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Social Security and The Stock Market—Risk and Returns

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Summary: Various government officials have discussed investing a portion of the Social Security trust fund and the Canada Pension Plan (CPP) in equities. In this session, the panel describes the various proposals and examines the potential for return improvement and the risk associated with each proposal. The panel also examines insurance industry opportunities that may result from privatizing Social Security.

Ms. Janice P. Bricker: I will also be presenting some material, what I would call a 20,000-foot overview of the changes in privatization and social security throughout the world and in the U.S. My co-panelist is Stephen Goss from the Social Security Administration. He has been actively involved in reviewing the proposals that the Advisory Council has presented.

The World Bank expects that at least 30 countries will initiate reforms in their pension systems in the next few years. Everyone is looking at Chile as the role model. Stephen and I were talking and he said that he has some new information on this Chilean system with respect to what is not working. We have an $11 trillion liability, which is two times the national deficit, and we have to deal with how to finance it. Perhaps we will prefund some of it; perhaps we won't. The three proposals from the Advisory Council that are most popular at this time are three of eight, which are being presented across the U.S.

There are some Latin American countries that are looking at reforming their systems. The point I want you to take from this part of the presentation is that with the

exception of Chile, these countries are fairly new in this privatization discussion, and if they have rolled out reforms or new systems, they've been within the past couple of years. Chile began in 1980, 1981, and has some history, but Argentina, Columbia, and Peru, are very recent, 1993 or 1994 rollouts.

There are some interesting statistics from other countries. In Germany, over 90% of retirees' income comes from the social security system. In Italy, the explicit social security debt is 250% of the gross domestic product (GDP), which is a rather astounding statistic. If we look at the issues with respect to Latin American pension reform or social security reform, what we find is that other than being fairly new in the game, there are issues with respect to participation. People are staying out of the system. In Chile, there's a guaranteed benefit, which is based upon 20 years of minimum contributions. There is a huge percentage of individuals who are remaining outside of Chile's private system and who are then coming in to collect a minimum benefit.

Let's look at two systems that Chile and Mexico have. Mexico rolled its system out in mid 1997, and is entirely using CPI index treasuries to finance that. They expect to move more into equity financing, but have not done that to date. There are two tier systems. The first tier with respect to the Chilean system is financed by the general revenues, and that provides the minimum benefit that I mentioned earlier. The second tier is a privatized system, which basically is 10% payroll tax on the first $22,000 of income, and that $22,000 is not being indexed. There is also an additional 10% that can be voluntarily contributed. The employer payroll tax is zero, and as I indicated, the employee payroll tax is 10%. Mexico has a 6.5% employee payroll tax. In Chile, we have an administrative system. There are 15 organizations that are qualified managers of these monies. Some insurers within the U.S. are included within those ranks, such as Aetna and American International Group. Those qualified managers are listed on the Chilean Stock Exchange, and at least one of them issues American depository receipts on Wall Street. They're fairly well known institutions in general.

In Chile, the retirement age is 65 for males and 60 for females. Given that it's virtually a private system with respect to that second tier, that retirement age is not a significant point, because an individual can retire early or late and will receive what is available within the individual account. However, the taxes to fund the system, the 10%, will come out at age 65. At age 65, the individual can get an annuity or progressive withdrawal from the account based upon life expectancies. Lump sums are only allowed if the individual can provide at least 70% of average salary as a benefit. So the lump sum is not a cash out of the entire account; it is only an excess cash out. Lump sums are not permitted in Mexico, and the minimum benefit provided by the first tier and financed by general revenues is 25% of salary.

With respect to Chile and Mexico, commissions are regulated nationally, so there are additional administrative or regulatory issues that come into play with respect to the federal government. International investments are permitted. There's a minimum rate of return in Chile; you can have either plus or minus 2% on the average of all of the qualified investment or money managers as the rate of return. There is a minimum rate that must be awarded to the account. Recognition bonds, with respect to Chile, mean individuals have a choice on whether to join the system, if they were currently in the old Chilean system. If they join the system, a recognition bond is issued and put into their individual account, which basically reflects the accrued benefit to date under the current system. No recognition bonds are in the Mexican system, and the transition costs are estimated to be between 80% and 100% of GDP for Chile and 80% in Mexico.

We'll talk about the Canadian pension system and the proposals that are outstanding there. Canada is going to continue with its government-run system, and it's more like the maintenance of benefits proposal in the U.S. It's going to invest in some more risky and productive marketplace vehicles. The CPP system is going to increase taxes, invest the money earlier and basically make some changes to benefits. Some of the benefit changes that are proposed are basically to limit disability benefits, disability benefits have gone up significantly, to make it more difficult to collect disability, to create a disability benefit that is based upon the salary of a disabled man and indexed at CPI to retirement, as opposed to granting a full benefit at age 65. There are changes with respect to the death benefit provisions: death benefits of six months of pension with a cap. The cap has been reduced. What's interesting about the Canadian proposal is that it has a very wide provincial support. The federal government supports it, and it has been tabled. There is currently no action on that proposal. It was expected to be transitioned January 1998, and as of a couple days ago, I understand that the proposal is still tabled.

I talked about the provisions and how they've been changed. One thing that does not change is that participants who are currently in receipt of benefits will not see anything happen to their benefits. Indexing of benefits at CPI continues, and retirements ages have not been changed. Another change would be to modify the rules for combination benefits in the Canadian system. You can get a survivor benefit along with a retirement or disability benefit, and since those benefits are based upon some flat benefits plus index, plus the benefits based upon salary, just the mere addition of the benefits causes it to be too much. What the Canadian pension system proposal would do is make that more realistic in terms of the flat portion of the benefits.

I indicated that there would be more rapid funding. The reserve fund would go from two years to five years of benefits. If nothing is done with the system currently, it's expected that it will run out of money in the year 2015, and that contributions would have to jump to 14.2% in the year 2030. Currently, the contributions for the Canadian system are split between employer and employee and are a little less than 6% in total. The proposal brings that up to 9.9% and that will hold steady through the transition period. There are changes with respect to the kinds of investments permitted and with respect to the borrowing rate for the provinces.

Some sort of privatization scheme probably will happen in the U.S. I think there's a ground flow of interest in this. I'm from an organization that's campaigning very hard for it. I am speaking as an individual and a professional, not for Fidelity. I need to make very public that these are my own views. I have interviewed a couple of economists who work for the organization, and what we are looking at is the young investors or wage earners. They're looking at a return on their investment of zero to negative if they come in now, and at least one economist from Fidelity said if you're age 32, you're looking at about 2% nominal return. That's assuming that nothing changes with the benefits and the taxes don't increase. When we make revisions to the current system, what we usually do is extend the retirement age or increase taxes on the benefits or increase taxes to the wage earners or something of that nature. We understand that, as a nation, we need to do some tweaking to the system. Perhaps we do not need full privatization, but at least take a hard look at it.

The three proposals that are outstanding and most popular are the maintained benefit (MB), the individual account (IA) and the personal security account (PSA). Steve is going to get into more detail on what the specific provisions of those are following my presentation. If we take a 20,000-foot view of what is happening, we want to consider some basic issues, such as what kind of plan design we have and what is preferable. We have a defined-benefit system where there are guarantees and particularly guarantees to survivors of the deceased workers. You have disability benefits, and you have benefits in the case of uncertainty. It's a defined-benefit plan, and the proposals move more along the horizon toward defined contributions. The personal security account is the most radical of the three. In order to finance the plan, the government has been levying taxes and curtailing benefits to some degree recently. The proposals look at investing in the marketplace and the private sector economy and to some degree mandating savings.

What are the issues with respect to what if the government is investing in the market? I think primary is how much money is going into the market from the government and what happens when the government has to vote shares. Most

people believe that it is probably inappropriate for that to occur, but if the government does not vote the shares within the portfolios, the other shareholders have a disproportionate ownership with respect to the company.

Does the government have influence over what occurs? I think there could be a case made for that. I know that in the government thrift savings plan, there are three different investment vehicles. There is a treasury vehicle, the Lehman Brothers bond index, and indexed equity products. There are still issues with respect to voting shares and influence over the private sector and corporations and how companies operate. Even though we might be able to regulate the degree that we would be satisfied with, the lack of influence on the government's part, is an issue that I think is prime for discussion.

What guidelines will we require from investment performance? In the government thrift savings plan, what we would want to look at is a very global or broad index benchmark to look at something that's very broad and includes a lot of different company stock and is indexed so that we could have passive management as opposed to active money management. That's contrary to what my company wants to see happen because our competitors would be more in the index equity market than we are. How would you select investment funds? What kinds of influences would you have, particularly with respect to social investments? Would we have economically targeted investments? Would we only invest in blue chip stocks? If there's an organization that violates Environmental Protection Agency rules and regulations, would we ban them from the portfolio? There are a number of issues with respect to government influence in the marketplace.

The maintained benefits are going to increase by 2.67% per year, the investment in equities in the private sector marketplace, and grow that up to about 40%. They would essentially manage the index fund, which will probably be similar to what the savings plan is using. In the individual account scenario, there would be more constrained investment choices. Investments would essentially be pooled and managed, and there would be very low administrative fees, as a result of those passive funds and central management. That's about 10.5 basis points on administration, which is really low.

In terms of the personal savings account, we would have discounts for the individually managed. How much control the government would have upon where those monies are directed and how effectively they're directed, and whether or not the participant is taking appropriate risks are the kinds of issues with respect to what we would call the moral hazards. There are individuals that are not going to invest properly, there are individuals that aren't going to earn enough money to retire on, and someone will have to be responsible for their ultimate survival and ultimate

retirement. What kinds of investment options would we have? We'd have equities and bonds and domestic and foreign options. We would probably have some real estate funds and futures and options and some really unique investment products that might not necessarily be appropriate. There probably would be some kind of limitation with respect to what participants would be able to select in their own private accounts.

There was a study done that shows the impact that these different proposals has on the investments in the marketplace. This is an interesting exercise for us to look at because there's a lot of rhetoric floating around. I think it's important for us to stand back and do our own research and take a look at what might happen, as opposed to taking a headline from *The Wall Street Journal* or *The New York Times* in terms of Social Security privatization and take it to the bank. The results of this study are dependent upon the assumptions. The assumptions here are the intermediate assumptions of the Social Security Administration, 7% future return on equities, 2.3% return on long-term bonds, which gives you an equity premium of 4.7%. We're assuming that the markets grow at a particular rate. Let me say something about that because the index equity market is very new in terms of the overall private equity market. We've had over 70 years of results or returns on equities, and we've only had less than two decades on index products. So although the index products are growing more rapidly right now, I think they're growing at a 14–15% rate. That's not a rate of return; that's the growth of those funds. The equity market is growing at about a rate of 6%. Do we predict that those will continue? This study assumes that the equity market would be growing at 5% and the index market would grow at 6%. Again, when you use a different set of assumptions, you're going to get some different results.

What we see here in the maintained benefits proposal, is it would grow from 2.7%. The equity portion of the portfolio would grow from 2.7% to 40% by the year 2020, and there would be similar, but much smaller results for the individual accounts because the individual account would only direct 1.6% into a private account for the individual, as opposed to the 2.7% on an annual basis. The personal security account, on the other hand, is wide open. Although we're looking at 5% contributions, we have to ask, what is the history? How do people invest? There are some additional assumptions in here. We're looking at 401(k) plans and other defined-contribution programs and trying to pool a set of assumptions together about how people are going to invest. Are they going to redirect their equities into more particular investments prior to retirement? How are they going to invest? There are some basic assumptions embedded within this personal security account piece also, and some of those assumptions come from Vanguard. I think Vanguard looked at their accounts and their individuals.

If we would move forward with any of these three plans, what percentage of all U.S. equities would the amount invested in equities represent? For instance, with respect to the personal security account, the amount invested in equities in the year 2020 would be 11.1% of the total U.S. equity market, which is not a huge percentage. On the other hand, if you look at index products, we're at over 100% with a personal security account, which we know is impossible. What might happen in that scenario is that, as individuals begin to invest in index equity products, and as we move to privatization, additional products would be developed, and that market will grow faster as a result of demand than what we might anticipate with our current assumptions. We know over 100% is impossible. No one has a crystal ball, so they don't know exactly what will happen if privatization occurs.

I think this is an interesting statistic, and this was not developed by anyone at Fidelity. It was developed by William Shiftman at State Street Global Investment Advisors. We want to do some sensitivity analysis on the marketplace. What is going to happen if we begin to direct these huge dollars at the private sector? An amount of $341 billion per year is the total money that could ultimately end up in the private sector if all of these social security taxes would be directed there. Mr. Shiftman looked at a scenario where an individual would be investing in the marketplace. Let's say that the portfolio that the individual is investing in is to be sort of like a diversified portfolio, with about 60–70% in stocks and bonds, and some in international accounts and some cash. Let's say that he would only invest in U.S. equities traded on the New York Stock Exchange in the first scenario. We're assuming that we're in the personal security account version of the proposals, so that 5% of his taxable income is going into this account. The portion of the daily trading activity in a 6.5-hour day would relate to about 24 minutes. We are not overburdening or we are not coming into the stock market with huge dollars that are going to overwhelm the market under that scenario. If we include bonds and international investment, he indicated that it would be closer to 10–15 minutes of a trading day, and he expects that over a period of ten years, the 24 minutes would be decreased to about five. This is dependent upon the assumptions and the concept that he believes the marketplace will not be overwhelmed by the personal security accounts proposal being adopted.

He also did a second analysis to see how risky the marketplace is. We could look at risk. What we want to do is compare the riskiness of the current system to the riskiness of the proposals. The current system is a defined-benefit system, but there are some risks inherent within that. The risks are that the taxes will go up, or that the benefits will decrease, so it is not without risk. How risky is the marketplace? How much would the market have to fall for people going between 1930 and 1976 to receive market benefits equal to social security? Mr. Shiftman is using the

intermediate assumptions that the social security system uses—the 7% on equities and the 2.3% on intermediate bonds. He is assuming expense ratios of 100 basis points in the market and 70 basis points in social security.

Mr. Stephen C. Goss: The 100 basis points is what the Advisory Council assumed for the PSA plan, where people would be investing individually. It's hard to imagine how 70 basis points can be derived from social security.

Ms. Bricker: I thought you might have some interesting tidbits for us on that. We might want to have a discussion about what really is underlying the expense ratio with respect to the Social Security Administration.

Mr. Goss: Do you know whether that expense ratio for social security is intended to be for the system as it stands now?

Ms. Bricker: As it stands today.

Mr. Goss: Or if it were investing in stock.

Ms. Bricker: It's as it stands today.

Mr. Goss: As it stands, the cost of administering social security is somewhat less than 1% of annual benefits. That is, in effect, the accumulation over the whole lifetime of when a person has contributed to when they've extended. They do that for an accumulating fund, where you are being charged essentially 100 basis points per year for each year that you hold the fund. Over 30 or 40 years, it will accumulate to 20%, 30%, 40%, relative to 8/10 of 1% of social security. Clearly, there are some economies having a large scale system.

Ms. Bricker: I hate to throw that statistic out, but I wanted to at least present his assumptions as they were because they underlie all the information that he developed.

Mr. Goss: When he said 70 basis points, I think that is on a lifetime basis, where the market 100 basis points is on a per-year basis. It's clearly apples and oranges.

Ms. Bricker: I think he's looking at an average person, one between 30 and 76. You'd have to dig into how he developed these figures. I know he's writing a book or an article that would have some more information on this particular statistic. It covers the average person. As actuaries, this is difficult to imagine, but I think that the Social Security Administration did what an average investor would do, and took your average person demographically in the system. Mr. Shiftman looked at people

born between 30 and 76, and how he created his average demographic profile. I don't have more details than that, but I plan on getting them. I just wanted to share this with the people in the audience, because there's some talk that perhaps we will have a doom and gloom scenario where people will have to cash out right before a market drops. What Mr. Shiftman is saying is that a person earning $13,000 and investing in a diversified portfolio and assuming 100 basis points for investment management, custody, etc., (which I think might be a little low), would have to drop 60% for that person to receive what social security is promising. Again, we have a lot of assumptions inherent with this.

From the Floor: When is the market going to drop? What's the assumption on that? Is the assumption that it would be the day before he retires?

Ms. Bricker: The biggest drop prior to this was in 1987 when we dropped about 20%. Let's say you have to cash out the day after a 20% drop or even a 50% drop. You have to sell off your investments and move them into some other kind of vehicle. We have a lot of people who are probably questioning the assumptions here, and I think you have a right to do so. Perhaps you can call Mr. Shiftman and ask him what was embedded within them.

Mr. William Carroll: We were discussing assumptions, and without picking on economists, this one in particular or all of them, are often making enormous assumptions. This item we're now discussing appears to be a methodology that just doesn't reflect what ought to be going on in the real world. Telling people to cash in all their equity assets and go off and buy an annuity wouldn't be good advice to give. I don't think you gain a lot of insight into making an analysis of what would happen if everybody did that.

Ms. Bricker: Right. When you want to draw an analysis with a doom and gloom scenario, you go to extremes, and I think that's what he's doing here. I agree with you entirely. What would the worst possible day be like? He's saying that it would have to be a drop in the market of three times what the worst previous day was. All he's saying is there's rhetoric out there. You have to assume the assumptions, but there are also a lot of extreme opinions. I read an article a number of years back that said that if the baby boomers cash out and their properties drop in value and they purchase annuities or go into retirement, that we're going to have a situation where the wealth will be significantly decreased. It will be a major issue for the country. I think that's also an extreme scenario.

Will investments held by individuals be mandatory or voluntary? If they're voluntary, I don't know personally how it's workable. Would there be control over the account by the individual? Would it be inherited wealth? What kind of options

would be allowed? Again, we're talking about a retirement benefit that has previously been guaranteed by the Social Security Administration. What would happen if an individual outlived their wealth or if they died early with very little in their account? What would happen to the survivors. There are a lot of issues here. Annuitization would be the annuitization of those monies.

I'm not an economist, but there are a number of economists talking about how privatization would improve the economic environment, and they're basically saying that there would be an increase in after-tax wages. There would be an increase in productivity, an increase in savings, a decrease in consumption, and an increase in labor supply. This would result in a substantial increase in both supply and demand of equity-indexed products. If you want to see some detail on that, you can look at Sylvester Seibert's analysis. He has some facts on this. There are also many economists who have written papers on this. If you want to look at the economic opinions here, you can probably find some more details.

What has happened in the Chilean situation is apparently their savings rate has increased significantly and their unemployment rate has decreased and their economic growth has increased. Again, we don't have 100% participation, so I'm not sure if we would use that as a model at this point.

Do you want to compare outcomes and take a look at adequacy, equity among cohorts, and other positive incentives for savings? Are the people paying twice? Is there intergenerational transfer? What's happening here from an equity perspective? What is the monetary cost of transitioning and other administrative and management costs?

I'm referring to equity in terms of whether we are incenting the right things. Is there equity across cohorts; is someone paying twice; is someone paying too much; and are we incenting the proper behavior? In comparing outcomes, I'm sure you've heard about the impact that pension plans that are integrated with the Social Security system and the increased retirement age has had. There's more fault on the private sector. You would have additional health care benefits that would help your costs that would fall upon the private sector because people work longer.

There was an interesting survey done on private sector corporations of chief executive officers (CEOs) and heads of corporations. It tells about their opinion of increasing the social security retirement age. The consensus was that the private sector feels that individuals begin to lose productivity in their mid-50s. These CEOs prefer not to increase the retirement age because they're actually downsizing employees, as opposed to finding a way to keep staff. If you increase the retirement age to 70, how will an age-55 worker cope in a demanding or even not so

demanding occupation? The issue is with respect to whether people can stay employed until age 70.

The governmental effects will be a cost shift to other governmental programs as social security moves to a privatization concept and people are not saving adequately. Who would want the administrative constraint? Would there be additional regulation in terms of what the managers could charge, what the fees were, or what the government wants? It would be individual type control. Regarding political considerations, can we affect change? If we affect change, we might have to compromise on some of the issues, or we might not get what we're paying for initially. Again, consider the moral hazards.

I'm going to give Stephen the floor. If you're interested in reviewing the administrative end (investment constraints with respect to the private security accounts or personal security accounts), then you might be interested to know I've done an article on an option which would be like an IRA valuation, as opposed to having it run centrally by the U.S. Treasury or piggy backing off the private sector. There's an IRA variation which would allow individuals to basically take a tax credit on their tax returns; have the treasury take the bucks and then you take a tax credit on your end.

Mr. Goss: Everybody here knows that we have a current pay-as-you-go system. It's not a system that is substantially funded in advance. The small investments there are in the social security system now are invested exclusively in special issue government bonds. I think the rule of thumb is if we were running a system that is fully funded in advance, we'd have a fund that was somewhere between 20–30 times annual outgo from the system under a roughly steady situation. We have about 1.6 times the annual outgoing of the current system. You can see the extent to where we are really not very much fully funded. The extreme that is projected under our current schedule are a little bit over two-and-a-half times annual outgo for the level of funding on social security. That date occurs around 2012, the last date at which we have more taxes coming into social security than we'll be paying out in terms of benefits and other costs. The interest on the remaining trust funds will be increasing between 2012 and 2019, so that the trust fund will not in fact be declining in nominal dollar terms. After 2019, it is projected it will be declining under the intermediate assumptions of the latest trustee's report, so that in the year 2029, the trust fund is running out of money under the current assumptions.

A couple other quick things about the nature of the problem. I mentioned it is a pay-as-you-go current cost system. One of the things that the AAA Committee on Social Insurance has been looking at for quite some time now is developing standards of practice for actuaries working in the area of social insurance. These

standards would follow along the guidelines of what actuaries do in other areas. One of the important remarks has been that measures that are developed for social security and speaking to its adequacy of funding should relate to the nature of financing that is specified for the plan. I mention this because Janice mentioned something about an $11–12 trillion liability consideration for social security and unfunded liability. We produce numbers that speak to three potential different definitions of what we call the unfunded obligation of social security. When you're running a private pension plan, you have a contractual, legal obligation to the participants, so that if you're underfunded, you really do have a liability per se. With Social Security, Congress has the right to make changes in the program, which it has done numerous times in the past. It can, if it desires, raise or lower benefits in the future. We see the benefits that are set up, and current laws are obligations and not really liabilities to the U.S. Government.

That's a sense of where we're at with the current system. It is a system that is projected, on average, over the next 75 years to cost about 15% of payroll if we were to pay for it strictly out of these taxes, and we have a 12.4% tax rate. So we're about 2.23% of payroll short over the long haul. Whether you see that as being an overwhelming shortfall or a modest shortfall is really a matter of interpretation. I understand that Robert Wright suggested that maybe it's not an overwhelming cost or an overwhelming hurdle to handle. Other people look at that same number and think it is immense.

The Advisory Council, when it looked at this problem, decided that it had a number of things that it wanted to accomplish. First and foremost was to get the system to be back in good financial shape over 75 years. It wanted to go a step further. It wanted to do something that permits us to not just tell whether the 75-year valuation period is handled, but whether, as we get towards the end of that period, we're going to be looking as though we're in a fairly stable financial condition. Regrettably, the 1983 amendments (the last real comprehensive set of amendments that were put together) were put together in a way where the trust funds were projected to build up to very, high levels. I believe it was well over five times, and then would be dropping down beyond that point. It would be reaching close to a zero trust fund level as we got towards the end of the then projected 75-year period. Clearly it’s not a stable situation, and not the kind of result that we'll have the next time.

I think we have the world's foremost expert, Bob Myers, here to share his thoughts with us. My understanding of the Chilean system is suggested by a number of members of the World Bank. The circumstances in the early 1980s in Chile was that the system was in demise far, beyond anybody’s claims about the social security system. It was changed. The nature of the financing of the defined-benefit

plan that they had in Chile was nothing like what we have in the current U.S., and this isn't from me. This information is from Louise Fox from the World Bank, which is marketing the idea in Latin America. There are many eastern European countries moving towards an individual account, a defined-contribution kind of plan, as being the only way out.

Janice already described very well the three Advisory Council plans. All three of them would move us towards substantially higher advanced funding than we have under the current system, or even what we have had for the past several decades under the current system. It would also move us toward higher advanced funding than is envisioned under the current system if it were continued much as it is. They would do it in very different ways though. The maintained benefits plan was advocated. Six out of 13 members of the council suggested keeping the system a defined-benefit plan, the way it is now, but finance it with the funds as we have now. However, these funds will be allowed to go to much higher levels than is currently projected. We're now at about 1.6 years worth. We top at about 2.6 years worth of annual outgo in the fund. This plan would reach a peak and remain steady at about 4.5 years. As Janice mentioned, it was moved towards having about 40% of those trust fund assets invested in stocks. That would occur over a 15-year phase-in period between 2000 and the end of 2014.

The other two plans, the individual account plan and the PSA would also move towards substantial advance funding. I'll use Janice's phraseology for the PSA plan as being the one that's radical. The Advisory Council members agreed not to call the maintained benefits plan incremental and not call the PSA plan radical, because they sort of recoiled negatively against those descriptions. The larger privatization plan, the PSA plan, would have essentially all of its advanced funding in the individual accounts, but they have only a very small residual (one year's worth of outgo) in the central trust fund, for the residual defined-benefit plan.

The individual accounts plan sponsored by Chairman Graham of the Council and one other member, would have sort of a split situation where it would also, like the maintained benefits plan, have somewhat over four years worth of outgo on a stable basis, held in a residual defined-benefit plan. It would also have individual accounts on the order of only one-third as large as the individual accounts under the personal security account plan.

Rather than going to a great extent to describe a lot about the nature of these plans, let me jump to something that is what I hope the central focus—the concept of investing in stocks, the expected yield, the expenses associated with that, and what the implications would be. I think it's critical that we talk about what's going on in this idea of the investments.

The Advisory Council got together and came up with these three different plans, and in all three of the cases, it was agreed that there would be a broader investment approach—broader than just having things in these government special issue bonds. Stocks were going to be involved in all three of these, and as Janice mentioned, we had to have an assumption. Janice's company didn't have this background and experience, so the council contacted an individual from Vanguard. His name is Joel Dickson; he did a very recent acquisition at Vanguard. He has been working at North Carolina State University or somewhere. He did the analysis of the portfolios that were 401(k) holdings that Vanguard was familiar with. He came up with a sequence.

Let's look at the top bracket of numbers under the PSA account in Table 1. Apparently the historical data indicates that when people were younger, under 40, they tended to have somewhat over half of their investment in stocks, and that dwindled as people moved towards their 60s. It dropped down to somewhere around 40% at age 60 and over in stocks. You can see the percentage of equities on the top left. You'll notice as you go to the right of the table, the percentage in equities under the IA plan starts out at 55%, also at age 40, but it drops down to only to 20% at age 60.

The distinction here between these two plans is that the PSA plan is intended to be the most blase of the plan. People would be going to their individual brokers. Players might work out arrangements for having something like 401(k)s. It would be very open as to how the investment would actually occur, and it would also be open not only throughout the working life time of the individuals, but also when they reach retirement age. They could leave the money in as long as the wanted, and they could take it out at whatever pace they desired. The only stipulation is they would not have access to the money until they were age 62, but at age 62 they could pull it out in a lump sum, or they could leave it in indefinitely for estate planning purposes or take it out bit by bit.

The individual account plan is very different. The individual account plan has the investments all occurring very much like what Janice mentioned, such as the thrift savings plan that the federal employees have. It would be a plan where the contributions that people would make, the 1.6% of pay on to this individual account plan, would be paid in much as payroll tax contributions are currently made in social security. They would be withheld by the employer and they would be transferred to the government.

TABLE 1
ULTIMATE NET REAL YIELD ON INDIVIDUAL ACCOUNTS
—INTERMEDIATE AND HIGH RETURNS

Age Group	Intermediate Return					
	PSA—401(k)			IA—401(k) annuitized		
	Percent in Equities	Admin Expense Factor	Net Real Yield	Percent in Equities	Admin Expense Factor	Net Real Yield
<40	55	1.00	3.885	55	0.105	4.780
40–49	52	1.00	3.744	50	0.105	4.545
50–59	48	1.00	3.556	40	0.105	4.075
60–69	43	1.00	3.321	20	0.105	3.135
	High Return					
	PSA—401(k)			IA—401(k) annuitized		
	Percent in Equities	Admin Expense Factor	Net Real Yield	Percent in Equities	Admin Expense Factor	Net Real Yield
<40	55	0.500	5.650	55	0.105	6.045
40–49	52	0.500	5.440	50	0.105	5.695
50–59	48	0.500	5.160	40	0.105	4.995
60–69	43	0.500	4.810	20	0.105	3.595

Note. In order to allow for comparability with Trustees Report values and with historical data, real yields above do not reflect the Council's assumption for lower future growth in the CPI. Ultimate real yields used for analysis are 0.21 percent higher than shown, reflecting the lower assumed CPI growth.

There is a very big difference between the individual account plan and the PSA plan. The government would receive this money. It would do accounting much as Social Security does now to maintain records of what people have contributed so we can determine what the size of the benefit is for each person based on their career earnings. The money would come into social security that would then put it all together. People would stipulate how they would want their individual portfolio to be allocated across three, four, five, or six different defined funds. It might be an equity stock fund, a high cap, a low cap, two or three bond funds, or a money market fund. It would be probably not more than a dozen, but not less than three or four choices. That was really the concept. The money would come in. It would be held by the government and managed by the government, and people would not have access to the money until they reach retirement. At retirement, unlike the PSA plan, they would not be able to pull the money out in a lump sum. That would not be possible. What would happen is at retirement, the money would be required to

be annuitized. Annuitization would be done through the government converting to an annuity based on a lifetime of the general population.

This is the perhaps privatization with a small p as opposed to the PSA plan being privatization with a capital P. Many people who are very much in favor of the PSA plan are understandably not quite as excited about the individual account plan. In some sense, it looks a lot like a government plan, because the money is still coming to the government, is being held by the government, and then is being disbursed by the government later on. This is somewhat of a digression from the numbers we have in Table 1. Remember the percentage that is expected to be in a stock as we get to age 60 under the individual account plan is only 20%. The reason for that is because of the presumption that as people reach retirement age, and they know there will a certain date on which the totality of their fund has to be transformed into an annuity, they're going to get more conservative. They won't be willing to take the risk of having the market drop by even 16% on the last day before they retire. They'll become more conservative; however it was assumed that people would not do so under the PSA.

From the Floor: I was wondering about the PSA 401(k) accounts. Is there more of a potential of the individual deciding when to get into the market and when to leave the market? He may not time it right, whereas maybe in the individual's index, you just keep your money in the index. Was there ever a discussion about how individuals don't get those great average returns that you have had over the last 70 years? For instance, at the end of 1996, the average mutual fund return was 4% (400 basis points) lower than an index. Money managers can't get close to that index after subtracting expenses. Individuals won't even do that well.

Mr. Goss: There was some discussion that that was more qualitative than quantitative. My view is that it's clear that even if you have a choice in only four, five, six, or seven funds to move into instead of thousands of individual stocks to move in and out of, you can still mistime it. I don't think it's exactly clear that you would expect people under the individual account plan, where they can jump back and forth between stocks and bonds, to have a lot less opportunity to mistime the market than those in the individual stocks. I think generally the feeling of the council and many people who have looked at this is that there will probably be some people who do very well in their timing and will do somewhat better than the expected average return on stocks. There will be other people who won't do nearly as well as the average return on stocks, perhaps because they mistimed it or they invested too conservatively. Those are considerations that we're taking into account, and then are represented in some of the numbers.

The 7% real stock return that was assumed for the council's calculation was based on the Ibbotson data, with which most people are probably familiar. It ranged from about 1926 to 1995, and there were also some data and some articles that Joel Dickson came up with for the earlier portion of the century. When it was all put together, we ended up with about a 7% real rate of return on stocks throughout this century. The 2.3% rate of return in real terms for U.S. bonds was taken from the trustees assumptions that are used to do the annual valuations for social security.

One of the major questions about the 7% real return from stocks is whether it will continue in the future. It raised the question, will it be limited by the fact that we're going to have projected slower real GDP growth in the future as well as the growing economy? The answer to this, if we had a crystal ball, is we wouldn't be sitting here. We'd be very rich indeed; it's unclear. It was felt that the 7% averaging over term that has occurred so far this century was at least a reasonable starting point. The council decided to go with that.

Table 1 also indicates that we have an administrative expense factor of 100 basis points or 1% (under Intermediate Return for PSA). That is from the annual holdings in an individual account. This was taken by the council as being something of the average. Companies like Vanguard and Fidelity and many other kinds of mutual funds that are out there range from 20–24 basis points up to way over 100 basis points (and maybe even 200 basis points for the administrative expenses on the number of funds). They agreed that 100 basis points was reasonable for the PSA plan. Again, people would be going out individually and deciding where to invest, and they would have their own broker to work with.

For the individual account plan, it was again assumed where the money would come in, much as the FICA contributions do to social security now. They would be managed in accounts with bookkeeping, which is not terribly dissimilar to what is being done now in the Social Security system. It was assumed that because a number of the firms have indicated that their cost of maintaining individual records is on the order of ten basis points, that would be achievable at the government level and would probably be sort of an annual equivalent basis point cost of maintaining records at social security. It's considerably less than ten basis points right now. You might wonder where that came from; it is what everybody agreed would be required when you have all this money together and you wanted to go to one or two brokerage firms and say we have this enormous amount of money, we want to have it invested in the Standard & Poor's (S&P) or the Wilshire or whatever, that it would cost at most, it was argued, a half a basis point. I don't know whether Fidelity agrees with this, but the Vanguard people felt this was true and there was no contest on that point.

I should mention even though it's not represented on this table, the maintained benefits plan was assumed to have for its investment simply the one-half-basis-point-per-year administrative load of investing on that. There would be no maintaining of individual account records.

Some of the numbers for some of these plans were run on two different scenarios, other than the 7% real assumption for stocks. The numbers for the individual account plans were also run on a low-yield assumption, which was assumed that what if stocks, in fact, achieved a return no better than long-term U.S. funds. You've probably all heard the statistics. I don't know who to attribute this to but there has been no 22-year or longer period this century during which stocks have not outperformed long-term U.S. bonds. If you have a really long-term investment, you generally expect to do at least as well in bonds, unless you horribly mistime the market, as Ron mentioned. That is not taking on administrative expenses. We did some analysis, on a low-side yield, of what would happen to these plans. What if you had achieved only U.S. bond returns because you invested too conservatively or mistimed the market or just picked the wrong stocks?

We did one other thing at the other extreme. From a finance point of view, it is extremely interesting. We assumed a higher rate of return that a number of the members of the council suggested should be there for balance: 9.4%. How did we get to that number? Some argue, perhaps correctly, that this in fact is the number that really should be the intermediate rate of return. That was taking up the arithmetic means of the annual yield over periods so far this century, whereas the 7% yield was taking us to geometric means, which means simply taking the cumulative yield year by year by year over the 95 years, and accumulating them all together as where you'd put in a dollar at the beginning and accumulate it over 95 years. The arithmetic is, take the individual annual year yield, add, and divide by 95.

It is argued pretty persuasively by finance people who suggest that when you're putting together a portfolio, if you believe that the ball is in the area that we're dealing with, that is the distribution of possible rates of return on investment, and stocks are described by the 95 different hits that occurred over the 95 years and they're all in some sense randomly equally likely to come out at any given time. Then, the actual return you expect to get over one, two, three, four, or five years, for a portfolio, would be more like the arithmetic means. There was not a lot of discussion by the council, but if you believe that the historical and the arithmetic means approach is appropriate, you could argue for a higher number. From that point of view, you could argue that a 7% yield is perhaps even conservative for stock.

We have a couple other items that indicate the extent to which we end up with money in the market. Janice already included a summary of a couple of these. Table 2 indicates the dollar expense in which we would have money in the market under these different plans. The first column indicates the percentage of the assets in the maintained benefits plan in its central trust fund. The next columns are the percentage of the assets in individual accounts. That's assumed to be in stocks. You can see they're all actually around 40%. The dollar amounts are quite different. As we get up to about the year 2020, we have about $1.3 trillion in stocks in the maintained benefits plan, less than $1 trillion in the individual account plan, and $3 trillion under the PSA plan. What does this mean? We know we have about $7 trillion in equities right now. These dollar amounts are in 1996 dollars (constant dollars indexed by the consumer price index).

Table 3 is new material to indicate what extent the portion of the equity market in total would be captured by these various kinds of investments. We have no way of answering that because we don't know how big the equity market is going to be in future years. We took two wild stabs at guessing what it might be. The left-hand column shows the "what if" scenario. What if the total value of stock holdings in the U.S. rises at the rate of GDP, which is conservative? Stock holdings in the U.S., in total, have risen significantly faster than GDP in the past. Under these scenarios you see that the percentage in stocks is relatively modest under all these plans—12% under the maintained benefits plan, 24% under the individual account plan, and 76% under the PSA plan.

I should mention that we have a PSA and a PSA prime. The PSA prime is a "what if" scenario for the PSA plan that asks, what if everybody pulled their money out of the market when they retired and bought an annuity (that was not invested in stocks), or did something else? Then we would have lesser amounts in total invested in the PSA plans and in stocks and still have 55% of the market. This is with the slow growth assumption in the market. If you look at the right-hand columns of numbers, we end up perhaps at the other extreme, assuming that the total value of the market grows with the annual yield assumption that has been assumed here. It's a 7% real yield. Essentially, if the total stocks that are out there now continue to be traded, and the total yield, including price valuation, increases and dividends were all plowed back into the market, were all re-invested, there's an infinite variety of ways that the rate of growth and the aggregate value of stocks could occur, but that's just one characterization.

TABLE 2—ESTIMATED GROSS STOCK HOLDINGS IN CONSTANT 1996 DOLLARS UNDER THE MB, IA, AND PSA PLANS

	MB Plan: Aggregate Holdings of the OASDI Trust Funds			1.6% IA Plan: Aggregate Holdings in Individual Accounts			5% PSA Plan: Aggregate Holdings in Personal Security Accounts		
End of Year	Total* in Billions	Stocks in Billions	% Stocks**	Total* in Billions	Stocks in Billions	% Stocks**	Total* in Billions	Stocks in Billions	% Stocks**
1996	577	0	0.0	0	0	0.0	0	0	0.0
1997	639	0	0.0	0	0	0.0	0	0	0.0
1998	707	0	0.0	52	25	48.0	141	75	53.0
1999	778	0	0.0	107	51	47.9	295	156	52.8
2000	854	23	2.7	164	78	47.8	461	243	52.6
2001	935	50	5.3	224	107	47.6	639	335	52.4
2002	1021	82	8.0	286	136	47.5	831	434	52.2
2003	1114	119	10.7	352	167	47.4	1035	538	52.0
2004	1214	162	13.3	419	198	47.3	1253	649	51.8
2005	1322	212	16.0	490	231	47.1	1479	763	51.6
2006	1438	268	18.7	562	264	47.0	1716	882	51.4
2007	1560	333	21.3	636	298	46.9	1963	1005	51.2
2008	1686	405	24.0	712	333	46.8	2221	1133	51.0
2009	1814	484	26.7	791	369	46.6	2487	1263	50.8
2010	1947	571	29.3	871	405	46.5	2763	1398	50.6
2011	2085	667	32.0	953	442	46.4	3051	1538	50.4
2012	2226	772	34.7	1038	480	46.3	3351	1682	50.2
2013	2370	885	37.3	1126	519	46.1	3661	1830	50.0
2014	2515	1006	40.0	1216	560	46.0	3984	1984	49.8
2015	2658	1063	40.0	1309	601	45.9	4318	2142	49.6
2016	2799	1119	40.0	1405	643	45.8	4664	2304	49.4
2017	2935	1174	40.0	1504	686	45.6	5020	2470	49.2
2018	3067	1227	40.0	1605	730	45.5	5386	2639	49.0

TABLE 2 —CONTINUED
ESTIMATED GROSS STOCK HOLDINGS IN CONSTANT 1996 DOLLARS

	MB Plan: Aggregate Holdings of the OASDI Trust Funds			**1.6% IA Plan: Aggregate Holdings in Individual Accounts**			**5% PSA Plan: Aggregate Holdings in Personal Security Accounts**		
End of Year	Total * in Billions	Stocks in Billions	% Stocks**	Total* In Billions	Stocks in Billions	% Stocks**	Total* in Billions	Stocks in Billions	% Stocks**
2019	3194	1277	40.0	1709	775	45.4	5762	2812	48.8
2020	3313	1325	40.0	1815	821	45.3	6148	2988	48.6
2025	3797	1519	40.0	2386	1065	44.6	8242	3923	47.6
2030	4099	1640	40.0	3027	1332	44.0	10618	4948	46.6
2035	4284	1714	40.0	3741	1623	43.4	13299	6064	45.6
2040	4432	1773	40.0	4537	1951	43.0	16298	7334	45.0
2045	4660	1864	40.0	5502	2366	43.0	19622	8830	45.0
2050	5353	2141	40.0	6685	2875	43.0	23308	10488	45.0
2055	6046	2418	40.0	8139	3500	43.0	27452	12353	45.0
2060	6690	2676	40.0	9930	4270	43.0	32198	14489	45.0
2065	7287	2915	40.0	12141	5221	43.0	37751	16988	45.0
2070	7849	3140	40.0	14874	6396	43.0	44334	19950	45.0

*IA accumulations are assumed to be disbursed at retirement age for the purchase of life annuities. PSA accumulations are assumed to be retained in PSAs past retirement age. Because purchase of annuities is not required, annual disbursements approximating annuitizations are assumed.

**Percent of Trust Fund assets held at end of year under the MB plan is specified under the plan. Percent of aggregate IAs held in stocks declines as balances for older account holders increase. Percent of aggregate PSAs held in stocks declines as balances for older account holders increase.

Note: Assumed 7.0 percent average real yield for future stock holdings is specified by the Advisory Council, as are distributions of assets held by account holders. All other assumptions are based on the intermediate assumptions of the 1995 OASDI Trustees Report, modified for 0.21% slower ultimate CPI growth. Office of the Actuary, Social Security Administration.

Around 2014, we reach the peak in all of these. On the maintained benefits plan we're at about 3.3% of the market being captured, 1.8% for the individual account, and around 6% under the PSA account. Where would we actually be? Somewhere in between. Would it be a major event? Would it be a major factor in terms of driving the market? Look at the numbers and determine where you think market growth will occur in the future. That will perhaps help answer that question. It's a very difficult question to answer. We have not really been able to get a good hook on that, based on our discussion with economists.

I would want to comment on something Janice tried to mention: the risks of these plans. The item here indicates that we should talk about understanding the risks and the returns associated with the various proposals. Let me mention a couple of kinds of risks that have been much discussed about these three plans. Janice mentioned the maintained benefits plan. That's the one that has some investment in stocks, but it would all be by the central trust fund. The concerns there really have been voting the shares and there have been a number of arguments about how that could be handled. Not everybody is satisfied. Another is that the government would have control over where this money ought to be invested. A decade ago there would have been no money in South Africa; this decade it would be investments in tobacco stocks and there could be a number of other considerations in the future. Those are the primary concerns that have been raised in this area.

TABLE 3
PERCENT OF THE STOCK MARKET HELD BY
"SOCIAL SECURITY" RELATED INVESTMENTS

	Total Value of Stock Market Rises with GDP				**Total Value of Stock Market Rises at 7% Real Yield Rate**			
End of Year	MB	IA	PSA	PSA'	MB	IA	PSA	PSA'
1996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998	0.0	0.3	0.9	0.9	0.0	0.3	0.8	0.8
1999	0.0	0.6	1.8	1.8	0.0	0.5	1.5	1.5
2000	0.3	0.9	2.8	2.8	0.2	0.7	2.2	2.2
2001	0.6	1.2	3.8	3.9	0.4	0.9	2.7	2.8
2002	0.9	1.5	4.9	4.9	0.6	1.0	3.3	3.3
2003	1.3	1.8	5.9	6.0	0.8	1.2	3.8	3.8
2004	1.7	2.1	7.0	7.1	1.1	1.3	4.2	4.3
2005	2.2	2.4	8.0	8.0	1.3	1.4	4.6	4.6
2006	2.8	2.7	9.1	8.9	1.5	1.5	5.0	4.9
2007	3.4	3.0	10.2	9.9	1.7	1.6	5.3	5.1
2008	4.0	3.3	11.2	10.8	2.0	1.6	5.5	5.3
2009	4.7	3.6	12.3	11.6	2.2	1.7	5.8	5.5

TABLE 3 (CONTINUED)
PERCENT OF THE STOCK MARKET HELD BY
"SOCIAL SECURITY" RELATED INVESTMENTS

	Total Value of Stock Market Rises with GDP				**Total Value of Stock Market Rises at 7% Real Yield Rate**			
End of Year	MB	IA	PSA	PSA[1]	MB	IA	PSA	PSA[1]
2010	5.4	3.9	13.3	12.5	2.4	1.7	5.9	5.6
2011	6.2	4.1	14.4	13.4	2.7	1.8	6.1	5.7
2012	7.1	4.4	15.4	14.2	2.9	1.8	6.2	5.8
2013	8.0	4.7	16.5	15.1	3.1	1.8	6.3	5.8
2014	8.9	5.0	17.6	16.0	3.3	1.8	6.4	5.8
2015	9.3	5.2	18.7	16.8	3.2	1.8	6.5	5.8
2016	9.6	5.5	19.8	17.7	3.2	1.8	6.5	5.8
2017	9.9	5.8	20.8	18.5	3.1	1.8	6.5	5.8
2018	10.2	6.1	21.9	19.4	3.0	1.8	6.5	5.8
2019	10.5	6.3	23.0	20.2	2.9	1.8	6.5	5.7
2020	10.7	6.6	24.1	21.1	2.9	1.8	6.4	5.6
2025	11.4	8.0	29.4	24.9	2.3	1.6	6.0	5.1
2030	11.3	9.2	34.2	28.3	1.8	1.5	5.4	4.5
2035	10.9	10.3	38.7	31.0	1.3	1.3	4.7	3.8
2040	10.4	11.5	43.2	33.3	1.0	1.1	4.0	3.1
2045	10.2	12.9	48.2	36.1	0.7	0.9	3.5	2.6
2050	10.9	14.6	53.3	39.3	0.6	0.8	2.9	2.2
2055	11.4	16.5	58.4	42.8	0.5	0.7	2.5	1.8
2060	11.8	18.8	63.7	46.7	0.4	0.6	2.1	1.5
2065	11.9	21.4	69.5	51.1	0.3	0.5	1.7	1.3
2070	12.0	24.4	76.0	55.9	0.2	0.5	1.4	1.1

Note: PSA assumes accounts are distributed gradually after retirement for monthly income. PSA [1] and IA assume accounts are divested at retirement to purchase life annuities.

What's the response to some of those concerns? I think it has already been mentioned that, in terms of voting the shares, there are strategies that can be handled that would make that perhaps not necessarily too bad a problem. In terms of government control, some people have said the government already has many

mechanisms by which to influence corporations. The range is anywhere from 3% to 15% ownership of stocks, especially if it were broadly based across all issues.

The considerations of risk on the side of the individual account plans are really quite different. I think this risk analysis is something that is probably going to drive a lot of the thinking in the future about which way we end up going on this. The risks that have been most widely described on the individual account side are when people invest badly and end up with a lousy return. That leads you to the question then of should you, like Chile, have what could potentially be a very expensive minimum guaranteed benefit? None of these plans include that. We don't have that in there, so if people did very badly, they could be in trouble.

There is some concern about risks associated with the PSA plan. It is not so much that people might invest badly. Hopefully, with education, people would have the knowledge to invest reasonably. There are some other very important considerations though, and that is when people have an individual account like a 401(k) or like an IRA, there will be a temptation to want to have access to that money prior to reaching retirement. If there's a real serious challenge to the individual account, it will have to be addressed and addressed strongly. There is clearly a significant political risk that's associated with the individual accounts, far beyond and perhaps more important than risk associated with people just investing badly. That hopefully can be managed. When IRAs first came out, there was a 10% withdrawal penalty, but now the 10% penalty is waived under numerous situations. The question is, if we were to carve out a portion, say 10–20%, of the current social security benefits and put it into individual accounts, would it be left in or would people eventually be given access to the money? You can't spend it twice. If we give them access at age 40, it won't be there at a later time.

There are a couple of other things that are really out there that I think we, as actuaries, should be thinking about. Keep in mind that these are considerations that, up to this point in time, to the dismay of many actuaries, economists have largely been addressing. There are many more questions here than answers. That legitimately indicates the state of affairs that we're at currently. If we go out and have some investments in private securities, bonds, stocks, or whatever, what will the effect of all those investments be on the yields in the future? We all learned about the free market economy where no one player is big enough to affect what's happening in the market. Clearly, under any of these three plans, there would be major changes and major effects on markets. Yields might be depressed, and ultimately, they might be creased. I think the real question is whether there is anything to be concerned about. Time will probably tell.

We know one thing for sure and that is that the current market has been doing very well for a decade perhaps in part because of the large number of baby boomers that have been reaching their 40s. They suddenly realize that now that they have their house, and maybe they ought to start thinking about retirement. They're trying to invest. There goes the explosion in index funds and investing in general, which has perhaps resulted in our not having had a bear market that many have been predicting over the past five years. If you look at the demographics, you might suggest that the baby boomers born near 1965 will be getting into their 40s and bringing more potential buying pressure into the market until the year 2005. That's when the last of the baby boomers will be getting into their 40s. Coincidentally, that's the same year in which the first of the baby boomers will be switching over from savers because they'll be at retirement age. Would this double witching concept create a problem? This is wholly unknown. There has been a lot less research and good thinking by people who are in finance and who have been dealing with the markets on this issue. I think this is an area where we, as actuaries, could provide some real value added. It would seem as though there's a point of potential concern here. Is this going to be something that passes by and nobody notices, or is it going to be a major consideration? There has not been good work to indicate what would happen.

Another consideration that has been looked at is the effect on the federal budget balances of having possible surpluses in the future. Of the three plans indicated for the Advisory Council, two of them, the maintained benefits plan and the individual account plan, would have ultimately positive effects on the unified budget for the government. The individual account plan would have positive effects from the very beginning. The maintained benefits plan would have very slight negative effects for about the first 15 years, but otherwise going to U.S. bonds or stocks and that is fortunately or unfortunately scored as an expenditure in budget accounting. Thereafter, there would be positive effects on the unified budget. The PSA plan, by virtue of the fact that it is really relatively aggressive as individual account and privatization plans are concerned, requires that in order to cover so-called transition costs, a 1.52% increase in the 12.4% tax rate on a temporary basis, 1998 through 2069—that's not the totality of the transition costs. That 1.52% is not nearly enough to cover the cost of continuing to provide benefits to the elderly and near elderly for the next 30 years. There would have to be very substantial borrowing from the general fund to give to the treasury. We all know what that means. If you borrow from Treasury, Treasury has to come up with the money somewhere. Where do they come up with it? Either they have to cut other spending, a difficult task, or they have to raise taxes, perhaps the more difficult task, or they have to go out and borrow more from the general public.

Part of the money (about one-third to one-half) that is being made available to the PSA account is done by floating more bonds. There is somewhat of an asset float going on here, perhaps more on this plan even than the others. Ultimately, however, this 1.52% tax would be enough to arguably repay in the assumed 30 years after the next 30 years, the amount borrowed from the treasury so that we would get back to ground zero, and thereafter we potentially would have more money actually saved up in these accounts on a net basis.

This comes to the last point I want to make here. The big debate that's going on with this now is really what effects will there be on net savings, net investments, and the possibility of fast track economic growth. We know at one extreme is we have the possibility that if we impose some individual accounts on people and say you have to put in another 1.6% or 2% or 5%, people are going to have two choices. One extreme is they're going to say no, I don't want to do that, you're going to force me to put in this 1.6%, but I really don't want to reduce my consumption by that 1.6%, so why don't I reduce my other savings by 1.6%? At one extreme that's possible and probably many people would do that. Remember that in our modern society, we have lots of ways to offset other savings. For people who don't have any savings, they can offset the savings by simply borrowing more.

The real question is to what extent will we have people just saying, you're forcing me to save 5%, I'll save less elsewhere. It's to maintain the amount of consumption that I'm already operating at. We know that Americans are pretty good consumers. The other extreme suggests that if we tell people you have to save another 1.6% or 5%, they'll put that aside; they'll reduce consumption accordingly and we'll have that much more in the way of savings and have faster economic growth, after we get past the initial hurdle of having less demand. Remember, people have to reduce their consumption. After we get past that initial hurdle and reach a negative for the economy, eventually we would have more money available for investment, which would result in more productivity and a stronger growing economy. That should be a positive.

From the Floor: If we finance, as I think we ought to, on a true pay-as-you-go basis, there's no point in making investments in equities for the trust funds because there isn't enough there to make a real difference. Another thing, I think Ms. Bricker mentioned this, each individual doesn't get exactly his or her money's worth out of his or her contributions and the employers are not individually assignable. It's the same way with social security.

From the Floor: The PSA proposal, as Steve sort of indicated, is an impossible enactment. You can't enact that proposal when it's going to increase the budget deficit. The Congress and the president are so proud of themselves because they're

balancing the budget. This would raise taxes, and it would raise the national debt. It's an impossible enactment. All it does is muddy up the waters. I believe in privatization in a sense that people should invest in the private sector, but keep law and order separate. Reform the social security system so it gets in balance in the long term. Make changes that are gradual and deferred. Don't cut benefits now, but do it on top of it.

The one thing nobody ever mentions, and Ms. Bricker knows it as well as I do, is that you have to leave out the low-paid people. If you have people who make $1,000 or $2,000 or $3,000 a year in part-time work, you can't handle individual accounts and mutual funds; the expenses eat it all up. If you have a mandatory system on top, I think that would be a good thing to try out, but don't destroy Social Security (which is working reasonably well) and go off on another passage.

Finally, many people who talk about Chile don't glance at the bad features. First of all, it's unfair to women because women get lower benefits than men do, and women have higher life expectancies. Also, it looks as though the employee is paying the entire cost, but this isn't so. When the plan was put in, the military dictatorship said employees are going to have to pay 10%, but employers have to give employees a 17% raise in pay. So who is really paying? Finally, the really important thing about Chile, and why it's working out reasonably well there and why it isn't going to work out well in most other companies is that Chile had huge budget surpluses that it was paying by privatizing a lot of the industries that have been socialized in the 1970s. They had huge amounts of money for this transition and the recognition bonds and the minimum guarantee. All these other countries that are rushing madly into this system don't realize you can't finance the thing with budget deficits. You must have budget surpluses, and we just don't have them, and these other Latin American countries don't have them either.

Mr. Goss: Regarding the Chilean system, the initial rate of return that they had on their funds was only 14% real for a number of years. The latest we've seen in the last couple of years is about 2%.

From the Floor: Any money manager could do it, because they had most of their investments in government bonds or indexed for inflation and double-digit coupon rates. Anybody could make over double-digit returns when you have them guaranteed.