Postal sector development between digitization and regulation

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Introduction

In recent times, the postal industry has undergone large changes that are shaped by two major forces; technological progress and altered regulatory frameworks. This paper will show how technological progress is influencing postal services in different, or rather opposing ways, as well as outline changes in the regulatory framework, and the aftermath of the past liberalization process that led to new market structures, whereas the universal service obligation (USO) have aimed to ensure the provision of a socially desired level of service quality or redistribution. The various forces and influences described are strongly interrelated, and may even interfere with other, non-sector-specific regulations, such as competition law. It is suggested that the developments in the postal industry should be viewed as a co-evolution process between technological progress and regulation.

The chapter is structured as follows. The second section discusses the twofold effect of technological progress on postal services. It will be shown that where the letter post is threatened by the new developments in electronic communications, parcel services are obtaining new opportunities for growth due to the booming electronic commerce industry. The third section introduces the two regulatory domains of the postal industry and analyzes the ways in which they interact. Postal regulation has the task of governing the functioning of the market for postal services, and more often to ensure a level playing field for all postal operators. Further, it has to deal with new relevant markets for postal operators due to the emergence of e-commerce. The USO should guarantee a minimum range and quality of service for the benefit of all users, but may constitute a financial burden to the universal service provider (USP). The fourth section provides an outlook on competition and regulation in the postal sector and offers suggestions for the future design of the regulatory framework. The fifth section concludes, and summarizes the main findings and contributions of this chapter.

Technological progress

Progress in electronic alternatives of communication is creating opposing trends in the postal services industries. Addressed mail volumes are generally shrinking in all industrialized countries.
as a result of increased competition from electronic means of communication (e-substitution) (Jaag, 2014). According to Dieke et al. (2013), between 2007 and 2011, the European letter post sector declined in terms of revenues and volume: between 2007 and 2010, the volume declined on average by 4.3 percent per year, while the revenue dropped by 5.2 percent per year. Between 2010 and 2011, the decline slowed to 3.3 percent in volume, and 1.4 percent in revenue. Dieke et al. (2013) estimated that mail volumes will continue to decline. Parcel volumes are growing due to e-commerce, which is the most important growth area for postal operators and consolidators: according to A.T. Kearney (2012), between 2009 and 2011 the European market for courier, express and parcel services grew 4 percent in revenue and 6 percent in volume.

Mail services and e-substitution

In most developed countries, addressed mail volumes grew robustly during the twentieth century and in parallel with gross domestic product (GDP), but began to fall in the first years of the new millennium (Trinkner and Grossmann, 2006). There seems to be no foreseeable end to this trend, and the decrease will strongly affect the development of postal markets in the future. The volume of letters sent via the United States Postal Service (USPS) has declined from a peak of 213 billion in 2006 to around 158 billion in 2012 (Jaag, 2014). Comparing the development of the GDP per capita and the letter volumes per capita for industrialized and developing countries, it can be observed that the two parameters have diverged in recent years for both country categories. Whereas the trends for letter volumes and GDP per capita were quite similar until the beginning of the 1980s, they started to decouple in the later 1980s for the developing countries, and after the turn of the millennium for industrialized countries. Today, there is a wide spread between the evolution of mail volumes and GDP, especially in developing countries (Universal Postal Union UPU, 2014).

Increased indirect competition from electronic substitutes may indicate that the definition of relevant markets applied by regulation and competition law may change. Dietl (2012) argued that the increasing substitutability of letters with electronic means implies that they should both be considered to belong to the same market. This issue is important in the context of several competition cases (mainly in the direct-mail and unaddressed-items segments), which refer to predatory pricing and rebate issues. For example, in 2009 the Danish Competition Council concluded that there was still a separate market for direct mail products that did not include other (electronic) forms of advertisement (The Danish Competition Appeals Tribunal, 2010). In addition, Brennan and Crew (2014) argued that the observed decline in volume was not, on its own, a basis for deregulation. They showed that a product that reduces demand for the firm’s services does not necessarily mean that, despite the displacement of demand, the firm no longer has significant market power. In terms of market definition, the original product and the displacing product need not be in the same market. It remains to be seen whether the current market definition will be upheld in the course of the ongoing substitution process.

Being forced to fight competition on two fronts – direct competition due to liberalization of the postal market and indirect competition caused by e-substitution – the concern of cost efficiency arises both for the USPS and the regulatory authority. The costs of some elements of the universal postal service are presumably high; therefore, USPSs seek ways to mitigate these costs (Maegli et al., 2011). As a result, an increasing number of postal operators have started to invest in digital solutions to combine them with traditional physical postal services (Maegli et al., 2007). Current pilot projects include virtual mailboxes (for example, Belgian Post, Post Denmark, and Canada Post), electronic billing, and e-government efforts like e-health and
e-voting. A project that seems to have been quite successful is the Danish electronic communication system e-Boks, which started its service in 2001 and was used by 3.8 million receivers and 20,000 senders in 2012 (Dieke et al., 2013). The company offers public institutions and companies a way to communicate electronically with customers and citizens through a secure platform. With the adaption of the Danish Public Digital Post Act, all individuals above the age of 15 and with a Danish civil registration number had to register for digital post from public authorities by November 1, 2014. As of November 1, 2014, 65.9 percent of the Danish population had already registered for digital post, whereas 24 percent were registered automatically and 10.1 percent remained exempted (Danish Agency for Digitisation, 2014).

Parcel services and e-commerce

While shopping in a retail store, the customer is immediately handed the purchased good after payment. The situation is quite different with customers buying goods through e-commerce; since customer and retailer are not located in the same place at the time of purchase, there is a need for a delivery operator who transports the product from the retailer to its customers. This obviously constitutes a great opportunity for postal operators, since the amount of purchases made via the Internet are increasing significantly (Jaag et al., 2014b). Stengg (2013) estimated the average European growth of e-commerce to be 17 percent in 2013, and even up to 23 percent (Germany) or 30 percent (Russia) in some countries. Ecommerce Europe (2014) estimated the share of the European Internet economy in the European GDP at 2.2 percent and argued that the percentage is set to double by 2016 and to triple by 2020. In 2013, e-commerce in the US made €315.4 billion in turnover, followed by China with €247.3 billion in turnover (Ecommerce Europe, 2014). Regarding the relation between e-commerce and parcel delivery, it is not surprising that, in contrast to the letter market, the European parcel sector, for example, is growing in terms of volumes, as well as revenue, and therefore attracts various kinds of competitors. Okholm et al. (2013) distinguished between three main key players in the delivery markets:

- National postal operators: incumbent postal firms, which are typically subject to a USO;
- Global integrators: multi-national operators, such as DHL, FedEx, TNT Express or UPS;
- Couriers and other express and parcel specialists, which differ from the already mentioned categories with respect to services, coverage and business models.

Even though incumbent postal operators still have a strong position in the domestic parcels market and a share of above 20 percent in most European countries, international integrators play an important role and can be seen as serious competitors to the USPs. The domestic parcel market is mainly dominated by the three largest operators offering parcel services in the specific country, since in most European countries the three largest operators achieve a combined market share of above 60 percent (Meschi et al., 2011).

Keeping the high growth rates of e-commerce turnovers in mind, it might be surprising that the majority of purchases are made within national borders, and that only 11 percent of consumers shopped online across borders in 2013 (Stengg, 2013). This circumstance could be attributed to higher prices, poorer quality of service, or lacking information comparing domestic and cross-border parcel delivery (Meschi et al., 2011). Okholm et al. (2013) found that prices for cross-border deliveries are three to five times higher than those for domestic deliveries of similar items. A possible explanation for this observation is that competition for cross-border parcel services may differ from that of the domestic market, and that market power is higher in
cross-border markets. This point seems to provide an adequate explanation for observed price differences, since cross-border parcel distribution markets are highly concentrated (Jaag et al., 2014b). There are four main competitors; DHL, TNT, UPS, and FedEx, and it is interesting to see that USPS do not hold a dominant market position (Dieke et al., 2013). In addition, Meschi et al. (2011) observed that higher cross-border competition has had a strong impact on cross-border price differentials. They found that in the six largest European countries in terms of mail volume (France, Germany, Italy, Netherlands, Spain, and the UK), where competition is highest, cross-border price differentials are significantly lower.

Although postal operators can benefit from e-commerce to boost their business, the quality of delivery services has to be improved to promote (in particular) cross-border e-commerce and thus parcel flows. Even though services such as track-and-trace are standard for most postal operators, customers and retailers have great concerns considering cross-border delivery (Okholm et al., 2013). Therefore, the development and advancement of delivery services and models are important to gain competitive advantages. Such advancements include different insurance options, various speeds of delivery, delivery confirmations, returns services, parcel pick up boxes, etc. However, optimizing and diversifying delivery services should not be the only step postal operators should take to profit from the boom in e-commerce. For example, Finger (2014) suggested that postal operators should widen their service and also take on the roles of information and financial intermediaries (for example, e-retailing platforms and credit card companies) in the e-commerce value chain, since, unlike the physical intermediaries (for instance, delivery operators), those players would capture the most value. There are already several national postal operators that have expanded their service outside the delivery business and started to offer payment solutions (such as Post NL), support for e-retailers (such as La Post, Royal Mail and bpost) or even e-commerce platforms (including DHL Paket).

**Regulatory framework and competition**

**Market regulation and competition**

Bypass and access are the two generic forms of competitive entry in the postal sector (Jaag, 2014). With bypass, each postal organization operates its own delivery network. Typically, this entails partial area coverage serving only the most densely populated areas. Hence, the entire value chain is under competition end-to-end. Sweden is a prominent example of postal end-to-end competition in selected market segments. CityMail, the only notable competitor to Sweden’s USP Posten AB, entered the Swedish mail market after it was fully liberalized in 1993 (Jaag, 2014). CityMail chose to only deliver pre-sorted bulk mail to the most densely populated areas in Sweden, with a lower delivery frequency of twice a week (and later every third business day). With the adoption of this business model, CityMail could keep costs low since it did not have to invest in expensive sorting technologies and had low delivery costs from not delivering every day, and could offer its services at lower prices than Posten AB. Today, as a subsidiary of the Norwegian incumbent Posten Norge, it is operating under the new brand Bring Citymail and is mainly active in the bulk mail segment. Bring Citymail covers about 54 percent of the delivery points and has an approximate market share of 12 percent in volume and 6 percent in turnover. This shows that end-to-end competition in the mail market is possible even in the presence of strong economies of scale (ERGP, 2014b).

Access gives competing operators the choice to deliver on their own, or to (partly) use the incumbent’s delivery network. In the latter case, only upstream processes are competitive, while delivery remains monopolistic. In the US, with its work-sharing system, only USPS’s
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express mail and package delivery services are subject to end-to-end competition, which comes primarily from FedEx and UPS. USPS's monopoly prevents other companies from delivering first-class and standard mail, with an exception for urgent mail. Furthermore, private companies are not allowed to place their deliveries in mail boxes (Jaag, 2014). Panzar (2002) argued that giving downstream access to the network, coupled with economic incentives, increases the contestability of the market for upstream postal services. This results from strong economies of scale and scope in delivery, potentially prohibiting entry for end-to-end services. With access to the incumbent’s delivery, market entry is facilitated since only upstream processes (which exhibited weaker economies of scale and scope) have to be operated by the entrants. Experience in the US confirms this: in 2000, approximately 70 percent of all mail was work shared to some degree (Haldi and Olson, 2004).

In Europe, large volumes are work shared (mostly presorted), even though competing postal operators and consolidators are allowed to deliver their items themselves. An example of an access regime in Europe is the UK, where the first access agreement was established in 2004, between the incumbent USP Royal Mail and its competitor UK Mail. Since then, competitors have been able to perform upstream activities, such as collecting, sorting, or transportation for the USP. In return, they received rebates of up to 33 percent of the end-to-end price of Royal Mail. However, since mandatory downstream access resulted in a major loss of business for Royal Mail, significant changes in the treatment of access were introduced with the adaption of the new Postal Services Act in 2011. Since then, the new postal regulator Ofcom may not impose a condition requiring access to the USP’s network unless it appears to it that a condition is appropriate for each of the following purposes: (1) promoting efficiency; (2) promoting effective competition; and (3) conferring significant benefits on the users of postal services (ERGP, 2012). Another example of access competition can be found in Germany, where 11.4 percent of the letter items the incumbent Deutsche Post Group distributed were injected into the incumbent’s network by competitors. This can be considered a relatively high percentage, since the only country with access competition above 5 percent is Slovenia (7.6 percent). The ERGP examined several hypotheses to explain the different developments of access competition, such as maturity and timing of liberalization, regulation, demographics, mail characteristics, and the existence of rival operators. The ERGP concluded that the emergent patterns are largely heterogeneous, and stated that the developments seem to be based on country-specific factors (ERGP, 2014b). Since access competition is more directly reliant on supporting regulation, country-specific access regimes seem to be an important factor for the emergence of competition, which, for example, is the case (as already discussed) in the UK.

Although market liberalization has not yet led to radical changes in the competitive position of the letter markets, there are few examples where competition has emerged. Out of the 29 countries that participated in an ERGP survey, end-to-end market shares of new entrants have exceeded 5 percent in 10 countries (Bulgaria, Estonia, Germany, Latvia, Lithuania, Netherlands, Poland, Romania, Slovakia, Sweden) (ERGP, 2014b). In the countries that opened up their markets before 2012, competition appears to have largely stabilized at a low rate (ERGP, 2014b). An example of the nearly absent end-to-end competition can be found in the UK, where the postal services regulator Ofcom, acknowledged in 2013 that the incumbent operator Royal Mail had delivered over 99 percent of all mail items in 2011 (Eccles, 2014). Potential reasons for the high incumbent market shares for letters include their good reputation, substantial economies of scale, small margins, high overall quality, and the rather risky sector outlook in terms of declining mail volumes and competitive pressure from electronic means of communication.

The focus of postal regulation has shifted from regulatory aspects, which evolved in the context of the liberalization process, concerning a level playing field for competition and access
to the incumbent’s network to e-commerce services including both domestic services and cross-border delivery. This has also been acknowledged by the European Commission (EC) (Jaag et al., 2014b). In 2012, the EC published a Green Paper with the objective of boosting e-commerce through establishing an integrated parcel-delivery market in the European Union (EU), and to discuss the problems and challenges faced by consumers and e-retailers (EC, 2012). The key elements of the Green Paper can be summarized according to the following three priorities:

- Improving convenience of delivery services for consumers and e-retailers;
- Ensuring more cost-effective delivery solutions and better prices;
- Promoting improved interoperability of delivery services between operators, and between operators and e-retailers.

The Green Paper was followed by a ‘Roadmap for completing the Single Market for parcel delivery’ (EC, 2013). Therein, the EC set three main objectives: (1) increased transparency and information for customers and e-retailers; (2) improved delivery solutions; and (3) enhanced complaint handling and redress mechanisms for consumers. The roadmap outlines a portfolio of actions that must be taken in the 18 months following publication by retailers, delivery operators, member states, and the EC itself. E-commerce constitutes a difficult field for regulation, since it is an extremely dynamic market and needs different services in order to function. However, focusing regulation on individual components could create inefficiencies and distortions due to asymmetries. Therefore, the role of regulation should be to enable, rather than to patronize, suggesting that regulation be handled with prudence to avoid unintended consequences.

**Universal service regulation and competition**

Authors such as Cremer et al. (2008) have shown that profit-maximizing postal operators would choose a suboptimal quality of delivery in a fully liberalized postal market. The USO defined a minimum set of services to be provided as a possible solution to this problem. In the following, the illustration of the USO will strongly refer to the concept that is applied in the EU. In Europe, the Postal Directive prescribes a minimum set of postal services of specified quality, which must be available and affordable for all users in all member states (Knieps et al., 2009). Besides affordability, the Third Postal Directive obliges member states (Jaag, 2014) to ensure:

- One collection is completed from appropriate access points every working day;
- One delivery is completed to all addresses every working day;
- The above must include postal items and packages weighing up to 20 kg;
- Uniformity (independent from distance) of prices for single pieces of mail;
- A service is offered for registered or insured items.

The concrete specification and implementation is country specific. As documented in Dieke et al. (2013), there are several differences between European countries in the scope of services considered to be universal: 11 countries (Bulgaria, Czech Republic, Germany, Estonia, Finland, Lithuania, Netherlands, Poland, Slovenia, Sweden, and the UK) have defined a minimal range of services including single-piece letters and parcels only. Eight countries (Austria, Belgium, Denmark, Ireland, Luxembourg, Malta, Romania, and Slovakia) with a share of about nine percent of the European letter post market include all non-express postal services, such as bulk letters and parcels, in the USO.
To ensure the provision of universal services, the Postal Directive allows member states to employ one or a combination of three options, respecting the principles of transparency, non-discrimination, and proportionality (Knieps et al., 2009):

- Reliance on market forces;
- Designation of one or more USPs;
- Public procurement.

In practice, almost all EU member states have designated the incumbent operator as the single USP for the entire national territory, without considering alternatives. To name an exception, in Germany the NRA has concluded that Deutsche Post and other operators provide satisfactory universal services to the entire national territory in response to market forces (Dieke et al., 2013). The idea of public procurement to strengthen competition and increase efficiency will be applied in Belgium, where postal operators (including specialized press-distribution firms) will get the opportunity to bid for a concession for the distribution of newspapers and periodicals from 2016 onwards (EC, 2014).

The USO may represent a financial burden, and therefore a competitive disadvantage; in this case, the USPs should be compensated appropriately. In Europe, the USO cost and financing is laid out in the Third Postal Directive. Article 7 of the Directive states that only the net cost of the USO that constitutes an unfair financial burden should be subject to compensation. The net cost of the USO according to profitability cost is the difference in the USP’s profit with and without this obligation. Further, what should be regarded as ‘unfair’ is not defined; however, the Directive imposes criteria on compensation, such as objectivity, transparency, non-discrimination, proportionality, least distortion, or neutrality (Jaag et al., 2014a).

With full liberalization and the abolishment of reserved areas, the need for alternative funding sources for the USO has risen. Often, USPs receive compensation for fulfilling the USO, which can happen through direct state funding, or compensation funds to which operators contribute. These contributions might be waived if an operator provides universal services (‘pay or play’). An alternative means of financing that the USO includes is adjusting prices, in the USO case, such that the USP’s profit remains unchanged compared to the situation without the USO. This financing mechanism only makes sense if there is price regulation, as is the case in Europe, and if it can be assumed that the USP enjoys a certain degree of market power, so that price changes are supported by demand (Jaag, 2013). According to Dieke et al. (2013), 22 EU member states have authorized the establishment of a compensation fund, but only four of these (Cyprus, Estonia, Italy and Slovakia) have actually established one. Three member states (Italy, Poland and Spain) make use of state funding. Compensation of USPs for the unfair burden of the USO remains a controversial topic, since, as noted above, the term ‘unfair’, as well as the calculation methods for the net cost of USO, are not clearly defined in the Postal Directive. Moreover, intangible benefits of the USO (for instance, exemption from value-added tax [VAT]) may reduce the need for financial compensation.

Interactions between market and universal service regulation

Although regulation of the USO and of the market relevant for postal services has been discussed separately, it is important to understand that the two domains are strongly interrelated. Authors such as Jaag and Trinkner (2011a) argued that various elements of market regulations and universal service regulations should not be viewed independently of each other. Thus, for example, many measures related to the USO and its costing and financing have an impact on
the levelness of the market playing field. The USO is often shaped asymmetrically by binding only one operator in the marketplace. The financing of the USO either removes the burden from the USP by granting compensation, or shares the burden with other operators via a USO fund (Jaag, 2014). Jaag and Trinkner (2011c) showed that the net cost of USO – defined as the difference in the USP’s profit with and without the USO – very much depends on the design of the compensation mechanism. Their simulations showed that if all operators (including the USP) contribute to a compensation fund the USP would be under-compensated, whereas a compensation fund from which the USP is excluded would lead to an over-compensation of the USP. Only if the USP is compensated from the general government budget is the market equilibrium not (or only insignificantly) affected and the operators’ decisions not distorted. Jaag and Trinkner concluded that it does not suffice to just calculate the deficit of unprofitable products: as the financing affects profitable products, these should not be ignored in the cost of the USO.

The process of defining the financing scheme for the net cost of universal services does not only have to include considerations about impacts on the competition conditions and the market equilibrium; it also has to take into account legal aspects, or rather restrictions, due to competition law. To illustrate this potential conflict in the financing mechanism for postal universal services, Switzerland serves as a good example (Jaag and Maegli, 2014). In contrast to the EU, there is no additional examination of whether the burden is to be considered as unfair. In addition, in contrast with the Postal Directive, there is no financing mechanism in Switzerland that envisages state funds or a contribution by competitors towards financing the USO. However, Swiss Post permitted a reserved area for letters up to 50 grams. The medium-term sustainability of the USO financed by the residual monopoly is jeopardized by the increasingly intensive competition from electronic means of communication. At the same time, there is strong price regulation for Swiss Post services. For mail in the reserved area, Article 18 of the Postal Act authorizes the Federal Council to define and approve the adaptation of regulated prices for individual services. Outside of the reserved service another (non-sector-specific) authority, the Price Supervisor, is responsible for price control, provided that the prices are not the result of effective competition. This price regulation is cost-based, which prevents services arising that generate a significant surplus to Swiss Post. However, it also prevents these services from covering losses from unprofitable services due to the USO. Article 51 of the Ordinance on the new Postal Act resolves this conflict by means of a specific financing instrument, known as net cost rebalancing. Swiss Post is allowed to reallocate the net cost of the USO through transfer payments between its units and subsidiaries. It can charge these costs to the services, for which it is able to generate high prices in order to relieve unprofitable services (Jaag, 2011). By shifting costs to the more profitable services, it increases costs and can enforce higher prices under price regulation, which is cost-based. This interplay between financing of the USO and price regulation makes it possible for Swiss Post to provide universal services without external financing.

A further approach to improving the competitive position of USPs is to exclude universal postal services from VAT. This may reduce the need for financial compensation, but could be seen as a violation of the level playing field for all postal operators (see Dietl et al., 2011a). For example, TNT legally challenged the UK’s USP, Royal Mail, for this reason in 2009, and argued that VAT should be charged on all services in liberalized markets in order to avoid market distortion (Dietl et al., 2011a). Conversely, Sweden did not provide VAT exemptions to postal services at all. In both cases, the European Court of Justice clarified that VAT exemptions for universal services have to be applied by all USPs, regardless of whether universal services are provided by a public or a private operator (Gramlich, 2014).
Outlook on competition and regulation in the postal sector

The digitalization trend of recent decades has resulted in a number of new technologies that have allowed letters to be increasingly replaced and substituted. Jaag and Trinkner (2012) argued that the postal market and the telecommunications market are converging, and that e-substitution is a reflection of letter mail’s loss in market share in the communications market. Figure 3.1 illustrates the structural change of the postal industry due to the convergence of transaction-based markets.

Finger et al. (2005) postulated a conceptual framework which suggests that infrastructure systems have to be regarded as the result of a co-evolution process involving technologies on the one hand, and institutions on the other. According to Finger et al., a satisfactory functioning of infrastructures requires coherence between technologies and institutions. Therefore, interrelations between these two domains may not be neglected, or rather have to be coordinated. The increasing convergence between postal products and telecom applications is a new phenomenon, which needs a corresponding co-evolution of regulation in order to exploit synergies and find proper universal service definitions in line with changing customer needs. Thus, rethinking the communications USO in general, and the postal USO in particular, is necessary.

Various countries have adjusted the definition of their USO to counter financial difficulties and decreasing letter volumes. The modifications already made to the national USO have mainly focused on the removal of bulk mail and direct mail, the redefinition of coverage of the USO scope, and adjustment to the weight categories that are included in the USO. For example, Lithuania, Poland, and the UK removed bulk mail; Austria, the Czech Republic, Latvia, Portugal, and Slovenia reduced parcel weight to 10 kg; and Italy and the Netherlands reduced delivery from six to five days per week (ERGP, 2014a). The observed pattern shows that in most cases, changes can be summarized as a limitation of the scope of the USO, such as a restriction of the products and services offered within it. This might be a solution for the short run and should be viewed as a transitional step; however, in the longer run, convergence between the postal and telecommunications sector has to be taken into account to reform not only the scope, but, even more importantly, the concept of the USO. This would suggest that it

Figure 3.1 Convergence of (transaction) markets

Source: Dietl et al., 2011b.
should not only be focused on the question of what services are provided (within the scope of the USO), but also how services are provided. One possible answer to the latter question could be that the provision of universal postal services should not depend on a certain technology (Maegli et al., 2011).

Borsenberger (2014) argued that accessibility and proximity in connection with the USO should also contain a ‘virtual’ dimension regarding progresses in information and communication technologies. She saw online services, which complement and extend physical postal services, as a solution to reduce economic and social costs of the USO. Jaag and Trinkner (2011b) took a similar path by presenting an outline for a future-oriented postal USO, which includes electronic complements and substitutes to traditional postal services. Their newest USO concept combines old and new means to provide universal service and is based on the following five principles: output orientation, technological neutrality, product neutrality, necessity, and viability. In contrast to the current definition of USO, this concept would allow USPs to adjust the universal service individually to the needs of their customers, to the portfolio of available products, and to the technological progress. Due to the convergence of the postal and telecommunications markets, Jaag and Trinkner (2011b) proposed to establish an intermodal USO for postal and telecommunications services. Such an intermodal USO would consist of two basic services. The first is a physical delivery service for items of all kinds meeting certain speed, reliability, affordability, and uniformity requirements. The second is a fast broadband service provided at an affordable, fixed rate. While the first service would require good accessibility and availability measured from the point of residence, the second service would need to be available everywhere.

Most European countries have already merged the postal and telecom regulators organizationally in order to realize economies of scale and concentrate their expertise, as well as experience. But, even if several countries cover regulation of the two markets in the same bill, the responsibilities are still separated institutionally because the responsibilities for the two markets are typically completely segregated in the different departments of the regulatory authority. However, the transformation of regulatory institutions argued for here suggests the need for a more unified and coordinated approach across postal and telecommunications, not only from an organizational, but also from a regulatory point of view (see Maegli et al., 2011).

**Conclusion**

This chapter discussed the two major forces that shape the postal industry. First, technological progress has a two-fold effect on postal services. E-substitution threatens the postal mail business, and also initiates the advancement of traditional letter post services. E-commerce creates new business opportunities for postal operators and outside the parcel delivery business.

Second, market and universal service regulation are the two regulatory domains that determine market equilibrium in the postal sector. The chapter showed the way in which competition has evolved, and how recent regulatory attempts may foster e-commerce and parcel delivery. Further, the chapter examined how cost and financing of the USO impacts competition and could interfere with the aims of competition law. It was argued that the two regulatory domains strongly interact, and should not be considered or addressed individually.

Finally, the current rigid definition of the USO was questioned. New approaches, including new technologies for the provision of universal services, should be taken into account. The chapter presented the idea of technological neutral postal services, and recommended establishing an intermodal USO for postal and telecommunications services in order for the sector to reach its potential.
Notes

1 Comparing the parameter values from 2011 to their level in 1980; the industrialized countries showed a level of letter volumes p.c. of 118 percent and of GDP p.c. of 174 percent; the developing countries showed a level of letter volumes per capita (p.c.) of 41 percent and of GDP p.c. of 227 percent.

2 There are several reasons for exemption, for example: disability that prevents from receiving post digitally; no computer access; being homeless; language difficulties.

References


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