Good morning. My name is Robert Shiller. I am Professor of Economics at Yale University, Chief Economist at Macro Securities Research, LLC, and author of the books *Irrational Exuberance* and *The New Financial Order*. I appreciate this opportunity to provide information for the Committee.

I have been invited to talk about the reform of Social Security, and about President George W. Bush’s plan for personal accounts as part of Social Security, a plan that would get Americans involved in investing in the stock market for their retirement and that would reduce the protections now in the Social Security system.

I want first to describe the risks in the President’s plan and then to make a new proposal.

I will first put the President’s plan in a broader context of risk management, and in the context of the life-cycle accounts that were the most original part of the President’s proposal, and argue that the plan would create significant risks for the nation’s workers.

Then, I will describe my new proposal, which is that we should redefine the retirement benefits for Social Security so that only the average wage index (AWI) is used, eliminating the consumer price index (CPI) for use in indexing.

I want to emphasize that risk management is a delicate art, with possibly very serious consequences. I want to commend our President and his Administration for thinking creatively about reforming our Social Security system to allow it to take into account bigger risk management technology, but also to warn that the present plan would entail serious risks that some workers may find difficult to bear, especially at a time in America when income inequality has been worsening and threatens to worsen even more in the future.

The President has articulated a broad vision for America that he calls the “Ownership Society.” This vision, with the goal of getting more Americans involved in ownership and hence involvement in our capitalist system, is very positive, and we should keep it in mind when considering a wide range of policy initiatives. But, the plain reality is that not everyone will ever embrace the Ownership Society, and that the older concept of social insurance is absolutely essential to a well-functioning society. Insurance is just as
venerable a capitalist institution as is the stock market, and we should make sure that it is to flourish.

With the 3% real offset rate that the President’s plan entails, many workers who choose the plan would see their conventional Social Security retirement benefit decimated. At the very least, the offset rate is too high. The 3% might better be replaced by a market-based offset rate, tying the offset to the real yield on U.S. long-term inflation-indexed bonds, currently generally between 1% and 1.8% depending on maturity. I believe this would likely result in a lower offset rate, although the actual rate would be tied to market outcomes instead of today’s imprecise projections. With a lower offset rate, workers who choose the President’s personal accounts would not be so heavily dependent on their investments in the personal accounts.

Whatever the offset rate, the plan does entail serious risks. The stock market could do badly in future decades, leaving retirees, who chose the personal accounts, in poverty. It is as simple as that. We are living in a society that is overconfident about the stock market. Congress needs to take account of this overconfidence. The fundamental truth is that no one really knows what the stock market will do in future decades. While the U.S. stock market has performed splendidly for over a century, worldwide experience shows that stock market investments can be risky indeed, even for the long term. This risk is very much with us today, as we see globalization, competition from China, India and other countries, as well as instabilities from environmental changes, resource depletion, and even from global terrorism. These are not the only risks. We are talking about the now-unknown 21st century, and the list of uncertainties about future stock market values is unfortunately beyond our abilities to identify today.

The President proposes to help deal with the risk by giving people a life-cycle portfolio option for the personal accounts, and to set up a mechanism that automatically diverts the personal account into the life-cycle account when the worker reaches the age of 47, unless the worker and spouse sign a waiver acknowledging the risk. Many countries have already instituted personal accounts as part of their Social Security systems, but as far as I have been able to determine, none has integrated life-cycle portfolios as far as the President proposes.

A life-cycle account adjusts the account balances in accord with the worker’s age. Although the President has not defined the life cycle portfolio precisely, examples of such accounts offered privately today are heavily invested in the stock market when the person is young, less heavily invested when the person is old. Academic research in finance has not yet reached any agreement how account balances should be adjusted with age.

I conducted a study in March 2005 that simulates the long-term performance of personal accounts, and the paper, data and simulation program are available on my book website irrationalexuberance.com. The paper uses historical returns from 1871-2004 to assess the likely outcomes of the President’s proposal for various worker choices among the options. It does 91 different simulations for a worker born in 1990 assuming that he or
she experiences the actual returns from 1871-1914, 1872-1915, 1873-1916, all the way through 1961-2004.

This sample has a U.S. historical average real stock market return of 6.8% annually, slightly above the 6.5% annual return assumed by the Social Security actuaries. My study also included “adjusted” stock market returns designed to match the median stock return in 15 countries from 1900-2000, 2.2 percentage points lower than the U.S. returns over the same time period. I believe that the international return figure is more realistic.

I found that using U.S. historical returns, a benchmark life-cycle portfolio loses money 32% of the time (i.e., 32% of the time the internal rate of return is less than the 3% real return required to break even in the proposal). The median rate of return is 3.4% annually. Using more realistic adjusted returns, the benchmark life-cycle portfolio loses money 71% of the time and has a median rate of return of 2.6%.

The conclusion is that the president’s personal accounts, even the life-cycle portfolio, would subject Americans to serious risks. The Ownership Society is a long-term and elusive goal, and we should not expose people to unnecessary risks in an overambitious attempt to attain that goal.

My second point is my proposal that, in order to strengthen the intergenerational risk sharing in Social Security, we should also change the indexing of Social Security benefits so that a wage or income index like the AWI, not the CPI, is used to adjust benefits after retirement.

My proposal, which would improve risk management, is to move in the opposite direction from the widely-cited proposal to move indexing to the CPI, and yet, perhaps surprisingly to many, my proposal deals even more effectively with the Social Security solvency problem.

Under the present Social Security system, benefits upon retirement are computed by first calculating the worker’s average indexed monthly earnings, the average of the thirty-five years over the worker’s lifetime with the highest earnings, indexed using the AWI. The worker’s initial benefit is then given by a fixed progressive formula in terms of age at retirement and average indexed monthly earnings. In each year after retirement, the worker’s benefit is then indexed to the CPI. Note that under the present system both the AWI and the CPI are used: the AWI is used once to calculate the retiring worker’s initial benefit, and the CPI is used every year thereafter to compute the retiree’s increases in benefits.

The AWI has shown a growth rate 1951-2003 that is 1% a year higher than the growth rate of the CPI, and the widely-discussed proposal to replace the AWI with the CPI in computing average indexed monthly earnings would give rise to lower benefits, at least initially, thus helping to restore solvency of the Social Security system. But, this is not a good way to restore solvency.
My proposal was first described in my book *The New Financial Order*. As I would put it today, the proposal is to go the other way from the talked-about index change towards the CPI. I propose that we change the system gradually so that ultimately we switch the indexation method to wage (AWI) or income indexation both for computation of average indexed monthly earnings when the worker retires and also for indexation of benefits as the worker ages, and at the same time change the fixed progressive benefits formula so that it gives a lower initial benefit. Under my proposal, only one index would eventually be used, but it would be the AWI or something like it, not the CPI.

My proposal is better than the widely-discussed proposal because it does a better job at intergenerational risk sharing and a better job of guaranteeing solvency.

By making the benefits tied to the AWI after retirement rather than the CPI, the benefits become linked to the economic growth rate. If our workers prosper over coming decades, then benefits to retirees will be higher. If workers’ incomes disappoint, then benefits to retirees will be reduced. This is sharing the economic pie across the generations. Social insurance ought to be a risk-sharing device; that is what insurance is all about, and this change in indexation improves intergenerational risk sharing.

The Social Security Actuaries today have to make assumptions about economic growth to estimate whether the system will ultimately be solvent. But, to the extent that benefits to retirees are tied to a wage index that correlates with inflows into the Social Security system, then solvency is built in.

My proposal would thus structure the system so that an individual’s Social Security benefits will probably rise over the years of retirement with the growth of real wages, and not be constant in real terms as in the present system. If the wage index grows approximately as in the past, then for a worker living 20 years during retirement the benefit would be expected to grow 20% in real terms over this period, and the average benefit over the entire retirement period would be 10% higher than the initial benefit. As the plan is phased in, the initial benefit could be reduced by 10% or more, and retirees might well accept such a cut since they would know that they would be compensated for the initial benefit cut by expected future real benefit increases. I think that retirees would like to see their real benefits grow through time, conditional on growth in our economy. Thus, building in such expected growth could be a means to get people to accept initial benefit cuts. If the new system were made an option for the worker, then I would expect that many of them would choose it, even though it involves an initial cut.

A profile of real Social Security benefits through time that matches that of society is ultimately what we should want. Consider what would happen in a traditional extended family consisting of family members of all ages living together. If the entire family becomes more prosperous over the years, the increased prosperity would certainly be shared with the retired elderly in that family. If the family becomes less prosperous over the years, then the retired elderly will certainly share in the decline in living standards. An extended family would not fix the living standard of the elderly in the household regardless of the living standard of other family members. The importance of
intergenerational risk sharing would appear obvious within a household. By analogy, considering the nation as an extended family, the Social Security system should not fix the real benefits accruing to retirees either. This is common sense, and it is also enlightened risk management.

In conclusion, we ought at the present time to be thinking of how improved financial technology can manage the risks of the nation’s workers more effectively. We ought also to expand our programs that encourage saving and investment, and encourage Americans to become more involved in the financial system. But we should not do this at the expense of good risk management, as the President’s personal accounts proposal implies. We should instead improve the risk management implicit in the Social Security system, such as by changing the indexing of benefits as I have described.

I urge Congress to consider how to strengthen, not weaken, the risk management implicit in Social Security.