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# **Microeconomic Impact of Monetary Integration - The Case of Postal Services**

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Abstract: The objective of this paper is to present potential threats and opportunities resulting from monetary integration to postal services rendered by national post operators. National post operators are subject to many regulations and requirements that make the market in which they operate far from perfect competition. National operators are granted a legal monopoly in many business areas. This is associated with many benefits. The EU policy, however, is heading toward sequential liberalization of the postal services market and this will be achieved in coming years. This liberalization will result in national post operators being subject to external competition from other EU member states. They are already competing with some international commercial logistics/courier service companies, but there will be a substantial change in the severity of competition in this market if the national post operators do not create an oligopoly, setting prices or market share. This paper develops a formal theoretical framework to show how an oligopoly in the EMU can efficiently substitute the monopoly on national postal services markets found today. The stylized fact advocated by the authors is that monetary integration facilitates an oligopoly structure rather than other market structures to replace the legal monopoly. Despite the hypothesis that removing the last barriers for economic integration by introducing a common currency facilitates monopolization, the specific features of postal services undermine it. This paper offers an alternative that could apply to other industries subject to similar regulations, especially those that were historically public sectors in the EU that

have been undergoing restructuring and privatization. Since this paper is theoretical, there are no data sets, nor is there quantitative analysis. The methods employ consumer and firm choice in a monopoly/oligopoly model with some modifications to reflect EU-specific features and the monetary integration consequences for postal service providers. The result is as follows: Oligopoly structure for postal services market represents the only efficient solution that satisfies boundary conditions at national and regional levels.

Keywords: postal services, monetary integration, common currency, common market, services.

JEL Classification: D21, E42, F33.

## **I. Introduction**

The literature defines services in many ways. Smith (1776) perceived services as a non-production activity, and as a consequence, he did not recognize it as contribution to a nation's wealth. In the case of postal services, Smith was aware of the significance of these services in the economy. However, he assumed that this activity belonged entirely to the public services sector. Another view, by Stanton (1981, p. 441), focused on postal services as a separate activity of intangible nature that delivers tangible benefits.

When we define postal services, it is important to stress their communicative nature.

Rendering these kinds of services is based on granting information flow from a sender to a receiver or receivers (Czaplewski, 1993, p. 35). Therefore, from a legal point of view, postal services are an agreement pertaining to sending and receiving, such as with letters, packages, money transfers, newspapers, or other objects in appropriate packaging (Górski and Dominiczak, 1982, p. 28-30). The market for postal services is a bundle of processes that helps providers (postal operators) and customers (individuals and institutions)

determine the characteristics of services. It also determines their quantities and prices under whatever current legal framework. This market includes intermediation, which is executed by postal operators on behalf of institutional customers (Panasiuk, 2003, p. 35). When one observes changes in the postal service market in Europe, it should be remembered that the driving forces are not limited to integration initiatives within European Communities. Another important group of factors consists of new telecommunication technologies that offer perfect substitutes for traditional postal services that are based on sending information. Modern developments in this market are diverse, but significant. To evaluate them in general terms, one can claim that they represent a previously unforeseen challenge for national operators. Countermeasures for emerging threats could be an interesting area of research for microeconomists. This paper aims to recognize the impact that monetary integration executes on postal services in the EMU. A simple interpretation leads to the conclusion that the law of one price holds for some postal services in Europe. This is due to liberalization initiatives and the introduction of the Euro.

## **II. Segments of the postal services market**

The postal service market has a multi-segment structure. It is therefore necessary to analyze each segment separately. In the case of universal postal services (meaning letters, packages with defined value, transfers, and other packages) there is one major entity: the national post operator. In many countries, this entity holds almost 100% of market share and provides a full range of services for individuals and institutional clients. This is actually a monopoly sanctioned by law that regulates the way postal markets operate. Activity in this particular market sector is an example of state intervention and interference in market processes. The influence affects also the market's organization and its supply

design. It has been standardized worldwide that governments impose certain obligations on the domestic post operator. On the other hand, national post operators benefit from restrictions imposed on all other businesses wishing to compete. This protection takes the form of restricted services that can be offered solely by national post operators. Therefore, there are really only a few areas in which national post operator services are supplemented by other enterprises.

Another segment of pre-defined quality parameters are courier services, in which speed of delivery is crucial. Here one could identify a competition between the national post operator and private enterprises that hold substantial market shares. When one considers the size of this market and the variety of services offered, one can conclude that supply side players are similar. Since they are dependent on each other in respect to revenue, postal production, investment, and advertising this segment is like an oligopoly (Panasiuk, 2003, p. 37).

The third segment of services for non-addressed printouts and direct mail is closest to pure competition. Despite the fact that national post operators have control over resources and infrastructure that allow them to offer complex services, there are many small and highly efficient competitors (Panasiuk, 2003, p.38). The area of intermediation is also subject to strong competition. National post operators can achieve economies of scale due to many outlets and full national coverage. This is the main reason why pensions and social benefits are delivered by this entity.

In conclusion, postal service markets are composed of several segments that can be separately recognized as the following structures: monopolies, oligopolies, monopolistic competition, and in some cases, pure competition – especially in the area of substitutive competition.

### **III. Substitutive competition in the postal market**

The structure of the postal market is shaped by three levels of competition, as follows (Kopcińska, 1994, p. 144):

- Direct competition that covers current suppliers offering the same services Potential competition that refers to new entrants in the market
- Substitutive competition as an external threat to the current situation triggered by the introduction of alternative or substitutive products.

The representatives of substitutive competition are those enterprises that offer services different from those of post operators but that meet the same or similar needs (Informacja Pocztowa, 1994, p. 8). For traditional letters, such substitutive competition is represented by line phones, cellular phones, e-mail (Buko, 1998, p. 9). Fast development of substitutive electronic media and networks, such as international systems for document, data, and image transmission is of high influence on customer retention by post operators (Korczyński, 2001, p. 27). These are some reasons for change in the volume and structure of demand and supply of postal services.

### **IV. Main players shaping the postal services market**

The entities that shape demand in the postal service market are individual customers (households), corporations, and institutions (mainly local and central governments and their agencies) (Panasiuk, 2003, p. 55). Demand generated by these three groups is diverse in terms of the quantity and quality of services needed. The supply side of this market is composed of two groups of players that render postal services (Panasiuk, 1998, p. 13):

- Public operators. Most often this is one entity (a state-owned company), but can also be several entities whose activities together comprise all the functionality of the public operators
- Other post operators. These are mainly private businesses providing services in just some segments of the postal services market.

This structure of the supply side of the postal market is a consequence of the legal framework and legal reach of state interference and intervention into the postal service market.

## **V. Regulation policy and the postal service market**

Postal service markets are regulated in every country. National policies affect all enterprises providing postal services. States intervene in this market using many regulations, including (Panasiuk, 2003, p. 59-60):

- Separate acts regulating the functioning of postal service market
- Defining the range of postal services that are restricted (this area is subject to control of regulatory bodies)
- Creating regulatory bodies and entrusting them with rights to control restricted services, supervise their quality, and grant concessions
- Creating a public post operator as a separate business unit, which provides universal services that are fully accessible with public utility in mind. This results in special treatment, rights, and obligations for this particular entity.

Regulations of postal service markets are designed in order to protect the interests of customers. Therefore, all the above forms of intervention should support and maintain competition where competition is allowed. On the other hand, where monopoly prevails, regulations should support perfect competition to drive quality up and prices down. It is possible to evaluate deregulation initiatives in postal service markets. Deregulation is a special strategy based on removing previously imposed restrictions (Czaplewski & Panasiuk, 1999, p. 1). The postal service market used to be subject to regulations. Highly detailed restrictions were driven by political, military, and fiscal considerations. Changes that liberalized this market in the European Union are of significant importance for both customers and national providers (Gospodarek, 2003, p. 95-101).

## **VI. Liberalization of postal services market in the European Union**

The aim of the European Commission in the postal sector is to foster a competitive environment. Freedom to do business and provide services is one of the pillars of the European Common Market (Ahlt, 1998, p. 33). The European Commission decided that postal sector liberalization is necessary for the creation of an intra-union postal service market wherein the benefits of the reforms would be shared by all EU citizens and enterprises.

EU-member states try to promote e-commerce and e-economy, making further development of postal service markets a necessity. Despite online purchases of goods, postal services handle transportation and delivery of these goods. Customers and online vendors are demanding an increasing quality of services, regardless of who the operator is. (Woicka, 2001, p. 41).

The European Commission implemented sequential liberalization of postal service markets. The phases designed and carried out thus far include the following:

- A review of postal service regulations in 12 member states with initial attempts to liberalize in 1992
- Introducing Directive 97/67/EC by the European Parliament and the European Council, stipulating common rules for developing the intra-union market for postal services and improving their quality in 1997. This initiative resulted in liberalization of letters weighing over 350g and a price for packages in the first weight section for the fastest delivery
- Introducing Directive 2002/39/EC by the European Parliament and the European Council in 2002, which triggered further liberalization of the segment for letters weighing over 100g in domestic and foreign delivery. This directive announced the liberalization of the segment for letters over 50g by 2006, and full liberalization by 2009 (Panasiuk, 2001, p. 1-2),
- Full liberalization for letters over 50g as of 2006
- Forcing some amendments for the latest Directive on July 11th to move full liberalization from 2009 to 2011. This was done by the European Parliament in 2007. In addition, new member states with complicated topography or consisting of an island or islands were allowed to use two-year transitory periods. By 2013, all EU member states would have to fully liberalize domestic postal service markets.
- The agreement on November 1st 2007 by Ministers responsible for transport and communication in EU-member states that full liberalization should take place no later than January 1st 2010. Countries in agreement included Hungary, the Czech Republic, Cyprus, Greece, Latvia, Lithuania, Luxemburg, Malta, Romania and Slovakia. They had the option to use a maximum two-year transitory period (Poczta Polska, 2007, p. 5-6).

It should be noted that in EU member states, public postal operators are obligated to provide services of a universal nature in restricted areas. These areas are determined according to a maximum letter weight in the monopoly segment (up to 50g) and a minimum fee. Only the public operator has the sole right to provide this service below this fee (Panasiuk, 2003, p. 46). Rendering universal services when competition increases is therefore problematic. This was resolved by EU states in two ways:

- A system of licensing was created in which an obligation to provide universal services was imposed on the public operator.
- A guaranteed fund with contributions paid into by all other (non-public) operators present at on a specific national market was created. This fund covers costs of providing universal services that exceed revenue generated by these services to public operators.

It is worth mentioning that restricted services are supposed to maintain and grant profitability of universal services. They are subject to special legal solutions that at the same time restrict competition (Kuczevska, 2003, p. 79).

The restricted services in the EU were defined with two parameters: price & weight. There is also quality to consider. What is important, however, is that postal law should set quality standards for universal services as well. The European Commission defines services that can be restricted. These include sending, processing, transporting, and delivering packages with correspondence domestically as well as just to the border for foreign post. Universal services are a subject of interest and influence to regulatory bodies in EU countries. As mentioned earlier, private postal operators in the EU can deliver packages weighing above 50g. The packages of lower weight are restricted and only deliverable by national post operators (Kuczevska, 2003, p.79). Due to monetary integration and EMU creation, there

are reasons why the law of one price holds for the market when packages weight above 50g.

## **VII. The law of one price for postal services in the EMU**

On January 1st 1999, the monetary union came into existence for 11 EU countries, including Austria, Belgium, Finland, France, Spain, the Netherlands, Ireland, Luxemburg, Germany, Portugal, and Italy. Two years later, Greece became the 12th EMU member, and in 2007, Slovenia joined in. Other EU countries that adopted euro were Slovakia in 2009, Estonia in 2011, Latvia in 2014, and Lithuania in 2015. According to the Maastricht Treaty, every EU member state that meets all criteria can join the EMU. Three countries have a special opt-out for not becoming a member (Great Britain (already out), Denmark, and Sweden).

The emergence of an economic area exceeding the size of the USA and also using a common currency created unprecedented business opportunities. A chance for successful expansion to find new customers was a growing function of competitiveness. However, the bigger market means in the same time a stronger competition most often. This is true also in the case of postal services provided by national operators. The current situation offered new opportunities for expansion (Siemaszko & Żogała, 2004, p. 16-17).

One of the aims of the EMU regarding the postal service market was the removal of price differentials. This goal was in line with the creation of the common market and the goal of further fostering competition. However, the first years of the EMU witnessed less price convergence than expected. A lack of expansive retail networks was recognized as a main reason for unchanging price differentials (Glibowska et al., 2003, p. 7-8).

Post operators are a good example of large retail outlets networks and one can determine if the law of one price holds for this market or its segments. If there are no impediments to

trade and transportation costs are low (negligible), then the law of one price causes a convergence in prices for certain goods or services.

If the goods or services in question are tradable, then their prices in two (or more) countries are not independent. An extreme case is when these goods cost the same, regardless of where purchased. No barriers to trade and negligible transportation costs would allow for arbitrage if there is a difference in price. Two markets could offer the same good or service only if prices are the same. In real life they both exist. There are numerous impediments for trade and non-zero transportation costs, which cause a non-zero difference in prices for the same good or service in different markets. From a theoretical point of view, with economic integration, when all barriers are removed for activities in the common market, convergence of prices should be observed for goods and services.

Another possible situation arises when transportation costs and barriers to trade are low. Competition in the common market for EMU postal services drive prices down. The case investigated in this paper covers letters weighing over 50g, meaning they are also outside the restricted area of the national postal operator. This is because of strong competition and standardization. This latter feature is the main reason for expecting the law of one price to materialize. Table 1 presents prices for a domestic standard letter delivery up to 100g.

Table 1. Price for delivering domestic letters up to 100g in EMU countries

Country	2004	2005	2006
	Price in EUR		
Austria	<b>1</b>	<b>1</b>	<b>1</b>
Belgium	0.88	0.88	0.92
Finland	0.65	0.65	0.7
France	<b>0.77</b>	<b>0.77</b>	<b>0.77</b>
Greece	0.84	0.88	0.88
Spain	0.55	0.55	0.66
Netherlands	1.17	1.17	1.17
Ireland	0.48	0.48	0.6
Luxemburg	<b>1</b>	<b>1</b>	<b>1</b>
Germany	<b>1.44</b>	<b>1.44</b>	<b>1.45</b>
Portugal	0.48	0.49	0.5
Italy	0.9	0.9	1.5

Source: *Rozwój rynku usług pocztowych – K. Kruszyński, A. Stolarczyk: Raport półroczny nr 2 – Rozwój rynku usług pocztowych, Instytut Łączności, Warszawa 2006.*

As is noted, postal operators in France and Germany maintain competitive prices for economic letters up to 100g. French operators offer lower prices and attract customers previously using the German Post services. Prices of these two national markets are stable (2004 – 2006). The same is true for Luxemburg, Austria, and the Netherlands. The other countries converge to 1 EUR for this service. Finland, Spain, Ireland, and Portugal have increased the price. However, neighboring countries of France maintained somewhat lower

prices to compete with the French Post. From a customer point of view, this convergence of prices is beneficial. Prices for domestic letters up to 250g are presented in table 2.

Table 2. Price for delivering domestic letters up to 250 g in EMU countries

Country	2004	2005	2006
	Prices in EUR		
Austria	1.25	1.25	1.25
Belgium	1.32	1.32	1.38
Finland	1.1	1.1	1.1
France	<b>1.45</b>	<b>1.45</b>	<b>1.45</b>
Greece	1.66	1.73	1.73
Spain	0.89	0.9	1.91
Netherlands	1.56	1.56	1.56
Ireland	0.96	0.96	1.25
Luxemburg	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>
Germany	<b>1.44</b>	<b>1.44</b>	<b>1.45</b>
Portugal	1.1	1.2	1.2
Italy	1.7	1.7	2

Source: *Rozwój rynku usług pocztowych – K. Kruszyński, A. Stolarczyk: Raport półroczny nr 2 – Rozwój rynku usług pocztowych, Instytut Łączności, Warszawa 2006.*

One can observe here even more benefits for customers with the convergence of prices in the EMU. The price is stable at 1.4 EUR in Luxemburg, France, and Germany. Austria, Belgium, Finland, and Portugal maintain stable prices, below 1.4 EUR. Table 3 presents prices for domestic letters up to 250g.

Shown in Table 3 is another competitive segment of the postal services in the EMU. The three largest postal operators in the EU maintain basically the same price. An interesting observation of two non-EMU members: Denmark and Sweden's prices can be formulated. In both cases the prices are the highest among the entire EU. Could this be a consequence of a lack of monetary integration?

Table 3. Price for domestic letter delivery up to 250 g in EMU countries

	2004	2005	2006
Country	Price in EUR		
Austria	1.25	1.25	1.25
Belgium	1.32	1.32	1.38
Finland	2	2	2
France	<b>1.45</b>	<b>1.45</b>	<b>1.45</b>
Greece	1.66	1.73	1.73
Spain	1.58	1.6	1.91
Netherlands	2.25	2.25	2.25
Ireland	1.44	1.75	1.75
Luxemburg	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>
Germany	<b>1.44</b>	<b>1.44</b>	<b>1.45</b>
Portugal	1.1	1.2	1.2
Italy	1.8	1.8	2.2

Source: *Rozwój rynku usług pocztowych – K. Kruszyński, A. Stolarczyk: Raport półroczny nr 2 – Rozwój rynku usług pocztowych, Instytut Łączności, Warszawa 2006.*

The data presented above suggests that there could have been some weak form in the law of one price in EMU countries. When analyzing this relationship, it is reasonable to

consider the causes and consequences of the Balassa-Samuelson effect. This refers to the pace of increasing prices of non-tradables that tend to exceed the pace of increasing prices of tradables in a fast growing economy. As a consequence, unit labor costs in the service sector grow, causing inflation. This tendency is somewhat evident in developed economies, but can be clearly observed in emerging economies, where the real convergence takes place (Orłowski, 2007).

## **Conclusions**

After analyzing markets for postal services in the EMU over the period from 2004 to 2006, several observations can be made. Postal service price data for the first five years of monetary integration was not available. Since it was associated with the introductory period of the EMU, the data can safely be discarded. There was a threat, however, that a strong convergence of prices could emerge just after the introduction of the common currency. There is no doubt that monetary integration in Europe facilitated comparability of universal service prices that are highly standardized. There are a few reasons for these price differences. The first conclusion about microeconomic impact of monetary integration on postal services is that it facilitated direct comparability of prices, and therefore also price transparency. As a consequence, due to liberalization of the EU postal market, a surge for intra-union competition emerged.

Despite the short (3-year) period covered by this study, a weak version of the law of one price can be recognized, since unification of prices to some extent in EMU countries can be observed. Over the 2001-2005 period, the value of postal services in the EU increased significantly. It grew faster than the GDP of the EMU. Therefore another conclusion can be formulated regarding the presence of an income effect. This faster growth was induced by increased competition that drove prices down and made EMU citizens wealthier in real

terms (they could buy more postal services relative to other goods and services). It seems reasonable to bind this effect with the observed boom for postal services in the EMU. However, financial results of national post operators are strongly positively correlated with business cycles, which should be good news for all national post operators in countries heading to EMU accession.

A concluding remark for national post operators in non-EMU countries is of a more challenging nature. This is that an increase in competition in the postal service market associated with monetary integration is a factor stimulating their development and growth.

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