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ALL THAT GLITTERS IS NOT GOLD: THE FELDSTEIN-LIEBMAN ANALYSIS OF REFORMING SOCIAL SECURITY WITH INDIVIDUAL ACCOUNTS

by Peter R. Orszag and Jonathan M. Orszag[1]

In a recent working paper, Martin Feldstein and Jeffrey Liebman of Harvard University argue that reforming Social Security by introducing a system of individual accounts would make the vast majority of Americans better off in the long run.[2] They also argue that such a reform would significantly reduce elderly poverty rates. Their analysis, however, is an incomplete and potentially misleading guide to the effects of introducing individual accounts. The Feldstein-Liebman analysis suffers from four key limitations:

- It does not incorporate the "transition cost" of creating the system of individual accounts, thereby artificially making individual accounts appear more attractive;
- It does not compare its results for individual accounts to what could be achieved by providing equivalent advance funding through the Social Security system itself, which the authors dismiss as being politically infeasible and therefore not worthy of analysis;
- It underestimates the administrative costs associated with individual accounts; and
- It under-emphasizes the potential risks associated with equity investments.

As a result, the Feldstein-Liebman analysis offers a less-than-balanced perspective on individual accounts. (Feldstein is a well-known advocate of individual accounts and is the author of one of the principal individual account plans under discussion.[3]) As discussed

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[2] Martin Feldstein and Jeffrey Liebman, "The Distributional Effects of an Investment-Based Social Security System," Working Paper 7492, National Bureau of Economic Research, January 2000.

[3] For a description of Feldstein's plan, see Martin Feldstein, "America's golden opportunity," *The Economist*,

(continued...)

below, Feldstein and Liebman do recognize and briefly discuss the first two of these four issues. Many lay readers are not likely to appreciate, however, how important the caveats in these areas are to the results that Feldstein and Liebman present. This paper examines the reasons why the comparisons that Feldstein and Liebman undertake need to be treated with great caution and could mislead many readers.

Problem #1: Failing to incorporate transition costs

The Feldstein-Liebman paper compares hypothetical benefits under both a "pure" individual account system and a mixed system that combines a scaled-back Social Security system with more modest individual accounts to the benefits that the current Social Security system provides. Specifically, Feldstein and Liebman study two potential reforms: An individual account system that would completely replace Social Security and be funded by contributions equal to nine percent of covered wages, and a "mixed" system with a scaled-backed Social Security system and individual accounts funded by contributions equal to three percent of payroll. (In the mixed system, Feldstein and Liebman reduce Social Security benefits to 61 percent of their current-law level to ensure that those benefits can be financed under the existing payroll tax.[4]) They compare both of these systems to projected Social Security benefits under current law in 2075. They conclude that the vast majority of workers — 94.4 percent in the "pure" case and 91.7 percent in the "mixed" case — would have higher benefits under the individual account system in the long run.

Unfortunately, in undertaking their comparisons, Feldstein and Liebman adopt the same methodology that plagues many advocacy pieces for individual accounts: In presenting their data and conclusions, they do not incorporate the cost of moving from the current pay-as-you-go Social Security system to the individual account system. The authors are well aware of the transition costs associated with such a shift but choose to exclude them from the calculations in their paper. They write that their analysis "deals with only the long-run situation in which the demographic change has increased the cost of the pay-as-you-go system and the alternative plans are fully phased in. In practice, of course, it would be necessary to

[3] (...continued)
March 13, 1999. Liebman, who is now an assistant professor at the Kennedy School of Government, was formerly a Special Assistant to the President for Economic Policy under President Clinton.

[4] Feldstein and Liebman assume that roughly 3 percentage points of the existing 12.4 percent Social Security payroll tax would be required to finance disability benefits and survivor benefits for young survivors. They therefore assume that an amount equal 9.4 percent of covered wages would be available to finance retirement benefits. They calculate that retirement benefits would have to be cut to 61 percent of their level under current law to ensure that the 9.4 percent tax rate could finance them in 2075.

go through a transition period in which the population is aging and the new funding system is gradually put into place."[5]

In effect, the comparisons that Feldstein and Liebman undertake are similar to a comparison between buying a home and renting an apartment in which the unrealistic assumption is made that the mortgage on the home is already paid off. Given that assumption, the analysis would compare the property taxes under the home-ownership option to the annual rent under the rent option and conclude not surprisingly that home ownership was more attractive. But such a long-run analysis would not be particularly insightful for those facing a choice between buying or renting. By assuming away a key cost — the mortgage payments — the analysis would be misleading and highly biased toward one option.

In the context of Social Security reform, the comparisons that Feldstein and Liebman undertake are similarly misleading because their individual-account projections focus only on a year so far in the future (2075) that all of the very-large transition costs of moving to an individual-account system have been paid. Under the current Social Security system, the vast majority of contributions are immediately used to pay benefits for current retirees. The creation of a system of individual accounts therefore entails a significant transition cost: At the beginning of the new system, retirees under the existing Social Security system would still need to provided with retirement income but would not have their own individual accounts. Additional financing would therefore be needed to protect current and near retirees from dramatic declines in their retirement income. Stephen Goss, the respected deputy chief actuary at the Social Security Administration, has calculated that as much as $8.9 *trillion* in additional financing could be needed over the first several decades of such a new system to pay benefits for current and future retirees on the basis of their current and past Social Security contributions.[6]

After this substantial transition cost is fully paid off — for example, after the individual accounts have been in existence long enough that virtually all workers have contributed to it for their entire careers — the benefits of individual accounts appear quite attractive. But the long-run benefits of these individual accounts need to be balanced against the costs that were imposed during the lengthy transition to the new system. That is why simply looking far into the future in analyzing individual accounts is misleading: It ignores the costs required to arrive there. Just as looking far into the future would obscure the costs of buying a home by ignoring the sizeable mortgage costs, so looking far into the future in the manner that Feldstein and Liebman do obscures the cost of moving to a system of individual accounts.

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[5] Feldstein and Liebman, Working Paper 7492, page 11.

[6] Stephen C. Goss, "Measuring Solvency in the Social Security System," in Olivia S. Mitchell, Robert J. Myers, and Howard Young, *Prospects for Social Security Reform* (University of Pennsylvania Press: Philadelphia, 1999), page 34.

This basic problem with the approach that proponents of individual accounts often use when comparing rates of return and benefits under individual accounts and Social Security is illuminated by a recent, important set of papers by economists John Geanakoplos, Olivia Mitchell, and Stephen Zeldes.[7] Geanakoplos, Mitchell, and Zeldes demonstrate that when analytically valid comparisons are undertaken, the widely trumpeted benefits of individual accounts relative to Social Security essentially disappear. They write: "A popular argument suggests that if Social Security were privatized, everyone could earn higher returns. We show that this is false...the net advantages of privatization and diversification are substantially less than popularly perceived."[8] Other economists, including quite conservative ones, have reached essentially the same analytic conclusions as Geanakoplos, Mitchell, and Zeldes. For example, Kevin Murphy and Finis Welch conclude that "many of the touted gains to privatization are more apparent than real, and any gains have more to do with the details of what is done (whether private or public) than with privatization per se."[9] A similar point is emphasized in a new working paper published by the National Bureau of Economic Research, which Feldstein heads.[10]

In particular, Geanakoplos, Mitchell, and Zeldes show that the apparent higher benefits under an individual account system result entirely from two factors: excluding the transition costs of moving to individual accounts, and failing to adjust appropriately for the increased risk associated with accounts invested in stocks. (The second factor is discussed in a subsequent section of this paper.) The entire "gain" that Feldstein and Liebman highlight is the artificial result of ignoring these two crucial factors.

Fundamentally, the overall net benefit that an individual-account system would provide to current and future generations is *not* higher, after adjusting for risk, than what the current pay-as-you-go system provides. If some future generations enjoy higher net benefits because of a change to individual accounts, other generations must suffer reduced net benefits, either

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[7] John Geanakoplos, Olivia S. Mitchell, and Stephen P. Zeldes, "Would a Privatized Social Security System Really Pay a Higher Rate of Return?" in R. Douglas Arnold, Michael J. Graetz, and Alicia H. Munnell, eds., *Framing the Social Security Debate: Values, Politics, and Economics* (Brookings Institution Press: Washington, 1998), and John Geanakoplos, Olivia Mitchell, and Stephen P. Zeldes, "Social Security Money's Worth," in Olivia S. Mitchell, Robert J. Myers, and Howard Young, *Prospects for Social Security Reform* (University of Pennsylvania Press: Philadelphia, 1999). A summary of these arguments can be found in Peter R. Orszag, "Individual Accounts and Social Security: Does Social Security Really Provide a Lower Rate of Return?", Center on Budget and Policy Priorities, March 1999.

[8] Geanakoplos, Mitchell, and Zeldes, "Social Security Money's Worth," *op.cit.*, pages 2-3. The Feldstein and Liebman paper does not mention the findings of Geanakoplos, Mitchell, and Zeldes, although that paper is well-known and very highly regarded among economists in the field.

[9] Kevin Murphy and Finis Welch, "Perspectives on the Social Security Crisis and Proposed Solutions," *American Economic Review*, May 1998, page 142.

[10] Hans-Werner Sinn, "Why a Funded Pension System is Useful and Why It is Not Useful," NBER Working Paper 7592, March 2000.

because their benefits are lowered or their taxes are raised. Feldstein and Liebman conveniently focus on the generations that would be far enough in the future to have higher benefits and lower taxes, rather than the intervening generations that would face either lower benefits or higher taxes during the transition period.

Why Individual Account Systems Do Not Increase Net Benefits

To see why the Feldstein-Liebman analysis is misleading, it is first necessary to understand the effects of switching to an individual account system. Imagine, therefore, a simple pay-as-you-go Social Security system, under which one generation pays $1 while it is young and receives $1 while old. Generation A, which is old in period 1 when the system is implemented, receives $1 in period 1 without having made any contributions itself. That $1 is paid for by Generation B, which is young in period 1. In period 2, Generation B is old and receives $1, paid for by Generation C, which is young in period 2, and so on. The table below presents the operation of the system.

Table 1
The Simplified Pay-as-you-go System

	Generation			
Period	**A**	**B**	**C**	**D**
1	+$1	-$1		
2		+$1	-$1	
3			+$1	-$1
4				+$1

Assume further that the interest rate the market pays is 10 percent per period. Now consider the system from the perspective of Generation C during period 2:

- Under the pay-as-you-go system, Generation C pays $1 during period 2 and receives $1 back during period 3. The pay-as-you-go system's rate of return is zero.

- Under an individual accounts system, Generation C would invest the $1 contribution and receive $1.10 in period 3.

It may therefore seem that a switch from the pay-as-you-go system to individual accounts would produce substantially higher benefits for Generation C — $1.10 rather than $1. But would it?

If Generation C put $1 into individual accounts during period 2, that $1 could *not* be used to finance the benefits for Generation B. Yet Generation B's benefits still would have to be paid unless society is willing to allow Generation B to go without benefits.

Assume that Generation B's benefits are financed through government borrowing and that the interest costs resulting from this borrowing are paid for in each period by the older generation. With an interest rate of 10 percent, the interest payments on $1 in borrowing would amount to 10 cents per period. The rate of return to Generation C during period 3 would therefore be zero — Generation C would get $1.10 back from its individual accounts, but it would have to pay 10 cents in interest costs, so that it would receive only $1 after paying interest. Excluding interest, Generation C thus would pay $1 and receive a benefit of $1. As a result, once the interest costs are accounted for, Generation C would earn the same rate of return (e.g., a zero rate of return) as under the pay-as-you-go system. For Generation C and each generation thereafter, the extra benefit from the individual-account system consequently is more apparent than real: the extra benefit is exactly offset by the cost of the interest payments on the debt that financed Generation B's benefits.

We now can see how the Feldstein-Liebman comparison produces misleadingly high returns for individual accounts. Their comparison effectively assumes that Generation C finances the entire cost of Generation B's benefits in addition to its own individual-account contributions (i.e., that Generation C absorbs all of the transition costs and receives a negative rate of return as a result). They then provide comparative data *exclusively for Generation D.*

To see how this works, assume that Generation C paid $1 into its own individual accounts and also paid $1 to finance Generation B's benefits. Generation D would indeed have higher benefits under the individual account system: It would receive benefits of $1.10 rather than $1, without having to pay any extra interest costs. But note that Generation C would be much worse off: It would pay $2 — $1 for its own individual accounts and $1 to pay for Generation B's benefits — while receiving back only $1.10 in retirement benefits. Feldstein and Liebman focus solely on Generation D and ignore the costs to Generation C. Not surprisingly, by excluding the intervening Generation C, they conclude that the vast majority of the members of Generation D would have higher benefits with individual accounts.

This example is purposefully simplistic: It does not reflect developments such as a deterioration in Social Security's finances, increases in real incomes, or changes in the size of the workforce over time. And to be sure, the Feldstein-Liebman analysis is more sophisticated in some ways than this simple hypothetical example. Their analysis examines individual members of Generation D, rather than the generation as a whole. But the fundamental problem with their analysis is accurately captured by this hypothetical example: Feldstein and Liebman skip far enough forward in time to exclude the generation that would have reduced benefits, while focusing on the generation that would have higher benefits. Since that generation as a whole would enjoy much higher benefits under the individual-account system due to the fact that the intervening generation bore a heavy load, it is not surprising that Feldstein and Liebman find that most members of that distant generation would enjoy higher benefits under individual accounts than under the current Social Security system.

Problem #2: Failing to compare results to similar increases in funding under Social Security

Since Feldstein and Liebman choose not to incorporate the transition costs associated with moving to a system of individual accounts into their analysis, an alternative method of conducting an analytically sound comparison would be to compare their results to the results that would be obtained by increasing the size of the Social Security Trust Fund by adding to the Trust Fund the same amount of new funding that Feldstein and Liebman would use to establish individual accounts. In both cases, the cost of providing this additional funding would be ignored.

The Feldstein and Liebman paper, however, does not undertake such a comparison. Instead, it compares the benefits 75 years from now under an individual-account system funded during the transition with trillions of new dollars to the current-law benefits that Social Security would provide 75 years from now. The paper makes such a comparison despite the fact that this entails comparing funding under two systems to which very different amounts of additional funding have been provided. (In their analysis, they assume some additional financing for Social Security, since such financing would be needed to enable Social Security to pay current-law benefits in 2075. But the additional financing required to pay for current-law benefits in Social Security is significantly less than the added financing embodied in the individual account plans that Feldstein and Liebman examine.)

To grasp the problem with the comparisons that Feldstein and Liebman present, consider a comparison in which equivalent amounts of added funding *have* been provided to individual accounts and Social Security, and in which the rules governing the Social Security Trust Fund have been modified to allow trust-fund investments in equities. Compare the effect of $100 placed in individual accounts, with half of it invested in equities and half in bonds, to $100 placed in the Trust Fund and similarly invested. An extra $100 placed in the Trust Fund and invested in the same manner *would earn the same rate of return* as $100 placed in individual accounts. In fact, as discussed below, the extra funds placed in the Trust Fund would likely earn a higher rate of return once administrative costs are taken into account, since the Trust Fund almost certainly would incur lower administrative costs than 150 million or so individual accounts would.

As this example illustrates, providing a sufficiently large infusion of additional funding into the system results in higher benefits than would be provided under current law *regardless* of whether the additional funds are invested in the Trust Fund or in individual accounts. As discussed above, two factors account for all of the higher benefits that Feldstein and Liebman cite as being provided under their individual account proposals: the additional funding that they implicitly assume will finance the transition to individual accounts, and the investments made in the stock market rather than in lower-yielding (but safer) Treasury securities. Both the additional funding and stock market investments could be undertaken either through the Social Security Trust Fund or through individual accounts. *It is these two factors, not the individual accounts themselves, that produce the higher expected benefit levels.*

Feldstein and Liebman briefly acknowledge that it is advance funding and equity investments, rather than individual accounts *per se,* that raise expected retirement benefits.

But after noting this point, they quickly dismiss it, arguing that it is infeasible politically to undertake greater advance funding through the Trust Fund.[11] They write:

> "...all of the economic logic behind prefunding applies whether the prefunding occurs through collective investing on behalf of the Social Security trust fund or through individual retirement accounts. While there are serious arguments both for and against collective investing, we believe that it is highly unlikely that the political system would adopt the magnitude of prefunding discussed in this paper unless the prefunding occurs through private savings accounts." (Page 8)

Effects on Lower-Income Workers

The lack of comparison to a Social Security system prefunded in a similar manner is particularly significant because Feldstein and Liebman emphasize the benefits of individual accounts to lower-income workers. Had they undertaken an analysis of prefunding and equity investments made through Social Security, they would have found *even higher* expected benefits in the long run for lower-income workers than under their main individual-account proposals.[12] Social Security is a progressive system, in which benefits replace a higher percentage of earnings for lower-income workers than for higher-income workers. Individual

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[11] Interestingly, Feldstein and Liebman do study a scenario under which every worker contributes 3 percent of pay to individual accounts, and the contributions are redistributed across individuals to produce equal *dollar* contributions into each worker's individual account. The redistribution thus is transparent. In one of their scenarios, for example, a worker earning $60,000 per year would contribute $1,800 to the system, $900 of which would be given to other workers and $900 of which would be deposited into the worker's own individual account. The implicit assumption that this scenario is politically viable enough to be worthy of study, while prefunding through the Social Security Trust Fund is not, seems dubious.

It also is worth noting that their calculations effectively assume mandatory annuitization of individual accounts upon retirement (that is, all individuals would be required to convert their accumulated individual account balances into a guaranteed payment per year for each year they or their spouses are alive). Such mandatory annuitization represents a sound policy decision should individual accounts be adopted, but it may be extremely difficult to implement politically. For example, individuals who know they are likely to die soon after retirement would vehemently oppose converting their accumulated balance into an annual payment, since that would mean the bulk of their accumulated balance would effectively be forfeited when they die. Despite the very serious political feasibility questions involved in mandatory annuitization, Feldstein and Liebman include it in their analysis and do not consider alternatives.

The manner in which Feldstein and Liebman treat these issues raises questions about their judgments regarding political feasibility. Their analysis conveniently uses political feasibility judgments in a manner that results in their paper essentially being a paean to individual accounts.

[12] Feldstein and Liebman also study a progressive funding scheme for individual accounts. If individual accounts were financed in a sufficiently progressive manner, benefit levels for low-income beneficiaries would be higher than under a similarly funded Social Security system. In other words, a sufficiently progressive financing scheme *could* make individual accounts more progressive than the Social Security system. As discussed in a footnote above, however, the degree to which the political system would support progressive funding of individual accounts remains to be seen.

accounts lack this feature. Thus, providing additional funding and equity investments through the Social Security system would almost certainly provide larger benefits for lower-income workers than if the same amount of funding were channeled to individual accounts.

To see how the progressivity of the Social Security system aids low-income workers, consider a hypothetical worker earning $9,000 per year (in 1999 dollars). As Table 2 shows, under current law, the worker would receive a Social Security benefit of $6,400 per year upon retirement. Under the Feldstein-Liebman plan that combines individual accounts with a scaled-back Social Security system, the worker would receive a combined benefit of approximately $7,500 per year.[13] But if the additional funding assumed in the Feldstein-Liebman plan were channeled through the Social Security system, with the total amount of additional Social Security benefits paid from the funding equal to the total benefits that the individual accounts would pay, this worker would receive a benefit of approximately $8,900 per year.[14]

Keeping total benefits the same under the two alternatives ensures the comparison is a fair one, because it ensures that the level of funding is the same under the two systems being compared. In other words, it ensures that the effects of added funding do not undermine the legitimacy of the benefit comparisons. It assumes that the "partially prefunded" Social Security system includes a Trust Fund that receives the same amount of additional funds as is used to establish individual accounts under the Feldstein-Liebman projections, that the Trust Fund earns the same rate of return (5.9 percent per year) as those individual accounts, and that the Trust Fund incurs the same administrative costs (0.4 percent per year) as Feldstein and Liebman assume individual-account holders will secure. (As noted above, if individual accounts would achieve these returns, a partially prefunded Social Security trust fund that was permitted to invest in equities would be expected to do just as well — or, more likely, to do better, given that the administrative costs the trust fund incurs would be lower than those levied on individual accounts.)[15]

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[13] This figure assumes the low-wage worker has an identical work history to the "average" beneficiary in the Feldstein and Liebman study but has earned wages equal to approximately half of the wages the "average" beneficiary earned. The "average" beneficiary in the Feldstein-Liebman data set earned roughly $18,000 per year.

[14] This figure is computed by increasing all current-law benefits under Social Security by 38.9 percent, which produces the same *total* level of benefits under our hypothetical "partially prefunded Social Security" system as under the "mixed" plan Feldstein and Liebman discuss that establishes individual accounts and scales back Social Security.

[15] Assuming the Social Security system had the same investment opportunities as the individual account holders, the assumption of 0.4 percent per year in administrative costs is likely to be too high for the Social Security approach and too low for the individual account approach. In other words, the administrative costs associated with prefunding through the Social Security Trust Fund are likely to be substantially lower than 0.4 percent per year, while the costs associated with a decentralized system of individual accounts are likely to be much higher (see Problem #3 below). To the extent that administrative costs would be lower under the partially prefunded Social Security approach than under the individual-account approach, the difference between the

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In summary, Feldstein and Liebman focus on the fact that the low-wage worker would receive more under the "mixed" plan than under current law. As explained above, however, that comparison is misleading because it compares benefits under systems with different total levels of funding. A more insightful comparison would examine the relative benefits under two systems that have equal funding but different mechanisms for using that funding — the "mixed" plan (with the additional funding funneled into individual accounts) and the "partially prefunded" Social Security plan (with the additional funding provided to the Social Security Trust Fund). The lower-wage worker would be better off with the latter option. The annual benefit for such a worker would be almost 20 percent higher if the added funding is channeled through the Trust Fund and used to raise Social Security benefits rather than if the funding is channeled through individual accounts (see Table 2).

Table 2

Annual Benefits for a Low-Wage Worker ($9,000 per year in Earnings)

	Annual benefit (1999 $)
Current law	$6,395
Feldstein-Liebman "mixed" plan	$7,472
Partially prefunded Social Security system, with same level of additional funding as the Feldstein-Liebman plan	$8,887

The worker does better under the partially prefunded Social Security approach because of the progressivity of the Social Security benefit formula. This progressivity also means that *higher*-income workers (as a group) would be better off under the "mixed" plan than under the partially prefunded Social Security one. (By design, the *total* benefits are the same under the two plans, so the higher benefits for lower-income workers under the latter approach are offset by lower benefits for higher-income workers.)

Problem #3: Underestimating Administrative Costs

A third problem with the Feldstein and Liebman analysis is that it assumes the administrative costs associated with individual accounts would amount to 0.4 percent of the account balance each year, regardless of the size of the accounts and apparently regardless of how the accounts were invested.

If the administrative costs turned out to be higher than Feldstein and Liebman assume, these costs would consume more of the account balances and leave less for retirement benefits. For example, a fee of 0.4 percent per year over the course of an individual's work

[15] (...continued)
benefits for the low-wage worker under the Social Security approach and under the approach involving individual account and reduced Social Security benefits would be still larger.

career would reduce that individual's account balance upon retirement by roughly 8 percent relative to an account with no annual fees.[16] (That is, if an account with no fees would accumulate to $10,000 over an entire career, an account subjected to an annual fee of 0.4 percent would accumulate to $9,200 over the same career.) An annual fee of about 1.5 percent would reduce an account balance by about 30 percent relative to no fees. Small differences in charges each year cumulate, through the power of compound interest, into substantial differences over a lifetime.

The administrative costs of a system of individual accounts would depend on a number of factors, including: how centralized the system was and how limited the investment choices were; the level of service provided (e.g., whether individuals enjoyed unlimited telephone calls, frequent account balance statements, and other services); the size of the accounts; and the rules and regulations governing the accounts. Even the most ardent supporters of individual accounts acknowledge that the administrative costs will depend significantly on a variety of factors. For example, the Cato Institute has written that administrative costs "can vary significantly depending on how the system is set up, the size of the accounts, and various rules and regulations associated with them."[17]

While much uncertainty surrounds any cost projections, the evidence suggests that the administrative costs for a system of decentralized, privately managed individual accounts with a wide variety of investment choices would be significantly higher than the 0.4 percent per year that Feldstein and Liebman assume. The authors do not explicitly state they would limit investment choices under the accounts. They provide no reason to assume that individuals would not be allowed to hold their accounts with a variety of financial firms and to invest in a wide variety of assets. If so, their assumed administrative cost figure is likely to be substantially too low.

The 0.4 percent per year figure is far below the average administrative cost charged on mutual funds. According to the Investment Company Institute, a financial market organization that undertakes research on mutual funds and other financial assets, the average administrative cost for mutual funds is 1.49 percent per year.[18] (The average cost for index

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[16] With a 0.4 percent annual charge on holdings in accounts, a dollar deposited in an individual account in the first year of a 40-year career will be subject to the 0.4 percent fee 40 times, while a dollar deposited in the final year before retirement will be subject to the fee once. On average, dollars in the account will be subject to the 0.4 percent annual charge roughly 20 times, suggesting that approximately 8 percent of the account will be consumed by these charges. The precise figure depends on wage growth and the rate of return, as well as the time profile of contributions and fees over the worker's career.

[17] Robert Genetski, "Administration Costs and the Relative Efficiency of Public and Private Social Security Systems," Cato Project on Social Security Privatization, March 9, 1999, SSP No. 15.

[18] John D. Rea and Brian K. Reid, "Trends in the ownership cost of equity mutual funds," Investment Company Institute, *Perspective*, Volume 4, Number 3, November 1998. It is worth noting that the 1.49 percent per year figure is based on an average account balance of $15,000. Given a three percent contribution rate, it would take

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funds, which are designed to track a broad market average, is much lower than the average for all mutual funds. But the Feldstein-Liebman paper does not state that they restrict investment choices to index funds.)

The Feldstein-Liebman estimate also is significantly lower than the cost estimates many experts have provided for decentralized individual accounts that do not have limits on the types of investments that can be undertaken:

- **Advisory Council on Social Security.** The 1994-1996 Advisory Council on Social Security estimated that decentralized, privately managed accounts funded by contributions amounting to 5 percent of payroll would involve administrative costs of 1.0 percent per year.[19]

- **Office of the Actuary.** Stephen Goss, the respected Deputy Chief Actuary of the Social Security Administration, has written that administrative costs of 1.0 percent per year are "consistent with assuming that the [individual account] will operate with decentralized administration and that investment options would be broader. The [1.0 percent per year] assumption is equal to that assumed by the Advisory Council for the Personal Security Account plan, which provided for individual account contributions equal to 5 percent of payroll. However, because this plan [i.e., the particular plan about which Gross was writing at the time] provides for contributions of only 2 percent of payroll, administrative expense for a highly decentralized and flexible plan could easily be higher [than 1.0 percent per year]."[20]

- **Professor Peter Diamond.** MIT professor Peter Diamond, a leading expert on Social Security and pensions, concludes that privately-organized accounts would involve charges of at least 1.0 percent per year if contributions amount to "a large percentage of payroll, and [the charges would be] larger, possibly

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[18] (...continued)
years, if not decades, for many workers to accumulate that large an account. In addition, the 1.49 percent per year figure excludes brokerage fees, which could add an additional 0.12 percent per year. See Estelle James, Gary Ferrier, James Smalhout, and Dimitri Vittas, "Mutual Funds and Institutional Investments: What is the Most Efficient Way to Set Up Individual Accounts in a Social Security System?" NBER Conference on Administrative Costs of Individual Accounts, December 4, 1998. On the other hand, it is worth noting that the Investment Company Institute figures indicate that the average cost (excluding brokerage fees) has declined significantly over time: It was 2.45 percent per year in 1981 and declined to 1.49 percent per year in 1997.

[19] Report of the 1994-1996 Advisory Council on Social Security, *Volume I: Recommendations* (Washington, DC, 1997), page 171.

[20] Stephen C. Goss, "Long-Range OASDI Financial Effects of Clawback Proposal for Privatized Individual Accounts," Office of the Chief Actuary, Social Security Administration, December 3, 1998, pages 4-5.

considerably larger, if we are considering accounts financed with only 2 percent of payroll."[21]

- **The World Bank.** Estelle James, an economist at the World Bank and a leading expert on (as well as forceful proponent for) individual accounts, concludes in a study with three co-authors that administrative costs for individual accounts in retail markets could amount to as much as 1.5 percent per year.[22]

- **The Cato Institute.** The Cato Institute, a conservative Washington think tank and leading proponent of individual accounts, estimates that administrative costs would amount to 0.3 to 0.65 percent per year if the accounts were funded by annual deposits equal to *10 percent* of wages. Cato notes that among the factors that would cause "a substantial increase in administrative costs" is "limiting the size of the accounts by moving to partial rather than total privatization."[23] In other words, the Cato Institute concludes that administrative costs would be 0.3 to 0.65 percent per year if the accounts were financed by contributions equaling 10 percent of wages and substantially more than that if the accounts were financed by 3 percent of wages. Feldstein and Liebman's estimate, which they apply to accounts financed by only 3 percent of wages, is below the mid-point of the Cato estimates for accounts funded by 10 percent of payroll.

- **Experience abroad.** Since 1988, workers in the United Kingdom have been allowed to opt out of that nation's Social Security system and into individual accounts. The costs associated with those accounts have proven to be substantially higher than 0.4 percent. A recent study one of the authors of this paper completed with two other economists estimated that administrative costs in the United Kingdom amount to roughly 2.5 percent per year.[24] Other studies by actuaries and financial analysts in the United Kingdom have reached similar

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[21] Peter Diamond, "Administrative Costs and Equilibrium Charges with Individual Accounts," presented at NBER Conference on Administrative Costs of Individual Accounts, December 4, 1998, page 23.

[22] Estelle James, Gary Ferrier, James Smalhout, and Dimitri Vittas, "Mutual Funds and Institutional Investments: What is the Most Efficient Way to Set Up Individual Accounts in a Social Security System?" NBER Conference on Administrative Costs of Individual Accounts, December 4, 1998, page 2.

[23] Robert Genetski, "Administration Costs and the Relative Efficiency of Public and Private Social Security Systems," Cato Project on Social Security Privatization, March 9, 1999, SSP No. 15, page 8.

[24] Mamta Murthi, J. Michael Orszag, and Peter R. Orszag, "The Charge Ratio on Individual Accounts: Lessons from the U.K. Experience," Birkbeck College Working Paper 99-2, March 1999 (University of London), available at http://www.econ.bbk.ac.uk/ukcosts. For a summary, see Peter Orszag, "Administrative Costs in Individual Accounts In The United Kingdom," Center on Budget and Policy Priorities, March 1999, available at http://www.cbpp.org.

conclusions.[25] (That 2.5 percent estimate includes the cost of converting the account balance to an annuity upon retirement. Without such annuitization costs, the administrative costs in the U.K. system amount to roughly 1.8 percent, somewhat higher than the 1.49 percent estimate for the average mutual fund in the United States.)

While much uncertainty surrounds any cost estimates for accounts not yet created, the Feldstein-Liebman estimate of 0.4 percent per year for administrative costs under a decentralized system of accounts seems implausibly low, especially for accounts funded by 3 percent of earnings and with no apparent restrictions on service levels, financial providers, or asset choices. *The bottom line is that either the administrative cost assumption is too low — and therefore the projected benefits are too high — or Feldstein and Liebman are implicitly limiting to a very substantial degree the choices that individuals can make about how to invest their individual accounts.* If the authors are assuming such restrictions, which may not be politically popular, they do not state that explicitly.

It also is worth noting that the authors assume the 0.4 percent per year administrative cost applies across all income groups. In addition, they assume the 0.4 percent figure applies both to accounts funded with contributions equal to three percent of payroll and to accounts funded with contributions equaling nine percent of payroll. These assumptions can be valid only if there are no economies-of-scale involved in administrative costs. In reality, administrative costs involve significant fixed costs, so there are economies-of-scale: The administrative cost per dollar of asset held in an account falls as the size of the account increases.

Thus, even if Feldstein and Liebman's assumption that *average* administrative costs are 0.4 percent per year were reasonable, their assumption that lower-wage workers would have access to accounts with administrative costs of 0.4 percent per year still would be very dubious. Achieving the same administrative cost across accounts of different sizes is implausible without significant government regulation. Feldstein and Liebman say nothing about such regulation being part of the plans they analyze.

Problem #4: Underemphasizing Risk

Most individuals do not like risk. To compensate for higher risk and to induce individuals to place money in investments with risk, riskier assets carry higher expected average returns. Risk is one of the principal reasons that stocks tend to have a relatively higher expected average rate of return than other financial assets. An analysis of the benefits

[25] See John L. Shuttleworth,, "Operating costs of different forms of pension provision in the U.K.," Coopers & Lybrand, June 27, 1997, and John Chapman, "Pension plans made easy," *Money Management*, November 1998.

that different retirement systems provide should take into account the risk embedded in these benefits.[26]

By many common measures, stocks are relatively risky. The S&P 500 index has declined, in nominal terms, by more than 10 percent in eight of the past 70 years.[27] In inflation-adjusted terms, the number of years of substantial decline is larger. International experience also highlights the riskiness of the stock market: The stock market in Sweden, for example, fell by 63.6 percent in inflation-adjusted terms between August 1976 and August 1977; the U.K. stock market fell by 63.3 percent between November 1973 and November 1974.[28] Moreover, individual stocks are considerably riskier than broad portfolios (such as the S&P 500); many stocks decline even in years when the market rises overall, and many individuals do not hold sufficiently diversified portfolios to protect against declines in individual stocks. Economists also note that stock returns tend to be high during strong economic periods but can fall during bad times.

In their main analysis, Feldstein and Liebman assume that the real (inflation-adjusted) rate of return on individual accounts will average 5.9 percent (and 5.5 percent after administrative costs of 0.4 percent per year are subtracted). To gauge the impact of financial market risk on their results, they also examine a scenario in which the real return averages 3.5 percent per year. They argue that the actual return earned would be expected to exceed 3.5 percent per year with 90 percent probability, so the 3.5 percent real return is conservative.

Two points should be noted about the Feldstein-Liebman "low-return" scenario:

- The Feldstein-Liebman projections are based solely on asset returns from 1946 to 1995.[29] If rates of return on stocks are lower in the future than they were in the past (because stocks are now at unprecedented levels in terms of price-to-earnings ratios), as some analysts believe will occur, the Feldstein-Liebman

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[26] It is perhaps worth noting that the Social Security system contains many elements that provide insurance against different types of risk, including its inflation-indexation and progressive benefit formula. Many of the insurance elements embodied in the Social Security system are either difficult or impossible to obtain (especially at reasonable price) in private markets.

[27] Council of Economic Advisers, *Economic Report of the President 1997* (Government Printing Office: Washington, 1997), page 113. Bonds also have risk in real terms. Bonds held to maturity have little or no risk in nominal terms, but they do have risk in real (inflation-adjusted) terms: If inflation turns out to be higher than expected, the real value of the bond's principal is reduced. That means that unexpected inflation poses a risk to bondholders. The Treasury Department has recently begun issuing inflation-indexed bonds that protect investors against such risk.

[28] Robert J. Shiller, *Irrational Exuberance* (Princeton University Press: Princeton, 2000), page 120.

[29] The details of the projection methodology are contained in Martin Feldstein and Elena Ranguelova, "Individual Risk and Intergenerational Risk Sharing in an Investment-Based Social Security System," NBER Working Paper 6839, December 1998.

procedure may yield an overly optimistic forecast for the future.[30] (It should be noted that lower future returns could affect not only the "low-return" scenario, but also the main projections in the Feldstein-Liebman paper.) As Robert Shiller, a leading financial economist at Yale University, recently wrote, "It would be a serious mistake to adopt the policy, proposed by some, of replacing the current Social Security system with a defined contribution plan for retirement, investing plan balances in the stock market, or even a plan that would give individuals a choice of investment categories...Adopting such a plan at a time when the market is at a record high relative to fundamentals would be an error of historic proportions."[31]

- Their own analysis shows that under their low-return scenario, 57 percent of beneficiaries would have benefits *lower* than their current-law Social Security benefits under the plan Feldstein and Liebman analyze that combines individual accounts with scaled-back Social Security benefits.

In other words, even in the misleading long-run analysis they undertake — in which transition costs are ignored and an individual-accounts system funded by trillions of new dollars is compared to the current Social Security system with much less funding — a majority of workers would be worse off under the individual accounts if the market produced a low rate of return. Feldstein and Liebman argue these losses would be small and could be offset through other programs such as the Supplemental Security Income program (SSI).[32]

Conclusion

Feldstein and Liebman argue that their analysis shows that a Social Security reform involving individual accounts would make the vast majority of Americans better off in the long run. As this paper demonstrates, however, that analysis is too limited: It does not reflect the transition costs of moving to a system of individual accounts, does not compare individual accounts financed with a larger infusion of revenues to a Social Security system bolstered by an equivalent amount of new funding and permitted to diversify its investments, underestimates administrative costs (or constrains investment choices without admitting it), and under-emphasizes the potential importance of risk in affecting retirement incomes.

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[30] For a discussion of future rates of return, see Peter A. Diamond, "What Stock Market Returns to Expect for the Future?" Issue in Brief #2, Center for Retirement Research at Boston College, September 1999.

[31] Robert J. Shiller, *Irrational Exuberance* (Princeton University Press: Princeton, 2000), page 222.

[32] Feldstein and Liebman estimate that SSI costs would nonetheless decline, because savings for those lifted above the SSI eligibility range would exceed the additional costs for those whose retirement benefits decline.

The costs and benefits involved in moving to individual accounts are not as simple as Feldstein and Liebman would lead us to believe. Their results seem likely to be particularly misleading for lower-income workers, a group Feldstein and Liebman cite repeatedly as being beneficiaries of their proposals. Such workers are likely to be better off if funding is channeled through the Social Security Trust Fund rather than individual accounts. These workers also are likely to bear higher administrative costs under individual accounts — and therefore to receive lower benefits — than Feldstein and Liebman assume.

Fundamentally, the higher expected benefits that Feldstein and Liebman attribute to individual accounts reflect the combined impact of additional funding and equity investments. Should policy-makers choose to undertake them, both of these steps could be accomplished through the Social Security system itself.