Postal Regulatory Commission
Submitted 1/30/2009 4:30:06 PM
Filing ID: 62032
Accepted 2/2/2009

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Before Commissioners:

Dan G. Blair, Chairman;
Nanci E. Langley, Vice Chairman;
Mark Acton
Ruth Y. Goldway; and
Tony L. Hammond

Annual Compliance Report, 2008

Docket No. ACR2008

PUBLIC REPRESENTATIVE COMMENTS

January 30, 2009

Table of Contents

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Before Commissioners: Dan G. Blair, Chairman;
Nanci E. Langley, Vice Chairman;
Mark Acton
Ruth Y. Goldway; and
Tony L. Hammond

Annual Compliance Report, 2008 Docket No. ACR2008

PUBLIC REPRESENTATIVE COMMENTS

January 30, 2009

I. THE POSTAL SERVICE'S DILEMMA

During the last half of FY 2008, the American economy generally, and the Postal Service in particular, began to experience unprecedented losses of volume and revenue. The Postal Service's losses accelerated in Quarter 1 of FY 2009. These adverse volume trends began well before 2009, and, according to a consensus in the postal community, reflect a long-term structural change in postal markets as the traditional functions of First-Class Mail for correspondence, financial statements, and bill payments are transferred to the internet.

This has raised the issue of the financial sustainability of the Postal Service over the near and medium term. The problem was highlighted by the testimony of the Postmaster General on January 28, 2009, before the Senate Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security. There the Postmaster General announced preliminary estimates of FY 2009 Quarter 1 year-over-year volume declines of 6 percent for First-Class Mail and 11

percent for Standard Mail. If current trends continue, he testified, the Postal Service projects losses of 20 billion pieces, and $6 billion for FY 2009. This raises the risk that the Postal Service will soon reach the limit placed by the Postal Accountability and Enhancement Act (PAEA) on its capacity to borrow money to cover the expected deficit.

At the hearing, the Postmaster General asked Congress to suspend its obligation to pre-fund future health care premiums for its workforce. He also asked Congress to allow the Postal Service to cut its obligation to deliver mail from 6 to 5 days per week. In considering the Postmaster General's requests, the Senators emphasized that neither remedy was likely to work if the Postal Service did not change its business model to reflect the recent structural changes in the market for postal services. Senators and witnesses at the hearing also emphasized that the Postal Service's recent penchant for treating its financial information as confidential must be reversed because the current economic crisis requires that the public have greater, not less, insight into both the dimensions of, and the likely causes of, the financial predicament in which the Postal Service finds itself. In particular, the Chairman of the Postal Regulatory Commission urged the Postal Service to resume disclosure of current financial data (monthly trial balances), and projections of its financial condition (such as its integrated financial plan).

Responding to these public policy needs in the context of the annual compliance review, the Public Representative offers the following non-technical examination of the relationship between recent trends in the Postal Service's finances and the risk that certain mail classes and products will not comply with the cost coverage requirements of the PAEA.

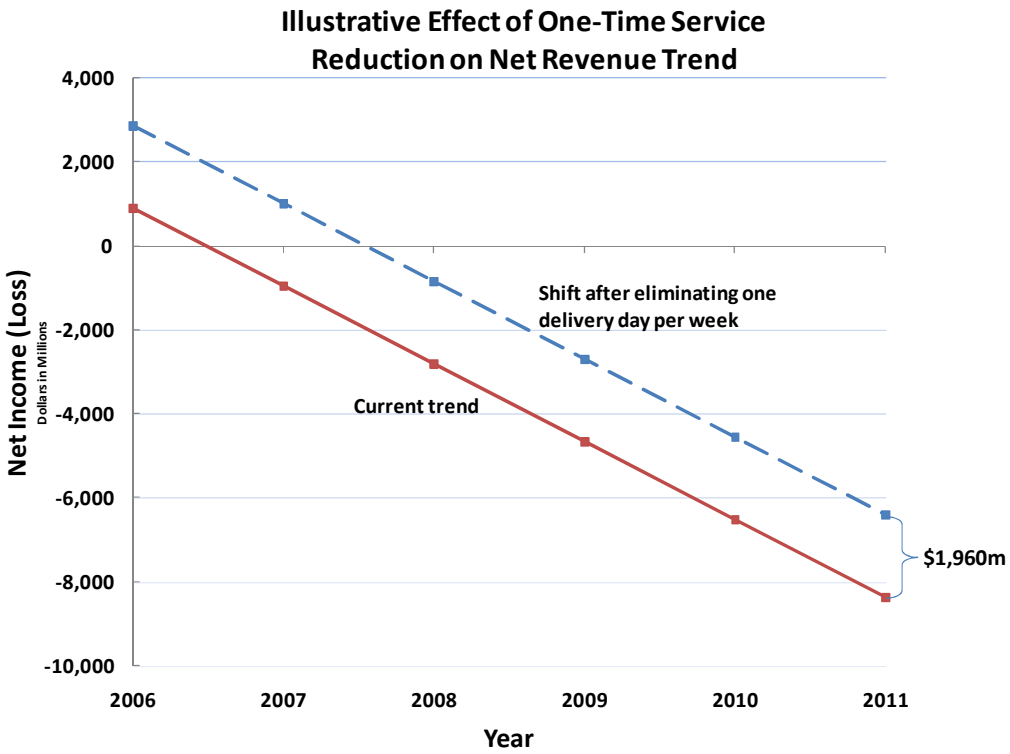
The recent trends of declining postal volumes, together with still-positive labor productivity, have been widely recognized by the postal community. What is less widely recognized is that in the face of rapidly declining volume, variable costs per workhour, and variable costs per piece have been steadily and rapidly rising. With variable costs per piece generally rising faster than inflation, prospects are that products which are currently near the edge in terms of recovering their attributable costs are soon likely to

fall into non-compliance with the fundamental objective of the PAEA that market dominant mail classes and competitive products remain in the black. The trends identified mean that rates for a number of market dominant classes will soon butt up against their price cap. If these trends continue, competitive products as a group will soon fall below the minimum institutional cost contribution of 5.5 percent established by the Commission. *See* 39 U.S.C. §§ 3622(c)(2) and 3633(a)(3).

It has become conventional wisdom that the way out of the Postal Service's current predicament is to increase its volume. The analysis below demonstrates that this will not, in fact, solve the problem. Instead, only quick and bold action to control unit variable costs will halt the Postal Service's rapid slide into insolvency.

The graphs below illustrate the likely effect on the Postal Service's solvency of making a concerted effort to grow volume, or ordering one-time reductions in service.

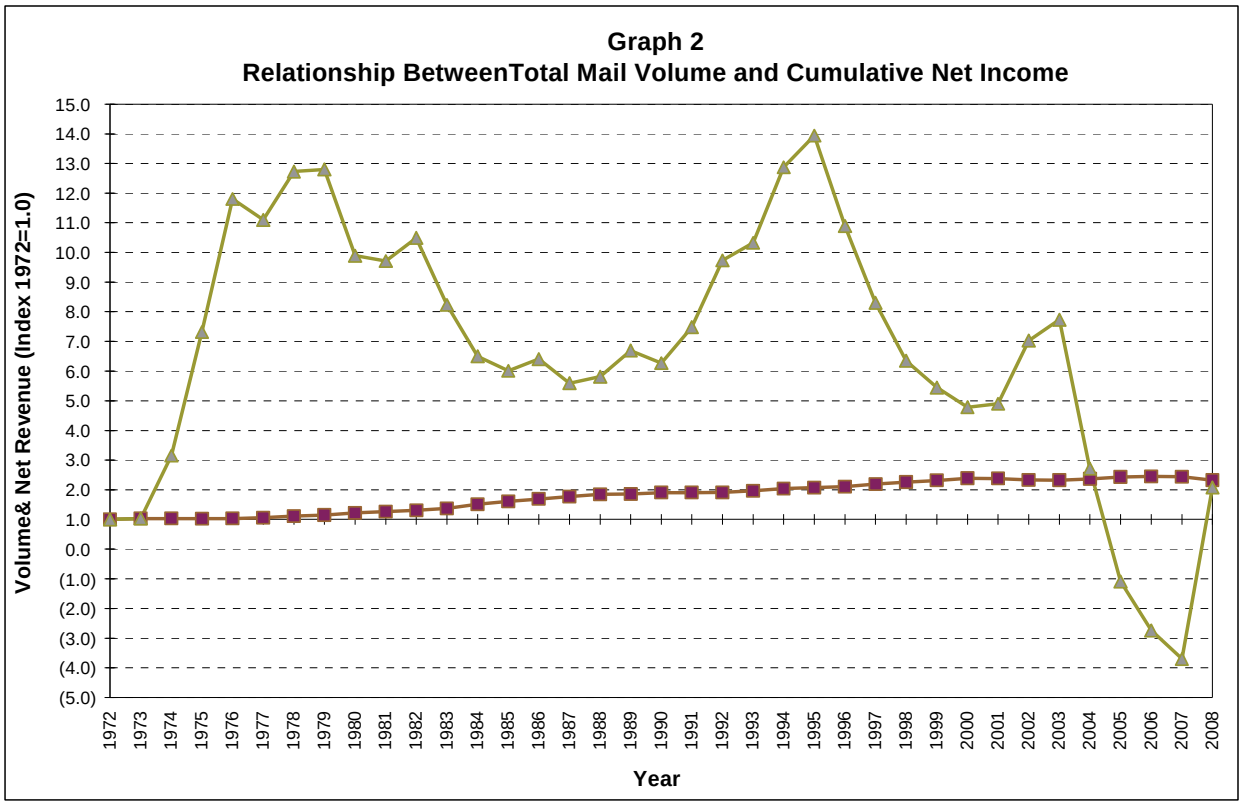
Graph 1



Graph 1 displays indexed annual volumes and indexed cumulative net revenue for the Postal Service over the last 35 years. It shows the almost complete lack of relationship between trends in volume and the Postal Service's net income. It corroborates the clear implication of the Public Representative's analysis that if unit variable cost and revenue trends for the period FY 2006 through FY 2008 continue while volumes are restored to pre-recession levels.[1] The graph shows that if unit costs continue to grow, restoring volume (even increasing volume) will not stem the losses that the system would incur. Indeed, if unit costs continue to grow faster than unit revenue, adding volume would only deepen the resulting deficit.

[1] It is probably unrealistic to expect that mail volume can be restored to pre-recession levels. The point of the graph is to illustrate that even under this "best case" scenario, restored volumes would be unable to arrest the Postal Service's slide into insolvency if unit variable cost trends are not reversed.

Graph 2



Graph 2 shows the likely effect on the Postal Service's net revenue if unit cost, unit revenue, and volume trends for the period FY 2006 through FY 2008 continue after an ad hoc reduction in service, illustrated by reducing weekly delivery by 1 day as proposed by the Postmaster General. Under this scenario, the net revenue function would shift upward by nearly $2 billion, but this benefit would soon be more than offset by the losses that would continue to mount as unit variable costs continue to rise faster than unit revenue.

The urgent need to reverse trends in unit variable costs should prompt the Postal Service to consider capturing efficiencies that have not, in the past, been made priorities. An efficiency that is relatively easy to capture involves the Postal Service's general approach to rate design. The vast majority of postal revenue is earned through discounted rates. The process of designing those discounts, however, seems

increasingly to emphasize marketing goals at the expense of net revenue calculations. A comprehensive examination of the passthroughs that result from the Postal Service's rate design decisions result in discounts that bear an almost arbitrary relationship to the costs avoided by worksharing or the inherent cost differences between mail characteristics (primarily shape) that occur in mail that receive comparable levels of service. Passthroughs observed within a particular class of service fluctuate widely above and below the relevant avoided cost. The same disregard for net revenue implications can be seen even within a single rate category of a single product.[2] Aligning discounted rates for the Postal Service's various services with underlying cost differences could potentially save hundreds of millions, if not billions of dollars in misallocated resources made necessary by rates that send arbitrary price signals to the marketplace. In the process of moving to an economically rational discount structure, the Postal Service would bring itself into compliance with not just the letter, but the spirit of section 3622(e) of the PAEA, and section 3010.14(b)(6) of the Commission's rules, which set alignment of workshare discounts with avoided costs as a standard to be deviated from only temporarily.

Major cost efficiencies could be captured by the Postal Service with respect to its largest cost component—carrier costs. The contract model of carrier compensation that prevails in the "rural carrier" cost system is universally regarded as a more cost effective system. In the rural system, carriers are compensated standard amounts for the number of pieces of mail they sort and deliver of various shapes, the number of delivery addresses served, and the number of miles driven. The terms are incorporated into a contract. How to accomplish the task is left up to the initiative of the carrier. Under self-supervision, rural carriers generally perform more of these "work units" more quickly and more cheaply than their "city delivery carrier" counterparts.[3] Switching all carriers to the

[2] For example, by the Postal Service's calculations, passthroughs vary from 51 percent to 524 percent within automation rate Standard Mail flats.

3 The self-supervision aspect of the rural carrier compensation model is so appealing to unionized carriers that it is entirely possible that they would cooperate in the reform suggested here.

rural carrier contract compensation model has the potential to save the Postal Service an enormous amount of labor costs in its largest labor component.

Very substantial savings could also be captured by selling most of the Postal Service's tens of thousands of retail offices and relocating retail operations to rented space in private retail facilities. The window service function could be contracted out through a bidding process. A "work unit" model similar to the rural carrier model might succeed there as well. Areas of the country too remote to access suitable private retail space or attract bidders (which should be a very small percentage of the total in dollar terms) could still be operated by the Postal Service itself. Although putting the retail function up for bid is likely to raise politically sensitive issues of community identity, it would be preferable to the alternative, if a publicly-owned postal network that remains obligated to provide universal service in various forms could not otherwise survive.

II. RELATIONSHIP BETWEEN NEGATIVE FINANCIAL TRENDS AND THE RISK OF NON-COMPLIANCE

Major cost reduction initiatives such those described above need to be coupled with more general cost containment measures that place the Postal Service on a path that is financially sustainable in the long run. Ideally, major cost reduction initiatives, which have the effect of shifting the deficit trend down as shown in Figure 1, also need to be combined with measures that reverse the trend of increasing unit variable costs so that breakeven is eventually reached, and surpluses follow. This will require the rate of unit cost growth to be brought down below the rate of inflation.

It should be abundantly clear to all that the Postal Service's current path is unsustainable. Not only does this path enlarge the scope of non-compliance because of failure of market dominant classes and competitive products to cover their attributable costs, it threatens the existence of the Postal Service in its current form. In other words, compliance with relevant sections of the PAEA go hand in hand. If each mail class contributes positively to institutional costs, and if the growth of institutional costs is moderated sufficiently, financial viability is assured. Accordingly in order to assess the

Postal Service's outlook with respect to class-level compliance and financial viability in general, we developed aggregated and disaggregated trend models which "roll forward" trends present in the Postal Service's financial data. One of the key inputs to the model is the rate of growth in unit costs. All our results show that if unit costs grow faster than inflation, net revenues decline, immediately or eventually, and a deficit will result.

A key assumption that underlies both models is that real demand for postal services in aggregate and at the class level remain unaffected by rate increases because these are constrained to the rate of inflation. In other words, mailers are under no money "illusion." Volumes change only according to the underlying time trend. The underlying time trend, of course is a proxy for effects from non-price sources which change with time.[4] Without question, a more realistic analysis would model activity at the product level, where price changes can deviate from the class-level cap imposed by the PAEA. At this level of analysis, demand for products would respond to real price changes (net of inflation) according to the appropriate demand elasticities. However, this more sophisticated modeling would still reflect the same underlying upward trend in the deficit that appears in our simpler trend models, if unit cost growth is not contained below the inflation rate. Though simple, our models are useful in illustrating the direction of change and the inevitability of the end result.

Before summarizing model results, we examine recent financial data below in aggregate, and at the class level. The actual models and more detailed results are presented in the Appendices 1 and 2. Table 1, below, summarizes the current predicament at the system level causing the upward trend in the deficit exhibited in Figure 1. Growth rates for aggregate volumes, operating expenses, and workhours from FY 2005 through FY 2008, collected from the three most recent Postal Service annual reports, are shown in the table.

Table 1, below, shows the amounts and growth rates for aggregate volumes, operating expenses, and workhours from FY 2005 through FY 2008, collected from the

[4] Obvious examples are the rates of change in GDP, retail sales, employment and other macro variables which capture the level of economic activity.

three most recent Postal Service annual reports. Figures and growth rates are also shown for three financial performance indicators: operating expenses per workhour, pieces per workhour, and expenses per piece.

Table 1								
USPS Aggregate Operating Statistics for FY 2005 through FY 2008								
Category	2005	2006	% ?	2007	% ?	2008	% ?	Avg %?
Volume (Million)	211,743	213,138	.7	212,234	(.4)	202,203	(4.5)	(1.4)
Expenses (Million)	68,281	71,681	5.0	80,105	11.8	77,738	(3.0)	4.6
Workhours (Million)	1,463	1,459	(.3)	1,423	(2.5)	1,373	(3.5)	(2.1)
Expenses/Workhours	46.7	49.1	5.3	56.3	14.6	56.6	.6	6.8
Pieces/Workhour	144.7	146.1	1.0	149.1	2.1	147.6	(1.0)	.7
Expenses/Piece	.322	.336	4.3	.377	12.2	.384	1.6	6.0

The downward trend in workhours and the related positive productivity growth rate, is well known. What has received less attention is the conflicting and worrisome upward trend in operating expenses per piece. The economic slowdown clearly affected the trend favorably by reducing the previous year growth rate of 12.2 percent to 1.6 percent. However, the average growth rate for the last 3 years still remains at 6.0 percent.

What is clear from the data is that over this period, the average rate of growth in expenses per workhour has far outstripped the average growth in pieces per workhour.[5] This imbalance has caused expenses per piece to climb steadily (when compared to expenses per workhour). More importantly, the 6.0 average growth rate for expenses per piece appears inconsistent with the current price cap

[5] The 1.0 percent decline in average volume per workhour in FY 2008 indicated in Table 1 is consistent with the Total Factor Productivity (TFP) decline of 0.5 percent reported in the FY 2008 Annual Compliance Report, December 29, 2008 (FY 2008 ACR). However, total factor productivity is a broader measure incorporating non-labor resource usage and added workload from network expansion (growth in possible deliveries).

limitation. To eventually eliminate the current operating deficit of $2.806 billion, the growth rate in average revenues per piece would need to exceed this level, a highly improbable event given that the price cap adustment is limited to the rate of inflation. As a consequence, greater cost control measures would be necessary if the Postal Service is to remain financially viable. In particular, the productivity rate must increase, the growth rate in expenses per workhour must decrease, or some combination of the two must occur to keep the growth in unit costs below the expected inflation rate.

A. The unfavorable unit cost/unit revenue trend at the system level is reflected at the mail class level.

Periodicals. The present unit cost/unit revenue trend at the system level is reflected at the mail class level with the current Periodicals' deficit. The contributions of all other classes remained positive in FY 2008. However, because the aggregate per-piece expenses noted above are just volume-weighted averages of the same class-level data, the former merely reflects movements in the latter. Therefore, it would appear that positive contributions for the other classes are unsustainable in the long term as well. In other words, those contributions that are now declining will eventually turn negative, and any that have been increasing should eventually decline.

As in FY 2007, the Periodicals class did not comply in FY 2008 with section 3622(c)(2) of the PAEA requiring revenues at the class level to cover atttributable costs. According to the latest Cost and Revenue Analysis (CRA), Periodicals revenues and variable costs in FY 2008 were $2.294.9 million and $2.732.1 million, respectively. Therefore, not counting a small amount of product-specific costs,[6] the present deficit

[6] Prior to FY 2008, the Postal Service included product-specific fixed costs in institutional costs. Therefore, for modeling purposes, these costs were kept in the institutional category, since conceptually all institutional costs are fixed and non-varying with volume. As an adjunct, we report only volume-variable costs at the class level, which comprise an overwhelming majority of attributable costs. In FY 2008, volume-variable costs represented 99.8 percent attributable costs at the system level.

stands at $437.3 million or 19.1 percent of revenues. Since this amount is substantial in relation to Periodicals' revenues, there is reason to be concerned about how long it might take Periodicals to come into compliance, even under normal economic circumstances.

In response to last year's Annual Compliance Report, the Commission stated that "it is most appropriate to allow the recently adopted strategy for overcoming the Periodicals revenue-cost relationship a reasonable interval of time to succeed." Annual Compliance Determination, March 27, 2008, at 70 (FY 2008 ACD). A "wait and see" attitude would be prudent if revenue and cost trends were headed in the in the right direction. Postal Service markets and finances are deteriorating in the near term. Indeed, in its latest annual report, the Postal Service projects a volume decrease of 3 to 4 percent accompanying a revenue increase of 1 to 2 percent. Despite forecasting a volume decline, the Postal Service projects that total expenses will increase by 1 to 2 percent. Annual Report at 44. Under these circumstances, unless there is a change in direction with respect to variable costs, the non-compliance of Periodicals with section 3622)(c)(2) will only get worse.

Other mail classes. The current outlook for postal markets increases the risk that revenues for other mail classes will not cover their attributable costs. In particular, it appears that Package Services might well fail to cover attributable costs in FY 2009, in view of the razor thin contribution that this class is making to overhead (100.8 percent).

As described in the Public Representative's January 27, 2008, motion[7] the Postal Service's core costing materials have been needlessly hidden in a nonpublic annex. The resulting bar to public discussion of financial data for individual competitive products prevents the Public Representative from addressing the near-term outlook for compliance by individual competitive products with the positive contribution requirement of section 3633(a)(2) in any meaningful way. We have performed a cost coverage trend

[7] *See* Motion to Make Core Cost, Volume, and Revenue Materials Public, January 27, 2009.

analysis for individual competitive products, but may not publicly disclose it, given the current protected status of the Postal Service's core costing materials.

Section 3633(a)(3) requires competitive products in aggregate to make a minimum contribution to system institutional costs that the Commission determines to be appropriate. The minimum level set by the Commission's rules is 5.5 percent of system net revenue. In its FY 2008 ACR, the Postal Service provides a single group revenue figure for competitive products, and declares it to be greater than the 5.5 percent minimum level. FY 2008 ACR at 66. It says nothing about how it calculated the aggregate net revenue of competitive products.

The Public Representative, therefore, has made its own calculation, deriving it from individual competitive product figures in the Postal Service's nonpublic core costing materials. The Public Representative has also done a trend analysis of the net revenue contribution of competitive products. *See* Table 9. This analysis was derived from individual competitive product data as well, where possible. The analysis required adjustments to public class-level data for Package Services from prior years and adjustments to nonpublic data for International Mail from prior years. Because the Postal Service's core costing materials remain sealed, we may not publicly disclose this derivation. However, if the Public Representative's January 27, 2009 motion is granted, this derivation will be publicly provided. For the present, the ;public must take on faith both the Postal Service's and the Public Representative's calculation of the net revenue contribution of competitive products.

We note that even though institutional cost contributions remain positive for competitive products as a group, the current minimum group contribution of 5.5 percent set by the Commission will be at risk of violation if present trends continue. The FY 2008 institutional cost share of 5.7 percent, calculated by the Postal Service, is barely above this figure. FY 2008 ACR at 66. The current economic climate is likely to jeopardize the compliance of competitive products as a group with section 3633(a)(3). The Commission has already expressed similar concerns in its review of the Postal Service's proposed FY 2009 rates for competitive products. Docket No. CP2009-8,

Review of Notice Concerning Changes in Rates of General Applicability for Competitive Products, December 11, 2008, at 8.

With respect to Periodicals, however, non-compliance with section 3622(c)(2) is clear. The Commission has taken the prudent course of letting events unfold before initiating any remedial step to bring Periodicals into compliance. Yet, at the same time, it is also prudent to assess whether current trends point to a self-correcting result or whether remedial steps appear inevitable.

B. The Periodicals Class

1. General trends.

The predicament that the Periodicals class faces can be made clearer by presenting class-specific volume and cost data from the past several CRAs. Table 2 below shows Periodical volumes, volume variable costs, and unit attributable costs from FY 2005 through FY 2008. Percent Growth rates for each of these are also indicated.

Table 2								
Periodicals Statistics for FY 2005 through FY 2008								
Category	2005	2006	% Δ	2007	%?	2008	%?	Average %?
Volume (Million)	9,070.0	9,022.6	(.5)	8,795.8	(2.5)	8,605.2	(2.2)	(1.7)
Volume-Variable Costs (Million)	2,383.7	2,460.2	3.2	2,635.7	7.1	2,732.1	3.7	4.7
Unit Volume-Variable Costs	.263	.273	3.8	.300	9.9	.317	6.0	6.6

The growth trend in the unit volume variable costs of Periodicals follows the same general pattern exhibited for expenses per piece at the system level shown in Table 1, except that the year-to-year fluctuations are less pronounced. However, the average growth rate of 6.6 percent over the 3-year period is somewhat higher than the system level growth rate of 6.0 percent. Also, it appears that the long-term volume decline was not exacerbated by the economic downturn. The FY 2008 volume decline of 2.2 percent was slightly less than the decline for the previous year.

If we assume that the most recent inflation rate applicable to the price cap of 3.8 percent were to continue, the current revenue deficiency would continue to grow. However, at the same time, the growth in revenue deficiency would be contained, to some extent, by the declining volume trend. To illustrate the magnitude of the problem, assume that the current applicable inflation rate of 3.8 percent governs when the Postal Service files for new market dominant rates later this year, that Periodicals volume continues to decline at the average rate of 1.7 percent, and that unit volume variable costs increase at the average rate of 6.6 percent. Extrapolating these trends over the next five years produces the following estimates for Periodicals' revenue deficiencies over the next five years.

Table 3						
Projected Revenue Deficiency for Periodicals—FY 2009 to FY 2013						
Category	2008 Actual	2009	2010	2011	2012	2013
Average Rate	0.267	0.277	0.287	0.298	0.310	0.321
Unit Volume-Variable Costs	0.317	0.338	0.361	0.385	0.410	0.437
Unit Contribution	(0.51)	(.062)	(.073)	(.086)	(.100)	(.116)
Volume (Million)	8,605.2	8,458.9	8,315.1	8,173.8	8,034.8	7,898.2
Revenues (Million)	2,294.9	2,341.6	2,389.2	2,437.9	2,487.5	2,538.1
Volume-Variable Costs (Million)	2,732.1	2,862.9	3,000.0	3,143.6	3,294.2	3,451.9
Total Contribution (Million)	(437.3)	(521.4)	(610.8)	(705.8)	(806.7)	(913.8)

Table 3 shows that the per piece revenue deficiency increases and volume continues to decline slightly, but the total revenue deficiency still doubles at the end of 5 years.[8] It is significant that the volume level does not affect the break-even condition. This is determined solely by movement in year-to-year unit contributions, which, in turn, determined by the growth rate in unit volume variable costs and the 3.8 growth rate in average revenues. Therefore, in order to reverse the deficit trend under the price cap limitation, the Postal Service would need to curtail its unit volume variable growth rate significantly.

2. The effect of the unit volume variable cost growth rate on the Periodicals' deficit.

Appendix 2 presents a mathematical model of the contribution that the Periodicals class would generate in any given year if particular values for unit variable cost trends, volume trends, and inflation rates are supplied. Beginning average values for Periodicals rates, unit variable costs, and volumes are also required.

[8] The average price increase for FY 2009 is actually somewhat overstated under this set of assumptions. In actuality, it would be a volume-weighted average of the 2.9 percent increase that took effect in May of 2008 and the 3.8 percent increase that would take effect for the portion of the fiscal year remaining after the Postal Service proposes its new market dominant rates. Therefore, each year's deficit could be expected to be marginally higher.

This model can be used to estimate how many years would be required for the Periodicals subclass to make a positive contribution to overhead under certain assumptions. We evaluate a scenario in which the inflation rate is 3.8 percent (the most recent rate applicable to the price cap), a 6.6 percent average growth rate in Periodicals' unit variable costs, and an average annual volume loss of 1.7 percent. These figures are the average trends calculated for the years 2006-2008. FY 2008 values of 26.7 cents, 31.7 cents, and $8.605 billion are used for Periodicals average rate, average unit volume variable cost, and volume, respectively.

The model shows that for the Periodicals' deficit to begin to shrink in FY 2009, the average unit volume-variable cost would have to be held below 3.47 percent. If the FY 2008 unit cost growth of 1.8 percent were sustained over the long term, and rates were to rise 3.8 percent (the currently applicable cap rate) over the long term as well, the model shows that it would take Periodicals over 8 years to reach break even and come into compliance with section 3622(c)(2). To the extent that the annual growth in Periodicals' unit variable costs were to rise above 1.8 percent, the breakeven time would take longer.

As an alternative to our trend approach, three-year projections of the Postal Service's costs, volumes, and revenues, and cost coverages for individual products, and for the system as a whole, were produced by the Postal Service and made available to the public during rate cases conducted under the Postal Reorganization Act. Such financial forecasting is still an essential management tool, and the Postal Service continues to produce it for its own management needs. Neither the Commission, stakeholders, nor the public, however, is competent to evaluate the longer-term outlook for classes that are, or soon may be, out of compliance with section 3622(c)(2) unless such forecasts are available to them. Without financial forecasts, they are not able to make informed decisions about what remedial steps should be taken to bring such classes back into compliance, as is the Commission's duty under the PAEA. The Postal Service should be required to provide such forecasts either as part of the annual compliance report, or separately, but contemporaneously, so that the

forecast could be included in the evaluation of compliance issues in the Commission's annual compliance determination.

3. The current financial outlook.

As already indicated in Table 1, the trend for unit volume-variable costs to grow faster than inflation that plagues Periodicals is also observed at the system level. Therefore, the same result can be expected for Postal Service finances generally, unless the aggregate per-piece cost growth is greatly reduced. In short, the Postal Service's financial position is unsustainable if average unit cost growth continues to exceed the inflation rate. The current FY 2008 operating deficit of $2.806 billion cannot be eliminated, regardless of what happens to volume in the long or the short term, because the revenue deficiency on a per-piece basis would continue to widen under present trends.

The outlook would be radically improved if last year's per-piece cost growth of 1.6 percent were to continue. However, in its FY 2008 ACR, the Postal Service forecasts that total operating expenses will increase by 1.0 to 2.0 percent from FY 2008 to FY 2009 even though volume will decline by 3.0 to 4.0 percent during the same period. *Id.* at 44. This implies a unit cost growth between 4 percent and 6 percent, despite the volume downturn. The Postal Service's projected unit cost growth is not appreciably affected by the volume downturn, and therefore remains relatively close to the average 6 percent figure experienced over the past 3 years.

Calculating a financial trend based on the Postal Service's reported figures for FY 2008 will illustrate the potential magnitude of the problem. For FY 2008, the Postal Service reports an operating deficit of $2.806 billion based on operating revenues of $74.932 billion and operating expenses of $77.738 billion. *Id.* at 47. Total mail volume was reported at 202.703 billion pieces. *Id.* at 31. Therefore, FY 2008 per-piece average revenues, operating expenses, and deficit were 36.97 cents, 38.35 cents and 1.38 cents, respectively. Using the 5.0 midpoint of the Postal Service's unit cost growth forecast and the most recent applicable inflation

rate of 3.8 percent, a per-piece deficit can be forecast for each of the next 5 years by plugging the relevant values for "t" into the following equation:

$$S_{ut} = .3697*(1.038)^t - .3835*(1.05)^t$$

Notice that this can also be expressed as:

$$S_{ut} = .3697*(1.038)^t*[1 – (.3835/3697)*(1.05/1.038)^t]$$

This shows that the negative term in brackets must increase in absolute value as "t" increases, because 1.05/1.038 is greater than one. Under these assumptions, the Postal Service cannot reach a financially sustainable path as long as per- piece deficits (negative values for S_{ut}) are increasing.[9]

The impact on the overall system deficit can be determined by multiplying the projected values for S_{ut} by the corresponding volume estimates for each year. Assume that volume declines by 3.5 percent (the midpoint of the Postal Service's 3.0 to 4.0 percent projected range) from FY 2008 to FY 2009 and then stabilizes thereafter. The projected deficits for the next five years are shown in Table 4.

Table 4

[9] The more general form for the last equation is:

Sut = P0*(1 + ri)t*{1 – (UVVC0/P0)*[(1 + ru)/(1 + ri)]t}, where the right-hand variables are as defined in Appendix 2 for Periodicals, except they now apply at the system level. Note that over the long term, (1 + ru)/(1 + ri) > 1 or ru > ri describes a financially unsustainable scenario. As "t" increases in value, the bracketed term must eventually turn negative (if not already) and increase without limit. Thus, Sut can never be positive at a high enough "t". In other words, time is not on the Postal Service's side.

Projected Postal Service Deficits Using Aggregated Data - FY 2009 to FY 2013					
Year	Per-Piece Revenues	Per-Piece Costs	Per-Piece Deficit	Volume (Million)	Operating Deficit (Million)
2008 Actual	.370	.384	(.014)	202,704	(2,806.0)
2009	.384	.403	(.019)	195,609	(3,702.2)
2010	.398	.423	(.025)	195,609	(4,788.1)
2011	.414	.444	(.031)	195,609	(5,962.5)
2012	.429	.466	(.037)	195,609	(7,231.1)
2013	.446	.490	(.044)	195,609	(8,600.1)

Extrapolating projected FY 2009 results to FY 2013 suggests that without aggressive cost containment, the financial condition of the Postal Service will quickly become unsustainable.

The Postal Service, Congress, and the rest of the postal community recognize that it is in a precarious financial condition. The public debate is whether to file an exigent rate case, reopen the political compact that led to the PAEA and release it from its obligation to fund future health benefit premiums, cut back on the frequency of delivery, or drastically reshape the Postal Service's workforce. Under these circumstances, it is essential that the public discussion of where to go next have the benefit of a sophisticated econometric forecast of the Postal Service's future financial condition. Without one, for the Commission, Congress, stakeholders, and the public cannot provide informed input on the choices that the Postal Service faces. The Public Representative urges that the Commission require the Postal Service to publish the forecasts that it produces for its own management needs so that the rest of the postal community can properly evaluate the need for such things as exigent rate cases and compliance remedies under section 3653. Such forecasts are also essential for the Commission and the public to properly evaluate how the current regulatory regime is working, as required under section 3651.

C. A More Disaggregated View

We have shown above that the inflation rate-unit cost growth imbalance evident for Periodicals and for the Postal Service in aggregate is on an unsustainable path if present trends hold true in the future. The aggregate scenario we have examined immediately above also suggests that other mail classes and competitive products as a group will be non-compliant unless steps are taken to substantially moderate the present cost trend.

In particular, cost coverage for the Package Services mail class was barely above 100 percent in FY 2008. Two of the five domestic products contained within this class, Single Piece Parcel Post and Media Mail/Library Mail, are already substantially below 100 percent coverage. FY 2008 ACR at 36. Also the competitive product group contribution of $1,833 million is barely above the $1,773 million minimum required to meet the 5.5 percent institutional funding constraint. *Id.* at 66. If the forces we have already evidenced are also operative in these two mail classes and remain unchecked, then we can expect the scope of non-compliance to increase very shortly. In order to get a clearer picture of status for the other product classes, we present a more dissagregated scenario below. There were several steps followed in developing the scenario that are explained below briefly.

Essentially, the same macro-level analysis presented above is applicable at the mail-class level using unit volume variable costs instead of aggregate per-piece costs. The unit volume-variable costs were developed using class-level volumes and volume-variable costs taken from the CRAs from FY 2005 to FY 2008. Class-level contributions are then projected for FY 2009 through FY 2013. Separate projections are developed for institutional costs. The difference between the sum of the class-level contributions and the projected institutional costs become the projected operating deficits for the applicable years. Finally, volume, revenue, cost, and contribution outputs are converted to correspond to the new mail classes, where necessary. These contributions are

summed, and projected institutional costs are subtracted to produce the same operating deficit forecast obtained under previous structure.

The disaggregated analysis also applies the percentage rate increases for competitive products proposed by the Postal Service and accepted by the Commission on December 11, 2008. *See* Docket No. CP2009-8, Review of Notice Concerning Changes in Rates of General Applicability for Competitive Products, December 11, 2008. The rate increases were applied at the product level and were assumed to carry through annually until FY 2013. In the macro-level analysis, all rate increases were assumed to be limited by the 3.8 percent inflation rate, since the competitive-market dominant distinction could not be made using the aggregate data.

The volume and unit volume-variable cost growth rate assumptions, and resulting post-reclassification outputs at the system level for Package Services, and for competitive products as a group, are presented below. The remaining class-level tables used to develop the system-level projections are provided in Appendix 1.

Table 5								
Volume Growth for Selected Mail Classes From FY 2005 to FY2008 Before Reclassification								
Mail Class	2005	2006	% Δ	2007	% Δ	2008	% Δ	Average % Δ
First Class	98,066.0	97,614.1	-0.5%	95,895.3	-1.8	91,276.7	-4.8	-1.1
Priority Mail								
Express Mail								
Periodicals	9,070.0	9,022.6	-0.5%	8,795.8	-2.5	8,605.2	-2.2	-1.5
Standard Mail	100,942.1	102,459.6	1.5%	103,516.1	1.0	99,084.2	-4.3	1.3
Package Services	1,165.5	1,174.5	0.8%	1,162.8	-1.0	1,105.8	-4.9	-0.1
International	852.3	793.5	-6.9%	833.0	5.0	1,268.5	52.3	-1.0
Special Services	1,454.7	1,518.6	4.4%	1,620.4	6.7	1,702.7	5.1	5.5

The volume data are presented in Table 5. The annual growth rates for the first 2 years, shown for most of the mail classes, are in line with general expectations. In particular, volumes increased for Standard Mail and Special Services, but declined for First Class and Periodicals. The remaining two classes show an increase in 1 year and a decline in the other. Also, the current recession appears to have affected volume growth negatively from FY 2007 to FY 2008 for all mail classes except Periodicals and International Mail. However, the large percent increase shown for the latter is actually due to the addition of a very large number of NSAs during FY 2008. Accordingly, except for Periodicals, the growth rates used for class-level volume projections are equal to averages for the first 2 years, shown in the last column. The 3-year average decline of 1.7 percent was used for Periodicals because the volume trend for this mail class appears unaffected by the recession, as suggested earlier.

The unit volume-variable costs shown in Table 6 were calculated from the class-level volume data above and the volume-variable costs obtained from the CRAs for the corresponding years. Institutional costs were obtained from the same source. Not

surprisingly, the same upward trend in per-piece costs, evidenced earlier, is shown also at the class level. However, the recession appears to have slowed annual percent increases for First Class, Periodicals and Standard Mail. Also, the percentage increases for the last 2 years for International Mail appear to be short-term changes. In particular, the change for FY 2008 reflects the sizeable change in volume mix from the large influx of NSAs.

The last column reflects the average percent growth for the 3-year period. With the exception of International Mail, these are the growth rates used to develop the class-level contribution projections. However, for the reasons indicated above, the factor used for International Mail is the FY 2006 growth rate. Also, it is important to recognize that the 3-year averages used for First Class, Periodicals, and Standard Mail reflect some slowing of unit cost growth in the last year.

Table 6

Institutional and Unit Volume-Variable Cost Growth for Selected Mail Classes
From FY 2005 to FY2008 Before Reclassification

Mail Class	2005	2006	% Δ	2007	% Δ	2008	% Δ	Average % Δ
First Class	0.175	0.183	4.8	0.200	8.9	0.200	0.1	4.6
Priority								
Express								
Periodicals	0.263	0.273	3.8	0.300	9.9	0.317	6.0	6.5
Standard Mail	0.109	0.118	7.7	0.127	7.9	0.133	4.6	6.7
Package Services	1.757	1.818	3.5	1.906	4.8	2.057	7.9	5.4
International	1.671	1.777	6.3	2.072	16.7	1.598	(22.9)	(3.3)
Special Services	1.135	1.159	2.1	1.199	3.5	1.314	9.6	5.1
Institutional (Million)	28,983.0	32,790.6	13.1	34,606.5	5.5	32,291.0	-6.7%	4.0

The aggregation of the class-level projections yields the system-level ouputs presented in Table 7. Despite the slight increases shown in year-to-year volumes, deficits are somewhat larger than the earlier estimates because all class level cost growth factors, except for First Class Mail, are larger than the 5.0 percent overall factor that the Postal Service apparently expects based on the data documented in the FY 2008 ACR. However, the projected deficits grow from year to year, and the year-to-year differences also grow in absolute terms because of the fundamental price-cost imbalance described earlier. Thus, the picture is confirmed at the disaggregated level.

Table 7
System Level Projected Deficit from FY 2009 to FY 2013
using Disaggregated Approach (In Millions)

Category	2008 Actual	2009	2010	2011	2012	2013
Volume	203,943.8	204,166.3	204,424.3	204,718.3	205,048.5	205,415.4
Revenues	$74,930.5	$77,897.3	$81,005.0	$84,261.7	$87,676.1	$91,257.3
Volume Variable Costs	45,513.4	48,330.8	51,357.3	54,610.8	58,110.5	61,877.5
Total Contribution	$29,426.6	$29,566.5	$29,647.6	$29,650.9	$29,565.6	$29,379.8
Institutional Costs	32,291.0	33,582.6	34,925.9	36,322.9	37,775.9	39,286.9
Operating Surplus	($2,864.4)	($4,016.1)	($5,278.3)	($6,672.0)	($8,210.3)	($9,907.1)

D. Compliance in the Present Fiscal Year

The disaggregated estimates also allow class-level compliance determinations to be made for the current year. As already noted, FY 2008 data show that contributions from Packages Services and from competitive products as a whole were barely above minimums required by sections 3622(c)(2) and 3633(a)(3) of the PAEA These circumstances, and the current deficit projections, strongly imply that if year-to-date data were available at this level of detail, both areas would now be non-compliant. However,

the present analysis can be used to verify the that these groups will no longer be compliance by the end of the fiscal year.

Projections for Package Services contained in Table 8 show growing deficits starting with the current fiscal year. This is not surprising, given the 100.8 percent contribution from this mail class in FY 2008, and the average growth factor of 5.4 percent used to project unit volume-variable costs. In order to avoid a deficiency in FY 2009, unit cost growth would need to be held under the projected 3.8 percent inflation rate. Equally important, in order to sustain positive contributions, unit volume-variable growth can be no higher than 3.8 percent, beginning in the current fiscal year.

Table 8

FY 2009 to FY 2013 Projected Package Services Deficit

Category	2008 Actual	2009	2010	2011	2012	2013
Volume	846.2	845.4	844.5	843.7	842.8	842.0
Revenues (Million)	$1,833.1	$1,900.8	$1,971.1	$2,043.9	$2,119.5	$2,197.8
Volume Variable Costs (Million)	1,819.4	1,915.8	2,017.2	2,124.0	2,236.5	2,354.9
Total Contribution (Million)	$13.6	($15.0)	($46.1)	($80.1)	($117.0)	($157.1)

Finally, Table 9 displays estimates for competitive products as a whole. Total contributions (excluding product non-volume-variable and group-specific costs) are positive, but declining due to the present price cost imbalance. Since these figures represent an average for all competitive products, attributable cost coverage at the product level, as required by section 3633(a)(2), is almost certain to be violated for an increasing number of products well before FY 2013. However, as discussed previously, the Postal Service's decision to conceal its core costing materials prevents us from disclosing our analysis and receiving public comment on it.

Separately, it is clear from the analysis that contributions from competitive products as a group fail to cover the 5.5 percent minimum institutional cost contribution required by the Commission, beginning in the current year. Furthermore, the gap between the actual contribution and the required minimum increases dramatically as contributions decline and institutional costs rise.

Table 9

FY 2009 to FY 2013Competitive Products Projected Contribution

Category	2008 Actual	2009	2010	2011	2012	2013
Volume	1,594.4	1,594.8	1,595.3	1,595.9	1,596.6	1,597.4
Revenues	8,434.5	8,872.3	9,333.9	9,820.7	10,334.1	10,875.7
Volume Variable Costs	6,565.1	7,183.8	7,860.9	8,606.2	9,427.0	10,331.0
Total Contribution	1,869.5	1,688.5	1,473.0	1,214.4	907.1	544.7
Percent of Institutional Costs	5.8%	5.0%	4.2%	3.3%	2.4%	1.4%

APPENDIX 1

FY 2009 to FY 2013 Projected First Class Contribution						
Category	2008 Actual	2009	2010	2011	2012	2013
Average Rate	0.408	0.424	0.440	0.457	0.474	0.492
Unit Volume Variable Costs	0.200	0.209	0.219	0.229	0.239	0.250
Unit Contribution	0.209	0.215	0.221	0.228	0.235	0.242
Volume (M)	91,276.7	90,272.7	89,279.7	88,297.6	87,326.3	86,365.7
Revenues (M)	$37,276.6	$38,267.5	$39,284.7	$40,329.0	$41,401.0	$42,501.5
Voiume Variable Costs (M)	18,240.4	18,869.6	19,520.5	20,193.8	20,890.4	21,611.0
Total Contribution (M)	$19,036.2	$19,397.9	$19,764.3	$20,135.2	$20,510.6	$20,890.6

FY 2009 to FY 2013 Projected Standard Contribution						
Category	2008 Actual	2009	2010	2011	2012	2013
Average Rate	0.208	0.216	0.224	0.232	0.241	0.250
Unit Volume Variable Costs	0.133	0.142	0.151	0.161	0.172	0.184
Unit Contribution	0.075	0.074	0.073	0.071	0.069	0.067
Volume (M)	99,084.2	100,372.2	101,677.1	102,998.9	104,337.9	105,694.3
Revenues (M)	$20,586.3	$21,646.4	$22,761.0	$23,933.1	$25,165.5	$26,461.4
Voiume Variable Costs (M)	13,150.9	14,214.4	15,363.9	16,606.4	17,949.4	19,401.0
Total Contribution (M)	$7,435.4	$7,432.0	$7,397.1	$7,326.7	$7,216.1	$7,060.4

FY 2009 to FY 2013 Projected Periodicals Deficit						
Category	2008 Actual	2009	2010	2011	2012	2013
Average Rate	0.267	0.277	0.287	0.298	0.310	0.321
Unit Volume Variable Costs	0.317	0.338	0.361	0.385	0.410	0.437
Unit Contribution	(.051)	(.062)	(.073)	(.086)	(.100)	(.116)
Volume (M)	8,605.2	8,458.9	8,315.1	8,173.8	8,034.8	7,898.2
Revenues (M)	$2,294.9	$2,341.6	$2,389.2	$2,437.9	$2,487.5	$2,538.1
Voiume Variable Costs (M)	2,732.1	2,862.9	3,000.0	3,143.6	3,294.2	3,451.9
Total Contribution (M)	($437.3)	($521.4)	($610.8)	($705.8)	($806.7)	($913.8)

FY 2009 to FY 2013 Projected Market Dominant International Contribution						
Category	2008 Actual	2009	2010	2011	2012	2013
Volume	837.7	829.3	821.0	812.8	804.7	796.6
Revenues (M)	$961.3	$987.8	$1,015.1	$1,043.2	$1,072.0	$1,101.6
Volume Variable Costs (M)	792.0	830.0	873.5	919.2	967.3	1,018.0
Total Contribution (M)	$178.8	$157.9	$141.7	$124.0	$104.6	$83.6

FY 2009 to FY 2013 Projected Market Dominant Special Services Contribution						
Category	2008 Actual	2009	2010	2011	2012	2013
Volume	1,699.5	1,792.9	1,891.6	1,995.6	2,105.3	2,221.1
Revenues (M)	$3,543.9	$3,880.9	$4,249.9	$4,654.0	$5,096.6	$5,581.2
Volume Variable Costs (M)	2,213.5	2,454.4	2,721.4	3,017.5	3,345.8	3,709.9
Total Contribution (M)	$1,330.4	$1,426.5	$1,528.5	$1,636.5	$1,750.8	$1,871.4

APPENDIX 2

The growth rate in unit volume-variable costs that would allow the revenue deficiency being generated by Periodicals to decline can be understood by evaluating the following equation, which models the contribution of the Periodicals class in any year (t):

$$C_t = [P_0*(1 + r_i)^t – UVVC_0*(1 + r_u)^t]*V_0(1 + r_v)^t.$$

The deficit in year "t" is shown as the product of volume in that year $V_0(1 + r_v)^t$ and the unit contribution for the same year $P_0*(1 + r_i)^t – UVVC_0*(1 + r_u)^t$. The symbols r_i, r_u and r_v denote the following:

r_i = the inflation rate

r_u = annual rates of change in unit volume variable costs

r_v = volumes

The symbols P_0, $UVVC_0$, and V_0 represent the FY 2008 starting values for

P_0 = the average rate

$UVVC_0$ = unit volume-variable costs

V_0 = volumes

Thus t = 1 is used for the deficit projection in FY 2009, t = 2 is used for FY 2010, and so on, using the following parameters: $r_i = .038$, $r_u = .066$, $r_v = -.017$, $P_0 = 0.267$, $UVVC_0 = 0.317$, and $V_0 = 8{,}605.2$.

Considering r_u a variable, it can be seen that an immediate reduction in the revenue deficiency of Periodicals in FY 2009 would require:

$$C_1 - C_0 = [P_0*(1 + r_i) - UVVC_0*(1 + r_u)]*V_0(1 + r_v) - (P_0 - UVVC_0)*V_0 > 0.$$

This reduces to:

$$C_1 - C_0 = [P_0*(r_i*(1 + r_v) + r_v) - UVVC_0*(r_u*(1 + r_v) + r_v)]*V_0 > 0.$$

Then dividing by V_0 and solving for r_u yields:

$$r_u < [r_i + r_v/(1 + r_v)]*(P_0/UVVC_0 - 1) + r_i,$$

This shows that r_u must be less than r_i by an amount greater than the absolute value given by the first term on the right.[10] Substituting the above parameter values shows that immediate deficit reduction for Periodicals requires:

$$r_u < [.038 - .017/(1 - .017)]*(.267/.317 - 1) + .038$$
$$< .0347.$$

[10] The sum $r_i + r_v$ is the approximate percent change in revenue, which under normal circumstances is positive (unless the rate of volume decline is greater than the rate of inflation). Therefore, since $P_0/UVVC_0 < 1$ with a deficit, the entire term $[r_i + r_v/(1 + r_v)]*(P_0/UVVC_0 - 1)$ will be negative given positive revenue growth.

At the given parameter values for the rates of change, the growth rate for unit volume-variable costs needs to be restricted to some level below 3.47 percent in order for the current deficit to begin to shrink in FY 2009. Of course, the lower the rate of growth in unit volume-variable costs, the quicker the revenue deficiency could be eliminated. For example if we assume that the 1.6 percent growth rate in unit cost that was achieved in FY 2008 could be sustained over the long term, then the break-even time period would be the future year where the average revenue per piece (growing at the currently applicable 3.8 percent rate of inflation), equals unit costs (growing at the FY 2008 1.6 percent annual rate). In other words, the break even, or "compliance" time period would then be the "t" value yielding:

$$.317*(1.016)^t = 267*(1.038)^t$$

Taking logarithms of both sides and solving for t gives:

$$t = [\ln(.267) - \ln(.317)]/[\ln(1.016) - \ln(1.038)]$$

$$= 8.013$$

Therefore, under the assumptions described above, it would take about 8 years for the Periodicals class to comply with section 3622(c)(2). Any unit cost growth rate greater than the FY 2008 level of 1.6 percent, but less than 3.47 percent, would still reduce the revenue deficiency for Periodicals, but it would take longer than 8 years to achieve compliance.