From Planning to Regulation: Toward a New Dirigisme?

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In this article in honor of Professor B.R. Shenoy, the preeminent classical liberal Indian economist during the lost years of Indian planning, I will discuss the "new dirigisme" that is emerging even as there is a worldwide move from the plan to the market. The dirigiste impulse has not been stifled but merely transformed from planning that sought to supplant the price mechanism to regulation that seeks to supplement it. The intellectual basis for both sorts of dirigisme is the same. Planning being discredited by the events of 1989, dirigistes—spanning the political spectrum—have rallied around the banner of bureaucratic regulation to correct various forms of perceived market failure. These relate to externalities, in particular those relating to the environment, and to various forms of monopoly. Having dealt with the former elsewhere (see Lal 1994, 1995), I shall be mainly concerned with the latter.

This new metamorphosis of the dirigiste beast—in the form of bureaucratic regulation of the market—has plagued the United States since World War II. In particular, given the growing importance and shortage of infrastructure—and the inability to finance it through taxation—governments in both the Third and Second Worlds are being forced to examine private sector alternatives. As many aspects of infrastructure have the characteristics of natural monopolies, which current wisdom and past practice in the United States deem require regulation in "the public interest," its future development and regulation will provide the major operational arena for the new dirigisme.

The Mutations of the Planning Syndrome

Shifting Notions of Competition

The common intellectual basis for the justifications provided for planning and regulation is linked to a subtle but important shift in

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economists' notion of competition—from the classics, spanning Adam Smith to J.S. Mill, to modern mainstream economics. The latter's intellectual moorings are provided by the so-called Arrow-Debreu theory of general equilibrium, which it is asserted gives precision to the claims of the classics on the virtues of the market (see Arrow and Hahn 1971: vi-vii). But as Blaug (1987: 443) points out, one needs to note

> the subtle but nevertheless unmistakable difference in the conception of "competition" before and after the "marginal revolution." The modern concept of perfect competition, conceived as a market structure in which all producers are price-takers and face perfectly elastic sales curves for their outputs, was born with Cournot in 1838 and is foreign to the classical conception of competition as a process of rivalry in the search for unrealized profit opportunities, whose outcome is uniformity in both the rate of return on capital invested and the prices of identical goods and services but not because producers are incapable of making prices. In other words, despite a steady tendency throughout the history of economic thought to place the accent on the end-state of competitive equilibrium rather than the process of disequilibrium adjustments leading up to it, this emphasis became remorseless after 1870 or thereabouts, whereas the much looser conception of "free competition" with free but not instantaneous entry to industries is in evidence in the work of Smith, Ricardo, Mill, Marx and of course Marshall and modern Austrians. For that reason, if for no other, it can be misleading to label classical economics as a species of general equilibrium theory except in the innocuous sense of an awareness that "everything depends on everything else."

It is equally surprising that the "Chicago school," as Kirzner (1994: 103) has noted, "maintains that the competitive market economy displays systematic regularities only to the extent that it can be reasonably fitted into the perfectly competitive mold. Subsequent [to Frank Knight] generations of Chicago theorists would maintain that as a matter of fact the real world competitive market *can* so be fitted." Thus, self-proclaimed mainstream theorists on both sides of the market-dirigiste divide now use the Arrow-Debreu model as their paradigm.

From this theoretical perspective, the two fundamental theorems of welfare economics are derived, which theorists assert provides the justification for the superiority of a market economy (see Dasgupta 1980, Hahn 1984, Sen 1983). While if one or the other conditions for the existence of the utopian state of perfect competition are not

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Professor B.R. Shenoy Memorial Lecture, which he delivered in Ahmedabad, Gujarat in March 1996.

met, there is "market failure" and thence a prima facie case for government intervention. This justification for dirigisme is bizarre (Lal 1983, 1987). To compare competition in any actual market economy with an unattainable ideal, is, to use Demsetz's (1969) useful phrase, a form of "nirvana economics." For it is child's play to show that because of incomplete markets, external effects, and the existence of public goods, "market failure" defined as deviations from the perfectly competitive norm is ubiquitous, but the corollary that this then requires massive corrective public action is highly dubious.

But "market failure" was the intellectual basis of the planning syndrome. As emerged in the famous debate between Lange, Lerner, von Mises and Hayek in the 1930s, the planners (Lange and Lerner) argued that (a) because of the ubiquitous imperfections in most markets, no market economy could ever in practice attain the utopian norm of perfect competition, and (b) through computations simulating the outcome of a perfectly competitive economy, the planners could compel the production of the resulting quantities of inputs and outputs (or legislate their optimal relative prices). A planned economy could, thus, achieve nirvana. Hayek and Mises pointed out that, though such a form of planning might be theoretically feasible in a world where information about resources, technology, and the myriad actual and possible production processes and tastes of consumers could be costlessly acquired by the central planning authority, in the real world it would be impossible. The market-based price mechanism is essential because it makes use of the division of knowledge which is unavoidable in any real world economy (see Hayek 1935).

The failures of centralized planning—not least in India—are now well known, with the events of 1989 having hopefully buried the planning syndrome. For even mainstream theorists accept that imperfect information leads to incomplete markets (see Greenwald and Stiglitz 1986, Dasgupta 1980, and Stiglitz 1994), which cause problems of what is called "incentive compatibility"—exactly the point made by Hayek and von Mises in the 1930s. Thus, a command economy on Lange-Lerner market-socialist lines is ruled out.

Neoclassical Public Economics

But it is being argued that a full welfare optimum or Pareto improvements can be achieved by the government implementing a system of optimal taxes and subsidies. This "optimal tax" basis for the new dirigisme is set out in Stiglitz (1994), and its theoretical base is claimed to be the working out of this optimal tax structure in Greenwald and Stiglitz (1986). Its relevance is however strictly limited. First, because its implementation raises questions both about the character of the

mandarins required to implement these "optimal taxes," and second, because in a dynamic economy the optimal structure will have to be continually changing and the requisite information will not be readily available to the authorities, as Hayek (1945) noted a long time ago.[1]

On the first question concerning political economy, Greenwald and Stiglitz (1986: 234, n.7) note: "We ignore any discussion of the political processes by which the tax-subsidy schemes . . . might be effected. Critics may claim that as a result we have not really shown that a Pareto improvement is actually possible." Quite! While on their claim "that there exist Pareto-improving government interventions . . . [and] that the kind of intervention required can be simply related to certain parameters that, in principle, are observable" (p. 231), they are in their concluding comments forced to concede:

> We have considered relatively simple models, in which there is usually a single distortion (one kind of information imperfection, one kind of market failure). Though the basic qualitative proposition, that markets are constrained Pareto efficient, would obviously remain in a more general formulation, the simplicity of the policy prescriptions would disappear. Does this make our analysis of little policy relevance? The same objection can, of course, be raised against standard optimal tax theory. (Some critics might say, so much the worse for both.) Though simple expositions of optimal tax theory often focus on the case of independent demand curves, in the general case, one needs to know all the cross elasticities of demand, and these are seldom available. What is worse, if one abandons the unrealistic assumption of the standard optimal commodity tax formulation (e.g., Diamond-Mirrlees 1971, with their assumption of 100 percent pure profits taxes, no restrictions on commodity taxation, and no [progressive] income tax), then the informational requirements on the government are even greater [Greenwald and Stiglitz 1986: 258].

To those of us who misspent our youth advocating the Little-Mirrlees rules of second-best shadow pricing, the policy irrelevance of the new dirigisme is hardly surprising.[2]

[1]Stern and Newberry (1987) have advocated the application of this optimal tax theory to developing countries. But as they note, it assumes that "the government has coherent, unified and largely benevolent objectives, captured in the social welfare function, and we search for ways in which the tools available to it can be used to improve the measure of welfare" (p. 653). That the theory is irrelevant for most developing countries is patently obvious as most of their polities do not even come close to these assumptions about their character. While if a predatory state or rent-seeking society is accepted as likely, the optimal tax rules are no longer valid even within this framework (see Lal 1994: chap. 13). For a trenchant critique of optimal tax theory, see Harberger (1987), who moreover notes that it is based on a philosophy of government—the social-engineering view—which differs from that of classical liberalism.

[2]See Lal (1980) for one of these exercises in irrelevance, and Lal (1993: chap. 1) on how I came to eschew this public-economics approach to public policy.

Market Governance or Business Governance?[3]

Many, however, have found the case studies of supposedly successful dirigisme in the Far East conducted by the "market governance" school more persuasive. It is undeniable that the trade and industrial policies of many of these countries were dirigiste. But was their undoubted success due to or despite this dirigisme? I.M.D. Little (1994), basing himself on estimates of social rates of return to investment for Korea, shows convincingly that they were inversely correlated with the degree of dirigisme. While the World Bank's 1993 *East Asian Miracle* study, which based its empirics on total factor productivity calculations, despite its circumlocutions, found that public interventions in both Korea and Taiwan had little effect in altering the structure of production at the sectoral level, and that the least selective intervention in these and other Asian miracle economies—the commitment to manufactured exports—was the most successful. Thus, despite the claims of the market governance school these economies vindicate policies of "getting prices right" rather than of getting them wrong.

Another more persuasive explanation can be provided for their industrial and trade policies (see Lal 1993). Following some insights of Demsetz (1995) concerning the problem of control of business enterprises, I have suggested that the explanation for the undoubted dirigisme to be found in Korea and Taiwan, for instance, is to be explained by the agency problem that a country faces when it moves up the ladder of comparative advantage—ordered by ascending ratios of capital to labor—into more capital intensive lines of production, where there are likely to be indivisibilities in investment. In the absence of private concentrations of wealth, ownership and control are likely to be separated in these industries, leading to an agency problem, as the interests of the managers who control the day-to-day operation of a firm and the owners who are concerned with maximizing the return to their "shares" diverge. The problem is one of maintaining beneficial control over resources when there are economies of scale and scope in a firm. This control is in turn related to the amount of private wealth that is required to reduce the degree to which ownership is separated from control of the relevant resources. Inequalities in private wealth may therefore be productive in allowing fewer people to own firms and exercise greater control over the managers than if

[3]The "new growth theory" (Romer 1986, Lucas 1988) and the "new trade theory" (Brander and Spencer 1984, Helpman and Krugman 1985) have also been used to support dirigisme, but their theoretical and empirical bases have not been found to be persuasive by either theorists or applied economists (see Solow 1994, Stern 1991, Pack 1994, Baldwin 1992, and Lal and Myint 1996).

wealth and "shares" in the firm were more dispersed. This agency problem becomes important as soon as a country moves to the more capital intensive rungs of its ladder of comparative advantage. For at the lower rungs, given the small concentrations of capital required to set up enterprises, they can be owner-managed.

There are three ways of overcoming this agency problem. The first is through sufficient concentration of private wealth, and some institutional means for its spread over a number of enterprises while maintaining control by some concentrated owners. The second is through public enterprises. The third is through foreign equity controlling local firms.

Korea, following Japan, sought to create concentrations of private wealth through the promotion of the *chaebol*. The major instrument was long-term subsidized credit to a select number of industrial groups, who were chosen by a relatively efficient dynamic monitoring process based on export success—under a relatively neutral overall trade regime. But the resulting concentration of economic power has subsequently become a political albatross.

In Taiwan, by contrast, as the government was concerned with the political consequences of promoting native Taiwanese economic power, it eschewed the Korean route and instead chose the public sector route for capital-intensive industries like ship-building and petrochemicals; but with the usual damage to profitability as compared with the private sector alternatives (see Wade 1990: 81).

Singapore chose the third route, but its "neutral" trade regime ensured that the direct foreign investment was not of the tariff-jumping kind, and hence likely to be both socially as well as privately profitable (Lal 1975).

Finally, there is the laissez-faire example of Hong Kong. Whilst Singapore did try to force the pace at which its industries were to move up the ladder of comparative advantage (with some dire results as in its 1980s recession), Hong Kong let its industrial structure evolve more naturally. If performance is judged by the productivity of capital then Hong Kong has been the more successful (see Findlay and Wellisz 1994, Lal and Myint 1996, Young 1992).

A Counter Counter-Revolution in Development Theory?

This experience suggests that there is little merit in the new dirigiste case. So why has Krugman (1992) proclaimed a "counter counter-revolution in development theory?" Because, he claims, the ideas of the old development economics—based on the importance of increasing returns and pecuniary external economies that underwrote concepts like the "big push" in investment and "backward and forward

linkages" in planning industrialization—have now been formalized and shown to be logically consistent. In other words, he claims that the reason the old development economics failed to persuade was because it did not use formal mathematical models to express its ideas. But that is ridiculous. As his discussant Stiglitz (1992: 41) rightly noted, "That we can write down a model of a phenomenon proves almost nothing. It does not make the idea right or wrong, important or unimportant." The reasons why the "big push" and "linkages" do not persuade were clearly set out in the detailed discussion by Little (1982). Murphy, Shleifer, and Vishny's (1989) formalization of a model does not in itself validate a big push in investment whose validity depends on the income effects associated with increasing returns—which are irrelevant in an open economy.

Moreover, we now have empirical evidence of the outcomes in countries that did try a "big push." Four were included in the Lal and Myint (1996) study—Ghana, Madagascar, Brazil, and Mexico.[4] The results were invariably disappointing if not disastrous (as in Ghana and Madagascar). To promote such bad policies just because some theorists have been able to write down some algebra is not only puerile but wicked, given the high costs that the poor people thus being experimented on suffer.

Regulating Monopolies: Toward a New Dirigisme

Monopoly and Competition

While the above debates are unlikely (I hope) to have any practical influence on the current worldwide move from the plan to the market, another more ancient debate concerning monopoly and how best to deal with it is likely to promote a new dirigisme.

Two Views About Monopoly

There is a popular view propounded by socialist thinkers like R.H. Tawney and embraced by many Third World politicians like Jawaharlal Nehru that a market economy will inevitably be dominated by monopolies. It continues to resonate, not least in many supposedly market economies. But is it right? An important paper by my UCLA colleague Harold Demsetz is useful in setting the record straight. As he notes, there have been two systems of belief about monopoly: one, due to Adam Smith, that sees monopoly as being necessarily underwritten by government action designed to keep potential rivals from competing; and one that views monopoly as arising naturally, without govern-

[4]Also see Lal and Maxfield (1993) for a detailed analysis of the Brazilian case.

ment intervention, because of economies of scale. In this second case, the theoretical model of monopoly—in which there is only one firm in an industry, as compared with the atomistic case of perfect competition—has led to the belief that monopoly is significantly correlated with market concentration. But as Demsetz (1988a: 94) notes, "The monopoly model *assumes* that monopoly power exists, it does not explain *how* monopoly power is exercised and maintained." In particular, there is "no good explanation . . . provided for how present and potential rivals are kept from competing without some governmentally provided restrictions on competitive activities." The usual culprits, economies of scale, indivisibilities of capital, and advertising as sources of barriers to entry are acquitted while the empirical evidence in support of the view based on Bain's supposed demonstration of a positive correlation between profit rates and measures of market concentration is shown to be at best shaky if not nonexistent on the basis of more recent research.

A similar view, that the degree of market concentration does not imply that market prices and outputs will necessarily diverge from the competitive outcome, is also stressed by the recent theory of contestable markets (Baumol, Panzar, and Willig 1982). Even with scale economies which limit the number of firms that can service a particular market, as long as potential rivals can contest the monopoly, the single eventual incumbent's pricing and output policies need not diverge from those under competition. The only rent such a monopolist can acquire is in terms of the sunk costs of firm-specific assets essential for production.

All this suggests that, appearances to the contrary, the old Smithian view that monopolies ultimately depend on government support is valid. In the absence of such public protection, even in industries where only one firm survives, there is no necessary presumption that its behavior will be monopolistic.

This of course means that regulations designed to increase competition—such as U.S. antitrust legislation—are unnecessary. Worse, because of the evidence of the capture of the regulatory agencies by the companies being regulated (Stigler 1988), for well-known reasons of political economy, there is the clear danger that such regulations instead of promoting competition create the very government mediated barriers to entry which nurture monopolies.

The basic reason for this is that efficient economic performance does not only depend on one type of competition—the *imitative* output competition emphasized by perfect competition. Equally important is *innovative* competition, particularly of the creatively destructive kind emphasized by Schumpeter. Whereas, for the imita-

tive output competition of perfect competition, efficiency does require a large number of firms, innovative competition most likely does not. Much innovation has the hallmarks of a race in which the winner takes all. As Demsetz (1995: 139) notes, "The competitive intensity of [such] a contest is not always increased by adding more contestants." What matters is the quality of the contestants and the size of the prize. The existence of patents and other devices to prevent imitative competition—at least for a time—to allow the winners in innovative competition to secure a big payoff for their innovative effort shows that, in a dynamic market economy, there may be many dimensions of competition, with some of the characteristics associated with the different dimensions being inversely correlated—e.g., imitative competition requires a large number of firms, whilst innovative competition requires a small number. Given this reality and the resulting incommensurability of different dimensions of competition relevant for the efficient functioning of a dynamic economy, there can be no single measure—such as market concentration—of competitiveness that can be used to judge the dynamic efficiency of an actual market economy.

Rate-of-Return and Price-Cap Regulations

Nor will rate-of-return or price-cap regulatory formulae necessarily ensure competition. For once there are scale economies, prices can no longer equal marginal costs and there cannot be perfect competition. Competition will not be merely imitative but have some of the elements of a contest, in which some agents will lose and others win. It would be inappropriate to judge the intensity of competition of such a contest by the ex post rate of return of the winner. As Demsetz (1995: 146) notes, "If one were to gauge competitive intensity by the rate of return on investment made by winners in a lottery game, the rate of return would be quite high, but a negative return is obtained if the calculation includes the wagers made by losers." So if one were to use the rate of return criterion to judge the competitiveness of a particular industry, the calculation should ideally also include the costs incurred by those who competed to become incumbents but lost. If, moreover, the decision on incumbency depends on government favors, then the cost would also have to include the rent-seeking costs of all the contestants associated with competing for political favor. That inclusive rate of return need not be above some competitive norm. But, in practice, it will be impossible to calculate.

Natural Monopolies: Regulation or Auctions?

But what of natural monopolies? Surely, once a firm acquires one, it will exploit its monopoly power, and hence such natural monopolies

will require some form of regulation. Most infrastructural services have elements of natural monopoly. This was the justification used in the past for their nationalization. But, with growing fiscal constraints and the well-known inefficiencies associated with public enterprises, there is a welcome move globally for their privatization. Will this not inevitably lead to these natural monopolies being used by private producers to exploit consumers? Hence, should these utilities not be regulated?

Competition for the Field versus Contestable Markets

The UCLA school of industrial organization has provided a distinctive and important answer to this question, which unfortunately is not as well known as the various dirigiste regulatory regimes currently being touted by mainstream theorists.[5] The basic idea has been labeled "competition for the field" by Harold Demsetz, following a distinction due to Edwin Chadwick in the 19th century between that term and "competition within the field."

Competition for the field differs from the notion of "contestability," insofar as the latter is concerned with competition between an existing incumbent and potential entrants to the natural monopoly. By contrast, competition for the field, as its name suggests, is concerned with the competition for becoming an incumbent in the first place. This distinction has important consequences for the price-output configuration and, hence, for the competitive efficiency of the economy. In the theory of contestable markets it has been shown that, in equilibrium, the only rents the incumbent of a natural monopoly can acquire are the sunk costs that a new entrant would have to incur in moving in and out of the monopoly. If an outsider can enter and exit a market without incurring any transition costs, then the natural monopoly would be perfectly contestable, and despite economies of scale and scope, the incumbent insider would not be able to garner any rents. But, as there are unlikely to be many natural monopolies in which these transition costs are insubstantial, insiders normally would be able to extract rents from consumers equal to these transition costs.[6]

[5]Harold Demsetz (1995: 144, n. 70) notes: "As a small act of institutional immodesty, I note that the profession has allowed the University of Chicago to appropriate to itself the efficiency doctrine of antitrust. The offering of this doctrine in a substantive, analytical way originated at least as much from work done at UCLA as from that done at Chicago." He along with Armen Alchian and Ben Klein have been the leaders of this UCLA school of industrial organization.

[6]I have found this theory particularly useful in thinking of the natural monopoly that is the state. In Lal (1989), I develop a model of the predatory state in which contestability plays a central role. The model is used to explain the rise and fall of empires in India over the millenia.

The situation is very different from the viewpoint of competition for the field. Here the competition takes place *before* production begins, with would-be natural monopolists competing for the right to serve the market in which each rival could serve the market at the lowest cost, adopting the best technology. In this competition for the field, as Demsetz (1968) showed in his famous essay "Why regulate utilities?," the potential rents of the natural monopoly would be competed away with the best bid amongst the rivals being accepted by the community for becoming the incumbent of the natural monopoly. Thereafter, there would be a distinction between insiders and outsiders, and substantial transition costs for the latter—in sharp contrast with the conclusions of contestability theory. For without these entry barriers, the potential cost reductions associated with scale economies may not be realized by the successful incumbent. The frequency of competition for the field, or equivalently the length of a franchise to the natural monopoly, will depend on the particular supply and demand conditions for the output of the natural monopoly. Also, there is no reason why there should not be contractual conditions attached to the possibility of renegotiation of the terms of the franchise before its expiry. In fact, given uncertainty on this account, the rivals bidding for the franchise will take account of these renegotiation costs in their bids. Similarly, if there are likely to be future cost reductions because of technical progress, which would lead to future rents for the incumbent, these too would be taken into account in the rivals' bids for incumbency if they can be forecast, and the best bid again will involve the whittling away of these potential future rents.

Positive or negative windfalls, which are the result of unavoidable uncertainty, need not be inefficient. For instance, even in nearly perfect markets for commodities, economic agents suffer positive and negative windfalls all the time, but that does not provide a case for regulation. However, in the case of natural monopolies, those windfalls could continue for a considerable period of time. Thus, there could be political pressure for their curtailment if they are positive, and the danger of bankruptcy for the incumbent—and hence a disruption of supply—if they are negative. As such, a case can be made for having a renegotiation clause in any contract granting a franchise to a natural monopoly. What cannot be laid down is some ideal form of contract. For given the ubiqitousness of imperfect information and the associated uncertainty, agents can only search for the best available mutually advantageous contract. In Hayek's felicitous phrase, the market is par excellence "a discovery process."

Game Theory

In contrast with the UCLA view on regulation, the emerging technocratic view on the regulation of natural monopolies is based on the

frail framework of noncooperative game theory.[7] As the leading game theorists recognize, it is of very limited practical relevance because of the plethora of Nash equilibria that can be generated (Binmore 1990, Kreps 1990). Although of use in training the intellectual muscles of the young, it has not as yet yielded any robust, policy-relevant results in my view.[8]

On Privatizing Infrastructure Services

So how in practice should the current and future provision of infrastructural services in electricity, natural gas, water, sewerage, roads, telecommunications, be dealt with? Though there are some important differences between these different utilities, they have one common feature. The natural monopoly element in their provision consists essentially of the networks they use to ship their products. They provide common transportation facilities for all possible users rather than being dedicated to individual ones.[9] Thus, an electricity grid, a gas pipeline, a system of telephone lines, water and sewage pipelines, railway tracks, and roads are networks. All other aspects of the provision of the services of those utilities can be made competitive by allowing multiple users of these networks to service consumers.

Consider the provision of electricity or gas. There are three stages—production, transmission, and distribution—and there is no reason why the first and last stages should not be competitive. If rival firms are free to produce electricity as they see fit and to service users on the common network, there is no intrinsic reason why the production and distribution of electricity need require regulation.[10]

This leaves the problem of how to handle the transmission stage through the common network. Here there are two choices. First, the network could be communally owned and financed through taxation, but built and run through a franchise given to the bidder who offers to build and supply the network and its services at lowest cost to users. The services of the network would then be available to any user at a fixed fee, or could be free if administrative costs are high.

[7]See, for instance, Gilbert and Newberry (1994), which also has references to this literature.

[8]But see Laffont and Tirole (1993) for an attempt to provide a textbook for the dirigiste technocratic regulator.

[9]See Kay (1994) for this illuminating characterization of the natural monopoly element of utilities. But I do not subscribe to the technocratic regulatory conclusions of his argument.

[10]Recently the notion of "network externalities" has been advanced by Katz and Shapiro (1985), which are claimed to lead to market failure. But most of these—for instance, in computer networks and telecommunications—are examples of pecuniary externalities (Liebowitz and Margolis 1994). But as Buchanan and Stubblebine (1962) pointed out long ago, such pecuniary externalities are Pareto-irrelevant and do not constitute examples of market failure (see Lal 1994: chap. 11).

That solution, for instance, has been adopted for most public roads in many countries.

Second, the network could be privately financed. Consider electricity. Each regional grid could be set up as an independent private time-bound franchise and then auctioned to the bidder who offers to execute the quantity-quality terms of the franchise at the lowest cost to users during the fixed period the franchise will operate. The bidder who bids most for the existing grid, while meeting the other franchise conditions, would receive the franchise for the stipulated period.

At the end of the franchise there are two options. One is for the grid to return to the community, which then auctions a new franchise for the grid as before. This reversal of the assets in the expanded network to the community is very much the practice—for example, China has adopted it in its foreign direct investment projects.

The other alternative is for the incumbent of the grid to obtain the highest price anyone is willing to pay for the grid, subject to the new price-quality and expansion conditions. Of course the incumbent would also be able to participate in the bidding procedure.

There are three reasons to favor this latter alternative rather than have the networks's capitalized value revert to the community at the end of the franchise. The first reason is that, in the second form of contract where the incumbent recoups the capitalized value of the grid from the highest bidder for the new franchise, the price charged to users of the network and the price to final consumers will be lower than with the first option where the grid reverts back to the community. Of course, what consumers gain through lower prices, they lose through the loss of tax revenue that would accrue if the grid reverted back to the community. But if, for reasons of what may cryptically be called political economy, the social value of a dollar of tax revenue is less than one dollar, consumers may be better off getting their dissipation of the potential rents from the natural monopoly through a reduction in prices than through the government budget.

The second reason for preferring the option where the incumbent "sells off" the grid to the highest bidder after the end of his franchise is that this reduces the time inconsistency in his investment decisions that could arise with the first option of the grid reverting to the community. In this latter case, the incumbent would have an incentive to underinvest in both maintenance and expansion toward the end of his incumbency, and thus run down the assets of the natural monopoly. This problem would be avoided if he could obtain the capitalized value at the end of his incumbency of the assets he bought, maintained and created during his franchise.

Finally, as the incumbent will usually be a private firm, the trading of its shares on the stock market would permit takeovers by other private firms, which could prevent any monopoly developing on the networks even during the franchise period as has so often happened under regulation.

The same scheme would be applicable for the transmission of electricity at the intra-regional or local level. Intra-regional or local franchises would be set up and auctioned on the same principle as the regional grid.

With any user of the network having access to it at the fixed fee determined in the auction for the network, any company could set itself up without any government regulation to sell electricity to consumers. With the generation of power privatized, these distributing companies would be able to purchase electricity from the cheapest source given the varying demands for power. In fact, as has happened in Great Britain, a spot market for delivery of power by competing generators would develop. These generators could also end up specializing, with some finding it profitable to provide base-load and others peak-load power. There would be no need for government intervention of any sort in either the production or distribution of power.

Similar schemes can be set up for all the other infrastructural services, which do not therefore need to be funded from tax revenues. This solution would also prevent the regulatory jungle and rent-seeking that the botched privatization of utilities in Great Britain has promoted (see Robinson 1993, Beesley 1994).

Finally, it may be noted that in many countries the contracting out of the provision of many local public services—e.g., garbage collection—which was pioneered in Great Britain is now growing.

Conclusion

Professor Shenoy's was a lonely but eloquent voice pointing out the folly of planning in India. He was opposed by a clerisy claiming access to the latest technocratic thinking. They prevailed. But their prescriptions made it impossible to fulfill the pledge Nehru made in his famous "tryst with destiny" speech at Independence: "to wipe every tear from every eye." Thirty years after Shenoy's effective vindication—as India, however belatedly, moves from the plan to the market—another form of dirigisme promoted by the current technocratic "best and the brightest" could once again blight the prospects of fulfilling this pledge.

In this article, I have attempted to show that first, as before, with so much contemporary theory, in Peter Bauer's sage words, "The

emperor's new clothes are of the finest hue but there is no emperor within." Second, that, as regards the problem of natural monopolies in the provision of infrastructural services, there are simple ways to avoid the new dirigisme of regulation which, as in the past, the Siren voices of the clerisy are promoting. In this sense, I hope I have provided a fitting memorial to a great classical-liberal economist and a great Indian who showed uncommon wisdom and courage, and whose only fault was not to be in tune with his times.

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