

Jacek Buko, Roman Czaplewski

Szczecin University

DETERMINANTS OF MARKET TRANSFORMATION FROM MONOPOLY TO COMPETITION IN THE SECTORS OF INFRASTRUCTURE, USING THE EXAMPLE OF THE POSTAL INDUSTRY

Abstract: The public post office has important public and economic functions. Its history of universal service confirms that the post office is reliable and directed by public interests, with unique networks and offering successful delivery services. In the last twenty years the world's postal sector was characterized by a significant transformation which created the conditions for the abolition of monopolies in the postal market. Many postal operators who were previously a state service converted to transnational corporations through privatization. The development of postal and telecommunication technology has helped to create a competitive postal market. This paper puts forward an attempt to answer two basic questions: why can basic necessities, which are more important than the postal service, be sold in a competitive market, why was this solution for the postal service not available for a long time?

Keywords: postal sector, monopoly, liberalization, deregulation, transformation.

1. Introduction

According to the literature, there are three causes of fundamentally unreliable competition which make competition difficult, if not impossible:

- functional consolidated market structures which allow for the use of economies of scale and benefits of range activity,
- functional markets with inconstant equilibrium which can lead to critical situations (for example high unemployment),
- services pertaining to the public good.

Economies of scale occur when increases in production cause the unit prices of production to decline. Benefits of range occur when declines in unit prices result from increases in product assortment. In markets which do not fully utilize economies of scale and benefits of range, new enterprises have a unique opportunity to increase their production and assortment of goods, thereby lowering their unit prices and gaining an advantage over the competition [Bartling, Luzius 2004, pp. 112-113].

In extreme situations, this process can lead to a minimization of unit costs according to the capacity of the market, such that functionality becomes profitable for one enterprise alone. Such situations are typical for natural monopolies, in which the achievement of low unit prices protects the market against (or becomes a significant barrier against) competition.

Situations of markets with an inconstant equilibrium lead to an unstable market economy. This instability should be understood not only as a failure to approach stability, but also as the possibility of developing in a more or less inefficient manner.

The public good is necessarily provided equally to all consumers. Its use by one consumer cannot limit its use by others. It must be provided for society as a whole. The classic example is national security, the same level of which is provided for all citizens in the country. "Every citizen can evaluate it differently – one can want it more, others less – but everybody has it in the same degree." [Varian 1997, p. 599].

The public good has political roots. It is difficult to find a common formula for the determination of public duties. Almost every generation shows some distinctness in its philosophy of life, according to which they determine the type, dimension, and quality of public duties. The most important are free (or affordable), unlimited, reliable, and constant services in education, culture, infrastructure, and basic provisions, including access to information [Eichhorn 1995, p. 59-60].

Monopolies may be preferable for reasons other than the previously mentioned causes of fundamentally unreliable competition. Two situations are particularly noteworthy:

- it is determined that a monopoly can have a multi-segmented market structure only when some of its segments are similar to a natural monopoly,
- political decisions acknowledge some markets as monopolies based on public interest.

2. The monopoly on the postal market – the genesis

The Postal Service market is an interesting example of a structure which was initially converted from a competition market to a monopoly, then liberalized to be gradually demonopolized and exist in an open postal market.

In what follows, the present paper discusses the potential causes:

- of monopolies being introduced in areas of the postal service market while in its early stages of development,
- of gradually liberalizing the postal service market as a contemporary way of progressively limiting monopolies.

In the beginning, messages were sent by independent couriers who carried individual mail. As the demand for this kind of service gradually grew, some countries created postal systems. Postal services began in Europe between the end of the fifteenth and eighteenth centuries. "Next to money and the army, the post was a well-kept aspect of sovereignty in newly established countries." [Mielcarek 2004, p. 38].

The important role of the postal service was such that “in the mid-eighteenth century, there was established a national monopoly for the postal service.” [Behringer 1990, p. 138].

For a variety of reasons, the initially free postal service became a monopoly. Following R. Harris, Queen Elizabeth I can be regarded as a creator of a postal monopoly. She wanted to know the content of private messages which were sent abroad, particularly to France. Thus, the first reason for a postal service monopoly may have been the desire to reveal private correspondence. Of course, while this may explain the origin of the postal monopoly in Great Britain, it does not explain the persistence of the monopoly or its introduction in other countries [Jojarth 2003, p. 137].

There were different reasons for introducing and keeping a postal monopoly in other countries, such as:

- good source of income for national budgets,
- political and social role of information and mail,
- the postal service was thought of as a natural monopoly.

In the past, supporters of the postal monopoly often emphasized the need to keep it as a source of national income. For example, R. Harris says that in the eighteenth century, “the British postal service made a profit which covered the costs of wars with France up to the time of the battle of Waterloo.” For another example, M. Bladh points out that in seventeenth-century Sweden there were services which utilized civil servants or which were temporarily transferred to the private sector for profit [Bladh 2001, p. 232]. In Germany, keeping the postal monopoly was also connected to the financial situation [Hermann 1997, s. 452].

The high value placed on information was another important cause of keeping a postal market monopoly. Countries wanted to ensure the safety and privacy of communications. In addition, postal services were important for the efficient communication of governmental decisions [Duell et. all. 1976, p. 4].

The importance placed on secure information transmission explains the strict organization of the postal system. Functions were established by:

- directly involving the government in the production process of the postal service,
- legislating functions in other postal areas.

The direct involvement of government in the production process of the postal service lies in:

- governmental control of postal units to trigger much needed economic development or, occasionally, because they are unprofitable,
- governmental creation of new postal units necessary for economic structure,
- governmental subsidies for segments of the postal market which cannot produce enough profit but which are necessary for the economy.

The relevant power of government lies in its legislative functions, in which mandatory laws are established. For example, these functions have been used to regulate:

- the size and mutual independence of postal economy units,
- the specialization of postal economy units by defining the basic ranges of functional units,
- cooperation by describing procedures for postal economy units.

It should be emphasized that governmental management was (and sometimes still is) mainly concerned with the sending of information, as opposed to:

- the sending of material goods,
- money transfers,
- eventually, passenger travel.

The post office's accomplishment in satisfying these three duties is the result of social and economic factors, and not politics. This situation was favorable for the creation of open markets which allowed different economic units to function competitively.

Given the government's unique focus on the sending of information, only that segment of the postal market concerned with the sending of information was given:

- specialized administrative regulations regarding access to this segment of the market,
- specialized administrative regulations regarding the rules for the functioning of this segment of the market.

These regulations were meant to explain not only the social, political and economic importance of the mail segment of the postal market, but also special factors which were sometimes barriers to accessing the mail information market. Among the special features were:

- the need to invest significant capital,
- profits due to economies of scale and benefits of range,
- the importance of large economic units which provide a service for large geographic areas.

It should be remembered that these three factors do not require a monopolistic structure. Ultimately, monopolies should be the result of economic situations, so that markets are not closed to competition without economic and social analyses.

Until the seventies, twentieth-century political theory had established that, due to the necessity of the postal service for citizens, this service should be evaluated according to social criteria. This led to thoughts about the necessity of a postal monopoly and the need to keep it organized, as well as economic and legal considerations [Mueller 1996, p. 453].

Political reasons for keeping the postal service as a monopoly:

- to legislate postal duties, strongly emphasizing the need to observe social duties and policy,
- to maintain direct governmental commitment to the postal service market, such as the creation of large, national enterprises intended primarily for public use, without economic restrictions, and with special tax policies to help their financial situation.

This can be interpreted in different ways. From an economic point of view, for example, it can be considered as an opportunity for:

- stopping the tendency to maximize profits,
- using low prices to guarantee all citizens access to postal products.

From a legal point of view, however, it demonstrates a government's obligation to guarantee proper services to its citizens [Plagemann 1988, p. 3].

According to analyses of the legislation of postal duties in German postal law, postal service duties were catered to individuals, as evidenced by the emphasis placed on social duties.

The fact that written mail was dominated by personal correspondence confirms the hypothesis that the postal service was primarily for private individuals. In this situation:

- the social obligation of the postal service was first to improve access to postal services for individual citizens,
- different regulations for businesses were possible, but this kind of mail and the potential high costs of introducing the service could make it unprofitable.

Over the years, private correspondence was less plentiful, and business mail became dominant. Postal regulations which had once made it more accessible for private people, and which had social importance, started to be used by businesses which were functioning according to market rules, directed towards making profits. This situation was not the aim of the creators of the postal service, which was intended to be a tool for social policy. Given the new direction of thinking in this new situation, new ways of treating the postal service for private people and enterprises needed to be found.

The important role politics played in the creation of the postal service market shows how countries were directly involved in the postal service. For example, even countries with traditional market economies created national postal organizations which were given the status of public utilities.

3. Postal services as an area of public utilities

In the service of political aims, public utilities can be obligated to perform tasks which conflict with economic requirements, for example:

- executing investments which are not profitable from certain organizational points of view,
- employing more people than production requires,
- lowering prices for some groups for social reasons,
- keeping services which are not profitable.

The imposition of social and political aims on public utilities was convenient for the authorities who created economic policy, because:

- policy-maker's commands were sufficient to produce certain actions,

- usually parliament did not need to approve decisions, even though they influenced the public budget,
- using this tool was very easy, and economic factors were not always considered – more effective solutions were not sought.

Connected to the functionality of postal service operators as a public utility, two important duties for those organizations were established:

- duties of providing certain service,
- duties of tariff.

The first requirement is connected to offering a service for all clients. The postal service has an obligation to provide a service to everybody who is interested and who meets certain conditions. Realizing this requirement involves many tasks, such as keeping postal equipment in good condition and the development and modernization of production potential. It also means providing postal service in all areas, even where doing so is not profitable [Pricing behaviour of postal operators 2012, p. 158].

One requirement of providing a service is connected with the fee for the service: demand for the postal service obviously depends partially on prices. That is why the post office must provide some needed services with a zero tariff, and others with higher monopolistic prices. This demonstrates the importance of the second requirement – duties of tariff.

The implementation of national postal service tariff duties meant using the same tariff for the whole territory (area uniformity) at all times (time uniformity) and publishing them, guaranteeing equal use for all customers.

The unification of tariffs for national postal services requires a single price for a particular service, regardless of where mail is sent or where it is received. A good example of this unification is the single fee for sending letters within the country.

Estimating the consequences of tariff unification is not a simple task. According to some authors, unification is convenient for peripheral areas. Other authors believe that tariff unification does not encourage a suitable organization for post offices in such areas, and that as a consequence peripheral areas are difficult to connect with [Schmidtchen 1987, p. 245].

Time uniformity entails using the same fees for certain services regardless of the time when the order was taken. Considering that demand fluctuates over time, this solution is not good for controlling peak periods in demand. The postal service needs to have a reserve of production potential. To comply with the post office's legal obligation to provide service to all clients, production potential must be maintained to satisfy demand in peak times.

Time uniformity (which applies to letter fees and package fees) has supporters as well as opponents. Supporters argue:

- no client discrimination,
- the importance of pursuing social policy.

Opponents of time uniformity may dispute the last point, at least. While social policy may be necessary, controls on postal service prices may not be a good way of

pursuing it. Against the first point, raising the rate for all clients during peak periods does not entail discrimination. As for the second point, even in cases where there is no possibility of changing the fluctuation of demand, introducing higher fees during this time is reasonable, because the costs of the postal service are higher.

The statutory requirement to provide service and the tariff requirement work together, supplementing and supporting each other. Without tariff limitations to create fees for the postal service, the post could not comply with its duties to provide service. For example, it could not serve clients who were economically unprofitable. If it were not for the obligation to provide a universal service, tariff obligations could have been eliminated by stopping or limiting service to unprofitable areas.

Without the obligation of a universal service, tariff obligations could be eliminated by limiting or stopping the service in unprofitable areas.

It should be mentioned that, in addition to the two previously mentioned basic obligations, national postal operators often have different duties with a social dimension. For example, postal operators are obligated to offer a free mail service for the blind. The obligations of national postal operators in providing a service are the result of legislation and the traditional ways of understanding the duties of the postal service.

The final argument supporting a postal monopoly is treating the postal service as a natural monopoly. If the postal service were a natural monopoly, it should be possible to observe economies of scale and benefits of range. However, empirical analysis has not confirmed these occurrences in the postal market.

Attempts to verify that the postal service is a natural monopoly are connected with American analyses involving economic estimations of the cost of postal production which took place in the 1960s. Research done in two hundred American offices showed that the optimal size of postal structures, from an economic point of view, are organizations with 1,400 employees [Merewitz 1971, p. 504-509]. In the 1980s, more research was carried out, more precisely about establishing economies of scale in the postal service process [Knieps 1987, p. 158]. The results showed that economies of scale appeared only in mail delivery and depended on building density and population size in the researched areas. In other areas of the postal process, economies of scale were not detected.

In economic assessments of natural monopolies, constancy is important. In terms of the effectiveness of production and allocation, market access is undesirable if a monopoly is efficient. However, the subadditivity cost function makes it impossible to describe this constancy. This is why, without the whole picture of the provider's cost function and demand function, it cannot be determined whether or not a productive natural monopoly is constant. As a consequence of subsidies, every natural monopoly loses importance and can exist only with governmental support. Analysis of most European postal organizations confirms that transport services, couriers, bank services, and telecommunication services are all competition for a postal service monopoly (see: [Stumpf 1990]).

The current social and economic situation shows that justifications for a postal monopoly are getting weaker, for example, because:

- progressive development of competition on a postal market, also in the mail letters segment, which was traditionally central to the monopolistic direction,
- growth of competition for government subsidies.

Various interactions are responsible for the development of competition in the strongly monopolized mail letter segment, such as:

- gradual limitation of legislated monopoly as a result of consumer requirements for better postal service and increased pressure on enterprises interested in the postal market,
- the opening of the market in some countries where governments acknowledge economic and social reasons for this solution.

The direction of development makes it difficult to find economic reasons to keep a postal monopoly. However, some obstacles and issues remain, such as:

- the meaning of the postal service for society and the economy,
- the unique organization of postal service production, as well as the necessity of having a postal network.

This is partly a political decision, because:

- there are political dimensions to information and the institutions which send it
- some politicians manipulate public impressions of the nature and importance of the postal service,
- there can be a strong influence of monopoly operators on politicians to maintain the current situation or to impede changes.

Some factors are often overlooked:

- business clients interested in a higher quality postal service for social and economic needs,
- private enterprises interested in a postal market which had been closed to them as a result of political decisions;
- technological developments which increased the possibilities and economic profitability of the postal market.

Nevertheless, a postal monopoly brings benefits for:

- postal operators which maintain a strong position on the monopolistic market;
- politicians who can manipulate postal operator activity.

This is a convenient situation for postal operators and politicians, because even in a limited monopoly where economic and political interests are connected, neither the operator nor the politician is responsible for the economic results.

The opening of the postal market has been noticeably impeded by the lack of pro-active operators and politicians, which shows that the thinking about the postal service is still conservative.

Currently, most European countries only have anti-trust regulations for letters. The full liberalization of postal services in the EU was introduced on January 1,

2011. Eleven member countries (Cyprus, Czech Republic, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Romania, and Slovakia) have got permission for a transitional period of up to two years. However, in accordance with the principle of reciprocity, state postal operators of these countries can not be able to enter the liberalized markets of other member countries during this period [ITA Consulting & WIK Consult... 2009; Main Developments in the Postal Sector... 2010, p. 53].

Among those showing the most activity in attempting to slow down the liberalization process are some “old” EU countries, such as France and Belgium, as well as the new members, including Poland. Different strategies for postal service markets are being applied not only by all of the new countries of the enlarged EU, but also by some countries of the old EU, including some of those in the Eurozone. For example, in Germany, where balanced changes in the postal service market increased the competitiveness of its national postal service, the effects of full liberalization are not linked to mostly negative consequences. This is the case however in France and Belgium, where the postal services are subject to relatively traditional, conservative policies.

The strongly conservative approach of the new members of the EU can be partially explained by the under-investment of their state postal operators, due to limited government support. On the other hand, attempts to slow down the liberalization of postal service markets in the old EU member states may be mostly political in nature. These countries seem to forget that increasing the effectiveness and competitiveness of their national postal operators, and not assuring their monopolistic advantage by political means, is the key to their strong position.

4. Conclusion

Assuming that competition is propitious for business and the economy, monopolistic markets should only be created in special situations. Government-supported monopolistic markets can be categorized as follows:

- markets with fundamentally unreliable competition,
- markets with noticeably unreliable competition, but which can be improved.

The postal services market is an interesting example of a structure which was first transformed from a competitive market in a monopoly, and then was subjected to the processes of liberalization, leading to a gradual shift from monopolistic practices and the transition to a fully open postal market. The observed processes demonstrating the active involvement of the contemporary incumbents and politicians in the defeat of full market opening of postal services, indicate the continuing important role of conservative forces in the approach to the postal activity. These processes also show that the specific political outcomes are directed primarily towards what is socially possible, and what is not economically correct.

References

- Bartling H., Luzius F., *Grundzüge der Volkswirtschaftslehre*, 15 Auflage, Verlag Vahlen, München 2004.
- Behringer W., *Thurn und Taxis. Die Geschichte ihrer Post und ihrer Unternehmen*, Muenchen-Zuerich 1990.
- Bladh M., *The political economy and the natural monopoly of the postal service: the Swedish case*, "The Journal of Interdisciplinary Economics" 2001, vol. 12.
- Duell K., Sauer D., Schneller I., Altmann N., *Oeffentliche Dienstleistungen und technischer Fortschritt, Forschungsberichte aus dem Institut für Sozialwissenschaftliche Forschung*, Band I. Aspekte Verlag, Muenchen 1976.
- Eichhorn P., *Neue Organisationsmodelle auf dem Pruefstand – Leistungsanreize um jeden Preis?*, [in:] *Reformmodell Verwaltung*, DBB Verlag GmbH. Bad Kissingen 1995.
- Hermann E., *Die Deutsche Bundespost*, Schriften zur Oeffentlichen Verwaltung und Oeffentlichen Wirtschaft, Bd. 99. Baden-Baden 1986.
- Jojarth M., *Die Qualitaet der Versorgung auf dem offenen Postmarkt und die Gewaehrleistung einer Grundversorgung: Ein Konzept zur Reform des Postmarktes in der Schweiz*, Difo-Druck GmbH, Bamberg, Dissertation der Universitaet St. Gallen Nr. 2812, 2003.
- Knieps G., *Dienstleistungspolitik der DBP und Ordnungspolitik*, [in:] *Die Deutsche Bundespost im Spannungsfeld der Wirtschaftspolitik*, Decker's Verlag, G. Schenck, Heidelberg 1987.
- Main Developments in the Postal Sector (2008-2010) Final Report, Copenhagen Economics, Copenhagen 2010.
- Merewitz L., *Costs and Returns to Scale in U.S. Post Offices*, "Journal of the American Statistical Association" 1971, vol. 66.
- Mielcarek A., *Poczta i telekomunikacja w prowincji pomorskiej na tle rozwoju łączności w Prusach i Niemczech w latach 1815-1914*, Uniwersytet Szczeciński, Rozprawy i Studia, t. 509, Szczecin 2004.
- Mueller K., *Die Postdienste aus der Sicht der Institutionenökonomik. Europäische Hochschulschriften*, Peter Lang, Frankfurt am Main 1996.
- Mueller K., *Die Postdienste aus der Sicht der Institutionenökonomik*, Peter Lang, Frankfurt am Main 1997.
- Plagemann J., *Gemeinwirtschaftliche Auflagen der Deutschen Bundespost in Monopol- und Wettbewerbsbereichen*, Wissenschaftliches Institut für Kommunikationsdienste, Diskussionsbeiträge zur Telekommunikationsforschung Nr. 35, Bad Honnef 1988.
- Pricing behaviour of postal operators Copenhagen Economics, Copenhagen 2012.
- Schmidtchen D., *Gebuerenpolitik der DBP und Ordnungspolitik*, [in:] *Die Deutsche Bundespost im Spannungsfeld der Wirtschaftspolitik*, R. v. Decker's Verlag, G. Schenk, Heidelberg 1987.
- Stumpf U., *Is there a place for reserved services?*, [in:] *Mail and Express Services: Meeting European User Needs*, IBC Technical Services Ltd in association with Mail and Express Services Users' Association (MESUA), Amsterdam 1990.
- The Evolution of the European Postal Market since 1997*, ITA Consulting & WIK Consult, Study For the European Commission, August 2009.
- Varian J.R., *Mikroekonomia*, Wydawnictwo Naukowe PWN, Warszawa 1997.

DETERMINANTY TRANSFORMACJI RYNKOWEJ W SEKTORACH INFRASTRUKTURY (OD MONOPOLU DO KONKURENCJI) NA PRZYKŁADZIE POCZTY

Streszczenie: Poczta publiczna pełni ważne funkcje społeczne i gospodarcze. Jako dziedzina aktywności ludzkiej ma wielowiekowe, monopolistyczne doświadczenie dostarczania pocztowych usług powszechnych i kurierskich za pośrednictwem unikalnej sieci dystrybucyjnej. W ostatnich dwudziestu latach sektor pocztowy na świecie charakteryzują istotne zmiany transformacyjne. Tworzone są warunki do całkowitego znoszenia monopolu w obszarze rynku pocztowego. Rozwój technologii pocztowych i teleinformatycznych sprzyja tworzeniu konkurencyjnego rynku. Wielu operatorów pocztowych, którzy dotychczas byli usługodawcami państwowymi, przekształca się poprzez prywatyzację w ponadnarodowe korporacje. W zaprezentowanym tekście podjęto próbę odpowiedzi na dwa zasadnicze pytania: dlaczego powszechne usługi pocztowe nie były od początku oferowane na konkurencyjnym rynku, w przeciwieństwie do wielu innych produktów zaspokajających podstawowe potrzeby, dlaczego takie rozwiązanie jest dostępne dla świadczenia powszechnych usług pocztowych dopiero obecnie?

Słowa kluczowe: sektor usług pocztowych, monopol, liberalizacja, deregulacja, transformacja.