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**FISCAL
DECENTRALIZATION
AND LAND POLICIES**



Edited by Gregory K. Ingram and Yu-Hung Hong

Fiscal Decentralization and Land Policies

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Increasing the Effectiveness of Public Service Delivery: A Tournament Approach

Clifford F. Zinnes

Why is it that in most developing countries one finds extremely low-quality public service delivery, even when supported by donor aid or development assistance (World Bank 2005)? In fact, there is almost universal agreement that donor aid itself has not been particularly effective (Collier 2003; Easterly 2006; Espina and Zinnes 2003; World Bank 1998). Slowly, national governments and the donor community alike have come to realize that the problem is not primarily one of insufficient funding.¹ Rather, the root of the problem of public service delivery in particular, and of aid effectiveness in general, is institutional.

Drawing on advances made in microeconomics beginning in the 1980s, the new institutional economics (NIE)² has radically deepened our understanding of institutions. By institutions, we now mean a set of rules, strategies, payoffs, players,

1. Sachs (2005) argues that a significant increase in funding is a central part of the solution. See Easterly (2006) for a rebuttal. This chapter supports the top-down view of Sachs that tournaments need referees and the bottom-up view of Easterly that solutions (and incentives for them) must be local and that large dollops of aid are unnecessary.

2. Especially developments in game theory, agency theory, transaction cost economics, and the economics of information. See Furubotn and Richter (1999).

and player beliefs. Thus, the term *institution* may refer to culture, norms, markets, firms, government, organizations, contracts (including between donor and recipient, regulator and service provider), and legislation. NIE analyzes the institutional problem as one of misaligned incentives that result from a set of agency and contracting issues associated with the horizontal and vertical relations.

Based in part on these insights, public service delivery designers are paying ever greater attention to governance, monitoring and evaluation, performance indicators, public participation, and participatory development (Williams and Kushnarova 2004). Below, we use NIE to assess an emerging class of “tournament”-based public service delivery approaches that promises to improve on the lackluster performance of conventional methods. In such “games,” beneficiary groups, which are often subnational governments (SNGs), act as teams and “play” against each other in interjurisdictional competition (IJC) under explicit predefined rules and rewards—both pecuniary and in-kind—to achieve the best implementation of a particular project. The greater the amount of cooperation within the team (the SNG and its constituents), the more likely its chances of winning or placing. Eliciting cooperation through competition allows the tournament approach to avoid the perverse incentives that often hamper intervention effectiveness.

Of particular interest is not only how successful the outcomes of past IJC-related applications have been across a variety of sectors, issues, and circumstances, but their sustainability, that is, whether the initiative remains successful, especially once the sponsor’s involvement has ended. If sustainable, it is crucial to determine how portable a project is (replicability) and whether it might work at different sizes of implementation (scalability). Portability refers to the potential for implementing the initiative using a different group of players with similar characteristics, such as a set of jurisdictions in a different region of the same country, or even in a different country.³

Consider briefly a sponsor’s conundrum.⁴ It wishes to provide assistance or funds to recipients in a foreign environment and in a way that meets its multidimensional objectives. Issues of control and monitoring that reflect principal-agent problems (Murrell 2002), however, often may manifest themselves hierarchically through the “chain of command” from the central government organizations down to the SNGs, where interventions are susceptible to unanticipated breakdowns or even failure. Matters are not helped on the local public service delivery

3. Scalability and scale are not the same thing. Scale refers to the minimum size required for a successful application.

4. The word *sponsor* rather than *subnational government* or *donor* is used to underscore that the mechanisms upon which this work focuses apply to most nonmarket initiatives organized by an outsider.

side because relations between service providers and consumers are generally intermediated by government agencies. Likewise, how can a ministry of finance or a sponsor avoid adverse selection and separate serious from frivolous local requests for revenue grants or assistance? In other words, how can an SNG signal to a sponsor its seriousness to engage in high-level efforts? Historically, sponsors have responded to these dilemmas in several ways,⁵ including the use of indicators and engaging in conditionality, although the latter has a poor track record (Collier, Guillaumont, and Gunning 1997; Svensson 2003).

At the same time, as understood in the public finance literature (Oates 2002), IJC often occurs naturally as states, municipalities, and even countries compete in a tacit, decentralized way to attract business investment and new citizens with high human or financial capital.⁶ In this game, jurisdictions use tax holidays, regulatory and immigration exemptions, publicly paid-for amenities and infrastructure, and even subsidies, often creating a race to the bottom. The push toward devolution and decentralization worldwide may also be considered as applications that use IJC principles. As seen below, IJCs may occur between any set of institutions, including intragovernmental ministries, intergovernmental organizations, and private volunteer organizations (NGOs), schools, hospitals, and even water companies and cultural manifestations (including religious establishments). In each case, the initiator—be it a donor, government department, or civil society organization—bases an intervention on an incentive mechanism within a game that explicitly or implicitly has players, rules, strategies, beliefs, and payoffs.

It is therefore natural to ask if there is a way to design sponsor interventions so as to economize on the sponsor's operational and informational inadequacies.⁷ Research (Brook and Petrie 2001; Collier 2003; Kremer 2003; Zinnes and Bolaky 2002) suggests that the answer may lie in harnessing the power of incentives rather than in trying to fight them. Such incentives would encourage the players in SNG reform or in the aid game to use their asymmetric local knowledge in a way aligned to sponsor's objectives, which, in turn, would require that the recipient have a predominant role in both problem, as well as solution, identification. Although experience is growing with these innovative applications, the writings describing them and lessons learned from them are scattered across several disciplines. In fact, a comprehensive assessment of their

5. For a review of aid mechanisms and aid effectiveness, see Martens et al. (2002), Svensson (2003), and World Bank (1998).

6. Even earlier, Tiebout (1956), in pointing out how residents sort themselves by matching own-preferences with neighborhood characteristics, illustrated "voting with one's feet" and essentially set the stage for an analysis of IJC and, thus, our present work.

7. There is also the complementary approach of designing better institutional incentives within a sponsor to align the objectives of the bureaucracy to development effectiveness (Collier 2003; Ostrom et al. 2001; Zinnes and Bolaky 2002).

performance does not appear to exist,⁸ although the theory essentially has already been developed.⁹

Based on a careful reading of the innovation and experimentation that the failure of aid effectiveness has spawned (Espina and Zinnes 2003), I have proposed elsewhere (Meagher and Zinnes 2004) an approach that holds promise. Called prospective interjurisdictional competition (PIJC), it brings together several desirable, yet tested, incentive-compatible mechanisms. The prospective design of the PIJC in which all players know the rules of the game in advance ensures that the donor can construct race-to-the-top and not race-to-the-bottom competition. First, though, it is necessary to assess the broader applicability of PIJC, both to encourage improvements in SNG service delivery and to improve the effectiveness of development assistance.

The following sections identify the components of the tournament approach and introduce examples of actual applications as detailed in Zinnes (2008); present a framework to analyze the PIJC approach from an institutional perspective; assess how PIJCs stand up to actual experience in terms of performance, sustainability, scalability, and initial conditions; and consider the role of future research.

The PIJC Approach

At its core, the PIJC approach offers a way for potential beneficiaries to signal through their performance their seriousness to achieve the sponsor's objectives and their ability to take advantage of sponsor funds that carry opportunity costs. To gain a better sense of the approach, it is helpful to briefly examine the steps in a PIJC application and then review some existing examples.

STYLIZED STEPS OF A PIJC APPLICATION

Although in practice one can often simplify or even skip some steps depending on the initial conditions¹⁰ and objectives, a full PIJC might comprise the following steps.

Set Objectives The sponsor (e.g., central government) makes the objective(s) explicit, such as the case in which the central government desires to reduce corruption within municipalities in a target region.

8. Steffensen (2007), however, reviews performance-based grants internationally, and Frey and Eichenberger (1999) analyze functionally overlapping jurisdictional competition for public service delivery.

9. See Green and Stokey (1983), Lazear and Rosen (1981), and Nalebluff and Stiglitz (1983).

10. *Initial conditions* are any country characteristics present at the start of the project that might influence outcomes. Such characteristics may be institutional (cultural, religious, legal/legislative, governmental), economic (policy as well as organizational, wealth, income, industrial, agricultural), political, social, geographic, historical, or financial, for instance.

Set Tasks The sponsor identifies a list of tasks, each of which either fulfills or contributes to the objectives: reduction in time and effort to acquire start-up, construction, and operating permits; public declaration of senior officials' assets, presumptive permitting, independent oversight office, anonymous telephone hotline, transparent dissemination of new regulations and budget allocations, and so forth. Ideally, the objective(s) and tasks would derive from focus groups of key stakeholders, surveys of the targeted population and their decision makers, and a sponsor's independent assessments.

Set Priorities The sponsor assigns weights to each task or activity to reflect their importance to achieving the specified objective. Unlike the standard approach of sponsors where they use their extensive knowledge and experience to dictate which, how, and when tasks are to be done, PIJC takes the more recent community-driven approach (Platteau 2005). Here, the sponsor sets final objectives and the methodology to measure outcomes (indicators) and offers a graduated scale of technical assistance during the tournament; the sponsor does not dictate how each player is to achieve their own outcomes. Because the tournament already motivates players do their best, they will optimally draw on their own idiosyncratic local knowledge and sponsor recommendations in their efforts to win.

Develop Rating System The rating system comprises an outcome indicator for each task and the aggregation methodology to compute the score of each objective from their underlying respective tasks.¹¹ In addition, the sponsor may establish minimum thresholds of acceptable performance. Data come from pre- and posttournament surveys as well as from statistics already being collected by the government or other official agencies. To be maximally motivating, the indicators and methodology should be simple enough so that all stakeholders and players can fully understand them and view them as feasible and legitimate. During the actual tournament period of the PIJC, players—in this case, municipalities—would compete to amass as many points as possible by allocating their efforts across a subset of tasks (or reforms) of their choosing on the aforementioned list, subject to time, budget, collective action constraints to the community, and based on their collective preferences. This demand-driven approach is efficient from an allocation standpoint: only the communities can know their own cost functions and preferences, and only the donor can know its own (marginal) valuations of the proposed tasks. Likewise, because communities played a role in the identification of activities, and because participation is voluntary, reforms

11. A tournament may have multiple objectives, such as improving investment-related rules, administrative procedures, budgeting, and service provision. Here the weights are assigned to the objectives, not the tasks, which gives the municipality greater latitude in choosing the objectives to pursue, with the weights reflecting sponsor preferences.

occur with the cooperation of representatives of the population of potential players. In short, the tournament has legitimacy.

Provide Technical Assistance Municipalities exhibiting evidence of striving to achieve tasks would be offered assistance throughout the tournament, although concentrated during the first half. The technical assistance is an input to the improvements sought, not an end in itself. Given the large number of players (municipalities) the tournament motivates, one should provide assistance in a way that reduces the transaction costs. Examples include workshops attended by representatives of each player group (where continued attendance depends on demonstrating player seriousness through reform action) and use of the Internet to offer an easy way for hundreds of project stakeholders to receive technical information, stay informed on tournament activities, self-report performance (for NGO tracking), and facilitate inter- and intracommunal sharing of reform experience.

Design Tournament The sponsor identifies the eligible municipalities and creates the rules of the game: how players may compete, the length of play, and when events occur (e.g., the baseline and follow-up surveys) as well as how to amass the points on the rating system. This key component establishes the necessary incentives for the overall project to function. Because most municipalities engage in the reforms but only winners receive significant funding, the tournament provides a massive leveraging of the sponsor's funds,¹² limited local knowledge, and monitoring effort.

Determine Rewards Although the main benefit of competing is surely the fruits of reform, additional targeted incentives are often required to overcome principal-agent and coordination problems, as well as to compensate decision makers bearing idiosyncratic risk that they cannot otherwise spread or insure against. The reward schedule should cover winning and placing municipalities as well as those meriting "consolation" (exceeding a task threshold). These rewards may be in the form of access to more substantial technical assistance, cofinancing for firms in the municipality, and free investment and trade promotion (including foreign travel for some municipal officials).

Plan Strategic Communications Such a plan is extremely important for the success of the enterprise. First, it must create public awareness—and, one hopes, interest—in the PIJC, both prior to and during the tournament. Second, because one of the PIJC's most powerful rewards is the public relations it generates for the locality and its politicians, it is critical that credible and effective means are

12. Zinnes (2008) provides an algebraic exposition of how this leveraging works.

provided for broad dissemination of who the winners, placers, also-rans, and laggards are, and that the participating public know that in advance.

Integrate Evaluation (Optional) A monitoring and evaluation (M&E) plan is now becoming a part of donor projects (Kusek and Rist 2004), as epitomized by Millennium Challenge Corporation (2006) (MCC) practices. Due to the requirement that the PIJC have rigorous and nonmanipulable performance measures and that there are a relatively large number of players, it is relatively easy to design—and make known to all stakeholders—a prospective, rigorous M&E plan in a PIJC application.¹³ M&E has several benefits. Ideally, a PIJC is repeated many times. This eventuality strengthens its incentive properties as well as spreads the fixed costs of development across more reform. Impact evaluation facilitates the improvement of later PIJCs. Likewise, sponsors are often interested in the scalability, replicability, and sustainability of their interventions; prospective impact evaluation offers a reliable prediction of whether the PIJC will have these properties. Finally, because PIJC success depends on the quality of calibration (of task selection, scoring methodology, reward structure, play time, etc.) in-tournament monitoring—especially during a pilot—allows the PIJC to be adjusted.

PIJC EXAMPLES

Local Government Reform Initiatives Zinnes (2008) describes cases in which a donor has used a local government tournament as a means to both encourage local reform efforts and allocate its aid. In the case of Russia, for example, as a major component of a fiscal reform loan, the World Bank has run a tournament in which 89 regions compete for budget support of US\$6 million to US\$9 million each by implementing a range of reforms and administrative improvements, such as extending budget coverage, making local tax law more transparent and consistent with federal legislation, improving expenditure management, strengthening information and audit functions, and improving debt management. Quantitative targets (indicators) are used to ensure transparency and objectivity. Thus far, 15 regions have won. The Russian government has been so impressed with the results that it has committed its own budget funds through 2008 to run three more tournaments.

The United States Agency for International Development (USAID) funded the IRIS Center at the University of Maryland to design and run a certification

13. The main challenges are to identify a control group that is free of contamination and to ensure that the control group includes some players who wanted to participate, but were not allowed to. The latter group is required to avoid confounding positive performance effects of the tournament with self-selection effects (where only better performers would enter the tournament and weaker ones would stay out). A common concern raised against randomized trials in public policy despite their ubiquitous use in health and education sectors is the political acceptability of the exclusion requirement for randomization. This concern is discussed in detail elsewhere (Azfar and Zinnes 2003; Duflo 2005).

competition to encourage further deregulation of administrative barriers degrading the business environment in Romania. Simple indicators were used to focus local efforts to address five specific impediments. Most efforts required effective private-public partnerships for success. Out of the 80 municipalities in the country, 29 actively took part, and 4 cities “won.” Here, rather than pecuniary rewards or extra donor technical assistance, winners received unprecedented publicity and acknowledgment that they viewed as a valuable signal to outside investors of their business friendliness (and that mayors appreciated as political capital).¹⁴

In Honduras, USAID funded the design and implementation of a competition among municipalities to carry out reform tasks in the areas of good governance, sustainability, commitment to maintain and attract investment, and absorptive capacity for future technical assistance. Out of the 298 municipalities in the country, 35 were deemed eligible to compete. Their past performance was then measured against seven indicators. Municipalities that scored the highest on the aggregation of these indicators—what USAID called the “sustainability quotient”—won a rich array of technical assistance. Here again, the mayors specifically pointed to the political capital they believed winning would confer.

The World Bank is also running a project in nine Nigerian states to strengthen local government use of federation transfers (Terfa, Inc. 2005) by including local government areas (LGAs) as beneficiaries in the other components of the World Bank’s International Development Association (IDA) and Global Environmental Facility grant-funded technical assistance program.¹⁵ This project component grades participating LGAs according to a scorecard, with eight indicators and their subindicators, to assess LGA commitment to effective service delivery (looking at administrative efficiency, budget and financial appraisal, and overall financial integrity) and responsiveness to rural communities (Terfa, Inc. 2005, 4-1). This initiative is especially interesting because it focuses on poverty reduction and on scaling up (Terfa, Inc. 2005, 1-7).

Revenue Sharing The trend in fiscal federalism and decentralization in general has brought to the fore the question of how national and lower-level revenue sources are to be shared. Although the literature is extensive on this matter,¹⁶ among the conclusions are that “successful decentralization cannot be achieved in the absence of a well-designed fiscal transfers program” and that “the role of [such] transfers in enhancing competition for the supply of public

14. USAID is currently conducting a procurement to address governance in Bolivia by running a PIJC (USAID 2006).

15. The World Bank program is called the Local Empowerment and Environmental Management Project.

16. See Bahl and Linn (1992), Oates (2005), and Shah (1998) for a review and assessment.

goods should not be overlooked” (Shah 1998, 32). For example, “in Mexico, South Africa and Pakistan, federal revenue sharing transfers finance up to 99% of expenditures in some provinces” (Shah 1998, 31).

Several of these cases of revenue sharing or intragovernment transfers may be viewed as a type of PIJC.¹⁷ In these cases, jurisdictions are aware that their transfers will depend on recent or expected performance. For example, in South Africa “the central government has implemented a conditional grant aimed at providing incentives for reform of urban services for large cities after having devolved powers to city governments” (Ahmad, Devarajan, and Khemani 2005, 21). Moreover, the role of the donor in the PIJC is taken up by oversight committees (Bolivia), provincial finance commissions (Pakistan), or grant commissions (e.g., Australia, India, and Nigeria).¹⁸

Steffensen (2007) provides an in-depth operational analysis of performance-based grants to SNGs. He surveys many known developing country examples¹⁹ in which “performance-based grants (PBGs) provide incentives for [local governments] to improve their performance by linking the access to and size of the release of grants with their performance in pre-determined areas” (Steffensen 2007, 10; emphases omitted).²⁰ PBG objectives include improving administrative performance, organizational learning, and accountability; bringing funds on-budget; and streamlining/coordinating donor support (Steffensen 2007, 11). The implication is that such grants supplement the objectives of other grants; they are not used to fund core services or recurrent costs. According to Steffensen, the purpose of PBGs depends on level of development: they start with process-oriented (institution building²¹) targets and later focus on sector output targets (e.g., quality of urban service delivery). He classifies them into single and multisector grants, where the latter offers greater latitude to SNGs to choose how to invest. Like the

17. On the other hand, the literature on the design of equalization grants (e.g., Martinez-Vazquez and Boex 1999) does not seem explicitly to advocate using revenue sharing to stimulate expenditure effectiveness competition among recipients. Of course, no such ambiguity exists on the raising of revenues, for which competition among SNGs should be avoided at all cost.

18. See Faquet (2000), Ahmad, Devarajan, and Khemani (2005, 23), and Martinez-Vazquez and Boex (1999, 39), respectively.

19. Examples include Uganda, Kenya, Tanzania, Nepal, Bangladesh, and Sierra Leone, with projects under way in Sudan, Ghana, Philippines, Cambodia, Indonesia, and the Solomon Islands.

20. This country experience seems to belie Bahl and Linn’s observation that “the threshold level of economic development at which fiscal decentralization becomes attractive appears to be quite high” (1992, 385).

21. Examples include good governance, accountability, and financial management; participatory development planning and budgeting; resource mobilization; expenditure management; audit reports; and transparency.

arguments in Zinnes (2008), he notes that PBGs (1) allow “spending where performance is good and absorption capacity is available, and where funds are not misused” (Steffensen 2007, 12; emphases omitted); and (2) can be used to create “a balance between adherence to national targets and ensuring local autonomy/efficiency” (Steffensen 2007, 15).

At the same time, efforts to improve accountability and governance, especially at the subnational level of government, have led to the expanded adoption of performance-based budgeting, defined in Moynihan (2003) as the allocation of fiscal resources based on the achievement of specific, measurable outcomes. Their similarity to the PIJC is seen by observing that they involve (1) expenditure allocation decisions upon which lower levels compete (the budget lines, so to speak); (2) strategic planning in which core tasks and government goals are identified; and (3) performance information upon which to manage and measure performance. Moreover, the last item is often explicitly made available for communication to the general public and is happening in “some U.S. states, such as Missouri and Virginia, [to] provide extensive performance data on government Web sites to increase accountability to the public” (Moynihan 2003). The same happens in European Union (EU) member countries because the European Commission explicitly links part of its budget support to performance (World Bank 2005, box 11.7). Closely related to revenue sharing are municipal development funds used by international donors, which we briefly examine below in our discussion of donor grant programs.

Dissemination and Signaling Perhaps the second most prevailing use of PIJC (after donor grant programs) is jurisdictional recognition awards, such as blue-ribbon city competitions.²² Here, we only mention the Ford Foundation’s promotion of the Galing Pook Foundation in the Philippines. This program was established in 1993 with the hope of stimulating a response to the then new Local Governance Code. The foundation runs a tournament with the goal of “building the capacities of local government units by disseminating, popularizing and replicating” best practices of awardees (Galing Pook Foundation 2005). The winners of the tournament are determined through a multilevel screening process. The only reward for winning is national recognition and publicity, which municipal politicians covet. Since 1993 when it was established, almost 3,000 local governance programs have competed, 175 of which have won some category of recognition.

Donor Country Allocations At least two multilateral aid agencies use a quasi-PIJC approach to allocate their financial resources at the country level. The IDA uses a complex set of 16 public expenditure management indicators to evaluate progress on Highly Indebted Poor Countries (better known by its acro-

22. Zinnes (2008) describes 10 such awards.

nym, HIPC) areas and in its setting of country allotments (IDA 2005). The MCC conducts a veritable tournament by only offering to work with countries that score above the median for their group on 16 governance-related indicators. The hope is that the lure of substantial funds—for example, US\$300 million in the case of Mongolia’s proposed compact—will create a consensus of special interests within a country to focus on good governance. Many (Boone and Faguet 2002; Collier 2003; Easterly 2002; Svensson 2003) are essentially calling for donor aid to be disbursed in a more competitive fashion with greater recognition of opportunity costs and based on effectiveness. Ironically, with the two exceptions just noted, most of the competition in the market for aid is among the donors fighting for the attention of recipient country governments. Finally, some donors have been looking retroactively at how they have been allocating assistance (World Bank 1998) and even within their own programs. A particularly revealing example is found concerning the International Labor Organization, where the requirement that performance exceed the median for projects in the program meant that this evaluation activity had a tournament structure (see Zinnes 2008, box 2).

Donor Grant Programs Many donors run grant programs aimed at every development sector imaginable and are too numerous to list. Structured as a tournament, these programs often aim at encouraging experimentation. Some encourage civil society to engage in service provision or public participation or oversight of local government. Others aim to encourage technology transfer and collaboration between recipient and donor countries. Still others seek to discover new approaches to perennial problems, such as the Development Marketplace of the World Bank (Wood and Hamel 2002).

One type of donor grant program of particular interest is the municipal development fund. These funds are related to the revenue-sharing applications discussed above, but they tend to focus on nonrecurrent, capital investment.²³ The World Bank was one of the early adopters of this instrument in the form of the urban infrastructure fund (UIF), launching its first in 1979. According to Annez, Huet, and Peterson (2008, i), UIFs can “provide finance to improve a range of urban services, not just one sector, such as water and sanitation.” A UIF mimics several aspects of a PIJC. First, a UIF is demand-driven, “leaving flexibility for local beneficiaries to set their priorities” (Annez, Huet, and Peterson 2008, i). Second, a UIF takes advantage of local knowledge by “using local institutions to do the work of identifying, appraising, and channeling finance to sub-national entities (municipalities, local utilities, or community groups) on behalf of the [donor]. This arrangement makes it feasible [for the donor] to reach beyond the

23. Annez, Huet, and Peterson (2008) discover that many UIFs were often unable to disburse the desired amount of funding when interest rates exceeding the cost of capital were applied. The most successful UIFs were grant-based.

major capitals or business centers . . . to fund much smaller sub-projects, suited to . . . smaller cities and towns” (Annez, Huet, and Peterson 2008, i). Third and foremost, this ability to reach down simultaneously to a much larger group, together with the limited funds of a UIF, means that the UIF provides grants competitively to the best (according to the social objective of the specific project) or at least upper tail of the recipient proposals it receives. This makes the grants a payoff in a tournament, with the recipient proposal representing the strategy and action in the “game.”

Charter Schools Charter schools are intended to revitalize and improve the effectiveness of public schools (O’Reilly 2000, 19) by using market mechanisms such as school choice plans. Although they receive public funding, each school is autonomous and has a unique charter (O’Reilly 2000, 20). The license of charter schools must be renewed every five years and requires that the charter school typically exceed the average score of the traditional public schools in standardized testing. Chile permits Catholic schools access to public education financing to compete against public schools; Canadian provinces allow choice among public and private schools for the receipt of their property tax dollars (Shah 1998, 32).

Proposal-Stage Potential Applications By now, it should be clear that the potential range of applications of the PIJC concept is broad. The richness of the approach continues to be tested, however, as proposals submitted to donors (and their reactions) attest. The Foreign Agricultural Service of the U.S. Department of Agriculture considered a proposal to organize a series of agricultural subsector competitions among counties (*rayons*) in Uzbekistan (Zinnes, Hansen, and Miller 2005) to improve the local institutional and technical support environment along the consumption-production chain. The Bangladesh National Women Lawyers’ Association proposed to the U.S. Department of State to introduce a set of tasks focused on the problems of trafficking in persons for local officials and NGOs to improve local provision of law enforcement and social services.²⁴ The minister of education of the Federal Republic of Nigeria requested a proposal for running a tournament among higher education institutions in Nigeria to empower local collaborative efforts, including from business, to overcome local obstacles to school performance.

Why none of these proposals has yet been implemented raises interesting questions. Are the applications inappropriate? Were the proposals poorly designed? Was there political resistance in the recipient country, or were the donor institutions intellectually or organizationally unprepared? Although it is unlikely that a single common reason caused their rejection, donor tepidness probably played a key role. The institutional incentives in donor agencies encourage risk

24. This description has been paraphrased from Cadwell (2005).

aversion, in spite of an official position to the contrary. Donor agencies are reluctant to innovate, especially if one cannot point to a prior implementation.

An Institutional Analysis of PIJC

The PIJC approach can be seen more clearly by breaking it down into analyzable components. First, a breakdown allows us to assess those components that have already been applied so that the effect of jointly implementing them together as part of a single PIJC application can be inferred. For example, governance indicators²⁵ have been used extensively by donors and governments alike, donors are turning to output-based contracting (Brook and Petrie 2001; OECD 1999), governments to PBGs (Steffensen 2007), and competition is being used via grant programs to better target assistance and even to identify sources of innovation for the sponsors themselves (Wood and Hamel 2002). Second, just as economists study the perfect competition model to understand the effect of the inevitable real-world deviations from it, it is possible to examine those full or partial PIJC applications that do exist and observe which components are absent or additional and whether they mattered for success (or failure). Toward these two ends, it is useful to draw on Zinnes (2008), who examines a dozen PIJC applications, several of which were briefly described earlier. To start, it is necessary to consider some of the concepts that underpin the analysis.

PIJC CONCEPTUAL ISSUES

As pointed out previously, IJC is well known in the literature of public finance economics (Oates 2002). In its usual form, localities and even countries compete against each other, typically for business investment. Singapore has successfully competed against Hong Kong and other countries with good port access and quick cargo transit. Cities compete on the basis of the quality of their infrastructure to hold the Olympic Games. Here, competition has led to a “race to the top” in which jurisdictions claim to offer more highly educated workers or better amenities. On the other hand, various states within the United States have used tax holidays to lure Japanese car manufacturers to set up plants in their jurisdiction (e.g., Nissan in Mississippi), but at the same time, some fear that developing countries have (unfairly) competed against them by offering less stringent regulation (e.g., the so-called pollution haven hypothesis and no child-labor prohibitions). In such cases, competition can lead to a “race to the bottom.”

In the case of a PIJC development delivery vehicle, several ways can be used to ensure that the race is to the top because the competition is prospective; namely, the jurisdictions commit in advance to a set of preestablished ground rules on what to achieve, how to do so, and what the reward structure will be. Thus, the

25. Popular examples are Freedom House, Transparency International, ICRG, Polity IV, and the Heritage Foundation.

competition is explicit. Moreover, sponsors and players are able to agree on tasks that should have a positive socioeconomic effect.

In principle, PIJC creates a different kind of motivation than is typical for government transfers or development assistance. Rather than merely serving as a source of funding, training, or information, the competition creates a temporary, stable, institutional environment—the tournament—which acts to bring otherwise suspicious and uncooperative local interests together to pursue common goals, although in active competition with other jurisdictions. A tournament can be defined (Green and Stokey 1983, 350) as a contest in which “reward structures [are] based on rank order”²⁶ rather than achieving a particular performance.

The PIJC approach rewards outputs, not inputs. The Organisation for Economic Co-operation and Development (OECD) has now recognized the importance of this design element for public-sector modernization, what it calls “governing for performance” (OECD 1999). A host of examples exist for infrastructure provision and operation (e.g., ports, rail, and highways) and service provision (e.g., water provision and rubbish collection). Winning and placing in a PIJC is therefore based on *de facto* performance, not *de jure* intent. Passing stroke-of-pen reforms, for example, although perhaps necessary to create change, should not generate PIJC points; only measurable results do.²⁷ This orientation has the added benefit of allowing one to exploit impact evaluation technologies to assess rigorously the extent that the tournament had an effect. This strategy is useful, for example, when a ministry wants to scale up a local PIJC application to the national level.

Tournament incentives can be harnessed in powerful ways. Incentives of this type have become prevalent in a large number of economic settings because of their ability to generate high performance across all contestants, even when organizers have limited information on the capabilities of participants or do not want to set bounds on possible performance levels.²⁸ Executive compensation, research and development (patent races), college admissions, and agricultural production contracts all have incentive structures that can be classified as tournaments.

Rewards The PIJC takes advantage of the incentive properties of the tournament by tailoring tasks and rewards to activities that build local political insti-

26. Green and Stokey (1983) also investigate the power of tournaments over other incentive devices.

27. In the Morocco example below, stroke-of-pen “reforms” are sufficient to generate increased technical assistance during the tournament.

28. The analysis of the tournament nature of many economic transactions is also richly examined in the experimental economics and mechanism design literatures (Kagel and Roth 1995).

tutions and civil society with the aim of fostering economic development. Besides the benefits of the reforms, the types of prizes are selected to maximize player (stakeholder) interest, that is, from those groups in government, the private sector, and civil society whose actions, risk taking,²⁹ and cooperation are needed to effect change. The nature of the prizes also depends on the specific reform objectives. In the example of higher education in Nigeria, such prizes might include a job and training center, international study tours for local education administrators, computers for the schools, recreation centers for the students, and, of course, significant media publicity (which local politicians love). Examples for other applications include access to grants or financing and to other benefits to the player's public or private sector.

To elicit high effort among differentially capable competitors, prizes or awards may also be tiered. In the case of Galing Pook in the Philippines, one type of innovation prize is awarded to the first-time municipality winner of the annual event, while a different prize is given to winning municipalities that have also won the previous tournaments (Galing Pook Foundation 2005). In a tournament run by International Child Support (ICS) in Kenya, a two-tiered award system was used, one for "Top-scoring schools" and one for "Most-improved schools" (Glewwe, Ilias, and Kremer 2003). At the extreme, the prize can be a continuous function of performance, an example being the trainer "bonus" in a USAID marketing training initiative for small- and medium-scale enterprises (Azfar and Zinnes 2003).

Perhaps the greatest motivation for a jurisdiction to agree on participating in a tournament is that each jurisdictional unit—whether it agrees to play or not—is graded and publicized. If only those interested in participating would be measured, the result would be an incentive for potential players who would expect to be embarrassed by their indicator scores not to participate. Both Ashbrook and Clement (2001) in the case of Romania, and Meagher and Zinnes (2004) in the case of Morocco, implement this incentive using a system of up to five stars (like the famous Michelin restaurant guide) to identify good business environments. In this way, citizens in each locality have a way to judge how their own institutions are faring relative to their neighbors.³⁰ Similarly, as part of these projects, an international Web site is set up and promoted so that both domestic parties and foreign investors and donors are able to see which localities are serious about improving their business and investment environment.

29. To design a strategy to stimulate high levels of effort (performance) on a given application, a donor should elicit information about the effort (costs) and benefits of player principals and agents. Then prizes should be identified for each level of decision maker, as well as the polity.

30. This innovation highlights an often neglected aspect of indicator use. They are only effective if those who need to act on the information can easily interpret them and also have legal avenues to pursue action.

Scoring A successful PIJC is one in which a large proportion of the target group of players has engaged in reform efforts. Key is creating a level playing field so that the existence of better or more advanced players doesn't give them an unfair advantage at the start of the tournament or scare off others from choosing to compete. Although the simplest way to address this issue is to select players with homogeneous initial conditions, that may not always be possible if the players are competing across several objectives (or tasks) and starting positions across them are correlated. In these cases, PIJC designers may decide whether the score for a task should be based on either the level of performance achieved (player conditions are homogeneous for the task) or degree of improvement (player conditions are highly heterogeneous for the task).

Harnessing Socially Based Incentives Three other components of change, often overlooked, are instrumental to the PIJC approach. One is the power of public participation and feedback mechanisms. To ensure that all stakeholders are on board and form a team focused on placing in a tournament, a PIJC requires that commitment devices be used to engage them. Thus, the PIJC approach advocates requiring that public hearings (or their application-specific equivalent) be held as a condition for a tournament task to be registered. Meagher and Zinnes (2004) required that Moroccan municipal mayors sign public statements of their decision to participate after holding such town meetings. Although such mechanisms increase information sharing, they also play a key role in raising the likelihood that outcomes are equitable, which is not ensured even when the tournament rules are fair.

A second underused mechanism is the power of collective action, either through public-private partnerships or with adjacent municipalities. Such devices are particularly useful for small municipalities that cannot achieve economies of scale. Examples include joint purchasing (e.g., fire equipment), joint concessions (trash removal), and industrial park creation. A PIJC may take advantage of this mechanism by requiring that an interjurisdictional task be included in the tournament, either as an item on the menu of eligible tasks or as a required task.

Third, in striving to harness as many incentives as possible while keeping its overall design as simple as possible, the PIJC should also make use of peer and social pressure, sometimes referred to as the "blame and shame" mechanism. Hence, it is critical that all jurisdictions within the target population be measured—and their baseline and end-line results be widely disseminated—for maximum incentive effect. Otherwise, potential participants will simply opt out of playing for fear of having themselves compared with other jurisdictions. This design feature thus leads to greater transparency and freedom of information at the level of the players' constituencies. Moreover, many times members of a jurisdiction will not even be aware of their relative standing otherwise. For example, in the PROPER tournament in Indonesia (Afsah and Vincent 1997), players—in this case large industrial plant owners—were not aware of how bad their environmental profile was.

A TYPOLOGY OF COMPETITION MECHANISMS

At the simplest level, one can distinguish two types of play. Each is predicated on a different degree of information asymmetry between the sponsor and recipient. The contract type, which is easier to understand, is by far the most prevalent and should not be confused with the PIJC approach. Under the contract approach, the sponsor examines each player (e.g., municipality) on a case-by-case basis and determines—with or without local participation—what interventions might be feasible to achieve and then sets those as goals. The jurisdiction is rewarded if the goals are certified as achieved, essentially mirroring conditionality in technical assistance (development loans). This approach involves writing a contract or memorandum of understanding between the sponsor and each jurisdiction. Under this system, each municipality that fulfills the contract must be compensated: one package of sponsor funding stimulates one instance of reform in one municipality. Likewise, the chance of a jurisdiction winning depends only on its own efforts, not on actions undertaken by other jurisdictions.³¹

Under the relativist approach, the sponsor acknowledges not knowing what jurisdictions are capable of achieving and lets a tournament among them set the standards.³² The approach builds on two ideas. The first is that with enough players, the gamut of what is feasible to achieve, given the resources and skill sets available, is observable. The second idea is that competition encourages excellence. Thus, those who do the best provide an indication of what was feasible at the start³³ (i.e., trace out the production possibility frontier). A variant of the pure relativist approach is the preferred modality for a full PIJC. It combines the contract approach, by insisting that participants meet certain thresholds on key indicators as a necessary condition to win, and the relativist approach, by using a tournament to sort potential winners, placers, and others.

As argued in Zinnes (2008), a more concrete and useful way to classify the underlying incentive mechanisms employed by IJCs is as follows.

Simple Certification Simple certification assesses players against a pre-established performance benchmark. The sponsor, players, or outside organizations may disseminate or refer to how players fared for their own organizational purposes. The results of the certification process may therefore (1) affect player

31. A variation of this approach is when the benchmark is set by examining past performance of a cohort of jurisdictions, together with an assessment of current idiosyncratic local conditions.

32. Benchmark (or “yardstick”) competition is an example of the relativist approach.

33. This indication is not just an information asymmetry between the sponsors and the players. Generally speaking, the players themselves will not have a good idea of what performance is possible by their group.

reputation by, for example, being a good place to do business, which might attract investors; (2) lead the player's constituency to demand changes or strengthen support of the player; or (3) make the player eligible for participating in a follow-up activity offering attractive benefits (e.g., access to donor financing).

Pecuniary Certification Pecuniary certification is the same as simple certification, but once certified, the player is guaranteed a pre-announced tangible reward.

Pure Tournament Although all eligible players may compete, only those with the N best performances (where N is announced in advance) win the rewards. Here, the winning score is endogenous and not known in advance.

Mixed Tournament A tournament is used to allocate rewards (e.g., investment financing), and pecuniary certification is used for incentive compatibility to encourage weaker or less confident players to compete in the tournament. It does so by offering a consolation prize to players whose performance was inadequate to win but exceeds some minimum threshold. A mixed approach can mitigate risks of using one approach. For example, a tournament approach used alone may risk winners not having achieved a high enough performance for the donor to view the project as cost effective; a certification approach used alone may risk low participation (bar set too high) or too little effort by those participants who could have achieved much more (bar set too low).

In theory, there are two main differences between approaches. The first is whether the performance bar is absolute or relative, that is, whether winning depends on a player's performance relative to others or whether the actions of others are irrelevant. The second is whether the contest can be open-ended (certification) or must be limited to a fixed time interval (tournament). On the other hand, either approach can use indicators that measure levels of performance (requiring only an end line) or improvements in performance (requiring both baseline and end line). Either mechanism can have a participatory design focus, include an evaluation using randomized trials, be designed with a baseline measurement followed by a finish line benchmark (or only the latter). In both cases, the project may deliver technical assistance before, during, and/or after the benchmarking period. Both mechanisms can have a design based on prospective or retrospective incentives and, independently, score either inputs or outputs. Hence, in theory neither mechanism design is inherently more time consuming to run, other things being equal. Moreover, mixing the three core mechanisms essentially forms a continuum of incentive design options.

DECOMPOSITION OF PIJC INCENTIVE MECHANISMS

Because only a few PIJC donor tournaments have actually been implemented, there is limited experience on their performance and necessary conditions for success. We address this limitation for evaluation by decomposing a generic PIJC

application into its constituent incentive mechanisms and then by assessing the experience with the substantial number of mechanism-specific applications that do exist.

A PIJC contains mechanisms that increase the legitimacy of reforms. Here, the jurisdictions themselves participate in creating the menu of reforms from which they may then choose a subset of individual reforms to implement, thereby encouraging their active engagement in the competition. PIJC approaches also increase intervention legitimacy over conventional project designs because individual jurisdictions can usually opt out. In addition, particularly in the case of tournaments, the incentives are designed to overcome coordination problems so as to allow the sponsor and recipients to take advantage of commonly held goals. Likewise, the technical assistance a jurisdiction receives during the tournament is demand driven. On one hand, it is left to the jurisdiction to decide whether to participate in particular technical assistance workshops; on the other hand, the sponsor requires the jurisdiction to fulfill certain intermediate output conditions to be eligible for additional amounts of technical assistance during the tournament.

Because legitimacy is not the same as equity, how can we be sure the poorest can reach the winner's circle if, as is likely, the poorest are the worst performers and also have the worst governance? PIJCs not only are built around fair and transparent rules of the game but also contain design opportunities to ensure equity of outcomes, if desired. For example, one can ensure a level playing field either by limiting eligibility to a homogeneous group or by using relativist scoring (measure improvements, not levels),³⁴ select objectives targeting an equity objective,³⁵ and apply strategic advertising and training to galvanize "recalcitrant laggards."³⁶

Being based on competition, a PIJC also contains mechanisms that work toward increasing the allocative efficiency and cost-effectiveness of the intervention. For example, the tournament mechanism encourages efficient efforts from participants. We say "efficient" because a player's effort is endogenously determined by the size of the rewards (both indirect benefits, due to the reform per se, and direct rewards from the sponsor) and the privately valued costliness of effort expended by the player.

Likewise, a tournament mechanism per se ensures tremendous leveraging of donor funds. First, marginal transaction costs are lower because the sponsor need not conduct protracted and expensive bilateral contract negotiations with each jurisdiction. Second, the fixed rewards budget stimulates reform efforts across

34. If the emphasis on demonstration effects in decentralization is to be believed, diminishing returns to improvements are then implied, which provides an advantage to the poorest performers under relativist scoring.

35. An example is per capita income of the lowest quartile or the adoption of particular accountability measures.

36. Pradhan, Kaiser, and Ahmad's (2007) term for those with the worst governance.

a larger number of players compared to the standard donor agreement where the donor commits to a similar amount, but for each player unit. For example, in the case of Galing Pook in the Philippines, the cost of providing financial and nonpecuniary incentives to between 5 and 10 recipient jurisdictions motivated more than 200 jurisdictions to carry out reforms. As Pradhan, Kaiser, and Ahmad (2007, 1) state, "All swimmers in the tournament make progress, not just the ones who come into the victory circle." Third, technical assistance is targeted. On the one hand, it is "laddered" so that the amount and type of technical assistance a jurisdiction receives depends on how far along a predefined schedule of milestones it has moved. Moreover, technical assistance is provided only to those jurisdictions that meet reform-dependent thresholds of performance (output).³⁷ This output-based technical assistance focus is strengthened by the requirement described above in which technical assistance is demand-driven. Thus, unlike most of the literature on output-based aid (e.g., Smith 2001), which focuses on efficient delivery by linking payment to performance, PIJC applications contain mechanisms that ensure beneficiary preferences will guide the nature of the services actually provided.

A series of articles in the 1980s (Green and Stokey 1983; Lazear and Rosen 1981; Nalebluff and Stiglitz 1983) come closest in the theoretical literature to investigating the efficiency issues considered here, whether tournaments, certification, or direct contracts. They underscore the importance of uncertainty and of who bears the risk of the tasks. (This line of thought goes further by considering the issue from the perspective of both the team playing against other teams and the decision maker playing against other stakeholders within a team.)

These articles start by identifying two sources of (additive) risk, the idiosyncratic efforts of the player and the common shock affecting all players. Among their results, they find that when the common shock "is sufficiently diffuse"—for example, an unexpected piece of new national legislation impacting all players—"then the optimal tournament dominates using independent contracts" (Green and Stokey 1983, 352). In other words, if jurisdictions believe that the results of their efforts could be adversely affected by actions outside of their control, tournament incentives will be more powerful than certification incentives in motivating reform. They also find that if the number of players is sufficiently large, a player's rank in the tournament is sufficient information for the sponsors to know the player's output level net of the common shock (Green and Stokey 1983). That is, a tournament design is an effective way for sponsors to discover what performance is feasible in the volatile environment found in most recipient countries.

A third set of mechanisms ensures the incentive compatibility of the PIJC, the property that the incentives facing the players and created by the PIJC are such

37. There is an increasing applied literature on output-based approaches to economic development that is now becoming more common in a raft of applications. See Brook and Petrie (2001) for many examples.

that they align player objectives (and therefore efforts) to those of the sponsor. As we have seen, that is possible (1) by giving the beneficiary a real role in selection of project goals, tasks to achieve them, and assistance they would require; (2) by strengthening institutional governance; and (3) by explicitly providing in-kind, pecuniary, or reputational rewards for those who would otherwise bear net costs from the intervention, either because as decision makers they assume direct political risks or because the project produces positive externalities.

Add that players self-select to participate in a PIJC and we see that a major benefit of this feature is the minimal need for the sponsor to monitor reform efforts on-site because the players themselves have an interest in the success of the activity. This situation is in stark contrast to the conventional one in which donors spend considerable time and expense monitoring recipient actions.³⁸

Incentive compatibility has yet another consequence. It helps to overcome the tremendous information asymmetry existing between sponsors (and their foreign consultants) and local recipients; that is, critical project know-how is “impacted” with the recipient. Impacted means that it cannot be transferred to others; rather, it can only be indirectly drawn upon through the execution of its (local) owner’s skills. Under the incentive-compatible design of a PIJC, the sponsor creates a situation in which the players have their same interests and therefore no longer needs to extract the recipients’ local know-how or micromanage local implementers with such know-how. Likewise, recipients have the incentive to apply their own idiosyncratic private information through their efforts in the interest of the intervention.

As these various components suggest, the PIJC draws heavily on what is now called participatory development. In fact, it is even more powerful because the IJC strongly encourages intrajurisdictional cooperation. That is especially the case when jurisdictions differentiate themselves ethnically, religiously, politically, or even simply jurisdictionally (e.g., “our hometown football team is better than their hometown team”). In other words, a jurisdiction-based tournament tends to harness social capital, leading to collective action and using the power of peer pressure to mitigate free riding. Moreover, PIJCs can change how disparate interests within a community view the merits of collective action, consensus building, and decentralization itself.³⁹

Perhaps the most concrete, and commonly employed, of mechanisms comprising a PIJC application is the use of actionable indicators and benchmarking.

38. This result suggests an added benefit of nonpecuniary rewards over pecuniary ones: the incentive for “elite capture” in repeated contests is probably lower because (1) winning is of limited value if a tournament’s reputation is poor; and (2) past winners and present players have an incentive to blow the whistle on cheating.

39. Smoke (this volume) finds this paramount, claiming that the key challenge to decentralization is changing attitudes about how the public sector works. He urges a less formulaic application, exactly the orientation PIJC takes.

“Actionable” should be stressed because it is important that players know their own actions will directly affect indicator values and also trust that the benchmarks are correct, which would be less likely if they were purely conceptual.

A PIJC applied to local jurisdictions may be seen as an application of decentralization or the exercise thereof. For example, as described above for the cases of human rights and of local governance, the PIJCs were designed to encourage local governments to exercise statutory rights already legislated but not applied. This situation is akin to a physical therapist exercising the limb of a patient with functional, but atrophied, muscles. Likewise, winners of the PIJC generate—and demonstrate—innovative solutions to problems probably being faced by most of the other players, just like a good decentralization. Although in theory this scenario could occur with any donor intervention, in a PIJC as in decentralization there are large numbers of applications of the same intervention, thereby generating much more variation in experience and the greater likelihood for replicable lessons.

The structure of the PIJC uses the mechanism of what economists call a separating equilibrium to reduce adverse selection. In other words, the incentive design of a PIJC splits jurisdictions in two: one group that is serious about carrying out reform is encouraged to participate in the PIJC (and draw upon sponsor resources), and another group that is not interested in reform (but still desirous of sponsor resources) is encouraged to opt out of the tournament. Participation in the tournament allows members of the former group to signal to outsiders, sponsors, and investors alike, that they are serious about improving their performance targeted by the PIJC.⁴⁰ Winning permits even stronger signaling, which tournaments take advantage of in their rewards structures.⁴¹

A final aspect of the PIJC is its use of the outside coordinator/referee, that is, an institution all players can trust to enforce the rules of the game, objectively assess the winners, and deliver the promised rewards.⁴² For example, Eastern European countries at the start of transition trusted the European Union (EU) to deliver the goods promised—EU accession. This enormous potential payoff had the effect of focusing minds and leading disparate interests within a country to

40. In particular, it is important not to discourage suitable reform candidates from participating because the tasks or the tournament design appear too daunting. On the other hand, the lure of rewards should not be used to encourage those not interested in reform to either game the system or cheat. I thank Johannes Linn for this observation.

41. Debbie Wertz (private communication) suggests that such certification, if related to creditworthiness, would really draw SNG attention because it might allow it to tap international credit markets. In this example, a PIJC reward costs the sponsor almost nothing.

42. Despite Afonso and Guimarães Ferreira's (2008) concern, there is no contradiction here with Shah's (1998) view of SNGs as the origin of legitimacy of power. Rather, we can interpret SNGs as ceding the central government the statutory role of tournament referee, with the choices of tasks selected at the discretion of the SNGs.

cooperate (e.g., Poland). As the reliability of the EU's promise of accession has recently been called into question, so too has its role as a focal point and outside coordinator of reform effort. As another example, any foreign "expert" will tell you that half the benefit of their presence in the field is to act as an objective referee among competing ideas of local (real) experts.

In summary, the conditions under which alternative incentive mechanisms might be preferred are the following. The conventional approach is most appropriate when there are few recipients who need substantial help, when objectives require limited idiosyncratic local information, and when rigorous evaluation is not desired. Certification approaches are preferred when adequate performance is more important than achieving highest feasible performance, when the sponsors have a clear idea of what feasible performance levels are, when there are potentially many recipient-players, and, in the case of pecuniary rewards, when the sponsors have a flexible budget or clear idea of the number of likely certifications. Tournament approaches, on the other hand, should be preferred when a scarce resource needs to be allocated to the best performers, when systemic exogenous shocks are a concern, when there are potentially many recipient-players, and when the donor has a poor idea of what level of performance is achievable. Finally, PIJC may be seen as a mixture of pecuniary certification and tournament. Like a tournament, it prospectively offers awards and prizes to a limited number of contestants for achieving the best performance on a set of tasks. Like a pecuniary certification, it offers consolation prizes to contestants who exceed a preset threshold of performance.

An Assessment of Applications to Date

In Zinnes (2008), I evaluate the practicality and performance of actual PIJC by assessing a dozen projects from the World Bank, USAID, the Government of Indonesia, UNIDO, and the Ford Foundation. The framework emulates the way economists use the perfect competition model to understand the effect of the inevitable real-world deviations from it. For each existing PIJC application, I compare what components are absent or additional relative to the stylized full model presented here and determine whether these components mattered for the application's observed success or failure. We can then identify lessons learned how each incentive mechanism: (1) affects project effectiveness and sustainability; (2) makes idiosyncratic demands on a country's initial conditions; (3) contains prospects and limitations for scaling up; and (4) presents obstacles for implementation (including cost and time). Although a surprising number of existing projects use some form of certification, tournament applications are rare.

EFFECTIVENESS OF APPLICATIONS TO DATE

Looking at the effectiveness of certification approaches, it can be observed that projects that were able to build on social or cultural norms within the target region and that were able to communicate the meaning of the certification were

more successful than those that weren't communicating well, even if the former projects offered no specific pecuniary rewards. Examples include the PROPER large-firm environmental performance rating system in Indonesia (Afsah and Vincent 1997) and, to a lesser extent, the Public Services Report Card project in Jharkhand, India (Public Affairs Foundation 2004).

On the other hand, projects that were not able to enforce strict quality control on their certification—typically due to engaging in precertification rather than output-based certification (e.g., Senegal Literacy Project⁴³)—were less successful than those that were (Romania Fast and Simple Project). Likewise, poor dissemination of the certification scores weakened their incentive effects, contributing further to lost project impacts (e.g., both aforementioned projects). Instituting multilevel certification appears to have been more economically efficient, where feasible, than a single certification level because it increased participation.

Regarding the project effectiveness of tournament approaches, projects that offered salient rewards and adequate technical assistance during the competition—such as the Russia Fiscal Reform Project (World Bank 2006) and the Kecamatan Development Program (KDP 2005) project in Indonesia—did better than those that didn't. Programs based on repeated tournaments (in fact, certifications, too)—for example, Galing Pook—that maintained the quality of their reputations resulted in awarded activities having both a demonstration effect (on other municipalities) as well as a participation effect (more players would participate in the next tournament round). On the other hand, a tournament in which competition is based on indicators of past performance had a much weaker incentive effect (e.g., *Mancomunidades* in Honduras, Nigerian Scorecard Project) than those based on performance during the competition (e.g., Russia Fiscal Reform Project). Where rewards were insufficiently specific, their incentive impact was not commensurate with their implementation costs (e.g., USAID's R4).

Regardless of the core mechanism(s) applied, it seems that none works properly unless the right components are present simultaneously. For example, having a reward with no benchmarking, or benchmarking without a reward, made a huge difference to project effectiveness. Several of the certification projects may have achieved more had they included extra PIJC components, which would have been feasible to add had designers wanted to. The Romania Fast and Simple project would have had greater success had rewards been brighter and more salient. An evaluation component would have increased the cost-effectiveness of the Senegal Literacy Project. The *Mancomunidades* project would have achieved a much greater effect had it followed the prospective design of a PIJC. Instead, the project design opted for retrospective "competition"; that is, rewards were given on the basis of performance that had taken place prior to the time the project's incentives could have an effect.

43. See Nordtveit (2004) or Zinnes (2008) for project details.

We also find that weaknesses in projects adopting the tournament approach did not seem to be intrinsic to the mechanism; rather, they were the result of shortcomings in a specific application's design or implementation. For example, the mediocre performances of the USAID R4 system and the World Bank's Nigerian Scorecard Project were not due to the use of a tournament approach, but to the lack of sufficiently bright rewards.

Finally, it is useful to consider how the additional complexity of PIJC designs affects their feasibility. As argued above, much of the extra complexity is due not to inherent differences in design but to the historical lack of sponsor interest in outcomes when they applied conventional approaches. Hence, for a fair assessment, it is necessary to sustain the degree of sponsor interest in outcomes, the number of jurisdictions to reform, and the tasks to achieve. Stated this way, it appears that conventional sponsor approaches and those using PIJCs have no inherent differences in complexity for task selection, indicator design and data collection, or impact evaluation.

Significant differences in complexity and cost do exist for other design elements. Under a conventional approach, the contracting of the sponsor-recipient agreement must take place for each jurisdiction. Thus, a special study of each jurisdiction is required to identify what it is likely to achieve and how, what idiosyncratic assistance it will need to do so, and what it could absorb after the reform (the reward). Because the sponsor has a limited technical assistance (TA) budget and typically works directly with the SNG in situ, the sponsor must decide whether to accept a TA budget spread thin to cover all jurisdictions or to bear the much higher costs of providing TA to all jurisdictions, regardless of their interest.

Under a PIJC approach, once the tasks are set, only a set of game instructions are needed. It is up to each jurisdiction to decide whether to play, in which case it submits precommitment documentation (generally after organizing public meetings), adding complexity on the recipient's side. The recipient must then decide which strategy to use and which TA workshops to attend. Moreover, because there is no "big brother donor" dictating what to do or when, the PIJC requires local initiative and, ideally, a team captain, which the reward structure has been designed to encourage. This reward schedule, however, is an additional complexity for the sponsor to calibrate and test. On the other hand, the intensive in-project monitoring for compliance, which conventional approaches require, is unnecessary under a PIJC. Likewise, a PIJC requires an investment in public relations both before and during the contest, to stimulate participation and interest, as well as afterward, to disseminate performance (the "praise or shame" incentive). Finally, although conventional approaches set time limits for reform performance, in practice these are not time consistent and are typically extended, in some cases several times. That cannot happen under a tournament structure because a race needs a "finish line," but it is possible under certification.

For all these reasons, conventional approaches grow more expensive to run than PIJCs as the number of jurisdictions increases. Tournaments, however,

require more training to explain the rules of the game to the players. Although their calibration and testing would seemingly make tournaments more complex than conventional approaches, that idea is misleading because it ignores the high transaction costs of jurisdiction-by-jurisdiction negotiation, contracting, and monitoring. With neither approach being dominant in cost-complexity space, it will depend on the initial conditions and the application as to whether absorptive capacity limits, on either the sponsor's or recipient's side, have been reached.

EFFECT OF INITIAL CONDITIONS ON APPLICATIONS TO DATE

From the case study applications discussed above, we may draw some likely inferences about the effect of initial conditions on PIJC outcomes. Although there are only a few core incentive mechanisms, in the cases reviewed successful application critically depends on the idiosyncratic tailoring of the game to the variation of local conditions. Thus, participatory approaches must be used to establish and calibrate game tasks, size and schedule of rewards, nature of TA, and public relations campaigns (including how to disseminate performance results). In short, attention to initial conditions is of paramount importance. An adequate legislative and regulatory framework must already be in place if PIJC applications are to encourage (exercise) their *de facto* local-level implementation. Likewise, local public finance laws need to be sufficiently decentralized and business laws sufficiently modern to permit pecuniary rewards for jurisdictions and their officials.⁴⁴ Cultural conditions upon which to build cooperation are required because players are teams. The teamwork needed to effect change generally required a culture of an active civil society or motivated senior local officials. Although PIJCs require less sponsor monitoring than conventional projects, incentives for local oversight were required to combat a culture of corruption.⁴⁵ The culture should either expect or appreciate their officials having the political will to overcome "measurement reticence."⁴⁶ There needs to be an initial indigenous desire for change because the PIJC only encourages collective action.⁴⁷

Sponsors, on the other hand, must be willing to commit to an extended performance period, which is a function of the type of reform contemplated. Moreover, they must be institutionally able to withhold benefits from players not meeting the award criteria (maintain a "hard budget" constraint). Hardest of all, sponsors must carefully evaluate their other in-country programs to ensure that

44. One World Bank employee cleverly suggested as an alternative more holidays as a reward to government officials.

45. For example, in the Russia Fiscal Reform Project, the ministry of finance had incentives to control creeping corruption at the SNG level.

46. The "fear" of having one's performance quantitatively tracked.

47. Of course, one might be able to conduct a project first to educate the target population on the need for change.

players are not distracted, or game incentives diluted, by the presence of other significant contemporaneous assistance from the sponsor.

Incentive mechanism design is also constrained by initial conditions. For example, use of intangible (e.g., signaling or reputational) rewards requires that a sufficient breadth of media dissemination exists to reach the target population. Likewise, lack of reliable official data, especially on the local level, may constrain the choice of the preferred performance indicators.⁴⁸ Finally, to prevent collusion, a design based on level of performance requires that a sufficient number of homogeneous players along the relevant dimensions exists.

These conditions may seem quite demanding. The experience from past applications, however, suggests that need not be the case. The applications examined do run the gamut developmentally, although sponsors needed to choose the site, ambitiousness, and speed (Smoke 2008) of their applications appropriately. For example, the competition in Morocco focused on rural municipalities and excluded any big cities.

SUSTAINABILITY OF APPLICATIONS TO DATE

It is important to distinguish between the sustainability of the institution (program) running the distribution mechanism (game) and the sustainability of the projects or activities it stimulates. Of course, if a program is conceived as a one-time enterprise, only the latter is of interest.

Program Sustainability Casual experience suggests that people eventually lose interest in “games,” be they children or staff offered recognition incentives. Does experience with jurisdictional competition agree? In the case of projects with longer-duration setup time, there is some evidence of donor fatigue. In the case of USAID’s R4 initiative, incentives were nebulous due to the vague reward structure and the large role exogenous factors could play on indicator outcomes. In the case of UNIDO’s Moroccan PIJC, the time taken for planning (two years) permitted unrelated politics at UNIDO to change its priorities and abort the initiative.

We do not find evidence for fatigue in the case of well-run and -designed contest programs. Such programs create their own legitimacy and reputational momentum. For example, to date the Galing Pook competition has run for twelve years and does not even involve a pecuniary prize. The Indonesian government’s PROPER initiative has run since 1995 and has spawned copycats domestically and internationally. The World Bank’s KDP project ran for five years and has continued to this day despite a regime change in the country. Part of the reason is that, unlike the challenge of motivating a specific person on one’s staff, a fixed incentive in a repeated game with jurisdictions as players confronts different

48. Although PIJC-specific data collection adds to costs, that is less a concern in repeated games. SNGs may also have additional uses for the data, especially if the technical assistance in its collection leads to an ongoing data program.

individuals, just like in any league sport. Local government officials change over time, and beneficiaries of different project activities are rarely the same; consider, for example, those who would benefit from a red-tape reduction activity versus from a literacy campaign activity.

The alternatives to allocation by contest are formulas and discretionary selection. Probably the main determinants of sustainability for the allocation method are its administrative efficiency and the effectiveness and equity of its outcomes. Although formulas are surely the most administratively efficient, their fairness generally depends on the quality of the “democratic” political process issuing approval. The motivations for discretionary selection (sole sourcing)—aside from corruption—tend to be speed and cheapness of contracting. Donors do not appear to have such institutional concerns, but central governments, which often run revenue allocation programs annually, require administrative efficiency. Steffensen (2007) shows that even in developing countries performance-based allocation is possible if properly regularized.⁴⁹ Formulas and sole sourcing, however, are much less likely to lead to economically efficient outcomes compared with competitive allocation processes (e.g., grant competitions). Hence, sustainability of the allocation mechanism boils down to how these elements get weighted in a government’s adoption decision.

Regarding our case studies, we find that mechanism sustainability depends on the organizer’s commitment to the continued quality of its reputation, which, in turn, requires the long-term credibility of the referee. Such commitment is relatively easy if a foreign donor stays engaged, as in the case of Galing Pook and the Ford Foundation. When there is only a local referee, care must be taken to avoid loss of mechanism reputation from creeping corruption, especially when a pecuniary prize is at stake. I see no evidence, however, that constituencies of “losing” jurisdictions feel “punished” as feared by Afonso and Guimarães Ferreira (this volume). For example, the Russia Fiscal Reform project (World Bank 2006) specifically states that such a consequence was not the case. A possible reason is that any level of reform achieved was itself a benefit, regardless of whether a player won. It also appears that the most effective incentive mechanisms are those run by an organization outside the one whose behavior is to be modified (e.g., compare Jharkhand Report Cards to USAID R4 programs). Finally, when pecuniary rewards are involved, it seems that mechanism sustainability after the sponsor’s departure depends on finding other funders of the rewards and operational running costs. In cases in which the activity has been deemed successful during the sponsor period, the government may step in (e.g., Russia Fiscal Reform, KDP, Galing Pook).

49. Missing from the analysis here, as well as Steffensen’s, is the multiperiod nature of funding. For example, budget allocations are annual, but capital projects require multiyear funding commitments.

Project Activity Sustainability Of greater importance for sustainability than the competitive element are the presence of local ownership, long-term gains that can be captured locally, and the degree to which PIJC outcomes can reach the poor. From the case studies, it seems that the sustainability of projects funded through a tournament was greater when using output-based, rather than input-based, performance rewards (e.g., Russia Fiscal versus Nigerian Scorecard) and when it was possible to award intermediate rewards for achieving concrete project milestones (tasks required on the way to fulfilling project deliverables).⁵⁰ Better sustainability also seems linked to the degree to which participation was voluntary and initial project goals were aligned to existing preferences in the target population. Finally, higher sustainability was more likely if the structure of rewards, whether offered directly or generated indirectly, led to both private and public capture of benefits.⁵¹

SCALABILITY AND REPLICABILITY OF APPLICATIONS TO DATE

As in the case of sustainability, a distinction can be made between process and funded activity.

Process Scalability An important consideration relates to the fixed costs of running the process. For example, the MCC now appears to be at full capacity with its current level of staffing and would not likely be able to increase the number of compacts it manages without substantial additional hiring. Variable cost considerations are easier for organizations to address. For example, to expand the Galing Pook project could simply entail finding additional peer reviewers, with no expansion in permanent staff or facilities necessary.

Regarding scaling up the number of activities a tournament-based approach can handle, most of the projects selected exhibited good within-country scalability qualities. KDP in Indonesia and investment promotion in Morocco provide two examples that help explain why. In KDP, more activities were easily handled by simply replicating the game structure in an additional *kecamatan*. In Morocco, because tournaments were designed for the provincial level, it was possible to simply increase the number of provinces—either simultaneously or sequentially—running (separate) tournaments. A more powerful way to scale up the number of jurisdictions in a contest is to “nest” tournaments. In this case, it is pre-announced to players that a simultaneous “super” tournament will be conducted by computing the average scores of jurisdictions in each province. The

50. Perhaps such sweeteners encouraged greater participation by tempting the weaker players to compete.

51. The Galing Pook game used speaking tours for proactive officials and investment promotion for the town.

province with the highest average score is declared the winner. This design also encourages the provincial governments to find reforms to implement that would help their lower-level jurisdictions attain higher scores on their tournament tasks. Note that we do not propose to scale up a tournament by having more provinces compete in the same tournament. This is because the greater the mutual anonymity of players (e.g., greater distance reduces knowledge of competitors), the weaker the social and psychological forces of teamwork and local pride may be.

Regarding replicating funded activities in other countries, many of the initial conditions required for a successful mechanism implementation may also be viewed as scalability requirements. Moreover, each of the incentive mechanisms described here appears feasible to adjust to fit local conditions. One can vary the complexity of the tournament benchmark indicators, require more or fewer tasks, offer different reward structures (number, value, intermediate bonuses), and modify the number of eligible jurisdictions allowed to compete per tournament. The degree of success in making these adjustments depends on the level of local participation in designing the intervention and the amount of pilot testing and calibration done in advance.

Activity Scalability Activity scalability should be distinguished from process scalability. In the Senegal Literacy program, scalability is straightforward: simply expand the number of districts for which firms can offer services. In the case of KDP, however, what does scalability mean in the case of a winning village building a bridge (although replicability in this case is clear)? What does it mean if a winning SNG engages in administrative reform as a result of a tournament? Although replicability is a characteristic of activities implemented through a tournament, scalability is generally better assessed at the process level, as discussed above.⁵²

AREAS FOR FURTHER RESEARCH

Putting aside the actual substance of the reform, several remaining implementation challenges need to be overcome in order to have a successful PIJC. One area concerns the calibration of optimal rewards and their structure. First, the project designer must decide whether to base the competition on achieving the highest level of performance or the largest incremental improvement in performance. Or, should there be one set for best performers and one set for best improvers (Duflo 2005)? How the latter is a more effective incentive when players are heterogeneous has been previously discussed. Beyond that, however, is the question of determining the number of winning positions to offer and the size of each reward, given the number of players and their heterogeneity. A similar question concerns the need to add certification thresholds in a tournament and the level at which to

52. On the other hand, one could analyze whether the number of hospital patients treated via SNG health expenditures is more or less easily scaled up under PBGs or under other funding allocation methods.

set them. Larger than necessary rewards can be distracting and encourage corruption, whereas insufficiently sized rewards risk attracting too few players.

Closely related to the structure of rewards is how to set the number of players and their individual size so as to have the most effective tournament possible. The Russia Fiscal Reform Project had 7 jurisdictional players; the Morocco project anticipated 80. Many factors must be taken into consideration, and some research-based guidance on this matter would be helpful.

The standard way to resolve these questions has been with focus groups, rules of thumb, and inferences from experience elsewhere. It now seems possible, however, to augment focus group tests by using a pilot survey and even to take greater advantage of laboratory experiments. Developing a standard set of field instruments in this regard would be worth pursuing.

Tournaments and certification in particular depend on good preplay public relations and postplay dissemination of results. How does one prepare the public to collaborate? How does one introduce the tournament concept into a particular cultural environment? What forums does one convene to bring together disparate interest groups within a jurisdiction in order to stimulate team formation? What scope is there to use the Internet and remote education technologies to reduce the cost of providing commonly needed reform TA during a tournament? There are many ways, as well as media, from which to choose. The field of strategic communication is certainly growing, and more research would be useful on its application to the design of reputational awards for maximum incentive effect in tournaments and certification. Part of the success of the PROPER project in Indonesia is owed to its clever use of communication in the design of the measurement metric. Mastery of these issues may also help to develop techniques to overcome the problem of political reticence of having one's performance measured.

In considering how far the PIJC might go, Pradhan, Kaiser, and Ahmad (2007) raise a rather profound question. They ask whether a government/donor could use a PIJC to change initial conditions (i.e., create hard budget constraint and weaker elite power). Although only experience will tell, evidence exists for such changes. In both the Morocco and KDP projects, players have exuded exuberance over their changed attitudes toward local-level collective action. Likewise, the PROPER has been lauded—and imitated—for changing attitudes about environmental responsibility. The Russia Fiscal and Moroccan projects both included hard budget constraints as one of the tasks to achieve, with the former project being successful.

In a different context, Kanbur (2006) raises some interesting collateral issues which have bearing on PIJCs. He asks how to increase donor accountability and how to apportion credit and blame when an intervention has mixed-team players as, for example, in his original case, a joint partnership environment. He also worries about such issues when dealing with vested interests and when donor, government, and team member contributions may be subject to fungibility of funds. He rightfully suggests that one must pay more attention to overall impacts

rather than individual contributions. Ironically, vis-à-vis the donor, fungibility is much more of a problem for conventional project designs, where the donor takes on a more direct role in guiding outcomes and in decision making. In the types of incentive mechanisms presented here, the donor is forced to take a hands-off approach once the parameters of the game are established. Regarding apportioning blame and praise when the player comprises separate local entities, teamwork is what matters, and the players themselves will know whom to blame or praise. Moreover, each party's agreement to play on the team presupposes the party's acceptance of the risks and rewards.

Conclusions

An assessment of the case studies in Zinnes (2008) reveals that competition-inducing designs have the potential to generate more cooperation and collective action than those based on noncompetitive approaches. Likewise, we see that much scope exists for incorporating "information-lite" incentive mechanisms into decentralization, service delivery, and public finance reforms as well as into donor initiatives. Central governments want to increase their international competitiveness and reduce poverty. Poor public service delivery weighs heavily on both and, worse, also weakens the legitimacy of central governments' attempts to raise the revenues to address the situation. Some are turning to varying degrees of decentralization, but local understanding and experience have made these attempts somewhat *de jure*. Our analysis suggests that PIJC may offer a chance to exercise the new powers decentralization confers to local administrations, although it is an empirical question whether political patronage can be overcome with the right reward schedule. On the other hand, the almost nonexistent feedback channel between aid recipient and donor funder (the taxpayer) contributes to the poor track record of development assistance, and the institutional incentives facing donors need to be changed to encourage more ambitious and innovative projects. For those sponsors now interested in leveraging their assistance by becoming "advocates for change," PIJC offers a potentially powerful way for them to do so.

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