Response to Comments on "Social Security's Five OASI Inflation Indexing Problems," Michael C. Lovell (Discussion Paper #2008-34)

I am greatly indebted to the three referees for providing constructive comments that will lead to a substantial improvement in the final version of this paper.

1. One suggestion concerns the title of the paper. (R#3) Should I refer to five "anomalies" or "imperfections" rather than five "problems"?

"Anomalies" usually refer to deviations from a common rule or principle. Thus we sometimes worry about longterm historical *anomalies* in the stock market that contradict the efficient market hypothesis. And "imperfections" seems to me to understate the serious consequences of incomplete inflation indexing. On the other hand to refer to "five errors" or "five mistakes" might be unnecessarily provocative. I think "five problems" accurately describes what the paper is about.

2. I agree completely with the statement that increased longevity, earlier retirements, and demographic shifts are a major threat to the long run financial viability of OASI trust funds.(R#1)

But my paper shows that this is not the full story. It identifies five indexing problems that make the financial posture of OASI unduly sensitive to the pace of wage and price inflation. I then show steps that should be taken to resolve these problems.

3. In discussing the effects of switching from wage indexing to CPI indexing of earnings I did not modify the bend points of the function determining the Primary Insurance Amount (Figure 2).

Prompted by the comment of R#3 I have recalculated the CPI Indexing figures in Table 3 and in Panel D of subsequent tables to show how benefits are affected when the bendpoints are also adjusted with the CPI index. While I will briefly mention in the text the effect of only CPI indexing wages, it seems to me that if CPI indexing is adopted for wages it should also be applied to the bendpoints.

4. I did not *assume* that a worker who delays retirement until age of 75 gets 14 of his 35 best wage payments at the end of his career.(R#1)

I do show that under the indexing provisions of Social Security statutes, high income workers with earnings consistently at or above the tax cap will have their years beyond the 60<sup>th</sup> count among the 35 highest income years, assuming there is inflation. Each year they work beyond age 60 results in a high undeflated year replacing an earlier year which has been inflated only to age 60. This necessarily happens, as long as there is wage inflation, for workers whose income is always at or above the taxable maximum cap (such as a business school professor or the successful lawyer mentioned in the 2<sup>nd</sup> paragraph of the introduction).

I also show that this does *not* happen for all workers. In particular, a worker stuck at the minimum wage throughout an equally long career will have few if any undeflated end-of-career earnings count among the 35 because of the decline in the real value of the minimum wage. (Contrast Table 5 with Table 6)

5. In revising the paper I should consolidate and elaborate on the discussion of worker incentives for delaying retirement that is presented in various places in the text.

A fundamental difficulty in evaluating the financial problems of OASI and the wellbeing of retirees has to do with the effect of incentives on the choice of retirement date. Because of the indexing problems the size of the benefit bonus that rewards delayed retirement depends not only on the SS statutes but also on the income bracket of the worker and how much wage inflation happens to take place after age 60.

One consequence is that workers may not accurately perceive the full cost in foregone benefits that will result if they select early retirement. But more than this, the gap between perceived versus actual incentives for delaying retirement further complicates the difficult task of estimating the effect of incentives on the retirement decision itself. Investigating this problem is a complicated task that must obviously be left for subsequent research because it requires a detailed statistical analysis based on micro data sets.

[Personal Disclosure: I was surprised to find that because of indexing problem #1my OASI benefits for 2008 were more than \$700 higher than they would have been with proper indexing.]

6. I agree with R#3 that indexing problem #3, the one-year indexing lag, may be less significant than the others. But Tables 9, 10 and 11 show that the lag can cause inflation to have a substantial effect on the incentive for delaying retirement and on the distribution of OASI payments. The adoption of a predicted rate of inflation together with an error-correction adjustment, such as equation (8), would have a double benefit. In addition to eliminating the indexing lag it would facilitate the replacement of the fixed weight CPI-W index with a superlative index allowing for substitution away from commodities that increase most in price.

7. In revising the paper I will add further information from the reference provided by R#3 to the discussion on page 6 concerning the four earning classes of workers. I will move into the text the discussion in fn #3 of page 5 about the distinction between my four income paths versus the scaled factors taking into account how a worker's position in the income distribution usually changes over a worker's life cycle. (R#3)

8. In making final revisions to my paper I will also add the effect of demographic trends in the age structure of the labor force, the current recession, and financial sector restructuring to the discussion of factors influencing the growth of the average wage index on page 24. [R#2]