



Can Developing Countries Both Decentralize and Depoliticize Urban Water Services? Evaluating the Legacy of the 1990s Reform Wave

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Summary. — Over the past three decades, decentralization and reforms designed to insulate service providers from interference by elected officials (“insulating reforms”), such as corporatization and privatization, swept through the urban water and sanitation sector in developing countries. We argue that their rationales were contradictory; decentralization was intended to increase citizen participation and influence, whereas corporatization and privatization were intended to depoliticize management. We document the widespread promotion and adoption of these reforms, and conclude that decentralization made it difficult to insulate service provision in practice. We argue that studying how institutional reforms interact with one another can help explain reform consequences.

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1. INTRODUCTION

Over the last three decades, international financial institutions (IFIs) and donor agencies promoted two major institutional reform initiatives in the urban water and sanitation (W&S) sector of the developing world. The first major reform was decentralization, the vertical transfer of administrative responsibility for service provision from central to subnational governments. At least 41 countries decentralized W&S services to subnational governments starting in the 1980s. A second major type of institutional reform, which we term *insulating reforms*, involved a horizontal transfer of administrative responsibility for W&S to legally independent service providers that were designed to be shielded from the direct influence of politicians. Many developing countries also adopted insulating reforms in recent decades. For example, water utilities in at least 35 countries were “corporatized”, or legally established as independent and fiscally autonomous public entities with a corporate board structure. In addition, 61 countries privatized at least one metropolitan W&S system, thereby providing for an even greater level of independence than under corporatization. Decentralization and insulating reforms in the urban W&S sector formed a part of the international development community’s broader emphasis on institutional reform during the neoliberal era.¹

Surprisingly, these twin reforms—and especially interactions between them—have received little scholarly scrutiny. While privatization (Bakker, 2010; Budds & McGranahan, 2003; Davis, 2005; Lobina, 2005; Prasad, 2006) and the broader policy consensus regarding global water policy and Integrated Water Resources Management (IWRM) (Abers, 2007; Abers & Keck, 2009; Biswas, 2004; Conca, 2006; Goldman, 2007; Lemos & de Oliveira, 2004; Wester, Merrey, & de Lange, 2003; Wilder & Romero Lankao, 2006) have received a great deal of attention, the decentralization of urban W&S services and insulating reforms other than privatization—such as corporatization—have received less treatment in the literature.

This paper examines the promotion of both decentralization and insulating reforms by international institutions, their widespread—and often simultaneous—adoption in the developing world, and experiences to-date with both reforms. In particular, we examine whether these reforms led to changes in the degree of political influence on service providers, given that promoters of both decentralization and insulation argued that such changes would enable improvements in service quality and coverage. However, while IFIs and donor agencies advocated both types of reforms, their recommendations were based on conflicting assumptions about the effects of political influence on service outcomes.

Reform proponents argued that decentralization would increase user influence upon policymaking in the sector, which would in turn help provide political support for raising more revenue from users that could be used to improve service provision. In contrast, proponents of insulating reforms argued that granting utilities legal autonomy would decrease political influences upon providers, and thereby increase operational autonomy in practice. Reducing political intervention would allow providers to adopt cost recovery, or commercialization policies, that would increase revenues available for maintenance and investment, and thereby enable improvements in service quality and coverage.² Taken together, these rationales rested upon conflicting views about how politics affects service provision. Decentralization proponents considered

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greater citizen influence to be a means of encouraging better services, whereas advocates for corporatization and privatization saw citizen influence—mediated by political authorities—as an impediment to improving services.

The nascent empirical literature on both types of reform suggests that this tension in reform rationale has led to disappointing outcomes. Our review of cases in which decentralization and insulating reforms were adopted in tandem suggests that bringing service provision “closer to the people” and inviting greater citizen participation has made it difficult to shield utilities management from politics, and particularly from political opposition to cost recovery measures. Administrative decentralization increases the salience of W&S policy; it becomes one of a few major local policy areas in which politicians can cater to citizens.³ Particularly in democratic and quasi-democratic settings, this discourages politicians from implementing controversial policies, even if they would contribute to the fiscal sustainability and quality and reach of utility services in the long run. The short length of municipal administrations, which can be as brief as three or four years in many developing countries, can exacerbate this problem (Pineda Pablos & Briseño Ramírez, 2012, p. 200; Herrera, 2014). While corporatization and privatization provided for *de jure* independence of service providers, these reforms usually could not shield service providers from political campaigns against cost recovery policies. The tension between decentralization and insulating reforms was magnified because they were adopted in political systems with few institutional checks and balances—contexts where political economy theory predicts “insulation” should be particularly difficult to achieve. Our findings therefore suggest that scholarly and policy debates regarding the effects of corporatization and privatization should pay greater attention to whether or not services had been previously decentralized as decentralization may make it difficult to insulate service provision in practice.

Our findings also suggest revisions to existing scholarly arguments regarding the effects of decentralization and other types of institutional reform. First, scholarship on decentralization has stressed that citizen participation encourages elected officials to focus on citizen interests (Blair, 2000; Crook & Manor, 1998; Fiszbein, 1997; Ribot, 2002; Wunsch & Olowu, 1996). While scholars have demonstrated how the theorized benefits of decentralization can be impeded by a range of factors in practice, such as corruption (Prud’homme, 1995, p. 211; Veron, Williams, Corbridge, & Srivastava, 2006), poor institutional design (Agrawal & Gupta, 2005; Goldfrank, 2007), elite capture (Bardhan, 2002), and insufficient devolution of authority and funding (Agrawal & Ribot, 1999; Boone, 2003), many studies consider a central goal of decentralization to be increased participation, assuming this will improve the accountability of elected officials. Few studies, however, have noted that citizens may be more likely to mobilize to protest immediate, concrete losses rather than encourage policymakers to prioritize policies that could *potentially* yield important benefits in the long run.⁴ Such tendencies are likely to be particularly strong in much of the developing world, where citizens often lack confidence that governments will actually deliver on commitments that take years to realize, such as investments in infrastructure.

Second, studying the interactions between these two reform waves contributes to an important debate on the political economy of development. A nascent literature examining the effects of institutional “transplants” from the developed to the developing world (Andrews, 2013; Evans, 2004; Rodrik, 2007; Weyland, 2009) suggests that reforms may have unintended consequences in new settings. This literature, however,

has not yet examined explicitly the ways in which institutional reforms interact with one another and how such interactions can help explain reform consequences.

This paper proceeds as follows. In the first half of the paper, we examine the historical foundations of reforms in the W&S sector. We first explain the context in which decentralization and insulating reforms were adopted by describing status-quo patterns of service provision in the developing world prior to the reform wave. Next, we show how policy reports written by analysts within IFIs, as well as official policy statements, offered the two conflicting diagnoses of the source of underperformance in W&S—an observation that, to the best of our knowledge, has not been made in the literature. We then provide the most complete documentation to-date of the extent to which decentralization and insulating reforms were subsequently undertaken in the W&S sector of developing countries. This analysis is based on an extensive review of IFI policy documents, primary sources from a range of countries, and academic publications. The second half of the paper examines the emerging academic literature regarding the outcomes of both reforms. Our analysis of the cases and aggregate trends suggests that when insulating reforms have been adopted following decentralization, tensions emerge. We find that popular participation and local electoral politics often deter the adoption of cost recovery measures, and may even prevent the adoption of insulating reforms such as corporatization and privatization.

2. THE PRE-REFORM LANDSCAPE

Prior to the reform wave of the 1980s and 1990s, developing countries commonly managed W&S systems through national bureaucracies. While many countries managed their W&S systems locally prior to World War II (often due to constitutional mandates), many national governments centralized W&S management alongside other services during the post-war period (Perard, 2007; Smith, 2004, p. 377). This centralized model of infrastructure management yielded impressive rates of service access by the 1960s and 1970s in Latin America, Asia, and the Middle East, thanks in part to countries’ trade surpluses and access to international finance during the first decades after WWII, which were used to finance expansion efforts.⁵ For example, 57% of urban households in Bolivia and 60% of urban households in Jordan had household connections by 1962.⁶ In Africa, however, national bureaucracies were formed later, and while many post-independence bureaucracies did invest in expanding services, economic crises undermined the ability of national bureaucracies to expand services service enough to redress inequalities in access dating from the colonial era (Bayliss, 2008b, p. 101; Nilsson & Kaijser, 2009, p. 279; Smith, 2004, p. 377; Wunsch, 1990).

Problems emerged with the centralized model by the 1970s and 1980s. First, national bureaucracies and state-owned enterprises often prioritized new infrastructure, including new household connections, at the expense of system maintenance.⁷ Without adequate maintenance, water losses grew to 2–3 times the rate observed in developed countries (World Bank, 1994b, p. 27). At the same time, governments found it politically difficult to increase the rates charged to consumers to keep up with inflation. This proved especially difficult given the high inflation rates generated by the post-war, import substitution industrialization (ISI) model.⁸ And within political systems dominated by patronage politics, state agencies often failed to enforce payment of these increasingly low, official charges.⁹ As tariff revenues became increasingly insufficient

to cover expenses, national agencies increasingly funded system costs out of national coffers rather than user fees.¹⁰ This model of infrastructure finance became difficult to sustain when governments' access to finance decreased in the wake of the 1980s debt crisis, which resulted in a sudden lending freeze to developing countries.¹¹

This combination of factors led in many cases to a vicious cycle of underperformance that Savedoff and Spiller termed a "low-level equilibrium," characterized by low tariffs, low consumer expectations regarding service quality, and low consumer willingness to pay—which in turn detracted from funds that might have been reinvested in water systems (1999, pp. 13–17). Turning to national data on system coverage from the 1990s in Table 1, we can see that many developing countries still possessed large coverage gaps prior to the wave of institutional reforms, particularly with respect to sanitation. Although comparative data are sparse and difficult to interpret,¹² case evidence suggests that cross-national data tend to overstate existing levels of access. Service quality problems continue to plague even the most extensive systems in the developing world due to low-level equilibria. Meanwhile, many households living outside the service areas of these large-scale state providers relied on small-scale service providers, such as user-owned cooperatives and private water vendors. Private vendors in particular often charged prices many times higher than those levied by state agencies (Estache, Gomez-Lobo, & Leipziger, 2001, p. 1185).

3. THE IFI INSTITUTIONAL REFORM AGENDA

Policymakers at IFIs and donor agencies formulated their responses to the poor performance of the developing world's urban W&S providers in the context of a broad shift in economic development approaches that occurred during the late 1980s and 1990s. On the one hand, policymakers at Washington-based institutions such as the IMF and World Bank reached a consensus on the need for economic adjustment policies such as trade liberalization, labor market and financial deregulation, privatization of inefficient state-owned enterprises, and the redirection of public spending toward human capital investment (Williamson, 1990). During the same period, policymakers at these organizations promoted other types of institutional reforms intended to provide effective foundations for market activity (e.g., legal reforms, enforcing property rights) and increase the effectiveness of public sector institutions. In this context, decentralization and public sector reforms such as corporatization were promoted across a wide range of contexts and policy arenas (Andrews, 2013; Camdessus, 1997, 1999; Grindle, 2007, pp. 4–5). As part of a broader neoliberal reform program, these varied recommendations shared a common assumption that institutions provide incentives for and constraints upon the behavior of political

and economic actors, and that institutional changes would therefore generate important real world consequences.

Policy analysts and program officers based at IFIs and donor agencies came to attribute deficiencies of highly centralized and subsidized W&S systems to two incentive problems by the early 1990s. On the one hand, proponents of decentralization employed a critique applied in many public policy areas, arguing that systems were managed at too far a distance from the citizens who consumed their services. This distance meant that citizens had few opportunities to pressure providers to deliver services of better quality. Citizens also had limited opportunities to voice their opinions about services or reforms, which meant services failed to match the needs of consumers and citizens would be unlikely to buy into reforms. On the other hand, advocates of insulating reforms (e.g., corporatization and privatization) argued that systems needed to be "depoliticized," or shielded from the direct influence of elected officials, because politicians tended to divert resources away from investment and impede efforts to raise sufficient tariff revenue to fund basic maintenance and investment. This section of the paper documents how these diagnoses were used to justify these two types of institutional reforms. This analysis is based on an exhaustive review of all electronic and print documentation (policy documents, lending programs, reports, and research) published by the following international institutions during 1990–2000: the World Bank, the Inter-American Development Bank, the African Development Bank, the Asian Development Bank, the Organization for Economic Cooperation and Development, UN-Habitat and US-AID, which provide a clear sense of the rationales for reforms promoted by the main lending institutions and donor agencies in the sector. Our analysis highlights the tension between the rationales used to justify both types of reforms, and demonstrates that decentralizing and insulating reforms were often promoted and adopted in tandem, despite the clear conflict.

(a) Reform program 1: decentralization

By the mid-1990s, a consensus had emerged in the international lending and donor community: the underperformance of national water bureaucracies could be explained, at least in part, by providers' distance from local communities and individuals.¹³ This led major lenders and donors to advocate transferring W&S service responsibility to lower tiers of government. Figure 1 provides a simple conceptual representation of the administrative decentralization of W&S services. In order to distinguish it from insulating reforms, we emphasize the *vertical* nature of the transfer of service responsibility from higher tiers of government to subnational governments.¹⁴ While donors and funding agencies varied in the respective weight that they placed upon decentralization and insulating reforms,¹⁵ the decentralization program enjoyed broad-based support.

Table 1. Water and sanitation coverage by country income level in 1990

	Improved water source (%)	Urban population with improved water source (%)	Improved sanitation (%)	Urban population with improved sanitation (%)
High-income country average	99.2	99.7	99.5	99.9
Upper middle-income country average	86	95.4	75.6	86
Lower middle-income country average	70.8	93.3	39.3	62
Low-income country average	53.9	86.3	25	48

Source: World Development Indicators (World Bank, 2009).

Note: "Improved water source" refers to sources that, by nature of their construction or through active intervention, are protected from outside contamination.

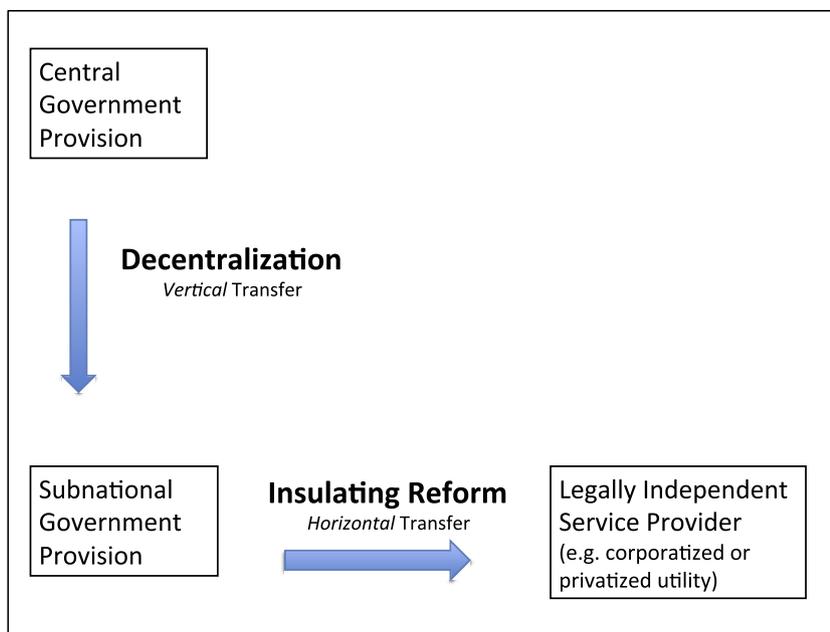


Figure 1. Institutional reforms in the W&S sector: decentralization versus insulating reforms.

Official policy documents as well as myriad policy discussion papers published by international lenders outlined a number of reasons why bringing service management closer to the people would improve system performance, often echoing arguments used to advocate decentralization in other policy areas. First, increasing local stakeholder participation in sector policy-making could improve the responsiveness of providers to local preferences and conditions (Bird, 1994, pp. 13–14; Fox, 1994, p. 54; Kessides, 1993, p. 24; Schübeler, 1996, p. 57; World Bank, 1994a, p. 4). Second, decentralizing services would help raise awareness about the importance of water planning and resource constraints.¹⁶ Third, efforts to introduce cost recovery policies were more likely to succeed when individuals felt they could actually influence project design and resource allocation (Black, 1998, pp. 31, 64; U.N. Habitat, 1993, pp. 8–9; World Bank, 1994b, p. 76).

Importantly, these policy documents noted that decentralization efforts were only likely to succeed when central governments provided local governments with sufficient funds, policy autonomy, and staff training programs (Bird, 1994, p. 4; Fox, 1994, p. 56 onward; World Bank, 1994b, p. 75). Most studies sponsored by the donor community advocated a multi-tiered institutional arrangement in which national governments provide funding for new infrastructure and set standards, regional governments supervise local providers and provide training, and local governments manage urban systems and collect fees (Edwards, Rosensweig, & Salt, 1993, p. 3; World Bank, 1994b, p. 75).¹⁷ For decentralization to provide efficiency savings, publications suggested that local service providers needed to be sufficiently large to enjoy economies of scale (Edwards *et al.*, 1993, p. 3; Fox, 1994, p. 55; Yepes, 1990, pp. 15–16).

Responding to financial inducements from IFIs and aid agencies, revenue constraints following the Latin American debt crisis, and domestic political pressures following democratization, many developing countries decentralized the administration of their urban W&S systems starting in the 1980s.¹⁸ Table 2 reports the results of our original data collection on these W&S decentralization efforts.¹⁹ The table includes cases of decentralization, defined as when a centralized agency was dismantled and services transferred to lower tiers of

government, most commonly triggered by legal mandates such as a constitutional amendment, a local services law, or amendment to a national water law.²⁰ The table shows that the time period during which different regions decentralized varied, with Latin American countries decentralizing earlier than their Central Asian and African counterparts. Some countries chose to decentralize administrative control for services to intermediate tiers of government such as states or provinces, while others devolved services to the municipal level. In contradiction to the fairly nuanced policy analyses of decentralization cited in the previous paragraphs, which stressed that decentralization would likely only yield service improvements in the presence of significant economies of scale and sufficient local state capacity, loan programs incentivized reforms in a wide set of developing countries, including very small ones. Some important countries that did not decentralize in recent decades already administered services in a decentralized or deconcentrated²¹ fashion (e.g., Bolivia, Brazil, and China). Even countries that did not formally decentralize services, such as Nicaragua and the Dominican Republic, often chose to deconcentrate control in the sector, transferring employees of centralized agencies to regional offices.²² By the end of the reform wave, most developing countries managed W&S at the subnational level or shared responsibilities between national and subnational governments.

(b) Reform program 2: insulating service providers from politics via corporatization and privatization

At the same time that lenders and donor agencies promoted decentralization, policy analysts at the same institutions also attributed problems in W&S to a “politicization” of utility management.²³ According to these analyses, political interference with managerial decisions and the conflation of political and administrative roles kept water services trapped in a clientelist model of provision that privileged political over technical or commercial management criteria.²⁴ It was argued that this led to the following routine occurrences: elected officials keeping prices low to cater to voters; the political tolerance of widespread nonpayment; elected officials raiding utilities’ fee

Table 2. *Water and sanitation decentralization in developing countries*

Region & country	Decentralization process ^a	Tier of government administering service	Sharing of service responsibility between tiers of government ^b
<i>Latin America</i>			
Argentina	Yes (1980)	Intermediate (shared with local)	9 Provincial utilities, 1,235 urban water utilities, 365 urban W&S utilities
Bolivia	No	Local	Major urban centers serviced by 25 local utilities, accounting for 55% of nation's population
Brazil	No	Intermediate (shared with local)	Major urban centers serviced by 27 state companies, accounting for 75% of nation's population. Remainder are serviced by municipalities (approx. 580), and 45 private utilities
Chile	Yes (1988, 1990)	Intermediate	13 Regional companies
Colombia	Yes (1987)	Local	70% of urban population served by 40 utilities; 1500 urban utilities total, 90 private utilities
Costa Rica	No	National (shared with local)	In urban population, 72% served by national utility, 23% served by local utilities; 5% independent providers
Dominican Republic	No	National (shared with intermediate)	National utility serves 25 regions; remainder served by 6 regional autonomous utilities
Ecuador	Yes (1992, 1994)	Local	National government continues to assist municipalities
El Salvador	No	National (shared with local)	84% of urban population served by national utility; others served by municipalities and mixed capital firms
Guatemala	No	Local	Many small local utilities, many municipalities serve directly
Honduras	Yes (1991, 2003)	Local	62% local; 38% national. Sanitation managed by municipalities with a few exceptions (decentralization in process)
Mexico	Yes (1980, 1983)	Local (shared with intermediate)	Mostly local providers, some inter-municipal and state utilities
Nicaragua	No (attempts in 2006 failed)	National (shared with local)	Municipalities responsible but mostly served by national utility; 3 decentralized companies run by private management contracts
Panama	No	National	A multi-sector national company serves country
Paraguay	No	National	National utility serves urban areas, coops common in rural areas, informal providers in capital city
Peru	Yes (1990)	Local	136 Local utilities
Uruguay	No	National	National (water and sanitation), Montevideo (sanitation)
Venezuela	Yes (1989, 2001)	Local (shared with intermediate)	Municipalities responsible but mostly serviced by national company, 70% national and 30% state/municipal (decentralization in process)
<i>Asia</i>			
Cambodia	No	National	
China	No	Local (shared with national)	Cities supply water, supervised by National Water Resources Ministry
India	Yes (1992)	Local (shared with intermediate)	Municipalities responsible, but states mostly service urban areas
Indonesia	Yes (1987)	Local	National government assists municipalities
Malaysia	Partial	Intermediate (shared with national)	National government owns assets, subnational provides service
Nepal	Yes (1999)	Local	Local (shared with communities)
Philippines	Yes (1973)	Local (shared with intermediate)	400 semi-autonomous water districts; municipalities responsible for sanitation
Sri Lanka	Partial (1987)	National (sanitation shared with local)	Semi-autonomous national water boards with deconcentrated operators, water service more centralized than sanitation
Vietnam	Partial (1999)	Local (shared with national)	Service is provided at the local level (decentralization in process)
<i>Africa and Middle East^c</i>			
Algeria	No	National	National Water Agency oversees 26 deconcentrated operators
Benin	No	National	National semi-autonomous public water and sanitation utility
Cameroon	Partial (Ongoing) (2005)	Local (shared with national)	
Chad	No	National	
Egypt	Recentralization (2004)	National	National water company with deconcentrated local offices
Ghana	Partial	Local (shared with national)	National (water), local (sanitation)
Guinea	Partial (2006)	National (shared with local)	Remains highly centralized
Kenya	Yes (2002)	Local	
Madagascar	Yes (1994)	Local	

Mali	Yes (2002)	Local (shared with national)	National government continues to service urban areas through 8 deconcentrated regional companies
Malawi	No	National	
Morocco	Yes (2002)	Local	
Namibia	Yes (1992)	Local (shared with national)	National water company supplies bulk water to municipalities
Nigeria	Partial (Ongoing)	State (shared with national and local)	37 State water agencies responsible for water, 774 local governments responsible for sanitation, (decentralization stalled)
Rwanda	No	National	
Senegal	No	National	
South Africa	Yes (1997)	Local	
Tanzania	No	National	19 Urban water authorities are autonomous public bodies, but under legal jurisdiction of Ministry
Togo	No	National	
Uganda	Partial (Ongoing)	National (shared with local)	National company serves 19 urban cities through deconcentrated offices, (decentralization only for small towns)
Zambia	Yes (1997)	Local (shared with intermediate)	10 intra-municipal companies, 22 local authorities deliver services
Yemen	Yes (1996)	Local	95% of urban population served by local utilities
<i>Central Asia</i>			
Armenia	Yes (1995)	Local (shared with intermediate)	Regionalization complete: 5 W&S regional operators serve 80% of population
Azerbaijan	No	National	National company services 65% of population, 10% serviced by private operators, 25% by individual households
Belarus	No	National	
Georgia	Yes (1990s)	Local (shared with national)	Regionalization complete: one national company serves country
Kazakhstan	Yes (1990s)	Local	
Moldova	Yes (1990s)	Local	Regionalization in progress
Russia	Yes (1990s)	Local	
Tajikistan	Yes (1990s)	Local	
Turkmenistan	No	National	
Ukraine	Yes (1990s)	Local	Regionalization in progress
Uzbekistan	Yes (1990s)	Local	

Sources: Author elaboration (sources are included in the paper's [online Appendix A](#)).

Note: All cases refer to decentralization of both water and sanitation unless otherwise indicated.

^a We define decentralization in urban W&S as a process of transferring service responsibility from federal to subnational governments. Our coding captures decentralization processes initiated after 1970, the most recent decentralization wave. This table therefore does not indicate that decentralization occurred for a number of countries with subnational government provision, where services were administered by subnational governments prior to this most recent decentralization wave (e.g., Bolivia, Brazil, Guatemala, and China).

^b Where information available.

^c In addition to the African countries included in this table, the following countries have also decentralized urban water services to subnational units but have been excluded due to a limited amount of descriptive information regarding their decentralization processes: Burkina Faso, Cape Verde, Ethiopia, Lesotho, Mozambique, Niger, and Sudan ([Banerjee et al., 2008](#), 20, [Appendix](#), p. 50).

income for other purposes; politicians pressuring utility managers to make patronage appointments; and replacing a large fraction of utility personnel following elections. This diagnosis was consistent with a broader, and increasingly popular, set of critiques of statist economic policy in developing countries, which maintained that government policy and state-owned enterprise management in particular was rendered ineffectual because of “rent-seeking” and conflicts between commercial and political objectives.²⁵

A specific set of policy “solutions” followed logically from this diagnosis of the underlying cause of poor service in the sector, which we term *insulating reforms*. If shielded from political pressures through institutional changes designed to increase provider autonomy, managers would have more leeway to focus on medium- and long-run concerns, such as the financial and physical health of their utilities. While decentralization entailed a *vertical* transfer of responsibility from central to subnational governments, insulating reforms involved *horizontal* transfers of responsibility from government departments or ministries to legally and fiscally autonomous utilities (see Figure 1).

Figure 2 depicts the range of insulating reforms proposed by policymakers at international institutions. At the more modest end of the spectrum, services could be transferred from an existing multi-purpose public works department to a specialized government department that could collect and retain its own tariff revenue and maintain a separate, departmental budget and focus exclusively on water and/or sanitation services. Yet more autonomy could be achieved through the establishment of a “corporatized” utility that could take one of two forms. Services could be transferred to a special purpose district government with control over its own revenue stream and budget; this would provide additional insulation, particularly if appointments to the district board were non-coterminous with those of the politicians appointing them. Yet more autonomy could be achieved through delegating service provision to legally independent utilities, sometimes referred to as public companies, fully or partially owned by the state. Finally, at the end of the spectrum, services would be most insulated if provision were outsourced to a private company or non-for-profit

organization. Reform proponents focused most heavily upon these latter types of reform that Figure 2 refers to as “corporatized” and “privatized providers.”

Lenders and donor agencies extolled the potential benefits of “corporatization,” as a means of improving the performance of public sector operators.²⁶ IFI publications argued that because corporatized utilities are legally distinct entities from municipal or state governments their assets and revenue streams are officially ring-fenced and budgets formally independent. This means that while national sector policies would continue to be set by a parent ministry, utility-specific policies would be set by an autonomous governance structure, such as an appointed or elected board of directors. This would serve to shield operational decisions from political interference (Muir & Saba, 1995; US-AID, 2005, p. 10; World Bank, 1994b, p. 37). More insulated from everyday political pressures and reliant upon the utility’s own revenue stream than heads of government departments, managers of corporatized utilities would have stronger incentives to employ technical and financial criteria in hiring decisions. They would also direct resources to basic maintenance and investments important for service quality and coverage in the medium and long run (Kessides, 1993, p. 24; World Bank, 1994b, pp. 37–39). Managers would also have strong interest in adopting “commercialization” or “cost recovery” policies such as charging rates that cover the costs of service and encouraging users to pay their bills through greater attention to customer service and imposing penalties for nonpayment (World Bank, 1993, pp. 54–55, 1994b, p. 39).²⁷ In addition, by forcing consumers to pay the costs proportional to the services received, utility managers could “manage demand,” discouraging wasteful consumption and making services more financially and environmentally sustainable.²⁸ Commonly promoted demand management policies included raising water rates to cover costs, water metering, suspending service for nonpayment, eliminating clandestine connections, and improving system maintenance to reduce the amount of water lost before reaching consumers.²⁹ This type of public sector reform drew on a broader literature stemming from new public management (NPM) circles in the 1990s.³⁰

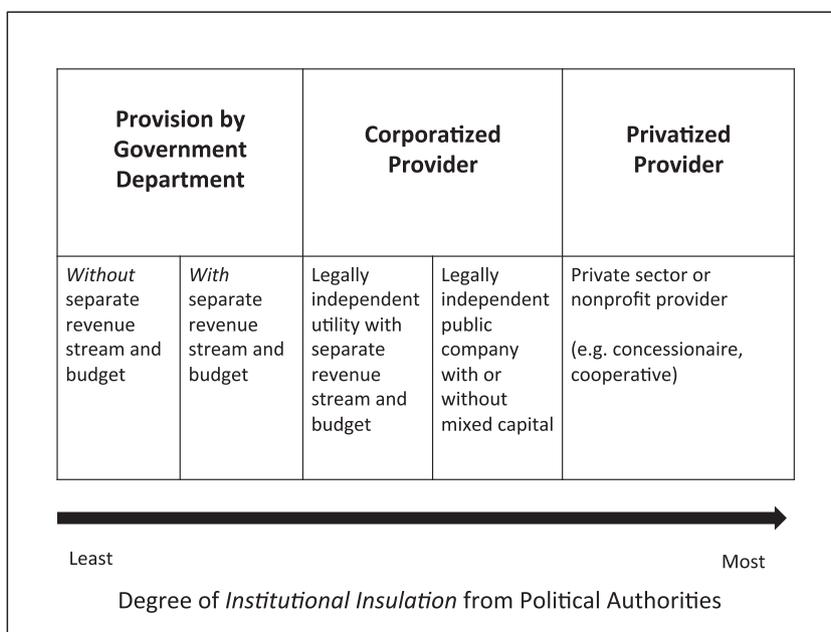


Figure 2. Types of insulating reforms in the water and sanitation sector.

IFIs and academic analysts promoted a more dramatic variant of these institutional reforms during the 1990s in the context of the Washington Consensus reform package: *privatization*, or “contracting out” for the management of and/or investment in W&S systems to the private sector (see column 5, Figure 2). Whereas corporatization involved setting up legally autonomous providers with controlling stakes held by the public sector, privatization involved delegating everyday management of services to legally independent entities controlled by private investors or other nongovernmental actors. Discussion papers and policy reform documents published by IFIs focused on delegation to private investors and outlined a range of models involving varying levels of delegation, and, by implication, insulation from political pressures. While some contracts only delegated short-term responsibility for the management of commercial aspects of service provision (management contracts), more substantial shifts occurred under concession contracts (long-term contracts for both management and investment in state-owned systems) and divestitures (sales of equity in public utilities that own network infrastructure to private investors) (Idelovitch & Ringskog, 1995, pp. 13–21; Kerf *et al.*, 1998; Kessides, 1993; World Bank, 1994b, p. 61). Reform advocates focused on the potential efficiency gains and increased revenue streams that could be funneled into investment once system management was insulated from politics.³¹ Delegating management and investment functions to the private sector would insulate providers from short-termist political pressures even more effectively than delegation to corporatized utilities because managers would need to respond to shareholder (or other owners’) interests rather than oversight boards staffed by political appointees (Kessides, 1993, p. 30). This would give managers yet more leeway to adopt “commercialization” policies designed to help utilities recover the full costs of production and investment through tariff revenue. Under the model promulgated by IFIs, contracts with the private sector for the management of and/or investment in state-owned systems were to be monitored by new regulatory agencies, officially charged with ensuring that both firms and governments met their contractual obligations (Foster, 2005, pp. 10–23; Kessides, 1993, p. 23).

A large number of developing countries engaged in corporatization efforts over the last two decades. IFIs and donor agencies often insisted upon the adoption of these reforms as a condition for receiving loans to fund infrastructure projects. This acted as an important carrot during the 1980s and 1990s—a period when developing countries had little access to finance.³² Domestic technocrats, however, were often just as convinced of the promise of more corporate structures for delivering services as sector specialists at the development banks. Case studies suggest that corporatization was sometimes undertaken as a preliminary step toward privatizing services, and regulatory agencies were thus often established at the same time as corporatization (Foster, 2005). A corporatized utility, it was assumed, would be able to cover its costs and hence be more attractive to private investors.³³ In many developing countries, corporatization became the *de facto* sector policy for water utilities when it became difficult to attract private sector interest or after private sector participation had become politically unpopular.³⁴ While there is, to our knowledge, no systematically collected data on the reach of the corporatization trend, published academic case studies and policy analyses suggest that at least 35 countries have engaged in such institutional reforms, as Table 3 indicates. Importantly, many of these reforms occurred in countries where W&S were already decentralized.

This combination of international and domestic pressures also prompted many developing countries to experiment with privatization. The World Bank’s Private Sector Participation in Infrastructure database, which documents privatization contracts in all low- and middle-income countries, reports that 61 countries granted at least one privatization contract in the W&S sector.³⁵ While service providers with private sector participation came to serve only 5% of the world’s population and investors have shown far more interest in middle-income than low-income countries (Budds & McGranahan, 2003), the privatization trend has not stopped. Authoritarian regimes such as China—which possesses the largest number of projects in Asia—continue to attract investors, and giant countries such as India and Russia have just begun to roll out national infrastructure policies emphasizing private sector participation.³⁶ As Table 4 demonstrates, as with corporatization, state and local governments have undertaken the vast majority of privatizations.³⁷

4. EXPERIENCES TO-DATE WITH DECENTRALIZATION AND INSULATING REFORMS

This section reviews the existing empirical literature on the effects of decentralization and institutional reforms intended to increase utility autonomy in the developing world. Our aim is to evaluate the extent to which the tension we observe between the rationales for these two reforms has affected policy implementation. For this reason, we examine cases in which insulating reforms were adopted subsequent to decentralization, which, as Tables 3 and 4 show, was a common occurrence. We deliberately separate our discussions of experiences with corporatization (Section 4a) and privatization (Section 4b). Discussions of these two types of reforms are often conflated in the literature and separate treatment allows us to highlight that tensions were somewhat greater when service providers were corporatized rather than privatized.

Our review of the literature reflects a comprehensive search for scholarly analyses of reform experiences undertaken during 1990–2013.³⁸ Existing studies devote sufficient attention to changes in the politics of the W&S sector for us to offer an initial assessment of whether each reform generated the *political effects* hypothesized by their promoters at international institutions and donor agencies.³⁹ As noted previously, decentralization proponents predicted that citizen participation would increase, which would enable, among other things, the introduction of cost recovery policies. The promoters of insulating reforms, in contrast, assumed that citizen influence upon policymaking—mediated through elected officials—would decrease, and that this would ease the introduction of cost recovery policies they viewed as necessary to improve and extend services. Our analysis in this section thus focuses on whether or not existing studies suggest that the introduction of insulating reforms following decentralization: (1) increased the managerial and fiscal autonomy of W&S providers; (2) discouraged political authorities, and especially elected officials, from intervening in the setting of consumer rates; (3) reduced civil society mobilization against rate increases through formal venues such as courts or informal venues such as street protests, or conversely, increased user buy-in regarding cost recovery policies; and (4) discouraged political authorities from backing down following protests against cost recovery policies.

As we will show, the empirical literature to-date suggests the political effects of decentralization have not matched expectations. While citizen engagement with W&S policy has at times

increased, citizen participation has often taken the form of backlashes against cost recovery policy through informal channels such as organized protest. Rarely has greater public involvement increased citizen support for cost recovery policies. Insulating reforms, when instituted by subnational governments, have also failed to generate the political effects predicted by promoters. Local politicians have strong incentives to cater to consumers' short-run interests in lower rates because of re-election concerns and fears of popular unrest, and thus seek to influence W&S policy even following the horizontal transfer of administrative functions to independent providers. Given the weak institutional checks and balances in the developing world, politicians face few real barriers to intervening in policymaking by the new, formally independent bodies created during the reform process.

(a) *The political effects of corporatization following decentralization*

One of the main benefits of corporatization, promoters argued, was that managerial autonomy would increase, thereby ensuring that utility revenues would not be squandered through patronage employment and other wasteful expenditures. A number of studies have found that granting decentralized utilities formal institutional autonomy through corporatization, however, does not create *de facto* independence from political pressures. Despite formal procedures designed to ensure that managers are not political appointees, local politicians continue to circumvent these rules and directly appoint managers. This phenomenon is particularly pronounced in decentralized settings in weak institutional environments where local authorities typically govern without effective legal or societal counterweights. As a result, utilities employment often continues to be a valuable patronage resource for politicians, and at times a source of important revenue for local coffers following corporatization. For example, in Colombia and Mexico, mayors and city councils typically appoint the utility manager and board of directors and intervene in the hiring decisions and managerial practices of corporatized utilities (Herrera, 2014; Krause, 2009, pp. 118, 159–160). In Kenya, both local and federal authorities continued to interfere directly in the operations of corporatized local utilities despite their formal legal and fiscal autonomy (K'Akumu and Appida, 2006, p. 320). Furthermore, despite the fact that utility budgets were officially independent, municipal officials continued to access utility funds for non-water-related purposes, and transferred *en masse* all personnel from prior municipal water boards to the new corporatized utilities without removing patronage appointees (K'Akumu and Appida, 2006, p. 320; Onjala, 2002, pp. 19–20). In many such instances, formal institutional changes are insufficient to give utilities *de facto* operational autonomy.

Decentralization has also underscored the political salience of the W&S sector for local politicians. Compared to national-level counterparts, local officials tend to have fewer policy responsibilities, making water policy a top priority, and they also tend to be particularly sensitive to protestors who can easily access their local city hall and make their claims visible. The political sensitivity of tariff increases persists even following corporatization because often voters do not perceive corporatized water utilities as truly independent. In the empirical cases surveyed, politicians concerned about reelection often intervened to block cost recovery policies, effectively violating the independence of the boards charged with overseeing service management. In Colombia during 1998–2004, legislators presented at least 10 proposals for prize

freezes (Fernández, 2004, p. 7). In Bogotá, Colombia, citizens routinely complained about the cost of water. Meanwhile, politicians attacked the water utility for “overpricing” in spite of service improvements enabled by the adoption of cost recovery policies (Gilbert, 2007, p. 1571). For example, in a 2005 survey, 83% of the complaints about water service were about high tariffs (Gilbert, 2007, p. 1571). Herrera reports that in Mexico, it is not uncommon for mayors to set prices below costs for fear of social backlash, and to manipulate collection practices so that price increases are not implemented (2014). In Kenya, fears of “unfavorable public opinion” from users losing long-standing subsidies through tariff increases have stalled the adoption of cost recovery policies (Onjala, 2002, p. 19). Because of the political sensitivity of cost recovery, local officials are particularly reluctant to raise prices or suspend services during elections. Gilbert notes that in Colombia, Mayor Mockus campaigned for office in Bogotá by promising to reduce water tariffs by 10% (2007, p. 1563), and in Mexico, mayors continue to politicize tariff setting during elections (Pineda Pablos, 2002, p. 67). In Namibian municipalities,⁴⁰ mayors have paused service suspensions for non-payment during elections (Labour Resource and Research Institute, 2005, p. 266). Despite the corporatized structure, in many cases following decentralization, concerns about social backlash or losing elections have often interfered with efforts by bureaucrats to introduce cost recovery policies.⁴¹

Not only did local officials focus on short-term costs to consumers in their efforts to address citizen concerns, but consumer groups also turned to the courts to block price increases. Despite the assumption that decentralization would create greater user buy-in for services, citizens have largely litigated *against* the adoption of cost recovery policies. For example, in South Africa, citizens have made efforts to litigate against tariff increases and services suspensions (Morgan, 2011, pp. 156–157, 160–163). In Johannesburg, South Africa, activists launched legal challenges to have prepaid meters declared unconstitutional, and banned (Bakker, 2010, pp. 155–156; Conca, 2006, p. 353; Dugard, 2010; Harvey, 2005). In Namibia, utility staff members urged community members to sue the municipality under the premise that service suspensions were illegal; even staff members could not afford the dramatic price increases being implemented (Labour Resource and Research Institute, 2005, p. 266). In Irapuato, Mexico, over 1,000 consumers filed complaints with the municipal judicial official against price increases (Herrera, 2013).

A handful of studies document the creation of formal, institutional venues following decentralization that were intended to increase citizen's voice in the policymaking process outside of their normal interactions with elected officials. However, these studies suggest that participatory councils have been created infrequently, and where established, have not resulted in increased citizen influence on service provision, particularly for non-elites. Krause notes that in Colombia, important barriers to forming user councils exist, such as users not knowing their rights to form councils and the bureaucratic complexity of creating councils (2009, p. 110). Krause reports that in public hearings, user representatives often “lack the legal, technical, and economic knowledge” to effectively participate in the decision-making process (2009, pp. 111–112). In Kenya, newly corporatized utilities have created spaces for civil society on the board of directors (Onjala, 2002, pp. 16–17), but citizens have “remained quiet without raising any issue” (K'Akumu, 2007, p. 307). Similarly, in Namibia, decentralization has not ensured that citizens' interests are represented, particularly among the poor who have borne the brunt of service suspensions (Bayliss, 2008a, p. 230). In contrast, when a board

Table 3. *Water and sanitation corporatization in developing countries*

Country	Service provision by subnational government?	Institutional structure	Examples
<i>Latin America</i>			
Argentina	Yes (province)	Public companies without private capital	SAMEEP (Chaco) Aguas de los Andes (Jujuy) EPAS (Neuquén) Servicios Públicos S.E. (Santa Cruz) OSSE (San Juan)
Bolivia	Yes (local)	Public companies without private capital	EPSAS La Paz EPSAS El Alto
Brazil	Yes (state and local)	Public companies with and without some private capital	COPASA (Minas Gerais) SABESP (Sao Paolo)
Colombia	Yes (local)	Special purpose governments and public companies with and without some private capital	EAAB (Bogotá) Aguas de Manizales EEA Villavicencio
Costa Rica	Yes (local)	Public company	ESPH (Heredia)
Dominican Republic	No (deconcentrated to regions)	Public companies without private capital	CAASD (Santo Domingo) CORAASAN (Santiago) CORAAPLATA (Puerto Plata)
Ecuador	Yes (local)	Public companies without private capital	EPMAPS (Quito) ETAPA (Cuenca)
Guatemala	Yes (local)	Special purpose governments and public company without capital	EMPAGUA (Guatemala City)
Honduras	Yes (partial)	Public company with some private capital	Aguas de Puerto Cortes
Mexico	Yes (state and local)	Special purpose governments and public company with some private capital	SAPAL (León) OAPAS (Naucalpan) OPDM (Tlalnepantla de Baz) CESPE (Baja California) Aguas de Saltillo (Saltillo)
Nicaragua	No	Public company without private capital	ENACAL
Paraguay	No	Public Company without private capital	ESSAP (National)
Peru	Yes (province and local)	Public Company without private capital	SEDAPAL (Lima)
<i>Africa</i>			
Benin	No	Public Company without private capital	SONEB
Burkina Faso	Yes	Public Company without private capital	ONEA
Cape Verde	Yes	Public Company with some private capital	ELECTRA
Chad	No	Public Company without private capital	STEE
Cote d'Ivoire	No	Public Company with some private capital	SODECI
Ghana	No	Public Company without private capital	GWC
Kenya	Yes (local)	Public company without private capital	Nyeri W&S Co. Ltd Nakuru Quality W&S Ltd Eldoret W&S Co. Ltd
Lesotho	Yes	Public Company without private capital	WASA
Malawi	No	Public Company without private capital	BWB CRWB LWB
Mozambique	Yes	Public Company without private capital	AdeM Beira; Nempula; Pemba; Quilimane
Namibia	Yes (public national company sells bulk water to municipalities)	Public company without private capital	Namwater LLC

Niger	Yes	Public Company without private capital	SPEN
Nigeria	Yes (state)	Public Company with some private capital	37 corporate bodies
South Africa	Yes (local)	Special purpose governments and public company without private capital	Cape Town Tswane Johannesburg Durban
Sudan	Yes	Public Company with some private capital	Khartoum Water Corporation
Tanzania	No (deconcentrated)	Public company without private capital	South Darfur Water Corporation
Uganda	Partial (national shared with towns)	Public company without private capital	18 local companies
Zambia	Yes (regional and local)	Public company without private capital	NWSC 10 local companies
<i>Asia & Middle East</i>			
Cambodia	No	Special purpose government	Phnom Penh Water Supply Authority
Malaysia	Partial (national government owns assets, subnational provides service)	Public company with majority public ownership	P. Pinang (PUL) Terengganu (TER) Kelantan (KEL)
Jordan	No	Public company without private capital; Special purpose governments	Aqaba Water Company LLC (Miyahuna Jordan Water Company YWK (Yarmouk Water Company) Alexandria Water Company (Alexandria)
Egypt	No	Public company without private capital	

Source: Author elaboration (sources available in [online Appendix A](#)).

Note: This table catalogs cases of corporatized water utilities in low-income and middle-income countries documented by case studies surveyed for this project.

of directors was formed in corporatized utilities in Manizales, Colombia and León and Saltillo, Mexico, they were dominated by local business elites (de Garza, 2006, pp. 111–112; Krause, 2009, pp. 157–159; Herrera, 2011, pp. 78–86). User associations in Saltillo, Mexico have protested that the corporatized utility has excluded civil society (de Garza, 2006, pp. 122–123). Similarly, Onjala notes that in Kenya, industry is more represented in decision-making because of its financial stake in receiving high-quality water (2002, pp. 22–23).

While there is little documentation of participation through formal channels, studies highlight the common use of various *non-institutional* forms of demand making following decentralization and corporatization, such as protest vandalism, illegal re-connections and collective action. In Lima, Peru, citizens have resisted attempts to monitor water usage by stealing and vandalizing water meters with much greater frequency: whereas 32,256 meters were stolen or vandalized in 2000, this number increased to 85,176 by 2007 (Ioris, 2012, p. 274). In Durban and Tygerberg South Africa, citizens reconnected to networks following service cut-offs for nonpayment (Morgan, 2011, pp. 156–157; Smith, 2004, p. 389). In a number of South African cities, a mixture of local and international activists protested the installation of meters, leading to arrests and criminal charges (Conca, 2006, p. 353; Harvey, 2005, pp. 122–126). In other cases, price increases and service cut-offs for non-payment have sparked mass mobilization. Several studies document organized resistance to payment. For example, protestors boycotted payment in Pretoria, South Africa (Bakker, 2010, p. 154) and in Durban, South Africa, large crowds rallied in the water utility offices, holding 10 rand to symbolize the amount they could afford to pay per month (Morgan, 2011, pp. 156–157). Herrera notes that in a number of Mexican cities, price increases provoked sit-ins, rallies, and major protests (2013, 2014). In major South African cities, backlash against cost recovery policies has been widespread. For example, Smith writes that high rates of service cut-offs for nonpayment in Tygerberg and Cape Town, “sparked township revolt, making these areas periodically ungovernable” (2004, p. 389). Cost recovery policies in Cape Town, Johannesburg, and Durban have led to the creation of urban social movements allied with such diverse causes as labor rights, economic justice issues, and environmental protections, which garnered international support (Conca, 2006, p. 353; Debbané & Keil, 2004, p. 217; Morgan, 2011, pp. 156–157).

Some studies note that local corporatized utilities have repealed or backtracked on cost recovery policies due to their contentiousness. In Zambia, Dagdeviren reports price increases that doubled tariffs for middle-class users and more than quadrupled tariffs for low-income users became politically untenable and were soon lowered. Although rates were later increased, they remain the lowest in sub-Saharan Africa, despite the affordability of tariffs for many residents (Dagdeviren, 2008a, p. 108). In Nakuru, Kenya, conflicts over outstanding water debts between institutions and a general lack of political support for cost recovery led to the dissolution of the corporatized utility (Onjala, 2002, pp. 20–21). Smith notes that township revolts over service suspensions in Tygerberg and Cape Town, South Africa led authorities to temporarily halt suspensions (2004, p. 389). In Poza Rica, Mexico, lawsuits brought against the water utility forced greater leniency in service suspension policies, and organized protest led the mayor to insist on price freezes for three years—prices were only increased with the arrival of a new mayor (Herrera, 2011, 157–164). Herrera notes that in instances in which price increases sparked civic unrest throughout Mexico, politicians frequently pressured

Table 4. *Water and sanitation privatization in developing countries, 1990–2011*

Country	Tier of government privatizing				Type of privatization ^b
	National	State/provincial	Local	N/A ^a	
Totals	90	87	504	87	295 Concessions, 29 divestitures, 317 greenfield projects, 127 management or lease contracts
<i>Latin America</i>					
Argentina	1	14	4		18 Concessions, 1 management or lease contract
Belize				1	1 Divestiture
Bolivia	1		1		2 Concessions
Brazil		7	35	40	66 Concessions, 4 divestitures, 12 greenfield projects
Chile	14		1	6	11 Concessions, 7 divestitures, 3 greenfield projects
Colombia	2	12	25	12	27 Concessions, 2 greenfield projects, 22 management or lease contracts
Cuba				1	1 Concession
Ecuador		1	1	2	2 Concessions, 2 management or lease contracts
Guatemala			1		1 Concession
Guyana	1				1 Management or lease contract
Haiti	1				1 management or lease contract
Honduras			1		1 Concession
Mexico	1	13	8	9	5 Concessions, 25 greenfield projects, 1 management or lease contract
Panama		1			1 Greenfield project
Peru	3		1		1 Concession, 2 greenfield projects
Uruguay				2	2 Concessions
Venezuela, RB			1	4	3 Greenfield projects, 3 management or lease contracts
<i>Africa and Middle East</i>					
Algeria	14				9 Greenfield projects, 5 management or lease contracts
Cameroon	1				1 Management or lease contract
Central African Republic	1				1 Management or lease contract
Congo, Rep.	1				1 Management or lease contract
Côte d'Ivoire	1				1 Management or lease contract
Egypt	2				1 Greenfield project, 1 management or lease contract
Ghana	1				1 Management or lease contract
Jordan	3			1	2 Greenfield projects, 2 management or lease contracts
Lebanon	1				1 Management or lease contract
Kenya			1		1 Management or lease contract
Mauritius	1				1 Management or lease contract
Mozambique	2				2 Management or lease contracts
Namibia			1		1 Management or lease contract
Niger	1				1 Management or lease contract
Senegal	1				1 Management or lease contract
South Africa			8		2 Concessions, 1 greenfield project, 5 management or lease contracts
Sudan	1				1 Greenfield project
Tanzania	1				1 Management or lease contract
Tunisia	1				1 greenfield project
Uganda	2				2 Management or lease contract
West Bank and Gaza	2				2 Management or lease contracts
Zambia	1				1 Management or lease contract
<i>Asia</i>					
China	3	8	358	5	112 Concessions, 11 divestitures, 232 greenfield projects, 19 management or lease contracts
India		6	6		3 Concessions, 4 greenfield projects, 5 management or lease contracts
Indonesia			10		7 Concessions, 3 greenfield projects
Malaysia	2	11	3		11 concessions, 1 divestiture, 2 greenfield projects, 2 management or lease contracts
Nepal	1				1 Management or lease contract
Papua New Guinea	1				1 Concession
Philippines	4		2		5 Concessions, 1 management or lease contract
Thailand	2	9	5		9 Concessions, 1 divestiture, 5 greenfield projects, 1 management or lease contract
Vietnam	2		1		3 Greenfield projects
<i>Central Asia and Europe</i>					
Albania	2		1		1 Concession, 2 management or lease contracts
Armenia	9		1		10 Management or lease contracts
Azerbaijan			1		1 Management or lease contract
Bulgaria			1		1 Concession

Tier of government privatizing

Country	National	State/provincial	Local	N/A ^a	Type of privatization ^b
Georgia	1				1 Divestiture
Kazakhstan		1			1 Divestiture
Kosovo				1	1 Management or lease contract
Kyrgyz Republic			1		1 Management or lease contract
Montenegro				1	1 Management or lease contract
Romania			3	1	3 Concessions, 1 management or lease contract
Russia		3	18	1	2 Concessions, 2 divestitures, 4 greenfield projects, 14 management or lease contracts
Turkey			2		1 Greenfield project, 1 management or lease contract
Ukraine		1	2		1 Concession, 2 management or lease contracts
Uzbekistan	1				1 Management or lease contract

Source: PPIAF-World Bank, PPI Database, (ppi.worldbank.org). Data downloaded February 14, 2013.

^a N/A refers to cases in which the database does not have information regarding the tier of government privatizing for a particular project.

^b Divestitures are privatizations through the purchase of a majority stake in a state-owned enterprise by a private entity. Concessions involve private sector management and investment in a state-owned system for a given period. Greenfield projects involve the construction and operation of a new infrastructure facility for a pre-specified period by a private entity or public-private joint venture. Under management and lease contracts, a private entity takes over the management of a state-owned provider for a fixed period, but investment responsibilities remain with the state.

managers to grant concessions such as debt forgiveness programs, periodic price freezes, and allowing some low-income neighborhoods to not pay for water (2011, 2014). These concessions allowed some cost recovery policies to be implemented. Taken together, our analysis of the cases described in the literature suggests that corporatization has failed to insulate service providers from political pressures, and that such pressures have often prevented the adoption of cost recovery strategies intended to help utilities escape from a “vicious cycle” of underperformance. Increased citizen influence in service provision following decentralization, in other words, has had the opposite effect from that suggested by decentralization proponents. Not only have decentralization proponents’ expectations not been realized, but also the political changes triggered by decentralization appear to have prevented corporatization from increasing provider independence.

(b) *The political effects of privatization following decentralization*

According to the proponents of insulating reforms, private sector participation would more effectively insulate service provision from political intervention than corporatization. Moreover, the fact that foreign investors often had access to international arbitration if governments reneged on their commitments offered them further protection, it was assumed, from political decisions to backtrack on contractual commitments. The existing empirical literature on privatization does suggest that more formal insulation from electoral politics allowed privatized water utilities to achieve greater operational independence and introduce more cost recovery policies than their public sector predecessors. This being said, our review of the literature to-date suggests that local politicians’ electoral concerns still prompted them to regularly influence regulated, private provision—especially with respect to the timing of rate hikes and other politically sensitive cost recovery policies—though not to the same extent as under corporatization. This was especially true when privatization followed decentralization, which increased the salience of water policy for local politicians given the small number of policy areas treated at the local level. As in the case of corporatization, when decentralization preceded privatization, electoral concerns or fears of unrest often prompted political authorities to block, rather than encourage, the implementation of cost recovery measures—contrary to the expectations of

decentralization proponents. In addition, when social protest erupted against the adoption of rate hikes or other cost recovery policies following privatization, it resonated even more strongly than under corporatization due to the fact that services were provided by a private firm with a profit motive that served as a convenient punching bag for local officials.⁴²

Operational independence in areas such as the hiring and firing of workers and the management of utility revenues does appear to have increased following privatization according to the few studies that address the topic. Privatizations often involved large layoffs or voluntary retirement programs: large-N studies of the effects of privatization point to large, up-front reductions in the number of employees per connection (Andrés, Guasch, Haven, & Foster, 2008, pp. 166–171; Marin, 2009, pp. 96–99; Shirley & Ménard, 2002, pp. 29–30).⁴³ Such large reductions would not have been feasible if privatized utilities were still highly susceptible to pressures for patronage employment.⁴⁴ Other aspects of operational autonomy, such as budgeting, have received less attention in the literature. Based on a comparison of four municipal utilities in Colombia, Krause (2009, p. 176) argues that privatization via a concession or lease contract limited politicians’ access to providers’ financial resources, though he notes that a corporatized provider in Colombia also achieved operational independence.

While privatized service providers appear to enjoy greater operational independence than their public sector predecessors, case studies suggest that politicians routinely block cost recovery measures such as consumer rate increases due to electoral concerns. Political intervention in rate setting, which is typically delegated to regulatory agencies or companies themselves through legislation or contracts, is particularly likely when services are regulated by state or municipal governments and during competitive elections.⁴⁵ Local politicians blocked rate increases for concessionaires in Mexico City and Aguascalientes, Mexico out of electoral concerns (Wilder & Romero Lankao, 2006, p. 1984). Analysts observed similar dynamics in Limeira, Brazil (Vargas, 2008, p. 34). Local candidates for office from six political parties signed a joint statement protesting the initial 35% average rate increase in Cochabamba, Bolivia, following privatization (Nickson & Vargas, 2002, p. 114).⁴⁶ In Argentina following privatization, incumbent governors concerned about reelection for themselves or their party postponed rate increases and updates to the cadastral registries upon which tariff calculations were based in the provinces of Salta and Mendoza (Post, 2014a, pp. 84, 121). Governors were particularly loath to preside over increases if they

themselves had campaigned on an anti-privatization platform or when concerns about political competition coincided with major service quality problems, as occurred in the provinces of Tucumán and Buenos Aires (Post, 2014a, pp. 88, 93).

Case studies suggest that economic crises also prompt politicians to freeze consumer rates, often through the suspension or renegotiation of privatization contracts. In Aguascalientes, Mexico, the 1994 peso crisis inspired calls for the cancellation of the city's concession contract and encouraged the Aguascalientes mayor to block a rate increase. This led to concessionaire-government negotiations over a reconfiguration of contractual responsibilities (Caldera Ortega, 2006, pp. 2–5; Pineda Pablos, 1999, pp. 60–62). Argentina's 2001–02 economic crises prompted the county's national government, and subsequently all provincial governments, to freeze consumer rates and open up existing utility concession contracts—including those in the water sector—for renegotiation (Post, 2014a, pp. 88, 93; Post, 2014b, p. 117). Requests made by the two concessionaires for the Jakarta, Indonesia system for rate increases following the Asian economic crisis were rebuffed, and contract renegotiation processes ensued (Argo & Laquian, 2004, p. 13; Bakker, 2010, p. 127).⁴⁷ The frequency with which officials blocked rate increases suggests that citizens expect local politicians to intervene in rate-setting despite the fact that formally independent regulatory institutions are officially charged with setting consumer prices. Moreover, it appears that local politicians' actions are clearly focused on consumers' immediate concerns regarding rate increases that would erode their real income rather than consumers' long-run interests in funding investments that could *potentially* yield economic, social, and health benefits in the future.

Concerns about political stability and election outcomes have also led politicians and judges—who do not enjoy high levels of independence in weak institutional environments—to block other types of cost recovery policies. While privatization contracts commonly require firms to install household water meters, local officials have often blocked their introduction.⁴⁸ Case studies note instances in which judges have blocked the implementation of cost recovery measures, even when explicitly provided for in privatization contracts; the Indonesian courts blocked rate increases in Jakarta following the Asian crisis (Argo & Laquian, 2004, p. 14), and Argentine courts blocked the implementation of service cut-offs for nonpayment (Post, 2014a, pp. 97, 115). Privatized utilities have at times responded to these barriers to the implementation of cost recovery policies—and the resulting impact on revenues—by lobbying for revisions to their contracts so as to reconfigure their revenue stream⁴⁹ or lower investment requirements.⁵⁰

While it is clear that electoral concerns have led local politicians to block some cost recovery policies, this has not fully hindered their introduction. An econometric study comparing prices before and after privatization for 49 developing country utilities reports average real rate increases of 15.7% during the transition from public to private provision and 24% after the transition (Andrés *et al.*, 2008, p. 174). Moreover, collection efficiency, or the percentage of billed charges actually received, improved in 14 out of 16 Latin American concession contracts examined in another World Bank study (Marin, 2009, pp. 4, 90–91). Examining systems in sub-Saharan Africa, Bayliss (2003, pp. 520–521) observes that privatized utilities disconnected customers for nonpayment in Senegal and Côte d'Ivoire. This suggests that privatization and the establishment of regulatory agencies provide some insulation from “politicization,” although less so during tight elections or periods when authorities are otherwise concerned about their hold on power. While decentralization proponents argued that bringing

services closer to the people would help build public support for cost recovery policies, the opposite dynamic appears to be at work: when local politicians desire to cater to voters or quell unrest, they block the adoption of such policies.

The existing case study literature also highlights many instances in which social protests have erupted against privatization or the subsequent introduction of cost recovery measures. Bakker (2010, pp. 140–141) documents 38 anti-privatization protest episodes in developing countries across a range of income levels—a figure that is probably a conservative estimate. Protest organizers typically highlight a contradiction between citizens' human right to water and service provision by private monopolies that earn profits through charging for services—a juxtaposition that one cannot make when the public sector charges for services. When contracts have been granted at the subnational level, these protests can take center stage due to their visibility and the importance of water services to local policymakers. In some cases, protests gained sufficient momentum that local officials chose to delay or refrain from privatizing services, as occurred in Delhi, India (Bywater, 2012); Naucalpan, Mexico (Conde Bonfil, 1996, pp. 104–109); Rio de Janeiro, Brazil; and Honduras (Goldman, 2005, p. 259). Nonpayment campaigns and street protests against the introduction of cost recovery policies such as metering can also lead firms to reduce levels of investment dramatically, as occurred in Nelspruit, South Africa (Smith, Gillett, Mottiar, & White, 2005). In a few cases, popular protests *following* privatization made it politically expedient for governments to cancel (or fail to renew) contracts following consumer rate hikes or severe service quality problems.⁵¹ The most widely cited case is the Cochabamba concession in Bolivia, which only attracted one bidder because the ambitiousness of the required investment program necessitated a large consumer rate hike, which in turn prompted a wave of social protest that forced the government to cancel the contract, and ultimately brought a new political movement to power at the national level (Assies, 2003; Nickson & Vargas, 2002; Perreault, 2006; Schultz, 2008; Silva, 2009, chap. 5; Spronk & Webber, 2007). Street protests and massive consumer nonpayment campaigns also prompted subnational governments to cancel concession contracts in two Argentine provinces: Tucumán (Giarracca & Del Pozo, 2005; Morgan, 2011, pp. 133–138) and Buenos Aires (Goldman, 2005, p. 259; Post, 2014a, p. 90).⁵² These instances of popular protest stand in contrast to predictions made by proponents of service decentralization in two respects. First, participation appears to have increased, but through non-institutionalized venues. Second, this participation clearly challenges, rather than supports, the adoption of cost recovery policies intended to help utilities exit a low-level equilibrium. While the distributional concerns these protests highlight are important, they offer no concrete alternative proposals regarding how services improvements might otherwise be funded.

Our review suggests that existing research on the effects of corporatization and private sector participation following decentralization highlights a common pattern: institutional reforms intended to shield service providers from everyday politics operated in tension with higher levels of political and social interest in the W&S sector following decentralization. While one of the main theoretical arguments used to promote decentralization was that consumers would be more likely to support cost recovery reforms adopted by local providers they could monitor easily, case study research on both types of reform suggests the opposite. Local politicians often blocked such reforms when worried about reelection or social protest. While corporatized providers and regulatory agencies were

legally independent, formal autonomy often did little to insulate these entities from political influence. At the same time, somewhat different forms of politicization arose under corporatization and privatization. Under corporatization, elected officials continued to intervene regularly in management, whereas under privatization, operators enjoyed greater managerial autonomy yet still faced strong barriers to the introduction of cost recovery policies.

These results match expectations of institutionalist approaches to political economy, which stress that reforms providing for *de jure* “independence” for institutions such as central banks and regulatory agencies are more likely to provide *de facto* independence when the political system contains strong checks and balances (Keefer & Stasavage, 2002; Levy & Spiller, 1993; Moser, 1999). Our thorough review of IFI publications of the 1990s suggests that while institutions were careful to argue that privatization was only likely to succeed in the presence of effective and independent judiciaries, similar caveats were not made with respect to corporatization or the introduction of cost recovery policies.⁵³ In fact, both privatization and corporatization were adopted in many countries without strong checks and balances, very often with IFI assistance. In 13 of the 35 countries engaging in corporatization cited in Table 3, standard measures for “checks and balances” in the political system fall below average levels as measured by World Bank database on political institutions (Beck, Clarke, Groff, Keefer, & Walsh, 2001). Meanwhile, 25 out of 57 low- and middle-income countries that privatized urban W&S systems possess below-average checks and balances scores.⁵⁴

5. CONCLUSIONS AND AVENUES FOR FUTURE RESEARCH

Institutional reform initiatives in the W&S sector in developing countries promised to correct incentive problems that trapped service providers in a vicious cycle of underperformance. Policy analyses published by IFIs and major donors promoted institutional changes designed to separate service provision from political intervention, arguing that such political insulation would allow service providers to enact cost recovery policies that forced consumers to shoulder short-term costs in order to finance infrastructure investments yielding benefits in the medium to long run. Meanwhile, analysts suggested that decentralizing the administration of urban W&S systems would make service providers more accountable to the populations they served and help ensure greater community support for reforms, including cost recovery measures.

In this paper, we show that the principal rationale used to promote decentralization and institutional reforms intended to insulate service providers from politics conflict with one another. Decentralizing reforms were intended to increase voter and civil society participation in administering services, whereas reforms such as corporatization and privatization were intended to insulate utility managers from everyday political pressures so that controversial cost recovery reforms could be introduced. While the relative weight placed upon these two institutional reform initiatives often differed between and at times even within institutions, both initiatives were nonetheless promoted in tandem, despite the incompatibility of their underlying rationale.

We provide the most comprehensive documentation to-date of both reform waves, and highlight the fact that decentralization and insulating reforms were often adopted in tandem in spite of these conflicting rationales. Our review of the existing literature evaluating the effects of both types of reforms

suggests that the tensions we highlight were borne out in practice, consistent with the expectations of political economy theories predicting that political “independence” will be difficult to create simply by forming new institutions in political systems with few checks and balances. Following decentralization, local politicians faced strong incentives to intervene directly in water policy to block the implementation of cost recovery reforms because of electoral concerns and to respond to social protests. When consumers mobilized, they did so to protest, rather than support, cost recovery policies—contrary to what decentralization proponents suggested.

Our findings have a number of practical and theoretical implications, and suggest fruitful lines for future research. First, our analysis rests upon findings from disparate case studies and large-N analyses that use a variety of methodologies, reflecting the interdisciplinary and uncoordinated character of research efforts on W&S policy. Further empirical research on the effects of the reform waves we examine here should employ similar metrics for multiple cases. Cases should be chosen so as to isolate key variables of interest, such as whether or not decentralized utilities instituted advisory councils for citizen participation, and characteristics of the socio-economic environment. Future research could also explore whether providing consumers with more specific information about the long-run benefits of specific infrastructural investments would increase their willingness to incur short-run costs such as rate increases.

Second, our analysis suggests that policymakers in the developing world should be wary of implementing both decentralization and insulating reforms in sectors like W&S as decentralization may make it difficult to insulate service provision in practice. In particular, decentralization may ensure that insulating reforms do not provide for sufficient political space for the adoption of cost recovery policies. We hypothesize, however, that these tensions will be particularly strong when decentralizing to small jurisdictions. Studies that have examined the effects of decentralization in the W&S sector in the absence of insulating reforms argue that decentralization is more likely to improve service provision if responsibilities are transferred to jurisdictions with sufficient economies of scale. These analyses emphasize weaker state capacity in small towns and cities (Asthana, 2012), reduced opportunities for cross-subsidization between income groups (Jouravlev, 2004, pp. 33–34; Vergès, 2010, p. 14), and reduced economies of scale (Kitonsa & Schwartz, 2012, pp. 178–179; OECD, 2011, p. 67). We propose an additional reason why decentralization to smaller jurisdictions would increase politicization: with fewer economies of scale and opportunities for cross-subsidization, policies that can move local utilities to cost recovery would require asking the population, and particularly the poor, to pay much higher prices for service provision than they might otherwise. In other words, social equity concerns are particularly important in such cases. This is likely to make policies very politically contentious, which can often prevent their introduction. Following a similar logic, we would expect tensions between the two reform initiatives to be greater in poorer countries and in countries with higher levels of income inequality.

Furthermore, our survey of this policy area underscores the importance of understanding the ways in which institutional models “borrowed” from the industrialized world can function in different and unanticipated ways in the developing world. In particular, we draw attention to the importance of anticipating interaction effects between different types of reforms in new settings. For example, under the institutionalist turn in development policy, many types of reforms were promoted in tandem. W&S is just one policy area that witnessed multiple

institutional reforms during this period. Many Latin American countries, for instance, both decentralized and partially privatized health services during this period (Haggard & Kaufman, 2008, pp. 300–301). Some countries both decentralized and partially privatized primary and secondary education as well (Cuéllar-Marchelli, 2003; Parry, 1997). Future research could examine explicitly how institutional interactions affected reform outcomes in these and other cases.

Finally, our findings imply that certain theoretical arguments regarding the likely effects of decentralization are more plausible than others—at least for local public services like water. Our analysis suggests that participation is indeed likely to increase when a service is decentralized because it must

compete with fewer other issue areas for voter and politician attention. This being said, citizen mobilization is likely to focus on preventing tariff increases and service cut-offs—which constitute concrete, short-run losses for consumers—rather than on encouraging investments in longer term projects that may not yield the benefits politicians promise with certainty. The balance of the case study evidence on W&S reforms suggests participation does not help raise consumer consciousness about the importance of planning and resource constraints, nor does it seem to increase political support for the adoption of cost recovery policies. We encourage scholars of decentralization to examine whether or not similar dynamics are visible in other policy areas.

NOTES

1. Andrews (2013) documents this broader trend.
2. “Cost recovery policies” refers to revenue and collection policies intended to allow service providers to fund a greater percentage of their expenditures out of revenue from consumers. Typical policies include consumer rate increases, eliminating clandestine connections, and suspending service in response to nonpayment.
3. Even after the decentralization wave of the last decades, most subnational—and particularly municipal—governments in the developing world have administrative responsibilities for a relatively small set of services. Typically, subnational responsibilities are limited to urban planning, primary and secondary education, basic social services, public health, water and sanitation, public transport, and waste management (World Bank and United Cities and Local Governments, 2008).
4. As scholars have noted, individuals tend to be risk averse, and—given a choice between avoiding certain losses and obtaining larger benefits in the future with some degree of uncertainty—often prefer avoiding certain losses (Kahneman & Tversky, 1979; Pierson, 1996).
5. See PAHO (2001, pp. 23–24) on Latin America.
6. For a nearly complete set of coverage estimates for 1962, see Dieterich and Henderson (1963, pp. 78–81).
7. Yepes (1992, pp. 2–3, 15) and Corrales (2004, p. 49) summarize the Latin American experience. World Bank (1991, p. 25) describes this tendency across developing countries, quoting an African minister of construction: “Construct big, beautiful, and forever.” See also Black (1998, p. 31).
8. Country and region-specific case studies suggest this was a common phenomenon: see Yepes (1992, p. 15) and Corrales (2004, p. 49) on Latin America; World Bank (1964, p. 2) on Mexico; Nickson and Franceys (2003, pp. 42–43) on Ghana; Nilsson and Kaijser (2009, p. 279), on Kenya and Uganda; Bayliss (2008a, p. 227), on Namibia; and Nickson and Franceys (2003, pp. 45–46) on Sri Lanka.
9. Jaglin (2002, pp. 234–235) describes this phenomena in sub-Saharan Africa.
10. See Corrales (2004, p. 49) on Latin America; Nickson and Franceys (2003, pp. 42–43), on Ghana; Nilsson and Kaijser (2009, p. 279) on East Africa; Swatuk (2005, p. 47) on Southern Africa; Nickson and Franceys (2003, pp. 45–46) on Sri Lanka. In China, the central government maintained low water tariffs until the reform era (Zhong & Mol, 2008, p. 899).
11. Corrales (2004, p. 49) describes the Latin American case. According to Smith (2004, p. 377), post-independence governments in Africa were never able to subsidize their W&S parastatals sufficiently, in part because they were formed later than in other regions and thus were trying to expand services in a more difficult economic context.
12. See U.N. Habitat (2001, pp. 122–124) regarding inaccuracies in the standard cross-national data sources on service access and problems with service continuity and water quality in areas with coverage.
13. The policy consensus that had formed behind decentralization by the mid-1990s is conveyed in a variety of policy documents and discussion papers published by the major donors in the sector. Arguments for decentralization are most strongly articulated in documents addressing integrated water resources management (IWRM) and emphasize the importance of local participation, and thus consider the reform of urban utilities within a broader framework. References in World Bank publications include World Bank (1993, pp. 10–11, 1994a, pp. 4, 11, 1994b, p. 76), Fox (1994, p. 54), and Black (1998, pp. 31, 64). See also U.N. Habitat (1993, p. 8). Regarding US AID support, see Walker and Velásquez (1999a, pp. 43–44).
14. The political science literature distinguishes between three types of decentralization from central to subnational governments: political, fiscal, and administrative (see Fallei (2010) and Montero and Samuels (2004)). Our analysis focuses on administrative decentralization, or the vertical transfer of policymaking and managerial functions in specific policy areas, to subnational governments.
15. Conca (2006, p. 158) highlights some of the tensions within the IWRM community regarding the extent to which user participation should be encouraged. According to Walker and Velásquez (1999a, pp. 44–45), for instance, US AID emphasized decentralization whereas the Inter-American Development Bank emphasized reforms designed to insulate service providers from politics. USAID (2000, pp. 2, 14, 17) describes how W&S funding has fit within the agency’s broader emphasis upon decentralization as means of promoting democratization. Eaton, Kaiser, and Smoke (2011, pp. xix, 47) note that such differences were common throughout the donor community’s decentralization initiatives, and that they often posed difficulties for developing countries.
16. Principle No. 2 of the Dublin Principles argues that a decentralized, participatory approach should increase awareness of the importance of water. While the Dublin Principles addressed the management of entire national water systems, framers intended the principles to apply to urban water utilities as well as river basin management, irrigation systems, etc.
17. Regulatory and provider roles would be separated within a three-tiered system, thereby addressing the “poacher-gamekeeper” problem.

18. The respective importance of international and domestic pressures varied by country. For example, international pressures were important in the Mexican case (Wilder, 2010; Herrera, 2014), whereas Argentina's military government made a relatively independent decision to decentralize in the early 1980s (Post, 2014a, p. 43).
19. The table includes both water and sanitation services, as they are typically managed by the same provider. Thus, they were often decentralized at the same time, and the few cases in which the subsectors were decentralized separately are marked as such in Table 2.
20. This definition is restrictive, and does not account for all of the decentralizing and/or municipalizing efforts that have occurred throughout the world. For example, in Brazil, military regimes centralized water provision under state-level governments during the 1970s, and recent efforts to municipalize services provision have been considered by some to be decentralization efforts, even though no national-level parastatal delivered services (Sabbioni, 2008, p. 13).
21. By deconcentration we refer to the creation of regional offices for service delivery that remain under the auspices of the federal government.
22. See Walker and Velásquez (1999a, p. 18) regarding deconcentration efforts in Central America.
23. See Foster (1996, p. 2), an analysis published by the Inter-American Development Bank, and Idelovitch and Ringskog (1995, p. 9), a World Bank-sponsored publication promoting privatization in the W&S sector. The World Bank's 1994 *World Development Report* articulated the same points for infrastructure sectors in general (1994b, pp. 7, 33, 39, 75). See also World Bank (1993, p. 22). For the Asian Development Bank's perspective, see McIntosh (2003, chap. 8). See also Savedoff and Spiller (1999, chap. 1).
24. The tendency of government agencies to both provide services and conduct "policing" roles in the sector, such as determining sector-wide policies governing service provision and monitoring utility compliance performance standards is often conceptualized as a "poacher-gamekeeper" problem in these documents (e.g., Idelovitch and Ringskog (1995, p. 9), Foster (1996, p. 2)).
25. Krueger (1974) is the classic statement of this perspective. On state-owned enterprise performance, see Islam (1993, p. 131), Kikeri, Nellis, and Shirley (1992, p. 13), and Shirley (1999).
26. Most definitions of corporatization focus on legal and financial autonomy of service providers from government. Corporatized entities also typically have a corporatized governance structure, with a board of directors overseeing company management. While some scholars and policy analysts restrict the definition to public companies incorporated under private law, others extend the definition to include public law companies, statutory bodies, and legally and fiscally autonomous and ring-fenced utilities with public ownership, which we term "legally independent special purpose government with separate revenue stream and budget." See Bakker (2003b, p. 12), Bakker (2003a, p. 337), Furlong and Bakker (2010), USAID (2005, p. 10), and McDonald and Ruiters (2005, pp. 17–19) for more detailed treatments in the W&S sector, and see Muir and Saba (1995) and Pannier and Schiavo-Campo (1996, p. 6) for treatments more broadly.
27. The policy consensus regarding commercialization gained momentum following the 1992 publication of the Dublin Principles, a joint publication of attendees of the International Conference on Water and the Environment in January 1992. The publication's *instrumental principle* noted that water had economic value and should be treated as an economic good. Following the Dublin conference, a consensus emerged in the international donor community regarding the need to promote commercialization practices in water management (e.g., World Bank (1993, p. 12), Black (1998, pp. 46–49, 63), Asian Development Bank (2001, p. 21) and McIntosh (2003, p. 94).
28. Gulyani (1999) reviews the World Bank's advocacy of "demand management" in W&S.
29. Water lost through leaks and clandestine connection is typically referred to as "nonrevenue water." Policy papers written for international institutions stress that corporatized entities or private sector service providers be legally entitled to disconnect customers who do not pay and install meters resistant to tampering (e.g., Kerf, Gray, Irwin, and Levesque (1998, p. 52), McIntosh (2003, p. 8)).
30. For example, see Islam (1993), Thynne (1998) and Batley and Larbi (2004).
31. World Bank (1994b), Idelovitch and Ringskog (1995) and Kerf *et al.* (1998) are examples of the types of policy documents the World Bank published as a means of promoting private sector participation in the W&S sector, as well as in infrastructure sectors more broadly.
32. Goldman (2005, chap. 6) documents conditionality in the W&S sector.
33. This was, for instance, the case in Chile.
34. See McDonald and Ruiters (2005, p. 18), Bakker (2003a, p. 12), and Walker and Velásquez (1999b, pp. 17–20) for discussion of relationship between corporatization and privatization.
35. See PPIAF (n.d.) (accessed on December 15, 2011).
36. "Macquarie joins Recap in Russia." *Global Investor*; Oct. 1, 2008. "Russia: VEB joins Macquarie in infrastructure fund." *Euromoney*. Sept. 1, 2009.
37. Although they fall outside the scope of this study, recent decades have witnessed new experiments with service provision by small-scale private and cooperative providers. For examples from Vietnam and Indonesia, see Spencer (2008) and Spencer and Guzinsky (2010). On the interface between small-scale providers and privatized utilities in Manila, see Cheng (2014).
38. We employed a variety of methods to identify studies of reform experiences. We utilized three electronic search engines, including google scholar, academic search premier, and science direct, and university library catalogs. We used a wide variety of search terms in different combinations: urban water and sanitation, corporatization, commercialization, decentralization, cost recovery, privatization, private sector participation, market reforms, neoliberal reforms, new public management, developing countries, and Global South.
39. These searches yielded a wide variety of studies conducted from a range of different disciplinary and methodological perspectives, most of which focused on single case studies. As a result, the studies utilized a variety of metrics for evaluating the impact of the reforms. This diversity makes it impossible to code each reform case as successful or unsuccessful according to criteria such as degree of network expansion or improvements in service quality.

40. Namibia is a case of a corporatized national-level provider, Namwater, that provides bulk water to municipalities. Municipalities have been pressured to adopt cost recovery policies in order to pay Namwater for bulk water, resulting in similar pressures described in other cases of corporatization and decentralization.
41. Corporatization did often provide some support for the *partial* introduction of cost recovery, even if efforts were often incomplete, for example, see Dagdeverin (2008b, p. 193), (Herrera, 2014), Gilbert (2007), Krause (2009, pp. 148–150), and Smith (2004).
42. Privatization can make the politics of water service provision more volatile than under state provision because both governing and opposition politicians can make names for themselves by championing consumer interests, whereas prior to privatization doing so would have involved attacking a political appointee (Post, 2014a; Post, 2014b).
43. While a portion of this reduction can be explained by coverage expansion in the first years following privatization, analysts attribute a large portion of these reductions to layoffs.
44. There were, of course, exceptions: for example, Abu-Shams and Rabadi (2003, p. 169) write that the private consortium holding a management contract for the Amman (Jordan) W&S system was prevented from transferring half of its personnel to the public sector, as specified in its contract. (The contract did not allow the consortium to lay off workers.)
45. See Murillo (2009), Post (2014a, 2014b), and Bril-Mascarenhas and Post (in press) on the difficulties of raising tariffs and implementing cost recovery policies during tight elections.
46. Cochabamba's mayor and city council members had reportedly asked the concessionaire to delay the consumer rate increases—which proved to be extremely controversial—until after elections (Assies, 2003, pp. 22–23).
47. These cases no doubt vary with respect to whether company requests for rate increases were truly warranted.
48. See Post (2009) on the failure of most concessionaires to introduce household meters in Argentina.
49. Case studies document numerous instances in which this has occurred: in Aguascalientes, Mexico (Wilder & Romero Lankao, 2006, p. 1984); in Buenos Aires and Santa Fe provinces, Argentina (Post, 2014a, pp. 111, 115); and in the Philippines following the Asian crisis (Wu & Malaluan, 2008, p. 216).
50. Private sector firms are often faulted for failing to comply with their contractual investment commitments in the water sector (Bakker, 2010; Loftus & McDonald, 2001; Marin, 2009, p. 49; Saadi, 2012, p. 381).
51. According to World Bank estimates, only 7% of W&S privatization contracts granted during 1990–2011 have been canceled prematurely (PPIAF, n.d.) (accessed on June 21, 2013).
52. Cancellations in response to protests have not been restricted to cases of subnational management. The other cancellations discussed in the literature, however, covered the major urban center of the country in question, meaning that “local” politics were nationalized. Relevant cases include Belize (Mustafa & Reeder, 2009), La Paz (Marin, 2009, p. 49) and Dar es Salaam (Bakker, 2010, p. 79).
53. Following Levy and Spiller (1996), policy documents and discussion papers published by institutions like the World Bank stressed that regulation would function most effectively in strong property rights regimes (e.g., Kessides (1993), p. 23, Kerf *et al.* (1998), p. 50).
54. Calculations draw on the 2012 “checks” variable from the World Bank Database on Political Institutions. Data on privatization by country come from PPIAF-World Bank. Countries missing “checks” scores have been dropped from the analysis.

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APPENDIX A. SUPPLEMENTARY DATA

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.worlddev.2014.06.026>.