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POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

POSTAL RATE AND FEE CHANGES, 2006) Docket No. R2006-1

Direct Testimony of

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Concerning

FAIRNESS ISSUES IN COSTING

On Behalf of

VALPAK DIRECT MARKETING SYSTEMS, INC. AND
VALPAK DEALERS' ASSOCIATION, INC.

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AUTOBIOGRAPHICAL SKETCH

See VP-T-1.

I. PURPOSE OF TESTIMONY

The purpose of this testimony is to introduce certain issues relating to fairness in costing. These issues appear to have application in the instant docket, but may well have even greater application in future dockets. It is hoped that if these issues are introduced here, the Commission will consider them, even after this docket, perhaps through a special inquiry or rulemaking, possibly including drawing on independent costing and ratesetting experts to provide advice on how they should be viewed. Such an approach would help guide the Postal Service and the Commission as such issues arise in the future.

II. INTRODUCTION

The Postal Service is investing heavily in automated flats sorting equipment to delivery point sequence flats. The system is known as the Flats Sequencing System ("FSS"). Once this system is in place, it appears that the base routine will be for carriers to take to the street three bundles of mail: (1) a bundle of letters that have been delivery point sequenced ("DPS'd") on automated letter sorting equipment; (2) a bundle of flats that have been delivery point sequenced on automated flats sorting equipment ("FSS'd"); and (3) a bundle of residual letters and flats that have been cased by the carrier, possibly a vertical flats case. In addition, carriers may have small parcels, which introduces questions not covered by this testimony.[1]

Heretofore, the base routine has been for carriers to have *two* bundles to take to the street: (1) a bundle of DPS'd letters and (2) a bundle of flats and residual letters that have been cased. Accordingly, the new system will cause an additional bundle to be standard fare on each route, each day.

In addition to the two bundles that have been standard fare thus far, carriers have often taken a third or even fourth bundle to the street, consisting of saturation letters or saturation flats that have been stacked by the mailer in the order in which the addresses on the route are reached. As a practical matter,

[1] Regarding delivery in an FSS environment, *see generally* testimony in this docket of Postal Service witness Joyce K. Coombs (USPS-T-44).

the frequency of occurrence of more than three bundles is unknown and may not be high. However, there are in some situations *constraints* on the number of extra bundles that can be taken. *See generally* testimony in this docket of John Haldi (VP-T-2), section VIII.

When the FSS equipment is in place and three bundles become standard fare, it seems possible that the constraints on the number of additional bundles will become much more active than they are today. The question I am raising is how these constraints should be recognized in costing.

Although a range of situations may occur in actual operations, a simple example should make the essentials of the problem clear. Suppose 60 percent of the routes can take a fourth bundle, and mailer-prepared bundles of saturation flats and saturation letters are available for delivery. If the carriers take the saturation *flats* as the fourth bundle, and the costing system looks at nothing more than the stop-watch time the carrier spends handling them, the cost of the saturation flats will be quite low, say, 1 cent per piece, and the cost of the saturation letters will be much higher, say, 3 cents per piece, as they are DPS'd or cased. On the other hand, if the carriers take the saturation *letters* as the fourth bundle, using the same costing system, the cost of the saturation flats will be, say, 5 cents per piece, as they are FSS'd or cased, and the cost of the saturation letters will be quite low, say, 1 cent per piece, consistent with being handled as a fourth bundle.

The question is: Would it be fair to the saturation *letters* to take the saturation flats as the fourth bundle, and record a low cost for the saturation

flats; or, conversely, would it be fair to the saturation *flats* to take the saturation letters as the fourth bundle, and record a low cost for the saturation letters? From the point of view of the overall postal system, the *total* resulting cost would be lower if the flats were taken as the fourth bundle, but this does not deal with the questions of fairness I am raising.

III. THE COSTING PROBLEM

The goal of exercises in costing is to estimate a marginal cost of the kind that would be caused by a rate-induced volume change. The reference point is an equilibrium position, with some level of volume being handled in a normal way. From this reference point, to approach the marginal cost of product D, one thinks about the cost effects of the volume increase that actually would be associated with a small decrease in the price of product D, if that were possible, under the conditions that no other factors affecting costs change at the same time. If the volume increases 1,000 units and the total operating cost increases $100, it is thus estimated that the marginal cost is 10 cents ($100/1,000 units). It is not necessary that the price change or the volume change be infinitesimally small, as in a derivative in calculus. In fact, the price increase should be on the order of magnitude of the pricing alternatives being considered, and the volume increase should be large enough to allow the behavioral characteristics of the actual operating system to be observed. After the cost of product D is found, questions about the costs of other products can be asked. It is essential, however, to consider the products one at a time.

The importance of estimating marginal costs can be stated succinctly. *Decisions on prices should be made in view of the effects of those decisions.* If a lower price is selected instead of a higher price, and the volume increases, the marginal cost is the value to the nation of the resources it must give up, *i.e.*, give

to the Postal Service and not use in an alternative way, in order to receive from the Postal Service the service of handling and delivering the additional volume. If the value to the nation of the resources it must give to the Postal Service is greater than the value to the nation of the service of handling and delivering the additional volume, then the nation should not *give up* those resources and it should not *receive* the service of handling and delivering the additional volume. Knowing the marginal cost is essential to making the comparisons thus required.

Marginal costs can have characteristics that might be viewed by some observers as strange, particularly where capacity constraints exist. If a steel mill is running near capacity and additional output is required, the additional cost could be very high, particularly if the mill needs to work overtime or bring retired (high-cost) equipment back into service or use excessive levels of variable inputs to make up for a lack of capacity. Similarly, a power plant working near capacity might have a high marginal cost if producing additional electricity requires it to use old generators or equipment designed for peaking, or just to run its mainline generators above their efficient level, a practice that would be called over-clocking on a computer. On the other hand, marginal costs can be very low if ample capacity is available. For example, the marginal cost of running a program on an otherwise idle computer may be next to zero.

Examples of similar phenomena exist in the Postal Service. Suppose 50 billion flats are being sorted for 1 cent (per piece) on flats sorting machines, which are being used at capacity levels. If the volume of flats increases further, it might be necessary to sort the additional volume manually for 5 cents. In this

case, the marginal cost of flats would be 5 cents, even though a costing system that focuses on the time spent handling flats would record the cost at just over 1 cent. A variant of this example involves a process of *bumping*. Suppose the 50 billion flats being sorted for 1 cent are composed of 48 billion Standard flats and 2 billion Periodicals flats. If an additional 1 billion Standard flats arrive to be processed, it is possible that they would be processed on the flats sorting machines, and that 1 billion Periodicals flats would be bumped into manual processing at 5 cents. Under these conditions, the marginal cost of Standard flats is 5 cents, even though the costing system would record their incurred cost as 1 cent.

Bumping can also occur in carrier operations. Suppose the base position is that carriers *can* carry a total of 50 million extra bundles to the street, and they *are* so carrying 48 million bundles of saturation flats and 2 million bundles of saturation letters. If an additional 1 million bundles of saturation flats arrives to be delivered, it is possible that they would be handled as extra bundles and that 1 million bundles of saturation letters would be transferred to manual casing or DPSing. If the costing system shows 1 cent for pieces in extra bundles and 3 cents for letters that are cased or DPS'd, it is possible that the cost of flats would be found to be 1 cent, even though each extra flat added 3 cents of cost to the system.

My purpose here is not to ask whether the existing costing systems

capture actual marginal costs.[2] Rather, it is to deal with a different question entirely.

A. A Fairness Question in the Costing of Carrier Operations.

Suppose the Postal Service is planning its operations and sees that the carrier system can carry 50 million extra bundles to the street. It also looks at current volume levels and sees that they consist of (i) 49 million bundles of saturation flats and (ii) 49 million bundles of saturation letters. As a matter of practical operating policy, assume the Postal Service sees itself as having two options: (1) it can take the saturation flats as extra bundles and DPS the saturation letters; or (2) it can take the saturation letters as extra bundles and FSS the saturation flats. To put dimensions on the dilemma, suppose the costing system shows 1 cent for pieces in extra bundles, 3 cents for DPS'd pieces, and 5 cents for FSS'd pieces. The decision does not appear difficult. Overall system costs would be lower if the Postal Service takes option No. 1.

Here now is the problem. If the path of option No. 1 is taken, the mailers of saturation letters would find it in their interest to say: "If we were the only saturation mail in the postal system, we could be carried as fourth bundles at a cost of 1 cent per piece. Under these conditions, our rates could be low. But since the saturation flats exist, and are being carried as the extra bundle, we have been put on the DPS machines, and our cost is 3 cents per piece. This is

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[2] *See* testimony of John Haldi, VP-T-2, Section VIII, for additional discussion concerning constraints on extra bundles in city carrier mail delivery and inability of the Postal Service costing methods to measure marginal cost when it differs from average variable cost.

really a big difference. We are subsidizing the saturation flats. If they were not here, our rates would be lower. We were expecting to share in economies of joint production, and we have been hurt instead. This is not fair."

The question is, how should costing proceed under such conditions? If the first option is taken, it is possible that the costing system will show the cost of flats to be 1 cent, and this could be the correct marginal cost of flats. That is, a small increase in flats, from 49 million to 49.8 million bundles, might be carried as extra bundles, and the additional cost might actually be 1 cent per piece. It is also possible that the costing system will show the cost of saturation letters to be 3 cents, and this too could be a correct marginal cost. However, using these costs in ratesetting, even if they are correct marginal costs, does not deal with the fairness question.

B. An Example of a Fairness Question Overriding a Sound Pricing Result.

My experience has been that fairness questions similar to this one have not been raised often. One example, however, stands out clearly, and may serve as a guide.

Absent competitive pressures that are workable, notions of public interest pricing have sometimes been relied on to help price in a way that maximizes the level of overall welfare. This is consistent with the goal of encouraging the realization of value, to the extent practicable, and the prescription for doing this is quantified in the well known Ramsey formulas. Under these formulas, the

markup on a subclass or rate category is inversely proportional to the absolute value of the elasticity of demand, except that recognition is also given to cross elasticities with both postal and non-postal products.

Quite aside from the Ramsey formulas, a notion of cross subsidy has evolved. The reasoning has been that if the presence of product D causes the price of product C to be higher than it would otherwise be, then product C is subsidizing product D. The test to determine whether such a cross subsidy exists is to estimate the incremental cost of product D,[3] and if the revenue from product D is not covering this incremental cost, then the extent of cross subsidy is taken to be the revenue shortfall, based on these numbers. The argument that cross subsidies are bad or should be avoided is a fairness argument, not an economic one. The position is taken that it is unfair for the cross subsidy to be allowed to occur.

From the point of view of the Ramsey formulas, cross subsidies of the kind just described are not bad; in fact, they are not even an issue. Ramsey would say: "If the welfare of the nation is higher *with* this thing called a cross subsidy than *without* it, that is perfectly fine." The formulas do not focus at all on whether a cross subsidy might exist. It is recognized, however, that the Ramsey formulas can lead to cross subsidies, under the definition of cross subsidy described above.

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[3] In this context, the incremental cost of product D is the total number of dollars that the firm (here the Postal Service) would save if 100 percent of product D were withdrawn from production, and the firm adjusted its operations to produce the remaining products efficiently.

In response to the possibility of a cross subsidy, practitioners of pricing generally agree that a fairness constraint should be adopted and placed on the outcome of the pricing exercise. That is, the position is taken that cross subsidies are unfair and that prices involving cross subsidies should be adjusted to keep the cross subsidy from occurring. The constraint is that no price below unit incremental cost should be accepted. As noted above, this is a fairness constraint. Nothing in notions relating to the efficiency of resource allocation argues that cross subsidies are bad or explains how to avoid them. It is in response to questions of fairness that the constraint is honored. Needless to say, there is widespread agreement that cross subsidies should be avoided.

C. Should a Fairness Requirement Be Honored in Carrier Costing?

Whether or not viewed as similar to the cross subsidy constraint usually applied to pricing, the potential for application of a fairness constraint to carrier costing should be obvious. Assuming that costs are reflected in rates, and that a higher cost generally leads to a higher rate, is it fair for the presence of saturation flats, which are accorded extra-bundle treatment, to cause the costs and the rates of saturation letters to be higher than they would be if saturation flats were not present? If this is not viewed as fair, how should a fairness requirement or constraint be designed and applied?[4]

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[4] One possible view would be that the presence of saturation flats is causing saturation letters to realize diseconomies of joint production. If this view is taken, whether such should be allowed to occur is part of the question being asked.

My purpose is not to answer these questions, but only to pose them. I believe potential solutions may exist. One possibility, for example, would be to cost both saturation letters and saturation flats *as though neither* were carried as an extra bundle, and then to let any benefits from extra bundles accrue to saturation pieces as a group. Another might be to cost both *as though both* were carried as an extra bundle.

My testimony is that these fairness issues should be considered, and that they should be considered before the costing problem is exacerbated by the FSS system. It may well be that the community of pricing and costing experts can provide help. The Commission is in a position to make this happen.