A Vision for the U.S. Pension System at 100

by
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More than seventy years have passed since Congress laid the foundation of the modern U.S. pension system by enacting the Social Security Act. The full structure took nearly fifty years to complete and encompasses private pensions and tax-sheltered saving, as well as social security. From the start some critics thought social security was a wrong-headed interference with personal liberty that would undermine self-reliance. Others came to believe that however well social security served an industrial nation less affluent and less mobile than America is today, it is not well designed for a post-industrial, 21st-century America. Still others argue that the original vision, although attractive, is unsustainable because of the much-cited 'entitlement crisis.'

I believe that each of these views is wrong. In broad outline, the system is sound. It is sensibly designed. And it is affordable. Some changes are now desirable. Others will, and should, be made as economic and political conditions warrant. But they should affirm and strengthen the system, not scale it back or repeal it.

In recent years, the risks from which social security is intended to provide protection have increased. These risks include job loss and financial market instability. Other elements of the overall pension system now expose workers to more risk than in the recent past. For these reasons, social security replacement rates should be maintained or increased, not cut to deal with an imagined entitlement crisis.

The term 'entitlement crisis' has been repeated often. It is so widely and uncritically accepted that in denying its reality one risks impugning one's own credibility. *But there is no general entitlement crisis.* *There is not even a general entitlement problem*. Projections do indicate serious future budget problems. They also show that these gaps stem entirely from predicted increases in health care spending. According to projections of the Congressional Budget Office in 2007, increases in spending on Medicare and Medicaid account for 95 percent, or more than 200 percent, of the deficit they foresee in

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2050, depending on which CBO projection one uses.[1] Related projections of the Center on Budget and Policy Priorities foresee Medicare and Medicaid spending growing by about 8 percentage points of GDP between 2010 and 2050. That growth exceeds the projected budget deficit (excluding interest) in 2050[2] Quite simply, these projections indicate that current-law general revenues, plus payroll and other taxes earmarked for pensions, are sufficient to pay for all projected non-health budget outlays, including all social security benefits promised under current law *and* all non-health entitlements.[3] That was true before the current economic slowdown. But, even after the recession ends the long-term budget challenges will come mostly from rising health care spending.[4]

Nor are the challenges posed by growing health care spending confined to the public sector. Continued growth of health care spending promises to devastate private, as well as public, budgets. Unless we Americans abandon our commitment to assure the elderly, disabled, and poor health care similar to that available to other U.S. residents, it is not possible to deal with the public, fiscal challenge without simultaneously addressing the way we pay for and deliver both privately and publicly financed health care.

The term 'entitlement crisis' was always inaccurate. At one time, it was at least fresh and vivid. Now, it is both clichéd and false. In the name of intelligent and constructive debate about how to reform the way we pay for and deliver health care, it should be scrapped.

What Pensions Do[5]

Pensions serve multiple functions. They help workers smooth consumption over the life cycle. In doing so, they overcome the tendency of many people to save so little that they must either work until near death or become impoverished after retirement. Pensions also can help redistribute income from high to low earners. Defined-benefit pensions can protect workers from variation in asset prices and interest rates, unemployment, inflation, and the risk of outliving their assets. They can also be used to influence when workers retire. Maximizing all of these goals simultaneously is impossible. Consequently, a balance must be struck among them. Pension design is therefore inescapably political. What counts is not how any single element of the pension system works, but how well the entire system serves these multiple goals.

How efficiently the U.S. system achieves these goals is an important topic for economic analysis, but how it balances them is a matter of judgment and political preference. Although the U.S. system suffers from some shortcomings, I believe that it judiciously balances these competing goals. It has drastically reduced poverty among the elderly and disabled. It enables most Americans to achieve living standards after retirement that are not radically below those they enjoyed while working.[6] Certain problems remain. Poverty remains excessive among the very old. Perhaps most notably, life-expectancy has risen significantly in the last three decades, while ages of retirement have changed little over that period. In combination, these developments mean that an increasing proportion of the production of active workers will be spent by people not in the labor force. This situation, combined with the sharp projected increase of health spending promises problematic limits on growth of non-healthcare consumption of active workers.

The Pension System

From its inception, the U.S. pension system was seen as a combination of social insurance, private pensions, and personal savings. The evocative but imprecise metaphor for that compromise was the 'three-legged stool.' Actually , there was a fourth leg, means-tested public assistance, which set a floor on incomes for the elderly, blind, and disabled.

The United States was among the last developed nations to enact a national social insurance pension.[7] Initially, that pension was far from universal. Social security included barely half the labor force until 1950 after which Congress enacted a series of extensions that made the system all but universal. Along side of these extensions a complementary system of private pensions and tax-favored private saving plans grew up that enabled workers to retire before death was imminent. Growing number of workers did just that. An increase in the proportion of workers' lifetimes spent in retirement was an explicit objective of the program. The practical question now is wether, with improvements in health and increased longevity, that trend is going too far.

Of the four legs, all but public assistance explicitly smooth consumption. Social security is progressively redistributive.[8] It moves more people out of poverty than all other transfer programs combined. In contrast, the tax benefits used to promote private pensions

are regressive with respect to income; and integration formulas in some defined-benefit plans are explicitly regressive.

The pension system did not emerge fully-formed with enactment of the Social Security Act in 1935. It emerged gradually as successive administrations and Congresses shaped and modernized social security and expanded and strengthened other components. The social insurance component was fully developed only in 1977 after Congress corrected the automatic adjustment of benefits to prices and wages initially enacted in 1972, and when in 1983 a Democratic Congress and a Republican president embraced a grand compromise to maintain financial solvency based on the report of the Greenspan commission.

Just before and after this landmark legislation, Congress enacted important reforms in other elements of the pension system. It converted the state/federal, means-tested, public assistance system into supplemental security income, a genuine national income floor for the aged, blind, and disabled. In combination with food stamps, provide an income close to official poverty thresholds. It enacted the Employee Retirement Income Security Act (ERISA) and a welter of tax-sheltered individual savings vehicles. In combination, these changes facilitated the almost complete replacement of private, defined-benefit pensions with private defined-contribution pensions.

Social Security and private pensions initially shared a key design feature: both were defined-benefit arrangements. Workers were promised pensions based on past earnings, years of service, or both. Because of their design benefits were independent of financial market risks. To be more precise, the financial market risks were spread widely across large groups of people and over time.

In the case of social security, risk-spreading was mediated by the trust fund. Until the early 1970s, the combination of growing nominal wages and constant statutory benefits repeatedly generated projections of growing surpluses. Congress repeatedly responded, usually in even-numbered years, by raising benefits enough to more or less maintain replacement rates. Then Congress introduced automatic adjustments for changes in wages and prices. After indexing was introduced, long-term projections typically showed deficits. Unsurprisingly, Congress found correcting deficits than disposing of surpluses had been.

Initially, company pensions covering most workers were also defined-benefit in form. Benefits were related to past earnings, often over many years, years of service, or both, and did not *directly* depend on financial market outcomes. If events forced a cut in pensions, the plan was normally changed, for both current and future workers and sometimes for pensioners as well. As a result, private defined-benefit pensions *formally* spread risks widely, over a company's or an industry's current and future pensioners, workers, and shareholders, although not so widely as did social security.

Reality was rather different, however. Before ERISA, benefits might not vest until they were claimed. Few companies maintained sufficient reserves to pay promised benefits. Long-term workers, fired even days before they became eligible for pensions, might receive nothing. Surviving dependents of workers or pensioners were frequently unprotected. A bankruptcy filing could terminate pensions or expunge rights to anticipated benefits accumulated over a lifetime.

ERISA changed the rules of the pension game. It established vesting rules, set reserve requirements, and created the Pension Benefit Guarantee Corporation to protect at least some of the pensions of former employees of bankrupt companies. Before the enactment of ERISA, the term *defined benefit* private pension was almost an oxymoron. After ERISA, nominal private pensions actually became *defined*. Real benefits, however, remained vulnerable to inflation.

Personal saving, by definition, was and is a defined-contribution system. People can save as much or as little as they wish and invest as they choose. They reap added income from investing in risky assets—or not, depending on external events. Savers can consume accumulated balances themselves, pass them on to heirs, or give them away. Apart from tax incentives that encouraged charitable giving, public policy was indifferent to their choices.

ERISA produced a cascade of unintended effects. Most notably, it contributed to the decline of the defined-benefit private pension system. The provisions that assured workers they would, indeed, receive the benefits they were promised also discourage employers from offering them. The requirement that benefits vest after a few years and that employers

had to set aside reserves earmarked to assure payment converted a somewhat diaphanous promise into a hard liability.

Even worse, short-run costs became highly unpredictable. Simultaneous drops in asset values and interest rates, typical during recessions, could make previous healthy companies insolvent. Furthermore, required contributions to pension reserves could mushroom just as profits and cash flow were collapsing, jeopardizing the liquidity of even solvent businesses. Irritating paperwork requirements increased. And, finally, analysts showed that defined-benefit promises were usually not worth much to workers who changed jobs frequently over their careers. People could work all their lives in successive jobs with seemingly generous retirement benefits and end up with a negligible private pension. This shortcoming became increasingly salient as labor-force mobility increased and as employment fell in industries with union-negotiated defined-benefit plans.

All that was needed to assure the demise of defined-benefit private pensions was an alternative. Enter 401k plans, IRAs, SEPS, and the rest of the 'alphabet soup' of tax-sheltered savings plans. These plans provided savers with tax advantages as good as those available through defined-benefit pensions, permitting employers to avoid the bother and risk of defined-benefit pensions and giving employees defined-contribution pensions they would value more highly. Thus, ERISA, associated regulations, and economic change were hand-maidens to the almost complete replacement of defined-benefit with defined-contribution plans.

Of course, defined-contribution plans did not make risks disappear. They simply shifted those risks from employers to employees. Under defined-contribution plans, fluctuations in interest rates and asset values had no direct effect on company balance sheets or cash flow. But they had massive effects on the private pensions workers could count on (see figure 1). Drops in stock prices and interest rates could cut pensions by half or more in just a few years. If those shocks came just before retirement (or the onset of disability or the death of a breadwinner), there was little workers could do. The fact that there no way to eliminate the multiple risks associated with any long-term promise has led some commentators to allege that social insurance must be just as risky as individually owned accounts are. This view ignores the fact that defined-contribution account holders

must shoulder alone the risks that are broadly diversified over time and among many workers in the case of social insurance and private defined-benefit plans.[9] This shift from defined-benefit to defined-contribution private pensions is a form of de-pooling—shifting of risk from groups to individuals.

The amount of risk borne by retirees has increased for at least three other reasons. First, volatility of asset prices has risen. This trend began even before the stock-market blood-baths of 2000 and 2008.[10] Income from assets has become less reliable. Second, social security replacement rates have fallen and, under current law, will continue falling. The dominant cause is the slowdown in growth of real earnings, attributable in turn to the long-term declines in growth of productivity per worker and birth rates. The third factor is the inexorable climb of health care spending. Social security 'take-home-pay' consists of the cash benefit less premiums for part B of Medicare, which are deducted before checks are distributed. Premium increases have outpaced earnings growth (by which initial benefits are indexed) and inflation (by which currently payable benefits are adjusted). Although the utility of health services has grown with their cost, the simple fact is that social security take-home-pay available to pay for everything but health care is shrinking relative to past cash earnings.

In several key respects, therefore, typical retirees now must shoulder increased risk. Although social insurance still diffuses risks broadly, cash replacement rates are falling.

Key Trends

Two important forces influencing the need for social insurance benefits. Increased longevity and the rising cost of health care services are increasing the need for pension benefits.

Health Care Expenditures

The share of income spent on health care has increased greatly and is likely to continue rising. The average proportion of health care spending covered by third-party payments has also increased. The growth of health care spending is likely to continue outpacing income growth. The share of spending covered by third-party payments is likely to stop rising. For both reasons, health care spending will put increasing stress on personal

budgets, as well as on those of federal and state governments. Furthermore, health care spending is highly concentrated. Among the elderly, 20 percent of households account for 58 percent of spending; 5 percent, for 32 percent of total spending.[11] Medicare, as currently constituted, cannot offset the risks from these highly concentrated outlays. This indictment holds even for covered services as the program requires sizeable cost sharing and contains no stop-loss limits. In addition, it provides very limited protection against the costs of institutional care. To fill these gaps, it will be necessary both to improve catastrophic coverage and address long-term care. But fiscal pressures suggest that the proportion of income that the elderly pay out-of-pocket for health care is likely to increase.[12]

Longevity and Retirement Age

Increases in life-expectancy boost social security costs. Because of the delayed retirement credit, changes in the age at which benefits are claimed does not. Nor would boosting the age of initial entitlement.[13] These facts are not commonly recognized. Simply put, the only way to offset the added costs arising from increased longevity is to cut benefits. Raising 'the normal retirement age' is simply a benefit cut. It does not change when people can claim benefits and has little demonstrated effect on when people actually retire. In contrast, the age at which workers become eligible for benefits does seem to influence retirement ages. So does whether future pensions for workers who put off claiming are increased enough to offset the loss from deferral.[14]

Much is sometimes made of the fact that people now spend more years in retirement than they did when social security was enacted. This observation is indisputable, but its relevance to policy is complicated. Social security was intended to help people retire. It worked. But increased longevity has indisputably boosted program costs. Given projected trust fund deficits, policy-makers need to decide whether to cut program costs by reducing benefits or to find other ways to close the gap.

Social Insurance for the Future

Policy makers therefore face at least three questions regarding the pension system: First, are benefits too high? This question should apply to the pension system as a whole,

not just to the social insurance component. Nevertheless, I shall focus on social insurance because it is the principle source of income for more than three-fifths of retirees. Second, if, as I shall argue, benefits are not excessive, how should the projected deficit in the social security trust fund be closed? Third, should the structure of benefits be changed?

Benefit Levels

One might conclude that benefits are 'too high' for various reasons. They might be judged unaffordable. The problems with which social insurance copes might have lessened. Or benefits might seem excessive compared to those of other countries. None of these three approaches suggests U.S. benefits are too high. As I noted at the outset, U.S. entitlements, apart from health care, are clearly affordable. The risks from which social insurance is designed to protect people have, if anything, increased. The volatility of asset prices has increased, at least since the late 1970s and early 1980s.[15] Risk spreading from defined-benefit private pensions has diminished. Social security replacement rates have declined and, under current law, they will fall more.[16] Average out-of-pocket health care spending is likely to increase faster than incomes. And U.S. benefits are modest compared to those of other countries (see table 1). All of these considerations suggest that social security replacement rates should be raised, if possible, and that they should certainly not be cut.

Closing the Gap

There are numerous ways to close the modest projected long-term deficit in the social security trust fund. These ways include extending coverage to the small fraction of workers who remain outside the system, modestly increasing the earnings base, earmarking part or all of the estate tax to social security, and using an improved price index to adjust for inflation.[17] Current revenue sources and reserves are projected to be adequate to sustain social security benefits at current statutory levels for roughly three decades. Together with the changes listed above and a few others, it is technically easy to eliminate the projected trust-fund deficit measured over the commonly-used, seventy-five-year planning horizon and to make its later reappearance unlikely. The methods should leave the basic structure of the program unchanged and statutory benefits at or above those promised under current law.

The Benefit Structure

I believe that the delayed retirement credit should be modified to encourage workers to delay retirement. Later retirement would achieve two benefits. First, it would increase annual replacement rates. Second, it would contribute modestly to lowering the projected *overall budget* gap. Later retirements would expand the labor force, increase potential national output, and raise full-employment revenues. To the extent that workers remained employed beyond age 65, it would also lower Medicare spending.

I suggest three specific measures to achieve this goal. The first is a direct subsidy to employers to defray, in part, the added costs of health insurance for older workers.[18] The second is a zero-net-cost steepening of the delayed retirement credit (DRC). The current credit is actuarially neutral. After the change, the expected, discounted present value of lifetime benefits would increase with the age at which benefits were claimed. This change would favor upper-income and well-educated workers who already are most likely to work beyond the age of initial eligibility. But this regressive tilt would be offset by an increase in the wage base, which would raise taxes of high earners more than benefits.

A third way to encourage later retirement is an increase in the age of initial eligibility for retirement benefits. As I have noted, to the extent that such an increase boosted the size of the labor force, it would lower projected budget deficits, even though it would not reduce the projected trust-fund deficit. Before such a change is made, it would be important to identify ways to provide disability or other benefits to those workers for whom continued work poses undue burdens.

None of these measures would have large or instantaneous effects on employment of older workers. Retirement behavior is shaped by social norms as well as economic incentives. But norms respond to economic incentives, and such policies might well contribute to the trend, now nearly two decades old, for older workers to remain active until later ages than their predecessors did. Perhaps because of changes in economic incentives—liberalization of the DRC and the decline of defined-benefit pensions that strongly encouraged retirement—norms have been changing. Since the early 1990s, employment among older workers, both men and women, have been increasing.[19] The measures suggested here would support those trends.

Tax Policy

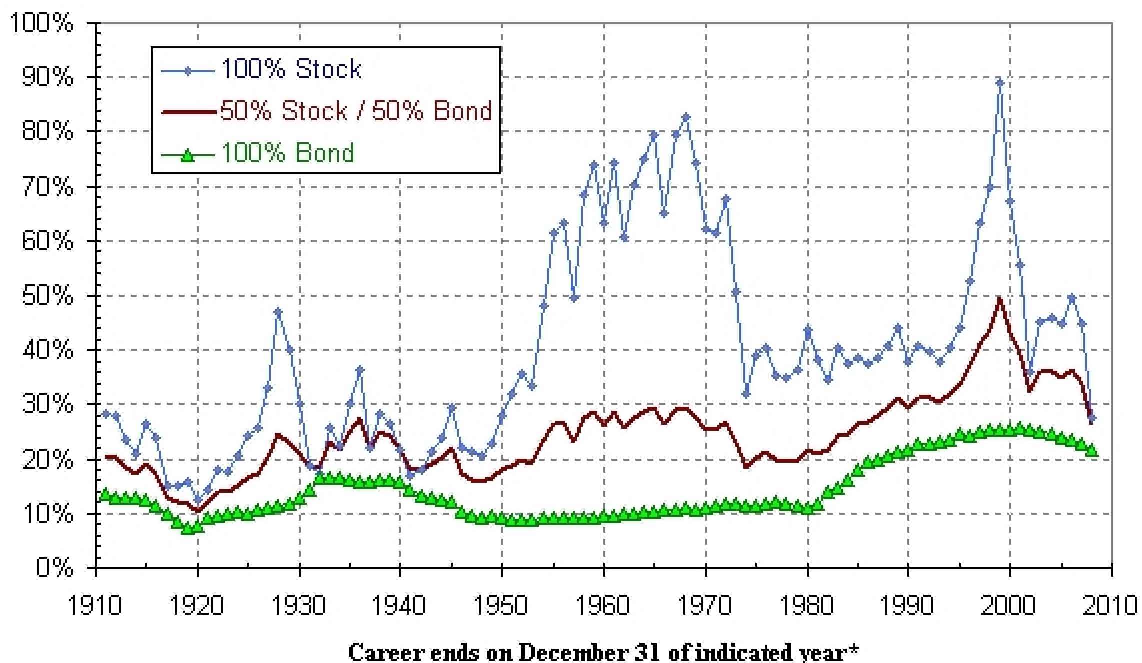
That the private pension system primarily serves workers with above-average earnings is well documented. The tax system helps explain this pattern. Taxes on deposits to pension reserves are deferred until funds are paid out. Deferral means more to people facing high tax rates than it does to those facing low rates (it means nothing at all to people facing zero rates). Several proposals have been advanced to reduce this differential effect, including automatic enrollment in 401k plans or IRAs and income-tested, refundable credits for savings.

Summary

Projections indicate that entitlement spending other than that on health care is well controlled. Rapid growth of health care spending threatens both private and public budgets. The only effective way to deal with both problems is health system reform. Social security replacement rates are falling and are already low by international standards. A declining proportion of retirement incomes is protected from financial market risks that individuals are poorly equipped to handle. Social security is affordable. The need for it has been increasing. Replacement rates have nonetheless been falling. For all these reasons, some increase in 'social security take-home pay' is warranted. The best way to do so, without adding materially to program costs, is by encouraging workers to retire later than they now do by increasing employers' demand for the services of older workers and to increase the supply of those services. Extending working lives would not materially change social security's long-term financial balance but it would contribute modestly to reducing projected budget deficits.

Figure 1

Replacement rate obtained from personal account savings of worker who contributes 4 percent of annual salary over a 40-year career



* Replacement rate for worker retiring at the end of 2008 is calculated based on returns through October 31, 2008.

For a full explanation of the calculations, see Gary Burtless, "What Do We Know about the Risk of Individual Account Pensions? Evidence from Industrial Countries." *American Economic Review, Papers and Proceedings* (May 2003).

Source: Gary Burtless, computations prepared on October 31, 2008

Note: The real replacement rate is calculated after converting the worker's initial annuity payment and career earnings into 2008 dollars. The replacement rate is the ratio of the initial annuity a worker could purchase on the day he turns 62 divided by his real average annual earnings between ages 54 and 58, when workers' lifetime earnings typically reach a peak. I assume the (nominal) price of an annuity is determined by the (nominal) yield on long-term U.S. Treasury bonds.

Table 1

Pension Replacement Rates in the United States, Compared to Those in Other OECD Nations at Various Earnings Levels

Half of Average Earnings	Average Earnings	Twice Average Earnings
U.S. Rank Among Thirty Nations		
26	25	22
U.S. Replacement Rate as percent of OECD Average		
68	68	58

Source: O.E.C.D. *Pensions at a Glance,* table 4.1, p. 49, 2005

Endnotes

1 According the CBO's Alternative Fiscal Scenario, spending on Medicare and Medicaid is projected to increase by 8.4 percentage points of gross domestic product (GDP) between 2007 and 2005. Non-interest government spending is projected to exceed revenues by 8.9 percent of GDP in 2050. In the baseline scenario, spending on Medicare and Medicaid are projected to increase by 7.9 percent of GDP, more than twice the deficit of 3 percent of GDP projected for 2050. See Congressional Budget Office, *The Long-Term Budget Outlook*, December 2007, Data, at http://www.cbo.gov/ftpdocs/88xx/doc8877/SupplementalData.xls

2 The budget gap is projected to be 7.4 percent in 2050. See Richard Kogan, Kris Cox, and James Horney, *The Long-term Fiscal Outlook Is Bleak, Restoring Fiscal Sustainability Will Require Major Changes to Programs, Revenues, and the Nation's Health Care System*, Center on Budget and Policy Priorities, December 16, 2008, at http://www.cbpp.org/12-16-08bud.pdf .

3 In addition to the references in notes 1. and 2., see Henry J. Aaron, "Budget Crisis, Entitlement Crisis, Health Care Financing Problem—Which Is It?" *Health Affairs,* November/December 2007, pp. 1622-1633.

4 Paul Van de Water and Kris Cox, "Economic Recovery Bill Would Add Little to Long-run Fiscal Problem," Center on Budget and Policy Priorities, January 16, 2009 at http://www.cbpp.org/1-16-09bud.htm. Deficits generated by the economic slowdown will impose additional long-term burdens through increased debt service costs, but the overall conclusion that the bulk of the long-term fiscal problem derives from projected increases in health care spending remains valid.

5. Nicholas Barr and Peter Diamond, *Reforming Pensions: Principles and Policy Choices*, Oxford University Press 2008.

6 John Karl Scholz, Ananth Seshadri, and Surachai Khitatrakun, "Are Americans Saving 'Optimally' for Retirement?" *Journal of Political Economy*, vol. 114, no. 4, 2006.

7 Social security covers not only retirees, but also the disabled and survivors. Although I shall refer throughout only to retirees, most of the same considerations that I shall be examining apply equally to other social security beneficiaries.

8 The question of whether social security, including disability and survivors benefits, is or is not progressive has been debated for years. For the most recent contribution to this debate which supports the view that the system as a whole is

progressive, see Andrew G. Biggs, Mark Sarney, and Christopher R. Tamborini, "A Progressivity Index for Social Security," Social Security Issue Paper, No. 2009-01, January 2009 at www.socialsecurity.gov/policy .

9. Dean Leimer, "Cohort-Specific Measures of Lifetime Social Security Taxes and Benefits," ORES Working Paper No. 110, December 2007, at http://www.socialsecurity.gov/policy/docs/workingpapers/wp110.pdf

10. John Y. Campbell et al., "Have Individual Stocks Become More Volatile? An Empirical Exploration of Idiosyncratic Risk," *Journal of Finance*, vol. 56, no. 1, 2001, pp. 1-43; also see CBOE volatility index at http://en.wikipedia.org/wiki/File:Vix_Oct08.png.

11 Author's tabulations from the 2005 Medical Care Expenditure Panel Survey. Health care spending among the elderly is much less concentrated than it is among the non-elderly, presumably because the typical non-elderly person has few or no medical problems, while the typical elderly person has some or many health problems.

12 How much it increases will depend on a number of factors that I do not address. The overarching question is whether the demand for medical care is a function of calendar age (years-since-birth) or of remaining life-expectancy (years-until-death). I believe that current evidence supports the latter relationship better than the former. The other uncertainty concerns whether specific advances in medicine ameliorate or forestall the conditions that cause slow decline, such as Alzheimer's disease.

13 For official estimates, see Office of the Actuary, Social Security Administration, *Summary Measures and Graphs, Category of Change: Retirement Age* http://www.ssa.gov/OACT/solvency/provisions/charts/chart_run280.pdf. A gradual increase in the age at which benefits are first paid from age 62 to age 65 leaves the 75-year actuarial balance unchanged, somewhat reducing outlays in the near term and increasing them later.

14 Jonathan Gruber and David Wise, *Social Security Programs and Retirement around the World Fiscal Implications of Reform*, University of Chicago Press, 2007.

15 John Y. Campbell et al., "Have Individual Stocks Become More Volatile? An Empirical Exploration of Idiosyncratic Risk," *Journal of Finance*, vol. 56, no. 1, 2001, pp. 1-43; also see CBOE volatility index at http://en.wikipedia.org/wiki/File:Vix_Oct08.png.

16 The social security benefit replacement rate for the median earner, net of Medicare part B premium deductions, is projected to drop from 39 percent in

2002 to 31 percent in 2030. Alicia H. Munnell, Anthony Webb, and Alex Golub-Sass, *How Much Risk Is Acceptable?*, Center for Retirement Research at Boston College, Number 8-20, November 2008

17 For alternative menus of changes that would close the projected trust fund deficit, see Peter Diamond and Peter Orszag, *Saving Social Security*, Brookings Institution, 2004; Henry J. Aaron and Robert Reischauer, *Countdown to Reform: The Great Social Security Debate*, Brookings, 2001; Robert M. Ball, "A Social Security Fix For 2008," *Washington Post*, October 29, 2007.

18 This recommendation assumes that employers continue to sponsor and pay for health insurance on behalf of their employees. The various proposed reforms that would remove employers from this role would accomplish the same objective as the recommendation presented here.

19 Gary Burtless and Joseph F. Quinn, "Retirement Trends and Policies to Encourage Work among Older Americans,", in P.P. Budetti, R.V. Burkhauser, J.M. Gregory, and H.A. Hunt, eds., *Ensuring Health and Income Security for an Aging Workforce* (Kalamazoo, MI: Upjohn, 2001), pp. 375-416. Kevin E. Cahill, Michael D. Giandrea, and Joseph F. Quinn, "A Micro-level Analysis of Recent Increases in Labor Force Participation among Older Workers," Center for Retirement Research at Boston College, February 2008, at http://crr.bc.edu/images/stories/Working_Papers/wp_2008-8.pdf?phpMyAdmin=43ac483c4de9t51d9eb41.