Nellis, John

Working Paper
Privatization in Africa: What has happened? What is to be done?

Nota di Lavoro, Fondazione Eni Enrico Mattei, No. 127.2005

Provided in Cooperation with:
Fondazione Eni Enrico Mattei (FEEM)

Suggested Citation: Nellis, John (2005) : Privatization in Africa: What has happened? What is to be done?, Nota di Lavoro, Fondazione Eni Enrico Mattei, No. 127.2005, Fondazione Eni Enrico Mattei (FEEM), Milano

This Version is available at:
http://hdl.handle.net/10419/73950

Terms of use:
Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.
Privatization in Africa: What has happened? What is to be done?
John Nellis

NOTA DI LAVORO 127.2005

OCTOBER 2005
PRCG – Privatisation, Regulation, Corporate Governance

John Nellis, Center for Global Development

This paper can be downloaded without charge at:

The Fondazione Eni Enrico Mattei Note di Lavoro Series Index:
http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm

Social Science Research Network Electronic Paper Collection:
http://ssrn.com/abstract=846327

The opinions expressed in this paper do not necessarily reflect the position of Fondazione Eni Enrico Mattei
Corso Magenta, 63, 20123 Milano (I), web site: www.feem.it, e-mail: working.papers@feem.it
Privatization in Africa: What has happened? What is to be done?

Summary

Sub-Saharan African states urgently need expanded and more dynamic private sectors, more efficient and effective infrastructure/utility provision, and increased investment from both domestic and foreign sources. Privatization is one way to address these problems. But African states have generally been slow and reluctant privatizers; a good percentage of industrial/manufacturing and most infrastructure still remains in state hands. Given prevailing public hostility towards privatization, and widespread institutional weaknesses, such caution is defensible, but nonetheless very costly. The long-run and difficult solution is the creation and reinforcement of the institutions that underpin and guide proper market operations. In the interim, African governments and donors have little choice but to continue to experiment with the use of externally supplied substitutes for gaps in local regulatory and legal systems.

Keywords: Privatization, Sub-Saharan Africa

JEL Classification: F3, L3, N17, N27, N47, N77, O55

Helpful comments on earlier drafts were received from Nancy Birdsall, Guy Pfeffermann, Mary Shirley, Mike Stevens, Nicolas Van de Walle, and John Williamson. Particular thanks are due to Thierry Buchs of the IFC, who compiled the data found in the Tables.
This paper was previously issued as a Working Paper of the Center for Global Development, Washington, D.C.

Address for correspondence:

John Nellis
The Center for Global Development
1776 Massachusetts Avenue NW, Third Floor
Washington DC 20036
USA
Phone: +1 202 416 0700
Fax: +1 202 416 0750
E-mail: john.nellis@verizon.net
I. Introduction

Consider the case of Guinea, one of the poorest countries in Africa, and thus, one of the poorest countries in the world.

From independence in 1960 through the end of the 1980s, Guinea’s state-owned and operated infrastructure companies (SOEs) in telecommunications, energy and water provided consumers with an inadequate quantity of low quality services. As of 1989, only 38% of Guineans had access to piped water, almost none in rural areas. Those connected suffered frequent interruption of service. Water quality was poor and unhealthy; “…waterborne diseases were the main cause of death for infants and there were periodic cholera epidemics.”(Ménard and Clarke, 2002, a, 277) One plus: the price for the few connected customers was low: US$0.02 per cubic meter—m³—until 1986, and $0.12 per m³ thereafter. But half or more of the water sent into the system vanished and was never billed. At this price, with this rate of loss, the national water company could not come near covering its operating costs, much less invest in badly needed maintenance and expansion. Donors made repeated attempts to work with government to reform the national water company; these failed to make a major or sustained difference.

In 1989, Guinea entered into a lease arrangement with a private provider to deliver water in the capital, Conakry, and 16 other towns. Under this scheme, Government retained ownership of the assets, responsibility for setting policy and tariffs, and (with World Bank assistance) marshalling investment finance and expanding the network. A private firm was selected to operate and maintain existing facilities, and bill and collect payments from customers. By agreement, the price per m³ of water at once more than doubled. This was still inadequate to cover operating costs, so a World Bank credit covered the difference between revenues and costs in the early years. This subsidy was to decline as either periodic rate increases or efficiency gains reduced the need.
Over the next seven years, major improvements took place. Connections increased from 12,000 to 23,000. The percentage of metered private customers rose from 5 to 93%, and to 100% for government customers. The percentage of the population with access to water rose from 38 to 47% (Brook Cowen, 1999, 1) and the pace of increase was greater than it had been under public ownership. Very importantly, water quality improved greatly.\(^1\) Tariffs rose to levels covering variable costs, revenues of the water company rose by a factor of ten, and the World Bank subsidy ended. Sixty-four percent of customers billed paid their fees, (Shirley, 2002, 22) a modest rate compared to international norms, but much improved over past collection achievements. Compared to failed earlier attempts to reform the system without the involvement of the private sector, all this was impressive. But a number of major concerns remained.

First, by 1997 the price per \(m^3\) stood at US$ 0.83, a near seven-fold increase from 1989, and more than 40 times the 1986 price. The price was very high in comparison to most OECD countries, much less African neighbors\(^2\), and was considerably higher than in most other lease/concession arrangements in Asia and Latin America (where smaller increases had often provoked street protests). A cross subsidy scheme allowed small volume users to pay less than large, but both the reduction in price per \(m^3\) and the monthly amount to which the lower price applied were smaller than in most other countries. (Shirley, 2002, 15) Post-privatization, an essential commodity had become less affordable.\(^3\)

---

\(^1\) Improving water quality can have a large social impact. In Argentina, improvements in water quality in the 30% of municipalities with privatized provision led to declines in infant mortality, from water borne diseases alone, by 5 to 9%, versus areas where water continued to be supplied by publicly operated firms. The poorer the area, the greater the impact; poorest neighborhoods saw declines in infant mortality of up to 24%. See Galiani, Gertler and Schargrodsky (2002).

\(^2\) In Abidjan in the neighboring Ivory Coast, the privatized water company offered an average price in 1997 of US $0.54/ \(m^3\).

\(^3\) Less affordable for some; the distributional impact of the price increase is unclear. Most poor people in Guinea were not and still are not hooked up to the water network; those connected are probably from the middle and upper income strata. A price rise for these consumers, even substantial, may have a limited direct effect on either inequality or poverty. But it is also quite likely that increased prices in the formal water network have been passed on to many poor consumers, at least in urban areas—who often get their water from vendors (whose prices are always much higher per unit than from a formal connection to the network).
Second, while the physical network expanded, the rate of growth was less than anticipated. Unlike more recent leases and concessions around the world, this contract did not place investment responsibility in private hands, and it did not specify expansion and connection targets for the SOE that retained responsibility for enlarging the network. Third, the amount of unaccounted water remained well above 40%. Government costumers did pay for service a bit more regularly than before, but many government offices remained in arrears to the provider—and the private company did not cut service to any central government unit, even though this was expressly permitted in its contract. Had water losses and billing and collection been more aggressively addressed, revenues would have increased, and prices might have fallen—but under the lease agreement the private provider had no overwhelming incentive to push for such improvements.

This was largely due to a fourth factor: The government was still very much involved in key parts of the water business, and its performance continued to be weak. The experienced private operator apparently had little difficulty persuading the inexperienced government regulators to accept price hikes. It may be that the private provider found it easier to negotiate tariff increases than to collect aggressively. In any event, since all commercial risk was borne by the government, the private manager was free to select the path of least resistance, constrained only by the competence and dynamism of the government regulatory agency. The question then becomes: Did regulators capture—for consumers—a reasonable share of the financial benefits arising from the efficiency gains produced post-lease? The answer depends on the “counterfactual;” what would have happened had the contract not been let, had the public sector remained in control? As discussed below, careful students of the process conclude that private involvement produced superior results, despite the large price increases.

---

4 The private provider would argue, with justification, that the high price was legitimate given government’s inability to expand the network as expected, to permit service termination to customers in arrears—i.e., to hold up its side of the bargain—and the reluctance of local courts to allow the water firm to sanction customers who failed to pay.

5 In Guinea, regulation of the contract was placed in the hands of the “rump” SOE that had formerly managed the water supply, not in a new, separate, legally defined and empowered regulatory body.
Thus, in sum, the lease produced gains, including gains to general consumers; but these were less than expected, and they came at a slow pace and quite a high cost.

II. African Privatization: The record to date

The Guinea water story reflects in miniature Africa’s struggle with privatization, particularly in infrastructure, where one finds the largest and most economically important SOEs. The general story is this: Poor service provision by loss-making public enterprises led first to reforms short of private sector involvement. These produced no, modest, or unsustainable improvements. Financial losses mounted. They led to further deterioration in service quantity and quality, and increased burdens on the government budget. IMF involvement and surveillance led to a choking off of direct budgetary financing of SOEs. In most cases the banking system, initially state-owned or dominated, then took on the task of financing the enterprises. Debts were incurred but not serviced. The banks rapidly accumulated a non-performing portfolio and severe solvency problems. Financing/fiscal problems grew acute. These, and not efficiency concerns *per se*, became the principal driver of SOE reform. Typically, it was the IMF that highlighted the issue and insisted upon efforts to resolve it. In response, private sector management, financing or ownership was proposed. The World Bank then became more directly involved, in terms of reform/privatization design, and assistance in implementation.

In many, probably most African countries, the principal motivation for privatization has been to placate the IFIs. African governments do increasingly recognize the SOE problem; and numerous African leaders and observers preach the gospel of financial discipline and market-oriented reform. Still, commitment to privatization as the best way to solve SOE problems has been neither widespread not strong. Most African leaders and officials would prefer that the SOE problem be addressed by means other than ownership change.⁶ A review of the scope and pace of African privatization supports this allegation.

⁶ Temu’s and Due’s (1998) description of Tanzanian reaction to the very idea of privatization applies in a number of other African states: “The concept of a centralized economy had been well taught and well
On average, African states have privatized a smaller percentage—about 40%—of their SOEs than other regions, far less than in Latin America or the transition economies. Much of the African divestiture that has taken place has been of smaller, less valuable, often moribund manufacturing, industrial and service concerns. In contrast, infrastructure privatization has lagged. Of the roughly 2300 privatizations in sub-Saharan Africa in the decade 1991-2001, only about 66 involved these generally higher value, economically more important firms. An additional 92 transactions took place in transport, some of which might have been classed as infrastructure. But even if one includes all the latter, less than 7% of sales have touched the upper end infrastructure firms.

Moreover, activity has been concentrated in a very few countries: Of the $9 billion USD of African privatization revenues raised from 1991 to 2001, a full third was generated by a handful of privatizations in South Africa. Another 33% came from sales in a group of four actively privatizing countries (Ghana, Nigeria, Zambia and Ivory Coast). Some 26 African countries, taken together, have privatized a scant $0.7 billion USD of assets (see Table 2).

learned. The government feared losing its commanding heights; the people feared the loss of the enterprises their hard-earned taxes had supported. Those fearful of private enterprise saw the new owners dismantling the parastatals and cashing in on the rewards. Even supporters of privatization saw parastatal managers stripping the firms and cashing in whatever was saleable.” (333)

And if one removes from the list of 29 countries (for which one can estimate the percentage of the SOE portfolio divested) the six leaders in terms of numbers of firms sold—Gambia, Ghana, Kenya, Mali, Togo and Zambia—the fraction of SOE stock privatized falls to about ¼. Thirteen of these 29 countries have privatized less than 30% of their SOE portfolios; only 6 have divested more than 75%.

Note that most of the 2300 sales were completed by 1997; since then, in line with the worldwide decline in investor interest in emerging markets, the number of privatizations in Africa has fallen below 100 per year.

In contrast, privatization revenues in Italy alone, in the period 1990-2001, totaled $112 bn USD, and even New Zealand—ranking 10th on an OECD list of privatizing states, and with a population of less than 4 million—generated more from privatization in this period than did all 37 African countries. (Source: Mahboobi [2002], 46) Moreover, African privatization revenues may be significantly overestimated; in a number of countries buyers have failed to make payment on transactions already recorded as complete.
Table 1. Privatization record in Africa 1991-2001

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of transactions</th>
<th>Sale Value (US$ mn)</th>
<th>Share of total SOEs divested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>57</td>
<td>6</td>
<td>...</td>
</tr>
<tr>
<td>Benin</td>
<td>28</td>
<td>49</td>
<td>38%</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>23</td>
<td>9</td>
<td>32%</td>
</tr>
<tr>
<td>Burundi</td>
<td>38</td>
<td>4</td>
<td>...</td>
</tr>
<tr>
<td>Cameroon</td>
<td>48</td>
<td>244</td>
<td>28%</td>
</tr>
<tr>
<td>Cape Verde</td>
<td>42</td>
<td>53</td>
<td>...</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>18</td>
<td>...</td>
<td>50%</td>
</tr>
<tr>
<td>Chad</td>
<td>35</td>
<td>12</td>
<td>...</td>
</tr>
<tr>
<td>Congo (Brazzaville)</td>
<td>65</td>
<td>50</td>
<td>...</td>
</tr>
<tr>
<td>Congo (Kinshasa)</td>
<td>5</td>
<td>...</td>
<td>4%</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>82</td>
<td>622</td>
<td>55%</td>
</tr>
<tr>
<td>Etiopia</td>
<td>10</td>
<td>410</td>
<td>6%</td>
</tr>
<tr>
<td>Gabon</td>
<td>1</td>
<td>...</td>
<td>6%</td>
</tr>
<tr>
<td>Gambia</td>
<td>17</td>
<td>2.4</td>
<td>85%</td>
</tr>
<tr>
<td>Ghana</td>
<td>181</td>
<td>936.5</td>
<td>69%</td>
</tr>
<tr>
<td>Guinea</td>
<td>31</td>
<td>45</td>
<td>27%</td>
</tr>
<tr>
<td>Guinea Bissau</td>
<td>25</td>
<td>0.5</td>
<td>64%</td>
</tr>
<tr>
<td>Kenya</td>
<td>189</td>
<td>381</td>
<td>79%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>10</td>
<td>6.5</td>
<td>20%</td>
</tr>
<tr>
<td>Madagascar</td>
<td>61</td>
<td>16.9</td>
<td>33%</td>
</tr>
<tr>
<td>Malawi</td>
<td>11</td>
<td>53.2</td>
<td>44%</td>
</tr>
<tr>
<td>Mali</td>
<td>59</td>
<td>67.4</td>
<td>92%</td>
</tr>
<tr>
<td>Mauritania</td>
<td>19</td>
<td>1.2</td>
<td>20%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>474</td>
<td>135</td>
<td>39%</td>
</tr>
<tr>
<td>Niger</td>
<td>10</td>
<td>1.8</td>
<td>18%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>30</td>
<td>893.5</td>
<td>6%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>1</td>
<td>...</td>
<td>3%</td>
</tr>
<tr>
<td>Sao Tome &amp; Principe</td>
<td>4</td>
<td>0.4</td>
<td>...</td>
</tr>
<tr>
<td>Senegal</td>
<td>39</td>
<td>415</td>
<td>23%</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>8</td>
<td>1.6</td>
<td>31%</td>
</tr>
<tr>
<td>South Africa</td>
<td>8</td>
<td>3151</td>
<td>...</td>
</tr>
<tr>
<td>Sudan</td>
<td>32</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Tanzania</td>
<td>199</td>
<td>287</td>
<td>53%</td>
</tr>
<tr>
<td>Togo</td>
<td>49</td>
<td>38</td>
<td>89%</td>
</tr>
<tr>
<td>Uganda</td>
<td>102</td>
<td>174</td>
<td>79%</td>
</tr>
<tr>
<td>Zambia</td>
<td>253</td>
<td>828</td>
<td>90%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>6</td>
<td>217</td>
<td>10%</td>
</tr>
</tbody>
</table>

| Total                       | 2270                   | 9111.9              | 40%                         |

Sources: This and all other tables based on a compilation and updating of the data bases conducted by Thierry Buchs, IFC, 2002. They are drawn from World Bank Africa Region Privatization Database, World Bank, 2002; WDI database 1991-2000; IMF Staff Country Reports, 1998-2002; and Table 1, CAMPELL WHITE & BHATIA [1998], Appendix A.
Finally, African states have retained significant minority equity stakes in the comparatively few infrastructure privatizations they have concluded, holding back from the market an average of 1/3 of shares. (See Tables 3 and 4, below) Governments claim that retained shares are weapons with which to protect the public interest against rascally or incompetent buyers. Moreover, they often hope to sell the retained shares later at a much higher price, after the new private partner has driven up value. Whether share retention actually achieves these goals is debatable. What is not in doubt is that continued government involvement and share retention reduces the number of bidders and therefore the price per share sold. The slow pace of sales, the reluctance to place the highest-potential assets on the market, the failure to sell all shares, poor business and legal environments, and the deficiencies of government regulation and administration—all combine to place African states in a dead heat with Middle Eastern and North African countries for the title of “region with the least foreign investment in infrastructure privatization.” (See Figure 1)
### Table 3: African Privatizations by Sector, 1991—2001

<table>
<thead>
<tr>
<th>Sector</th>
<th>1991—2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, agroindustry &amp; fisheries</td>
<td>557</td>
</tr>
<tr>
<td>Services, Tourism &amp; real estate</td>
<td>545</td>
</tr>
<tr>
<td>Trade</td>
<td>178</td>
</tr>
<tr>
<td>Energy</td>
<td>38</td>
</tr>
<tr>
<td>Water &amp; utilities</td>
<td>16</td>
</tr>
<tr>
<td>Telecom</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
</tr>
<tr>
<td>Electricity</td>
<td>2</td>
</tr>
</tbody>
</table>

### Table 4: Government’s share of equity before and after privatization

<table>
<thead>
<tr>
<th>Sector</th>
<th>Average Government’s share of equity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing &amp; Industry</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>79.7</td>
</tr>
<tr>
<td>After privatization</td>
<td>7.9</td>
</tr>
<tr>
<td>Agriculture, Agroindustry &amp; Fisheries</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>79.5</td>
</tr>
<tr>
<td>After privatization</td>
<td>1.6</td>
</tr>
<tr>
<td>Services, Tourism &amp; Real estate</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>70.2</td>
</tr>
<tr>
<td>After privatization</td>
<td>14.3</td>
</tr>
<tr>
<td>Trade</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>95.3</td>
</tr>
<tr>
<td>After privatization</td>
<td>3.3</td>
</tr>
<tr>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>97.6</td>
</tr>
<tr>
<td>After privatization</td>
<td>4.9</td>
</tr>
<tr>
<td>Financial</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>86.7</td>
</tr>
<tr>
<td>After privatization</td>
<td>8.2</td>
</tr>
<tr>
<td>Energy</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>88.3</td>
</tr>
<tr>
<td>After privatization</td>
<td>46.5</td>
</tr>
<tr>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>100</td>
</tr>
<tr>
<td>After privatization</td>
<td>12.5</td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>100</td>
</tr>
<tr>
<td>After privatization</td>
<td>33</td>
</tr>
<tr>
<td>Telecoms</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>95.8</td>
</tr>
<tr>
<td>After privatization</td>
<td>42.8</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Before privatization</td>
<td>63.3</td>
</tr>
<tr>
<td>After privatization</td>
<td>10.2</td>
</tr>
</tbody>
</table>

**Total average government’s share of equity before privatization**: 89.1%  
**Total average government’s share of equity after privatization**: 10.3%
Figure 1

Investment in PPI projects by Region, 1990-2001

Source: World Bank, Private Provision of Infrastructure Database, 2002. (The investment tabulated is that in network service industries only—but that is where the bulk of investment goes. LAC refers to Latin America-Caribbean countries; ECA, East Europe-Central Asia; EAP, East Asia-Pacific; SA, South Asia, MENA, Middle East-North Africa, and SSA, sub-Saharan Africa.)

Caution is correct?

Caution on ownership change could be the right policy for Africa. Here’s the argument: Privatization outcomes are heavily affected by the institutional setting in which divestiture takes place. In their haste to correct the quality flaws and financial losses of SOEs, proponents of privatization pushed excessively for rapid ownership change while neglecting or insufficiently emphasizing the institutional foundations on which good privatization must be based. Experience such as Guinea’s shows that privatization is more likely to result in increased efficiency and improved equity outcomes if it is embedded in a set of conceptually appropriate, functioning legal and economic institutions that support and guide market operations. These include: The definition and protection of property rights; contract enforcement and commercial dispute settlement through lawful, peaceful means, or, more broadly, court decisions that are timely and based on the law, not payments; a degree of regulatory capacity; functioning
bankruptcy/insolvency regimes; and a public administration that meets modicum standards of predictability, competence and probity and thus lowers transactions costs. If these institutions are not in place and working, privatization will produce sub-optimal, perhaps negative outcomes.

This notion has risen rapidly to the status of conventional wisdom; indeed, it is getting difficult to find an analysis of privatization that does not attribute to institutional weaknesses any deviation from hoped-for results. But the concept is disturbingly vague and difficult to make sense of operationally. It is unclear as to precisely how these institutions come into being and attain a state of effectiveness. Nor is it clear just which ones are crucial in what particular circumstances, or in what sequence they should be introduced. And while most of these policies/institutions function under the control of the public sector, is it, again, not clear as to what governments, and those that assist them, can do to aid their emergence and enhance their capacity.

What is known? (a) There is a strong association between institutional density and capacity and positive results, in both efficiency and equity terms, of ownership change. (b) Low income countries in general, and African countries in particular, rank low in terms of institutional density and capacity; and (c) the creation and reinforcement of market-supporting institutions, while imperfectly understood, is certainly a slow process. Thus, if African governments are moving cautiously on privatization—particularly infrastructure privatization—in order to buy time to establish the needed institutional and regulatory frameworks, this could be a logical and positive step.

This is a large “if.” To date, it would appear that few African states have used the time gained through slow privatization to attack effectively the problem of deficient institutions—or if they have, the results are not yet visible. (On the contrary, as is shown below in the case of Zambia, delaying privatization has sometimes resulted in further financial and asset erosion.) Admittedly, results would be hard to assess: Practitioners possess little in the way of operational guidelines concerning the minimal level of institutional density or capacity a state should possess before considering
ownership change. And the standards by which to measure institutional effectiveness are embryonic and general. As Shirley (2003, 1) notes, “…over time the development paradigm has shifted from ‘get your prices right’ to ‘get your institutions right;’ the latter instruction has proved as useless as the former.”

One reason for this is that inaction on SOE reform sometimes reflects not simply lack of expertise, resources or institutional capacity, but rather intent, spurred by political hostility to privatization. As noted (see above, footnote 6), African intellectuals and officials have long been educated to view the public sector as the promoter and defender of indigenous interests, and to believe that privatization will empower and enrich foreigners. African trade unions and workers’ representatives are generally opposed to privatization, fearing it will result in the loss of jobs, or worsen terms of service. Many African (and European, Asian and Latin American) politicians and public officials reap material and prestige benefits from SOEs, in the form of loans, gifts, transport, housing, board memberships, future jobs for themselves, present jobs for friends, relatives and supporters, procurement kick-backs, and much else. Domestic private sectors often have cozy supply relationships with SOEs that could be threatened by the arrival of more aggressive, quality-conscious, cost-cutting private owners. In short, there are many powerful groups in all African states that have material reasons to delay, dilute or

---

10 A step in this direction, for one important sector at least, is found in Newbery (2001): He lists the policy, regulatory and institutional requisites for electricity privatization to be effective. In their absence “…reform of the….state-owned ESI to improve autonomy, accountability, and financial viability, may be the only option. The fact that such reforms have failed in the past does not make it wise to encourage irreversible reforms of unproven worth, and privatisation in unpropitious circumstances may be even more costly than the unsatisfactory status quo.” (pp. 43-4) No African case is discussed in Newbery’s paper. See also Sachs, Zinnes and Eilat, who argue that in transition states, at least, ownership change must be accompanied by a threshold level of what they termed “agency-related” institutional reforms of the type listed above. If this modicum level of contracting and incentive reforms is not present, then ownership change may produce no or even negative effects. Conversely, institutional change by itself is also insufficient to generate economic performance improvements “unless enough change-of-title privatization has already occurred.” (p. 54)

11 Rodrik, Subramanian and Trebbi (2002) argue that “the quality of institutions ‘trumps’ everything else” in explaining economic development outcomes. But they note that the argument is at such a high level of abstraction as to provide little or no guidance to policymakers.

12 At time of writing, among many examples that could be given, COSATU—the trade union organization in South Africa—has recently held public demonstrations to protest all past and planned privatizations, and the Zambian trade union congress has held protest marches and called on government to rescind its decision to privatize the Zambian National Commercial Bank, and to halt preparations for privatization in the electricity and telecommunications sectors.
sabotage SOE reform, privatization in particular. Of course, they make their case not by complaining about potential harm to their material interests, but rather by pointing to perceived economic, financial and social shortcomings of privatization. On what grounds do they make their case?

III. Post-privatization Performance

Rigorous assessments of privatization are increasingly available in Latin American, transition, OECD and Asian countries. Such studies are relatively rare in Africa\textsuperscript{13}—though, as shown below, the few that exist generally present a positive picture of privatization’s achievements, particularly in the manufacturing, industrial and service sectors. First, the critics’ indictment of privatization; this is necessarily somewhat anecdotal in nature.

\textit{Con}...

To illustrate with a single important case, officials in Zambia are reportedly thinking of halting and perhaps reversing their privatization program—one of the most extensive in Africa in terms of number of transactions, proceeds generated, and percentage of SOE portfolio divested\textsuperscript{14} (see Tables above), and a program that in 1998 was hailed by the World Bank as “the most successful” in Africa. (Campbell-White and Bhatia, 1998, 111) But four years later, many Zambians clearly perceive privatization as almost entirely negative, and they are putting pressure on government to rethink the policy. Privatization is alleged to have:

- been imposed and micromanaged by the IFIs, without sufficient attention to requisite policy or regulatory frameworks, and with minimal involvement of Zambian citizens,

- resulted in the closure of many firms previously run by Zambians (there is particular resentment that many that continued or reopened are in the hands of foreigners, particularly South Africans),

---

\textsuperscript{13} “Monitoring and evaluation have largely been ignored; hence the paucity of data on—and the difficulty of judging—the progress and impact of privatization to date.” Campbell-White and Bhatia. (1998, 125)

\textsuperscript{14} Though in value terms, many of the firms sold (outside the copper sector) have been small; the big companies are only now being prepared for sale.
• added greatly to unemployment—and thus poverty and inequality—at a time when job opportunities are declining drastically,

• increased the incidence of corruption (there is widespread suspicion that the proceeds from sales have been unreported and misused), and in general

• benefited the rich, the foreign, the agile and politically well-connected (see Craig, 2000) at the expense of the poor, the domestic, the honest and the unaffiliated—as illustrated by the allegation that new private owners extract subsidies and tax concessions from government.

Zambians claim that the IFIs were originally uninterested in assisting them to deal with the negative social effects of privatization (severance packages, retraining schemes, monitoring contractual obligations of new owners), and that even now they only pay serious attention to such matters when they are expressly involved in a specific transaction; i.e., when the World Bank’s private sector affiliate, the IFC, is one of the investors/purchasers, or when an IMF condition mandates movement on the sale of a major firm.

The sentiments of Zambian opinion-makers toward liberalization in general, and privatization in particular, are summarized in an editorial in *The Post* (of Lusaka; 11.28.02):

The hardships Zambians are going through are primarily a consequence of ... neoliberalism and neoliberal globalization. ... While it cannot be denied that corruption, extravagance and lack of priorities have considerably aggravated the situation, we shouldn’t forget that these factors are a product of this whole system - they are inherent problems of these policies. These IMF and World Bank policies breed corruption, extravagance and lack of priorities in our leaders and indeed our people. ... And despite having liberalized its markets, as dictated by the IMF and the World Bank, Zambia has still not started benefiting from it. What our country needs now is to think through its strategies and that primarily involves freeing itself from the IMF and World Bank indirect rule and start to direct the affairs of this country in the best interests of our people, and not the major shareholders of these institutions. Why should we privatize Zambia National Commercial Bank, Zesco Limited (electricity) and Zamtel (telecommunications) simply because the IMF and the World Bank want us to do so even when the great majority of Zambians are opposed to it because they
believe it is not in their best interest? ... The success of IMF and World Bank policies over any alternative model of social development is a matter of propaganda than fact. If humans prevail, alternative policies to the IMF and World Bank’s programs will be found and implemented. The main thing is to have a political leadership that has a clear understanding of today’s neoliberal world and can stand firm.

This encapsulates the views, prevalent in Zambia and widespread in Africa as a whole, that privatization has been forced upon Zambia by the IFIs, not produced the economic benefits it was supposed to deliver—and indeed imposed substantial costs—and increased the level of corruption. Are these allegations accurate?

Pro...

In 2001, the Zambian Privatization Agency commissioned a study to assess the effects of privatization. It found that 235 of the 254 firms privatized since 1991 continued in operation at the time of the study; not a bad achievement given the very poor financial state of these enterprises prior to divestiture, and the dismal business environment prevailing in the country throughout the 1990s. In terms of numbers of sales, 57 % of the buyers were Zambian citizens, and an additional 13 % were joint ventures between Zambians and foreigners; the remaining 30 % of sales were to foreigners (many of whom had been minority equity partners in SOEs and who held, and exercised, pre-emptive rights on the sales of shares). However, by value, Zambians account for just 5 % of sales, joint ventures 83 % and totally foreign purchasers 12 %. A scheme to “warehouse” a minority stake of shares in privatized firms and float them later to Zambian buyers has had but minimal success. Some of the most visible firms, such as the breweries, went to South African owners (who have turned them into profitable ventures).

A prime rationale for privatization is the inability of government to access investment capital for renewal and expansion of SOEs: In the non-mining firms reviewed, post-privatization capital expenditures totaled more than $400 million USD. Nineteen firms, or 7.5 % of those privatized, closed following privatization, a fact much
lamented in Zambia—though a 7.5% failure rate is less than small and medium business failure rates in most advanced industrial economies. Seven of the 19 subsequently resumed operations after being re-sold, and similar efforts were underway in an additional five—leaving only seven firms definitively closed.\footnote{Three of the closed firms had long been non-operational prior to sale.} And a number of company closures sometimes cited as evidence of the failure of privatization were either firms that had always been private, or SOEs.

In the privatized non-mining firms, employment declined from 28,000 at time of privatization\footnote{It is likely that there had been reductions in employee numbers prior to privatization, as part of reforms or in preparation for sale. In many countries around the world, the largest layoffs come well before a change of ownership. Thus, comparing employee numbers at the moment of privatization to some later point may underestimate the downsizing that occurred.} to 20,000 in 2001, a comparatively large percentage, but a small number in absolute terms. Most of the decline took place immediately following divestiture and was concentrated in a few large firms in agro-industry. Workforce expansions occurred in several firms.

There is less clarity and far more controversy about the fate of the 34,000 workers employed in the privatized mining sector. A highly publicized and troubling issue for the privatization program is that two large mines—Luanshya and Baluba—were sold to a bidder who agreed not to dismiss any of the 7,000 workers. The parent mining SOE, ZCCM,\footnote{Itself subsequently privatized.} had assessed that up to 3,000 of these workers would be redundant under any reasonable business plan, but had lacked the funds to make the required severance payments. It therefore accepted a bid based on the dubious premise that the entire workforce could be maintained. Shortly following transfer of title, the new owner dismissed 3,000 workers. Under Zambian law private owners are responsible for termination benefits of workers dismissed after sale; in this case the new owner has failed to make the required payments. Subsequently, the firm went out of business entirely, and the residual 4,000 workers are now in the same boat as the previously laid-off 3,000. Understandably, worker and public reaction has been severely critical.
Overall, it is clear that employment in the mining sector has decreased by at least 7000 workers or 20%. Assuming that the dismissal rate in the other affected mines was equal to that in the non-mining sector (28.5%), this would amount to an additional 7700 layoffs, and a total reduction of workers in the privatized mining sector to around 19,000—and the fate of 10,000 of the remainder is in doubt, given the decision by Anglo-American, in January of 2002, to pull out of the ZCCM copper mining operations it had purchased in 1999.

A digression is in order to sketch the sad story of copper in Zambia in the last decade. The highlights are: a persistent and precipitous fall in world copper prices, a deep and costly politicization of the management and employment/procurement practices of the firm while an SOE; no investment in the sector for years prior to its sale; all this leading to Zambian production costs being among the highest in the world—resulting in losses on average of $15 million USD per month over the past five years of its existence as an SOE. Discussions to privatize the sector began in 1991, but despite supposedly powerful donor prodding, nothing substantial was sold until 1999. The first serious effort to sell came in 1996-97. A fairly firm $1 billion USD offer (counting promised investments) was on the table from a consortium of experienced copper firms. But responsibility for the transaction was removed from the respected Zambian Privatization Agency and handed over to a team of mine managers and former managers, many of whom had long opposed privatization. They rejected the offer and asked for much more, based on a book value calculation of the assets; the bidders walked away. Following two years of further asset deterioration and large losses the mines were sold for much less than what had been offered in 1997. And no one seems to know if there were any cash proceeds from the eventual sales, or what happened to them if they did exist. (African Business, 2000)

18 Copper traded at close to $7000 a ton in 1966 and averaged above $3000 a ton until the mid-1990s; current prices are between $1450 and $1600 a ton.
19 The IFIs cannot win; they are blamed both for rushing the sale and delaying it. When asked why the sale took so long a Zambian mining official said that it was the fault of the donors; their pressure on government to sell led bidders to “sit and wait until they feel the price is right.” (Africa Business, 2000, 2)
20 It is conceivable that there were no proceeds from these transactions. The costs of financial clean up and severance payments (even where they were correctly handled) might have matched or exceeded all
Perhaps the counterfactual would have been worse? To repeat, the privatized firms, outside the severely depressed copper sector, have done quite well, almost certainly far better than they would have had they remained under government ownership—and this in a time of severe economic downturn in Zambia. In the mining sector, no one can defend the Luanshya/Baluba sale. But even the low-price and subsequently cancelled take over of the other ZCCM mines by Anglo-American has resulted in substantial investments that government would never have been able to make. One can argue that perhaps these investments will serve as a foundation on which a subsequent owner can make the venture profitable (though clearly that was not the view of the highly experienced Anglo-American, which appears to have decided not to throw good money after bad).

Overall, the argument that any reasonable counterfactual would have resulted in inferior outcomes is fairly persuasive in the case of small and medium firms producing tradable goods—but much less convincing when large, relatively valuable firms are at issue. Certainly, the copper sector had been grossly mismanaged under state ownership, but it is evident that the privatization of the sector was poorly handled, both economically and socially. Zambians thus have legitimate reason to fear that the upcoming privatizations of major infrastructure firms could go wrong, given the non-transparent, efficiency and revenue decreasing manner that large firms have been divested in the past. An anti-privatization argument of despair once made in Russia may apply in the Zambian case: Retaining firms in state hands means that any positive flow of resources generated will likely be largely siphoned off or wasted, depending on whether the managers and supervisors are venal or incompetent (or both). But privatization may be worse, as the revenues. But in the absence of a proper accounting the public is given license to speculate that not only these transactions were corrupt, but all others as well. (The IMF [2000] calculates, for 18 privatizing countries, that gross proceeds amount, on average, to 2% of GDP, while net proceeds [gross minus costs of advisers, financial clean up, worker dismissals] amount to half this number.)
lack of legal safeguards allows new owners to steal not simply the flow, but the entire stock of the firm.21

Finally, a nagging doubt: Is this problem “institutional” or “political” in nature—and what’s the difference? In line with the emerging conventional wisdom, institution building did precede ownership change in Zambia, as evidenced by the high marks given the personnel, policies and procedures of the Zambian Privatization Agency, and the relative lack of contentious sales carried out by this body. The major problem seems to have been the decision to remove the sales of the mining firms from the purview of the agency, a decision that was political in nature. Some would argue that poor or corrupt political decisions are themselves “institutional shortcomings.” This maintains the conceptual unity of the institutional argument, but at the cost of enlarging yet again an already too vast and unwieldy subject. And in practical terms, while one might make a case for retaining infrastructure firms in state hands pending the development of a modicum of regulatory capacity, the same can hardly be said for retention until the quality of sound political decision-making reaches some acceptable level. The point is to reiterate unease with the institution-building argument and approach.

Other African countries...
Is the Zambian case typical? Regarding the crucial issue of transparency, Table 5 presents the type and incidence of privatization methods employed in Africa. While no method is guaranteed to be free of manipulation and corruption, some methods are more transparent than others. The sale of shares through a public floatation is generally thought to be about the most transparent sales approach; but it has rarely been applied in Africa (outside of Nigeria and South Africa) in part because of the thin or embryonic nature of capital markets in most countries. Other methods can be designed to be competitive and transparent, such as tenders. But the ultimate transparency of the tender method depends on the honesty and competence of its administrators, to a greater extent than stock issuing. One cannot systematically link the method applied to the size or importance of
the relevant firm (though it is likely that only large firms were sold through public floatation).

Table 5: Methods of Privatization (1991-2001)

<table>
<thead>
<tr>
<th>Method of divestiture</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares sold on Competitive Basis</td>
<td>728</td>
</tr>
<tr>
<td>Asset sold on a competitive basis</td>
<td>454</td>
</tr>
<tr>
<td>Liquidation</td>
<td>386</td>
</tr>
<tr>
<td>Shares sold to Existing Shareholders with Pre-emptive Rights</td>
<td>158</td>
</tr>
<tr>
<td>Lease</td>
<td>104</td>
</tr>
<tr>
<td>Direct sale of shares (i.e. non-competitive)</td>
<td>94</td>
</tr>
<tr>
<td>Shares sold through public floatation</td>
<td>69</td>
</tr>
<tr>
<td>Not specified</td>
<td>48</td>
</tr>
<tr>
<td>Restitution to former owner</td>
<td>47</td>
</tr>
<tr>
<td>Management contract</td>
<td>42</td>
</tr>
<tr>
<td>Management/Employee Buyout</td>
<td>33</td>
</tr>
<tr>
<td>Direct sale of assets (i.e. non-competitive)</td>
<td>29</td>
</tr>
<tr>
<td>Joint-venture</td>
<td>28</td>
</tr>
<tr>
<td>Free transfer of assets</td>
<td>12</td>
</tr>
<tr>
<td>Transfer to Trustee</td>
<td>11</td>
</tr>
<tr>
<td>Debt-Equity Swap</td>
<td>10</td>
</tr>
<tr>
<td>Concession</td>
<td>8</td>
</tr>
<tr>
<td>JV(D)</td>
<td>5</td>
</tr>
<tr>
<td>Lease /Management contract</td>
<td>2</td>
</tr>
<tr>
<td>Merger</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2270</strong></td>
</tr>
</tbody>
</table>

Buchs (2002) estimates in Table 6 the countries where obviously less transparent methods have accounted for a significant minority of sales. The numbers are sufficiently large to raise concerns, though no firm conclusions can be drawn.

Table 6: Countries in which uncompetitive methods reached 20% of total transactions (% of transactions)

<table>
<thead>
<tr>
<th>Country</th>
<th>Direct sale of assets</th>
<th>Direct sale of shares</th>
<th>Preemptive rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cote d’Ivoire</td>
<td>8.5%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Gambia</td>
<td></td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>5%</td>
<td>4%</td>
<td>9%</td>
</tr>
<tr>
<td>Kenya</td>
<td>2%</td>
<td></td>
<td>51%</td>
</tr>
<tr>
<td>Malawi</td>
<td></td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Sao Tome</td>
<td></td>
<td>25%</td>
<td></td>
</tr>
</tbody>
</table>

A similar argument was advanced in Kenya in January of 2000; several MPs and opinion-makers interviewed said they deplored the inefficiencies and rampant corruption in the major SOEs, but feared that privatization would only enlarge and entrench theft and mismanagement.
Better news...

Summarizing other studies of African privatizations: Boubakri and Cosset (2002) looked at 16 privatizations on the continent of Africa (none in Zambia). Profitability rose and efficiency fell, both by slight percentages. Neither of these shifts was statistically significant, but there was a significant increase in capital expenditures in the divested firms.22

Jones, Jammal and Gokgur (1998) analyzed 81 privatizations in Côte d'Ivoire, covering the electricity sector in infrastructure with the rest operating in competitive or potentially competitive markets (in agriculture, agro-industries, and services). They found: (i) Firms performed better after privatization; (ii) they performed better than they would have had they remained under public ownership; and (iii) privatization contributed positively to economic welfare, with annual net welfare benefits equivalent to about 25 percent of pre-divestiture sales. These significant benefits stemmed from increases in output, investment, labor productivity, and intermediate-input productivity.

Appiah-Kubi (2001) reviewed 212 privatizations in Ghana, and reported positive results, in terms of: easing pressure on the balance of payments, increases in both allocative and x-efficiency, stimulation of local capital markets, enhancing the inflow of FDI, widespread quality gains for consumers, and increased employment and remuneration post-sale (though increases in jobs after privatization had not yet matched the cuts in worker numbers made prior to divestiture). Andreasson (1998) assessed privatization’s impact in Mozambique and Tanzania and found positive changes in operating and financial performance of the divested firms. In both countries many commercial state firms had ceased operation before divestiture was contemplated; in both countries, three-fourths of such firms returned to productive activity following privatization. Substantial productivity gains were noted, due partly to reductions in the

22 The Boubakri/Cosset findings are of limited utility to this study since 10 of the 16 transactions analyzed took place in Morocco and Tunisia, and not in sub-Saharan Africa.
workforce, but also because of improved utilization of capacity. In most cases, investments, production, sales and value added increased sharply post-sale. “The overriding conclusion … is that performance of privatized companies has met and even surpassed expectations.” (10)

Temu and Due (1998 and 2000) also reviewed Tanzania’s privatization experience and examined in detail post-sale performance in a set of firms. Of the 158 firms divested through 1999, 136 (34 % of the pre-privatization universe of 395 SOEs) had been sold, 115 closed or liquidated; an additional 24 firms had been leased, 8 placed under management contracts, and the rest were yet to be divested. By number, more than two-thirds of sales went to Tanzanian nationals; more than half of these “indigenous” or African buyers; the remainder, presumably, Tanzanian citizens of Asian descent. South African firms (De Beers, South African Breweries, R. J. Reynolds Tobacco SA) featured prominently as purchasers of the larger value firms. In their 1998 study, Temu and Due documented the extremely poor physical and financial condition of Tanzanian manufacturing firms prior to privatization, and the tortuous, lengthy negotiations—often lasting years—between potential buyers of even the most wasted assets and an endless line of officials; they termed it “privatization by exhaustion.” They concluded that privatization “has increased government revenues, reduced subsidies to SOEs, and … forced firms to operate more efficiently.” (339) In their second study (2000) they noted employment levels in 16 privatized firms examined decreased by 48 %. (327)

In infrastructure, Wallsten (1999) examined econometrically the effects of privatization, competition enhancement and regulation in telecommunications reform in 30 countries, half of them in Africa, the rest in Latin America. Enhanced competition produces the clearest, most positive effects. Ownership change by itself “does not appear to generate many benefits,” but does so when combined with separate and independent regulation. These are summary conclusions, not disaggregated by region. The data require careful interpretation: “….the finding that privatization is negatively correlated

23 For example, the Morogoro Shoe Company, built—with IFI assistance—to produce 4 million shoes annually, 80% for export, “never reached more than 4% of installed capacity.” (320)
with the number of main lines….could arise because countries are more likely to privatize their incumbent telecom provider when service is poor....” (14) It may not be that privatization caused performance to weaken, as suggested by the regression, but rather that the weakest telecommunication firms were the ones to be privatized.

More positively, Ménard and Clarke (2002, a) conclude that despite the evident problems of private provision of water in Guinea, “…all parties have benefited from reform...(as)….increased coverage and improved quality more than compensated consumers for higher prices.” (274)24 A definitive judgment depends on what would have happened in the absence of private involvement: Ménard and Clarke argue that the situation would have been worse had water management remained in public hands. They reach even more upbeat conclusions concerning private provision of water in Abidjan, Ivory Coast (Ménard and Clarke, 2002, b), where 30 years of private activity has resulted in very high levels of coverage—despite rapid population growth—an excellent quality of water and service, and declining prices for all consumers. Areas of concern are the decline of competitive bidding, the likelihood that the average price per m³ could easily be even lower, and the fear that the flexible collaboration between government and private provider that lay at the heart of the Ivorian success in this venture will be destroyed by the political instability in the country since 1999.

IV. What is to be done?

The first conclusion is that privatization of manufacturing, industrial and service sectors, and especially the small and medium firms in these sectors, should proceed apace. The empirical record on the effects of privatization in Africa is not as dense and robust as it is in other regions. Still, accumulating evidence suggests that firms producing tradables do more for the shareholders, consumers, taxpayers and economy in private hands they than ever did under public ownership. A surprising amount of assets of this type remains in state hands in Africa; it should be divested without delay.
Utilities and infrastructure, banks, railroads, and the large natural resource producers are the tougher cases. The dilemma is evident: Retaining them in classic SOE form means more poor service and financial losses; privatizing them incorrectly can be economically and politically problematic. Wallsten’s important conclusion regarding telecommunications divestiture—ownership change *per se* does not produce efficiency gains, but ownership change combined with separate and independent regulation does—must certainly apply to electricity and water and sewerage, given the lack in these sectors, compared to telecommunications, of technological change facilitating competition.

Thus, the medium- to long-term solution is to create and reinforce the institutional mechanisms that guide and regulate sales and market operations. Institutional improvements are required if African markets are to attract and retain good investors to manage, finance and own infrastructure services in ways that are beneficial to society while yielding a decent return on the capital and expertise expended. So, “institution building” programs—to enact the policy framework for and build implementation capacity in sales, regulatory and competition promotion agencies, to train the individual sellers and regulators, to empower and then isolate monitoring and enforcement agencies from political interference, to render contracts enforceable; all this would seem to be desirable. There is already much underway in these fields in Africa, most of it supported by the donor community. An examination of past initiatives to determine which were the more effective, why and under what circumstances, with suggestions on how to replicate the successful, might be of use.

Should this be the main thrust of reform efforts is questionable? Perhaps not. First, as the Guinea water case indicates, some infrastructure privatizations, in even the least auspicious institutional settings, have produced results far superior to the SOEs that preceded them. It is unlikely that the benefits of holding off on the privatization until

---

24 Recent studies of privatization of infrastructure in Latin America also conclude that the benefits of increased access to these services post-sale outweigh the costs imposed on consumers by price increases. (McKenzie and Mookherjee, 2002)
25 Mirroring that of Sachs, Zinnes and Eilat.
Guinean regulatory capacity was enhanced would outweigh the costs of poor SOE performance. Second, the long record of poor accomplishments in the area of institutional reform cannot be ignored. Nor can the ease with which substantive institutional achievements, such as the Zambian Privatization Agency, can be overturned or ignored at the drop of a political hat. Over the last few decades donors and African governments have launched numerous institution-building, technical assistance, regulatory policy and capacity, and public sector management reform efforts, the positive and enduring results of which are hard to find. They are not invisible, but they are certainly modest and often ephemeral. On the reasoning that the impact of present and future institution building efforts will resemble those of the past, and noting that even in the rare instances where positive institutional change has been effected it has taken ages to produce, I conclude that interim and innovative measures are needed to advance private participation in infrastructure provision.

Some possibilities:

1. **Outsource institutional provision**, for example by contracting regulatory conception and monitoring activities from skilled outsiders. This was successfully carried out (prior to the escalation of violence) in the case of the Palestinian Water Authority in Gaza, in a situation of extraordinary institutional and political difficulty.

   In 1996, a private firm was awarded a four-year management contract to handle water and sanitation services. Payment was in two parts: a set fee, and a bonus payment based on the achievement of stipulated performance targets. The provider agreed to submit periodic performance reports, on which the additional payment would be based. The Palestinian Authority lacked the capacity to monitor the contract and especially the performance reports of the private provider.

   The solution, funded by donors, was to hire Deloitte and Touche, Norway, to assess the technical and financial performance of the private provider. Every six months D & T reviewed the provider’s performance reports, verified their accuracy, and
confirmed or disputed the performance score. By 1998 water service had improved considerably (consumption and revenues way up, system losses way down, water quality vastly improved). Outsourcing of regulation reportedly worked well; in its first report the private provider claimed a performance payment of $498,000 USD, but the D & T auditors disputed several results, and the amount was lowered to $444,000. (Saghir, Sherwood and Macoun, 1999)

2. A variation on this theme is: **Use private firms to carry out administrative functions that impede investment and privatization, and harm the general business environment.** For example, British Crown Agents have been contracted to handle procurement on a range of government contracts in a number of low-income countries, including Bolivia and Mozambique. This should speed the contracting process and save money by lowering transaction costs and side payments.26

3. **Promote offshore commercial arbitration mechanisms;** e.g.; several small island states in the Caribbean use British courts to arbitrate contractual disputes between governments and private providers.

4. **Use respected NGOs, such as Transparency International, to vet transactions and certify the probity of the sales process,** as has been done for example in a telecommunications license auction in Slovakia.

5. **Use IFI guarantees to give comfort to investors regarding regulatory and contractual risk.** For example, the World Bank offers investors partial risk guarantees insuring against sovereign, political and regulatory risks; e.g., state failure to meet payment obligations, disallowance of stipulated tariff hikes, expropriation, legal changes with adverse material effects on the investor, availability and convertibility of foreign exchange, etc. Partial risk guarantees in
Ivory Coast and Uganda infrastructure privatizations have helped to mobilize financing and co-financing, lengthened maturities far beyond prevailing market terms, and significantly reduced interest spreads. Since the guarantee backstops only the contractual agreements states make with investors, governments incur no additional contingent liabilities. Fees for the guarantee are born by the investors. (Gupta et al., 2002)

6. To address the problem of small or deficient equity markets, the use of regional exchanges should be encouraged.

Finally, the external private sector might assist by offering guidelines on transparent procedures on the part of investors in privatization transactions, or more simply, by subscribing to, endorsing and help promulgating the promising “Business Principles for Countering Bribery” initiative of Transparency International.

Outsourcing and the reliance on such external measures could, indeed should produce positive effects. But they will be politically sensitive or outrightly unacceptable to many in Africa, who are likely to regard them as further infringements of sovereignty, or further suggestions of African incompetence. Even if accepted, these are at best temporary, stopgap measures. The real answer lies in the internal evolution of the institutional and political frameworks, a process—to hammer home the point—that is not well understood but is, at the very least, time consuming. Donors can cajole and help, as they have done in Guinea and Gaza and elsewhere, but their effectiveness is less than the

26 There are no panaceas: A Swiss firm—SGS Holdings—contracted to handle some aspects of the corruption-ridden customs service in Pakistan is alleged to have bribed government officials in return for the contract, thus tainting the idea of outsourcing.
27 There is a cost in that the amount available for lending from the World Bank (or IDA) to the country is reduced by the amount guaranteed. That is, the sum guaranteed is nominally recorded as a World Bank loan. The country pays no fee and makes no payments (unless the guarantee is called and the Bank has had to pay the investor).
28 Launched in December 2002, with the assistance of a number of private firms including General Electric, Shell International and Rio Tinto, the principles “provide a framework for good business practices and risk management strategies for countering bribery.” The summary document lists the areas where bribery and corruption are most prevalent in business operations—outright bribes, political contributions, charitable contributions and sponsorships, facilitation payments, gifts, hospitality and expenses—and states clearly the actions that participating firms will eschew. (Transparency International, 2002)
eternally optimistic statements they issue would lead one to think. The African privatization dilemma, at least for the largest, higher potential firms, is unresolved.

www.swedevelop.com


No. 1, January 2002  
*Inequality Does Cause Underdevelopment: New Evidence*, William Easterly

No. 2, January 2002  
*HIV/AIDS and the Accumulation and Utilization of Human Capital in Africa*, Amar Hamoudi and Nancy Birdsall

No. 3, February 2002  
*External Advisors and Privatization in Transition Economies*, John Nellis

No. 4, March 2002  
*The Cartel of Good Intentions: Bureaucracy versus Markets in Foreign Aid*, William Easterly

No. 5, April 2002  
*Intellectual Property and the Availability of Pharmaceuticals in Developing Countries*, Jean O. Lanjouw

No. 6, May 2002  
*Winners and Losers: Assessing the distributional impacts of privatization*, John Nellis and Nancy Birdsall

No. 7, May 2002  
*Commodity Dependence, Trade, and Growth: When ‘Openness’ is Not Enough*, Nancy Birdsall and Amar Hamoudi.

No. 8, June 2002  
*Financial Crises and Poverty in Emerging Market Economies*, William Cline

No. 9, August 2002  

No. 10, Sept. 2002  
*Solutions when the Solution is the Problem: Arraying the Disarray in Development*, Lant Pritchett and Michael Woolcock

No. 11, October 2002  
*What did structural adjustment adjust? The association of policies and growth with repeated IMF and World Bank adjustment loans*, William Easterly

No. 12, October 2002  
*Asymmetric Globalization: Global Markets Require Good Global Politics*, Nancy Birdsall

No. 13, October 2002  
*Low Investment is not the Constraint on African Development*, Shantayanan Devarajan, William Easterly, Howard Pack
<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>October 2002</td>
<td>An Index of Industrial Country Trade Policy toward Developing Countries</td>
<td>William R. Cline</td>
</tr>
<tr>
<td>16</td>
<td>October 2002</td>
<td>Do As I Say Not As I Do: A Critique Of G-7 Proposals On Reforming The MDBs</td>
<td>Devesh Kapur</td>
</tr>
<tr>
<td>17</td>
<td>October 2002</td>
<td>Policy Selectivity Foregone: Debt and Donor Behavior in Africa</td>
<td>Nancy Birdsall, Stijn Claessens and Ishac Diwan</td>
</tr>
<tr>
<td>18</td>
<td>November 2002</td>
<td>Private Sector Involvement in Financial Crisis Resolution: Definition, Measurement, and Implementation</td>
<td>William R. Cline</td>
</tr>
<tr>
<td>19</td>
<td>December 2002</td>
<td>Do Rich Countries Invest Less in Poor Countries Than the Poor Countries Themselves?</td>
<td>Michael A. Clemens</td>
</tr>
<tr>
<td>20</td>
<td>December 2002</td>
<td>World Bank capital neither complements nor substitutes for private capital</td>
<td>Michael A. Clemens</td>
</tr>
<tr>
<td>21</td>
<td>December 2002</td>
<td>From Social Policy to an Open-Economy Social Contract in Latin America</td>
<td>Nancy Birdsall</td>
</tr>
<tr>
<td>22</td>
<td>January 2003</td>
<td>Global Economic Governance and Representation of Developing Countries: Some Issues and the IDB Example</td>
<td>Nancy Birdsall</td>
</tr>
<tr>
<td>23</td>
<td>February 2003</td>
<td>The Millennium Challenge Account: How much is too much, how long is long enough?</td>
<td>Michael A. Clemens and Steve Radelet</td>
</tr>
<tr>
<td>24</td>
<td>February 2003</td>
<td>Bootstraps Not Band-Aids: Poverty, Equity and Social Policy in Latin America</td>
<td>Nancy Birdsall and Miguel Szekely</td>
</tr>
</tbody>
</table>
NOTE DI LAVORO DELLA FONDAZIONE ENI ENRICO MATTEI
Fondazione Eni Enrico Mattei Working Paper Series

Our Note di Lavoro are available on the Internet at the following addresses:
http://www.feem.it/Feem/Pub/Publications/WPapers/default.html
http://www.repec.org

NOTE DI LAVORO PUBLISHED IN 2004

IEM 1.2004 Anil MARKANDYA, Suzette PEDROSO and Alexander GOLUB: Empirical Analysis of National Income and So2 Emissions in Selected European Countries
ETA 2.2004 Masahisa FUJITA and Shlomo WEBER: Strategic Immigration Policies and Welfare in Heterogeneous Countries
PRA 3.2004 Adolfo DI CARLUCCIO, Giovanni FERRI, Cecilia FRALE and Ottoman RICCHI: Do Privatizations Boost Household Shareholding? Evidence from Italy
ETA 4.2004 Victor GINSBURGH and Shlomo WEBER: Languages Disenfranchisement in the European Union
PRA 7.2004 Sandro BRUSCO, Giuseppe LOPOMO and S. VISWANATHAN (lxv): Merger Mechanisms
PRA 8.2004 Wolfgang AUSSNEG, Pegaret PICHLER and Alex STOMPER (lxv): IPO Pricing with Bookbuilding, and a When-Issued Market
PRA 9.2004 Pegaret PICHLER and Alex STOMPER (lxv): Primary Market Design: Direct Mechanisms and Markets
PRA 11.2004 Bjarne BRENDSTRUP and Harry J. PAARSCH (lxv): Nonparametric Identification and Estimation of Multi-Unit, Sequential, Oral, Ascending-Price Auctions With Asymmetric Bidders
PRA 12.2004 Ohad KADAN (lxv): Equilibrium in the Two Player, k-Double Auction with Affiliated Private Values
PRA 13.2004 Maarten C.W. JANSEN (lxv): Auctions as Coordination Devices
PRA 14.2004 Gadi FIBICH, Arieh GAVIOUS and Aner SELA (lxv): All-Pay Auctions with Weakly Risk-Averse Buyers
PRA 15.2004 Orly SADE, Charles SCHNITZLEIN and Jaime F. ZENDER (lxv): Competition and Cooperation in Divisible Good Auctions: An Experimental Examination
CCMP 16.2004 Marta STRYSZOWSKA (lxvii): Late and Multiple Bidding in Competing Second Price Internet Auctions
NRM 17.2004 Angelo ANTOCI, Simone BORGHESI and Paolo RUSSU (lxvi): Biodiversity and Economic Growth: Stabilization Versus Preservation of the Ecological Dynamics
SIEV 18.2004 Anna ALBERINI, Paolo ROSATO, Alberto LONGO and Valentina ZANATTA: Information and Willingness to Pay in a Contingent Valuation Study: The Value of S. Erasmo in the Lagoon of Venice
NRM 20.2004 Jacqueline M. HAMILTON (lxvii): Climate and the Destination Choice of German Tourists
NRM 22.2004 Jean-Jacques NOWAK, Mondher SAHLI and Pasquale M. SGRO (lxvi): Tourism, Trade and Domestic Welfare
NRM 23.2004 Pius ODUNGA and Henk FOLMER (lxvi): Profiling Tourists for Balanced Utilization of Tourism-Based Resources in Kenya
NRM 24.2004 Jean-Jacques NOWAK, Mondher SAHLI and Pasquale M. SGRO (lxvii): Tourism, Trade and Domestic Welfare
NRM 26.2004 Juan Luis EUGENIO-MARTÍN, Noelia MARTÍN MORALES and Riccardo SCARPA (lxvii): Tourism and Economic Growth in Latin American Countries: A Panel Data Approach
NRM 27.2000 Raúl Hernández MARTÍN (lxv): Impact of Tourism Consumption on GDP. The Role of Imports
NRM 29.2004 Marian WEBER (lxvii): Assessing the Effectiveness of Tradable Landuse Rights for Biodiversity Conservation: an Application to Canada’s Boreal Mixedwood Forest
NRM 30.2004 Trond BJORNDAL, Pbohe KOUNDOURI and Sean PASCOE (lxvi): Output Substitution in Multi-Species Trawl Fisheries: Implications for Quota Setting
CTN 33.2004 Wilson PEREZ: Divide and Conquer: Noisy Communication in Networks, Power, and Wealth Distribution
An Application to the Recreational Value of Forests

Gernot KLEPPER and Sonja PETERSON:

Andrea BIGANO and Stef PROOST:

Timo GOESCHL and Tun LIN

Signe ANTHON and Bo JELLEMARK THORSEN:

Francesco RICCI

Ingo BRÄUER and Rainer MARGGRAF

Dinko DIMITROV, Peter BORM, R uud HENDRICKX and Shao CHIN SUNG:

Anastasios XEPAPADEAS and Constadina PASSA

Valentina BOSETTI, Mariaester CASSINELLI and Alessandro LANZA

Anna ALBERINI, Maureen CROPPER, Alan KRUPNICK and Nathalie B. SIMON: Willingness to Pay for Mortality Risk Reductions: Does Latency Matter?

E.C.M. RUIJGROK and E.E.M. NILLESEN

Franca ECKERT COEN and Claudio ROSSI (lxviii): Foreigners, Immigrants, Host Cities: The Policies of Multi-Ethnicity in Rome. Reading Governance in a Local Context


Kiflemariam HAMDE (lxviii): Mind in Africa, Body in Europe: The Struggle for Maintaining and Transforming Cultural Identity - A Note from the Experience of Eritrean Immigrants in Stockholm

Alberto CAVALIERE: Price Competition with Information Disparities in a Vertically Differentiated Duopoly

Andrea BIGANO and Stef PROOST: The Opening of the European Electricity Market and Environmental Policy: Does the Degree of Competition Matter?

Michaele FINUS (lxix): International Cooperation to Resolve International Pollution Problems

Francesco CRESEPI: Notes on the Determinants of Innovation: A Multi-Perspective Analysis

Sergio CURRARINI and Marco MARINI: Coalition Formation in Games without Synergies

Marc ESCRIBUELA-VILLAR: Cartel Sustainability and Cartel Stability

Sebastian BEROYETS and Nicolas GRAVEL (lxvi): Appraising Diversity with an Ordinal Notion of Similarity: An Axiomatic Approach

Signe ANTHON and Bo JELLEMARK THORSEN (lxvi): Optimal Afforestation Contracts with Asymmetric Information on Private Environmental Benefits


Ekin BIROL, Ágnes GYOVAI and Melinda SMALE (lxvi): Using a Choice Experiment to Value Agricultural Biodiversity on Hungarian Small Farms: Agri-Environmental Policies in a Transition al Economy

Gernot KLEPPER and Sonja PETERSON: The EU Emissions Trading Scheme: Allowance Prices, Trade Flows, Competitiveness Effects

Scott BARRETT and Michael HOEL: Optimal Disease Eradication

Peter BORM, Ruud HENDRICKX and Shao CHIN SUNG: Simple Priorities and Core Stability in Hedonic Games

Francesco RICCI: Channels of Transmission of Environmental Policy to Economic Growth: A Survey of the Theory

Anna ALBERINI, Maureen CROPPER, Alan KRUPNICK and Nathalie B. SIMON: Willingness to Pay for Mortality Risk Reductions: Does Latency Matter?

E.C.M. RUIJGROK and E.E.M. NILLESEN

Conservation: An Integrated Hydrological and Economic Model to Value the Enhanced Nitrogen Retention in Renaturated Streams

Timo GOESCHL and Tun LIN (lxvi): Biodiversity Conservation on Private Lands: Information Problems and Regulatory Choices

Tom DEDEURWAERDERE (lxvi): Bioprospection: From the Economics of Contracts to Reflexive Governance

Katrin REHDANZ and David MADDISON: The Ametry Value of Climate to German Households

Koen SMEKENS and Bob VAN DER ZWAAN: Environmental Externalities of Geological Carbon Sequestration Effects on Energy Scenarios

Valentina BOSETTI, Mariaester CASSINELLI and Alessandro LANZA (lxvii): Using Data Envelopment Analysis to Evaluate Environmentally Conscious Tourism Management

Timo GOESCHL and Danilo CAMARGO IGLIORI (lxvi): Property Rights Conservation and Development: An Analysis of Extractive Reserves in the Brazilian Amazon

Barbara BUCHNER and Carlo CARRARO: Economic and Environmental Effectiveness of a Technology-based Climate Protocol

Elisaios PAPYRAKIS and Reyer GERLAGH: Resource-Abundance and Economic Growth in the U.S.

Györgyi BELA, György PATAKI, Melinda SMALE and Mariann HAJDÚ (lxvi): Conserving Crop Genetic Resources on Smallholder Farms in Hungary: Institutional Analysis

E.C.M. RUIJGROK and E.E.M. NILLESEN (lxvi): The Socio-Economic Value of Natural Riverbanks in the Netherlands


Giannis VARDAS and Anastasios XEPAPADEAS: Uncertainty Aversion, Robust Control and Asset Holdings

Anastasios XEPAPADEAS and Constadina PASSA: Participation in and Compliance with Public Voluntary Environmental Programs: An Evolutionary Approach

Michael FINUS: Modesty Pays: Sometimes!

Tord BJÖRNDAL and Ana BRASÃO: The Northern Atlantic Bluefin Tuna Fisheries: Management and Policy Implications

Alejandro CAPARRÓS, Abdelhakin HAMMOUDI and Tarik TAZDAÏT: On Coalition Formation with Heterogeneous Agents

Massimo GIOVANNINI, Margherita GRASSO, Alessandro LANZA and Matteo MANERA: Conditional Correlations in the Returns on Oil Companies Stock Prices and Their Determinants

Alessandro LANZA, Matteo MANERA and Michael MCALEER: Modelling Dynamic Conditional Correlations in WTI Oil Forward and Futures Returns

Margarita GENIUS and Elisabetta STRAZZERA: The Copula Approach to Sample Selection Modelling: An Application to the Recreational Value of Forests
Valeria COSTANTINI and Francesco GRACCEVA: Social Costs of Energy Disruptions

Christian EGENHOFER, Kyriakos GIALOGLOU, Giacomo LUCIANI, Maroessa BOOTS, Martin SCHEEPERS, Valeria COSTANTINI, Francesco GRACCEVA, Anil MARKANDYA and Giorgio VICINI: Market-Based Options for Security of Energy Supply

David FISK: Transport Energy Security. The Unseen Risk?

Giacomo LUCIANI: Security of Supply for Natural Gas Markets. What is it and What is it not?

L.J. de VRIES and R.A. HAKVOORT: The Question of Generation Adequacy in Liberalised Electricity Markets

Alberto PETRUCCI: Asset Accumulation, Fertility Choice and Nondegenerate Dynamics in a Small Open Economy

Carlo GIUPPONI, Jaroslaw MYSIAK and Anita FASSIO: An Integrated Assessment Framework for Water Resources Management: A DSS Tool and a Pilot Study Application


Paul MENSINK: Instant Efficient Pollution Abatement Under Non-Linear Taxation and Asymmetric Information: The Differential Tax Revisited

Mauro FABIANO, Gabriella CAMARSA, Rosanna DURSI, Roberta VALDI, Valentina MARIN and Francesca PALMISANI: Integrated Environmental Study for Beach Management: A Methodological Approach

Irena GROSFELD and Iraj HASHI: The Emergence of Large Shareholders in Mass Privatized Firms: Evidence from Poland and the Czech Republic

Maria BERRITTELLA, Andrea BIGANO, Roberto ROSON and Richard S.J. TOL: A General Equilibrium Analysis of Climate Change Impacts on Tourism

Reyer GERLAGH: A Climate-Change Policy Induced Shift from Innovations in Energy Production to Energy Savings

Elisavet PAPYRakis and Reyer GERLAGH: Natural Resources, Innovation, and Growth

Bernardo BORTOLOTTI and Mara FACCIo: Reluctant Privatization

Riccardo SCARPA and Mara THIENE: Destination Choice Models for Rock Climbing in the Northeast Alps: A Latent-Class Approach Based on Intensity of Participation


Santiago J. RUBIO: On Capturing Oil Rents with a National Excise Tax Revisited

Ascensión ANDINA DÍAZ: Political Competition when Media Create Candidates’ Charisma

Anna ALBERINI: Robustness of VSL Values from Contingent Valuation Surveys

Maria ALBERINI: Marginal Abatement Cost Curves in General Equilibrium: The Influence of World Energy Prices

Sangjoon CHANG: Is there any Scope for Corporatism in Policy Analysis? A Robustness Exercise with the FEEM-RICE Model

Pressure Groups in the Kyoto Protocol’s Adoption Process

Elissaios PAPYRakis and Reyer GERLAGH: Environmental Innovation, War of Attrition and Investment Grants

Bernardo BORTOLOTTI and Mara FACCIO: Political Competition when Media Create Candidates’ Charisma

Ali HORTACSU and Samita SAREEN: Bookbuilding is Dominating Auctions


Patrick BAJARI, Stephanie HOUGHTON and Steven TADELIS: Bidding for Incompete Contracts

Susan ATHEY, Jonathan LEVIN and Enrique SEIRA: Comparing Open and Sealed Bid Auctions: Theory and Evidence from Timber Auctions

David GOLDREICH: Optimal Procurement Auction for a Buyer with Downward Sloping Demand: More Simple Economics


Victor GINSBURGH, Patrick LEGROS and Nicolas SAHU GUE T: How to Win Twice at an Auction. On the Incidence of Commissions in Auction Markets

Claudio MEZZETTI, Aleksandar PEKE and Ilia TSETLIN: Sequential vs. Single-Round Uniform-Price Auctions

John ASKER and Estelle CANTILLON: Equilibrium of Scoring Auctions

Philip A. HAILE, Han HONG and Matthew SHUM: Nonparametric Tests for Common Values in First-Price Sealed-Bid Auctions

François DEGEORGE, François DERRIEN and Kent L. WOMACK: Quid Pro Quo in IPOs: Why Bookbuilding is Dominating Auctions

Barbara BUCHNER and Silvia DALL’OLIO: Russia: The Long Road to Ratification. Internal Institutions and Pressure Groups in the Kyoto Protocol’s Adoption Process

Carlo CARRARO and Marzio GALEOTTI: Does Endogenous Technical Change Make a Difference in Climate Policy Analysis? A Robustness Exercise with the FEEM-RICE Model

Alejandro M. MANELLI and Daniel R. VINCENT: Multidimensional Mechanism Design: Revenue Maximization and the Multiple-Good Monopoly

Francois DEGEORGE, Francois DERRIEN and Kent L. WOMACK: Quid Pro Quo in IPOs: Why Bookbuilding is Dominating Auctions

Jennifer CHUNG, Doo Young SOO and Seung Min KIM: Environmental Innovation, War of Attrition and Investment Grants

Carlo GIUPPONI, Jaroslaw MYSIAK and Anita FASSIO: An Integrated Assessment Framework for Water Resources Management: A DSS Tool and a Pilot Study Application


Paul MENSINK: Instant Efficient Pollution Abatement Under Non-Linear Taxation and Asymmetric Information: The Differential Tax Revisited

Mauro FABIANO, Gabriella CAMARSA, Rosanna DURSI, Roberta VALDI, Valentina MARIN and Francesca PALMISANI: Integrated Environmental Study for Beach Management: A Methodological Approach

Irena GROSFELD and Iraj HASHI: The Emergence of Large Shareholders in Mass Privatized Firms: Evidence from Poland and the Czech Republic

Maria BERRITTELLA, Andrea BIGANO, Roberto ROSON and Richard S.J. TOL: A General Equilibrium Analysis of Climate Change Impacts on Tourism

Reyer GERLAGH: A Climate-Change Policy Induced Shift from Innovations in Energy Production to Energy Savings

Elisavet PAPYRakis and Reyer GERLAGH: Natural Resources, Innovation, and Growth

Bernardo BORTOLOTTI and Mara FACCIo: Reluctant Privatization

Riccardo SCARPA and Mara THIENE: Destination Choice Models for Rock Climbing in the Northeast Alps: A Latent-Class Approach Based on Intensity of Participation


Sangjoon CHANG: Is there any Scope for Corporatism in Policy Analysis? A Robustness Exercise with the FEEM-RICE Model

Pressure Groups in the Kyoto Protocol’s Adoption Process

Elissaios PAPYRakis and Reyer GERLAGH: Environmental Innovation, War of Attrition and Investment Grants

Bernardo BORTOLOTTI and Mara FACCIO: Political Competition when Media Create Candidates’ Charisma

Ali HORTACSU and Samita SAREEN: Bookbuilding is Dominating Auctions


Patrick BAJARI, Stephanie HOUGHTON and Steven TADELIS: Bidding for Incompete Contracts

Susan ATHEY, Jonathan LEVIN and Enrique SEIRA: Comparing Open and Sealed Bid Auctions: Theory and Evidence from Timber Auctions

David GOLDREICH: Optimal Procurement Auction for a Buyer with Downward Sloping Demand: More Simple Economics


Victor GINSBURGH, Patrick LEGROS and Nicolas SAHU GUE T: How to Win Twice at an Auction. On the Incidence of Commissions in Auction Markets

Cladio MEZZETTI, Aleksandar PEKE and Ilia TSETLIN: Sequential vs. Single-Round Uniform-Price Auctions

John ASKER and Estelle CANTILLON: Equilibrium of Scoring Auctions

Philip A. HAILE, Han HONG and Matthew SHUM: Nonparametric Tests for Common Values in First-Price Sealed-Bid Auctions

François DEGEORGE, François DERRIEN and Kent L. WOMACK: Quid Pro Quo in IPOs: Why Bookbuilding is Dominating Auctions

Barbara BUCHNER and Silvia DALL’OLIO: Russia: The Long Road to Ratification. Internal Institutions and Pressure Groups in the Kyoto Protocol’s Adoption Process

Carlo CARRARO and Marzio GALEOTTI: Does Endogenous Technical Change Make a Difference in Climate Policy Analysis? A Robustness Exercise with the FEEM-RICE Model

Alejandro M. MANELLI and Daniel R. VINCENT: Multidimensional Mechanism Design: Revenue Maximization and the Multiple-Good Monopoly

Nicola ACOCELLA, Giovanni Di BARTOLOMEO and Wilfried PAUWELS: Is there any Scope for Corporatism in Policy Analysis? A Robustness Exercise with the FEEM-RICE Model

Pressure Groups in the Kyoto Protocol’s Adoption Process

Elissaios PAPYRakis and Reyer GERLAGH: Environmental Innovation, War of Attrition and Investment Grants

Bernardo BORTOLOTTI and Mara FACCIO: Political Competition when Media Create Candidates’ Charisma

Ali HORTACSU and Samita SAREEN: Bookbuilding is Dominating Auctions


Patrick BAJARI, Stephanie HOUGHTON and Steven TADELIS: Bidding for Incompete Contracts

Susan ATHEY, Jonathan LEVIN and Enrique SEIRA: Comparing Open and Sealed Bid Auctions: Theory and Evidence from Timber Auctions

David GOLDREICH: Optimal Procurement Auction for a Buyer with Downward Sloping Demand: More Simple Economics


Victor GINSBURGH, Patrick LEGROS and Nicolas SAHU GUE T: How to Win Twice at an Auction. On the Incidence of Commissions in Auction Markets

Cladio MEZZETTI, Aleksandar PEKE and Ilia TSETLIN: Sequential vs. Single-Round Uniform-Price Auctions

John ASKER and Estelle CANTILLON: Equilibrium of Scoring Auctions

Philip A. HAILE, Han HONG and Matthew SHUM: Nonparametric Tests for Common Values in First-Price Sealed-Bid Auctions
Valentina BOSETTI, Marzio GALEOTTI and Alessandro LANZA: How Consistent are Alternative Short-Term Climate Policies with Long-Term Goals?


William BROCK and Anastasios XEPAPADEAS: Spatial Analysis: Development of Descriptive and Normative Methods with Applications to Economic-Ecological Modelling

Alberto PETRUCCI: On the Incidence of a Tax on PureRent with Infinite Horizons

Xavier LABANDEIRA, José M. LABEAGA and Miguel RODRÍGUEZ: Microsimulating the Effects of Household Energy Price Changes in Spain

NOTE DI LAVORO PUBLISHED IN 2005

Stéphane HALLEGATTE: Accounting for Extreme Events in the Economic Assessment of Climate Change

Qiang WU and Paulo Augusto NUNES: Application of Technological Control Measures on Vehicle Pollution: A Cost-Benefit Analysis in China

Andrea BIGANO, Jacqueline M. HAMILTON, Maren LAU, Richard S.J. TOL and Yuan ZHOU: A Global Database of Domestic and International Tourist Numbers at National and Subnational Level

Andrea BIGANO, Jacqueline M. HAMILTON and Richard S.J. TOL: The Impact of Climate on Holiday Destination Choice

Hubert KEMPF: Is Inequality Harmful for the Environment in a Growing Economy?

Valentina BOSETTI, Carlo CARRARO and Marzio GALEOTTI: The Dynamics of Carbon and Energy Intensity in a Model of Endogenous Technical Change


Lorenzo PELLEGRINI and Reyer GERLAGH: An Empirical Contribution to the Debate on Corruption

Angelo ANTOCI: Environmental Resources Depletion and Interplay Between Negative and Positive Externalities in a Growth Model

Frédéric DEROIAN: Cost-Reducing Alliances and Local Spillovers

Francesco SINDICO: The GMO Dispute before the WTO: Legal Implications for the Trade and Environment Debate

Carla MASSIDDA: Estimating the New Keynesian Phillips Curve for Italian Manufacturing Sectors

Michele MORETTO and Gianpaolo ROSSINI: Start-up Entry Strategies: Employer vs. Nonemployer firms

Clara GRAZIANO and Annalisa LUPORINI: Ownership Concentration, Monitoring and Optimal Board Structure

Parashar KULKARNI: Use of Ecolabels in Promoting Exports from Developing Countries to Developed Countries: Lessons from the Indian LeatherFootwear Industry

Adriana DI LIBERTO, Roberto MURA and Francesco PIGLIARU: How to Measure the Unobservable: A Panel Technique for the Analysis of TFP Convergence

Alireza NAGHAVI: Asymmetric Labor Markets, Southern Wages, and the Location of Firms

Michele NAGHAVI: Strategic Intellectual Property Rights Policy and North-South Technology Transfer

Mombert HOPPE: Technology Transfer Through Trade

Roberto ROSON: Platform Competition with Endogenous Multihoming

Barbara BUCHNER and Carlo CARRARO: Regional and Sub-Globlal Climate Blocs, A Game Theoretic Perspective on Bottom-up Climate Regimes

Adriana DI LIBERTO, Roberto MURA and Francesco PIGLIARU: How to Measure the Unobservable: A Panel Technique for the Analysis of TFP Convergence

Massimiliano MAZZANTI and Anna MONTINI: The Determinants of Residential Water Demand Empirical Evidence for a Panel of Italian Municipalities

Laurent GILOTTE and Michel de LARA: Precautionary Effect and Variations of the Value of Information

Paul SARFO-MENSAH: Exportation of Timber in Ghana: The Menace of Illegal Logging Operations

Andrea BIGANO, Alessandra GORIA, Jacqueline HAMILTON and Richard S.J. TOL: The Effect of Climate Change and Extreme Weather Events on Tourism

Maria Angeles GARCIA-VALINAS: Decentralization and Environment: An Application to Water Policies

Chiara D’ALPAOS, Cesare DOSI and Michele MORETTO: Concession Length and Investment Timing Flexibility

Joseph HUBER: Key Environmental Innovations

Antoni CALVÓ-ARMENGOL and Rahmi İLKILIÇ (lxxii): Pairwise-Stability and Nash Equilibria in Network Formation

Francesco FERI (lxxii): Network Formation with Endogenous Decay

Frank H. PAGE, Jr. and Myrna H. WOODERS (lxxii): Strategic Basins of Attraction, the Farsighted Core, and Network Formation Games
Alessandra CASELLA and Nobuyuki HANAKI: Information Channels in Labor Markets, On the Resilience of Referral Hiring

Matthew O. JACKSON and Alison WATTS: Social Games: Matching and the Play of Finitely Repeated Games

Anna BOGOMOLNAIA, Michel LE BRETON, Alexei SAVVATEEV and Shlomo WEBER: The Egalitarian Sharing in Provision of Public Projects

Francesco FERF: Stochastic Stability in Network with Decay

Aart de ZEEUW: Dynamic Effects on the Stability of International Environmental Agreements


Carla VIEIRA and Ana Paula SERRA: Abnormal Returns in Privatization Public Offerings: The Case of Portuguese Firms

Anna ALBERINI, Valentina ZANATTA and Paolo ROSATO: Combining Actual and Contingent Behavior to Estimate the Value of Sports Fishing in the Lagoon of Venice

Michael FINUS and Bianca RUNDHAGEN: Participation in International Environmental Agreements: The Role of Timing and Regulation

Lorenzo PELLEGRINI and Reyer GERLAGH: Are EU Environmental Policies Too Demanding for New Members States?

Matteo MANERA: Modeling Factor Demands with SEM and VAR: An Empirical Comparison

Oliver TERCIUEUX and Vincent VANNETELBOSCH: A Characterization of Stochastically Stable Networks

Ana MATELEON, José SEMPERE-MONERRIS and Vincent J. VANNETELBOSCH: R&D Networks Among Unionized Firms

Carlo CARRARO, Johan EYCKMANS and Michael FINUS: Optimal Transfers and Participation Decisions in International Environmental Agreements

Valeria GATTAI: From the Theory of the Firm to FDI and Internationalisation: A Survey

Alireza NAGHAVI: Multilateral Environmental Agreements and Trade Obligations: A Theoretical Analysis of the Doha Proposal

Martine KARL, Antje MÖLLER, Ximena MATUS, Edgar GRANDE and Robert KAISER: Economic Valuation of On Site Material Damages of High Water on Economic Activities based in the City of Venice: Results from a Dose-Response-Expert-Based Valuation Approach

Alessandra del BOCA, Marzio GALEOTTI, Charles P. HIMMELBERG and Paola ROTA: Investment and Time to Plan: A Comparison of Structures vs. Equipment in a Panel of Italian Firms

Gerard KLEPPER and Sonja PETERSON: Emissions Trading, CDM, JI, and More – The Climate Strategy of the EU

Maia DAVID and Bernard SINCLAIR-DESIGN: Environmental Regulation and the Eco-Industry

Alain-Désiré NIMUBONA and Bernard SINCLAIR-DESIGN: The Pigouvian Tax Rule in the Presence of an Eco-Industry

Helmut KARL, Antje MÖLLER, Ximena MATUS, Edgar GRANDE and Robert KAISER: Environmental Innovations: Institutional Impacts on Co-operations for Sustainable Development

Dimitra VOUVAKI and Anastasios XEPAPADEAS: Criteria for Assessing Sustainable Development: Theoretical Issues and Empirical Evidence for the Case of Greece

Andreas LÖSCHEL and Dirk T.G. RÜBBELKE: Impure Public Goods and Technological Interdependencies

Christoph A. SCHALTEGGER and Benno TORGLER: Trust and Fiscal Performance: A Panel Analysis with Swiss Data

Irene VALSECCHI: A Role for Instructions

Valentina BOSETTI and Gianni LOCATELLI: A Data Envelopment Analysis Approach to the Assessment of Natural Parks’ Economic Efficiency and Sustainability. The Case of Italian National Parks

Sandra WALLMAN: A Data Envelopment Analysis Approach to the Assessment of External Costs of Electricity Generation. Dissemination of External Costs of Electricity Supply Making Electricity External Costs Known to Policy-Makers MAXIMA

IEM 74.2005
<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Margherita GRASSO and Matteo MANERA: Asymmetric Error Correction Models for the Oil-Gasoline Price Relationship</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Umberto CHERUBINI and Matteo MANERA: Hunting the Living Dead A “Peso Problem” in Corporate Liabilities Data</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Hans-Peter WEIKARD: Cartel Stability under an Optimal Sharing Rule</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Joëlle NOAILLY, Jeroen C.J.M. van den BERGH and Cees A. WITHAGEN (lxxvi): Local and Global Interactions in an Evolutionary Resource Game</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Joëlle NOAILLY, Cees A. WITHAGEN and Jeroen C.J.M. van den BERGH (lxxvi): Spatial Evolution of Social Norms in a Common-Pool Resource Game</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Massimiliano MAZZANTSI and Roberto ROZOLI: Economic Instruments and Induced Innovation: The Case of End-of-Life Vehicles European Policies</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Anna LASUT: Creative Thinking and Modelling for the Decision Support in Water Management</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Valentina BOSETTI and Barbara BUCHNER: Using Data Envelopment Analysis to Assess the Relative Efficiency of Different Climate Policy Portfolios</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Giulio CAINELLI, Susanna MANCI NELLI and Massimiliano MAZZANTI: Social Capital, R&amp;D and Industrial Districts</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Rosella LEVAGGI, Michele MORETTO and Vincenzo REBBA: Quality and Investment Decisions in Hospital Care when Physicians are Devoted Workers</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Valentina BOSETTI and Laurent GILOTTE: Carbon Capture and Sequestration: How Much Does this Uncertain Option Affect Near-Term Policy Choices?</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Nicoletta FERRO: Value Through Diversity: Microfinance and Islamic Finance and Global Banking</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>A. MARKANDYA and S. PEDROSO: How Substitutable is Natural Capital?</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Vincent M. OTTO, Andreas LÖSCHEL and Rob DELLINK: Energy Biased Technical Change: A CGE Analysis</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Carlo CAPUANO: Abuse of Competitive Fringe</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Sabrina AUCI and Leonardo BECCETTI: The Stability of the Adjusted and Unadjusted Environmental Kuznets Curve</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Francesco BOSELLO and Jian ZHANG: Assessing Climate Change Impacts: Agriculture</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Alejandro CAPARRÓS, Jean-Christophe PEREAU and Turik TAIZDAIT: Bargaining with Non-Monolithic Players</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Rob DELLINK, Michael FINUS and Niels OLJEMAN: Coalition Formation under Uncertainty: The Stability of Likelihood of an International Climate Agreement</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Giliola FREY and Matteo MANERA: Econometric Models of Asymmetric Price Transmission</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Alessandro COLOGNI and Matteo MANERA: Oil Prices, Inflation and Interest Rates in a Structural Cointegrated VAR Model for the G-7 Countries</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Chiara M. TRAVISI and Roberto CAMAGNI: Sustainability of Urban Sprawl: Environmental-Economic Indicators for the Analysis of Mobility Impact in Italy</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Anna ALBERINI, Erik LICH TENBERG, Dominic MANCINI, and Gregmar I. GAL INATO: Was It Something I Ate? Implementation of the FDA Seafood HACCP Program</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Anna ALBERINI and Aline CHIABAI: Urban Environmental Health and Sensitive Populations: How Much are the Italians Willing to Pay to Reduce Their Risks?</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Michele BERNASCONI and Matteo GALIZZI: Coordination in Networks Formation: Experimental Evidence on Learning and Salience</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Michele MORETTO and Sergio VERGALLI: Migration Dynamics</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Antonio MUSOLESI and Mario NOSVELLI: Water Consumption and Long-Run Urban Development: The Case of Milan</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Benno TORGLER and Maria A. GARCIA-VALIÑAS: Attitudes Towards Preventing Environmental Damage</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Alberto LONGO and Anna ALBERINI: What are the Effects of Contamination Risks on Commercial and Industrial Properties? Evidence from Baltimore, Maryland</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Anna ALBERINI and Alberto LONGO: The Value of Cultural Heritage Sites in Armenia: Evidence from a Travel Cost Method Study</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Mikel GONZALEZ and Rob DELLINK: Impact of Climate Policy on the Basque Economy</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Gilles LAFFORGUE and Walid OUESLATI: Optimal Soil Management and Environmental Policy</td>
<td></td>
</tr>
</tbody>
</table>
Valuing Ecosystem Services with Fishery Rents: A Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary

Protecting Marine Biodiversity: A Comparison of Individual Habitat Quotas (IHQs) and Marine Protected Areas

Valuing Ecosystem Services with Fishery Rents: A Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary

Protecting Marine Biodiversity: A Comparison of Individual Habitat Quotas (IHQs) and Marine Protected Areas

The Evolution of Enterprise Reform in Africa: From State-owned Enterprises to Private Participation in Infrastructure — and Back?

Protecting Marine Biodiversity: A Comparison of Individual Habitat Quotas (IHQs) and Marine Protected Areas

The Evolution of Enterprise Reform in Africa: From State-owned Enterprises to Private Participation in Infrastructure — and Back?

Detecting Starting Point Bias in Dichotomous-Choice Contingent Valuation Surveys

A Solution to Matching with Preferences over Colleagues

Protecting Marine Biodiversity: A Comparison of Individual Habitat Quotas (IHQs) and Marine Protected Areas

Detecting Starting Point Bias in Dichotomous-Choice Contingent Valuation Surveys

Privatization in Africa: What has happened? What is to be done?
### 2004 SERIES

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCMP</td>
<td>Climate Change Modelling and Policy</td>
<td>Marzio Galeotti</td>
</tr>
<tr>
<td>GG</td>
<td>Global Governance</td>
<td>Carlo Carraro</td>
</tr>
<tr>
<td>SIEV</td>
<td>Sustainability Indicators and Environmental Valuation</td>
<td>Anna Alberini</td>
</tr>
<tr>
<td>NRM</td>
<td>Natural Resources Management</td>
<td>Carlo Giupponi</td>
</tr>
<tr>
<td>KTHC</td>
<td>Knowledge, Technology, Human Capital</td>
<td>Gianmarco Ottaviano</td>
</tr>
<tr>
<td>IEM</td>
<td>International Energy Markets</td>
<td>Anil Markandya</td>
</tr>
<tr>
<td>CSRM</td>
<td>Corporate Social Responsibility and Sustainable Management</td>
<td>Sabina Ratti</td>
</tr>
<tr>
<td>PRA</td>
<td>Privatisation, Regulation, Antitrust</td>
<td>Bernardo Bortolotti</td>
</tr>
<tr>
<td>ETA</td>
<td>Economic Theory and Applications</td>
<td>Carlo Carraro</td>
</tr>
<tr>
<td>CTN</td>
<td>Coalition Theory Network</td>
<td></td>
</tr>
</tbody>
</table>

### 2005 SERIES

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCMP</td>
<td>Climate Change Modelling and Policy</td>
<td>Marzio Galeotti</td>
</tr>
<tr>
<td>SIEV</td>
<td>Sustainability Indicators and Environmental Valuation</td>
<td>Anna Alberini</td>
</tr>
<tr>
<td>NRM</td>
<td>Natural Resources Management</td>
<td>Carlo Giupponi</td>
</tr>
<tr>
<td>KTHC</td>
<td>Knowledge, Technology, Human Capital</td>
<td>Gianmarco Ottaviano</td>
</tr>
<tr>
<td>IEM</td>
<td>International Energy Markets</td>
<td>Anil Markandya</td>
</tr>
<tr>
<td>CSRM</td>
<td>Corporate Social Responsibility and Sustainable Management</td>
<td>Sabina Ratti</td>
</tr>
<tr>
<td>PRCG</td>
<td>Privatisation Regulation Corporate Governance</td>
<td>Bernardo Bortolotti</td>
</tr>
<tr>
<td>ETA</td>
<td>Economic Theory and Applications</td>
<td>Carlo Carraro</td>
</tr>
<tr>
<td>CTN</td>
<td>Coalition Theory Network</td>
<td></td>
</tr>
</tbody>
</table>