Administrative Costs in Individual Accounts in the United Kingdom

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Center on Budget and Policy Priorities

March 1999

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March 1999

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Executive Summary

Since 1988, workers in the United Kingdom have been allowed to opt out of that nation's Social Security system and into individual accounts. A research project that the author is conducting with two other economists for the World Bank has resulted in the compilation of a comprehensive database on administrative and other costs, on a company-by-company basis, of the individual accounts in the U.K. system. Our analysis of that data finds the administrative costs to be substantial — significantly higher than acknowledged thus far in the debate in the United States, although not as high as some other studies from the United Kingdom have suggested.[1] (It should be noted that the focus of our project and of this paper is to document the lifetime costs on an individual account in the United Kingdom for a typical worker, not to conduct a full cost-benefit analysis of individual accounts.)

The administrative costs associated with any system of individual accounts can be broken down into three components:

- Accumulation costs reflect the costs for administration and fund management that are incurred on the account of a worker who maintains his or her account with the same financial provider and contributes consistently to that account throughout his or her career. As this study finds and as previous studies have documented, these costs reduce the value of an individual account in the U.K. by an average of approximately 25 percent of the funds in the account over an individual's working years. In other words, the amount of money in the account when the worker retires is 25 percent lower than it would be without these charges.

- Alteration costs are the additional costs incurred when an account holder fails to contribute consistently to a single financial provider over an entire working career. Such costs could arise because the worker switches from one financial provider to another or because the worker leaves the labor force and ceases to make contributions. Most previous analyses have ignored these costs. The evidence suggests that such costs are significant. The data indicate that in the U.K. system, these costs reduce an account's value by an average of 15 percent over a career.
- Annuity costs are the costs incurred by the typical individual in converting an account to a lifetime annuity upon retirement. Although such costs may be of a

[1] See 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

somewhat different nature than accumulation and alteration costs, they represent a financial loss to individuals, just as accumulation and alteration costs do. In the United Kingdom, these costs reduce the value of an account at retirement by approximately 10 percent, on average.

Taking into account interaction effects, these estimates indicate that, on average, *43 percent of the value of individual accounts in the United Kingdom is consumed by various fees and costs over a typical career*. In other words, more than 40 percent of an account's value is dissipated by fees and costs. This estimate is based on actual data from financial providers. It reflects a comprehensive treatment of costs associated with individual accounts.

Costs depend on the structure of individual accounts. For example, some proposals for individual accounts in the United States seek to take advantage aggressively of potential economies of scale through centralized management — by offering individual accounts only through one provider and limiting the investment options. The Thrift Savings Plan (TSP) for federal employees is an example of such a centralized plan; the accounts under the TSP are all held with a single provider, and the investment options are limited to a few broadly diversified index funds. Other approaches to individual accounts would allow individuals more choice through a decentralized system, under which individuals would be allowed to choose their own financial provider and to invest in a wider array of assets. Under the decentralized approach, the accounts would be similar to Individual Retirement Accounts, which can be held with a variety of financial providers and which impose few restrictions on permitted investments.

In addition to considering the broader question of *whether* to create individual accounts, policymakers in the United States must consider *what type* of individual accounts to create if they decide to adopt such accounts. A full analysis of the pros and cons of individual accounts is beyond the scope of this paper. The U.K. experience vividly illustrates, however, that if individual accounts are created in the United States, a decentralized approach could carry a variety of potential dangers. In particular, the U.K. data suggest that administrative costs are likely to be high under a system of decentralized accounts.

Administrative Costs in Individual Accounts in the United Kingdom

Individual accounts are perhaps the most controversial component of the current debate over Social Security reform in the United States. The administrative costs associated with such accounts are particularly contentious, with proponents claiming the costs will be relatively low and opponents claiming the contrary. The debate also involves the gross rate of return likely to be earned on individual accounts and other potential benefits of such accounts; this paper focuses exclusively on the administrative cost issue and does not discuss benefits.[2] In particular, the purpose of the paper is to document the lifetime costs on an individual account for a typical worker in the United Kingdom, not to conduct a full cost-benefit analysis of individual accounts.

Since 1988, workers in the United Kingdom have been allowed to opt out of the Social Security system and into individual accounts. As part of an ongoing World Bank project, the author and two other economists have assembled a comprehensive firm-level database of the administrative costs associated with these individual accounts in the United Kingdom. Using that database, we have found the administrative costs to be high — significantly higher than acknowledged thus far in the debate in the United States, although not as high as some studies from the United Kingdom have suggested.[3] This paper provides a summary of the results.

Over a typical career and retirement, the current level of charges in the United Kingdom would reduce the value of an individual account by 43 percent relative to its value with no charges. In other words, more than 40 percent of an individual account's value is dissipated through fees and charges. This figure is based on actual data from financial providers and reflects a comprehensive treatment of costs associated with individual accounts. Some studies

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[2] On the narrow issue of the rate of return likely to be earned on individual accounts relative to the current pay-as-you-go system, see 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), also available as NBER Working Paper Number 6713, August 1998; and John Geanakoplos, Olivia Mitchell, and Stephen P. Zeldes, "Social Security Money's Worth," available as NBER Working Paper Number 6722, September 1998, and in Olivia S. Mitchell, Robert J. Myers, and Howard Young, *Prospects for Social Security Reform* (University of Pennsylvania Press: Philadelphia, 1999). For a less technical summary of the papers, see 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, available at http://www.cbpp.org.

[3] This research is presented in 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

have found lower costs for the U.K. system because they did not include either the costs of altering contributions (transferring funds among different financial providers or of stopping contributions to an existing provider), the cost of converting an account to an annuity upon retirement, or both.

I. Overview of the U.K. Social Security System

The Social Security system in the U.K. consists of two tiers: a flat-rate basic state pension and an earnings-related pension. The first tier is provided through the government to all workers who have contributed to the system for a sufficient number of years. The second tier, which can be managed by an individual, his or her employer, or the government, depends on an individual's earnings history.[4]

Tier I Benefits

The first tier of the U.K. Social Security program is the Basic State Retirement Pension (BSP). Under the BSP, a portion of the National Insurance Contribution (NIC) payroll tax finances a flat-rate benefit for retirees. This basic benefit is the same for all qualified retirees, rather than varying with an individual's earnings history. The full benefit payments amount to about $105 per person per week. (The BSP is similar to the "flat benefit" that was proposed in the United States as part of the Personal Security Accounts plan, one of the three plans put forward by the Advisory Council on Social Security in 1997.[5] Under the PSA plan, the flat benefit would have been initially set at $410 monthly in 1996, roughly the same amount as the BSP in Britain.)

Tier II Benefits

The second tier of the U.K. system offers three alternatives to workers: the government-run system (SERPS), individual accounts, or employer-provided accounts.[6] Those who choose either of the latter two options receive a rebate on their payroll taxes that is then deposited into either an individual account or an employer-provided pension. In this sense, the system is similar to some of the voluntary opt-out proposals for individual accounts in the United States. The options for the second tier are:

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[4] For an excellent summary of the U.K. system, see Lillian Liu, "Retirement Income Security in the United Kingdom," ORES Working Paper 79, Social Security Administration (Washington, DC), November 1998. Liu makes a variety of adjustments to the data on the distribution of workers in various second-tier options (see text below), and her numbers on this issue are therefore slightly different from the ones presented here.

[5] Within the Advisory Council, Carolyn Weaver of the American Enterprise Institute and Sylvester Schieber of Watson Wyatt Worldwide, among others, supported the Personal Security Accounts plan.

[6] The self-employed are not required to participate in the second-tier component.

- SERPS. Roughly one-quarter of British workers currently choose the most basic option, the state-run State Earnings-Related Pension Scheme (SERPS). SERPS is similar to the U.S. Social Security system: it is a pay-as-you-go system, with benefits based on earnings history and funding provided by the NIC payroll tax.

  When it was first introduced in 1978, SERPS was relatively generous. Over time, reforms have made the program less attractive, especially to middle- and upper-income workers. The maximum SERPS benefit is currently about $200 per week, while the average benefit is under $30 per week. The majority of Britons who remain enrolled in SERPS today earn less than $15,000 annually.

- Individual accounts. Individuals can opt out of the SERPS system by opening an Appropriate Personal Pension (APP), which is an individual account held with a private financial firm. About 25 percent of workers in the United Kingdom currently hold such individual accounts.

- Employer-based pensions. Individuals also can opt out of the SERPS system by participating in an employer-sponsored pension plan. About half of all workers participate in such plans (often referred to as "occupational pensions").

The U.K. system thus allows workers to choose among the state-run pay-as-you-go system, individual accounts, and employer-provided pensions.

II. Individual Accounts in the United Kingdom

Since it provides the only example of individual accounts among the G-7 countries, and since it is broadly similar in culture and general outlook to the United States, the United Kingdom may offer trenchant lessons for the debate here.[7] About one-quarter of workers in the United Kingdom opt out of the state-run system and into individual accounts. The government's payroll tax rebate finances contributions into individual accounts that are roughly equivalent to three percent of average annual earnings for American workers covered by the U.S. Social Security system. Roughly half of account holders contribute an additional amount on top of the government rebate. As a result, the contributions deposited in individual accounts in the United Kingdom are at least as large as those being considered for individual account plans in the United States.

British workers can hold individual accounts with a variety of financial firms. The system is decentralized, with significant marketing and advertising activities undertaken by

[7] The G-7 countries include the United States, Germany, Japan, the United Kingdom, Italy, Canada, and France.

financial firms. It lacks the economies of scale in administrative costs that a more centralized system could offer.

The individual-accounts market in the U.K. is dominated by insurance firms, largely because insurers can offer certain related products such as annuities. It also is very competitive, a fact underscored by the withdrawal of several high-profile firms from the market because of keen competition. In the face of intense competition, for example, Fidelity withdrew from the individual-accounts market in 1993 and transferred its existing accounts to another provider. It is worth noting, however, that strong competition has *not* resulted in low administrative costs, as discussed below.[8]

III. Administrative and Other Costs in a System of Individual Accounts

Costs can be imposed on holders of individual accounts in multiple ways, and measuring them accurately is complicated. This problem is particularly acute in the United Kingdom. The Congressional Budget Office noted in a recent report that in Britain, "Given the variety of plans and portfolios, clearly assessing the overall cost of fees and commissions is difficult."[9] Referring to the U.K. system, another market analyst has argued that, "Pension plans have a bewildering array of charges, including bid/offer spreads, reduced allocations of premiums, capital units and levies, annual fund charges, policy fees and penalties on transfers, early retirement, and other events."[10]

Our approach to the variety of costs in an individual-account system is to compute a summary *charge ratio*. The charge ratio reflects all of the various costs imposed on account holders and expresses them in a simple, comprehensive way. It does this by measuring how much of an individual account's value is dissipated by costs over a working life. A charge ratio of 20 percent, for example, indicates that administrative and other costs reduce the value of an account by 20 percent over a typical career, relative to an account with zero administrative costs.

It is important to note that our focus is on charges imposed on individuals, which can be high either because profits are high or because underlying costs are high. The competitiveness of

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[8] Competition has sometimes been taken to extremes. In what has become known as the mis-selling controversy, high-pressure sales tactics were used to persuade members of good occupational pension schemes (especially older, long-serving members) to switch to unsuitable individual accounts. In reaction to the controversy, the U.K. government has imposed stricter rules for providing advice on the transfer of funds from occupational to individual accounts, required providers to disclose their fees and commissions, and insisted that the firms compensate investors who had been given bad advice. Total compensation is projected to amount to at least £11 billion ($18 billion).

[9] Congressional Budget Office, *Social Security Privatization: Experiences Abroad*, January 1999, page 92.

[10] John Chapman, "Pension plans made easy," *Money Management*, November 1998, page 88.

the individual account market in the United Kingdom and the departure of some providers from the market suggest the market is not excessively profitable. It thus is likely that the charge ratio primarily reflects underlying costs, rather than unusually high profits for providers. Examples of the underlying costs affecting the charge ratio include sales and marketing costs, fund management charges, regulatory and compliance costs, record-keeping, and adverse selection effects.[11]

The bottom line is that the U.K. experience indicates a decentralized approach to individual accounts is expensive.

Decomposing the Charge Ratio

The charge ratio can be broken down into three components, corresponding to three types of costs: the costs charged by a single financial provider during an individual's working years (known as accumulation costs); additional costs from switching contribution patterns by either changing financial providers or stopping contributions during one's working life (alteration costs); and costs upon retirement from converting the account to an annuity (annuity costs).

1. **Accumulation costs** consist of the fund-management and administrative costs for a worker who contributes to an individual account consistently throughout his or her career and maintains his or her account with a single financial provider. These costs do not include any costs from switching providers or stopping contributions.

2. **Alteration costs** are the additional costs incurred during a working career if the worker fails to contribute consistently to a single financial provider. For example, the worker may transfer his or her account from one financial firm to another, may leave the accumulated balance on an existing account with the current provider but make *new* contributions to a different provider, or may leave the accumulated balance with the current provider but stop making contributions altogether. (The alteration costs reflect the losses from switching providers and/or the additional fees charged by the original provider after the worker ceases to make contributions.) Alteration costs do not include the costs of contributing to a single provider on an ongoing basis (which are included in accumulation costs). Most previous analyses have ignored the costs of transferring funds or stopping contributions. The evidence suggests such costs are significant.

3. **Annuity costs** are the costs of converting an account to an annuity upon retirement. There are two components of these costs: adverse selection costs and administrative costs on the annuities. "Adverse selection" arises because people with longer-than-average life expectancies are more likely to purchase annuities (and more likely to purchase larger annuities) than people

[11] For a description of adverse selection, see the discussion in the section of the text below on annuity costs. Adverse selection costs are of a somewhat different nature than the other costs in an individual account system, but they share the feature of imposing financial losses on individuals.

with shorter-than-average life expectancies.[12] The insurance companies that sell annuity policies consequently price them based on the longer life expectancies of their clients. This means that a typical person (with average life expectancy) must pay a higher price for an annuity than would be justified based on average life expectancy. This imposes a cost on that typical person, although it is a somewhat different type of cost than those reflected in the accumulation and transfer costs discussed above. The second component of annuity costs consists of the administrative costs the annuity provider bears; such costs cover expenses such as marketing, commissions to agents, investment costs, overhead, and profits.

Most previous cost estimates — both for the United Kingdom and for other countries with individual accounts — have not included all of these components. They therefore have underestimated charges. For example, it is often noted that accumulation costs in the United Kingdom and elsewhere average about or somewhat above one percent per year and reduce the value of an individual account by 20 percent or 25 percent over a typical career.[13] That figure, however, does not incorporate the effects of alteration costs and annuity costs.

IV. Administrative and Other Costs in the United Kingdom

Accumulation Cost

Accumulation costs reflect what most commentators mean by "administrative costs." They represent the amount by which the value of an individual account immediately prior to retirement is less than the account's value would be if no charges had been incurred throughout the worker's career. The measurement of these costs assumes the worker does not change providers (i.e., that the worker holds his or her individual account with the same provider throughout his or her career).

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[12] A significant portion of the adverse selection effect in the U.K. annuities market arises from the type of individuals who choose to hold individual accounts. Most, if not all, of those people then purchase annuities.

[13] In the United States, the Advisory Council on Social Security estimated that accumulation costs on privately managed individual costs would average one percent per year. That is somewhat below the average cost charged on stock mutual funds in the United States. A recent study by the Investment Company Institute concluded that a comprehensive measure of costs in equity mutual funds suggested an average cost per year of 1.49 percent of invested funds. Many estimates of mutual fund costs exclude the costs of front-loads and deferred-loads, biasing the calculation in a manner similar to the exclusion of transfer costs in the U.K. The Investment Company Institute data incorporate those costs into their measure. See John Rea and Brian Reid, "Trends in the Ownership Cost of Equity Mutual Funds," Investment Company Institute, *Perspective*, Volume 4, Number 3, November 1998.

With a one-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 one 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 one percent annual charge roughly 20 times, so approximately 20 percent of the account will be consumed by these charges.

Table 1

Management Fees and Accumulation Costs, 1989-1998

Year	Average annual administrative and management fees (as a % of account)	Accumulation costs as percent of final account balance (assuming 40-year career)
1989	1.49%	29%
1990	1.51%	29%
1991	1.53%	29%
1992	1.56%	30%
1993	1.49%	29%
1994	1.47%	28%
1995	1.38%	27%
1996	1.31%	26%
1997	1.28%	25%
1998	1.24%	25%
Average, 1989-1998	*1.43%*	*28%*

Source: *Money Management* and authors' calculations. Calculations apply the government's Minimum Funding Requirement assumptions.

Using our database, we have computed the accumulation costs in the United Kingdom for each year over the past decade. The average cost is 28 percent of the value of the accounts over the past decade. (See Table 1.)

Based on these data, we conclude that accumulation costs consume approximately 25 percent of the value of accounts, slightly below the average level over the past decade and consistent with the figure for 1998. These costs reflect the decentralized nature of the U.K. system. The large number of firms and individuals involved in the market accentuate the costs of sales and marketing, record-keeping, investment advice, and regulatory compliance. More details about accumulation costs, and our methods of estimating them, can be found in our longer paper on administrative costs in the United Kingdom.[14]

Alteration Costs

Alteration costs are the component most frequently overlooked in previous analyses. As noted above, alteration costs arise when a worker fails to contribute consistently to a single financial provider throughout a career. There are three scenarios in which alteration costs arise:

- Transfer of account: The worker switches the accumulated balance to a new financial provider and makes new contributions to the new provider.

[14] Murthi, Orszag, and Orszag, "The Charge Ratio on Individual Accounts: Lessons from the U.K. Experience," Birkbeck College Working Paper 99-2, March 1999 (University of London), op. cit.

- New contributions to different provider: The worker switches to a new provider for new contributions but maintains his or her accumulated balance with the original provider.

- No new contributions: The worker maintains his or her accumulated balance with the original provider but stops contributions altogether. This could occur because the worker has left the labor force or his or her earnings have fallen below a certain level, with the result that the worker is no longer required to make a second-tier pension contribution.

We focus our attention here on transferred accounts to illustrate how alteration costs are incurred. Our longer paper examines the other two sources of alteration costs in more detail;[15] incorporating those other types of alteration costs does not significantly affect our conclusions regarding the percentage of account balances consumed by alteration costs. (Other analysts also have concluded that the type of alteration cost does not substantially affect the bottom line. For example, John Shuttleworth, a member of the U.K. Institute of Actuaries, has concluded that accounts without continuing contributions incur charges roughly the same as the charges that our analysis finds to be imposed on accounts that have been transferred.[16])

Transfer Costs

The experience in Chile indicates that transfers across Administradora de Fondos de Pensiones (AFPs), the individual account providers in that country, occur relatively frequently. But in Chile, the fee structure is regulated. Under the typical method of charging fees in Chile, switching providers does *not* impose additional costs on consumers — deposits in the AFPs are charged a one-time contribution fee when the initial deposit is made and are not subject to subsequent fees if the account is transferred to another provider. That fee structure obviates the need to worry about the costs of transferring accounts in evaluating the charges for a typical individual, since costs for an individual do not depend on whether his or her account is held with a single AFP or switched many

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15 Murthi, Orszag, and Orszag, "The Charge Ratio on Individual Accounts: Lessons from the U.K. Experience," op. cit.

16 John L. Shuttleworth, "Operating costs of different forms of pension provision in the U.K.," Coopers & Lybrand, June 27, 1997. Shuttleworth concludes that "about 30 percent to 50 percent of the monies accumulated in a personal pension are absorbed by charges if it is discontinued before middle age." Shuttleworth's estimate, which is based on accounts into which contributions are no longer made rather than on accounts that are transferred, combines accumulation and alteration costs. (He also notes that costs would be even higher for accounts that charge commissions, or front-load fees.) Our comparable figure is 36 percent, below the middle of his range.

A study conducted by John Chapman and published in the respected British publication *Money Management* also concludes that the underlying source of alteration costs does not affect the overall estimate. As noted in the text below, Chapman concludes that accumulation and alteration costs amount to 250 basis points per year, or roughly 42 percent of an account over a typical working career. Chapman's figures thus also are higher than our 36 percent estimate. See John Chapman, "Pension plans made easy," *Money Management*, November 1998.

times over his or her career. (The fee structure does not remove the costs associated with transferring contributions to another provider. Instead, it spreads those costs over all account holders, rather than imposing the costs on the account holders who actually switch. In other words, the expected costs of changing AFPs are embodied in the one-time contribution fee for all depositors.)

In the United Kingdom, by contrast, an individual's costs often *do* depend on whether accounts are transferred. In particular, management fees are often front-loaded — an individual is charged more for the first year or two in an account than for subsequent years. The front-loading is at least partially the result of the complexity and decentralized nature of the system, which raises the costs of attracting customers through marketing costs, commissions to advisers and salespeople, and the cost of providing accurate and disinterested information to those interested in switching.[17]

To see how front-loading could affect total costs over a working life, consider the following example. Assume, merely as an example, that financial firms charge $300 for the first year of an account and $50 for each additional year. An account held for 40 years with the same provider will cost an average of $56.25 per year, but an account held for 20 years with one provider and then 20 years with another provider will cost an average of $62.50 per year. More frequent switching would produce higher average costs. For example, switching three times would generate an average cost of $75.00. If one ignored the fact that the worker switched providers, costs would appear to average $56.25 per year, which would underestimate the charges for the worker who transferred accounts.

As the example illustrates, transfer costs are incurred only if individuals switch providers. The more frequently that individuals switch, the higher these costs are. The evidence suggests individuals switch relatively frequently in the United Kingdom. According to data from the 4th Personal Investment Authority's Persistency Survey, of all the regular premium individual accounts (i.e., accounts that require ongoing contributions) sold by company representatives and held with financial companies in 1993, some 14.5 percent had lapsed within one year (i.e., within one year, 14.5 percent of account-holders had ceased making contributions to these accounts, either because they had switched to another provider or because they had stopped making contributions altogether). Some 25.4 percent of these accounts had lapsed within two years, while 33.8 percent had lapsed within three years, and 39.4 percent had lapsed within four years. Thus, roughly 40 percent of the individual accounts held in 1993 had lapsed within a four-year period.[18]

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[17] Financial providers in the U.K. impose transfer costs in a variety of ways. For example, some (albeit only a small number) charge an explicit fee on those leaving a fund. Some impose a "capital levy," in which contributions for the first year or two are termed "capital units" that have substantially higher costs than subsequent "accumulation units." Although this practice is becoming less common, it is still used by several insurance companies. The *FT Personal Pensions 1998* handbook recently argued that "the ONLY reason for having capital or initial units is so that the planholder will not realize exactly what the charges are." See *Financial Times*, Personal Pensions (Pearson Professional, 1997), page 9. These types of fee structures impose additional costs on those transferring accounts despite the claim by many financial providers in the U.K. that they impose no such additional charges.

[18] As noted above, not all of these lapses result from transferred accounts. See our longer paper for a more extensive discussion of this issue.

Over an entire career, the additional costs from switching accounts depend on the cost-per-transfer and the number of transfers. Table 2 shows the transfer costs for account switches undertaken at different ages, assuming the account is opened at age 25 and the cost equals the average cost-per-transfer across the financial providers in our database.

Table 2

40-year alteration cost for various switching scenarios

Switching Ages (Age at first switch, age at second switch, age at third switch, etc.)	**Alteration Cost (as percent of final account balance)**
30, 39, 40	19%
30, 31	10%
30, 35, 40	20%
30, 35, 40, 43	26%
40, 41, 47	23%
47, 48	18%

Note: Applies the U.K. Government's Minimum Funding Requirement assumptions and assumes that account is opened at age 25. Assumes that all account lapses occur because the account is switched to another provider.

We computed overall transfer costs by weighting the transfer costs for all possible switching scenarios (only some of which are shown in the table above) by their respective probabilities.[19] The result is that transfers reduce the value of an account by an average of 30 percent.

Transfer costs have been falling over time in the United Kingdom. In addition, as noted above, transferred accounts are only one of the possible causes of alteration costs. The evidence suggests that the other sources of alteration costs (e.g., stopping contributions altogether or diverting new contributions but not the accumulated balance to an alternative provider) also impose significant costs on consumers and that the underlying source of the alteration cost does not substantially affect the results. Nonetheless, there are some differences, and the costs associated with those other sources are somewhat difficult to estimate with precision. Given the uncertainty regarding the other types of alteration costs, we err on the side of being conservative. We therefore adopt an estimate of 15 percent of the final account balance for alteration costs, which seems modest given U.K. experience. Alteration costs may be significantly higher than that for many workers.

Combining our estimates of accumulation costs and alteration costs suggests a total cost during a typical working life (before retirement) of roughly 36 percent of the value that an account would have in the absence of such charges. (The value of an account is reduced 25 percent by administrative costs. The remaining 75 percent of the account is reduced 15 percent — or about one seventh — by alteration costs, leaving 64 percent of the value the account would have if it incurred

[19] The respective probabilities are based on the observed lapse behavior from the Personal Investment Authority Persistency Survey mentioned in the text, extrapolated into the future. For a more complete description of the extrapolation process, see Murthi, Orszag, and Orszag, "The Charge Ratio on Individual Accounts: Lessons from the U.K. Experience," op. cit.

no costs. Hence, the combined administrative and alteration costs consume 36 percent of the account, conservatively estimated.)

Our estimate of U.K. administrative costs over a typical working career (before annuitization) is validated by a study by John Chapman, published in the respected U.K. financial publication *Money Management*.[20] He concluded that the charges for the equivalent of accumulation and alteration costs on individual accounts in the United Kingdom would amount to about 42 percent of the accounts over a typical 40-year career. That is somewhat higher than our figures.

Annuity Costs

A final source of charges and other costs is the purchase of an annuity upon retirement. Retirees who are concerned about outliving their savings have an incentive to purchase an annuity, which provides a payment (often on a monthly basis) for every year the annuitant (or the annuitant's dependent) is alive, in exchange for a lump-sum payment up front to the annuity company. The costs associated with converting accounts to annuities at retirement are distinct from the accumulation and alteration costs discussed above.

For those who have accumulated retirement funds in an individual account, the purchase of an annuity provides insurance against exhausting the account before death. But such insurance is costly for two reasons:

- <u>Adverse selection</u>. Those purchasing an annuity in the United Kingdom have longer average life expectancies than the general population. In a competitive market, such longer life expectancies will be reflected in higher annuity prices, since the company selling the annuity must cover its costs for making annuity payments to policy-holders for a longer number of years, on average. As a result, if someone with the typical life expectancy wishes to purchase an annuity, he or she must pay these prices, which means such a person will pay a higher price than the actuarially fair price for people with average life expectancies. It is worth emphasizing that this cost to the typical individual does not necessarily measure the profit to the provider, the loss of utility to the consumer, or the resource cost to society from the selection effect in the annuity market. Rather, it represents a financial loss for the typical person, if he or she decided to purchase an annuity, relative to an annuity that accurately reflected his or her life expectancy.

- <u>Other costs</u>. In addition, providing an annuity involves administrative costs, mortality risks, and other burdens for providers. Because of these costs, the value of the annuity that a firm provides will be lower than if no such costs had been incurred; these costs must be covered out of the payment the beneficiary makes to the firm to purchase the annuity. The administrative costs of annuities are relatively modest in the United Kingdom. James Poterba and Mark Warshawsky have recently reached

[20] John Chapman, "Pension plans made easy," *Money Management*, op. cit.

similar conclusions for the annuities market in the United States, finding that most of the cost of converting an account to an annuity is accounted for by adverse selection rather than administrative costs.[21]

Our data indicate that annuity costs in the U.K. market currently equal approximately 15 percent of the accumulated balance of the account being converted to an annuity. This figure is roughly the same as in the United States.[22] The precise estimate, however, depends on the specific type of annuity purchased, the mortality assumptions applied, and other factors. To be conservative once again, we reduce our estimate of annuity costs to 10 percent.

IV. Summary and Conclusions

The data indicate that reasonable estimates of the three types of cost associated with individual accounts in the United Kingdom are:

- Accumulation costs: 25 percent
- Alteration costs: 15 percent
- Annuity costs: 10 percent

Taking into account interaction effects, these estimates suggest that the overall charge ratio is 43 percent. In other words, more than 40 percent of an account's value is dissipated by these charges.

It is worth noting that all three component costs are conservatively estimated, in the sense that our best estimates of them are somewhat higher. They also are based on relatively large accounts: the individual accounts upon which they are based involve contributions of between $2,000 and $4,000 a year, or about 7.5 percent to 15 percent of average wages in the United States. That is substantially larger than the proportion of wages that partial privatization plans under consideration in the United States generally would place in individual accounts. To the extent that at least some of the costs associated with such accounts are fixed, costs would consume an even larger percentage of smaller accounts.

It is also true, however, that costs depend on the structure of individual accounts. For example, some proposals for individual accounts in the United States seek to take advantage of potential economies of scale through central management of such accounts — that is, by offering individual accounts through one provider and limiting the investment options. The Thrift Savings

[21] James Poterba and Mark Warshawsky, "The Costs of Annuitizing Retirement Payments from Individual Accounts," NBER Working Paper 6918, January 1999.

[22] For example, James Poterba and Mark Warshawsky conclude that the annuity cost in the United States for a 65-year old male annuity buyer is 15 percent. See Poterba and Warshawsky, "The Costs of Annuitizing Retirement Payments from Individual Accounts," *ibid*. This estimate is based on applying government bond yields; annuity costs are higher if corporate bond yields are used instead.

Plan (TSP) for federal employees is an example of such a centralized plan: the accounts under the TSP are all held with a single provider, and the investment options are limited to a few broadly diversified index funds.

Other approaches to individual accounts would allow individuals more choice through a decentralized system under which individuals could choose their own financial provider and invest in a wider array of assets. The accounts would be similar to Individual Retirement Accounts, which can be held with a variety of financial providers and which impose few restrictions on permitted investments. The findings of this study indicate that in the United Kingdom, costs under a decentralized system of individual accounts are high.

- The U.K. system involves decentralized, privately managed accounts and annuities. Most analysts agree that such a system is substantially more expensive than a centralized system, such as the Thrift Savings Plan for federal employees in the United States.[23] A centralized system would eliminate the transfer costs described here (as well as incentives to mislead consumers that created the mis-selling controversy in the United Kingdom). On the other hand, a centralized approach entails less choice for consumers than a decentralized system of privately managed accounts.

- The U.K. system of individual accounts and annuities is voluntary. In the United Kingdom, individuals can choose whether to participate in the system of individual accounts and annuities. Mandatory accounts and annuities might lead to reduced adverse selection effects and less complexity. The effect of a mandatory approach in reducing costs, however, is difficult to assess. It is likely to be most significant in reducing the adverse selection costs associated with the purchase of annuities. That, however, is not a substantial component of the overall 43-percent charge in the United Kingdom. It consequently is unlikely that a mandatory approach would dramatically reduce the substantial overall costs found in the United Kingdom if the approach to individual accounts remains a decentralized system of privately managed accounts.

- The U.K. system does not regulate fees. In Chile, the structure of fees on individual accounts is regulated; account providers can impose only certain types of fees on customers. The U.K. system does not have such regulations (although it does have new disclosure requirements on fees). The lack of fee regulation in the United Kingdom has produced a wide variety of fees, many of which consumers do not fully understand, and also has facilitated front-loaded charges that impose additional costs on individuals switching accounts. Regulating the fee structure may address some

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[23] See, for example, 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?" presented at NBER Conference on Social Security, December 4, 1998; and National Academy of Social Insurance, "Evaluating Issues in Privatizing Social Security, Report of the Panel on Privatization of Social Security," Washington 1998, available at http://www.nasi.org.

> of these concerns; it also may reduce the number of financial providers that participate. (If the fee regulations are too restrictive, some providers may be unwilling to offer accounts to customers.) It is important to remember, however, that fees are high fundamentally because a decentralized, privately managed system is expensive to run. Fee regulations cannot change that; they generally do not make costs disappear. If costs are high but fee regulations do not allow financial firms a reasonable return on their activities, we are unlikely to see many financial firms participating in the market. Fee regulations often offer a palliative but not a solution to high underlying costs.

It is noteworthy that at least partly because of the high administrative costs of individual accounts, the system of privately managed individual accounts may be losing favor in Britain. The U.K. government recently released a Green Paper that advocates reducing the incentives for low earners to opt out of SERPS (the government pension system) and into individual accounts, while also creating a new type of employer-provided pension with regulated fees that is designed for middle-income workers.

The U.K. experience warns us that if individual accounts were adopted in the United States, we would need to pay careful attention to their design to ensure that administrative and other costs are not unduly high. In addition to evaluating the more fundamental issue of *whether* individual accounts should be adopted, it is critical to evaluate *what type* of individual accounts should be created if policymakers decide to establish a system of such accounts.