Commission Decision 2001/354 of 20 March 2001 (OJ No L 125 of 5 May 2001)

A new Standard for Predatory Pricing

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Executive Summary

The Commission Decision of 20 March 2001 ("the Decision") establishes **incremental cost** as the appropriate measure of cost that an incumbent beneficiary of a statutory monopoly has to cover in providing postal services open to competition. Prices for a particular service are deemed **predatory** if they do not cover the cost incremental to providing a particular competitive service.

According to the Decision, in order to avoid predatory pricing, a multi-service undertaking

> " … must earn revenue on [the specific service open to competition] which at least covers the costs **attributable** to or **incremental** to producing that specific service." (Paragraph 10 of the Decision).

A multi-service undertaking is an undertaking that provides several service using a common infrastructure. **Attributable cost** is the cost which ceases if a particular service is discontinued (Paragraph 9 of the Decision). Calculating attributable cost requires identification of all network elements that would become redundant if the service was discontinued. Attributable cost is the cost inherent in maintaining these network elements.

A yardstick for predatory prices based on attributable or incremental cost makes economic sense: should an undertaking not even cover the specific cost of the specific network elements that production of a certain service requires, it would be better off not supplying the service. Continuing the service goes against the economic interest of the service provider and forecloses efficient competitors. On the other hand, a standard based on attributable cost does not aim to destroy synergies or economies of scope that a multi-service undertaking achieves in providing several services on a common infrastructure.

I. Introduction

Postal services in Europe (and in most other nations) are characterised by the coexistence of a statutory monopoly covering the general letter mail services and other postal services that are provided in open competition. The legal framework governing postal services is contained in the 1997 Postal Directive (Official Journal No L 15 of 21 January 1998, page 14). Competition rules apply to all postal services not within the scope of the statutory monopoly.

Against this background, the Commission has recently taken several important decisions that aim to safeguard against distortions of competition in those postal sector that are not covered by the postal monopoly.

On of these decisions is the Decision concerning Deutsche Post AG ("DPAG") which, establishes a yardstick for predatory prices in postal markets open to competition. This yardstick applies to all undertakings which have at their disposal resources from the statutory monopoly.

As stated in the Decision, DPAG provides over-the-counter, business-to-business and mail-order parcel services via its 33 outward and inward freight centres and 476 delivery points. DPAG refers to this common infrastructure as its "freight branch". DPAG achieves economies of scope in providing three different parcel services on the common "freight branch" infrastructure. DPAG is a "multi-service" undertaking, because it provides three services using a common infrastructure. In light of these circumstances the following three observations are relevant:

First, there is nothing inherently anti-competitive in achieving economies of scope by exploiting an existing infrastructure to provide as many services as possible. This is especially true should the undertaking provide the general letter-mail services covered by the statutory monopoly (the "reserved services") through an <u>entirely separate infrastructure</u>. The difficult issue of whether economies of scale that arise out of the joint production of reserved and competitive services should be encouraged does not arise. In the DPAG case, the infrastructures for reserved and for competitive services were largely distinct (the amount of "joint deliveries" was negligible in the time period under investigation).

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Second, in light of the above, the application of competition rules should not seek to destroy existing economies of scope that arise from the joint provision of several services on a common infrastructure. The lower prices that result from joint provision benefit postal consumers. The view that the common cost of operating an infrastructure useful to the provision of several services have to be attributed proportionally to individual services, and thus reflected in their prices, has no foundation in economics. (See, *e.g.*, Nicolaides, *An Assessment of the Commission Decision 2001/354 imposing a fine on Deutsche Post for abusing its dominant position in parcel delivery*, [2001] E.C.L.R. page 390.)

Third, a standard based on attributable or incremental cost, by focusing on the cost of only those network elements specific to a particular service, does not aim to destroy synergies or economies of scope that a multi-service undertaking achieves in providing several services on a common infrastructure. A standard based on incremental cost avoids proportional attribution of cost and the ensuing destruction of economies of scope. It is thus the appropriate price-floor that has to be covered by any network operator in providing an additional service using the available infrastructure.

Therefore, the Decision deems prices for a particular postal service open to competition to be predatory only if they do not even cover the cost incremental to providing the particular competitive service:

> "DPAG must earn revenue on [the specific service] which at least covers the costs **<u>attributable</u>** to or **<u>incremental</u>** to producing that specific service." (Paragraph 10 of the Decision).

This makes economic sense: Should DPAG does not cover the difference in cost that production of a certain service entails, it would be better off discontinuing the service. Continuing the service under these circumstances goes against the economic interest of the service provider and forecloses competitors who are able to the service more efficiently, *i.e.*, by covering their attributable cost. This might only be different if the prices below incremental cost were set at that level by the regulator. In the DPAG case, the prices for competitive parcel services, on account of rebates, were lower than the affordable tariff determined by the regulator.

Fourth, it appears likely that only prices below the attributable cost hurt an efficient competitor, because even an efficient multi-product competitor would have to cover the service-specific cost as well.

II. Definitions

In its introductory chapter, the Decision sets forth the relevant cost concepts which it later applies to the concrete case. At paragraph 6 the Decision states that:

> "… **cross-subsidisation** occurs where the earnings from a given service do not suffice to cover the **incremental cost** of providing that service and where there is another service or bundle of services the earnings of which exceed **stand-alone cost**." (Paragraph 6 of the Decision).

The notion of cross-subsidisation relies on two core notions: (1) incremental cost and (2) stand-alone cost. These must be defined in turn:

We will start by looking at the economist's definition of incremental cost. The **average incremental cost** ("AIC") of a particular service, in the DPAG example the competitive mail-order parcel delivery services, is defined as

> "… the difference in the firm's total cost **with and without service X supplied**, divided by the output of X. In other words, it is the cost per unit of X that is added to the firm's total expenses as a result of its supply of the current output of X. (Baumol/Sidak, Toward Competition in Local Telephony (MIT Press 1994), page 57).

Second, the **stand-alone cost** is defined as

> "… the cost that would be incurred by an efficient entrant to the industry in question if it were to decide to produce only some specified set of commodities … That is, it is the cost to produce those items, "standing alone". (Baumol/Sidak, op.cit, page 58)

In essence, stand-alone cost is the cost of producing one product independently of any other product. If the undertaking only produces one product, no synergies or economies of scope can be achieved through joint production. Stand-alone cost is thus the highest possible cost of producing a single product in isolation.

We turn to how the Commission defined incremental cost in the Decision. Although not the same words were employed, the definitions are similar. In DPAG, incremental cost was defined as the:

"… costs that are **attributable** to a specific service … These costs, which are dependent on the volume posted and arise solely as a function of the specific service, **cease to exist if the service at issue is stopped**." (Paragraph 9, second indent, of the Decision).

Note the similarity of this definition with the economic definition: While the economist's definition stresses the difference in the firm's total cost with and without service X supplied, the Decision stresses that certain costs would **cease to exist** if the service at issue was stopped. Both stress that the firm's cost structure will be different with the service produced as compared to without production of the service at issue. It is this difference that the Decision seeks to identify.

III. How can incremental cost be calculated in practice ?

In the DPAG case, an economist would calculate AIC of the competitive mail order services as follows: As DPAG operated a parcel freight network that produced three categories of services, (1) over-the-counter parcels (= x), (2) business-to-business parcels (= y), and (3) mail-order parcels (= z), total cost ("TC") of producing the three services is defined as

$$TC\ (x, y, z).$$

AIC of mail order parcels (z) is

$$AIC\ z = [TC\ (x, y, z) – TC\ (x, y, 0)]/z.$$

Unfortunately, this formula does not solve the issue of how to identify incremental cost in a practical case. Because while the total cost TC (x, y, z) may well be known, how can the residual TC for producing x and y without z and, in consequence, the AIC of z be determined? In most cases the residual TC(x, y, 0) will reflect an entirely fictional cost structure because the undertaking will have produced the three services together in the relevant period under examination. This is why, in paragraphs 12 through 16, the Decision sets forth the method for determining the residual cost of producing x and y without z and thus the AIC of z.

These paragraphs describes the different process stages that comprise a mail-order delivery service. This is because in order to assess which costs are attributable to this service, which is open to competition, the incremental cost test requires an analysis of all steps in the value-added chain that comprise the incremental service. In line with the definitions set forth above, the decision analyses, for each stage in the value-added chain that comprises the mail-order delivery service, the network elements that are attributable to the service, *i.e.*, **that would no longer be required if the service was discontinued**.

Therefore, at every step in this value-added chain, the Decision attempts to assess which network elements are attributable to the mail-order parcel service that has been defined as the relevant product market in paragraphs 26 through 29. The Decision seeks to identify, at every step in the value-added chain, the elements that would cease over the medium term horizon (between three to five years), if this service was discontinued and those that would have to be maintained if operations were to continue because of other services. On this basis attributable or incremental cost is thus the cost incurred on account of maintaining network elements necessary for producing the additional product line, mail-order parcel services.

Incremental cost includes both cost that arises in a short-term and medium term horizon:

(1) the service specific fixed cost, *i.e.*, the cost that arises over the medium term with the addition of the product line. Contrary to short-run marginal cost, incremental cost includes the product specific fixed cost, such as the cost of capital for all infrastructure investments such as property, buildings, sorting installations as well as all operating expenses and expenses for materials, which arise only on account of providing the additional product line; and

(2) the short-term variable cost, *i.e.*, the cost that changes with a short-term change in the level of output.

The relevant cost concepts are further explained in Nicolaides, *An Assessment of the Commission Decision 2001/354 imposing a fine on Deutsche Post for abusing its dominant position in parcel delivery*, [2001] E.C.L.R. page 390.

IV. Identifying incremental cost

In order to assess which costs are attributable to the mail-order delivery service, the Decision analyses all steps in the value-added chain that comprise the incremental mail-order delivery service. As set forth in paragraphs 12 through 16 of the decision, the value-added chain for mail-order deliveries comprises the following steps:

1. Collection
2. Outbound sorting
3. Long-distance transport
4. Regional Transport
5. Delivery

Collection

In the case of collection, identification of the network elements attributable to the mail-order delivery service is easy. Dedicated mail-order **collection tours** are attributable to this service because these tours would cease if the service was discontinued (paragraph 12 of the Decision)

Outbound and inbound sorting

On the other hand, the cost of capital that setting-up and maintaining **common sorting infrastructure** entails cannot be attributed to one particular service (paragraph 13 of the Decision). This is because common sorting infrastructure has to be maintained if DPAG produces only (1) over-the-counter parcels, (2) business-to-business parcels or (3) mail-order parcels in isolation or all of the three services jointly.

Consequently, maintaining a common sorting infrastructure is not incremental to either one of the services. If any one of the three services were discontinued, DPAG would not avoid the cost of maintaining its sorting infrastructure. Thus, the cost of setting up and maintaining a sorting infrastructure is not part of the incremental cost of either the over-the-counter, the business-to-business or the mail-order service. It is, however, included in the incremental cost of the three services **in combination** (see under VI below).

On the other hand, staffing cost for **sorting** can be attributed according to volume. The yardstick used in the Decision was based on the requisite personnel hours necessary for all sorting and handling activities (paragraph 13 of the Decision).

Long-distance transport

The cost of linking all 33 freight centres operated by DPAG by one daily long-distance transport trip amongst each other (32 x 33 = 1056 daily trips) cannot be attributed to a particular parcel service (paragraph 14 and footnote 21 of the Decision). As all services need to be transported between hubs on a daily basis, the same reasoning as that set forth under with respect to the common sorting infrastructure applies.

In addition, as set forth in the Decision, in light of the statutory obligation to maintain network reserve capacity able to deliver any parcel deposited at the postal counter within two days of deposit to any destination in the national territory, one daily trip is indispensable. On the other hand, this does not imply that all long distance transport cannot be attributed to a particular service. It might well be that a large volume service, on account of its daily volume, will necessitate several trips per day between the 33 freight centres. Only the one daily minimum trip cannot be attributed to a particular service.

The requirement of one daily long-distance transport connection between sorting hubs only ceases if all three parcel services were discontinued.

Regional transport

Regional transport is the transport that connects the 33 hubs and the 476 delivery points. If the mail-order service was discontinued, delivery points could be amalgamated, *i.e.*, overall number of delivery points would be reduced (paragraph 15 of the Decision). To use a hypothetical example: if the mail-order service was discontinued, 400 delivery points out of the 476 delivery points presently operated by DPAG would no longer be necessary.

In these circumstances, regional transport tours can be attributed according to the following formula:

> Yearly traffic between a hubs and all delivery points (*e.g.*, 500.000 tours) divided by yearly delivery days (*e.g.*, 303), divided by delivery points (476) multiplied by delivery points attributable to mail-order services (*e.g.*, 400) = **1387 daily tours (=420.168 yearly tours) are attributable to the mail-order service**.

This implies: if the mail-order service was discontinued 400 delivery bases could be shut down and approximately 420.000 out of 500.000 tours would no longer take place.

The annual cost of **regional transport** attributable to mail-order deliveries can thus be calculated as:

> Cost per tour x 1387 attributable daily transport tours x 303 working days (regional transport takes place on **six** days per week) = attributable cost per year

Delivery

The mail-order delivery tours work on the assumption that one stop of the delivery vehicle is necessary per parcel delivered (stop factor = 1) (paragraph 16 of the Decision). The number of delivery tours is thus organised on the basis of a certain empirically determined number of parcels delivered per tour, *e.g.*, 100 parcels per tour. In these circumstances, the requisite amount of delivery tours is determined by the amount of parcels delivered per tour. If the overall amount of parcels to be delivered increases and the amount of parcels delivered per tour remains stable (either because capacity of the vehicle is limited or the time of a tour cannot exceed a certain number of working hours), more tours will be required to handle the higher volume. If, on the other hand, the overall volume of parcels decreases while the amount of parcels delivered per tour remains stable, delivery tours can be amalgamated.

V. Does the incremental cost standard underestimate the cost attributable to competitive services ?

The Decision has been criticised for both “under-allocating” and over-allocating” costs to competitive postal activities, such as the mail-order parcel service.

According to the first criticism, by accepting the principle that certain cost - such as the cost of operating a common sorting infrastructure or conducting daily long-distance transport between the sorting hubs - can not be attributed to one particular service, the Decision has given the incumbent unsuitable freedoms to allocate cost of providing competitive service to the infrastructure and thus distort competition (Niederprüm, *Quersubventionierung und Wettbewerb im Postmark*, Diskussionsbeitrag Nr. 225, Wissenschaftliches Institut für Kommunikationsdienste (WIK), page 70).

The issue raised is thus: does a standard based on incremental cost not properly allocate the cost that arises from the operation of a common infrastructure. In other terms, as this common infrastructure was identified as a prerequisite for DPAG to provide services of general economic interest (paragraphs 8 and 9 of the Decision), does this method overestimate the burden of being a "carrier of last resort" ?

In general, an incremental cost analysis attempts to avoid "under-allocation" of cost because, as opposed to short-term marginal cost, incremental cost include not only variable cost but also fixed that arise on account of the provision of the competitive service z (as mentioned above, incremental cost includes all fixed infrastructure elements such as delivery points and flexible infrastructure elements such as delivery tours, which may be discontinued if the mail-order service was abandoned).

However, it is true that the incremental cost of one particular service does not include all those fixed infrastructure elements that are used *in common* for several competitive services (*e.g.*, the common sorting infrastructure or one daily long-distance transport trip that are neither part of the incremental cost of mail-order nor business-to-business nor over-the-counter parcel services). Therefore, the incremental cost test requires that the prices of all services individually and in combination must be such that their combined revenue not just equals their individual and service specific incremental cost but also the incremental cost of both services **in combination.** In the example this is fulfilled if both competitive services y and z achieve revenue that covers the incremental cost of their provision and that they achieve joint revenue that covers the incremental cost of their provision in combination.

In conclusion, the incremental cost test requires that the following *three* conditions are *all* satisfied: (1) the price of mail-order parcels must at least equal the incremental cost of providing them; (2) the price of b-to-b parcels must at least equal the cost incremental to providing this service; and (3) the prices of both competitive services must be high enough to cover the combined incremental cost of providing the two competitive services **in combination**. This is the combinatorial form of the incremental cost test, first introduced by Gerald R. Faulhaber, *Cross-Subsidisation: Pricing in Public Enterprises*, 65 AM. ECON. REV. 966 (1975). The test was not employed in the Decision as already the mail-order delivery service achieved revenue inferior to the individual and service specific incremental cost of its provision.

VI. Does the incremental cost standard allocate too much cost to competitive services ?

According to the second criticism, if there are few or no synergies, the incremental cost could be as high as the stand-alone cost. Should there be negative synergies between services the incremental cost could even be higher than the stand-alone cost. In the case of no synergies incremental cost are identical to stand-alone cost and the test would imply that a firm that holds a monopoly in one market may not sell below stand-alone costs in a competitive market. Such a standard would essentially punish a monopolist for not making profit in competitive activities (Bergman, *A prohibition against losses? The Commission's Deutsche Post Decision*, [2001] E.C.L.R., page 354).

If, there are really no synergies between the provision of x, y and z, then no welfare gains are lost by requiring the multi-service operator to cover the cost attributable to providing the mail-order parcel service. Also, in the absence of synergies, an efficient competitor would have a cost similar to that of the multi-service undertaking. In these circumstances, requiring the multi-service undertaking to charge prices covering at least the incremental cost appears suitable to avoid a distortion of competition.

In the absence of synergies, should a multi-service undertaking, prove that it covers all cost incremental to the provision of a particular service, this implies that the undertaking has effectively contested the "efficiency" of its competitor. This is because if the multi-service provider covers all cost attributable to a particular service and there are no economies of scope, its prices must cover the stand-alone cost. If prices above stand-alone cost still hurt a competitor, this implies that the competitor is not an efficient operator. (This argument is made by Hancher and Buendia Sierra, *Cross-Subsidisation and EC Law*, CMLR, 1998, page 901, at page 920.)

On the other hand, an undertaking that charges prices below the incremental cost of providing the service may well get the business in question, even though it produces less efficiently than its competitor. This result would foreclose entry by an efficient competitor.

Bibliography for further reading

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