



Your Future On The Market

Social Security private accounts in a world of market instability

By Ben Furnas, October 2008

Introduction

The economic events of the past several weeks are a wake-up call to American policymakers to reassess America's vulnerabilities and assumptions about future economic performance. The global credit crisis and the recent stock market slide, in which the Dow Jones Industrial Average fell 24 percent in two weeks,¹ decimated savings and retirement accounts and acted as a caution against rosy economic projections and reckless assumptions about stock market growth.

Yet some conservatives continue to advocate for the privatization of Social Security. These plans would carve out private accounts from Social Security and inevitably cut guaranteed benefits that keep millions of seniors out of poverty. Proponents of Social Security privatization argue that most seniors would earn higher returns in the stock market, but the reality is that trading Social Security for stock is a risky proposition.

Other analyses have documented that timing matters: workers with identical portfolios would earn very different returns depending on when they entered and left the workforce.² It's also true that the U.S. stock market's history over the past two decades has been exceptional. Christian Weller of the Center for American Progress describes having invested a retirement account through the stock growth of the 1990s as "winning the generational lottery."³ But these steady gains in stock value over the 1990s and 2000s hit a serious snag in 2001 and have reversed dramatically in 2008.

These would have made private accounts a terrible deal. Bush-style private accounts for a 2008 retiree would have yielded negative returns in the U.S. market.

A person with a private Social Security account similar to what President George W. Bush proposed in 2005⁴ that was invested in stocks retiring on October 1, 2008 after saving for 35 years (since 1973), would have seen a negative return on their account—an effective -0.6 percent net annual real rate of return—and lost \$26,000 on the market.

Returns from stock markets in other large industrialized countries reveal the wide possible variation in potential returns from stock-based private accounts.

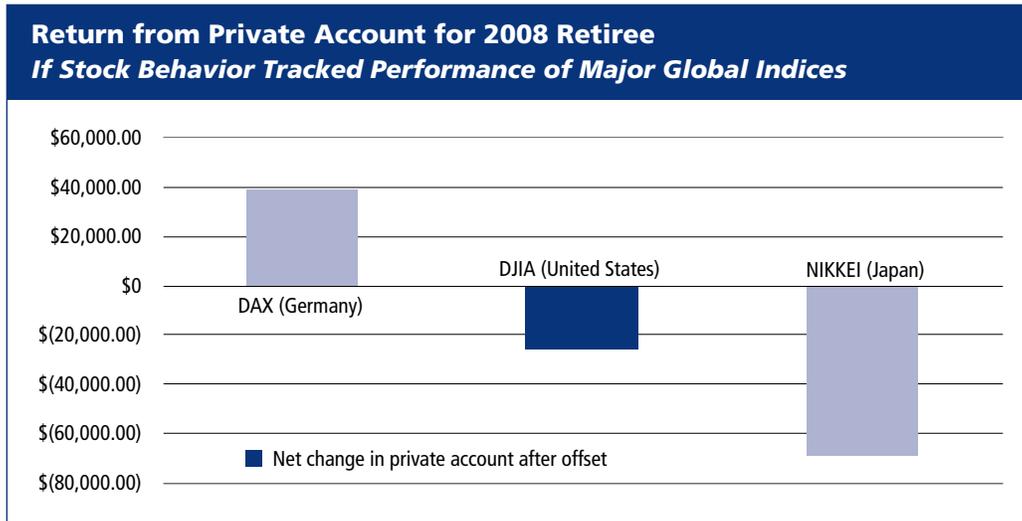
If the U.S. stock market had behaved like the German stock market, a private account would have made \$39,000—the equivalent of a 0.8 percent net annual rate of return after inflation. But if the U.S. stock market had behaved like the Japanese market, a pri-

vate account would have experienced sharp negative returns, losing \$70,000—an effective -3.3 percent net annual rate of return.

The experience of other nations should be a cautionary lesson to American policymakers. The stock market in Japan fell by almost 65 percent over 20 years and still has not recovered fully.⁵ There is little reason to believe that the American stock market is immune to a similar slump.

Analysis

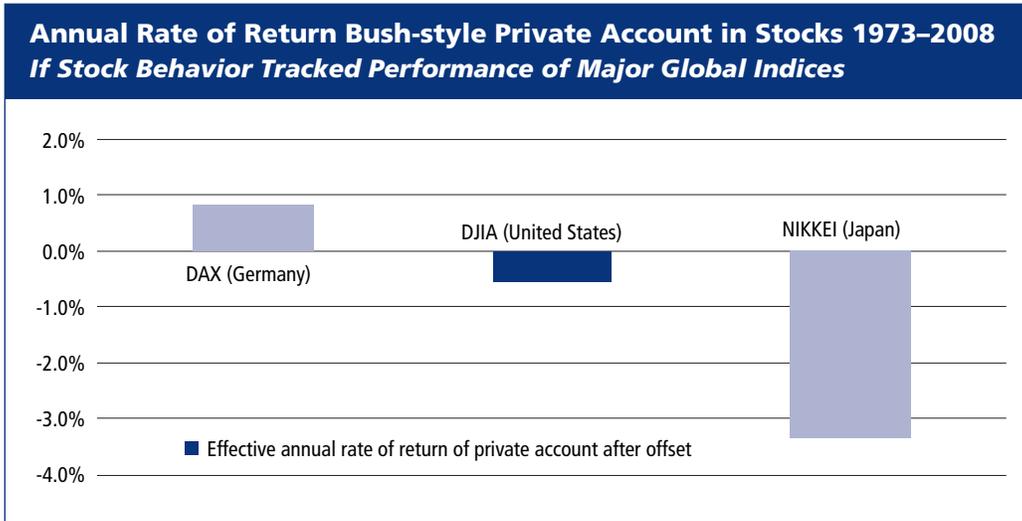
Market behavior in large industrialized economies in the last decades of the 20th century shows the volatility that is possible in an advanced economy, and illustrates the real potential for decades-long declines that could erode the value of a private retirement account invested in stocks.



This paper examines a hypothetical retirement portfolio for a typical worker retiring in 2008 as envisioned by privatization proponents under three market scenarios: the economic activity of the United States, Germany, and Japan over the past 35 years.

The results are sobering.

A person retiring on October 1, 2008, after 35 years of work, would have seen a slight *negative* real return on their portfolio in the United States after inflation and the offset taken under private accounts, according to the Dow Jones Industrial Average. The retirees’ lifetime Social Security benefits would have been effectively cut by over \$25,000, giving their stock-based retirement account a -0.6 annual real rate of return.



If the U.S. stock market had performed like Germany’s DAX, a retiree would have achieved slight positive returns. The retiree would have had additional \$39,000 available and an effective real rate of return of 0.8 percent on their private account.

But if the U.S. economy had performed like the Japanese economy, which experienced several decades of contraction, the annual rate of return would have been almost *four times* as negative as the U.S. return. The retiree would have lost almost \$70,000 from his or her Social Security—a -3.3 percent real annual rate of return.

	Invested In Private Account*	Return from Private Account	Amount Subtracted from Social Security Benefits	Net Change in Benefits	Effective Annual Rate of Return of Private Account
DAX (Germany)	\$ 41,947.68	\$156,689.46	\$ 118,034.99	\$ 38,654.47	0.8 percent
DJIA (United States)	\$ 52,637.44	\$122,305.22	\$ 148,114.52	\$ (25,809.30)	-0.6 percent
NIKKEI (Japan)	\$ 35,872.02	\$ 32,104.20	\$ 100,938.92	\$ (68,834.72)	-3.3 percent

*2008 Dollars, inflated by respective country's inflation rate

Conclusion

In Bush’s 2005 private accounts plan, payments to this account are taken from payroll tax payments and subtracted from eventual Social Security benefits with a 3 percent premium, or “clawback,” attached to ensure solvency.⁶

As Robert Shiller of Yale University explains, “the worker has not really “diverted” his or her Social Security contributions into a personal account, but has merely borrowed from the government to invest in a personal account, and must eventually pay the loan back”—at 3 percent interest.⁷ In order for the worker’s private account to have a greater value than the eventual Social Security payments, the account must earn a real return greater than 3 percent.

The worker's portfolio must not only out-perform the 3 percent "premium"; it must also out-perform inflation in order to produce real returns.⁸ As Robert Greenstein explained in 2005, "those electing the accounts would have their Social Security benefits reduced in return and would come out ahead only if (and to the extent that) their account earned more than 3 percent above inflation."⁹

These findings are consistent with previous work on this subject. The definitive analysis of private accounts performed by Robert Shiller found that, given an all-stock portfolio and typical stock market returns across the world's 15 largest economies, a worker's account would have negative returns 33 percent of the time.¹⁰ Diversifying the portfolio into bonds either from the beginning or over time would actually *increase* the likelihood that an account would have negative returns. An all-bond portfolio would lose value 89 percent of the time, a 50-50 portfolio would lose value 47 percent of the time, and a "Life-cycle fund"—which starts with more stocks in earlier years and gradually shifts to bonds—would lose value 71 percent of the time.

The stock market returns touted by privatization advocates are based largely on the impressive stock performance of the 1990s.¹¹ The thinking is that even if there are some poor years of performance, over a lifetime, the average growth would still be high enough to offer returns greater than the Social Security system.

As Christian Weller of the Center for American Progress points out, retiring in the 1990s and 2000s in the United States with a 401(k) or other stock-invested retirement account is comparable to winning the "generational lottery."¹² Rarely across history, or across the world, has a stock market experienced such significant and sustained gains like the U.S. and European economies did in the 1990s, which fueled above-average returns for workers who took their retirement accounts along for the ride.

But as the case of Japan over the last 35 years shows, there is a real possibility that stock growth will be insufficient to create net positive returns over a lifetime of savings in a private account.

The volatile markets of the past several days, while not included in this analysis in order to have consistent, comparable historical data, would have further decimated accounts. There's no guarantee, as the case of Japan indicates, that an advanced economy would recover in time to yield net positive returns.

Methodology and Notes

To illustrate the potential for wide variation in the stock portion of private funds, this report looks at three alternative market scenarios for a worker retiring in 2008.

This "average" worker earns Social Security's Average Wage Index for the 35 years up to their retirement on October 1, 2008.¹³ Each year, the worker places 4 percent of his or her income in a private account, the value of which rises and falls with stock performance.¹⁴

To calculate the total change in the retiree’s benefits, the amount subtracted from Social Security (money gone to private accounts plus 3 percent) is subtracted from the total amount remaining in the private account on the date of retirement.

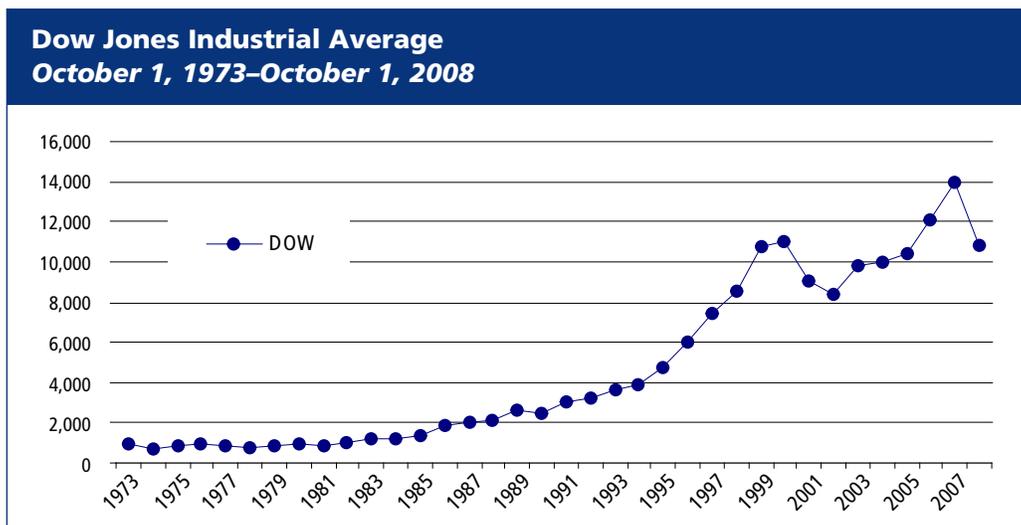
In each scenario, the real value of the total annual contributions is calculated based on the inflation experienced in the country whose index fund is used to approximate returns.

An all-stock portfolio is used to illustrate the variation in these markets and, as Shiller explains, these types of accounts actually offer greater returns and a better chance to perform above the required 3 percent real rate of return than portfolios diversified into stocks and bonds.¹⁵ A bond or combined portfolio is more likely to achieve gross positive returns, but it is also much less likely than a stocks-only portfolio to cross the 3 percent real returns threshold required to overcome the offset.¹⁶

Scenario One: American Economic Performance

In the first scenario, a worker’s retirement account performance is indexed to the Dow Jones Industrial Average over the past 35 years, and adjusted for the United States Consumer Price Index.

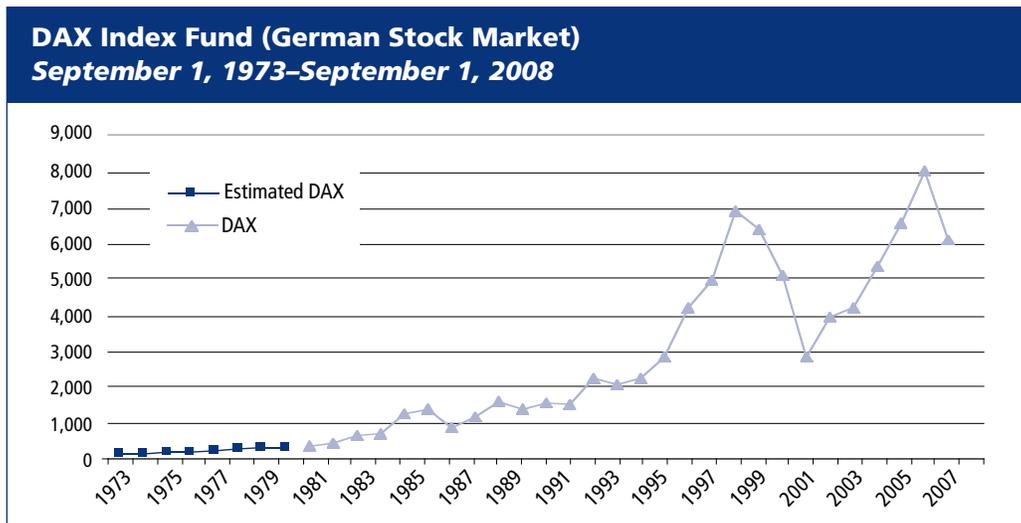
The retiree’s account balloons with the strong compounding years of growth throughout the 1990s and the mid-2000s, but weak performance in the final year before retirement wallops the value of the account and leaves it with \$122,300. The value of the investment over 35 years is \$52,600 in 2008 dollars—an average real annual rate of return of 2.4 percent—not enough to break above the 3 percent offset loss in social security payments. This leaves a net return for the private account of -0.6 percent a year and drains the net benefits received for retirement by almost \$26,000.



Scenario Two: German Economic Performance

In the second scenario, a worker’s retirement account performance is indexed to the DAX German stock index and adjusted for German inflation rates as recorded by the Organisation for Economic Co-operation and Development. DAX data from 1973 to 1981 was unavailable so the annual rate of return for the years 1981 to 2008 was used and extended backward.

To account for inflation in the German market, the real value of contributions was calculated using the German Consumer Price Index.¹⁷

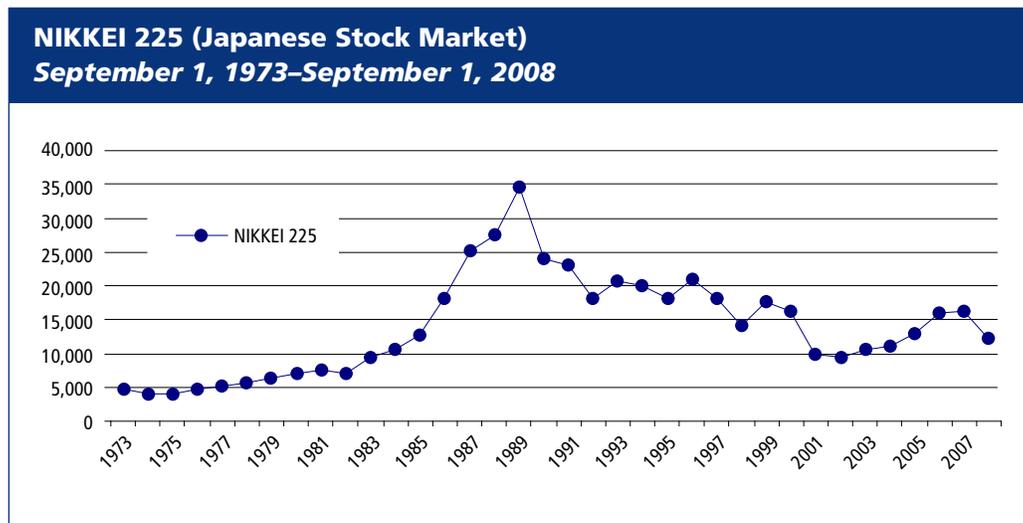


Two periods of substantial consecutive years of growth, throughout the early and mid-1990s and from 2002 to 2007, bolstered the indexed portfolio. Even with a 3 percent offset from real returns, the portfolio maintained a net plus, and the 2008 value of lifetime contributions grew by the equivalent of 0.8 percent each year, leaving an extra \$39,000 available for retirement.

Scenario Three: Japanese Economic Performance

In the third scenario, a private account grew and shrunk with the NIKKEI 225 index, the primary measure of the Japanese stock market. The 2008 values of total contributions are derived using Japanese Consumer Price Index.¹⁸

After experiencing consistent and strong growth through the 1980s, the Japanese stock market dropped sharply and experienced decline and stagnation throughout the 1990s and late 2000s, eroding the value of a stock-based retirement account. A worker contributing funds to this stock market would have seen an average annual real rate of return of -3.3 percent, and lost almost \$70,000 in retirement benefits.



The lesson from the Japanese example is simple: It is very possible for large, industrialized, diverse economies to experience decades-long slumps that would erode the performance of a retirement fund pegged to the market.

Endnotes

- 1 From the September 22, 2008 to October 6, 2008.
- 2 Robert Shiller, "The Life-Cycle Personal Accounts Proposal for Social Security: An Evaluation," March 2005. Available at <http://www.haas.berkeley.edu/groups/finance/ShillerPersonalAccounts.pdf>.
- 3 Christian Weller, "Social Security Privatization: The Retirement Savings Gamble," Center for American Progress, February 2005. Available at http://www.americanprogress.org/kf/ss_gambling_weller.pdf.
- 4 The White House, "Strengthening Social Security for the 21st Century," February 2005.
- 5 From 1989 to 2008.
- 6 *The Washington Post*, "Retirement Accounts Questioned," March 19, 2005. Available at <http://www.washingtonpost.com/ac2/wp-dyn/A48341-2005Mar18?language=printer>.
- 7 Shiller, "The Life-Cycle Personal Accounts Proposal for Social Security."
- 8 *The Wall Street Journal*, "Social Security Overhaul Plan Leans on a Bullish Market," February 28, 2005. Available at <http://online.wsj.com/article/SB110934548027864341.html>.
- 9 Robert Greenstein, "Did the President Mislead on Social Security in his April 29 Press Conference?" Center for Budget and Policy Priorities, May 2005. Available at <http://www.cbpp.org/5-2-05socsec3.htm>.
- 10 Shiller, "The Life-Cycle Personal Accounts Proposal for Social Security."
- 11 Edith Russell and Christian Weller, "The Perils of Privatization: Bush's lethal plan for Social Security," May 18, 2000. Available at http://www.epi.org/content.cfm/issuebriefs_ib145.
- 12 Christian Weller, "Social Security Privatization: The Retirement Savings Gamble."
- 13 Average Wage Index available at Social Security Administration.
- 14 Market data is adjusted data to account for dividend payments.
- 15 Shiller, "The Life-Cycle Personal Accounts Proposal for Social Security."
- 16 Robert Shiller, "Life Cycle Portfolios As Government Policy," Cowles Foundation Paper No. 1182, Yale University, 2005. Available at <http://www.econ.yale.edu/~shiller/pubs/p1182.pdf>.
- 17 OECD data 1973-2008.
- 18 Data from Japanese statistical bureau.