Postal Rate Commission
Submitted 8/2/2004 3:58 pm
Filing ID: 41191
Accepted 8/2/2004

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

RATE AND SERVICE CHANGES TO IMPLEMENT FUNCTIONALLY EQUIVALENT NEGOTIATED SERVICE AGREEMENT WITH DISCOVER FINANCIAL SERVICES, INC.

Docket No. MC2004-4

RESPONSES OF THE UNITED STATES POSTAL SERVICE WITNESS AYUB TO INTERROGATORIES OF THE OFFICE OF THE CONSUMER ADVOCATE (OCA/USPS-T1-10-21) (August 2, 2004)

The United States Postal Service hereby provides its responses to the following interrogatories: Office of the Consumer Advocate Interrogatories to United States Postal Service Witness Ali Ayub (OCA/USPS-T1-10-21), initially filed on July 16, 2004, and superceded by an errata on July 23, 2004.

Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,
UNITED STATES POSTAL SERVICE

By its attorneys:

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August 2, 2004

OCA/USPS-T1-10. Please refer to pages 12 and 13 of your testimony.

a. Did you perform or obtain different projections of Discover's before- and/or after-rates volumes for the years that the NSA will be in effect? If so, please provide such projections and supporting documentation. If not, why not?

b. Did you perform or obtain (*e.g.,* from Finance) analyses of the effect of the NSA on postal finances other than the analysis contained in Appendix A of your testimony? If so, please provide such analyses and supporting documentation. If not, why not?

RESPONSE:

a) No, I did not perform or obtain different projections on Discover's before and after rate volumes for the years that the NSA will be in effect. The Postal Service does not have the company-specific data required to make a point projection of future demand. However, the Postal Service is satisfied with the volume projection provided by Discover, and believes that the data provided by the company supports this projection. Please refer to POIR 1, question 4.

b) No, I did not perform or obtain analyses of the effect of the NSA on postal finances, other than the analysis contained in Appendix A of my testimony. Deviations from witness Crum's financial analysis are explained in Appendix B of my testimony.

OCA/USPS-T1-11. Please refer to page 16 of your testimony.

a. Please assume that Discover's Year-1 before-rates volume estimate of 451 million pieces is normally distributed. Please confirm that under this assumption, the probability that before-rates volumes in Year 1 would be greater than 451 million is 50 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.

b. Please assume that Discover's Year-1 before-rates volume estimate of 451 million pieces is normally distributed with coefficient of variation of ten percent.

   i. Please confirm that under these assumptions, the probability that before-rates volumes in Year 1 would be greater than 451 million is 50 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.
   ii. Please confirm that under these assumptions, the probability that before-rates volumes in Year 1 would be greater than 466 million is approximately 37 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.
   iii. Please confirm that under these assumptions, the probability that before-rates volumes in Year 1 would be greater than 481 million is approximately 30 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.
   iv. Please confirm that under these assumptions, the probability that before-rates volumes in Year 1 would be greater than 496 million is approximately 16 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.

RESPONSE:

a) There is no evidence to suggest that Discover's forecast is "normally distributed." However, if you assume that the forecast is normally distributed, then, by definition, there is a 50% chance the before rates volume will exceed 451 million pieces, and a 50% chance that it will be lower.

b) There is no evidence to suggest that Discover's forecast is "normally distributed." However, if you assume that the forecast is normally distributed, then the calculations assign probabilities to specific volume levels correctly.

OCA/USPS-T1-12. Please refer to the attachment to this interrogatory and confirm that under the Commission's MC-2002-2 methodology, the stop-loss volume for Bank One would be 497.6 million pieces. If you do not confirm, please provide the correct volume and show its derivation.

DISCOVER NSA
Stop Loss Estimate

TABLE 1
ACS Related Savings

[1]	Manual Letter Returns Unit Cost	$0.55
[2]	Electronic Letter Returns Unit Cost	$0.34
[3]	Discover Return Rate - Solicitation Mail	9.3%
[4]	Address Change Service (ACS) Success Rate	85%
[5]	Discover TYBR Customer Mail Volume	295,000,000
[6]	Discover TYBR Solicitation Mail Volume	156,000,000
[7]	Solicitation Mail % of TYBR Volume	34.59%
[8]	Discover ACS Unit Cost Savings	$0.00568739
[9]	Discover TYBR Equilibrium Solicitation Volume	497,630,513
[10]	Total ACS Test Year Savings	$2,830,220

TABLE 2
Discount Leakage

Volume Block [1] [a]		[b]	Incremental Volume [2] = [1b] - [1a]	Discount [3]	Discount Leakage [4] = [2] * [3]
405,000,000	to	435,000,000	30,000,000	$0.025	$750,000
435,000,001	to	465,000,000	29,999,999	$0.030	$900,000
465,000,001	to	490,000,000	24,999,999	$0.035	$875,000
490,000,001	to	497,630,513	7,630,512	$0.040	$305,220
515,000,001	to			$0.045	$0
					$2,830,220

TABLE 1

Notes & Sources

[1] USPS-T-1 (Ayub), Appendix A, page 1
[2] USPS-T-1 (Ayub), Appendix A, page 1
[3] USPS-T-1 (Ayub), Appendix A, page 1
[4] USPS-T-1 (Ayub), Appendix A, page 1
[5] USPS-T-1 (Ayub), Appendix A, page 2
[6] USPS-T-1 (Ayub), Appendix A, page 2
[7] = [9] / ([8] + [9])
[8] = ([1] - [2]) * [3] * [4] * [7]
[9] = Table 2 [1b]
[10] = [8]] * [9]

TABLE 2

Notes and Sources:

[1] Request, Attachment B
[3] Request, Attachment B

RESPONSE:

Not confirmed. The Postal Service's understanding of the "stop-loss" provision is that the "stop-loss" is equal to 95% of the ACS cost savings over the term of the agreement. The ACS cost savings as presented in Appendix A, page 11, line (2), of my testimony is $8,006,949. Assuming this ACS cost savings calculation, the cap on the total discount that Discover could earn over the term of the agreement would be: $7,606,602 (85% * $8,006,949). If Discover were to mail 605,702,267 pieces in Year 1 of the agreement they would reach the maximum discount for the term of the agreement, and would be ineligible for any additional discounts over the remaining two years of the agreement.

Threshold		Discount	Volume	Discount Earned
405,000,000	435,000,000	$0.025	30,000,000	$750,000
435,000,000	465,000,000	$0.030	30,000,000	$900,000
465,000,000	490,000,000	$0.035	25,000,000	$875,000
490,000,000	515,000,000	$0.040	25,000,000	$1,000,000
515,000,000		$0.045	90,702,267	$4,081,602

However, the more likely scenario would be that Discover would mail lower volume levels each of the three years. This would result in higher volume levels needed to reach the "stop-loss," because, at the start of each year, the discount starts at $0.025, and the above example includes an extreme example of 90,702,267 pieces at the $0.045 price incentive tier counting towards the discount earned.

OCA/USPS-T1-13. Please assume that Discover's Year-1 before-rates volume estimate of 451 million pieces is normally distributed. Under this assumption, please confirm that the coefficient of variation of that estimate must be no greater than 6.1 percent in order for the probability of the Postal Service's not losing money to be greater than 95 percent. If you do not confirm, please provide an estimate of the maximum coefficient of variation and explain its derivation.

RESPONSE:

Not confirmed. With the given parameters assumed by your question, the probability is 0.95 that volume would not exceed 497.6 million pieces. These calculations are based on the premise that there is no increase in volume because of the price incentives. I do not agree that the assumptions provided are plausible as they assume that (1) exogenous factors would cause Before Rates volume to exceed the estimated level of 571 million pieces by a wide margin, yet would have no effect on After Rates volume; (2) the declining block rate discounts offered in the NSA would have no effect on the volume of First Class mail entered by Discover; and (3) the ratio of statements to marketing pieces remains constant at all volume levels. In the instance of the first-case, the higher volumes would also result in higher cost savings. Thus, the assumptions are unsupported by any data I have seen.

I am unable to provide alternative estimates. While it would be possible to solve for a standard deviation, such that expected discounts would equal expected ACS savings, even a minimal volume response would ensure positive contribution to the Postal Service.

Finally under no circumstance does the Postal Service lose money. Under extreme circumstances, it is possible that the opportunity cost of implementing the NSA is higher than if it were not pursued, but under no circumstance are any of the pieces contribution negative.

OCA/USPS-T1-14. Please provide an estimate, and explain its derivation, of the coefficient of variation of Bank One's

a. Year 1 volume estimate of 451 million pieces;
b. Year 2 volume estimate of 446 million pieces;
c. Year 3 volume estimate of 441 million pieces.

RESPONSE:

The volume estimates for Years 1, 2, and 3 were provided by Discover. The forecast provided by Discover is a qualitative forecast based on internal research and consensus of internal Discover stakeholders. The Postal Service cannot provide an estimate for the coefficient of variation of Discover's forecast volume for the three-years of the agreement because there are no sample data points on which to base this calculation, as the presumed data points and methodology used to develop the observed variance in OCA/USPST1-11, 12 and 13 were not used to produce the forecasts. Providing these coefficients of variation in isolation of an established sample point will not provide any meaningful estimate of these terms.

OCA/USPS-T1-15. Please confirm that *ceteris paribus* the coefficient of variation of a volume projection increases as one projects farther into the future. If you do not confirm, please explain.

RESPONSE:

Not confirmed. The purpose of my testimony is not to offer opinions on the principles of forecasting. It is my understanding, however, that depending on the variable that is being forecast, longer range estimates may be more reliable than shorter range estimates. This does not necessarily mean that it is in any way easier to produce a precise point estimate in a period that is farther in the future. Furthermore, assuming "ceteris paribus" it could be argued that the only thing that causes the volume forecast to differ from the actual value, whether in one year or ten years, is because things are not "ceteris paribus" -- that all things are not equal. But the point is mooted because the forecasts used in this case were not produced through sampling or regression analysis, but instead incorporated business judgments from a variety of internal Discover resources. Moreover, the testimony of Discover's witness shows that the estimates of the additional volume of First Class solicitation mail that will be generated by the proposed rate discounts is likely to be greater than the Postal Service has assumed in its financial and cost analysis in this case.

OCA/USPS-T1-16. Please confirm that 85 percent of Discover's mail that shifts from Standard to First-Class will incur *new* electronic return costs. Please confirm that 15 percent of Discover's mail that shifts from Standard to First-Class will incur *new* manual return costs. If you do not confirm, please explain. If you confirm, please indicate where this cost is accounted for in Appendix A of your testimony.

RESPONSE:

Not confirmed. Of Discover's marketing mail that shifts from Standard to First-Class, of the *pieces that are returned* 85% of pieces will incur electronic return costs and 15% will incur manual return costs. However, of the volume of mail that shifts, the manual return for 1.96% will already be accounted for in the cost structure of First-Class Mail. These additional costs are accounted for in Appendix A, page 5, column 15 (After Rates Returns Adjustment Cost). In addition, the model does not consider any increases in TYAR marketing volume in its calculation of ACS costs savings.

OCA/USPS-T1-17. Please refer to page 16 of your testimony.

a. Please assume that Discover's Year-1 before-rates volume estimate of 451 Million pieces is normally distributed with coefficient of variation of ten percent.

i. Please confirm that under these assumptions, the probability that before rates volumes in Year 1 would be greater than 436 million is approximately 63 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation. Docket No. MC2004-4 5

ii. Please confirm that under these assumptions, the probability that before rates volumes in Year 1 would be greater than 421 million is approximately 75 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.

iii. Please confirm that under these assumptions, the probability that before rates volumes in Year 1 would be greater than 406 million is approximately 84 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.

RESPONSE:

Not confirmed. The premise of the questions is based on assuming that the Discover forecast is normally distributed, and that we were able to calculate both the standard deviations and the mean of the sample used to produce the forecast to produce the coefficient of variation. I am unable to verify or calculate a standard deviation and a mean, and believe there are minimal benefits to this analysis. However, if I were to guess a coefficient of variation of ten percent I would confirm the above probabilities.

OCA/USPS-T1-18. Please assume that Discover's Year-1 before-rates volume estimate of 451 million pieces is normally distributed. Under this assumption, please confirm that the coefficient of variation of that estimate must be greater than 6672 percent in order for the probability of Discover's Year-1 before-rates volume being less than 406 million to be at least 75 percent. If you do not confirm, please provide an estimate of the minimum coefficient of variation and explain its derivation.

RESPONSE:

Please see OCA/USPS-T1-17.

OCA/USPS-T1-19. Please assume that Discover’s Year-1 before-rates volume estimate of 451 million pieces is normally distributed. Under this assumption, please confirm that the coefficient of variation of that estimate must be at least 14.8 percent in order for the probability of Discover’s Year-1 before-rates volume being less than 406 million to be at least 25 percent. If you do not confirm, please provide an estimate of the minimum coefficient of variation and explain its derivation.

RESPONSE:

Please see OCA/USPS-T1-17.

OCA/USPS-T1-20. Please assume that Discover's Year-1 threshold is 405 million pieces and that its before-rates volume estimate of 451 million pieces is normally distributed with coefficient of variation of 10 percent. Under these assumptions, please confirm that the probability of the Postal Service's paying discounts on mail that it would receive in the absence of discounts is 84.6 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.

RESPONSE:

Not confirmed. The probability of the Postal Service paying discounts on a portion of volume that would be mailed is identified as "Exposure" or "discount leakage" in the Appendix A, as well as in my testimony. As the TYBR forecast provided by Discover is higher than the threshold, one can assume that the Postal Service is aware that there is a strong probability that discounts will be paid on some volume that would have been mailed in the absence of a discount. In my model, I have accounted for these costs.

OCA/USPS-T1-21. Please assume that Discover's Year-1 threshold is 405 million pieces and that its before-rates volume estimate of 451 million pieces is normally distributed with coefficient of variation of 14.8 percent. Under these assumptions, please confirm that the probability of the Postal Service's paying discounts on mail that it would receive in the absence of discounts is 75.5 percent. If you do not confirm, please explain, provide the correct probability, and show its derivation.

RESPONSE:

Please see OCA/USPS-T1-20.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

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August 2, 2004