

**The University Of Durham**

**The Implications and Consequences of the Introduction  
of Competition into the Postal Monopoly in the UK.**

**Keywords:** Postal Service, Monopoly, Competition, Regulation, and  
Welfare

## **Executive Summary**

As of January 2003 the Postal Service in the UK will begin a move towards a competitive market, with the monopoly held by Royal Mail being reduced in three steps before April 2007. The aim of this paper is to assess the implications of this introduction of competition to the consumer. The move to a competitive market is complicated by the obligation currently imposed by the government that every household in the UK must have uniform access to communications through the postal service.

The economic implications and their effect on the welfare of the consumers are discussed in the early part of the paper where I outline the arguments in support of competition as a more efficient market than a monopoly especially a government regulated monopoly. In support of my economic theories I have considered other markets, and also the experiences of other countries, that have experienced the introduction of postal competition. It can be seen that with effective introduction and regulation a market is almost always vastly improved by the introduction of competition and subsequently most problems relating to the requirement for a the universal service become insignificant.

I have also analysed various market entrant strategies and discussed the validity of these strategies. In these analyses and discussions I have taken into account the nature of the postal market, especially its high set-up costs, and also the nature of the network, providing as it does economies of scale albeit perhaps only in the delivery section of the market.

The findings of the paper outline the likely positive effect on the Royal Mail of the introduction of competition, albeit with concerns for its incumbent strength. In reviewing the experiences of other countries it can be seen that the introduction of competition will

surely lead to increased efficiencies and consumer benefits, although those desirables may be slowed or stifled by the strength of the incumbent and the structure of the market probably supporting just a few large participants.

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## 1 Introduction

“Royal Mail’s monopoly in the letters market was clearly not working in the best interest of consumers or indeed Royal Mail itself. Royal Mail did not seek to hide its inefficiencies, whether resulting from outdated working practices, over-management or lack of care for the customer.....Competitive pressures on Royal Mail, which would give it incentives to be efficient and customer-focused, would therefore be the best safeguard for the universal service.”<sup>1</sup>

The opinion of Postcomm’s Chief Executive is central to the issues in this paper, that is, (i) whether the introduction of competition in the letter industry will improve the performance of the industry, and (ii) how this competition will subsequently affect the provision of a Universal Service that is safeguarded under government and EU restrictions.

The first chapter of this paper will look at the effects of the planned market opening in the postal industry and will attempt to determine the effects on the consumer of the introduction of competition. The second chapter will look at the relevant background of the Postal Industry in the UK, and the planned changes to the structure of the market in mail services. The third chapter will discuss the economic arguments surrounding the implications of the changing structure in the postal market. This includes arguments for and against monopoly and competition, plus the issue of welfare in the mail industry via

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<sup>1</sup> The Chief Executives Report, Key Developments, Postcomm Annual Report 2002

the discussion of the Universal Service Obligation. Chapter four then offers evidence from, and experiences of, other countries that have implemented a similar process, and discusses the effects that the changes have had on their respective mail industries. The possible strategies for potential entrants and the effects of these strategies are outlined in Chapter five, which also includes an analysis of the effectiveness and validity of these potential strategies. Chapter six then outlines the overall experience of the introduction of competition into the sector of the U.K. postal service not currently covered by the monopoly, i.e. the parcel and express courier mail service. This sector is particularly relevant to this issue, as the introduction of competition into the monopolised sector can most efficiently be modelled by this sector of the market where the introduction has already occurred.

The final chapter, Chapter seven, will conclude the findings and bring together the issues discussed in the previous chapters in an attempt to determine the effect of the introduction of competition into the postal services market.

## **2 Background**

### **2.1 The Royal Mail: A History**

The Postal service was introduced into Britain in 1635, when King Charles I officially allowed the public use of 'his' Royal Mail, and has been a monopolised national service ever since 1654 under the proclamation of Oliver Cromwell. There have been short periods of competition, which either failed by themselves or were suppressed by the incumbent firm. The most successful of the private ventures was the Penny Post in 1680, which operated a personal house-to-house service with over 400 collecting points across London<sup>2</sup>. The government put an end to this service through the courts. In 1709 a service to undercut the Government Postal Service was introduced by Charles Povey who collected in the streets and delivered to the door for half-a-penny. His street collection idea was later implemented by the Government service, however by this time his company was no longer functioning. In the late 19<sup>th</sup> century one entrepreneur gathered enough support to gain a licence from the government to implement a messenger service named Boy Messengers Limited and was perhaps the first personal courier service. However, upon giving the licence the government launched a competing messenger service and put Richard King's company out of business.

In more recent history there have been smaller, more localised private mail services but none of any great threat to the Royal Mail. There is one exception, the postal strike of 1971 where the government announced that for the duration of the strike - six weeks - private firms could operate in place of the government service under a licence issued by

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<sup>2</sup> The Little Book

the government of the day. Within days of this announcement by Christopher Chataway (Department of Posts and Telecommunications), 562 firms had applied for licences, many of whom were local firms operating in their own neighbourhoods. However during the strike these local firms quickly joined forces to form a national network known as the Association of Mail Services. One particularly successful firm; Randall's Mail Service, handled more than half-a-million items during the six week strike, despite charging well above the Post Office's own rates.<sup>3</sup>

In various countries around the world, Argentina and Brazil as well as the UK in the earlier stages of the postal market, where a monopoly supplier of Postal Services exists, many private postal delivery companies have been able to operate due to loopholes in the law. These firms often have been successful despite competing against a large incumbent supposed monopoly.

This desire and action of these large numbers of firms attempting to enter the postal market clearly demonstrates a belief that there is profit to be made, which may not be the case if the local Post Office monopoly was running efficiently. This seems to be the general consensus, both of the potential entrants to the market and of the consumers, who, as the strike of 1971 showed, are willing to trust competitors to the Post Office despite their likely short-term life.

In 1972, in the wake of the success of the private firms during the strike, another entrepreneur named Richard King began the company 'Post-Haste'. King's Company offered an express service with a guaranteed delivery time of 4 hours, within a heavily office-based area of London. King used a loophole in the law allowing the collection from addresses as long as the collections weren't regular; he had a team of 10

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<sup>3</sup> *Daily Telegraph*, 12 March 1971

motorcyclists, which developed into a successful business link. The Post Office threatened legal action against 'Post-Haste' and this publicity killed off King's business due to a subsequent loss of consumer confidence.

Soon after the closure of Post-Haste numerous other courier services emerged, again using radio-controlled motorbikes, and since then these kinds of couriers have existed in significant numbers within central London. In response, the Post Office introduced their very own Express-Post which imitated these other services, but also enjoying the huge commercial advantages of the Post Office name and its attendant media coverage as well as logistical resources far in advance of the smaller courier services. Despite these seemingly overwhelming advantages, many of these smaller, newer services did survive however, and they continue to compete against the Post Office today.

The success of these couriers was so marked during the 1970's that in recognition the law relating to letter deliverance was changed to Post Office a monopoly only those items that cost customers less than £1 for delivery. This change in the law regarding the letter monopoly was the first relaxation in the original law for over a century.

Since the introduction of original law there have been developments and slight changes to the law but none as profound as that which lowered the upper limit of the letter delivery monopoly to that of any item up to the weight of 350g and below a maximum delivery charge of £1. Items over and above these limits are subject to a competitive market, be it through the parcel market or the courier services. These are both now operating as competitive markets, with strong incumbent firms.

## **2.2 The Current Position**

The Royal Mail became a PLC in 2001 wholly owned by the government, along with this came the introduction of an independent Regulator, Postcomm and a reformed consumer body named Postwatch.

The Royal Mail is subject to the Universal Service Obligation (USO) which ensures that the 27 million addresses receive a regular delivery and that letters can be sent for a uniform price independent of distance. There must also be a daily collection from each letterbox.

The current structure of the Royal Mail handles 82 million letters, packages and cards everyday. 220,000 employees utilising 30,000 vehicles collect from 110,000 red post boxes and deliver to 27 million addresses in the UK over six days a week. There are currently 14,400 Post Offices offering over 170 services. 94% of the UK population live within one mile of a Post Office. The Royal Mail currently aims to deliver 90% of all First Class letters the next day<sup>4</sup>.

Contrary to popular belief the mails business of the Royal Mail makes a profit - £170m in 2001-2<sup>5</sup> - but this is not sufficient to cross-subsidise other loss-making areas of the Royal Mail Group.

### **2.3 Market Opening**

The current situation of the letter industry is dominated by a government owned and regulated PLC monopoly of all letters under 350grammes or cheaper than £1 to post.

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<sup>4</sup> [www.consignia.com](http://www.consignia.com)

<sup>5</sup> Postcomm Annual Report 2002

However, this is set to change. EU legislation has outlined a programme of liberalization with the implementation of a much more competitive market by 2006. In October 2001 the EU outlined plans for the liberalization in two stages, that is the limit for monopolised mail will be reduced to 100grammes from 1 January 2003 and then further reduced to 50g from 1 January 2006. Before this was announced the regulator Postcomm announced its own outline for the UK liberalization. Their outline goes further than the EU directives by putting the UK in a more liberal position compared to other EU countries. The plan for the UK is in three phases with the first taking place on the 1<sup>st</sup> of January 2003, with all sites distributing more than 4,000 letters per day of similar format being open for competition. This will open up an initial 30% of the letter market to competition. The site distribution limit will be reduced on 1<sup>st</sup> April 2005 freeing around 60% of the market to competition, and then in April 2007 the entire market will be open to competition. There will however be licensing restrictions imposed on all entities wishing to enter the market, and applications for must be approved by Postcomm, who will distribute licenses at their will.

In the run up to the first stage of liberalization 14 licenses have already been issued by Postcomm, these varying from direct business, to business transfer, and to deliveries by Milkmen with their morning milk round's. These original licenses have been issued on an interim basis but after January 2003 they will be converted to long-term, with a three-year period of notice available after the fourth year.

It is the belief of the Royal Mail that the licensed companies will wish to access the network held by the Royal Mail at some point, be it for sorting and delivery or just

the delivery. Whilst the Royal Mail plans to charge the companies for this access, the extent of this access and indeed the development and behaviour of these licensed firms is unknown. As such the fate of the postal industry appears to continue in the hands of Postcomm via this contentious licensing process. The manner in which they handle license issuance looks likely to determine the success or failure of the liberalization. There are many ways in which the market could develop and the decisions which will determine the outcome of liberalization is what I aim to resolve in this paper. The postal markets of Argentina, Finland, Sweden and New Zealand have each been liberalised in differing ways and extents. Analyzing these examples is of limited use because of these wide variations, except that they can offer ideas and guidance for the process of our own postal market liberalization. Economic theory states that competition in a market is much more beneficial to the consumer than monopoly when the industry is anything other than a natural monopoly. Consequently the success of liberalization will be predetermined by the nature of the industry. Theory would suggest that should the postal industry be a natural monopoly then liberalization may offer no real benefits to the consumer and so the monopoly should remain albeit with the regulation already in place. However, should the industry not be a natural monopoly then it must be that competition would offer improvements and further development in the industry. Therefore one major needs to be resolved before the benefits of liberalization can be examined; is the Postal Industry a natural monopoly? To determine the natural state of an industry the costs within the industry need to be examined. A market's structure is generally determined by the interaction between

average cost and market demand, giving the minimum efficient scale, which can be used to determine the nature of the market. Figure 1 demonstrates that in market A the shape of the average cost curve is very small relative to the demand and market size, consequently market A can accommodate a large number of firms and be a competitive market. The average cost curve in market B is such that only one firm can make positive profits and consequently the nature of the average cost curve will result in market B becoming a monopoly.

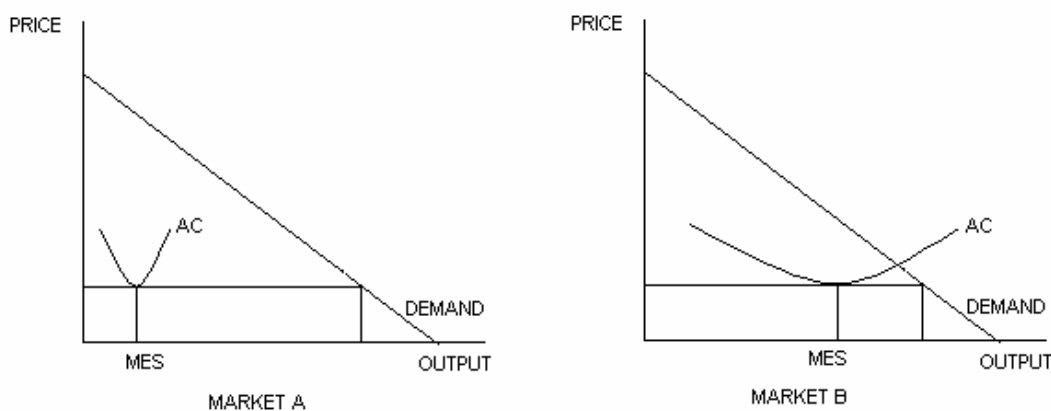


Figure 1.

Consequently the shape and determination of the average cost curve is very important in the determining the ultimate structure of the market. The average cost is generally associated with the level of technology in the market as well as the level of set up costs the firm must meet to enter the market.

Because the mail industry is a network industry and requires heavy investment and large scale machinery to sort the mail it is a reasonable assumption that, in

comparison to market demand, average would be seen as relatively high and accordingly the market may only facilitate a few participants.

However a letter is just one method of communication; there are substitutes available for everything a letter can do, why, therefore should a letter be singled out for a monopoly in the first place. The development of the letter monopoly came about when the letter was the sole method of communication and was hugely profitable for the government. Developments in technology through faxes, telephones and more recently the Internet have meant that the letter market is under threat from other methods of communication in the industry. This competition will undermine the price inelasticity of demand, which enables the monopoly to be profitable. The removal of this inelasticity should therefore be concurrent with the removal of the monopoly? Unless of course the market is a natural monopoly and the implementation of this monopoly is in the best interests of the consumer.

To answer this question the postal industry needs to be considered in a purely industrial sense, that is, there is a service being given on the transfer of a good. Just like bread being made by an individual company a letter is carried from one place to another and like bread is delivered to the most remote parts of the country so are letters. It is true that there are large economies of scale connected with the Royal Mail network but these alone would not result in a natural monopoly. Indeed the Postal Industry acts only as a carrier of goods, just like a any other company delivering an item sold at a local shop. Why, therefore, should the Royal Mail be a protected monopoly if it is no different to any other service.

### **3 The Economic Theory**

#### **3.1 The Current Situation in the Industry**

The postal industry in the UK is currently a PLC; The Royal Mail, although it is 100% government owned. There exists an external regulator Postcomm which is responsible for the regulation of both the monopolised and free-market areas of the postal service. Since January 1<sup>st</sup> 2003 the market has been free to enter for all addresses sending over 4000 items of similar post a day, thus incorporating 30% of the entire market. In April 2005 these entry levels will be lowered to encompass 60% of the market and then in 2007 the entire market will be free to enter. Whilst the current restrictions are in place the market is considered a monopoly, that is, there is one supplier; The Royal Mail, and this supplier is regulated by Postcomm. With the opening up of the market a competitive market comes into existence that is, again, regulated by Postcomm. Potential entrants apply for a license to trade in the market and Postcomm decides the issuing of these licenses. The ways in which these licenses are issued is unclear and yet their issuance holds the key to the future of the UK postal service. Exactly how the regulator will decide on the licenses to be issued will be determined at a later date, along with the discussion of any regulation of the competing firms. The important question is whether the move from a monopoly to a competitive market is beneficial to the consumer, not only the individual but to businesses also. In this chapter the issues of monopoly, regulation, competition and welfare shall be addressed in turn.

### 3.2 Monopoly

The regulation of entry of the Royal Mail Postal Industry makes it a current monopoly for all firms with under 4000 items of similar post and under 350 grammes, this will however change in the coming years. The argument of competition being a more efficient market than one with a monopoly will now be outlined. The inefficiency of monopolies has been argued over in recent years with differences occurring in the temporal model that is utilised.

The static model, as outlined by Harberger (1954) looks at the welfare loss caused by inefficiencies in the monopoly market. The argument of Harberger was that a monopoly redistributes income/utility away from the consumer to the monopolist.

This is achieved via a misallocation of resources resulting in an overall reduction in the welfare of the consumer. This is known as an allocative inefficiency, where a firm is not producing at the point where marginal cost equals average revenue and consequently there is room in the market for improvements in welfare for the consumer. In a monopoly the misallocation of resources means that the market is not at a pareto efficient point, i.e. the welfare of one consumer can be increased without reducing the welfare of any other consumer.

If the assumption of constant long run average costs is made then Fig. 1 can represent the monopoly model. In a perfectly competitive market the price would be bargained down to the cost level  $P^*$ . The output would then be  $Q^*$  which would leave a consumer surplus of CPB. The monopolist is able to come into the market and simultaneously raise the price to  $P$  and restrict output to  $Q$ . This then gives the

monopolist a profit level of  $\Pi$  and reduces the consumer surplus to ADP (S). This means that of the original surplus  $CP^*A$ ,  $\Pi$  has been reallocated to the monopolist and  $ABD$  has been lost. This loss is known as the welfare or dead-weight loss and is the main argument against monopoly.

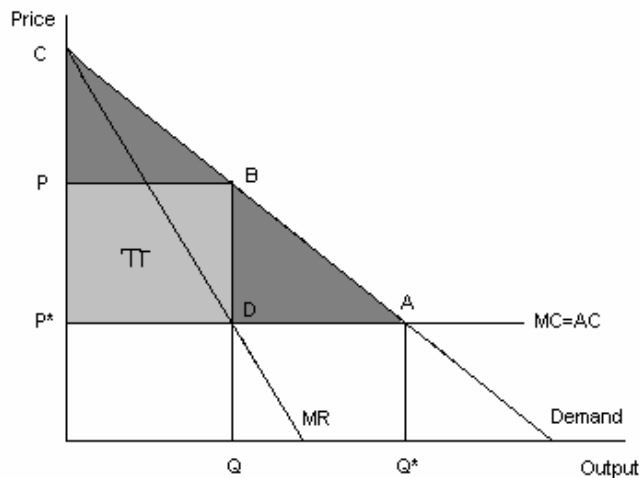


Figure 2

Along with the allocative inefficiency of the monopoly, attempting to move utility from the consumer to the supplier, there is the issue of x-efficiency or productive efficiency outlined originally by Leibenstein (1969). In a market dominated by a monopolistic producer the lack of competition can lead to slackness. A market is characterised by the firm making every possible effort to operate at the lowest possible cost as to increase competitiveness. In a competitive market the price is competed down to the marginal cost; if firms are not producing at this lowest cost then they are priced out of the market. There is not this pressure on a monopoly to keep its cost down, and so the monopolist will be x-inefficient in that the firm will

run at higher costs than are necessary. X-inefficiency is characterised by a change in the incentives of the managers according to Bertolotti and Poletti (1997) building on the work of Martin (1993) and Stenbacka (1994) who developed the ideas that inefficient firms were inefficient by an information asymmetry between the manager and owner of firms. Without the direct incentives of competition the path of optimality is unclear for the manager and owner, consequently the manager can develop a path of development for the firm that maximises his own utility but causes productive inefficiency. This can happen in a number of ways; innovation in the production method is stifled, there is no incentive to improve the method of production and thus lower costs. This may have some advantage, as no money will be spent on developing these cost lowering, and other, methods of production.

There are also other inefficiencies in the firm, which competitive pressures would remove if the firm were not operating in a monopoly such as over employment, laziness and slack.

There have been arguments, that the issue of x-inefficiency and allocative inefficiency are unavoidable costs of the market, they are caused by rent-seeking and are consequently natural parts of the non-perfect market. It is believed by Frantz (1992) that the introduction of competition can cause these inefficiencies to be minimised and consequently improve efficiency.

Another issue that arises in a regulated monopoly is the deviance of the aims of the company. If the firm is regulated then there is opportunity for the firm to follow different paths of progress. The manager may have incentives to deviate from the optimal performance path in an attempt to pursue their own goals and maximise their

own utility. Bertolletti and Poletti (1997) argue that the causes of this x-inefficiency are not solved by an introduction of competition, as the costs to the managers remain the same in following the 'optimal path' of efficient production. They do however agree that the introduction of competition can increase information that is not primarily controlled by the manager and this can lead to increased knowledge of the owner and lead to improved efficiency but not 'first-best' or perfect efficiency.

### **3.3 Regulation**

The regulation of the postal service is important in the eyes of the government in order to maintain the universal postal service (UPS) where there is a universal service for all at a uniform tariff. The issuing of licenses is the main method that Postcomm uses to regulate the industry but there may be other restrictions placed on those firms operating in the market. It may also be unlikely that in the short term the introduction of competition will be sufficient to stop the abuse of market power that is so prominent in an industry where economies of scale play such an important role. The process of regulation can be used to promote competition where market power would cause prices to deviate from those of a competitive market. It can also itself promote efficiency by the setting of a higher than normal price to encourage entrants in the first few years of liberalisation, these new entrants can then be protected from predatory pricing by the incumbent firm. This can be outlined as setting a price that is similar to that which would exist under perfect competition whilst offering a UPS and ensuring that larger firms cannot make excessive profits.

Regulation is part of a market where competition by itself is not able to fully provide a service of welfare such as the UPS and also to promote efficiency. Efficiency is encouraged by regulation via the offering of incentives that ensure that prices reflect the cost of the service provision and that that these costs of production are efficient. These two processes are known as allocative and productive efficiency respectively. The two main types of regulation used within markets are the rate-of-return and price-cap methods, both offer ways of limiting the price, which the firms can charge in the market.

The Price Cap method of regulation basically means that the regulator limits the prices for which different services are provided. The regulator determining the original price to be charged does this via cash-flow modelling. This price is allowed to change each year by the inflation rate. The rate generally used is the RPI-x index which is the method by which inflation is calculated in the UK, that is, a basket of typical goods is taken and the amount by which their prices change over the year is calculated to form figure. The RPI-x index does not take into account mortgage repayments.

The price-cap is generally accepted to lead to efficient decisions about the level of inputs in the market, however Braeutigam and Panzar (1993) outlined an argument that output decisions cannot be ensured to be efficient through price-caps. If the price-caps are set inaccurately with respect to costs then despite efficient input decisions the there may be a large deadweight loss or an inability to break-even if price-caps are too high or too low respectively.

There are various differing ways in which the cap is implemented; it may be service specific, for example there will be a cap on the cost of a first class stamp and a different one on the cost of a second-class stamp. It may also be the case that the average price of a variety of goods/services is limited, this method may lead to a fall in the price of the first class stamp while the second-class stamp price must rise to offset the other fall. Caps can also be put on to revenues; a firm may have a limit on its total revenue so that when its output increases the prices of each unit has to fall.

This method of revenue caps has tended to be used by the recently liberalised Gas and Electricity services in the UK, with domestic Gas supplies having a service specific cap and the telecommunications and water services being subject to an average price cap.

Another issue that has arisen from the experiences of the other deregulated services in the UK (to be discussed in greater detail later) is the problem of some firms producing excess profits despite these restrictions. The question of deterring this occurrence has brought up the option of profit sharing. When excess profits are made they can be split at some level and given between the consumer and the producer. In the case of the Royal Mail this could be part of the previously discussed tax to ensure the funding of the UPS?

Another problem arises with the chance of external shocks that are beyond the control of the firm. These shocks may lead to a sudden increase in the cost of a factor of production for the firm, such as a rise in the cost of petrol affecting the cost of cross-country deliveries with regards the Royal Mail. These shocks must be catered for in

any regulation, as must any changes in technology and other efficiency gains. This may typically be done in a periodic review.

The regulation on the basis of a specific rate of return is fairly self-explanatory also, that is, a level is set for the rate of return for the firm which it must not exceed. This method is deemed a more simple method, but also has its advantages and problems.

The main disadvantage of this method is the distortion of incentives; there is an incentive to over-invest to allow for more revenue and consequently profits, there is also no incentive to reduce costs as this reduction will be passed directly onto the consumer so there is no gain for the producer. There have been variations in this method of regulation but it is thought inapplicable to the UK situation, and there is also the problem of cost. The process for setting the rate-of-return is often done through numerous regulatory hearings, which are very costly. Cowan (1997) criticises the use of rate of return regulation stating that this process can be worse for the market than no regulation at all. This is because it is found that relaxation of the cap can lead to a pareto improvement through the reduction of prices which in turn could lead to welfare improvements. The thinking behind this is that a firm will tend to operate in more than one market with the same product, because, if the marginal costs of supplying are different in these markets then there is some inconsistency in the use of the revenue cap. Many economists have studied and modelled this proposal, which was first initiated by the Averch and Johnson Model (1962), and have concluded that a tight revenue cap can lower welfare if placed across markets with differing marginal costs. This is particularly relevant for the Postal Service as regional variations in marginal costs are very evident.

There are many arguments against the ability of regulation to act as a direct substitute for competition:

“Regulated monopoly is a very imperfect instrument for doing the worlds work.....

Regulation is ill-equipped to treat the more important aspects of performance – efficiency, service innovation, risk-taking, and probing the elasticity of demand.

Herein lies the great attraction of competition: it supplies the direct spur and the market test of performance”<sup>6</sup>

The information asymmetry is the vital point here, for a regulator to be as effective as competition the regulator would have to have perfect information on the market and all the aspects within it. The Chicago School that has been at the forefront of regulatory theory development has overlooked this implication of information asymmetry, and the governments that take into account such theory may have overlooked the incidence of the asymmetry. This may limit the effectiveness of any intervention in the market by the regulator. In the real world the concept of ‘perfect knowledge’ is seen as unobtainable, consequently the ability of a regulator to accurately intervene in the market is restricted.

Regulation does however seem to be more effective than state ownership in that the knowledge is better and having a specialised regulator improves the quality of intervention. The question for the issue of regulation is; how should the market be acting, if there are calls for a completely ‘social service’ then the preferred ownership and control system may be state ownership, where there is no social aspect then complete competition may be the optimal outcome. In the instance of the UK postal

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<sup>6</sup> Alfred. E. Kahn, *The Economics of Regulation: Principles and Institutions*. New York: John Wiley and Sons, 1970 (Vol I), pp325-326

service where there are some calls for an amount of social service in the shape of the USO then regulated competition may be the best option, where the regulator can control the market to maintain that social service but the majority of the market is free.

It is considered that the method of price control is more suitable for the UK economy; will this method be suitable for effective use in the postal industry? I am of the opinion that a pure service-specific price cap would be the most suitable for the postal service. This would entail the detailed grouping of services such as the first and seconds class stamps and then caps being put on these services based on a profit margin. The problem arises when there is innovation and product differentiation in the industry, the viability of service specific price caps becomes questionable when the direction in which the industry will proceed becomes hazy. There is, however, a definite need for some regulation in the industry if there is a requirement to ensure the provision of the UPS and to ease the industry into competition.

### **3.4 Competitive Markets.**

There are two main ways of thinking of competition, that is as a state, or as a process. The neo-classical approach sees competition as a state in which a market lies. The Austrian approach sees competition as a dynamic process, always changing. I shall consider both in outlining the effects on the Postal Industry that competition may cause.

The neo-classical concept of competition and de-regulation was developed in the late part of the twentieth century and concentrates on the benefits of 'perfect competition'. Perfect competition is a theoretical market situation where knowledge is perfect; it assumes that all information is given, i.e. known to all producers in the market. The theory of perfect competition is said to be a benchmark model, it is purely theoretical and is not very realistic. However, it can be used as a good benchmark for comparisons with other models and situations.

The industry in which there is perfect competition will have many sellers all producing on their marginal cost curve, a concept outlined by allocative efficiency. The firms will also be productively efficient, they will produce until the marginal revenue is zero and the price of the product will be equal to the marginal cost of the last product supplied. Firms operating in a competitive market will have to be perfectly efficient, both productively and allocatively to avoid being priced out of the market, this efficiency is passed on to the consumer in the form of the consumer surplus outlined earlier. This consumer surplus is the argument underlying the benefits of competition, along with the added improvements caused by the competing firms in the market looking for entrepreneurial profits through innovations in production methods and advances in the product that would enable them to make profits similar to those of a monopoly in the short term.

It is wrong to consider the profits being made by a firm at any point as welfare damaging monopoly profits, as this is only one of the three ways in which profits may occur. If the profits have come about purely through the firm having monopoly power then that is a social cost, but windfall gains and 'entrepreneurial profits' can also be

made in the short run. It is as wrong to look at the firms just at one time point as it is difficult to determine if the firm is in a long run equilibrium. A short-term change in levels of demand may lead to the firms making short run profits that would be competed down in the long run.

There are arguments in the defence of a monopoly set out by the Austrian School of Economics and the dynamic model of monopoly by Coase (1972). The model outlines how a monopoly situation is only a temporary outcome caused by innovation and entrepreneurial activity and can result in 'entrepreneurial profits'. Figure 1 can be looked at with the competition for a monopoly position in mind. If there is some innovation and an entrepreneur discovers a new advance in the market, this entrepreneur is able to enter the market as a 'sole seller' and charge a monopoly price. It is therefore wrong to think of a monopoly welfare loss as a welfare loss, the temporary monopolist has added a social gain characterised by his own profit and the surplus. The alternative to this would be no good at all, but after a while this profit will all be turned to consumer surplus as the price is competed down when the advance is copied.

### **3.5 Welfare Implications - Universal Service Obligation**

This is where the obligation of a universal service comes in. The Postal Services Act of 2000 states that all addresses of the UK should have regular access to mail services for a uniform tariff. The introduction of any competition into the market may lead to problems with the ability to offer this Universal Service, which is an obligation of the Royal Mail. The Universal Service Obligation (USO) is recognised under the

European Competition Rules, where it is stated that any application of competition should take into account the interest of the general economy. Therefore the EU legislation requiring the introduction of competition into the postal industry must take into account the requirement of a universal service.

The Universal Service was brought in with the Postal Services Act to protect those in rural areas and prevent segmentation of the postal market that might occur under competition. It seems simple to postulate that it would cost more to send a letter from rural Devon to the Scottish Highlands than it would to from central London to Glasgow. Consequently under competition it would be thought there would exist price differentials, and in the extreme rural areas the collapse of any service provision at all. Consequently the Universal Service is supported by governments to provide the economy as a whole with access to the postal service and access to what is said to be the most universal method of communication. Hill outlined another argument in favour of the universal service and tariff. The 'Rowland Hill Principle', which states that the uniform tariff prevents the system being overburdened by administrative costs that would occur by different pricing systems.

The upholding of the universal service has meant the implementation of cross-subsidisation; those relatively cheaply costing urban services are priced at over their cost to subsidise those rural services for which the cost exceed the uniform tariff. This cross-subsidisation is deemed very inefficient.

The question regarding this universal service obligation is how it should be incorporated into the introduction of competition. Surely the removal of the monopoly for Royal Mail should be accompanied with a removal of the obligation of

the universal service? Could the cost of the service be measured and offered to the provider of it as a subsidy to provide? Or should the Universal Service be removed all together as there are now new methods of communication open to those in rural areas?

The USO is strongly joined to the existence of the monopoly as follows:

Urban services are used to subsidise the higher costing rural ones, this cross subsidisation can only occur through the existence of a letter monopoly as the monopoly allows the uniform tariff system which in turn enables the cross-subsidisation. Consequently, without the monopoly there can be no cross-subsidisation and that would mean the end of the USO? There is some argument that the USO could be kept on the premise of a Universal Service Support Fund, where in the form of a tax, all entrants to the market would contribute to the provision of the USO by one individual firm. One study by Elsenblast and Stumpf (1996) analysed the cost of the USO as the loss in efficiency caused by the monopoly created to finance the USO, they postulated that the use of a fund to account for the cost of the USO should enable a reduction or abolition of the monopoly in favour of competition.

Another argument outlined the cost of the USO as being sustainable by the maintenance of the monopoly only as a means of funding for the USO, and this could involve the shrinking of the monopoly to a weight or price boundary that would allow only the cross-subsidisation that would allow the survival of the USO<sup>7</sup>. This is outlined in the EU directive of 2000; it states that a government may maintain a reserved area or a monopoly in order to finance the USO. The UK government,

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<sup>7</sup> Crew and Kliendorfer, Efficient Entry, Monopoly and the Universal Service Obligation in the Postal Service, *Journal of Regulation Economics*, 1998 p103-125

however has not advocated this, and in the schedule for market opening in the UK there is no mention of any monopoly remaining past 2006.

There have been other investigations into the benefits and costs of the USO, with findings of little significance and burden of its existence. It is believed that a service would exist for all areas with even the most rural of places having a supplier of the postal service. This can be presumed by the fact that all other goods and services are available in these areas. Granted they may be at an extra cost, as would the provision of a postal service, but this is surely taken into account when individuals move to these rural areas. There is no case for there not being a market in these rural areas because as long as demand exists then there will be a service, as is the nature of economics. The question is; do these people in rural areas need a universal service at a universal tariff?

The Netherlands has experienced similar problems on the upholding of the USO through the period of liberalisation. Their final argument was that the existence of the USO was now dated, as there existed substitutable means of communications such as fax, e-mail, and phones (including mobile). The Dutch Government therefore argued that only two or three deliveries are needed to all areas for the requirements of the USO. The belief of improvement of service through liberalisation would far outweigh the deterioration in service for the smaller rural user.

The issue of the Universal Service Obligation is a burning one, it seems to many people, including myself, that there is no need for this USO. The government and the EU remain strong on the matter. A universal service will be provided to all members of the economy, at a universal tariff. There may have to be alterations to the

legislation with regards the pricing, but the USO can be incorporated into the liberalisation of the postal market. The regulator, Postcomm, seems to be of the belief that competition should be introduced and then the USO should be incorporated into the newly competitive market. The simplest way for this to happen is for the Royal Mail to remain as an incumbent firm offering the USO. There are then arguments of subsidising the provision of the USO. The monetary cost of provision has been mulled over in many papers and figures have been thrown about from £14m to £220m<sup>8</sup> for 1997. In the first few years of liberalisation this could be funded by the government to ensure the universal service before the extent of change through competition is known. The vast size of the Royal Mail also benefits them; there is no chance of any competitor reaching a similar size to threaten the universal service. This then throws up the argument of whether there are sufficient economies of scale to fund the USO and should these efficiency benefits be used to subsidise an unprofitable system?

There are safeguards that Postcomm could introduce to protect and support the universal service; a more flexible pricing system for the business mail service will allow a commercial reaction to competitive prices in the business mail market. Thus, being able to distinguish between customers will support the universal service. This, along with the support fund, should mean that if the universal service becomes jeopardised then there are sufficient support mechanisms in place.

The universal service has remained strong in many other countries that have experienced liberalisation and has gone hand-in-hand with successful competition in Argentina, Sweden and New Zealand.

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<sup>8</sup> Postal Services Bill: Competition is Coming, The, 2001, Senior, Ian

The USO should not be a major issue, especially not in the first few years of the liberalising process. It can be presumed that, like in all other goods markets, all people will have good access to the mail industry through a competitive market. It has been made a major issue by the government and the EU, who believe in the continuation of the USO alongside the liberalization of the market. To aim for a fully competitive market whilst offering a welfare service seems completely unsustainable, changes will have to be made to the USP and the USO in the future and these changes will have to depend on the way in which the market evolves through the introduction of competition.

## **4 Experiences of other Countries**

Having discussed the possible methods for which potential entrants to enter the market in the UK I shall now examine the experiences of other markets that have gone through postal liberalisation. The four main studies are the countries; Finland, Argentina, New Zealand and Sweden where the 'big-bang' approach was used in all cases. This means that at a certain time point the markets became suddenly free to competition. All four countries also kept their government owned company in the market as an incumbent competitor; usually as the provider of the Universal Service. There have been differing results and levels of success.

### **4.1 Finland**

The postal monopoly was abolished in 1992, but this liberalisation encompassed certain restrictions for the new competitors. As the government's firm; Posti remained as the supplier of the USP a levy was placed on those firms wishing to enter the market. This levy was up to 20% of revenue depending on the population density of the area the firm wished to enter. This levy was aimed at reducing the amount of cream-skimming and to help subsidise the USP. The levy would also have a cross-subsidisation effect, as the extra costs of operating in a rural area would be offset by a lower levy rate. This style of levy has been considered in the opening of the UK market but not as a sliding scale, the proposition is to charge all entrants into the market within the UK the standard VAT rate of 17.5% while the Royal Mail is exempt. This goes so far as to subsidise the USP but does not offer the protection for the rural services and the prevention of cream-skimming.

Looking at the market in Finland there has been very little entry into the market since the abolition of the monopoly. Since 1996 there has, however, been a steady increase in turnover (22%), profit (11%) and volume of post (10%) while employment figures have remained steady. This implies an increased level of productivity and efficiency since the liberalisation of the market. The market in Finland has also been subject to some levels of innovation, which would not normally be expected in a stagnant monopoly. Posti has embarked on the introduction of e-technology offering consumers the option of reading letters, paying invoices and other business links on the Internet. It could then be postulated that the threat of potential entry has caused the incumbent firm to improve its performance to safeguard the market position. It could be true in the UK that once the market is opened up to competition that there are no entrants and the Royal Mail remains the lone supplier. The legislation states only that the market must be 'open' to competition, it could happen that the sunk costs and natural barriers to entry prevent any real competition from occurring. The evidence could also point to the market in Finland being a natural monopoly as under competitive markets the equilibrium number of firms has settled at one. Should the one firm within the Finnish market be under-performing and it becomes obvious that there are profits to be made for an entrant then there may be a switching of power to the more efficient firm. This one-firm outcome may, however, be the result of the levy pricing potential entrants out of the market; it is possible that the incumbent could just undercut the potential entrant's price given the levy and still make a profit itself. 20% is a very large margin and offers a good return for the incumbent.

## 4.2 Argentina

The market in Argentina was fully liberalised in September 1997, this included the privatisation of the previously government run firm Correo Argentino. Just like the UK, licenses were issued; they were on a thirty-year basis. The newly privatised Correo Argentino took on the responsibility of the USP with no subsidies or protection. Numerous other firms entered the market without this obligation, with no other restrictions and in some cases very informally structured. They tended not to obey the majority of the employment laws and other commercial business practises. The entrants were seen to perform gratuitous cream-skimming in the market with little or no innovation or improvement in quality for the consumer.

Despite the huge economies of scale and incumbent advantage of Correo Argentino it has struggled and has recently applied for Chapter 11, which offers protection from the government against its creditors. They argued that the responsibility of the USO and the informal nature of the entrants meant that they were at a competitive disadvantage that was unsustainable.

It would seem that in the Argentine market the responsibility of the USO is not sustainable without some subsidy or intervention, the opposite to the Finnish situation occurred, where the lack of restrictions allowed numerous entrants to make quick profits without improving the market situation or the utility of the consumer.

The future of the postal services in Argentina look very bleak due to the informalities and lack of USP funding, perhaps this signals to the UK that should the USP remain that some method of compensation should be given for the obligation. However, the

method and level of levy and compensation should be carefully considered as not to stifle entry to the market as in Finland.

### **4.3 New Zealand**

The market in New Zealand was liberalised in April 1998 and like the UK the New Zealand National Postal Service has remained wholly owned by the government in the newly competitive market but is independently run. There are 'deeds of understanding', much like the licenses to be issued by Postcomm, that are renewed every three years and involve a price cap, set delivery frequencies and also ensure that there is no rural discrimination, and allow other firms to use the delivery network of the New Zealand Post.

Despite having the USO New Zealand Post receives no compensation, however, the stipulation on rural delivery being the same price as all other areas may price some smaller, newer firms out of the market. It thus allows the incumbent firm to use its economies of scale to operate profitably in the rural market. Consequently those areas are workable but only because NZP is a very large firm with sufficient economies of scale.

Since the liberalisation New Zealand Post has seen increasing revenues but falling profits, which could be seen as the result of the increased competition in the market and would accord with the previously explained monopoly model - where in a market run by a monopoly revenue is allocated away from the consumer to the monopolist in the form of profit. The market, before liberalisation, was characterised by a monopoly, New Zealand Post, who will have been able to reallocate resources

and transfer profits to them. The occurrence of competition has meant that New Zealand Post must be more efficient to safeguard their position; this has led to reduced profit and an increased consumer surplus as shown by the figures. This is surely the aim of liberalisation in the UK, to encourage improved efficiency and to pass the benefits onto the consumer.

There seems to be very little scope for criticism of the process in New Zealand although the viability of the Royal Mail maintaining the USP without any form of compensation seems unlikely.

#### **4.4 Sweden**

The monopoly was abolished in 1993 and the incumbent firm, Sweden Post, remains owned by the government and is responsible for the USP. They don't receive any compensation for the USP but do for the delivery of Braille and there is a cap imposed by the government on the prices of services.

Around fifty competitors have established themselves to serve local communities and areas that make up around 5% of the overall postal market, Sweden Post still has 95% of the market despite the complete opening of the market.

As with New Zealand; revenues have risen since liberalisation and profits have fallen concurrently. In 1999 and 2000 Sweden Post actually made losses, which further emphasise the forcing out of inefficiencies by the introduction of competition. The fall in profits, rise in revenues, in Sweden has been accompanied by a rise in consumer satisfaction and a fall in employment levels. These changes are those which would be expected by an increase in efficiency caused by the introduction of competition.

The power of the government to price cap the services can be seen as a form of protecting the rural areas, as with New Zealand the price cap could be set at a level only achievable by a very large company with great economies of scale. By doing this the government can ensure that there is a USP.

Sweden Post has also embarked on the introduction of some electronic services and has shown a willingness to evolve the mail service. This innovation shows a certain level of responsiveness that is consistent with increased levels of competition. It has already been outlined that monopolies tend to stifle innovation and any forms of innovation outline the need for the firms to try and cement their position and stay ahead of the competition.

There have been claims of predatory pricing by Sweden Post by the new entrants, this could be interpreted as showing that the market power not only allows for the provision of the universal service but can still give the incumbent firm a monopolistic advantage to use its power in the market. This must be taken into consideration when imposing compensations on the USP along with any other legislation accompanying the opening of the market.

Looking at the four countries above, with the exception of Argentina, it can be seen that the introduction of competition into the postal market has benefited the consumer through increased innovation, and what are considered better quality of service. The USO has been upheld in all three countries at differing levels of compensation or through differing regulatory processes. Assessing the viability of the different ways of regulating the social service side of the postal industry with regard the UK is very difficult. There are varying ways in which the USP has been maintained by the

different countries, from direct levying and compensation to the use of price caps to limit entry of some new firms into certain areas. Direct legislation has also been made on the importance of maintaining the rural market. It may also be of note that the incumbent firm has been the supplier of the universal service in all the studied open market although with different levels of support. What can this say for the incumbent in the UK?

#### **4.5 Implications for the UK**

It is proposed that the Royal Mail will continue to be the supplier of the universal service and will be exempt from the payments of VAT, this will be like a 17.5% tax imposed on all the new entrants in the market and should help to subsidise the USP. It could be argued that this is perhaps too much and not in line with the redistribution of costs between urban and rural areas. If the UK government is going to enforce one firm to continue the USP then there is no need for any redistribution as the rural areas will be covered by the USP. However, if there were sufficient sliding scale levies, as in Finland, then it would be just as beneficial for a firm to set up in the rural areas as in an urban area and there would be no real need for a USP. This method would leave things a bit open and may cause disparities in prices between rural and urban areas. With a set tax for all entrants a universal price is still feasible for the USP and this is what is projected for the UK. What will surely happen is that the Royal Mail will remain to offer services in all areas, but will lose competitiveness in the urban areas as there is scope for price reductions. The Royal Mail will be charging the same price in the rural areas and attempting to cross-subsidise but if they are priced out of the market in urban areas there is nothing to subsidise with? This will ultimately turn into

a loss making and inefficient use of resources, whereas if price disparities are allowed to occur then the market could evolve efficiently. With rural services being charged more as they simply cost more?

The evidence of the other countries shows that competition benefits the economy as a whole as the market is more efficient and responsive. The evidence also shows that differing ways of regulating the universal service matter for the incumbent firm. The next thing to be considered is the entry methods for potential entrants to the market.

## **5 Entry Strategies**

### **5.1 Full-Niche Entry**

This would take the form of business-to-business mail, with a firm serving one or maybe a few firms and taking charge of all their mail. This has occurred in urban areas of the UK, where an entrant has collected, sorted and then delivered all mail for a number of businesses to addresses in the region. There would tend to be a low number of collection points (i.e. the businesses) and a larger number of delivery points (i.e. other businesses, or homes). The emphasis is on rapid, guaranteed delivery of semi-important documents, those that do not warrant a courier but must be delivered the next day.

It is possible for an entrant to set up in this market, as the sunk costs are low, with a high volume coming from a small collection point. It could be postulated that these sort of firms will set up in London and other urban areas after the first stage of liberalization, when firms sending over 4000 items per day are open to competition. This method of entry may involve some cross-use with the incumbent for delivery of mail outside the area of activity for the entrant. Access to the USP network will be a deciding factor in a large number of new entry strategies, as firms may take responsibility for the collection and sorting of the mail and then pass it on to the incumbent for final delivery for a reasonable cost. This is a strategy envisaged by the Royal Mail in the future and would work well for maintaining the USP.

## 5.2 Local Entry

The segmentation of the mail network may be a feasible and natural occurrence through the process of liberalisation; the emergence of smaller regional suppliers for only local mail may be the natural starting point for any entrant. As seen in the strikes of the 1970's it could be believed that many smaller regional firms may start up and create a new network between them with contracts similar to those in place for cross-border post being made. A regional firm will be wholly responsible for the collection and sorting of all mail in its catchment area before delivery or passing onto the national network. These services may run parallel to the USP, which is run by the incumbent, who would run the national network and be responsible for the transportation of cross-region post and for those areas where a regional supplier does not set up.

This process has occurred in Sweden where many of the new entrants have begun in small regions and have so far remained small and in their chosen areas, while choosing to use the incumbent for all deliveries outside their region. Again the idea of access to the national network becomes a issue for postulation. One of the more successful entrants to the Swedish postal system, CityMail, has set up in three of the large Swedish cities; Gothenburg, Stockholm and Malmö, and coordinates deliveries between these three areas. They also concentrate their efforts on large scale business-to-consumer mail, which, as outlined above, enjoys the benefits of lower set-up costs.

### 5.3 Wide Scale Entry

It is possible that companies may try to start a large-scale service that encompasses the whole network. This would be a high risk, costly venture that would only be viable if the level of traffic was sufficient to reap the returns of the investment. Any potential entrant would be able to choose the scale of their network and consequently leave out areas that would prove unprofitable for the USP to deliver to these areas.

There have been several attempts in the other liberalised countries for this wide-scale entry; Fastway Ltd in New Zealand attempted to start a national entity to rival New Zealand Post. This venture has been relatively successful and has been based on ease of access for the consumer, with collection points in supermarkets and shops. They offer a uniform tariff much like the New Zealand Post, but do charge a \$2.50 surcharge for delivery in more remote areas.<sup>9</sup> This new entrant has also been able to compete strongly with New Zealand Post, offering lower prices than the incumbent but suffering from the lack of consumer confidence in the newly formed firm.

It can be seen from this information that it is very possible for new firms to emerge in the market as direct competitors for the incumbent firms despite many beliefs of a natural monopoly for delivery. The delivery surcharge must be made note of but this must be expected, as all other goods have some added cost when they are supplied in to rural areas, why should mail services be any different?

It must also be noted that a third company tried to enter the market and failed, National Mail attempted to enter the New Zealand market on a national scale in direct competition with the incumbent. As this entrant has since ceased trading, it could indicate there is insufficient traffic to support the three firms and that the postal

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<sup>9</sup> [www.fastwaypost.com](http://www.fastwaypost.com)

industry in New Zealand is, at best, a small oligopoly., that is suited to a small number of competitors at the national scale. There are large numbers of smaller, more **acute????** firms set up in smaller niche or regional markets. The question of whether the delivery of mail is a natural monopoly is brought up again as situation this offers evidence that the market in New Zealand is sustainable with more than one entrant and can therefore cannot be classed a natural monopoly.

Since to commence trading as a national supplier of postal services would require extremely high levels of investment and consequently a high level of risk, it may be the case that new, larger scale operations may come into existence only by the growth and development of a few of the large number of smaller niche or regional suppliers.

#### **5.4 Sectoral Entry**

The targeting of one section of the market could lead to segmented and varying products in the postal industry. An entrant could choose a particular business sector to supply to, for example, Banks as a postal supplier could offer a secure, guaranteed delivery service for all sensitive documents relating to the banking sector. A good example may be for the Government Tax Service, where, possibly subsidised or run by the Tax Service itself, a postal service is set up to collect all tax forms and related documents from taxpayers and then deliver them to tax offices. A similar service could also be required to carry missives between the offices of a specific industry, again, like the tax service.

### **5.5 Collection Services**

Some entrants may find it profitable to enter the market as an upstream supplier for the USP, as a collector. The Firm could operate as a large-scale collector and make its margin on a discriminatory price charged by the incumbent on the collection of a large number of letters. This process can be further broken down into niche or regional collection and could be cost effective for both the incumbent and the new entrant. However under a perfect market condition it would seem likely that the incumbent would be able to do the job for the same cost, if not much less cost than the entrant due to economies of scale.

Some incidents of this have occurred in Sweden and New Zealand where the collecting firms are treated as equals in the delivery service provided by the USP. New Zealand Post have said they will act : “to treat competitors no differently than it would ‘equivalent customers’”.<sup>10</sup> They act independently to collect and to a certain extent sort the mail and then pass it on to the USP to make the final delivery. This entry at the collection point seems a viable entry strategy for new firms who could build upon this process to expand as an operator.

### **5.6 Sortation Services.**

Some firms may set up around the development of other services and act as a sorter and an intermediary between a collecting firm and a deliverer such as the USP. This entrant would sort and semi-distribute the mail before passing it on to the final delivery method. There are some necessary requirements for this service to be an

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<sup>10</sup> John Allen, Chief Executive New Zealand Post; Speech on 13 March 2001 at the Institute of Economic Affairs Annual Conference on “European Postal Service”, Brussels

option. The cost of access to the USP at the pre-sorted delivery level must exceed the price of sorted delivery by more than the cost of the new entrants sorting process and there must be easy movement from the collection service to the sortation and then to the delivery.

### **5.7 Mixed Strategy**

Some of the above strategies could be interlinked, that is there could be regional sortation companies that will also collect. Indeed there are many permutations of these strategies for potential entrants to the market.

### **5.8 Economic Implications**

Looking at the strategies as an economist many models of competition and the effective introduction of it must also be considered. The effects of the opening of the market will be very dependent on the strategies used by the incumbent and the potential entrants. If the market becomes segregated into regions as outlined above then it may be the outcome that the market and the consumer are damaged. The monopoly currently held by the Royal Mail will be separated into smaller regional monopolies that will show all the negative features of the large current monopoly but will also have lower economies of scale, and costs will therefore be higher. These increased costs and the administration costs of crossing the regional boundaries will be passed onto the consumer who may therefore be harmed by the introduction of this competition. This may be refuted by the threat of entry should a potential entrant spot that there are profits to be made, but the barrier to entry of the licences may make this

a long-term solution. The current monopoly could in effect become a market-segregated oligopoly with each competitor having his own share of the market to monopolise. This argument of spatial competition is overlooked in modern perfect competition theory by the assumption of zero transport costs - investigations by Hotelling and others have contested the theory of spatial competition.

Hotelling's model of 1929 goes through the competitive positioning of two firms in a duopoly along a linear bounded market. He concludes that the firms will locate as close to each other to maximise their 'hinterland' and their consequent profits.

Looking at Figure 3 Hotelling concluded that the two firms would locate at A and B to maximise their hinterlands X and Y respectively, but Hotelling assumes that relocation is costless and non-time consuming. Could it not be possible that another equilibrium is achievable given the implication of relocation costs and having more than two firms in the market. Looking at a circular model outlined in Figure 4 it could be assumed that in order to maximise their hinterland and consequent profits the firms would locate at equidistant levels? Taking this back to Hotelling's linearly bounded model in Figure 5 this could be interpreted as the two firms locating at A and B and maximising their hinterlands (X and Y respectively) and their consequent profits.

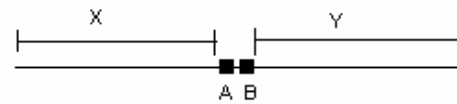


Figure 3

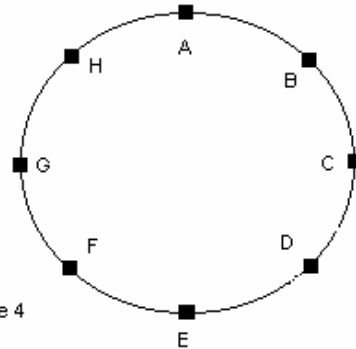


Figure 4

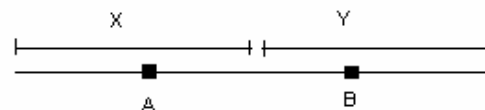


Figure 5

The implications of this are the creation of spatial monopolies by firms to maximise their profits. It could therefore be postulated that this may occur in the liberalization of the UK market, with firms locating in an area that will facilitate the maximisation of their profits. This spatial competition can also be transferred to a model of product differentiation on the basis of the added innovation in the newly competitive market. The idea of spatial competition and the consequent price discrimination is examined by Beckman (1968) who found that the emergence of spatial monopolies is dependant on transport and set-up costs and that these determine the profitability of the project. It would seem feasible that in the postal service there are high set-up costs and substantial transport costs that would consequently facilitate the emergence of smaller regional monopolies.

A new entrant in the market can take advantage of entrepreneurial profits by innovation in the market; the creation of a newly differentiated product could result in

a monopoly within the market just like the spatial competition. Copazza and Van Order (1982) analyse this hypothesis and conclude that firms in a market where consumers have different tastes, and also where there are fixed costs to innovation, retain some monopoly power. Lancaster (1982) goes through the possibility of innovative-entry into a market by firms, which perceive that by product differentiation they can take advantage of the different tastes in the market. He argues that this form of entry can occur when industry profits are zero, as the entrant perceives the ability of entrepreneurial profits under a different structure. Lancaster claims that this form of competition is more likely than the spatial competition outlined by Hotelling (1929), especially in large conurbations where transport costs become minimised.

From this analysis it could be concluded that if entry occurs in the postal market then in the urban cities of the UK, where transport costs are not that big an issue, then clustering of firms may be seen with competition being innovation based, whereas in the more rural areas spatial monopolies may occur with low levels of product differentiation concurrent with the continuation of monopoly power.

## 6 Evidence from Similar Markets

Looking at the postal communications industry as a whole it can be seen that the letter market is only one part of the industry. There are the express courier services and the parcel markets that have been liberalized to differing extents in recent years. These markets offer the best indication of what might happen in the letter market in the years to come.

### 6.1 Express Courier Services

The rapid business link courier service and parcel market has rapidly expanded since the beginning of the 1990's when it became formally recognised as a liberalized market. This is the market for all mail that exceed the limit of the monopoly (350 grammes or £1). Since 1989 the number of employees in the Express Post sector in the EU has increased from 18,000 to well over 131,000 in 2001<sup>11</sup>. The UK express postal service accounts for £550m of GDP and 29,000 jobs<sup>12</sup>, and this is expected to double in the next 10 years.

The parcel and express market has evolved from the government-run Parcelforce having a monopoly in the 1980's to full competition currently. There are around 20 national firms competing in this market with ParcelForce being the market leader with 16%, and Securicor being the second biggest with 9%. There are around 4000 companies offering local and regional services, a large number of these in the dense urban cities. These companies account for about 50% of the market, where the other 50% is run by the 20 large national companies.<sup>13</sup> There does seem to be some over-capacity in the market which has been shown by the demise of a number of the large

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<sup>11</sup> [www.euroexpress.org](http://www.euroexpress.org)

<sup>12</sup> The Economic Impact of Express Carriers in the UK, Digby Jones

<sup>13</sup> CWU Research Brief, Roger Darlington

firms such as Elan, Track 29 and Placketts. This over-capacity and the ease of switching between firms has led to fierce competition, both in pricing wars and with product differentiation.

With the increase in international trade in the nineties the express courier services have evolved into a very important part of the economy. This increase in the express postal service has gone hand in hand with the change to the Japanese method of 'just-in-time' production which operates on a very tight time schedule, and documents are often required rapidly by many firms. There have been many innovations in the market over the pre-1990 service of just being quicker and more reliable than standard post. Some companies have implemented a tracking system now so that an individual item can be tracked from the moment it leaves the hand of the sender until the moment it reaches the recipient. This increased innovation and product divergence is one of the underlying arguments for the introduction of competition. The firms within the market are always looking for that new innovation to separate their product from the rest to make those temporary profits described in chapter 2. It would seem that the express post market has moved from a monopoly in previous years to following the trends of oligopolistic competition.

There has also been evidence of large changes in prices within the industry, and of price wars beginning between the larger European companies. This, again, is evidence of newly introduced efficiency caused by the introduction of competition. As firms reduce their costs the market is deemed to be moving towards a state of productive efficiency, where the price to the consumer is a direct expression of the cost to the producer. The addition of competition to the market will also lead to firms

attempting to reduce their costs by investing in research to reduce the cost of production so as to reduce the price to the consumer and capture the market.

The Express Mail Service shows how the introduction of competition into the market leads to improvements in the economy that would not be seen under a monopoly.

This market must be seen as similar to that of the letter market, consequently it must be assumed that the introduction of competition into the letter market can only be beneficial to the consumer.

## **6.2 Implications for the UK**

The issue of the larger mail markets brings up the question of how far the USO should go, as under current policy every individual in the UK is supposed to have access to the communications market through the Royal Mail. They are, however, restricted to what they send. There is no USO for the sending of parcels, or anything over the weight of 350 grammes. Surely if an individual can have access to sending a letter then a parcel would be reasonable too? The provision of the universal service seems heavily dated, and with the rise of many other forms of communications it seems rather dated to believe that a monopoly is necessary to ensure that every individual has the ability to send a letter - but only one weighing less than 350 grammes.

## 7 Conclusions

In answering the question originally set out in the introduction of this paper of 'how the introduction of competition into the postal service would change the market?' many different implications and conditions arise; the provision of the universal service, the issuing of the licenses by PostComm and their continuing regulation, and the ability of any potential entrant.

The universal service is thought by many to be a provision that is facilitated by the monopoly that has been in place for as long as the Royal Mail had existed. An article by Crew and Kliendorfer (1998) outlined the argument for the retention of the monopoly to facilitate the provision of the universal service. This paper offers useful analysis of the provision of the universal service and calculates the potential cost of its continuation, arguing that a cost in the provision means a degree of inefficiency in the market. Another argument from Senior (1983) illustrates that with the flexibility of prices the universal service would be self-sufficient through market provision. Looking at the market, as Adam Smith did in his early works, the provision of a service will continue if it is justifiable, therefore if the market is to be truly efficient and competitive then the provision of the universal service jeopardises the ability of the market to be efficient and work to the maximum utility of the consumer. The necessity of the universal service has also come under scrutiny recently with the development of new methods of communication such as electronic mail, fax and phone and the development of the Internet. The Universal Service came about when it was believed that every individual should have access to written communication at a uniform tariff. With the development of new methods and the possibility of service

provision under a competitive market there seems to be no real justification for the continuation of the universal sales obligation in the long term. In the short term there is a justifiable case for the incumbent firm to maintain the provision of the universal service while the effects of competition become apparent.

The influence of the regulator Postcomm will have a profound effect on the implication of competition in the postal market; as with their issuing of licenses the regulator can profoundly influence the development of the market. The strategies and processes used to determine entry should be specifically required to facilitate an optimal outcome within the market. The evidence from Sweden and New Zealand encourages a relatively free entry strategy to allow for the maximum level of competition and the free determination of the market structure. The use of regulatory boards through price capping and revenue capping would facilitate the protection against monopoly power and any competition for licenses should be matched by the profits made for those that receive the license.

When looking at the liberalisation of the market in terms of economics the result can be predicted to some level. I believe that the economies of scale produced by the network nature of the market, combined with the reputation and power of the incumbent are sufficient to mean that the future of the Royal Mail is secure. The universal service should therefore remain intact, despite its inefficiencies and (in my opinion) its lack of need. The regulation of the market by Postcomm and the sunk costs in entry will provide sufficient barriers to entry to protect the universal service from any hit-and-run businesses.

The degree of scale and network benefits varies between areas and the level of service and change with liberalisation will also therefore vary. With regards to the urban areas there is a large amount of opportunities for local specialisation to benefit the business user in the short-term postal delivery service. This may also be true for the extreme rural areas where specialisation can occur for local mail.

It is therefore my conclusion that there will be regional variations in the development of the postal service with the incumbent remaining in its current position as a provider of the universal service. There should also be improvements in the service provided by the incumbent as there will be some pressure on them from external firms challenging for power in the market.

One change to the current system may be caused by the extreme network externalities, which give large economies of scale in the delivery of post. This may cause a separation of the market and of the system into collection and sortation, and then delivery. This final delivery process may be confined to the incumbent who will be given different firms letters for final delivery. This has been outlined in numerous proposals with the Royal Mail charging an access price for this final delivery. This 'access' cost could see the breaking-up of the postal network into regions with contracts to cover costs for the letters, which cross local boundaries. This would be similar to that which happens with the international mail at the moment.

The introduction of free competition, by way of encouraging firms to enter the market, will not necessarily lead to the market becoming competitive; the strength of the incumbent both in the issue of scale economies and in regard to brand loyalty may

limit the ability or desire of new firms to enter the market, especially with the very high sunk costs for any potential entrant. The threat of competition and consequent loss of profits may however be enough to encourage improvements in efficiency in the market for the incumbent firm. Therefore the introduction of competition into the postal market can be seen as a forerunner to a more efficient market, offering greater choice and innovation for the consumer. This can only result in a win-win situation for the consumer and the economy alike.

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