Since the 1930s, social policy trends indicate that the United States has a strong commitment to providing economic support for the elderly. The present system places primary responsibility for retirement income provision on taxpayers and on employers. The working public pays taxes which fund the cost of Social Security benefits. Employers accumulate and invest defined benefit plan pension assets so that funds are available when retirement benefits come due. In both cases, the individual is shielded from the risk of poor investment returns or bad economic performance. Individual retirement accounts (IRAs) were introduced in 1974 to allow individuals to supplement other retirement income sources. Their availability was expanded to all workers in 1981. With IRAs, the risk of investment return is placed on the individual.

Some recent proposals would replace a major part of the Social Security program with an expansion of the IRA approach. These proposals consist of two basic elements. First, Social Security's redistributive or "welfare" component would be financed through general revenues--possibly by expanding the Supplemental Security Income program which aids needy aged, blind and disabled persons. Second, Social Security contributions would be placed in individual accounts and invested. This would replace Social Security's current pay-as-you-go approach. Those who support this proposal argue that it would provide higher incomes to retirees as well as large amounts of capital for private- and public-sector investments. Others believe the IRA approach is more appropriate than the present system of offering tax incentives to employers who sponsor pension programs. Thus, this group would reduce current tax incentives in favor of higher IRA contribution limits.

These proposals place greater emphasis on individual responsibility than the current system. Supporters of these proposals predict that the new system would provide higher retirement incomes at lower costs than the current system. Key assumptions behind these forecasts are based on projected real rates of return that individuals can earn on retirement savings, and they are based on the future performance of the economy. The supporters are using inflation-adjusted estimates of rates of return that are as high as 12 percent.

This issue brief examines the assumptions and analyses underlying the arguments which support these proposals. It discusses: (1) measures of financial market performance; (2) historical experience of various investment vehicles; and (3) current IRA investment patterns.
Measures of Financial Market Performance

To assess the validity of future asset yield projections, it is necessary to understand how these projections are derived and how to interpret them. The performance of a financial asset, or its total return, is usually measured as the sum of two types of income: (1) capital appreciation—the change in the asset's selling price; and (2) periodic income—the dividends or interest paid on the security. The data series used for financial asset analyses generally consist of indices measuring the overall performance by a large number of securities that can be loosely grouped together as a "market." Financial analysts construct market performance indices for corporate equities, corporate bonds and government (federal, state and local government and agency) bonds.

Such statistics permit performance comparisons of various security types at particular points in time. Historical market data are of limited value as potential rates of return estimates, however. A given investor would be able to replicate a particular index's performance only if he held the same amount and type of securities in that index.

Those saving for retirement will be concerned with asset yield levels and the variability of these yields over long periods of time. Level of yield will determine how much retirement income they will receive. Variability of yield will influence retirement income forecast accuracy.

Historical Experience of Various Investment Vehicles

By looking at historical data on asset returns, we can assess some of the problems that investors confront in deciding how to allocate funds. Suppose an investor is considering corporate equities, corporate bonds and treasury bills for a retirement account. During the last thirty years, corporate equities have offered the highest total returns and the greatest variability in returns. Equities offered a total real return of 31.2 percent in 1955 and a real loss of 38.7 percent in 1974—a range of nearly 70 percentage points. (See table 1.) The variation of corporate bond returns was somewhat narrower. Bonds offered a real return of 13.8 percent in 1976 and a real loss of 17.5 percent in 1979. Bondholders probably made lower total returns over this period than corporate equity holders, but they also faced less chance of loss in any given year. Ninety-day treasury bills experienced the least volatile returns of the three securities in table 1. The highest total real returns (capital appreciation plus interest) that the ninety-day treasury bills earned in any of the years shown, however, was 5.2 percent.

These comparisons illustrate the dilemma of investors in deciding which securities to buy. Generally, a higher potential yield on a given security is associated with a higher potential loss. Stable yields usually mean lower yields.

Variability in asset yields can become an acute problem when one considers the time element involved in retirement planning. An individual may know when he will retire, but he cannot know ahead of time whether his assets will be doing well or poorly in that year. Individual retirement arrangements place the entire risk of market variability and timing on the individual. This may not be a major risk where individual savings are supplemented by Social Security and defined benefit employer pensions. However, the risk would be much more significant where IRAs are intended to be a primary source of retirement income.
TABLE 1

Total Returns\(^1\) on Corporate Equities, Corporate Bonds and Ninety-Day Treasury Bills for Selected Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Corporate Equities(^2)/</th>
<th>Corporate Bonds(^2)/</th>
<th>Ninety-Day Treasury Bills(^2)/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal Real</td>
<td>Nominal Real</td>
<td>Nominal Real</td>
</tr>
<tr>
<td>1950</td>
<td>31.7 25.9</td>
<td>2.1 -3.7</td>
<td>1.2 -4.6</td>
</tr>
<tr>
<td>1955</td>
<td>31.6 31.2</td>
<td>0.5 0.1</td>
<td>1.8 1.4</td>
</tr>
<tr>
<td>1960</td>
<td>0.5 -1.0</td>
<td>9.1 7.6</td>
<td>2.9 1.4</td>
</tr>
<tr>
<td>1965</td>
<td>12.3 10.4</td>
<td>-0.4 -2.3</td>
<td>4.0 2.1</td>
</tr>
<tr>
<td>1970</td>
<td>4.0 -1.5</td>
<td>18.4 12.9</td>
<td>6.5 1.0</td>
</tr>
<tr>
<td>1971</td>
<td>14.3 10.9</td>
<td>11.0 7.6</td>
<td>4.3 0.9</td>
</tr>
<tr>
<td>1972</td>
<td>18.9 15.5</td>
<td>7.3 3.9</td>
<td>4.1 0.7</td>
</tr>
<tr>
<td>1973</td>
<td>-14.8 -23.6</td>
<td>1.1 -7.7</td>
<td>7.0 -1.8</td>
</tr>
<tr>
<td>1974</td>
<td>-26.5 -38.7</td>
<td>-3.0 -15.2</td>
<td>7.9 -4.3</td>
</tr>
<tr>
<td>1975</td>
<td>37.3 30.3</td>
<td>14.6 7.6</td>
<td>5.8 -1.2</td>
</tr>
<tr>
<td>1976</td>
<td>23.6 18.8</td>
<td>18.6 13.8</td>
<td>5.0 0.2</td>
</tr>
<tr>
<td>1977</td>
<td>-7.4 -14.2</td>
<td>1.7 -5.1</td>
<td>5.3 -1.5</td>
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<tr>
<td>1978</td>
<td>6.5 -2.5</td>
<td>-0.1 -9.1</td>
<td>7.2 -1.8</td>
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<tr>
<td>1979</td>
<td>18.5 5.2</td>
<td>-4.2 -17.5</td>
<td>10.0 -3.3</td>
</tr>
<tr>
<td>1980</td>
<td>32.5 20.1</td>
<td>-2.6 -15.0</td>
<td>11.5 -0.9</td>
</tr>
<tr>
<td>1981</td>
<td>-5.0 -13.9</td>
<td>-1.0 -9.9</td>
<td>14.1 5.2</td>
</tr>
</tbody>
</table>

Source: Computer Directions Advisors, Inc., "Stocks, Bonds, Bills and Inflation" (Silver Spring, Md., 1981). Real return calculations by EBRI.

1/ Capital appreciation plus interest or dividend income.
2/ All changes are measured from December of the previous year.

Current IRA Investment Patterns

Rate of return information on IRAs is available for the past five years. The most successful IRA holders achieved an 8.7 to 9 percent five-year-average annual real rate of return. In 1982, just over 17 percent of all IRA assets were in these accounts. The average real rate of return for the remaining 83 percent was less than 1 percent over this five-year period. (See table 2.)

With maximum IRA contributions, an annual 9 percent real rate of return over forty years could provide significant retirement income security. A less than 1 percent real rate of return could not. Those advocating the proposals for replacing a major portion of Social Security with IRAs have not presented analyses which indicate how their assumed high real rates of return could be achieved by all investors. The choices made by IRA investors and the real rates of return they have achieved to date do not support the arguments or assumptions of those advocating proposals for greater reliance on IRAs.
TABLE 2

IRA Investment Patterns and Five-Year-Average Rates of Return—December 1982

<table>
<thead>
<tr>
<th>Financial Institution</th>
<th>IRA Assets (billions)</th>
<th>Five-Year-Average Rates of Return</th>
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<tbody>
<tr>
<td>Commercial Banks 1/</td>
<td>$18.1</td>
<td>8.0%</td>
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<tr>
<td>Mutual Savings Banks 1/</td>
<td>6.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Savings and Loan Associations 1/</td>
<td>21.72/</td>
<td>8.0</td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>5.0</td>
<td>17.1/4/</td>
</tr>
<tr>
<td>Credit Unions</td>
<td>0.5</td>
<td>-- 3/</td>
</tr>
<tr>
<td>Life Insurance Companies</td>
<td>4.6</td>
<td>16.8/6/</td>
</tr>
<tr>
<td>Total Assets</td>
<td>$56.2</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Sources: EBRI tabulations of data provided by Federal Reserve Board, National Association of Mutual Savings Banks, National Credit Union Administration, Federal Home Loan Bank Board, U.S. League of Savings Associations, Investment Company Institute and American Council of Life Insurance.

1/ IRA and Keogh deposits.
2/ Estimated.
3/ Average compounded annual rates of return—1978 to 1982. Nominal rates are adjusted for changes in the consumer price index.
4/ Common stock equity funds only. Rate of return computed after various sales and service charges are subtracted.
5/ Not available.
6/ Common stock equity funds only. Rate of return computed before subtracting sales and service charges.

Conclusion

Variation of investment returns can mean significant risk and uncertainty for the investor. During the 1920s, the first tax incentives were provided for private employer-sponsored pension plans. In 1937, Social Security was created. These programs, along with public-sector programs, have emphasized the provision of defined benefits. In defined benefit programs, the retiring worker is insulated from the variation in annual contributions and investment earnings. These programs provide significant retirement income to an increasing percentage of retirees.

Social Security's financial difficulties have resulted in greater interest in individual responsibility for retirement income security. While such a shift may be justified, it must be evaluated carefully. From 1978 to 1982, most IRA holders earned between .1 percent and 9 percent in real terms. This is significantly less than the highest yield assumptions (12 percent) and the
average yield assumptions (6 percent) of those supporting the proposals for a Social Security IRA-type provision. Some individuals will make choices that result in high rates of return, while others will make choices that result in low rates of return. Even those who have saved large sums could find themselves destitute in retirement unless they have other income sources such as Social Security and employer pensions.

NOTES


2/ Ferrara, The Family Plan, p. 27.
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