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Preparing for
Shrinking Social
Security Benefits

Redefining Early
Retirement

Planning for
Financially Secure
Clients

Variable Annuities:
Pros & Cons

To Roth or
Not To Roth?

Insulating Your Nest Egg in the Storm of Social Security Reform

By
Francis Gupta
and
David Eichhorn

Francis Gupta and David Eichhorn discuss how individuals can adjust their investment strategies to compensate for anticipated declines in Social Security benefits.

Other than delaying retirement, individuals have two options for adjusting to an anticipated decline in Social Security benefits: They can either increase their savings or invest more aggressively. Either strategy may have a downside. Investing more aggressively may assist individuals in meeting their target incomes with smaller increases in the savings rates. However, using a more aggressive portfolio to compensate for anticipated reductions of Social Security benefits increases the likelihood of a shortfall.

Background

Setting. Social Security faces a turning point in 2012, the year the first Baby Boomers start to retire. This generation is owed about \$9 trillion more than the next generation is currently obligated to pay in Social Security taxes. Therefore, starting in 2012, the Social Security fund will pay out

far more than it receives each year, reaching a deficit of 3% of national income by 2025 and becoming insolvent by 2030.

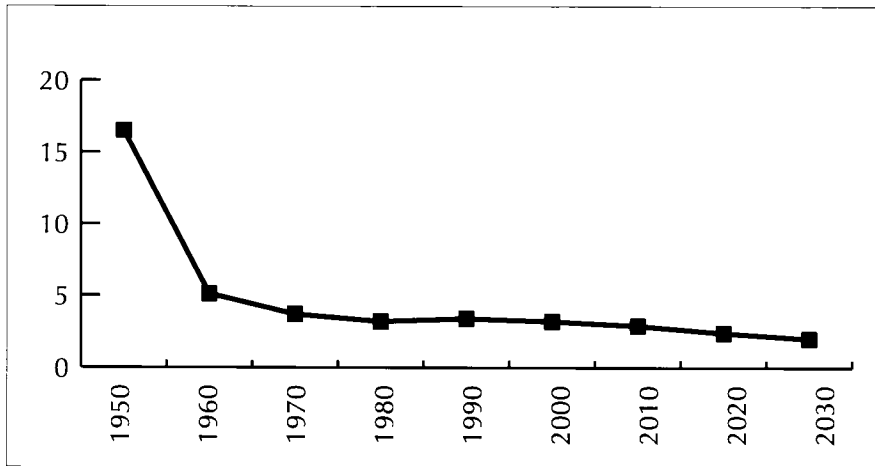
By 2030, the workers-per-beneficiary ratio will have fallen to two to one (i.e., two people will be working, and thereby contributing to the fund, for each person collecting Social Security benefits). Chart 1 shows that the workers-per-beneficiary ratio was about five to one in 1960.

Problems. Social Security recipients currently receive, on average, benefits equal to 43% of preretirement income. Un-

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Chart 1
Number of Current Workers per Social Security Beneficiary



less additional funding is found, the average benefit will have to

remains solvent until 2070. Another solution is to scale back the

Starting in 2012, the Social Security fund will pay out far more than it receives each year, reaching a deficit of 3% of national income by 2025 and becoming insolvent by 2030.

inflation adjustment to benefits by 1.1% (economists say that this is the maximum level by which the con-

fall below 30% of a person's preretirement income, compared to an estimated 60% to 85% that is required to maintain the same standard of living.

sumer price index (CPI) may be overstated), which will enable Social Security to remain funded until 2052.

In 1995, a Social Security tax rate of 12% was sufficient to cover benefit payments. But assuming the present demographic and economic trends, the tax rate will have to increase to 17% by 2030 and to 19% by 2070 in order to maintain the present level of benefits.

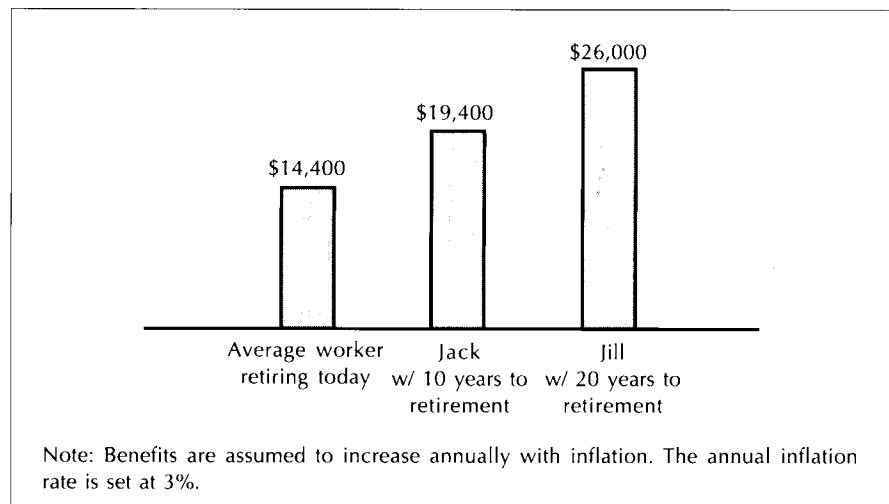
Simple Solutions. An immediate payroll tax increase of 2.2% will enable the Social Security fund to pay benefits for the Baby Boomers' retirement and beyond and ensure that Social Security

Proposals for Reform. Several reform proposals would attempt to increase Social Security benefits by investing at least a portion of Social Security funds in equities. These proposals include the following:

- Maintain benefits by increasing the tax on Social Security benefits and investing Social Security funds directly in the equity market.
- Create individual accounts by combining the present system with mandatory, small-scale, "defined contribution" individual accounts held by Social Security and invested in index funds that would be converted to annuities upon retirement.
- Create personal security accounts by gradually replacing the current system with large-scale, defined contribution accounts invested in equities and held outside the Social Security trust funds.

Macroeconomic Impact. Privatization might increase the savings rate. Moreover, investors may benefit as competition among pension funds for the new assets creates more efficient capital markets.

Chart 2
Social Security Benefits at Retirement for Three Individuals



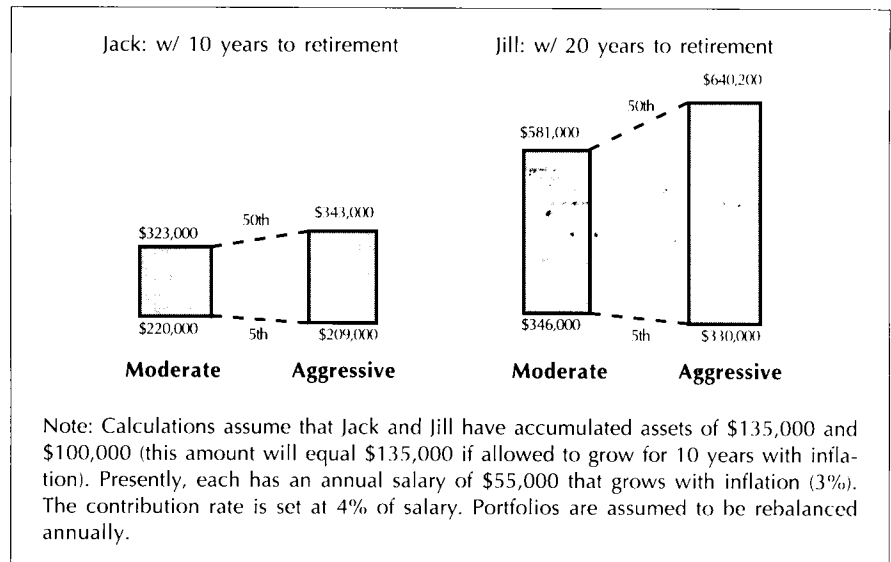
The Implications for Retirement Savings and Risk Taking

In light of the uncertainties associated with Social Security and the possibility that today's workers and savers will get less in benefits than the current generation of retirees, we used a version of our proprietary Investment Potential Report tool to analyze the different strategies that individuals might use to compensate for the uncertainty in their Social Security benefits.

An individual retiring today would receive, on average, a Social Security payment of \$14,400 annually. Chart 2 presents the annual Social Security payment at retirement for two individuals, Jack and Jill, who will retire in 10 and 20 years, respectively, compared to the annual payment for a worker who retires today.

Because Social Security benefits are not sufficient to provide for a comfortable standard of living, both Jack and Jill save to

Chart 4
Median (50th Percentile) and Worst-Case (5th Percentile) Values of Assets at Retirement



meet their uncovered retirement costs. They invest their savings and accumulated assets in a 401(k) plan that, for simplicity, offers two options: a moderate 60/40 (stocks/bonds) balanced portfolio and an aggressive 80/20 balanced portfolio. As should be the case, the aggressive portfolio provides a higher return

than the moderate portfolio and is also more volatile. Chart 3 presents these portfolios.

The net value of the nest eggs of Jack and Jill at retirement will differ depending on each individual's contributions and risk tolerance, i.e., moderate or aggressive. In particular, the larger the contribution, the larger the expected or median value of the portfolio. Also, the larger the risk tolerance—or more aggressive the portfolio—the larger the median value. But, because the aggressive portfolio is also relatively more risky (volatile), it will have a larger dispersion in its possible outcomes. The likelihood that the final value of the portfolio is below a specified amount is referred to as the downside risk, while the specified value is the worst-case outcome. Here the worst-case outcome associated with each of the portfolios is captured by the value of the 5th percentile. This means that there is a 5% chance that the final balance will be be-

Chart 5
Risk/Return Characteristics of Portfolios for Retirement Assets

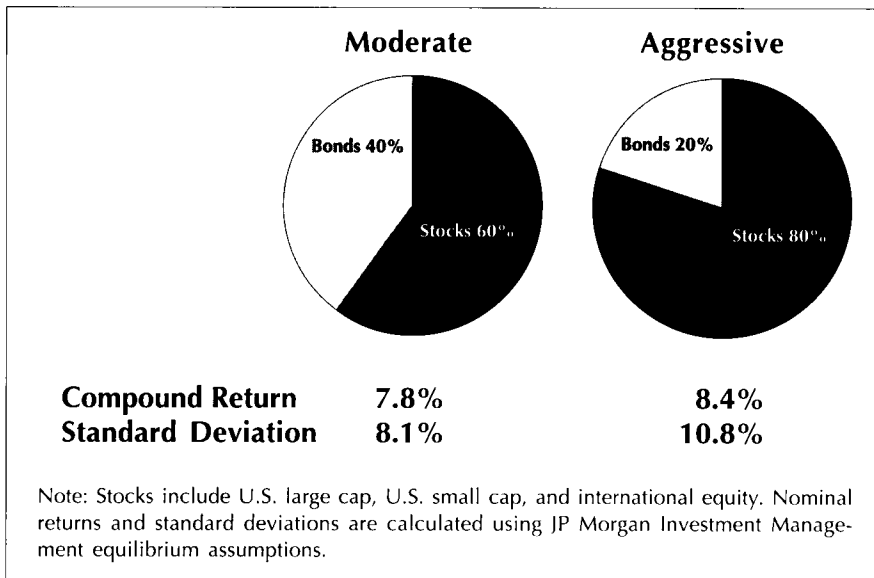
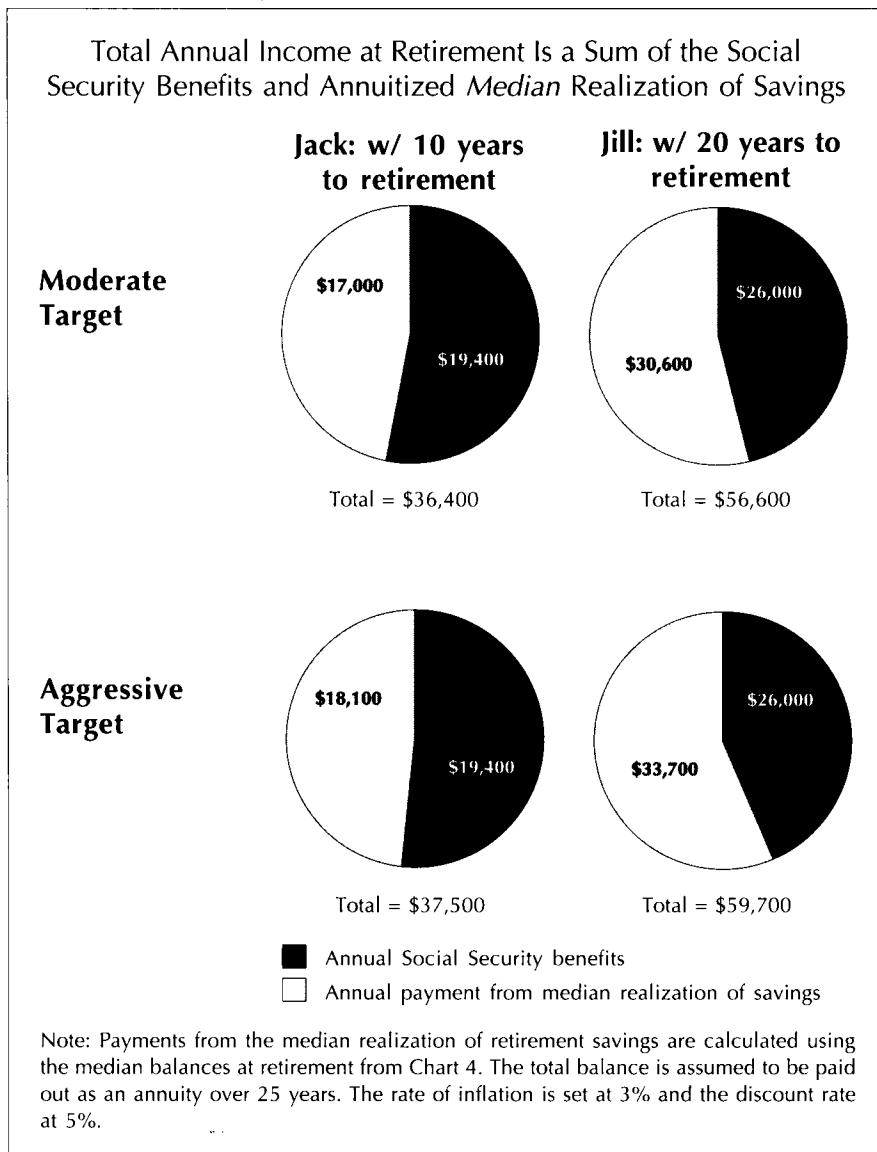


Chart 5
Median Income Targets



low the worst-case outcome.

Chart 4 shows the median (50th percentile) and worst-case (5th percentile) values of the portfolios if Jack and Jill were to contribute 4% of their salaries, which are presently set at \$55,000. It is clear that the median for the aggressive portfolio is greater than that of the moderate portfolio, while the 5th percentile for the aggressive portfolio is smaller.

We assume that, at retirement, the assets accumulated in the

401(k) are paid out as an annuity over the next 25 years.¹ Therefore, Jack and Jill have two sources of income during retirement: their Social Security benefits, as shown in Chart 2, and the annuity from the net value of the accumulated assets in the 401(k), as presented in Chart 4. Chart 5 presents the amount and sources of Jack's and Jill's annual incomes at retirement, assuming the median value of the retirement portfolio is realized.

Increased risk taking is rewarded to a larger extent if the magic of compounding is allowed to manifest itself. For Jack, a move from the moderate to the aggressive portfolio increases annual payments by \$1,100. But if Jill were to make the same move, she would expect to receive \$3,100 more in an annual annuity!

In addition, in general, Social Security benefits comprise a larger share of Jack's payment relative to Jill's. The composition of the pies clearly shows that if you retire sooner, you will not only have less money, but you will be relatively more reliant on Social Security.

Chart 6 presents the total annual income for Jack and Jill at retirement, assuming the worst-case scenario, i.e., that the 5th percentile value of the retirement portfolio is realized. As mentioned earlier, in the worst case, the more aggressive (and therefore more risky) portfolio can lead to lower income from savings and greater reliance on Social Security in retirement.

Assuming that the 5th percentile of the retirement portfolio is realized, a move by Jack from moderate to aggressive results in a decline in annual income by about \$600. A similar move by Jill reduces her annual income by about \$800.

Any of the Social Security reforms discussed above will affect the value of the annual payment related to the Social Security benefit. In principle, the value could increase or decrease, but, for the purposes of this example, we will focus on the latter.² In particular, we will consider two possible responses by individuals to decreasing Social Security benefits: an increase in the savings

(contribution) rate and/or investing in higher-returning, more aggressive portfolios.

Increased Savings Rate

We saw above that individuals' target incomes in retirement are determined by their savings rate, level of aggressiveness, and investment horizon. Further, Social Security benefits comprise a varying share of retirement in-

come. Declines in Social Security benefits or changes in the probability of receiving Social Security would also impact retirement income. But individuals may compensate for this risk by changing their individual savings plans.

Chart 7 presents the rates at

which Jack and Jill will have to contribute to the moderate portfolio in order to meet their median income targets (as presented in

Increased risk taking is rewarded to a larger extent if the magic of compounding is allowed to manifest itself.

Chart 6
Worst-Case Income Targets

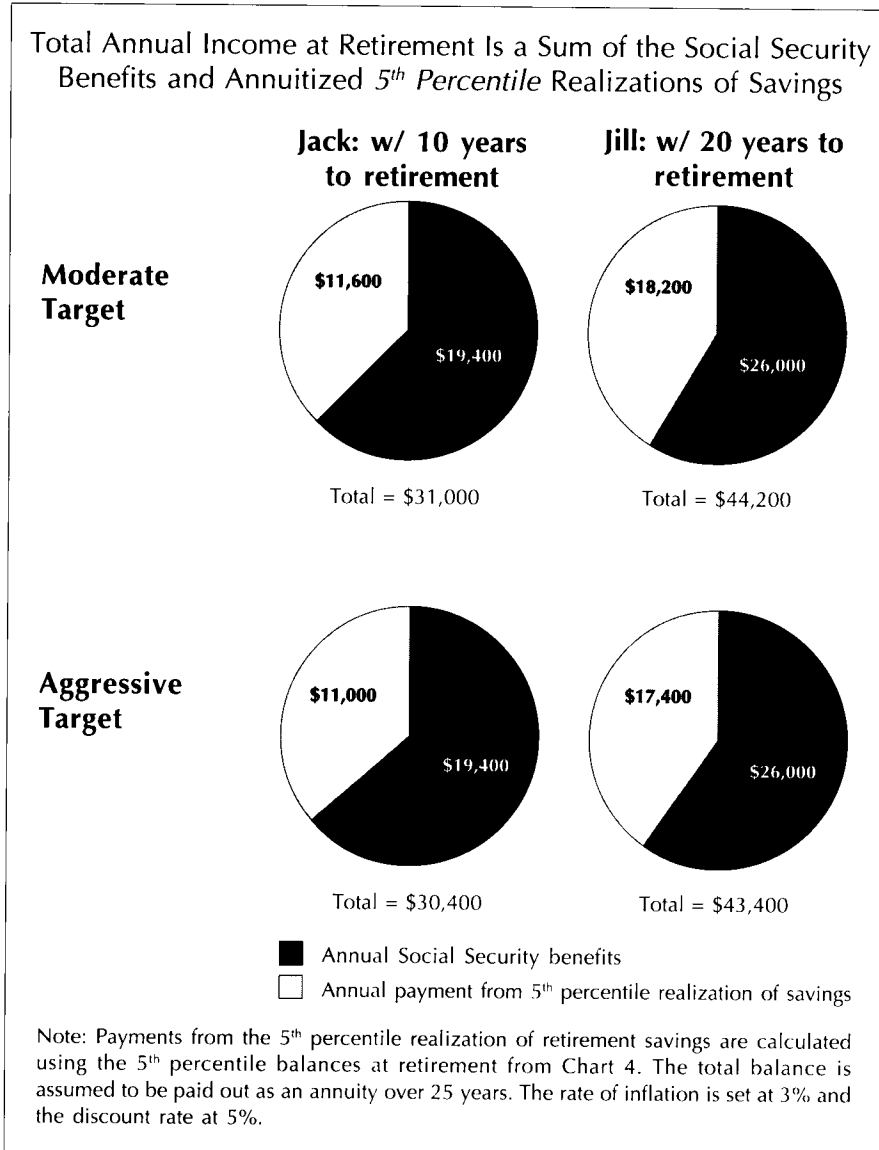


Chart 5), taking into account 10% and 25% declines in Social Security payments.³ With a 10% decline in benefits, Jack will now have to contribute 8.1% to the moderate portfolio, instead of 4% as assumed previously. This is a doubling of his planned savings. The impact for Jill, though less dramatic, is still substantial (from 4% to 5.6%). To compensate for an anticipated 25% decline in Social Security benefits, Jack's planned savings rate will have to more than triple, while Jill's would almost double. Clearly, Social Security benefit reductions could have an immense impact on individual retirement savings needs.

Although the increased contributions presented above will result (on average) in the same median income targets, they will not necessarily provide the same cushioning on the downside. In general, the worst-case income targets will fall short of their previous levels. Individuals who have an extreme fear of falling short during retirement may want to increase their contributions even further in order to increase the likelihood of meeting their worst-case income targets.

Chart 8 presents the rates at which Jack and Jill will have to contribute to savings in order to meet the worst-case income tar-

gets (Chart 6) as given by the moderate portfolio. For a 10% decline in Social Security benefits, Jack and Jill will now have to contribute 9.2% and 6.2%, respectively, instead of the initial 4%. A 25% decline would mean that Jack's contribution would have to more than quadruple, while Jill's would have to more than double.

Increased Risk Taking

It may seem surprising that small declines in Social Security payments can produce such sharp

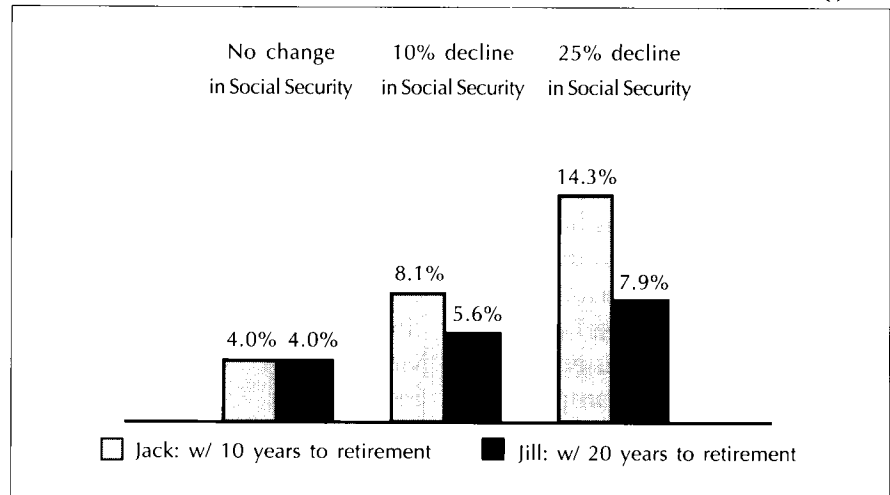
... small declines in Social Security payments can produce such sharp increases in required individual savings ... because individuals are giving up a certain portion of their retirement incomes and replacing it with their savings ...

increases in required individual savings. This is because individuals are giving up a certain portion of their retirement incomes and replacing it with their savings, which are uncertain. But, by becoming even more aggressive in their investments, individuals may meet their median income targets with smaller increases in savings.

In Chart 9, we show the savings rates that would be necessary in order for Jack and Jill to meet their median income targets (Chart 5), assuming they increased the riskiness of their portfolios to compensate for the anticipated reductions in Social Security benefits. For a

Chart 7

Contributions to the Moderate Portfolio to Meet Median Income Targets



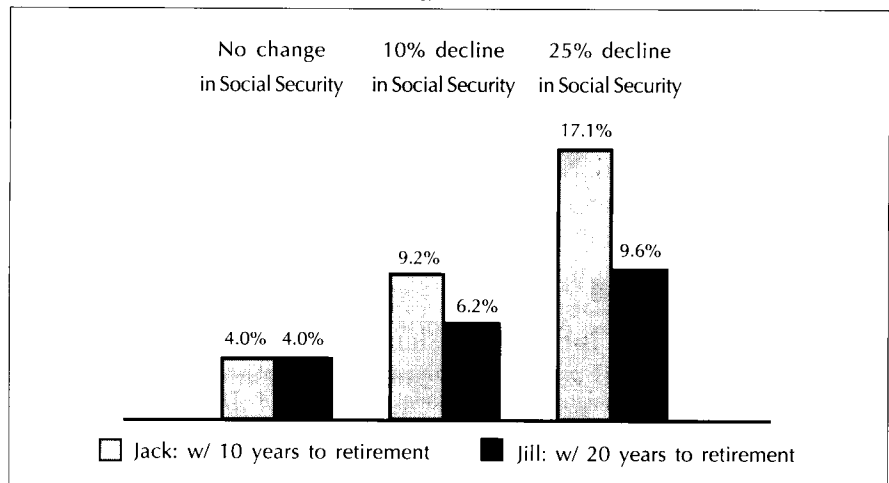
10% decline in Social Security benefits, Jack's savings rate would have to rise to 5.8%, while Jill can meet her median income target with an aggressive portfolio and a small *reduction* in savings.

For a 25% decline, Jack's savings rate would have to increase to 11.8%, and Jill's would have to increase to 5.9%.

But, again, Jack and Jill would have increased the risk of falling short of their desired worst-case income targets. This is because, not only has the share of the uncertain part of their income in retirement increased, but the portfolio has become more aggressive and its volatility has increased. Chart 10 presents the contribution rates to the aggres-

Chart 8

Contributions to the Moderate Portfolio to Meet Worst-Case Income Targets



Contributions to the Aggressive Portfolio

Chart 9—to Meet Median Income Targets

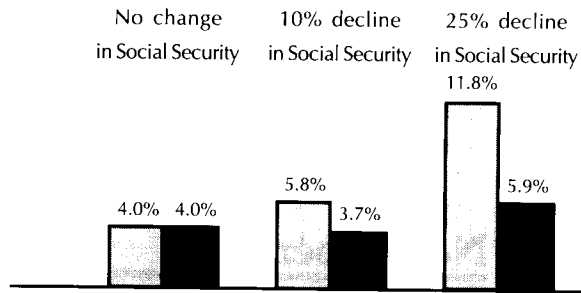
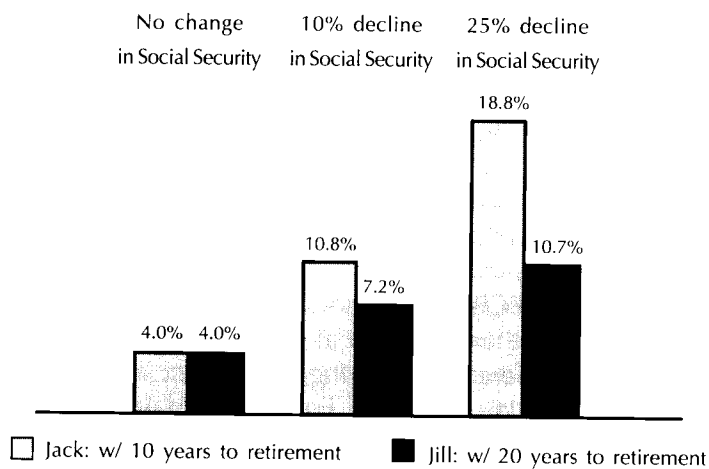


Chart 10—to Meet Worst-Case Income Targets



sive portfolio required to obtain the worst-case income targets of the moderate portfolio.

Conclusions

It is clear from these increases in the savings rates that for individuals who are especially sensitive to either downside risk or falling short of their target income levels in retirement, Social Security reductions put them in a double bind: To make up for the lost benefits they would have to become more aggressive in their investments. But that aggressiveness also increases their risk of falling short unless they substantially increase their savings rates.

ENDNOTES

¹ It should be noted that this assumption is for illustrative purposes only. Investors need not invest their savings in an annuity but may continue to hold their savings in risky portfolios. Also, by no means should 25 years be considered a cutoff, since there is a good possibility that individuals may live beyond 90 years of age.

² The analysis can be interpreted to apply to either a certain reduction in Social Security benefits or a probability of less than one of receiving full benefits.

³ Jack's and Jill's benefits would decline by approximately 10% and 25%, respectively, if benefits were adjusted for inflation at the rate of 1.9% instead of the 3% assumed in our example. Remember that one of the proposed solutions is to reduce growth of benefits by 1.1%, the amount by which economists claim the CPI is overstated.

Conferences

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Monaco Street, Denver, CO 80237-3408, call 303-220-1200, or e-mail Anj Siegel at ams@fp.edu.

August

■ **ICFP.** The Institute of Certified Financial Planners will conduct its CFP Residency Program on August 2–9 at the University of California–Berkeley, Clark Kerr Campus. The program is tailored to CFP practitioners with three or fewer years in the field. For more information, contact ICFP Director of Education at 303-759-4900, or fax: 303-759-0749.

October

■ **IAFP.** The International Association for Financial Planning will present *Success Forum '98* on October 3–6 at the Salt Palace Convention Center in Salt Lake City. The conference will present 60 sessions in seven educational tracks. Topics include investments, insurance, estate planning, and technology. For more information, call 800-945-IAFP.

■ **ASCLU.** The American Society of Chartered Life Underwriters & Chartered Financial Consultants will hold its National Conference '98, *Honoring Our Tradition, Shaping the Future*, October 3–7 in Philadelphia. Topics include qualified plans, employee benefits, financial counseling, business planning compensation, estate planning, life insurance essentials, professional and personal development, and retirement counseling. For more information, call 800-392-6900.

■ **ICFP.** The Institute of Certified Financial Planners will present the CFP Masters Retreat on October 15–18 at the Saddlebrook Resort in Tampa Bay, Florida. Designed for the long-term practitioner. For more information, call the ICFP at 800-322-ICFP.

■ **IARFC.** The International Association of Registered Financial Consultants will host its 7th Annual Financial Planning Cruise/Conference on October

25–31. For more information, contact FPC, Inc. at P.O. Box 42430, Middletown, OH 45042-0430, call 800-666-1656, fax: 513-424-5752, or e-mail: cruise@financialsoftware.com, or visit the IARFC Web site at www.iarfc.org.

November

■ **NYU.** New York University's School of Continuing Education is presenting the 57th Institute on Federal Taxation on November 15–19 at the Hotel Del Coronado in San Diego, California. Topics include current developments, trusts and estates, employee benefits, corporate, partnerships, and personal and family tax issues. For more information, contact NYU School of Continuing Education, Finance, Law, and Taxation, Conference Administration, 11 West 42nd St., Room 429, New York, NY 10036, or call 212-790-1321.

■ **AFCPE.** The Association for Financial Counseling and Planning Education will hold its 1998 National Conference, *Securing Your Financial Future*, November 18–21 at the Fort Lauderdale Marriott Hotel North in Fort Lauderdale, Florida. Speakers and workshops will cover financial counseling and planning topics. For more information, contact Ruth Helein, The Administrators Inc., 3900 East Camelback Road, Suite 200, Phoenix, AZ 85018, call 602-912-5331, or fax 602-957-4828.

January

■ **AICPA.** The American Institute of Certified Public Accountants will hold its 1999 Personal Financial Planning Technical Conference on January 11–13, 1999, at Caesar's Palace in Las Vegas, Nevada. Focus is on personal financial planning, technical expertise, practice management, and innovative personal financial planning strategies. A registration form is available at the AICPA's Web site at www.aicpa.org. To register by phone or to receive a detailed brochure for this conference, call 888-777-7077 or fax your request to 201-938-3169.