Comments

Ernesto Schargrodsky: In the 1990s, many Latin American countries transferred the operation of several economic activities from public to private provision. There is currently no agreement on the welfare evaluation of this privatization process. Public opinion polls and press articles suggest widespread discontent with privatization, whereas academic research shows improved results under private operation relative to public performance.[1] This divergence of opinions may reflect the fact that the benign impact of privatization was below original expectations.

Engel, Fischer, and Galetovic look at the Latin American experience of highway privatization. The provided evidence suggests that the promised benefits of privatization failed to materialize. In this sector, contract renegotiations and opportunism were pervasive, the diversion of public funds to bail out franchise holders was frequent, and consumers sometimes ended up worse off after privatization. The authors look at one of the sectors in which privatization results were most disappointing and ask themselves, in a thoughtful and unbiased analysis, how to improve franchising design and when highway franchising is superior to public operation.

Two main contributions for the improvement of highway provision stand out from their work. The first regards the appropriate franchise term structure. Most concessions were awarded using fixed-term contracts, which make franchise holders bear the demand risk and thus creates pressure for subsidies and guarantees during bad states. The authors suggest the use of present-value-of-revenue (PVR) auctions, in which all demand risk is borne by the state (which ultimately bears it in practice after inefficient renegotiations). Under these contracts, franchises are automatically extended in low-demand states, so franchisers do not need to ask for bailouts. PVR auctions offer the additional advantage of reducing contractual

1. See, for example, IDB (2002), McKenzie and Mookherjee (2002), and Chong and Lopez-de-Silanes (2003).

incompleteness. The contract indicates the noncontingent amount that the state should pay when it prefers to buy back the project.[2]

The second contribution lies in the analysis of the cost-of-funds argument and the desirability of highway privatization. As they explain, a typical argument in favor of highway franchising is that private firms have access to funds from toll revenue at lower social costs than public sector funds obtained from distortionary taxation. They show the fallacy of this argument: the government can also use the highways for fund collection, reducing distortionary taxes elsewhere. The desirability of highway franchising then depends on the relationship between inefficiencies in subsidization and tax distortions. Although franchises with government subsidies and guarantees are very frequent in practice, the authors show that when government subsidies are required (on grounds other than externalities), full public highway provision should be preferred over privatization.

In addition to these insights, the article opens several roads for empirical research. First, a remaining question is whether highway franchising has improved or diminished social welfare. The evidence provided in this paper focuses the discussion about the success or failure of franchising on supply variables, such as contract characteristics, investment, and frequency of renegotiations. The analysis could usefully be furthered by a study of the impact of privatization on variables measuring users' welfare, such as transportation costs, motor-vehicle insurance costs, or road accidents. The impact on taxpayers could also be quantified. Of course, the relevant counterfactual should be public provision, not a comparison with the first best.

Second, it would be interesting to analyze the main determinants of the likelihood of renegotiation. The authors argue that the two flaws in regulatory design that induced opportunistic renegotiations were the use of fixed-term contracts and the lack of a proper ex ante regulatory structure. The effect of these contractual characteristics could be confirmed through empirical study on a sample of highway franchises.

2. PVR contracts, however, could facilitate corruption, a pervasive problem in public contracting in Latin America. It may be less scandalous for a corrupt regulator to allow for revenue underreporting, which would extend the franchise length under PVR, than to extend the length of a fixed-term concession. The contract-theory advantages of PVR may not compensate for the political economy disadvantages.

Finally, it would be productive to examine why privatization has been particularly unsuccessful in this sector.[3] The features described in this article are not exclusive of highway franchising. Other privatized activities also suffered from high demand risk, were transferred to private operation under the "privatize now, regulate later" approach, or used fixed terms in concession contracts. Future cross-industry comparisons could shed light on the determinants of the problematic performance of the highway sector.

Juan-Pablo Montero: After reviewing the highway privatization experience of three Latin American countries (Argentina, Colombia, and Chile), Eduardo Engel, Ronald Fischer, and Alexander Galetovic raise two very relevant policy questions in their paper. First, when is privatization (that is, BOT contracts awarded in an auction) as opposed to government provision the right policy choice in the provision of infrastructure? Second, if privatization is to be pursued, what is the best privatization mechanism?

As mentioned in the paper, the arguments in support of privatization include the following: it eliminates the need to raise new taxes; it reduces construction and operation costs (for a given level of quality monitored by the authority); it is more desirable on distributional grounds since the road is financed directly by its users; and it effectively screens projects that are not socially attractive (that is, it prevents the building of white elephants). The authors argue that many of these benefits have failed to materialize for the countries studied. They attribute this outcome to the lack of an adequate regulatory framework prior to privatization and flaws in the privatization design (namely, the use of fixed-term auctions).

Highways are typically franchised using a fixed-term auction, and companies bid on the lowest toll or highest payment to the government. Because road provision is subject to significant demand uncertainty, fixed-term auctions have a serious shortcoming: they cannot adapt to different realizations of demand (the franchise holder may either go bankrupt or make more than normal profits), and they are thus likely to prompt undesirable contract renegotiations. Given that uncertainty is mostly exogenous to the firm providing the service, the authors propose an ingenious mechanism (which is fully explained in a series of their papers) for addressing this shortcoming: a present-value-of-revenue (PVR) auction. One of the main

3. Bid rigging also seems to be particularly pervasive in this industry.

arguments in the paper is that the use of this approach as opposed to fixed-term auctions can greatly help materialize the benefits from privatization.

I agree with many of the points made by the authors. The theoretical arguments deployed in the paper (and in closely related papers) for the use of PVR are very compelling: it can prevent white elephants, solve the adverse selection problem of cost differences, facilitate renegotiation when this is socially beneficial and prevent it when it is not. However, the evidence presented in the paper raises some important issues that are only partially addressed. The first is a political-economy question. If PVR is unambiguously superior to fixed-term auctions in terms of managing demand uncertainty (and not inferior in other aspects, at least after some design accommodations are incorporated to prevent, for example, lower effort to maintain quality), then why has this auction scheme not been adopted more widely in Latin America and other regions? I fully agree with Engel, Fischer, and Galetovic that PVR seems to be the best approach if privatization is to be pursued. Before policymakers implement this approach further, however, they need to better understand the reasons for its limited use today.

The second issue requires the construction of a counterfactual—not a trivial task. What would have happened if PVR, as conceived by the authors or even as implemented in Colombia without discounting revenues, had been used more widely in the countries studied? How much of the unfortunate renegotiation process discussed in the paper would have been avoided? My impression is that not much would have changed, because most of the renegotiations occurred right after the franchise was awarded and during the construction process, that is, before demand realization. I do believe, however, that PVR would have certainly helped to prevent undesirable renegotiations along the road.

The third issue concerns the net benefits of this imperfect privatization process relative to continuing to rely on the traditional approach of government provision. The evidence discussed by the authors makes it clear that many of the benefits of an ideal privatization process have not materialized. Engel, Fischer, and Galetovic go further and suggest that this evidence raises the possibility that privatization may not be the right policy at all. Given the poor government record on infrastructure provision, I find it hard to believe that the privatization programs carried out in the different countries have, on average, not provided substantial net benefits. Rather than exploring the magnitude of these net benefits (which is quite demanding),

the authors generate a theoretical model to address the question of whether highway franchising is desirable. Unfortunately, the analysis in this section sheds little light on the policy debate because it fails to incorporate the very elements that are responsible for the poor government record that prompted the privatization programs in the first place. Furthermore, if I restrict my focus to the model in equation 4, I would argue that franchising is never optimal because the government can use roads as efficient money revenue machines. Since demand for road use is quite inelastic (totally inelastic in the model), it pays to increase its price beyond what is needed for self-financing (as in franchising) and reduce distortionary taxation elsewhere.

With regard to the two policy question laid out above, Engel, Fischer, and Galetovic do an admirable job on the second question by presenting an alternative, more flexible approach to franchising that is easy to implement in practice. Although the reasons for its limited use are not yet evident, the one message that is clear from this paper is that PVR auctions should always be considered in a privatization program. On the first question, however, the analysis is less insightful. Neither the case studies nor the theoretical model makes a clear case as to when franchising is superior to the traditional approach of public provision. If anything, the poor government records on infrastructure provision suggest that the privatization programs have provided substantial net benefits. I would rather have a monopolized market than no market at all.

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