

September 28, 2001

The Honorable John McHugh
2441 Rayburn House Office Building
Washington, DC 20515

Dear Congressman McHugh:

In accordance with your request dated July 17, 2001, the Commission has analyzed the effect on Postal Service finances of replacing the current terminal dues system with domestic postage rates. Subject to the caveats explained below, the Commission estimates that using domestic postage rates as a substitute for UPU terminal dues would reduce the contribution of international mail to the Postal Service's institutional costs by \$59.1 million.

Introduction. Because of a lack of direct data, the Commission assumes a certain distribution of outbound and inbound mail by weight interval. The Commission also had to make some assumptions about how myriad U.S. Postal Service domestic rates might apply to the composition of inbound mail and how the domestic rates of foreign postal administrations (FPAs) might apply to U.S. outbound mail. These assumptions are discussed at the end of this document. This analysis could be improved with additional data. Nevertheless, the Commission believes the analysis is a useful approximation of the effect of changing the terminal dues system to a domestic postage-based system. In the sections below, the Commission discusses the results, how the assumptions affect their reliability, and potential future studies.

Consistent with your request, the analysis is separated between industrial countries (ICs) and developing countries (DCs), and excludes Canada. The analysis does not include global priority mail, parcels, or express mail because they are not incorporated into the terminal dues system.

In this analysis, the Commission has applied full First-Class postage rates to all outbound and inbound letters and cards (“LC” mail in UPU terminology) and printed matter (“AO” mail). Postal administrations do not generally agree on the appropriate relationship between terminal dues and domestic postage. Postal administrations that have aligned terminal dues with domestic postage rates have generally charged 70 or 80 percent of domestic rates because inbound mail avoids collection costs and some processing costs incurred by domestic mail. Moreover, it is possible that application of First Class postage rates to AO mail overstates the actual domestic postage that would be charged to such mail. For these reasons, the Commission’s analysis may overstate the magnitude of the difference between existing terminal dues and domestic postage-based terminal dues.

Effect on International Mail Costs and Revenues. Table 1 shows the amount of terminal dues actually paid (Line 1) and received (Line 2) during FY 2000. For comparison, it also contains the same data adjusted to reflect a domestic postage-based terminal dues system. Line 3 of the table shows that in FY 2000, the Postal Service paid out \$113.8 million more than it collected from foreign postal administrations (FPAs). Of this amount, FPAs in developing countries (DCs) received \$69.1 million more than they paid to the U.S. Postal Service and FPAs in industrial countries (ICs) received \$44.7 million more than they paid. It should be noted that outbound mail is different in volume and composition from the inbound mail so that the difference between terminal dues paid and received is merely an accounting balance and not a “loss” in the usual sense.

TABLE 1

**EFFECT OF REPLACING TERMINAL DUES WITH DOMESTIC POSTAGE
ON THE FINANCES OF INDUSTRIALIZED AND DEVELOPING COUNTRIES
AND THE POSTAL SERVICE
(Amounts in Thousands)**

	Industrialized Countries (1)	Developing Countries (2)	Total (3)
FY 2000 Actual Terminal Dues System 1/			
1 Payments from the U.S. to FPAs for the Delivery of US Outbound mail	2/	6/	
2 FPA Payments to the U.S. for the Delivery of Foreign Origin Inbound Mail	3/	7/	
3 U.S. Postal Service Net Terminal Dues (L.1 - L.2)	(\$44,672)	(\$69,138)	(\$113,810)
FY 2000 Adjusted to Reflect Terminal Dues System Based on Domestic Postage			
4 Payments from the U.S. to FPAs for the Delivery of US Outbound mail	4/	8/	
5 FPA Payments to the U.S. for the Delivery of Foreign Origin Inbound Mail	5/	9/	
6 U.S. Postal Service Net Terminal Dues (L.4 - L.5)	(\$153,922)	(\$18,979)	(\$172,900)
7 Estimated Change in U.S. Postal Service Net Terminal Dues (L.6 - L.3)	(\$109,249)	\$50,159	(\$59,090)

FPA = Foreign Postal Administration

1/ FY 2000 terminal dues essentially reflect the current terminal dues system, except for the 7.5 % surcharge on payments to DCs that go into a common pool to be used by DCs for improvements to quality of service.

2/ WT 13, Col. 4, L.1.

3/ WT 11, Col. 1, L. 1 / 1000.

4/ WT 13, Col.3, L. 1.

5/ WT 11, Col. 1, L. 2 / 1000.

6/ WT 13, Col.4, L. 4.

7/ WT 11, Col. 2, L. 1 / 1000.

8/ WT 13, Col. 3, L. 4.

9/ WT 11, Col, 2, L. 2 / 1000

If the U.S. Postal Service and FPAs were to pay each other terminal dues applying full First Class mail rates to all LC and AO mail exchanged, the U.S. Postal Service would both pay and receive substantially larger sums. It should be noted, however, that the Commission has not analyzed the impact of price elasticity on the volumes of inbound and outbound mail. Table 1, line 6 shows

that under a domestic postage-based system, the U.S. Postal Service would have paid \$172.9 million more in FY 2000 than it collected, an increase of \$59.1 million (See line 7, column 3). Table 1 further shows that the total payments to industrialized countries would increase from \$ million to \$ million, a 118 percent increase (In column 1, compare line 1 to line 4). IC payments to the U.S. Postal Service would increase from \$ million to \$ million. (In column 1, compare line 2 and line 5). The balance of outbound and inbound accounts would change from -\$44.7 million to -\$153.9 million, implying an increase of \$109.2 million in international mail expenses (See column 1, lines 3, 6, and 7).

and combined would account for percent of the increase in the IC terminal dues net balance. would account for \$ million and would account for \$ million. This is due partly to the relatively high domestic rates for these two countries compared to U.S. domestic rates and partly to the disparity in the mail volumes exchanged between the U.S. and these two countries. and are among the three largest recipients of U.S. outbound mail, the third being . U.S. outbound mail to and exceeds the inbound mail from each of those countries by about a -to-one ratio. Thus, the imbalance in the volume of mail exchanged magnifies the effect of the relatively higher rates in these countries. actually sent more mail to the U.S. than it received.

Basing terminal dues on domestic postage would have the opposite effect on the exchange of mail with developing countries. Table 1 shows that the U.S. Postal Service's payments to DCs would increase from \$ million to \$ million (In column 2, compare line 1 to line 4), while DC payments to the U.S. Postal Service would increase from \$ million to \$ million (In column 2, compare line 2 to line 5). Thus, the expenses associated with the exchange of international mail to and from DCs would decrease by about \$50.2 million under a domestic postage-based terminal dues system (See column 2, line 7).

Overall, considering both the negative effect on expenses associated with the exchange of mail to the ICs and the positive effect on expenses associated with the exchange of mail to DCs, the implication of this analysis is that a switch from the terminal dues system in effect in FY 2000 to a domestic postage-based system would have a negative effect on the Postal Service of about \$59.1 million (Column 3, line 7). This amount represents 7.4 percent of the revenues raised from international postage rates applicable to LC and AO mail dispatched to foreign postal administrations (excluding Canada). This result is valid to the extent that the assumptions concerning the weight profile of the mail, and the applicability of First-Class rates to such mail, are valid.

In addition it should be noted that the terminal dues changed on January 1, 2001. The terminal dues that the U.S. Postal Service paid to ICs and collected from ICs during FY 2000 essentially equal the terminal dues in effect on January 1, 2001. However, the terminal dues between ICs will increase gradually over a three-year period, implying different results for subsequent periods. Another change beginning on January 1, 2001 is a new 7.5 percent surcharge on payments to DCs by ICs. The monies generated by the surcharge flow into a common pool to be parceled out to DCs by the UPU for quality of service improvements. The Commission chose the actual FY 2000 results as a convenient benchmark for measuring the effect of a domestic postage-based terminal dues system. For this reason, FY 2000 actual results were not restated to reflect the effect of the surcharge. However, the effect is relatively easy to calculate.

The 7.5 percent surcharge would have added \$ million to the FY 2000 terminal dues cost ($7.5\% \times \$$ million) in Table 1, line 1, column 2 and column 3. This would also increase line 3, columns 2 and 3 by \$ million. Thus, the U.S. Postal Service's FY 2000 net terminal dues shown at line 3, column 3 would increase by \$ million from \$ to \$. Since the surcharge would not apply in the "domestic postage" scenario, none of the figures in lines 5 to 7 would change. Table 1, line 7, column 3 shows the difference between the U.S. Postal Service's actual net terminal dues in FY 2000

(-\$113.8 million) and if the terminal dues in FY 2000 had been based on domestic postage (-\$172.9 million). The difference is -\$59.1 million. Since the 7.5 percent surcharge on DC payments would have decreased the FY 2000 net terminal dues to -\$, this also would reduce the net balance under a domestic postage-based system from -\$59.1 million (-\$172.9 minus -\$113.8) to -\$ million (-\$172.9 minus - \$).

Effect on Cost Coverage and Institutional Cost Contribution. Table 2 below displays the revenue, attributable cost, contribution to institutional cost, and cost coverage for (1) actual FY 2000 and (2) FY 2000 adjusted to reflect a domestic postage-based payment system for the exchange of mail among countries. It should be noted that Table 2 includes the revenues and attributable costs for the volume of mail exchanged between the U.S. Postal Service and Canada even though this study did not consider a change in terminal dues rates with Canada, and Canada is the largest market for U.S. International mail.

TABLE 2

**EFFECT OF REPLACING TERMINAL DUES WITH DOMESTIC POSTAGE
ON INTERNATIONAL MAIL'S CONTRIBUTION TO INSTITUTIONAL COST
AND COST COVERAGE
(Amounts in Millions)**

	FY 2000 ^{1/}			
	Outbound (1)	Inbound (2)	Incremental Cost (3)	Total (4)=(1)+(2)+(3)
1 Revenue	\$1,486	\$291	-	\$1,777
2 Attributable Cost	\$1,030	\$322	\$50	\$1,402
3 Contribution to Institutional Cost	\$456	(\$31)	(\$50)	\$375
4 Cost Coverage	144.3%	90.4%	-	126.7%
	FY 2000 Assuming Domestic Postage Replaces Current Terminal Dues ^{2/}			
	Outbound (5)	Inbound (6)	Incremental Cost (7)	Total (8)=(5)+(6)+(7)
5 Revenue	\$1,486		^{4/} -	
6 Attributable Cost		^{3/} \$322	\$50	
7 Contribution to Institutional Cost			(\$50)	\$316
8 <u>Cost Coverage</u>			-	<u>119.8%</u>

^{1/} Postal rate Commission Report to Congress on FY 2000 International Volumes, Costs, and Revenues, June 29, 2001, p.42, Table IV-1, Lines 3, 6, or 9, as applicable.

^{2/} For Columns 5 through 8, the only amounts that change in lines 1 & 2, compared to columns 1 through 4, are outbound attributable cost and inbound revenue.

Contribution and cost coverage change to reflect those differences.

^{3/} Col. 1, L. 2 + WT 13, Col. 5, L.1 / 1000 + WT 13, Col. 5, L.4 / 1000

^{4/} Col. 2, L.1 + Col. 3, L. 3/ 1,000,000

Table 2, line 3 shows that in FY 2000, outbound mail had a contribution to institutional costs of \$456 million. The corresponding amount for inbound mail was a negative \$31 million. It should be noted that this raises an important policy issue. Inbound mail could be viewed as a subclass of mail. By law, subclasses of domestic mail must produce revenues equal to or exceeding attributable costs.

International mail as a whole produced a contribution of \$375 million. Lines 5 through 8 show the effect of changing the method of payment for the exchange of LC/AO mail between the U.S. and all other FPAs. Changing the

terminal dues system affects the U.S. Postal Service's inbound revenues and its outbound attributable costs. Thus comparing line 1, column 2 to line 5, column 6, shows that inbound revenues increased from \$291 million to \$ million, while comparing line 2, column 1 to line 6, column 5 shows that attributable costs increased from \$1,030 million to \$ million. The net effect on the U.S. Postal Service's international mail finances is to reduce the contribution to institutional costs from \$375 million to \$316 million, a reduction of \$59 million. This amount reflects the net increase in the terminal dues net balance that the U.S. Postal Service would experience under a domestic postage-based system, as expected (See table 1, Column 3, Line 7). It should be noted that had the 7.5 percent surcharge on DC terminal dues been in effect in FY 2000, the contribution under the current terminal dues system would have been \$ million lower and the reduction in contribution from shifting to a domestic postage-based system would be \$ million compared to \$59 million above.

The cost coverage for U.S. outbound mail, without considering the 7.5 percent surcharge, would be reduced from 144.3 percent to percent and the cost coverage for inbound mail would increase from 90.4 percent to percent. Combining outbound and inbound mail, and including incremental costs would result in an overall cost coverage of 119.8 percent compared to the FY 2000 cost coverage of 126.7 percent.

If the U.S. Postal Service wanted to recover the \$59 million in lost contribution, it could increase the rates on outbound LC/AO mail, excluding outbound rates to Canada, by 7.5 percent. Alternatively, if it wanted to maintain the FY 2000 overall cost coverage of 126.7 percent, the U.S. Postal Service could increase those same rates by at least 13.9 percent. There are, of course, other contribution or cost coverage goals that could be selected.

Reliability of the Analysis. There are four critical inputs to this analysis: (1) the distribution of outbound mail by weight interval, (2) the distribution of inbound mail by weight interval, (3) U.S. Postal Service domestic postage rates, and (4) FPA domestic postage rates.

The Distribution of Outbound Mail by Weight Interval. Like the rates of the U.S. Postal Service, the domestic postage rates of FPAs vary by weight interval. Thus, the analysis requires a distribution of outbound mail by weight interval. As part of its annual submission of data and workpapers to the Commission to support the Commission's Report to Congress on International Mail, the Postal Service provided the FY 2000 billing determinant data for outbound mail. This data include volumes by the weight intervals associated with the U.S. Postal Service's rates for outbound international mail. Because the data are not maintained by individual country, except for Canada and Mexico, it was not possible to develop a weight interval distribution for outbound mail unique to each destination FPA. The Commission, therefore, assumed that the weight interval distribution for all outbound mail sent to all FPAs, excluding Canada, was a reasonable proxy for the weight interval distribution for mail sent to each FPA. This distribution is applied to the actual number of pieces sent to each country in FY 2000. Thus, distortion could enter the analysis of U.S. outbound mail if there are differences between the proxy distribution and the actual distribution. The Commission believes it unlikely that this would have a meaningful impact on the calculation of terminal dues based on FPA domestic rates.

The Distribution of Inbound Mail by Weight Interval. The analysis also requires a distribution of piece volumes by weight interval for inbound mail. The Commission, by a letter to the Postmaster General, requested this distribution from the Postal Service. The Postal Service responded that the information does not exist. However the Postal Service did provide as much detail as is collected - a volume distribution by transportation mode and shape for sixty individual countries.

In the absence of data showing the weight distribution of inbound mail, the Commission employed, as a proxy distribution, data developed by European postal administrations in the course of preparing a new terminal dues system. The European system, called REIMS II, relates terminal dues to domestic postage.

This distribution represents the aggregate distribution for the REIMS II countries. The REIMS II countries are all industrial countries, so the distribution is likely a reasonable approximation for mail received by the U.S. Postal Service from industrial countries.

Developing a distribution for inbound mail from DCs is more problematic. The Commission was not able to obtain any data on developing countries. Generally, LC mail is lighter than AO mail. Further, studies by the Universal Postal Union indicate that the average weight for each shape (envelope, flat, packet) of mail sent from DCs to ICs is 10 to 30 percent less than the average weight of mail from ICs to ICs. Hence, it appears likely that the proportion of LC to AO mail is less for inbound mail than for outbound. In the absence of specific data, however, the Commission assumed that the REIMS II data would be a reasonable proxy for DCs also. This assumption seems likely to result in an overstatement of the domestic postage that would be collected on inbound mail. The magnitude of the overstatement cannot be estimated with confidence.

As noted, the REIMS II data was separated by shape: letters, flats, and small packets. Because the U.S. Postal Service's available inbound LC/AO volume data is reported separately for surface and air, the Commission applied two separate REIMS II distributions. For Air LC/AO mail, the distribution for all shapes was used because inbound Air LC/AO contains all shapes. For Surface LC/AO mail, the distribution for flats and small packets combined was used for two reasons. First, the volume of inbound surface letters is negligible. Second, the average weight per piece was 6.9 ounces in FY 2000. This implies that the surface mailstream is composed of flats and small packets. These distribution keys appear to reasonably reflect the distribution of inbound of mail, subject to the caveats above.

The REIMS II data did not identify the volume of cards. Because there are inbound cards, the Commission assumed that the relationship between U.S. outbound cards and the total volume of outbound Air LC/AO mail applies to inbound mail Air LC/AO. The reasonableness of the assumption is unknown.

The Selection of U.S. Postal Service Domestic Rates. Based on field observations and some discussions with U.S. Postal Service field personnel, the Commission determined that no inbound mail would be likely to meet the eligibility requirements for domestic bulk business rates. Thus any inbound mail piece would pay the First-Class rate, or the Priority Mail rate for items weighing more than 13 ounces. Although inbound books and records might be eligible for the Media Mail rates, the amount of this mail is minimal. For these reasons, the Commission has applied the U.S. Postal Service's domestic rates for First-Class and Priority Mail to the inbound mail distribution described above. Of course, if the U.S. Postal Service made available domestic bulk business rates to FPAs, FPAs might prepare inbound mail so that it would meet the eligibility requirements. The Commission's analysis does not take into account this possibility. However, because the discounts for bulk mail are cost based, any lost revenues should be offset by corresponding reduced costs.

The Selection of FPA Domestic Rates. To obtain FPA domestic rates, the Commission used the available FPA web sites. The Commission identified 21 sites with rates for industrial countries and eight sites with rates for developing countries. Because U.S. Postal Service First-Class/Priority Rates were applied to inbound mail, the Commission tried to identify the corresponding rates for the FPAs. Identifying these rates was problematic because many countries do not have First-Class rates for heavy mail. U.S. outbound LC/AO mail weighs up to 22 pounds. To fill the gap in missing FPA rates, the Commission calculated an extra ounce rate between the two highest weight intervals for which there were rates. (The difference between the rates divided by the number of grams in the weight interval). The proportion of volume covered by this extrapolation procedure ranges from 0.1 percent to seven percent. Although this approach seems reasonable, there is a potential for substantial overstatement or understatement because the amount of estimated domestic postage-based terminal dues calculated under this procedure represents 4 percent of total IC payments to FPAs and 14 percent of total DC payments. The potential distortion is unquantifiable at this time.

The Commission also assumed that the average revenue per piece for the 21 industrial countries whose rates were available applied to the remaining 5 ICs whose rates were not available. Similarly, the Commission assumed that the average revenue per piece for the 8 developing countries with available rates applied to the remaining 203 DCs without available rates. The latter assumption is probably weak, but there is currently no way to improve upon it.

Potential Improvements to the Study. In this study, the Commission has sought to provide its best estimates within the time provided. The analysis so far suggests the following possibilities for further study:

Industrialized countries. First, it would be desirable to develop a separate estimate of the international mail revenues associated with outbound IC mail. This would allow an estimate of the effect on international postage rates of shifting to domestic postage-based terminal dues in the exchange of mail between industrialized countries. The use of domestic postage-based terminal dues appears most feasible among industrialized countries.

Second, it would be informative to divide the IC mail exchange into LC and AO components. LC mail is the most profitable mail and the mail to which First-Class domestic postage rates are most likely to be applicable in the future. It seems likely that U.S. and foreign mailers would prepare AO mail so that it would qualify for lower domestic rates applicable to printed matter and/or lower priority delivery. Hence, a separate estimate of the financial effects of shifting from terminal dues to domestic postage rates for LC mail is likely to identify the most significant, persistent, and predictable effects of a shift to domestic postage-based terminal dues. To divide IC mail into LC and AO components, we need further data from the Postal Service or to make additional assumptions.

Third, our estimate of the revenue from inbound IC mail could be improved by a specific study of the weight distribution of inbound mail received from IC FPAs, by class of mail. Our use of REIMS II data as a proxy for this distribution appears plausible, but no more.

Fourth, we need to obtain the domestic postage rates for New Zealand and Israel, the only significant outbound IC mail flows omitted from this analysis.

Developing countries. The first improvement needed in regard to DC mail is a specific study providing the weight distribution of inbound mail received from DC FPAs, by class of mail. This would allow a plausible estimate of the revenue the Postal Service would receive by applying domestic postage rates to such mail. Our use of REIMS II data as a proxy for this distribution was necessary, but not realistic.

Second, further work would likely allow us to develop, for a higher percentage of outbound DC mail, (1) estimates of the domestic postage costs that would be incurred if the Postal Service paid domestic postage instead of terminal dues and, (2) the outbound mail revenues associated with such mail flows. In this effort, we would anticipate focusing on the most significant postal destinations among the DCs rather than trying to analyze each and every destinating DC.

The Commission is attaching a disk with the electronic spreadsheets and a hard copy explanation of the procedures used. The U.S. Postal Service considers the terminal dues amounts contained in Table 1 commercially sensitive. The U.S. Postal Service also considers the data in the electronic spreadsheets commercially sensitive because they contain country-specific data. If you have any questions, please contact Bob Cohen (202-789-6850) or Charles Robinson (202-789-6854).

With best wishes,

Sincerely,

George Omas
Vice Chairman