PUBLIC POLICY FOR THE
Privatesector

The World Bank September 1995

Note No. 53

Subscribing to Monopoly

The Telecom Monopolist's Lexicon—Revisited

Peter Smith

The advocates of monopoly provision of telecommunications services have consistently relied on a small lexicon of catchphrases to support their case—*wasteful duplication of facilities, uneconomic entry, universal service, cream skimming*. These phrases convey a simplistic and often fallacious rationale for monopoly that is deeply entrenched in the thinking of telecommunications executives, civil servants, and investment bankers around the world. Although the monopoly approach has had some successes, it has also resulted in chronically poor telecommunications services in many developing countries. This Note assesses each catchphrase and its underlying arguments.

Wasteful duplication of facilities

Wasteful duplication evokes an image of multiple cables—owned by different telephone companies—stretching between buildings and across the countryside. The underlying economic argument is that the telecommunications sector is characterized by economies of scale and scope—that it is a natural monopoly. In this view, one supplier can produce a range of telecommunications services at lower cost than multiple suppliers. Consequently, it is argued, to avoid wasteful duplication of network facilities, telephone companies should continue to have a legal monopoly.

This argument is a dubious one. First, it assumes that losses of economic efficiency resulting from potential losses of scale and scope are likely to be the most important consideration. But there is now plenty of evidence that this is not the case. In the vast majority of developing countries that have suffered from chronic and often acute undersupply of telecommunications service in a monopoly regime, the largest economic loss has not been loss of economies of scale and scope, but a massive failure to meet economic demand for service.

Second, there are many examples of other very large economic losses resulting from the productive inefficiencies that arise in the absence of competition. In many developing countries, capital costs range from US$3,500 to US$4,000 per telephone line, compared with achievable costs of about US$1,000 to US$1,500. High levels of productive inefficiency are also confirmed by the responses of industrial country telephone companies exposed to competition. For example, BT (formerly British Telecom) is in the process of reducing the number of its employees from about 240,000 in 1984 to about 140,000 by the end of 1995. Similarly, in the United States, competition and divestiture are widely recognized as having caused AT&T to make substantial efficiency improvements.

Third, the "wasteful duplication" argument in support of legal monopoly assumes that economies of scale and scope can be "harvested" only by a single supplier. That is clearly not the case—network interconnection is a well-established mechanism for reaping economies of scale and scope in a multi-operator environment.

Fourth, the natural monopoly argument implicitly assumes that the economies of scope exist only within the telecommunications sector (for example, in the provision of both local and long-distance service by a single supplier). Not only have these economies of scope been difficult to verify in econometric studies,[1] but the

assumption ignores the potential for supply convergence—the probably much larger economies of scope available to companies that also provide other network services, for example, cable television or electricity distribution. In the United Kingdom, local telephone service is provided not only by BT and Mercury but also by cable television companies and by Energis, a new entrant that uses electricity distribution ducts and rights of way for local telephone network facilities.

Uneconomic entry

The "uneconomic entry" argument is an offshoot of the "wasteful duplication" one. It contends that when telecommunications prices are very distorted—as they often are, by high prices (relative to costs) for long-distance telephone service and by rate averaging—new entrants could achieve profitability while at the same time increasing the sector's total costs of meeting demand for service. In other words, price distortions could enable a new entrant to make a profit at lower prices than an incumbent despite higher unit costs. On this basis, it is argued that new entry should be prohibited until prices are rebalanced to reflect costs.

The largest economic loss has not been loss of economies of scale and scope, but a massive failure to meet economic demand for service.

Although the potential for uneconomic entry is real, the assumption that the appropriate policy response should be to prohibit entry until prices are rebalanced is wrong. This approach, again apparently based on a public interest in minimizing total system costs, would have the effect of postponing new entry indefinitely where politicians find rebalancing rates difficult. In fact, often the fastest way to rebalance rates is not to postpone new entry but to authorize it in highly profitable market segments. "Taking the cream away" greatly increases incentives for incumbent operators to rebalance rates to reflect costs as well as to reduce their costs in order to remain competitive.

Universal service

A widely accepted public policy objective in the telecommunications sector is universal telephone service—often defined as a telephone line (or a shared telephone line) for every household. Depending on prices, household income, and consumption preferences, however, many households would choose not to subscribe to telephone service, particularly in developing countries. So it is argued that the objective of universal service requires massive cross-subsidy managed within a monopoly regime—and therefore a pricing structure that bears no relation to costs. Monopoly, it is argued, is necessary to generate the profits to be used to cross-subsidize service to "uneconomic" market segments or regions. Cross-subsidies normally run from international and national long-distance service to local service, from urban to rural subscribers, and from business to residential service. Ironically, this argument for universal service has often been used to justify the worst of all possible economic outcomes in the sector—a monopoly on a service that is not provided at all (in the rural areas of many developing countries) or not provided to any adequate standard (in both urban and rural areas of many developing countries).

Although achieving universal service has been the rationalization for maintaining a legal monopoly, there are fundamental problems with this objective. First, universal service, if it means a telephone for every household, is not necessarily the right goal for every country; where per capita income is low and capital scarce, there are likely to be higher priorities. Second, the idea that low, subsidized local telephone access prices are the best route to universal service is wrong. In most developing countries suffering from chronic unmet demand for tele-

phone service, the key problem is inadequate supply (inadequate investment and inefficient investment and operations), not inadequate demand. Furthermore, the lower costs and increased innovation in service provision that result from a competitive market are likely in the long run to be at least as important as subsidies in improving the affordability of telephone service. In addition, there is evidence from some countries that household subscribers who lose telephone service when they cannot afford to pay for it do so because of the high-priced long-distance service component of their bill.[2] Third, assumptions about the uneconomic characteristics of some market segments may be wrong. What is uneconomic for one operator can be profitable for others and therefore may not need to be cross-subsidized at all.

Cross-subsidies raise some complex issues. The argument for them assumes that the scale of cross-subsidy required is very large. But a study in Australia found the required subsidy to be quite small.[3] The argument also assumes, incorrectly, that monopoly is required for cross-subsidy to be possible. That is clearly wrong—there are many examples of cross-subsidies coexisting with competitive markets for telecommunications services. Also wrong is the assumption that subsidies must be cross-subsidies, between large groups of customers within the telecommunications sector, and effectively administered by the monopolist. If subsidies are required to achieve political goals, direct, targeted ones may be more appropriate. An important concern is that both cross-subsidies and monopoly reduce incentives for efficiency. Indeed, it is very difficult for a regulatory agency to tell whether it is customers who are being cross-subsidized—or employees, investors, equipment manufacturers, and inefficiency. Finally, in developing countries, the typical case of cross-subsidy of urban residential telephone service is the equivalent of a regressive tax and income redistribution policy. This de facto tax and transfer scheme, established without legislative approval, benefits primarily the urban middle class.

Cream skimming

"Cream skimming," together with its cousin "cherry picking," is the argument that new entrants in telecommunications are likely to focus on the most profitable parts of the market—typically international and national long-distance and local business telephone service—or on the largest customers in these market segments. As a result, it is argued that a cross-subsidy scheme would not be sustainable in the face of "cream skimming" new entrants and that politicians would not be comfortable with the resultant rate rebalancing, involving possibly unpopular increases in local network access subscription charges. The discussion of this issue is then essentially the same as the cross-subsidy discussion above. The cherry picking argument assumes that in a competitive telecommunications services market, corporate customers are the most profitable. This is not always the case. In the United Kingdom and the United States, for example, this market segment has one of the lowest profit margins, and there is also vigorous competition from both incumbent operators and new entrants for residential customers. Cream skimming should be viewed not as a negative and unwholesome activity, but as normal market behavior that, by "taking the cream away," helps correct price distortions and enhances incentives for cost reductions.

The argument for universal service has been used to justify the worst of all possible economic outcomes in the sector—a monopoly on a service that is not provided at all or not provided to any adequate standard.

For the criticisms of cream skimming to be valid, three assertions would have to be true: that the "cream" is necessary to promote ex-

panded demand for service; that it is used effectively by the monopolist to expand service and not dissipated in inefficient operations, overstaffing, unnecessarily high payments for equipment, and transfers to shareholders; and that the monopolist's cost structure is so close to optimal that competition would bring minimal efficiency gains. In practice, in many, many cases, these assertions are not true.

Obstacle to liberalization

Each catchphrase—*wasteful duplication of facilities, uneconomic entry, universal service,* and *cream skimming*—packages complex issues with a superficial and flawed appeal to a public interest agenda. Very often the objective is to bolster the case for continuing a monopoly and maintaining the role of the monopolist as the vehicle for cross-subsidy. The risk that this approach will create the wrong incentives for investment and efficiency and sustain poor performance is very high. The monopolist "mind set" has slowed liberalization in many developing countries, and the resulting absence of competition has led to persistently poor telecommunications services.

[1] See Coopers & Lybrand Consulting Group (1988).
[2] See Canadian Minister of Supply and Services (1986).
[3] See AUSTEL (1994).

References

AUSTEL. 1994. *Telecommunications Universal Service Obligation*. Australian Telecommunications Authority Occasional Paper.

Baer, Walter S. 1995. "Telecommunications Infrastructure Competition—The Costs of Delay." *Telecommunications Policy* (July).

Canadian Minister of Supply and Services. 1986. *Federal-Provincial Examination of Telecommunications Pricing and the Universal Availability of Affordable Telephone Service*. Report and Working Papers. Ottawa.

Coopers & Lybrand Consulting Group. 1988. "The Effect of Changing Technology on the Structure of Costs for the Provision of Public Long-Distance Telephone Service." In Federal-Provincial-Territorial Task Force on Telecommunications, *Competition in Public Long-Distance Telephone Service in Canada*. Minister of Supply and Services, Ottawa, Canada.

Mueller, Milton. 1993. "Universal Service in Telephone History: A Reconstruction." *Telecommunications Policy* (July).

Smith, Peter, and Gregory Staple. 1994. *Telecommunications Sector Reform in Asia: Toward a New Pragmatism*. World Bank Discussion Paper 232. Washington, D.C.

Peter Smith, Senior Telecommunications Policy Specialist, Industry and Energy Department, Telecommunications and Informatics Division

This series is published to share ideas and invite discussion. It covers financial and private sector development as well as industry and energy. The views expressed are those of the authors and are not intended to represent an official statement of Bank policy or strategy.

Comments are welcome. Please call the FPD Note line to leave a message (202-458-1111) or contact Suzanne Smith, editor, Room G8105, The World Bank, 1818 H Street, NW, Washington, D.C. 20433, or Internet address ssmith7@worldbank.org.

♻Printed on recycled paper.