

# DEVELOPMENT OF COMPETITIVE RELATIONS THROUGH THE PRISM OF THE PRICE POLICY OF THE NATURAL MONOPOLIES' ENTERPRISES

P.K. Sagieva, the Senior Staff Scientist, the Candidate of Economy Sciences  
Kokshetaus State University Named after Sh. Yalihanov (Republic of Kazakhstan)

For today it is very important to regulate functioning of the natural monopolies', whose activity is conditioned by their special social-economic significance and great likelihood for abusing the monopoly position. The monopolist begins dictating his conditions on the market, influence the price formation process and hinder competitors from entering the market when the property on infrastructure networks, sometimes of a strategic importance for the state, is concentrated in his hands as well as the economizing on production scales and low costs.

The property concentration in infrastructural networks, sometimes of a strategic value for the state, in hands of a monopolist, savings on manufacture scales and low costs enable the monopolist to dictate the conditions at the market, to influence the pricing and to hinder competitors from entering the market. It should be noted that such enterprises as power engineering, railway traffic, telephone communication, municipal service enterprises, gas and water supply are related to the natural monopolies.

One of the most vital issues that the government of Kyrgyzstan faces at present time is to increase the effectiveness of the state price regulation in the branches of the natural monopolies.

Absence of the accurate regulation over the natural monopolies' activity is fraught with increase in inflation rate, non-payments' growth and curtailment in production, therefore it is necessary to improve the mechanism of tariff formation by creating a flexible and effective legal base that will stimulate a normal functioning in the branches of the natural monopolies and provide with the steady basis for the economic potential growth of the country as a whole.

Natural monopolies are reluctant to resort to various kinds of a strategic pricing when nonstrategic barriers for the entry are weakened and there is a bigger threat for appearance of the competitors. Such a situation arises with the demand growth and high speed of technological innovations.

The underlying purpose of a strategy pricing is to possess advantages in the costs, generated by big output volume with a positive feedback from the scale.

To create the entry barrier and to consolidate the leadership on the market, the natural monopoly is ready to sacrifice the short-term profit by quoting prices at the level close to average costs or by applying the dumping policy - the exorbitant pricing.

Thus, weakening of non-strategic barriers places the natural monopoly under the threat of the potential competition, forces it to adapt to a changing economic environment and makes its position unstable.

Therefore we believe that for sustainability assessment of the natural monopolies we need to use a complex criterion considering their branch features

and allowing to reveal naturally monopoly spheres that are most subject to competitive forces.

Elements of a complex criterion to assess the sustainability of the natural monopolies:

1. Significant size of initial investments into specific technological networks;
2. Combination of subadditivity property of costs' function with a positive effect of a manufacture scale
3. The price established by natural monopoly allows to satisfy all demands shown to cover costs and block the entry for competitors;
4. Absence of cross subsidizing;

In our opinion if the traditional state regulation is not carried out then the sustainability of the natural monopoly will be depended on the presence of four above-mentioned conditions, otherwise the natural monopoly will be unstable and exposed to the threat of emerging of the competitive firms.

Formation of market relations in such a branch as telecommunications is the most typical tendency. And it is not an accidental thing as the branch is extremely mobile technologically and it is on a wave of scientifically-technological progress and, at last, one of few stably working and developing branches in the countries of the former Union. The branch of telecommunications which in Kyrgyzstan is presented by the open joint-stock company "" is interesting also by the fact that being under the influence of technological changes it is in a constant movement and in a varying parity of competitive and natural-monopolistic segments.

The open stock-joint company "Kyrgyztelekom" is a national telecommunication operator that has a dominating position on the market of telecommunications. The main type of activity is providing the government, enterprises, organizations and the population of the Kyrgyz Republic with the international, intercity and local electric telecommunication.

Telecommunication network covers all oblasts and regions of Kyrgyzstan and provides with the unimpeded local communication that meets demands of all users' categories. Population, budgetary and commercial organizations are traditional consumers of the communication services.

Since the open stock-joint company "Kyrgyztelekom" is a natural monopolist, it falls under regulations of the Antimonopoly Policy State Department at the Ministry of Finance of the Kyrgyz Republic and the State Communication Agency. The joint-stock company "Kyrgyztelekom" renders various kinds of services of communication in the economy sphere and social life of the republic.

Their spectrum covers both voice information transmission and data transmission, cable transmission and wire broadcasting. Several services are unprofitable for a joint-stock company or of little profit. The Joint-stock company "Kyrgyztelekom" is compelled to continue rendering them to the population by virtue of necessity and certain social obligations assigned to it as to the national operator of communication. Thus, the joint-stock company is turned to be in unequal conditions, alongside with other communication operators whose activity is not supervised by the state. More attention and funds should be paid to the problems of the enterprise so that it can render all those services that are provided today by the national operator for the population.

Now, when the government has deprived "Kyrgyztelekom" of the exclusive right to provide with the international and intercity communication there are new operators in the market who render these services, so the company loses means due to which socially-significant and unprofitable services were supported, such as rural communication. Meanwhile, there is a long-standing competitive struggle for a consumer in the market of communication.

The national operator has to withstand the pressure of the private companies which, by the way, use Kyrgyztelekom's network in their work. The tariff policy of the company is precisely supervised by the government and that puts the joint-stock company in unequal conditions with competitors. The competitors have an opportunity to adapt quickly to changes in the market and change tariffs literally within a day. It allows them to gain over the most favorable clients of the corporate sector and leave non-profitable apartment and rural subscribers for «Kyrgyztelekom» that considerably reduces the efficiency of regulation by the state authorities.

The demand function for services of telecommunication on republic was introduced in the research process of the «Kyrgyztelekom»'s activity. The primary documents on financial and economic activity were used as a basic data. To be more specific it was the Income and Expenditure Statement for the period 2000-2003, the Balance on the Economic Activity for the same period and the information on technical capacities of the Kyrgyztelekom and etc.

The primary information of the open joint-stock company «Kyrgyztelekom» was used to define the function of costs. The net cost of the services rendered by the «Kyrgyztelekom» made up 1 266 367 thousand soms for 2001 year, 1 452 212 thousand soms for 2002, 1 568 329 thousand soms for 2003. The number of the main city telephone subscribers made up 300 700 for 2003 year and the number of the rural telephone subscribers made up 82319 with the total number of 383019. In 2002 year there were 291848 city telephone subscribers and 87227 rural telephone subscribers with the total number of 379075. In 2001 there were 286594 city telephone subscribers and 84717 rural telephone subscribers with the total number of 371311.

After the corresponded calculations were made the costs function became as following:  $TC=2,746 \cdot 10^{-7} q^2 + 23,995q - 7,906 \cdot 10^6$ .

And the marginal costs function became  $MC=0,00000549q + 23,995$ .

Taking into account the fact that «Kyrgyztelekom» uses such a tool as the price discrimination, when doing the analysis we took the average price level that equals 65 soms and there were 838019 main subscribers who use the services for the price given.

To define the demand function we took up the mobile (vehicular) communication as the substituting service which is presented by two large operators of the cellular communication in Kyrgyzstan – "Bitel" and "Katel". The statistic studies showed that the average duration of the phone talks in Bishkek equals to 350 min per month and therefore the price of the alternative service will equal to 1505 soms per month as if all subscribers switch to the mobile (vehicular) communication operators (at the price of 10 cents per min). Thus the demand function became as follows:  $P = 1505 - 0,0037596Q$ .

The parity rule for the marginal revenues and marginal costs is used to define the optimal volume of services  $MR=MC$ .

$$\begin{aligned} MR &= 1505 - 0,007519Q, \quad MC=0,00000549Q \\ &+ 23,995 \\ 0,000000549Q + 23,995 &= 1505 - 0,0075192Q \\ 0,007519749 Q &= 1481 \\ Q &= 196949 \\ P &= 1505 - 0,0037596 \times 196949 \\ P &= 764,5 \end{aligned}$$

Thus the calculations show that the price of the uncontrolled monopoly will be a subscribing price that equals to 764,5 soms and the low limit of the price that equals to the marginal costs is 25 soms.

If to go to the practice of quoting prices by the monopoly enterprises we can see that there is a method like quoting the double-rate tariff that can be calculated by, using the formula  $MC+L/N$ , where L is losses, and N is the number of subscribers. In this case the subscribing price equals to 185 soms.

185 soms is the price of a lump sum per month, and further the monopolist can set up his prices for each group of consumers, basing on their income level. Being a monopolist on separate regions for rendering the services (telecommunication) the «Kyrgyztelekom» can apply price discrimination of the third degree, meaning that the monopolist establishes different prices (and it is not connected with change of costs) on the same goods for consumers with the different income level.

However, such a structure of the tariff has disadvantages from the point of view of achieving the optimal possible efficiency. The consumers' demand can essentially differ and introduction of the single fixed price for service access may result in a situation when the price will be higher of the surplus received by some consumers and they will have to refuse totally from using the given service. The efficiency will decrease if the part of the consumers ready to pay the price equal to marginal revenues will leave the market. The solution is to charge different fixed prices from different consumers depending on their readiness and ability to pay.

If the price quoting will be based on the level of the average marginal costs then the calculations' re-

sults equal to  $P=590$  and it is considered that the enterprise works at self-repayment conditions.

In that way the optimal output volume received at the parity of the marginal income and marginal costs equals to 196949 subscribers and the optimal price of the given service will be 765 soms. If the regulating authorities will make a decision to quote the subscribing price at the level of the average costs then we have the following results: the volume of the service rendered equals to 242 796 and the price level equals 590 soms. When the prices are quoted at the level of marginal costs that equal to 25 soms then the volume of the services rendered will be 393658. If to compare with the current situation then the average price level is 65 soms and the number of the subscribers is 383019. Basically today the population of Kyrgyzstan consumes this service like in competition conditions, but when the product price of the natural monopoly is set up at the level of marginal costs, then the losses that enterprise bears should be compensated by providing with the production subsidies (grants). But today as far as we know, the «Kyrgyztelekom» doesn't get the subsidies from the government, and even if it gets, they are very insignificant and delayed.

Thus having analyzed the results obtained we can draw a following conclusion: firstly it should be noted right away that the product of such a natural monopolist like the «Kyrgyztelekom» is regulated partially, meaning that not all services rendered by the «Kyrgyztelekom» fall under control. To be specific the services of the local telecommunication are under control but quoting tariffs on such services like internet, intercity communication and intellectual communication are formed independently. Secondly, today the «Kyrgyztelekom» renders this service almost at the level of the marginal costs without being subsidized by the government and it survives fully at the expense of the external credits that are in their turn re-credited by the government.

In other words if the World Bank gives a loan under 0,75 % to the Government then it is re-credited under 7,5% and the difference in the percentage will go to the budget of the republic for social programs.

And for all to that, the «Kyrgyztelekom» remains one of the largest and duly taxpayers in the Kyrgyz Republic as it used to be before. Basing on the current conditions, we may draw a conclusion that regulating authorities should chose a methodic for quoting tariffs at the level of the marginal costs so that the enterprise can work in the self-repayment conditions. As to necessity in regulation, in the case with the «Kyrgyztelekom» the necessity regulation is nevertheless proved since the communication is the most consumable and the most demanding service for today.

That's why in order to avoid reducing the volume of the services provided, ( and such a thing takes place if the monopolist wont be controlled by the government) the tariff quoting control is necessary.

But on the other hand, the activity of the regulating authorities should be focused on maximal increase in functioning efficiency of the natural monopolist. They should give chances to the monopolist to get normal profits which happens at the parity of the total

revenues and total expenditures, i.e. when the price equals the self-repayment.

Unfortunately for today there is no accurate tariff calculation methodic for the services provided under the state control and that's why it is quite difficult to judge about the regulation efficiency. Unambiguously, that the major problem is the absence of the competent specialists, who might develop an accurate methodic for tariff quoting on a quite high level, taking into account the current conditions, and that could allow «Kyrgyztelekom» to provide with the effective volume of the services at the self-financing conditions.

Summarizing all the above-mentioned, we can mark out the following main points relating to the state price regulation in the natural monopolies, particularly in the telecommunication field:

- Maintaining the balance of the consumers' interests (reasonable prices) and enterprises regulated (financial results that attract creditors and investors)
- Defining the tariff structure basing on the principles of fair and effective appropriation of the costs on tariffs for various types of consumers
- Stimulating the enterprises' branches – the natural monopolies to reduce costs and excessive employment, improve the quality of the service and increase the effectiveness of the investments and etc.
- Using the potential of price regulation mechanisms when implementing the macroeconomic policy.
- Managing the economy development in the regions

The regulation problem of the natural monopolies' activity sharply faces the Government of Kyrgyzstan. The main thing that should be noted is that the period when it was necessary to control rigidly a pricing policy of the natural monopolists is already in the past. The fact, that in some post soviet countries the unreasonable increase of prices by natural monopolists (the prices for energy carriers in Russia) led to the increase of the average price level and therefore resulted in the increase of the inflation rate, proved rigid monitoring the monopolists' price policy. Today, when the National Bank of Kyrgyzstan is implementing the constraining monetary and credit policy, there is no obvious threat for provoking the inflation by the natural monopolists and there is no necessity in over-regulation.

As for the communication branch it should be noted unambiguously, that the given branch is the most subject to technological changes, and in particular, granting of some kinds of services today is impossible without development of the competitive environment in sufficient volume, i.e. in a volume that could be at the perfect competition to provide self-financing for the enterprise. Thus, the primary goal of regulating authorities is to implement such an activity in the regulation field which will enhance to the maximum the quality of the services in the background of relatively reasonable prices and guarantee production and consumption of the product in economically effective volume.