Policy Reform in Networks Infrastructure: The Case of Mexico

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Abstract

This paper addresses the recent Mexico experience in the opening to competition in networks infrastructure mainly in the telecommunications sector. In spite of deregulation and privatization policies in the recent past, there are threats from regulatory failures which create obstacles in the process of maximizing the competition scope. Obstacles from distributive goals, protectionist devices to the dominant networks and also to the new providers from further competitors, and also overlapping regulatory agencies, are policy failures to procure competition. The path from State-operation to "*managed competition*" leads to a deficient competition environment due to the excessive authority oversight from an inefficient regulatory design, which will make costly future, more ambitious, deregulation efforts. The paper focus on interconnection policy between the public telephone network operator and the new long distance carriers, and related provisions in natural gas and railroads. Also, it focus on spectrum policy allocation and the role of the new antitrust authority and the specialized regulatory agencies.

I. Interconnection and Competition.

1.1 Telecommunications.

The opening up to competition of various sectors traditionally regarded as natural monopolies, and therefore generally restricted to being operated by the State, has created new obstacles in the process of maximizing their potential for competition. This document attempts to identify these threats which invariably arise from the role of authority in the process of creating markets, in cases where markets did not exist previously, which were formerly reserved for the State or assigned to a few economic agents. Excesses in the design of what is regarded as "*adequate competition*" frequently operate in the opposite direction to the maximization of long-term social welfare while at the same time creating and inviting regulatory capture on the part of both new competitors and those who have established a dominant presence in these markets by virtue of the regulation imposed by the authorities themselves. For example, a suitable regulation which maximizes opportunities is particularly important in view of the lag in the telecommunications sector in Mexico in relation to international levels and the dynamics of the economy's future growth.

In the case of telephony[2], the cost of international phone calls in Mexico is the 17th place ranking from the lowest to the highest in the world[3], 100% higher than UK (2th), and around 15% higher than Hong Kong (10th) or Canada (11th), at the same time with regard to the number of telephone lines per 100 inhabitants, Mexico is in 40th place worldwide, with 9.25 lines, below that in Chile (36th) with 11, Spain (26th) with 37, Korea (24th) with 40 and New Zealand (19th) with 47. Likewise, as regards investment levels per capita in the telecommunications sector, Mexico is in 34th place with 27.3 USD in 1994, below New Zealand (25th) with 74.1 USD, Spain (24th) with 77 USD, Korea (23th) with 82 USD and Canada (13th) with 100 USD.

Meanwhile the public network operator (TELMEX[4]) has a revenue per line above OCDE average, ranking 9th in revenue worldwide in 1995 with 6,509 million USD, equal to 1.08% total world revenues, above Argentina with 1%, Hong Kong 0.85%, New Zealand 0.35%, Chile 0.22% and Colombia 0.20% share.

The situation in the railroad network is similar; there are 266 miles of railroad track for each million inhabitants, placing Mexico in 27th place, after Spain (22th) with 390 km, Chile (18th) with 553 km, United States (9th) with 921, Argentina (7th) with 1,000 km and Canada (1th) with 5,000. The existing lag and the opportunity for creating competition are crucial to enabling a relatively swift transition to higher levels of development in markets without the costs which developed countries have had to bear in the recent past.

Mexico have a long history of de jure and de facto government intervention in markets, through direct mechanisms (price controls, public sector firms, concessions and licensing). In later years, changes in the institutional framework as a result of the deregulation of economic activity, together with technological change, created greater opportunities for competition, by enabling existing markets to operate, or creating others that were previously non-existent. In a relatively short time frame Mexico went through a exposure to a global trade competition, profound privatization process which still partial and the implementation of an unprecedented deregulation policy which now struggle to move forward. Deregulation creates opportunities for private investment, which was previously not allowed, while expanding the opportunities for competition in these sectors, which did not exist previously[5].

Several sectors related to the development of the economy's infrastructure share certain aspects that are crucial to recognize in the design of an appropriate public policy. These aspects respond to both the technological characteristics of each and the creation of dominant economic agents due to the effect of previous regulation.

These shared aspects are identified one way or another with the existence of transmission and/or distribution networks. The existence of scale economies and the complementariness of the various elements of a single network, which respond to the existence of demand, not for the service of a particular component, but for composite goods whose existence depends on a set of independent but technically complementary elements. Industries with a network structure are crucial to a modern economy. It is hard to conceive an economy lacking these industries, and difficult to imagine a society which could survive without telephony, data transmission, energy distribution, or even e-mail

and internet access. In the past, these networks were analyzed on the assumption that each network was operated by a single economic agent. Emphasis was placed on the extensive economies of scale and scope derived from the joint operation of the network considered by a single agent.

However, the existence of market power together with technological progress revealed the existence of considerable social costs involved in maintaining such organization. The costs generated by the lack of competition grew as a result of the technological change which made the existence of market processes in such sectors possible. An example of this are the cost reductions which transformed the conceptualization of telecommunications networks from natural monopolies to oligopolies with an intense level of competition.

Thus, interconnection and compatibility of standards have become the center of an intense debate at both the theoretical and public policy levels. As a result of the competition between networks which are complementary and offer the end user substitute services, interconnection between networks increases the variety of services available to users while making the existence of competition possible. An example of this is not only the interconnection existing between long-distance operators and local network operators, but also other sectors which have been deregulated, such as those offering local wireless telephony different from the operator of the established public network, electricity generators that wish to supply electricity to different locations but require interconnection with the local distribution network, natural gas suppliers which need to use a main transmission network and a distribution network for end users, like the various railway routes which, in order to provide service to destinies outside the route they operate, require wayleave for routes within a network run by a different operator.

A structure of interconnected networks necessarily includes both vertical and horizontal features operaterating within a single market. A typical example is telephony, where two networks compete to provide service, however, they require an input provided by the competing network in order to be able to offer to end the traffic originated in their network. When networks provide substitute goods or services, there are incentives to obstruct or marginalize competing networks.

In the absence of dominant networks, these incentives are outweighed by the benefits of interconnection, as a result of which regulating the terms of the latter could prove socially costly by expanding the opportunities for regulatory capture; interconnection would therefore be a market process requiring nothing more than negotiation between the parties involved, without creating incidental losses of competition.

The need to regulate the terms of interconnection arises mainly from the asymmetry between competing networks. In networks of equal coverage, there are advantages in being interconnected provided the components operated by each are "*essential*" to the rest, as a result of which the advantages of permitting interconnection are mutually beneficial, without the need for further regulatory requirements. This is due to the fact that when there are networks with complementary features, the combination of the latter through interconnection is mutually profitable and therefore, the exclusion of competing networks is incompatible with maximizing behavior when a vertical relationship exists between them. Since these networks have the same strategic power, in view of their size-homogeneity, one would expect their charges for interconnection to be reciprocal, and non-discriminatory, characteristic features of the balance achieved through symmetrical strategies.

When one of the existing networks dominates or leads the market, the incentive to discriminate or marginalize outweighs the advantages of interconnection. In a weakly-regulated environment, the cost of access or interconnection can vary considerably, depending on the size or coverage of competing networks, while symmetrical networks regard the benefits of discriminating against other networks as limited, in view of their capacity for simultaneous response. This is not the case when asymmetrical networks exist, or when one of them dominates. As a result, a dominant network can use the terms for interconnection as an instrument to reduce competition from smaller rival networks. The existence of dominant networks or those with greater coverage creates a need to regulate the terms of access to this network to create competition between them. Regulating interconnection therefore emerges from a pre-existing distortion that can be attributed to the creation of monopolic networks, rather than to the nature of the industry.

In view of the above, in the face of asymmetry between competing networks, there must be reciprocity in terms of interconnection[6], to restrict the dominant network's capacity to obtain increasingly advantageous conditions from small networks.

In the absence of reciprocity, the dominant network can discriminate against rivals, obtaining high tariffs for entry traffic into its network and low tariffs for ending its own traffic on the rival network. When there is reciprocity, there are no such incentives, which leads to lower prices for the use of the final commodity or service. It is equally important to exclude monopolistic revenues from the cost of interconnection, since if it is maintained, the price of the final commodity will be isolated from the effect of the entry of competing networks which will probably be excluded or marginalized in the market with respect to the environment that would exist in the absence of these rents.

The mechanism for setting the terms of interconnection used in Mexico is primarily based on negotiation between long-distance operators[7] and the operator of the public telephony network (TELMEX) and arbitrated by the corresponding authority, where appropriate[8]. In principle, there is an obvious imbalance in barganing power in favor of the dominant operator. New competitors have nothing to offer the dominant network while the latter has everything that the competitors need, meaning than free negotiation between antagonists will not produce efficient results. One of the greatest flaws in this process of regulation by arbitrage is the phenomenon known as the "*chilling effect*" which describes the arbiter's tendency simply to divide the difference between the final bids of the parties involved. In the presence of a dominant network, and anticipating this tendency on the part of the arbiter, the network has no incentive to make concessions, since any of these would only benefit the competitors, meaning that the greater the discretionality shown by the arbiter, the greater the possibility that the agreement established will prove inefficient.

Acknowledging the above, the authorities should attempt to equal the balance of barganing power by restricting such a process to general rules or previously establishing scenarios for what to do in case negotiations fail. The existence of terms and conditions by *default* encourages the dominant network to negotiate, reduces the variance of the result in relation to the socially desirable aim while reducing the probability that the

parties will resort to the arbiter, which has an inherently limited capacity and is subject to regulatory capture. Given the incentives of the dominant network and the arbiter as well as the lack of a frame of reference similar to the one described above, the probable result in terms of interconnection, as was the case in Mexico, leads to the protection of the dominant economic agent's revenue while at the same time favoring the authorities' aims, which are not necessarily the same as socially desirable aims of the market.

In the only experience in interconnection in Mexico at this date, which concerns to cellular telephony, the tariff per minute which TELMEX applies to competitors for this service has been 5.5 cents USD, which contrasts with the tariffs subject to incremental costs, as in the United States, where Ameritech applies tariffs of 0.75 cents USD per minute, which implies a 600% surcharge in Mexico, and even assuming that TELMEX's costs are twice as high, the margin would be over 250%. In April 1996, in view of the lack of agreement between the new long distance operators and TELMEX, the Ministry of Communications and Transports (SCT) set the interconnection tariffs at **2.5 cents for 1997 and 2.3 for 1998,** although new competitors suggested between 1 and 1.5 cents, while for international entry traffic, the rate established was **22.7 cents for 1997, twice the amount originally proposed by TELMEX and 18.9 for 1998. The average contemplated for 1997 is 5.3 cents and 4.7 for 1998**[9].

To illustrate the size of the revenues preserved, suffice it to note that according to estimates by the *Incremental Task Force (GTE, Pacific Bell, California Public Utilities Commission and Rand Corp.)* on the incremental cost of the capacity required to interconnection has placed this cost at 0.2 cents per minute. Likewise, in the implementation of the *1996 Telecommunications Act*, the *Federal Communications Commission* established that the cost of interconnection would be based on the *Total Element Long Run Incremental Cost* per component used, always within a range of **0.2 - 0.4 US cents per minute.** Negotiation between entering operators and the dominant operator, in conjunction with the aim of "*universal coverage*" by the regulator, leads to a policy that implicitly attempts to preserve monopolistic revenues by considering a certain form of compensation to the income of the dominant network because of the effect of opening up to competition.

In Mexico, proof of this has been provided by the authorities' behavior in choosing to grant concessions to operate competing telecommunications networks without having defined precise regulations for general application to interconnection, subordinating and even substituting the issue of the institutional framework corresponding to the result of negotiations with the dominant operator. The regulator behavior shows that the aim of the policy reform is as follows: (i) to limit the entry or performance of competitors in such a way that only those that are supposedly at least as "*efficient*" as the existing network are allowed to enter by not establishing a specific regulation concerning interconnection ex-ante[10], and (ii) only allowing networks with a national presence operating with their own infrastructure, banning resellers, and blocking the "*call-back*", mechanism which might be the way to increase toward international level, the competition in international long distance. All this regulatory failures tacitly compensate the dominant operator for the income he may lose as a result of the competition with the aim of "*universal coverage*". It is worth to focus into the fact that although the authorities established that a requirement for being a long-distance concessionaire is to operate primarily with its own infrastructure, at present, there are only concessionaires with a national or almost totally national presence.

The authorities have explicitly declared they will limit the concessions granted to operators with a leased capacity and ban resellers in international long distance, moreover the authority restrict private networks, which require international traffic, to only leased capacity from the long-distance carriers. All the barriers were issued arguing "*to prevent unfair competition and not discourage investment on the part of the concessionaires*" even though the legislation establishes their existence[11].

It is worth pointing out the regulatory flaw in preventing or over-regulating the existence of operators with a leased capacity or retailers of telephone switching for national and international long distance when their presence has an important competitive effect. When competition exists in long-distance, there are likely to be several tariff rates according to the volume of traffic required, meaning that there are opportunities for arbitrage by means of operators with relatively minimal infrastructure who are able to assemble low-cost networks by combining elements of various already-existing operators.

Preventing their existence is another factor which reveals the policy of limiting the entry of competitors and preserving rents in the domestic long distance and from international traffic. In both the United States and Canada, operators with a leased capacity exert substantial pressure on operators with a national presence. In the United States, there are approximately 400 different operators of this sort.

With regard to the international trade, Mexico has adopted the scheme of mutual compensation where the operator with the biggest share in the incoming traffic will be the negotiator before the foreign carriers, this implies that TELMEX, the dominant operator in Mexico will be the negotiator. In addition to the rents preserved by inadequate interconnection regulation and limited competition, there are rents to the dominant operator (TELMEX) from foreign countries with unbalanced traffic with Mexico, as the calls originating by relative more competitive markets than calls from economies with a dominant operator create a net outflow to the dominant domestic operator.

1.2. Other Networks.

In the Railroads, the Railroad Service Law (LRSF) establishes a rule permitting interconnection between the various routes for which concessions have been granted[12]. As in the telecommunications sector, the terms of interconnection are subordinated to the negotiations between concessionaires, with the corresponding regulatory authorities as arbiters. According to the concessions scheme, there are three trunk routes for which concessions may be granted, two of which link railway lines from the United States to the center of Mexico, as a result of which both register higher income per kilometer than the national average. The Northwest and Northeast routes are asymmetrical in both size and traffic, the Northwest route being substantially larger, with a greater mobilized volume of traffic and a greater total income, and the Northeast route mobilizes 50% of international traffic by railroad. However trucking handle the vast majority of domestic cargo and the only possible dominance to the railroad would be in low value-high volume products.

Since neither of these is absolutely dominant, there are likely to be advantages from the interconnection between them, meaning that significant regulatory measures may not be needed, general rules to negociation about wayleave and haulage would be an adequate level of regulation. However, the corresponding regulation indicates that the cost of interconnection, in the case of arbitrage, will also consider "*reasonable profits"* in addition to the measurement of costs involved in the traffic. In view of the above, the discretionality in this provision implies that the terms of interconnection may be used for objectives other than promoting competition, particularly when there are exceptions which favor granting concessions to Federal States and State-own firms by exempting them from the bidding procedure.

As regards natural gas distribution, the corresponding regulations establish the obligation to provide open access or interconnection, provided there is a need for interconnection in the main transport of gas and its distribution to the end user. In transport, the regulations concerning interconnection are similar to those indicated in other sectors; negotiations between the parties serves as the means of defining terms of access, with the corresponding regulator being the arbiter, where necessary.

However, the possibility of creating dominant transport networks cannot arise in principle since there is no exclusivity; their existence can only depend on the regulator's performance authorizing this activity. Although exclusivity does not exist in principle, there are provisions to regulate transportactivity according to price-caps by taking into account an efficiency factor. For interconnection charges, it was decided to compare the tariffs applied by other transport network operators[13]. This form of regulation is of dubious value since, one might expect transport systems to be technically heterogeneous, and consequently their costs, meaning that opinions on their relative levels of efficiency will be discretional.

The regulation defines regional monopolies in distribution activities. However, once the period of exclusivity ends, open access is compulsory; any economic agent other than the distributor[14] may commercialize natural gas in these areas. The potential existence of dominant networks and their effects cannot be ignored, since given the period of exclusivity established is so long, 12 years without any justification except to guaranty

"*appropriate return*", moreover the geographical heterogeneity of the demand for natural gas, together with the discretionarily in the definition of areas with exclusivity in the distribution licensing, it is feasible for the authorities themselves to create dominant networks, meaning that incentives to provide interconnection may be outweighed by those of excluding or marginalizing competing suppliers.

Interconnection charges also have in their formulation variables linked to achieving the protection of the operator's financial structure which do not exclude a certain degree of revenue transfer or manipulation of the scheme on the part of the economic agent being regulated. In the cases mentioned, the existence of a pre-determined regulation of terms of access or interconnection, together with the authorities' actions as regards complete open-up to all potential competitors, would appear to be a suitable level of regulation during the transition to the creation of markets in such sectors. However, the specific provisions for each sector seem excessive since the level of intervention goes beyond monitoring tariff regulations for dominant networks towards the creation of *"managed competition,"* shown by intervention in the entry and protection of incidental participants in such sectors, which might have considerable effects on the potential social benefits derived from its opening up and subsequent development.

II. Spectrum Policy.

Other field of regulatory abuse are the use of the electromagnetic spectrum. Recent international experience in the allocation of frequencies serves to illustrate the use of bidding. The use of bidding to assign scarce resources is efficient as the discretionarily is replaced by the criteria of "greatest willingness to pay," this being an indicator of the potential value of these resources for each user in such way as to maximize its social valuation.

However, a policy which maximizes opportunities for competition has yet to be implemented. The bidding mechanism maximizes the social value of the amount which can be allocated, which implies that the exogenous nature of the amount and the restrictions on the use of the resource to be assigned inhibit the full actualization of the opportunities for competition.

There is a trade-off effect between maximizing returns and maximizing competition. This indicates that the agent taking the bids has incentives to reduce available supply in a discretional fashion, so as to maximize returns and, in the specific case of spectrum frequencies, the fewer the number of frequencies available for bidding, the fewer competitors there were and therefore, the biggest the potential bidding. Generally speaking, recent bidding have served as exemplary experiences in obtaining returns by using sophisticated mechanisms aimed exclusively at maximizing revenue, as when frequencies were assigned for Personal Communications Systems (PCS) in the United States and the same is expected to occur in frequency bidding in Mexico.

The first bidding for frequencies was for paging services, using a process of multiple-round auction, similar to that used by in the United States for PCS, through which 9 concessions were allocated for national coverage operators and 27 will be allocated for regional coverage, Mexico having been divided into 9 regions. After the auction, extremely low revenue were obtained, $1.76 million USD. Several regulatory failures were present in this process, (i) define wide areas for regional service instead of use urban and semiurban areas, like the Basic and Major Trading Areas concept use in the US in order to have more service diversity and competition, (ii) given the policy to define frequencies to be use in only one service, at the auction date the frequencies allocation chart was not available, (iii) the Federal Competition Commission (antitrust authority), barred the participation of Mtel filial because this firm already have more than the allowed number of the frequencies (4) by each operator, it also blocked an acquisition by a Nextel filial because also the transaction might concentrate more than 25% of trunking frequencies in some urban areas.

Is it a sound policy to limit market power by limiting the access to an input?, it is evident how competition in this evolving markets continues to be sacrificed by the preconception of the "*ideal competition*" and/or the benefit of revenue. In the United States as in Mexico and the majority of other countries, frequencies allocation policies are characterized by i) not offering all the frequencies which could technically be commercially exploited[15] and ii) by restricting the ownership rights of the frequencies assigned to such an extent that their exploitation is limited to a single final service, disregarding the criteria of mobility of resources in favor of use with the greatest value.

This policy implies that barriers to entry are not only imposed in absolute terms, by artificially restricting supply, but also by limiting rights of usage by preventing the holder of a frequency within a specific band from competing with other concessionaires in another band. This type of production restriction, by artificially limiting the uses of frequencies for different services is a socially costly regulation since frequencies may serve as input for more than one product alternatively or even simultaneously.

The authorities cannot only restrict the supply of frequencies in a contemporary fashion by offering a smaller number of frequencies than those that are technically feasible, they also restrict it regarding its evolution over time. Indeed, as technology advances, the supply of frequencies expands in scope, by incorporating an increasing number of frequencies into uses that can be exploited by markets. The current telecommunications policy in Mexico and other countries continues to follow the path of "*competition management*" regarding the exploitation of the spectrum, despite incorporating bidding into its allocation. A greater number of available frequencies, by incorporating those now reserved for the State as well as those for which concessions have currently been granted, once the concession expires, in addition to complete flexibility regarding their application or use for any service whose only limit would be to interfere with other concessionaires in adjoining frequencies, as well as the immediate availability of frequencies that can be used by bidding, would constitute a suitable liberalization policy not only from the United States but, from all others countries.

There are two fundamental myths which attempt to justify current regulatory errors in the handling of the spectrum i) the myth of permanent shortage and ii) the myth of interference, as expressed by Hazlett, "*...it is to believe that, to keep intruders out of backyards, the government must own or allocate (and regulate the use of) all the houses.*"[16] Consequently, granting and supervising ownership rights is superior to regulating, managing and planning competition. Bidding is not an instrument which guarantees overall efficiency, in that there are incentives to maximize income that can be derived from such an allocation and criteria of "*permanence or viability of operators*" which tend to limit both the available spectrum and ownership rights that are transferred in the bidding, as well as tending to create oligopolistic structures and in some cases to encourage exercising market power.

Auctioning does not prevent the State from continuing to serve as the storehouse of frequencies and the protector of oligopolies, a role it has traditionally played.

III. Competition and Regulatory Agencies.

Experience in the regulation of dominant networks has shown the various forms of design and implementation that may be adopted. Several countries have regulatory organizations specializing in a single sector or industry which also coexist with the authorities concerned with competition or antitrust. This coexistence has not always been free of conflict nor immune to regulatory capture.

Mexico has adopted the traditional model of creating an authority for antitrust enforcement policy while simultaneously creating agencies specialized in the regulation or creation of competition in specific sectors. However the legislation applicable to Natural Gas and that applicable to Railways and Telecommunications refer to the recommendation of the Federal Competition Commission (CFC) as a requirement or right of private individuals regarding the application of any regulatory measure to be implemented[17]. These provisions in law require that two fundamental questions be answered i) Are the regulatory organizations merely the executors of the competition authorities' decisions? If so, such a function would be redundant and could be exercised by existing judicial bodies; ii) Is the co-existence of institutions with common objectives as regards achieving competition the ideal means of minimizing opportunities for regulatory capture?

It should be noted that the effective performance of a regulatory body in a specific sector should be measured on the basis of the shortness of its existence, since its objective arises of a transition from a monopolistic structure to a competitive market. Technology is a determinant factor in shaping the nature of supply and one through which the structures of market power are eroded, regardless of their origin[18]; the creation of specific regulatory organizations in sectors of rapid technological change necessarily entails regulatory lags and consequently net social costs. It is obvious that these organizations end up by being interest groups when they fail to acknowledge that the circumstances which at one time justified their existence have been surmounted.

The creation of specialized regulatory organizations has traditionally been justified by the advantages attributed to it regarding the creation of a group specialized in the features of the sector to be regulated which would guarantee savings in the design and monitoring of regulations. However, the existence of discretionarily or the absence of general rules to achieve the functioning of markets transforms the powers of these regulatory commissions into opportunities for the creation of exceptions to competition legislation, and although this legislation may be so restrictive that it inhibits the creation of efficiencies, the regulatory body will have incentives to attempt to create "*competition*" according to pre-determined judgments regarding "*proper market structure*". The threat of regulatory capture increases the greater the regulatory commissions' discretionarily in the nature and direction of "competition" which they attempt to promote in particular sectors.

A thin line separates their deregulation aims from an active industrial policy which includes protectionism measures and often dictates rules on the development of markets[19]. Policy failures due to the independence of regulatory commissions and their discretionarily have been evident in international experiences[20]. The orientation of regulatory design in Mexico does not seem to be the exception to this approach, by example the Regulatory Commission of Energy have independence to grant concessions and permits in Natural Gas, but the Federal Commission of Telecommunications does not have such freedom in its sector, entry decisions are subordinate to the Ministry of Communications and Transport. The Federal Telecommunications Law and the Railway Service Regulations Law, share a provision of law regarding potential price regulation in their respective sectors, stating the following:

> "*Concessionaires and license-holders will freely establish tariffs in terms which permit the provision of services in* ***satisfactory conditions of quality, competitiveness, safety and permanence.***[21]***"***

It is quite clear that the text uses adjectives that tacitly reveal the existence of a regulatory instrument which may be exercised in excess and in a discretionary fashion beyond the scope and intention of the legislation regarding economic competition and in a way that is equivalent to the creation of exceptions to the scope of the corresponding authority,

therefore make room for pre-determined designs regarding desirable market structure and even going so far as to determine the behavior of competing economic agents. Promoting competition meanwhile the authority discriminates according to the size or the direction of special interests or short-term policies, turn reforming into Stevenson´s *Mr. Hyde*, distorting markets and creating havoc among the whole economy.

The fact that competent regulatory bodies may differ in their conception of the proper functioning of markets is obviously risky in the preservation of a competitive environment, lacking regulations while imposing net costs on society. It is possible to establish five criteria to regulatory agency design in an economy with dominant networks: (i) discretion degree to be delegating to the regulatory body, (ii) asymmetric information level between regulator and the regulated entity, (iii) accountability, rulings should be at public´ reach, (iv) competition policy scope and (v) absence of distributive goals.

Hayek distinguishes between generally applicable rules which allow markets to function and specific rules which arise from short-term objectives and attempt to steer towards a specific allocation of resources. Therefore, the competition rules and enforcement process shall not be subordinated to the interest of regulated firms. According to this criterion, rules of general application which encourage competition are superior, although not entirely so given the inherent inefficiency of any authority, to organizations which attempt to design competitive markets beyond defining ownership rights and regulating only those elements in the behavior of dominant economic agents which result in net social costs until the time of their eventual disappearance.

IV. Final Comment.

Just as the inefficiency of state operations proved costly for economics, the absence of markets by virtue of regulatory obstacles which prevented access by individuals or the granting of exclusivity in the provision of certain services, where these schemes were the subject of deregulation or privatization policies, at present, the work of achieving competition has still not been completed, since there are still threats regarding the functioning of markets.

Once again, it is precisely the State which refuses to abandon the power of its authority, this time in the design of what it regards as "*fair or healthy competition,*" by reserving the right to design the terms of participation of private individuals by actually implementing "*managed competition.*" One example of this has been the policies implemented in the transition from monopolistic structures, generally of state origin in sectors such as those described above, towards an environment of greater competition and yet, by virtue of the regulatory design adopted by the authorities, traditional threats to free competition persist, such as the protection of competitors, distributional aims which the authorities seek to achieve on the basis of distorting competition and the creation of opportunities for regulatory capture. While it is true that such sectors are characterized by sophistication and rapid technological progress, as well as the complexity of the transactions involved and their relevance to the economy's performance as a whole, this does not mean that there may be failures in the market which justify constant regulation. These are characteristics which make regulatory interventions increasingly obsolete.

Just as the globalization of trade has reduced the emphasis on antitrust policy on tradable commodities, so technological change, deregulation and consequently the eventual elimination of dominant agents will diminish the benefits, if indeed there ever were any, of specialized regulatory agencies and, focus the role of antitrust by being the only institution perhaps to curb the State's regulatory power. **If the goal is competition, then there is no need to design it, it must merely be allowed to exist.**

ENDNOTES

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2.World Economic Forum, *"The Global Competitiveness Report 1996"*.

3.Cost of a three-minute call to the United States during peak hours.

4.Teléfonos de México was privatized in 1990, it was adquired by a national industrial and financial group (Carso), Southwestern Bell and France Telecomm.

5. Since 1990 the telecomunications deregulation process in Mexico ranged from the liberalization of equipments suppliers, private networks, trunking, and the creation of regional duopolies in cellular telephony to the setting of long distance competition in 1997.

6.These provisions have been included in the Federal Telecommunications Laws (LFT) 1995, Chapter IV.

7. There are six new long distance carriers in Mexico. Some of them are Avantel (Banamex-MCI), Alestra (Alfa-AT&T-GTE), Iusatel (Bell-Atlantic) and Marcatel.

8.LFT, Art. 42. and Modification of Telmex Concession Deed, Chap. 5, Section. 5-2.

9.At 7.5 pesos per USD.

10.TELMEX`s Local and Long Distance service will be regulated fully by a price-cap formula in 1999 when the efficiency factor will be determined, however interconnection pricing is excluding from this scheme.

11.LFT, Chap. IV, Secc. III.

12.LRSF, Article 35 and 36 as well as in its regulations, third section of Chapter III.

13.This means of regulation is linked to the concept of *"Yardstick Competition"* which regulates on the basis of comparing the performance of economic agents which are similar both as regards the service they provide and their technical characteristics.

14.Although vertical integration between distribution and trunk transport of natural gas is not permitted, in principle, exceptions may easily exist.

15. The next bidding process will be to wireless fixed and mobile phone services. However the authority only will offer frequencies in the band of 440 and 495Mhz. instead of, at least, add frequencies in the 800Mhz., 1.3, 1.8, 2.4 and 4.3 Ghz.

16.Hazlett, Thomas *"The Rationality of US Regulation of Broadcast Spectrum,"* Journal of Law and Economics, April 1990.

17.LRSF, Art. 47 and RGN; rt. 81. The LFT refers to the LFCE regarding tariff regulations in Art. 63 and the CFC's opinion regarding the allocation of rights.

18.In the United States, newspapers once resisted the growth of radio stations, which in turn opposed the growth of television which in turn resisted the growth of cable or restricted TV, which resisted the participation of telephone companies in video distribution.

19.Regulatory agencies in the US have established a lengthy series of polices with the aim of protecting incumbent competitors from the threat of entry, for example, those concerning joint ownership by television companies and newspapers, rule out telephone companies from distributing video in their areas of service, joint ownership by television companies and restricted television operators and obtaining licenses for frequencies for a pre-determined use, without being able to modify it. The majority of these provisions were eliminated or relaxed in the 1996 Telecommunications Act, however still the restrictive licensing on spectrum use.

20.In the mid 70s, the Federal Communications Commissions decreed that MCI should not participate in the US long distance market. However, in 1978, the Court of Appeals correctly overturned this verdict.

21.LFT, Article 60 and LRSF, Article 46.