

obvious reasons, and monopoly rents should not be included in the interconnect price.

While there is considerable debate as to the "correct" interconnect price, it appears that the interconnect price should be included in the price cap formula in order to avoid the opportunity for price squeeze by the incumbent on its competitors.

Anti-trust Policy

Finally, a strong anti-trust policy ensures that any attempt to monopolize markets through predatory practices including foreclosing entrants, predatory pricing, or other anti-competitive tactics or practices, are controlled and punished. I am not expert on the anti-trust laws in Spain to comment their efficacy, but I draw this to the reader's attention in case adjustments in the laws are required.

CONCLUSION

It is a propitious time in Spain's telecommunications history. Decisions made over the next few years will be critical, not only to the industry, but to the Spanish economy and its development in the information age.

The controls over prices should be developed as quickly as feasible. Price caps with a productivity factor for the incumbent is the desired method of control in our opinion.

Competition should be allowed into any market after a suitable transition period. The elimination of cross-subsidies should be addressed as soon as possible. Interconnection rules and price guidelines have to be developed.

The anti-trust laws should be examined to ensure that they can be applied to predatory behavior and pricing practices on the part of any of the players.

If this can be implemented correctly, Spain can become one of the leading forces in the European telecommunications industry. Resistance to these changes can reduce overall performance of the economy.

James Alleman

Universal Service/Cross-subsidies

Universal service obligations and other cross-subsidies represent one of the greatest threats to an effective implementation of incentive regulation. We take the position that the universal service obligation via the pricing of exchange service below costs is inappropriate because it does not meet its intended goal. It is inefficient, and undesirable and does not help the intended group. It subsidizes the company, not the individuals in need. Finally it can be shown that the service subsidy is anti-competitive.

Moreover, a democratic argument can be made that embedding cross-subsidies in the rate structure is a form of tax on consumers without any approval of a legislative body -- a tax which lacks legislative approval; is regressive in its incidence, and hidden from consumers. In the United States, millions of trees have died in supporting or refuting the size of the "tax" despite the fact that the tax does not obtain its objectives.

If expanding telecommunications service is desirable, the preferred and efficient method is to directly target the subsidies to the customers who would not otherwise join the network. These direct subsidies should come from the government through the standard legislative process, not through the hidden tax in the rate structure.

If the regulatory authority is unwilling to eliminate this and other cross-subsidies in the rate structure, it must ensure that the burden of universal service is equitably distributed among the companies.

Interconnection Pricing

The other major problem facing the regulator is to determine the correct interconnect price to the incumbent's competitors. The problem is that the monopolist provides a necessary input (for example, a mobile telephone call terminating connection to the end user through the public switched network) to its competitors, but yet competes against the same competitors. Without any control on this intermediate price the monopolist has an incentive to over-price these inputs to force the competitors to price their services high, perhaps so high as to make entry unprofitable.

The most obvious example in Spain is the competition of the two mobile telephone companies. Airtel Móvil and Telefónica compete for mobile customers, but connection to Telefónica's public switched network is necessary for Airtel Móvil to provide full service to its customers. The cost of this connection is the interconnection price. If the interconnect is "over-priced," Airtel Móvil's demand, revenues and profits are reduced and its customers have to pay more for the service. Conversely, Telefónica maintains or improves its market share, improves revenues and profits.

The goals of interconnect prices are similar to other regulatory goals. Inefficient bypass should be avoided -- that is, bypass service that is more expensive to provide than the incumbent's -- the duplicate networks should be avoided for

Competitive Policy

Free entry is the desired competitive policy. The technology of information/telecommunications has changed dramatically in the past decades. It is now possible for a variety of technologies and companies to provide functional equivalent telecommunications services. These companies can provide traditional voice telephony services and/or new innovative services. The key point of the policy is not to exclude their entry into any market by legally forbidding it. The intuition of this policy is straight forward. The previous monopoly carrier, Telefónica, will be alert to marketing possibilities; it will attempt to keep costs low, and it will be sensitive to customers' wants and needs, as it recognizes that a competitor could enter any of its markets where it is not the best, most efficient provider. No review of costs is required. No argument regarding economies of scale or scope can be invoked to keep out the competitors, since, if the firm has these economies, competing firms will not be able to establish themselves in the market. Competition acts as a substitute for regulation. No legislation or other legal barriers to entry should be raised against potential competitors. The mere threat of entry may be sufficient to obtain the desired behavior on the part of the monopolist.

Four caveats to this policy must be observed. The open entry policy should allow for a well defined and terminal transition period for the monopolist; cross-subsidizes, particularly the universal service obligation, should be dealt with equitably among all competitors; the proper interconnection (intermediate good) rules and prices should be determined; and an effective anti-trust policy should be in place.

Transitional Period

The requirement for a transitional period is twofold: First, it allows the former monopolist to prepare itself for the coming competition without institutionalizing inefficient entry. As discussed below, many inefficient cross-subsidies are currently built in the network prices of Telefónica. If Telefónica is not allow to correct these within a reasonable period of time, then an inefficient competitor could cream-skim a market that was generating a subsidy; and convince the regulator that it should, somehow, remain in business and be protected from the incumbent when the incumbent removes the excess profits from this market and lowers prices. Telefónica should have time to correct these inefficient cross-subsidies unless the regulator is willing to see firms enter markets, and then be driven out of these markets when the price structure changes. (If the firms are aware that the regulatory authority will allow exit from the market of inefficient firms, then the transition period could be shorter, and the incentive for inefficient entry would be reduced considerably. But, this must be a credible policy; action, not simply threats.)

Second, the incumbent, Telefónica in this case, has to have time to adjust its cost to the new regulatory environment. It can be argued that it should have been doing this since the "Green Paper" of the European Union was issued, which recommends the opening of the telecommunications markets by 1998 (for some countries, including Spain, this date is 2003). While Telefónica appears to be efficient by EU standards, we believe there is still room for additional improvement.

A CRITICAL JUNCTION IN THE TELECOMMUNICATIONS INDUSTRY

OVERVIEW

The telecommunications industry has reached a critical junction in Spain. It has allowed a second entrant into the mobile market and it has just appointed a regulator with a significant budget and a broad mandate. In this article, we will review the major elements which the regulatory authority should consider in its new role. They are: rate regulation, competitive policy, universal service obligations and finally interconnect pricing. (We also note the role of anti-trust policy.) While these issues may appear arcane to the uninitiated, they are critical to implementation of a successful public policy. Poor implementation can lead to serious losses in the economy years later. These views represent my observation over a number of years of regulation of the telecommunications industry in the United States and elsewhere. (The points made here are elaborated in the modules developed for a short course on telecommunications regulation sponsored by Fundación Airtel Móvil, and in the presentation made to Telefónica on the (United States) Telecommunications Act of 1996.)

ISSUES

Rate Regulation

Obviously, Telefónica is the dominant carrier in Spain and, no doubt, will remain so for sometime. The role of the regulator is to ensure that this monopoly does not use its market power to over-charge its customers nor practice predatory pricing against its potential competitors while at the same time ensuring that the company remains financially viable, innovative and continues to maintain and expand its network.

Traditional regulation, known as rate of return regulation, has been used to control prices through control on the rate of earning on invested capital. This cost-plus type regulation has been shown to be ineffective. The preferred regulatory approach is incentive regulation (also called price caps). Incentive regulation is based on the magnitude of the price changes allowed to the incumbent, in this case Telefónica. It ensures that the telephone company does not increase its (weighted) average prices more than the change in an inflation index less a productivity factor. The intuition is that the price index will reflect changes in the cost for Telefónica and the productivity factor will capture the improvements in technology, increases in demand and economies of scale and scope. Thus, if no change in the rate of inflation occurs, prices are lower by the amount of the productivity factor. The advantage of this form of regulation is that the telephone company has an incentive to perform more efficiently than it has in the past, since it must lower its real prices each year by the productivity factor. Moreover, any additional cost savings, beyond the productivity factor, the firm is allowed to keep.

Coupled with incentive regulation is a competitive policy which allows free entry into Telefónica's markets. It is to this we now turn.