics have returned to the main flow of human history (Shleifer and Treisman, 2000; Treisman, 2010). On this journey, political and economic actors have often behaved in ways that appear puzzling, at least from the perspective of theory developed to explain open-access societies. In broadening our conceptual frameworks to incorporate these anomalies, we learn something about the institutions that govern the vast majority of the world’s population.

The postcommunist experience thus represents a grand experiment, if not a natural one. The questions of transition are the questions that Douglas North has taught us to ask: what institutions are conducive to economic growth, and how do they emerge? For those willing to explore what is increasingly political and economic history, this is the golden age of the study of transition.

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