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Commentary

BUFFIN PARTNERS INC. INVESTMENT AND ACTUARIAL RESEARCH

40-year Solvency for Social Security

Although the Social Security Trustees place special emphasis on projections over 75 years, information is also available for 25 and 50-year projections. A comparison of income rates and disbursement rates indicates that the system is currently projected to be solvent for 40 years. Interestingly, by the year 2042, the survivors of the baby-boom of 1946 will reach age 96 and those born in 1955 will reach age 87, by which time the much-anticipated baby-boom crisis of Social Security will have largely passed without incident.

Demographers, economists and statisticians routinely express differences of opinion over their forecasts. Actuaries also differ in their opinions as to the appropriate actuarial basis for Social Security projections. One prominent actuary recently proclaimed in the New York Times that there is no deficit in the Social Security finances and another expert remarked that disagreement with the Trustees' assumptions is useful and healthy. While opinions may vary as to the exact level and timing of any surplus or deficit, time will tell who is right and who is wrong. However, the Trustees' reports disclose useful information that reflects how the emerging experience compares to that assumed for projection purposes. The Trustees present a detailed analysis of any year-to-year change in the magnitude of the deficit. If the Social Security actuaries' best estimate is right on track, the deficit will remain stable from year to year. If the Social Security actuaries' best estimate turns out to be different from the emerging experience regarding, for example, the longevity of beneficiaries or the magnitude of the payroll tax base, then the deficit will increase or decrease accordingly. If there is to be no ultimate deficit, the current 75-year deficit reported by the Trustees would show a tendency to decline from year to year and the projected period for which the Social Security System is solvent will be extended.

The Social Security Trustees' Annual Reports present three different sets of financial projections referred to as intermediate, low-cost and high-cost. The intermediate projection is regarded as the official "best estimate" almost to the exclusion of the low-cost and high-cost projections. The 2002 Trustees' report disclosed a deficit of 1.87% of taxable payroll for the 75-year projection on the intermediate basis. The Trustees also reported a corresponding surplus of 0.44% on the low-cost basis and a deficit of 5.00% on the high-cost basis. The divergence between the low-cost and high-cost bases is 5.44%. The semi-range, a measure used to represent the extent of the spread around the intermediate basis is 2.72% or fully 145% of the 1.87% intermediate best estimate of the deficit. It is apparent that the Trustees acknowledge a wide range of plausible outcomes over 75 years.

The inherent unreliability of very long-range projections, with their wide divergence characteristics between the extremes of the low-cost and high-cost estimates, indicates that there is a problem associated with the choice of 75 years as the target point for achieving actuarial balance in the system. Simply stated, undue precision is attributed to the accuracy of the single-point 75-year forecasts, whereas in reality, actuarial solvency is a two-dimensional variable that varies enormously across the spectrum of different time periods and the range of plausible outcomes for any specific time period. Actuarial solvency is a moving target subject to a wide range of statistical estimation error. In a world of dynamic change, it is logically impossible to maintain a system of defined benefits and defined contributions in perfect actuarial balance without taking action to mitigate the effects through time of the inherent divergence of the system's asset-income and liability-outgo. An alternative approach to managing the solvency of the Social Security system would be to initiate a review and management process to maintain the projected period of solvency at the current level of 40 years. The focus would be on maintaining solvency for a succession of 40-year projection periods. It is conceivable that maintaining 40-year solvency would become the ultimate objective while the current practice of focusing exclusively on 75-year projections would be set aside as being subject to too great a margin of error to be considered a reliable forecast of future outcomes. We also support the recommendation of the Social Security Advisory Council that stochastic modeling should be used as a tool for recognizing explicitly the uncertainty surrounding the Trustees' demographic and economic assumptions and so permit policy analyses to be conducted in a way that more realistically incorporates uncertainty into measures of long-term financial viability.

In recent years, the trend has been favorable with successive annual extensions to the period of projected solvency. If these trends continue, the system will not require additional funding. If these trends reverse, some intervention would be required to maintain the 40-year solvency. In that event, some fine-tuning of the scheduled increases in retirement age might be the simplest type of modification to consider; other options including adjustments to benefits or tax rates or possibly general tax revenues could be applied to maintain the 40-year solvency.

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