Capability Traps in Development[1]

How Initiatives to Improve Administrative Systems Succeed at Failing

BY LANT PRITCHETT, MICHAEL WOOLCOCK, AND MATT ANDREWS

In many nations today, the state has little capability to implement even basic functions such as security, policing, regulation, or core service delivery. Enhancing this capability, especially in fragile states, is a long-term task.[2] As we document in this article, countries such as Haiti and Liberia will take many decades to reach even a moderate capability country such as India, and millennia to reach the capability of Singapore. Short-term programmatic efforts to build administrative capability in these countries are thus unlikely to demonstrate actual success, yet billions of dollars continue to be spent on such activities. What techniques enable states to "buy time" to enable reforms to work, mask nonaccomplishment, or actively resist or deflect the internal and external pressures for improvement? How do donors and recipient countries manage to engage in the logics of "development" for so long and yet consistently acquire so little administrative capability? In short, how do initiatives to modernize administrative systems so often succeed at failing?

Our central contention is that many developing countries are stuck in what we call a *capability trap*—a dynamic that enables officials to document instances of apparent reform and thus assure a continued flow of development resources to their country or sector, despite the fact that the reforms themselves may be generating few actual improvements in performance. Capability traps

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have four distinctive and interrelated features. First, they consistently conflate institutional form with function—that is, donors and putative reformers alike presume that what organizations look like (their formal rules, reporting lines, mission statements, and so forth) largely determines what they do.[3] Thus, passing a labor law, for example, or conducting an extensive training program for teachers can count as a positive instance of reform even if it in no way changes the actual everyday experience of workers or improves student learning. Second,

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such reforms are based on a theory of change that regards the adoption of best practices, as determined by experiences elsewhere or international experts, as the most efficient and ethical strategy for rapidly modernizing domestic administrative systems. This approach to development, as one observer dryly put it, can be characterized as "history in a hurry." Third, capability traps are characterized by excessively great expectations. An extension of the best practice logic, the presumption is that the pace of change achieved by the fastest reformers is both desirable and possible elsewhere; after all, to suggest anything less would make one an apologist for non-best-practice solutions, a profligate who wastes resources by "reinventing the wheel." Thus, we expect Haiti to reform at the pace of Vietnam. Fourth, having set such unrealistic expectations, we then overwhelm nascent initiatives by prematurely asking too much of too little too soon, thereby not only ensuring failure but (by failing *in this way*) undermining the very legitimacy of reform and dissipating the substantive learning that may have accompanied it thus far.

Some Numbers, an Example, a Theory

How do countries become and remain mired in a capability trap? While there are obviously many deep, structural, and interrelated *causes* (political, social, economic) of *why* countries fail, we are interested in *how* countries fail. That is, what are the techniques that allow and facilitate state failure in a modern world—one in which many agencies promote the expansion of state capability? To account for these factors, and to better identify potential strategies for escaping from capability traps, we need a basic theoretical framework. Before outlining such a theory, however, it is instructive to consider some general data documenting the capability trap phenomenon, as well as a concrete instance of capability traps in action. Our particular example comes from reforms in public financial management in Mozambique, but we could readily cite numerous other instances in different sectors in a range of countries (and not only developing countries).

First, consider some numbers. Relatively straightforward calculations of government effectiveness, derived from various databases, allow us to show just how long it has taken for countries to improve their administrative capability. For example, the International Country Risk Guide (ICRG) indicators of "bureaucratic quality" and "corruption" can be used to document state capability, not least because the median rate of country improvement for both indicators is zero. The table shows the time it would take for the bottom 30 countries to reach Singapore's level of measured bureaucratic quality or lack of corruption using either a country's own measured pace of change or its average pace of change. If anything, these numbers are more striking because nearly all of the bottom 30 countries have had *negative* rates of change of bureaucratic quality and corruption over the whole period studied and hence the estimated time is *infinity* (it takes forever to get somewhere if one goes in the opposite direction). Moreover, even if the bottom 30 countries, by current bureaucratic quality, were to improve to the *average* pace of improvement, it would still take hundreds of years (since these numbers are discrete, they are "lumpy"). Since the *average* pace is negative when considering corruption, it would take forever at that pace for all countries.

To make these aggregate trends more concrete, consider Mozambique, which emerged from conflict nearly two decades ago and has effected far-reaching changes to its governance systems ever since. In many respects, the country's progress is impressive, reflected in multiple peaceful elections and transitions in top leadership, for example, and reforms to public financial management (PFM) processes that have resulted in a system that compares favorably with African peers. Mozambique's PFM system comes out as stronger than all African countries apart from South Africa and Mauritius when assessed using the donor-defined criteria of good PFM, the Public Expenditure and Financial Accountability (PEFA) assessment framework.[4] It has revised PFM laws and introduced a state-of-the art information system, e-SISTAFE, through which money now flows more efficiently than ever before.

But there are some disconcerting problems, as reflected in PEFA measures and self-assessments by government officials. Budget processes are strong and budget documents are exemplary, but execution largely remains a black box. Information about execution risks is poor, with deficiencies in internal controls, audits, and in-year monitoring systems, and weak or unheard of reporting from service delivery units and the politically powerful, high-spending state-owned enterprises. Perhaps unsurprisingly, there are many questions about the extent and quality of implementation of new laws and systems and what really happens in the day-to-day functionality of the PFM system. The questions emerge most clearly when considering that PEFA indicators reflecting de jure changes in form are above average while PEFA dimensions reflecting de facto implementation and functional adjustment are only average. When asked about this, officials in line ministries, departments, and agencies note that the new laws and systems are part of the problem. They may look impressive but are often poorly fitted to the needs of those using them, requiring management capacities users do not have and institutionalizing organizational scripts and allocation modalities that reflect international best practice but not political and organizational realities on the ground. These officials note that they were never asked about the kind of system needed, and while recognizing the impressive nature of the new PFM system, they lament the missed opportunity to craft a system that works to solve their specific needs.[5]

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As noted, to better understand this type of dynamic and the capability trap to which it gives rise, we need a basic theory. To this end, the dynamics of enacting a given development project or policy can be construed as occurring within an ecological space comprising three constituent elements: *agents* (leaders, managers, and frontline staff), *organizations* (firms, Table. Years for country to achieve high bureaucratic quality or low corruption (Singapore's level) at either its own observed rate of progress since 1985 or at the average pace of all countries

Bureaucratic Quality			Lack of Corruption		
Worst 30 countries in current level	At own past pace (if negative, then ∞)	At the average pace of improvement for all countries, 1985–2009	Worst 30 countries in current level	At own past pace (if negative, then ∞)	At the average pace of improvement for all countries, 1985–2009
Côte d'Ivoire	∞	503	Zimbabwe	∞	∞
North Korea	∞	503	Kenya	∞	∞
Sierra Leone	∞	503	North Korea	∞	∞
Somalia	∞	503	Somalia	∞	∞
Togo	∞	503	Lebanon	∞	∞
Zaire	∞	503	Papua New Guinea	∞	∞
Haiti	∞	503	Venezuela	∞	∞
Liberia	∞	503	Sudan	∞	∞
Mali	∞	503	Paraguay	∞	∞
Russia	∞	377	Haiti	84	∞
Yemen	∞	377	DRC	65	∞
Burkina Faso	∞	377	Iraq	∞	∞
Madagascar	∞	377	Albania	∞	∞
Mozambique	∞	377	Algeria	∞	∞
Senegal	∞	377	Malawi	∞	∞
Venezuela	∞	377	Niger	∞	∞
DRC	∞	377	Libya	∞	∞
Libya	∞	377	Ghana	∞	∞
Nigeria	∞	377	Jamaica	∞	∞
Nicaragua	∞	377	Myanmar	∞	∞
Zambia	∞	377	Nigeria	∞	∞
Myanmar	72	377	Togo	∞	∞
Paraguay	72	377	Sierra Leone	∞	∞
Romania	72	377	Costa Rica	∞	∞
Sudan	72	377	Russia	∞	∞

Table. Years for country to achieve high bureaucratic quality or low corruption (Singapore's level) at either its own observed rate of progress since 1985 or at the average pace of all countries (cont.)

Tanzania	72	377	Mongolia	∞	∞
Gabon	∞	377	Burkina Faso	∞	∞
Cameroon	∞	314	Bulgaria	∞	∞
Niger	∞	314	Mozambique	∞	∞
Zimbabwe	∞	314	Greece	∞	∞

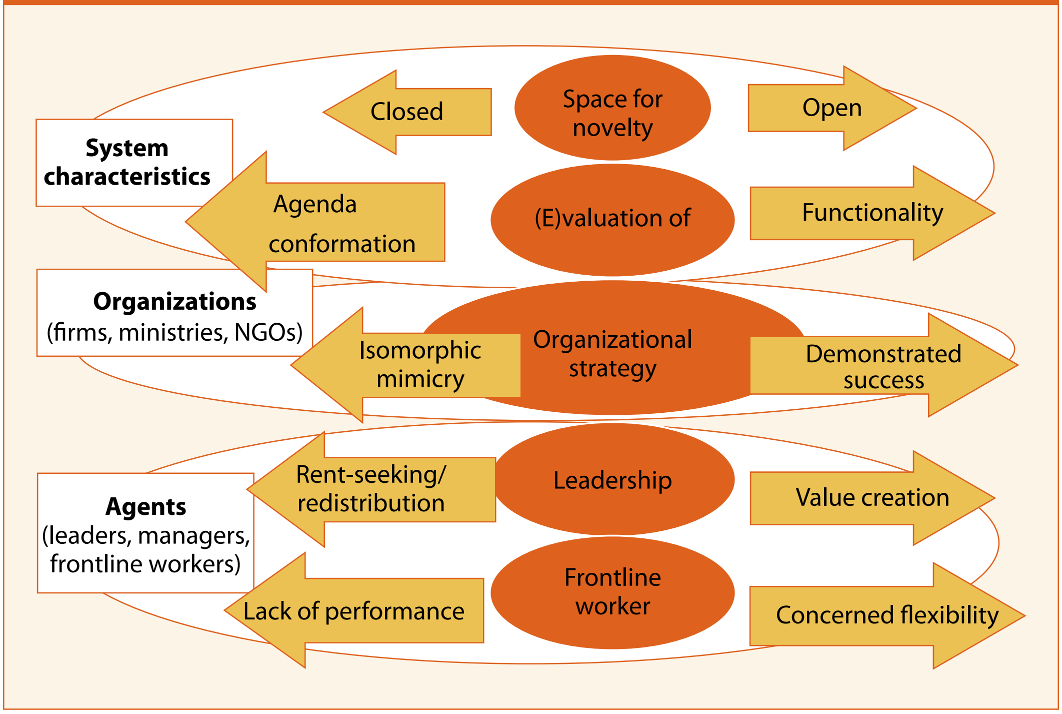
***Source*: Authors' calculations with PRS ICRG data.**

nongovernmental organizations [NGOs], line ministries), and *systems* (the broader administrative and political apparatus under whose jurisdiction the activity falls). See figure. Such an ecological space is not static; rather it is one that must engage with multiple ongoing tensions (imperatives and incentives) that characterize this space and that either reward or inhibit innovation. Frontline workers, for example, have certain levels of training and experience ("capacity"), but their professional energy can be expended in a range of activities, from malfeasance, to mere compliance with rules, to working within the spirit of the rules to customize responses to the particular needs of clients. Similarly, the managers of frontline workers ("leaders") can use the resources and rents over which they have responsibility to further their own purposes ("elite capture") or to enhance broader wealth creation. For development to occur, it is clearly preferable that such agents pursue the latter alternatives, but whether they do so is less a function of their individual talents and proclivities than the incentives they face and normative expectations that characterize their work environment.

Agents work within organizations: governmental line ministries, parastatal organizations, NGOs, firms, and international agencies. These organizations have actual or inferred administrative mandates to address particular sectoral issues, but the legitimacy of their actions—which often entail making hard tradeoffs, bearing responsibility for controversial outcomes, and continuing to function in difficult, uncertain, or underresourced circumstances—rests on two primary sources: demonstrated accomplishment (credibility and confidence are earned through providing services in a sufficiently effective and equitable manner), and/or appeal to external policies and programs that have been deemed to work elsewhere ("we can legitimately perform this complex task in this way in this place because it seems to have achieved the desired result 'over there'; moreover, these international experts have even declared it a 'global best practice'").

The actions of agents are fundamentally concerned with upholding the legitimacy of their organizations, but it is thus crucial which form this legitimacy—demonstrated accomplishment or mimicry—takes. If their organizations' legitimacy stems from accomplishment, agents will face incentives that reward innovation and "bureaucratic entrepreneurial" behavior; if from mimicry, they will just follow the rules even more closely as conditions deteriorate and

Figure. Constituent Elements of an Ecology of Implementation



uncertainty rises. All this, of course, raises the question of the conditions under which a given organization's legitimacy stems from accomplishment or mimicry. Our framework points to broader system characteristics: in particular, the proclivity of the system to require, recognize, and reward novelty.

In a canonical open market system, for example, effective regulation and the quest for profit maximization does all three: it requires novelty (to develop superior products and services), it recognizes novelty (it is able to distinguish genuine from trivial innovation), and it rewards novelty (via compensation, prestige, and promotion). Under the worst forms of socialism, at the other extreme, novelty was actively suppressed with constituent organizations and agents acting almost entirely to uphold rules (at best), and dealing with contingencies by creating yet more rules.[6] Agents pretended to work and organizations pretended to pay them because that is what the system's characteristics decreed. It could perform certain tasks for a short time but was utterly inflexible.

Understood as a process of sustaining processes of genuine innovation, development is about moving the ecological equilibrium from the left to right (see figure). Put differently, modernization that works is an ongoing process of discovering and encouraging the diverse context-specific institutional *forms* that lead to higher *functionality*. Characteristically, however, responses to project/policy failure (or explanations of success, for that matter) focus only on individual elements of this ecology (capacity-building for frontline staff, concern that best practices are not being followed, and so forth) that are legible to and actionable by external actors. We argue that it is the broader fitness environment of this ecology for its constituent elements that primarily shapes observed outcomes.

Some Clarifications

First, in expressing deep concerns about the dangers of isomorphic mimicry—or what another observer calls "institutional monocropping"[7]—and its associated quest for "global best practice" solutions to development problems, we recognize that certain *types* of problems can and should be addressed in this manner. If a cure for cancer or a low-cost procedure for desalinating water is ever invented, the more rapidly it can be made available to everyone the better. Our concern, building on an earlier formulation,[8] is that for certain development problems the quest for *the* solution is itself the problem, and this is especially so in matters pertaining to political, legal, and organizational reform, where combinations of high discretionary decisionmaking and numerous face-to-face transactions are required to craft supportable solutions (plural).

Second, in stressing the virtues of ecological learning and encouraging multiple paths to high institutional performance, we are pushing back against—though not failing to appreciate the importance of—the Weberian ideal of a professionalized bureaucracy as the preferred mode of delivering core services. If Weberian organizations underpin modern economic and political life in high-income countries, is this not the goal to which low-income countries should aspire and move toward as quickly as possible? If we know what effective organizations look like—if they constitute, in effect, a global best practice—is it not both efficient and ethically desirable to introduce them as soon as possible? Has anyone actually developed without them?

Our response to these concerns takes several forms. For starters, appearances can be deceiving. The education system in the Netherlands, for example, produces students who perform at (or slightly above) the Organisation for Economic Co-operation and Development (OECD) average, and from a distance the structure that presides over this may appear Weberian; closer scrutiny, however, reveals a system that is in many respects qualitatively different from its counterparts elsewhere in Europe and North America in that it essentially funds students to attend a school of their choosing. That is, Dutch education is not a large, centralized service-providing line ministry as it is elsewhere in the OECD, but rather a flat organizational structure that funds a highly decentralized ecology of different educational organizations. For present purposes, we make no normative judgment as to which system is better; our key point is that high standards of education demonstrably can be attained by a system that varies significantly from the canonical Weberian ideal.[9] A similar argument emerges from a close examination of countries with high governance scores.[10] Far from having identical Weberian characteristics, the administrative structures that underpin such countries instead exhibit an extraordinary variety of organization forms, some of them classically Weberian but many of them significantly different (for example, the relationship between banks and states in Japan versus the United Kingdom). Again, we make this point not to attack Weberian structures per se or to axiomatically celebrate alternatives, but rather to stress that the Weberian ideal is not inherently the gold standard to which everyone should aspire and against which alternatives should be assessed. In short, a variety of organizational forms can deliver similar institutional performance levels, just as identical organizational forms (as in the colonial period) can give rise to diverse performance levels. Finally, even in the most celebrated cases of Weberian effectiveness, such as Japan's Ministry of International Trade and Industry, it is not clear that its effectiveness was achieved because of, or in spite of, its Weberian qualities.

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The more vexing questions that our framework must confront center on strategies for recognizing and rewarding innovation in organizations that have a natural monopoly (for whatever reason). There should only be one police force, for example, so pressures that may facilitate innovation in competitive markets cannot really be harnessed; we do not want rival police forces. Similarly, for relatively routine (though clearly important) activities such as issuing a driver's license, there is likely to be a clear limit to how much innovation is actually desirable or possible. If the prevailing system works reasonably well, only the most marginal improvements need to be sought. Another set of issues turns on the question of how to overcome the classic Peter Principle problem: if organizations are inherently dysfunctional because (a) everyone rises to his level of incompetence and (b) promotion turns on achieving yesterday's core objectives rather than envisioning and realizing tomorrow's innovation, how can this logic be broken?

Finally, our framework must illuminate how genuinely useful innovation can be more reliably distinguished in real time from innovation for its own sake or from merely imitating best practice. Personal computers (PCs), for example, completely altered the world of computing, replacing mainframes as the dominant way in which everyday computing was conducted. At the time (1980s), PCs were a *disruptive* innovation in that they were an inferior technology—one that was dismissed by engineers at the "best" firms as mere toys for hobbyists.[11] But as the PC came to meet the actual functional objectives of the mass of users better than mainframes could, it was the "excellent" firms that were left by the wayside. Had the profession of computer engineering itself been in a position of choosing innovation, the PC could have never emerged—but markets had a space for novelty and a way of evaluating novelty so consumers could vote with their keyboards (and dollars) for the new technology. Within development agencies, one hears frequent reference to the quest for "cutting-edge thinking" and the importance of taking "innovative approaches," but how can such agencies enhance the likelihood that PCs, rather than just new and improved mainframes, will emerge?

Standard Responses to Systemic Failure

Providing answers to these questions requires an examination of how responses to failure are pursued within the prevailing development architecture. When policies or programs fail because of implementation failure, there are many good and bad options.

Adopt a "Better" Policy. One obvious response to failure is to assume that the reason for failure was that the policy, even if it had been faithfully implemented, would not have accomplished the objective anyway; therefore, failure requires a new policy. However, even if the new policy is *demonstrably* better (in the sense that when implemented it leads to better outcomes), being equally (or more) organizationally stress-inducing in implementation will lead to further failure after a number of intervening years.

Engage in "Capacity-building." One attractive and obvious response to policy implementation failure is to assume that the individual agents lacked capacity—that they could not have implemented the policy even if they wanted to. This is nearly always plausible, as policy implementation requires agents to recognize states of the world and to know what to do in each instance (for example, a nurse mandated to conduct community nutrition outreach has to be able to recognize a variety of symptoms and know which to treat, which to inform parents how to respond to, which patients to refer, and so forth). What could be a more obvious response of public sector failure in sector X (health, education, procurement, policing, regulation, justice) than to "train" health workers, teachers, procurement officers, police officers, regulators, lawyers—particularly as it will be demonstrably the case that "ideal capability" (that is, the organizational capability if all individuals worked to capacity) is low?[12] However, if the organization is under excessive stress due to the attempt to implement overambitious policies, the achievable increments to ideal capability may neither augment the "robustness" of the organization and hence be irrelevant in practice nor shift the entire capacity frontier outward far enough to actually avoid the low-level equilibrium. (In the figure, even substantial outward shifts in the low capability case would still lead to the equilibrium of zero implementation.)

Cocoon Particular Projects/Programs/ Sectors. Another reaction to implementation failure, particularly when external assistance agencies (whether donors or NGOs) are involved, is to ensure "their" project succeeds in a low-capability environment by creating parallel systems. These parallel systems come in many varieties, from project implementation units to "bottom-up" channels in which funds are channeled directly to "communities." The common difficulty with cocooning is that there is often no coherent plan as to how the cocooned success will scale to become the routine practice. In fact, cocooned implementation modes are often so resource intensive (in either scarce human capital resources "donated" by NGOs or financial resources) that they are not scalable. Again, cocooning is a valuable technique of persistent failure as one can have long strings of demonstrably successful projects while a sector itself never improves.

Throw More Resources into It. It is easy to see how isomorphic mimicry and premature load-bearing make a powerful partnership. When governments are carrying out necessary and desirable goals (for example, building roads, educating children, maintaining law and order) *and* are doing so by pursuing demonstrably successful policies (that is, policies whose effectiveness as a mapping from inputs to outcomes has been shown to achieve results when implemented) *and* are doing so through isomorphic organizational structures (for example, police forces or education ministries whose organizational charts and de jure operational manuals are identical to those in functional countries), then doubling down the bet seems the only viable strategy. After all, this is *known* to work because it works in Denmark. Because most places with low state capability also have low productivity and hence the governments are working with few resources, it is hard not to believe that simply applying more resources to achieve good goals by implementing good policies through good organizations is the obvious if not the only strategy.

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Not only are many bad options good, but some potentially good options are bad for both clients and donors:

- Scaling policies to the available implementation capability is often professionally and normatively unattractive.
- Expanding capability in ways that are perhaps more "robust" but which do not expand the "ideal" is often decidedly unattractive to development actors who prefer options that are "modern" and technically state-of-the-art.
- Attacking organizational failure is unattractive, as once an organization's goals have been inverted to rent collection, these are often subsequently capitalized into the political system in ways that eliminate potential constituencies for organizational "reform."

As techniques that can both produce and allow persistent failure, the dangers of isomorphic mimicry and premature load-bearing are pervasive precisely because they are attractive to domestic reformers. But paradoxically, external agents, whose presence is justified by the need to promote and fund progress, also play a strong role in generating and sustaining failure. Development agencies, both multilateral and bilateral, have strong proclivities toward promoting isomorphic mimicry—for example, encouraging governments to adopt the right policies and organization charts and to pursue "best practice" reforms—without actually creating the conditions in which true novelty can emerge, be evaluated, and be scaled. It is much more attractive for donors to measure their success as either inputs provided, training sessions held, or reforms undertaken and in compliance with project implementation rules; all of these are laudable activities that can be readily justified and attractively presented at year's end, yet they can lead to zero actual improvement in a system's demonstrated performance.

The logic of the broader structures of the international aid architecture and the core incentives faced by the staffs of the major development organizations largely conspire against local innovation and context-specific engagement. This system instead rewards those who manage large portfolios with minimal fuss (actual accomplishment of objectives being a second-order consideration), resists rigorous evaluation (since such an exercise may empirically document outright failure, which cannot be ignored), and focuses primarily on measuring clear material inputs (as opposed to performance outcomes). Moreover, the more difficult the country context and the more ambiguous the appropriate policy response, the stronger the incentive to legitimize one's actions—to clients, colleagues, and superiors—by deferring to what others deem to be best practices and to assess one's performance in accordance with measurable indicators, which again tend to be inputs (since, unlike outcomes, they can be controlled, managed, and predicted in relatively unproblematic ways). Given that virtually all developing country contexts are, almost by definition, complex and facing all manner of needs, the systemic incentive to identify proven solutions and universal toolkits is powerful; those who can provide them (or claim to provide them)—from microfinance and conditional cash transfers to malaria nets and property rights—are development's stars.

How Can One Escape from Capability Traps?

Our core argument is that the politics and process of development interventions have fostered and exacerbated capability traps in many developing countries, where governments are being required to adopt best-practice reforms that ultimately cannot work and end up crowding out alternative ideas and initiatives that may have emerged from local agents. Capability traps close the space for novelty, establishing fixed best-practice agendas as the basis of evaluating developing countries and of granting organizations in these countries support and legitimacy if they comply with such agendas. In so doing, they have all but excluded local agents from the process of building their own states, implicitly undermining the value-creating ideas of local leaders and frontline workers. The upshot is unimplemented laws, unfunded agencies, and unused processes littering education sectors, public financial management regimes, and judiciaries across the globe. Governments adopting such reforms look better for a period—when laws are newly passed, for instance—but ultimately they do not demonstrate a higher level of performance, as new laws are not put into practice.

Helping countries escape from capability traps involves pursuing development interventions based on a different set of principles. These interventions should:

- aim to solve particular problems in local contexts, as opposed to transplanting preconceived and packaged best practice solutions
- facilitate positive deviation, as opposed to designing projects and programs and then emphasizing that agents implement them exactly as designed
- involve active, ongoing, and experiential learning and the feedback of lessons into new solutions, as opposed to enduring long lag times in learning from ex-post "evaluation"
- engage broad sets of agents to ensure that reforms are viable and relevant—that is, politically acceptable and practically possible—as opposed to promoting the top-down diffusion of innovation.

We suggest that these four principles could be combined into a new approach to development and state-building, which we tentatively title Problem Driven Iterative Adaptation (PDIA). Our aim beyond this article is to use PDIA methods in particular interventions, and to gather accounts of where they may already have been introduced, in order to learn from the grounded experiences of others and to adapt/update/refine PDIA accordingly. It is an ongoing process to which we actively encourage readers to contribute. **PRISM**

Notes

[1] This article draws upon and summarizes two longer academic articles by the authors: Lant Pritchett, Michael Woolcock, and Matt Andrews, "Looking Like a State: Techniques of Persistent Failure in State Capability for Implementation," *Journal of Development Studies* (forthcoming); and Matt Andrews, Lant Pritchett, and Michael Woolcock, "Escaping Capability Traps Through Problem Driven Iterative Adaptation (PDIA)," World Institute for Development Economics Research Working Paper (forthcoming).

[2] *World Development Report 2011: Conflict, Security and Development* (Washington, DC: World Bank, 2011).

[3] In the sociological literature, this phenomenon is known as *isomorphic mimicry*, following Paul J. DiMaggio and Walter W. Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields," *American Sociological Review* 48, no. 2 (April 1983), 147–160.

[4] Matt Andrews, "The Good Governance Agenda: Beyond Indicators Without Theory," *Oxford Development Studies* 36, no. 4 (December 2008), 379–407.

[5] Matt Andrews et al., "Mozambique's PFM Reform Lessons," mimeo, World Bank Africa Region, 2010.

[6] This contrast is merely illustrative; for present purposes (and as we qualify in more detail below), we are *not* brazenly claiming that all development systems would work better if only they adopted market principles. The point is that system characteristics of all kinds shape the actions of organizations and agents.

[7] See Peter Evans, "Development as Institutional Change: The Pitfalls of Monocropping and the Potentials of Deliberation," *Studies in Comparative International Development* 38, no. 4 (Winter 2004), 30–52. Also relevant here is the classic work of James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998).

[8] Lant Pritchett and Michael Woolcock, "Solutions When the Solution Is the Problem: Arraying the Disarray in Development," *World Development* 32, no. 2 (2004), 191–212.

[9] How such a system emerged historically is crucial to understanding whether and how it can be adopted elsewhere. Put differently, even if the Dutch education system produced the highest achieving students in the world, it is far from clear that Chad and Uruguay could emulate it by importing its constituent *organizational structures*. In saying this, we also recognize that the capability requirements of even a highly functional system are likely to change over time and across sectors (that is, a state may have capability requirements that are adequate for one challenge but inadequate for another). These more detailed points will be explored in subsequent work.

[10] Andrews et al.

[11] The case of modern computing is ably discussed in Clayton M. Christensen, *The Innovator's Dilemma: The Revolutionary Book That Will Change the Way You Do Business* (Cambridge, MA: Harvard Business School Press, 1997).

[12] Moreover, as the development saying goes, "A project that gives a man a fish feeds him for a day, but a project to teach a man to fish lets you give your friend the technical assistance contract."