The Retirement Security Project

Increasing Annuitization in 401(k) Plans with Automatic Trial Income

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Common sense reforms, real world results

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Abstract

This paper proposes a policy that would increase the role of lifetime income products in future retirees' overall retirement planning. Over the next few decades, a substantial number of workers will retire with larger balances in their retirement accounts and have fewer sources of longevity protection than retirees today. They, therefore, must manage these resources to ensure they last throughout their retirement. Lifetime income products would be beneficial for many because payments are made for life and they mitigate the risk of running out of resources late in life. Despite the benefits of lifetime income, current retirees do not use lifetime income products very much and future retirees are unlikely to do so under current arrangements. The reasons may be that retirees already feel they have sufficient guarantees-for example, from social security benefits-against the risk of outliving their resources. However, evidence suggests also that the market for lifetime income products functions poorly and that people do not understand and are biased against the products.

Our strategy addresses market function by making it easier for a substantial number of retirees to purchase lifetime income plans; the increased volume of sales would reduce prices and make them a better value for the average consumer. Our strategy addresses the role of ignorance and bias by giving retirees an opportunity to "test drive" a lifetime income product, which would help overcome existing biases, reframe their view of lifetime income products and improve their ability to evaluate their retirement distribution option.

Specifically, we propose that a substantial portion of assets in 401(k) and other similar plans be automatically directed (defaulted) into a two-year trial income product when retirees take distributions from their plan, unless they affirmatively choose not to participate. Retirees would receive twenty-four consecutive monthly payments from the automatic trial income plan. At the end of the trial period, retirees may elect an alternative distribution option or, if they do nothing, be defaulted into a permanent income distribution plan. Employers and plan sponsors would be encouraged to offer the trial income plan and would have discretion over some of its structure and implementation. By making the proposal voluntary, we allow opting out by anyone who is not interested in purchasing guaranteed lifetime income. Several important questions would have to be resolved before this strategy could be implemented. The aim of this paper is to map out the first of several steps toward increasing the use of income products in 401(k)-type plans, with the ultimate goal of enabling improved retirement outcomes for workers.

RSP

1. Introduction

Over the next two decades, an estimated 75 million Americans who were born during the postwar years will retire. While much attention has been focused on whether retirees will have saved enough, less attention until very recently was paid to the distribution stage of the retirement planning process and whether retirees will manage their retirement resources to ensure that they last throughout retirement.

A major challenge for retirees at the distribution stage is deciding how to allocate their resources when they do not know exactly how long they will live. If they live longer than expected, they face the dire prospect of running out of funds late in life. Alternatively, and perhaps equally unfortunately, they may be too conservative when drawing down their resources and may forgo consumption earlier in their retirement, which would have made them better off.

Lifetime income products solve this planning problem. Consumers exchange a portion of their retirement saving for guaranteed periodic lifetime payments from a provider and are assured of never running out of resources. Thus, these products have the potential to make consumers better off because they mitigate the risk of consuming too much too soon or consuming too little over time. Although the provider assumes the risk that the consumer may live longer than expected (which would require longer-than-expected payments), the provider is able to diversify and, therefore, to spread this risk across a large pool of consumers with different survival probabilities.

Despite the potential benefits, few retirees purchase lifetime income products.[1] Among current retirees, private annuities account for less than 2 percent of total household income (Table 1).[2] One possible reason for this, supported by a growing body of evidence, is that markets for lifetime income function poorly. For example, lifetime income products are priced to reflect the higher-than-average survival of current buyers (adverse selection), which makes these products more expensive for the average consumer than they would be if there were a much larger and more diversified group of buyers (Mitchell et al. 1999). A second example is that consumers are unfamiliar with these products, often have misperceptions or biases against them, or may be unwilling or unable to make the effort required to make sensible choices (Hu and Scott 2007). These findings imply that demand would increase and workers would be better off if market function improved and behavioral obstacles were circumvented or mitigated. These problems of pricing and demand will loom ever larger as fewer retirees derive lifetime income from defined benefit (DB) pension plans.

TABLE 1.
Share of Income from Different Sources

(percent)	Employer-sponsored pensions	Private annuities	Social Security	Earnings and business income	Asset income	Government assistance	Other
All	17	1	50	11	9	4	7
Gender							
Male	18	1	45	15	9	3	9
Female	16	1	55	8	10	4	7
Household income							
Bottom quintile	5	0	80	1	3	8	1
Second quintile	14	1	68	6	6	2	3
Third quintile	22	1	51	9	9	3	6
Fourth quintile	24	2	36	16	11	2	9
Top quintile	19	2	18	25	19	2	16

Source: Johnson, Burman, and Kobes 2004.
Note: Rows may not sum to 100 due to rounding.

The question that policy makers face is whether and how to respond to the issues created by the decline in the share of retirement resources that is annuitized among a growing number of retirees in the next few decades. The private market is responding by developing new lifetime income products that attempt to address some behavioral obstacles in the hopes that it may increase demand. However, a market solution alone may be insufficient; these products will have varying success at matching consumers' preferences and need, and they may only reach a select group of consumers. A particular challenge is to ensure that the proposal is flexible enough to accommodate retirees who have varying needs for additional annuitization through private markets since some may already have sufficient protection against outliving their resources through alternative sources such as Social Security, Medicare, and arrangements within their families.

This paper proposes a strategy that "threads the needle" between these concerns. We propose establishing a default trial income arrangement within 401(k)-type retirement plans. Workers would have a substantial portion of their retirement assets directed into this default, unless they affirmatively choose to opt out. Under the default, each retiree would receive twenty-four consecutive monthly payments, after which the retiree could opt for any distribution option under the plan. However, if the retiree made no affirmative decision at the end of the trial period, the temporary payments would automatically convert to a permanent income payment program. Plan sponsors would be encouraged to offer the trial income program and would have discretion over some of its structure and implementation.

Several benefits of the plan are worth highlighting. First, adding "automatic" (default) features to 401(k)s allows inertia to work in favor of lifetime income, as it has done in increasing 401(k) participation rates and contribution levels (Madrian and Shea 2001; Thaler and Benartzi 2004). Second, the trial income arrangement would provide valuable information to consumers about income solutions, giving them a tool to appropriately evaluate their distribution options to ensure a more secure retirement. Third, launching a trial income program through 401(k)-type plans, which have millions of participants, has the potential to mitigate the adverse selection problem in lifetime income contracts and to lower prices. Fourth, the trial program initially would provide income for a limited time, and workers who preferred to direct their own retirement assets or take distributions in other forms could opt out if they so chose.

For such a strategy to work and be sustainable, certain issues would have to be resolved and certain structures established; they are discussed in §4 of this paper. Many of the questions we raise do not yet have clear solutions, and some of these processes may evolve gradually. The aim of this paper is to lay out the issues and begin a dialogue that ultimately would lead to a strategy that provides improved retirement outcomes for workers.

2. The Role of Lifetime Income Products

Lifetime income products operate by pooling the resources of many individuals with different survival probabilities. Payments to surviving annuitants each period are made from the pool. As individuals age, the number of surviving annuitants gets smaller and the pool is spread over a smaller and longer-lived group.[3] Those who survive a long time, therefore, may receive more in total payments than they contributed to the pool. This is one of the primary benefits of these products-they provide insurance against living longer than expected. An additional benefit is that these products remove the need to actively manage one's retirement resources, which reduces the possibility of over- or underspending.

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A conversation has begun within policy circles about whether lifetime income products should play a more prominent role in retirees' overall retirement planning strategy. This discussion has been motivated, in part, by the decline in lifetime pensions through employer-sponsored retirement plans. DB pensions were previously the primary form of employer-sponsored retirement coverage, and these plans traditionally paid lifetime pensions to their workers. Among current retirees, DB pensions represent a sizeable portion of total household retirement resources, accounting for around 20 percent for many retired households (Table 2). The majority of workers today, however, are covered by defined contribution (DC) plans, and nearly 80 percent of these plans do not offer the option to annuitize assets when workers retire. (In addition, many remaining DB plans have converted to cash balance or other hybrid formats that offer annuities, but commonly pay lump sums.) Thus, workers who retire in the next twenty years and later, who have been primarily covered by DC plans, would have a significantly lower portion of their retirement assets annuitized than would current retirees.

Whether retirees should use some portion of these assets to purchase lifetime income products through the private market largely depends on whether households are sufficiently annuitized through Social Security-which pays inflation-indexed lifetime benefits-and other sources.[4] Social Security benefits replace 56 percent of preretirement income for lower-income households (Social Security Administration 2007).[5] With more than half of their retirement resources in the form of lifetime income through Social Security, these households potentially have little need for additional annuitization through private sources (Davidoff, Brown, and Diamond 2005). Medium- and higher-income households, conversely, have lower Social Security replacement rates and are less likely to be overannuitized through Social Security. These households are also more likely to be covered by 401(k)-type plans and would rely on assets in these and other saving accounts to maintain their preretirement living standards.

Millions of workers with a 401(k)-type plan would have contributed and accumulated investment returns in these accounts

TABLE 2.

Social Security and Defined Benefit Plans as Share of Wealth

	Total wealth deciles									
Couples	1	2	3	4	5	6	7	8	9	10
Retirement wealth	=lowest decile group									=highest decile group
Social Security	153,364	244,224	309,309	337,310	402,198	443,513	470,932	497,493	643,843	819,387
DB pensions	142,111	209,310	227,351	251,752	260,138	272,463	261,455	270,474	296,868	301,920
DC pensions	10,203	28,973	75,548	77,523	129,641	160,455	187,735	205,334	303,128	394,919
Net non-retirement	1,050	5,971	6,410	14,895	12,419	10,595	21,742	21,685	43,847	122,548
financial wealth	2,547	17,870	33,327	61,868	77,461	103,869	178,362	275,926	365,292	852,772
Property	27,981	49,910	72,096	92,295	104,334	140,692	154,831	185,561	215,589	568,069
Total wealth	183,892	312,004	414,732	491,473	583,993	688,074	804,125	958,980	1,224,724	2,240,227
As percent of total wealth										
Social Security	77	67	55	51	45	40	33	28	24	13
DB pensions	6	9	18	16	22	23	23	21	25	18
Social Security + DB pensions	83	76	73	67	67	63	56	49	49	31
Number of obs	180	158	158	144	140	139	128	126	131	114
With DB	44	78	118	96	120	117	103	101	107	74
Singles										
Retirement wealth	48,858	80,297	99,083	122,992	156,425	152,342	190,968	218,778	286,574	376,370
Social Security	48,255	76,283	88,380	112,529	105,517	101,489	120,855	124,787	125,908	136,255
DB pensions	597	3,724	10,136	8,847	46,983	48,726	62,951	90,020	155,121	216,720
DC pensions	6	290	567	1,616	3,925	2,127	7,162	3,971	5,545	23,395
Net non-retirement financial wealth	40	1,149	7,096	7,977	7,150	42,444	41,725	92,725	163,253	352,784
Property	1,124	8,190	14,145	22,445	33,826	56,117	80,399	90,144	119,975	299,845
Total wealth	50,022	89,636	120,324	153,415	197,401	250,903	313,092	401,647	569,802	1,028,999
As percent of total wealth										
Social Security	96	85	73	73	53	40	39	31	22	13
DB pensions	1	4	8	6	24	19	20	22	27	21
Social Security + DB pensions	97	89	81	79	77	59	59	53	49	34
Number of obs	69	60	53	60	52	47	46	49	51	33
With DB	4	11	12	16	33	29	37	37	41	24

Source: Dushi and Webb 2004.
Note: Wealth appears in 2000 dollars. Data are from the Health and Retirement Study.

for many years. They are expected to retire with a large store of wealth in these accounts. One study projects that the average DC balance will be in the range of

TABLE 3.

Projected 401(k) and Social Security Assets for Workers Retiring in 2040, by Earnings Groups

	Lifetime Earnings deciles										
Historical Equity Rate of Return	1 =lowest decile group	2	3	4	5	6	7	8	9	10 =highest decile group	All
401(K)	3,688	50,857	128,600	274,958	489,558	644,261	822,220	947,474	1,134,979	1,242,580	575,117
Social Security Wealth (SSW) + 401(K)	74,877	148,754	239,065	414,172	668,388	838,892	1,048,759	1,191,540	1,394,752	1,521,485	756,946
Ratio: 401(K)/ SSW+401(K)	0.05	0.34	0.54	0.66	0.73	0.77	0.78	0.80	0.81	0.82	0.76
Historical Equity Rate of Return less 300 Basis Points											
401(K)	2,072	31,625	81,916	172,671	292,902	382,988	484,933	560,366	680,937	785,150	348,284
Social Security Wealth (SSW) + 401(K)	73,261	129,522	192,381	311,885	471,732	577,619	711,472	804,432	940,710	1,064,055	530,113
Ratio: 401(K)/ SSW+401(K)	0.03	0.24	0.43	0.55	0.62	0.66	0.68	0.70	0.72	0.74	0.66

Source: Data are from Poterba, Venti, and Wise 2007.
Note: Balances are reported in year 2000 dollars.

$348,000 to $575,000 (Table 3) for retirees in 2040 (Poterba, Venti, and Wise 2007). This is at least thirteen times higher than the level held by an average retiree today. DC balances, therefore, will be a far more significant source of retirement funding in the future, and households will have to manage their DC balances to achieve their desired consumption path.

Managing assets over an uncertain horizon is complicated, and the stakes are high if one makes a mistake. Table 4 illustrates this point. A sixty-five-year-old man can expect to live to age eighty-two, on average, but has a 19 percent chance of living to age ninety or beyond. Similarly, a sixty-five-year-old woman can expect to live to age eighty-five on average but has a 31 percent chance of living to age ninety or beyond. Given this uncertainty, workers in medium- and higher-income groups generally could gain from annuitizing at least some portion of their DC balances, although the benefit of annuitization will vary across households. (Those with longer life expectancy and less access to resource sharing through family members will benefit more.)[6]

TABLE 4.

Life Expectancy and Probability of Survival at Age 65

	Men	Women
Remaining life expectancy	17.0	19.7
Probability of surviving to age		
70	0.895	0.928
75	0.757	0.827
80	0.588	0.692
85	0.391	0.517
90	0.193	0.309
95	0.062	0.128
100	0.011	0.032

Source: Bell and Miller 2005.

Despite these potential gains, however, absent any intervention, demand for lifetime income products among medium- and higher-income workers is expected to be low, just as it has been for current and previous generations of workers.

One oft-cited anecdotal reason for low demand is that lifetime income products are inflexible and expensive. Until recently, this has largely been true. These contracts, which often paid fixed, nominal returns,

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typically were irreversible. Prices were high for the average consumer, at least in part because these products were priced to reflect the expected payout obligations to a small and select pool of buyers who tended to have longer-than-average life expectancy (adverse selection). Also, prices are high in part because providers cannot completely hedge against aggregate longevity risks and must pass on some of the costs to consumers.[7] Although the market has evolved and new products offer more flexibility, many consumers still are not responding.

A growing body of evidence points to behavioral biases as an important reason for the limited use of lifetime income products in retirement planning, and these biases seem unlikely to be resolved on their own. For instance, a recent study found that consumers' valuation of lifetime income products is strongly influenced by the way the attributes of these products are presented (Kling et al. 2008). When they were presented in a consumption frame (providing lifetime consumption possibilities), consumers preferred lifetime income products to savings accounts. When lifetime income products were presented in an investment frame, however, which is the way most lifetime income products are typically presented, consumers preferred savings accounts.

Finally, lifetime income products are complicated, and there is strong evidence that consumers do not respond optimally when choices are complicated. The experience of companies that adopted automatic features in their 401(k)-type retirement plans provides a powerful illustration of this behavior. During the saving phase in most 401(k) plans, individuals must make explicit choices about whether to participate in the retirement plan, how much to contribute, and where to invest contributions. These decisions are not always easy and have deterred many from participating in the plan, or have caused others to make imprudent investment choices. The result has been that workers, particularly workers who would have benefited most from 401(k) saving, tended to stay with the status quo, which in 401(k) saving was not to participate. However, when the decision was simplified for workers (by changing the default option) and they were automatically enrolled unless they specifically opted out, or contributions were automatically tied to annual salary increases, enrollment and contribution rates increased significantly and remained high over time (Duflo et al. 2006; Madrian and Shea 2001; Thaler and Benartzi 2004).

Buying a lifetime income product under the current 401(k) framework is more complicated than 401(k) saving decisions, which have likely deterred many participants. Most 401(k) plans do not offer a lifetime income option, so retirees would first have to withdraw their assets from their retirement account and then purchase an income product through the private market. The effort needed to evaluate providers, compare product features, and compare prices may be an insurmountable hurdle for many consumers, who may opt to forgo annuitization rather than incur the effort. Even when workers are given the option to purchase income products through their plan sponsors, they have to evaluate the value of income plans relative to options that are very different and for which there are no readily available comparison tools. These other options (lump-sum and installment payments) are more familiar to workers and easier to understand, which may make them more appealing-though potentially imprudent-alternatives.[8]

This empirical and observational evidence implies that market imperfections, adverse selection, and behavioral biases inhibit demand for lifetime income products by lowering the actual and perceived value of these products. Therefore, consumers could be made better off if they could buy lifetime income at a better price, or if there were some way to overcome their behavioral obstacles so that they could annuitize a higher portion of their retirement assets.

To some extent, insurance companies have responded by offering or beginning to offer lifetime income products that provide more flexibility and address some of these behavioral obstacles. In addition to deferred as well as immediate annuities and variable annuities offering equity returns (all of which have been available for years), newer features have included the option of downside investment protection or guarantees combined with upside potential; the ability to lock in investment gains and convert them to annuity income at a later time; the option to unwind or cash out contracts; death benefits and guaranteed payouts, either through a minimum number of payment periods (such as life and twenty years certain) or a minimum guaranteed amount; and more favorable pricing.

Financial institutions that are not annuity carriers have responded by offering a competing product: an actively managed investment account that is targeted to provide specified payments for a prespecified period of years. Although this type of phased or recalculated withdrawal product does not offer longevity insurance and the associated mortality credits, its professional management does provide some assurance against consuming too much too soon, or too little over time.[9] In light of these market innovations, one approach to increasing annuitization may be to allow the market to evolve unimpeded. Over time, there may be a better match between what is demanded and what is supplied as a result.

There are, however, a number of drawbacks that make it prudent to consider alternatives. First, although these new product features directly resolve certain behavioral obstacles (for example, the annuity death benefits and ability to cash out (unwind) of the contract), many consumers may not be aware of these innovations and may continue to perceive lifetime income products as a poor fit. As noted earlier, until recently these products offered limited features and tended to be quite expensive. Many consumers probably would not learn about these innovations since few would have any experi ence or familiarity with these products in the course of their preretirement planning. Consequently, the pace of adoption is expected to be slow. It may take time for information about and confidence in these innovations to replace prior notions.

Second, prices will continue to reflect a great deal of adverse selection and hence the products will not be as good a value for the average consumer until the pool of lifetime income buyers increases. Unless value improves, however, the average consumers will tend to be reluctant to purchase the products. Disentangling this gridlock may take a while under a market-only approach.

Third, although the newer versions of lifetime income products offer consumers more choice and flexibility, they are also more complicated. The increased complexity makes pricing even less transparent than it has been. We noted earlier that consumers vary in the degree to which they are able to manage their resources or will need additional annuitization (if any) over their existing sources.

Consequently, not all products are equally suitable for all consumers. Some financially knowledgeable consumers may appreciate the additional options and be able to appropriately value these products, but, with increased complexity, less-experienced consumers may well accept or reject the lifetime income options contracts without fully understanding their costs or evaluating their benefits, and might therefore be worse off.

The aim of policy... should not be to promote annuitization per se. Rather, the goal should be to promote reasonably sensible payout strategies that maximize retirement security and minimize any unintended harm.

Thus, an opportunity to experience "trial" income payments for a limited time, evaluate these monthly payments relative to monthly consumption needs, and update any prior perceptions of income products, all at a relatively low cost, would be a valuable planning tool for retirees.

The aim of policy in this area should not be to promote annuitization per se, or to manage the risk of outliving one's assets to the exclusion of all other risks or concerns pertaining to retirement security. Rather, the goal should be to promote reasonably sensible payout strategies that maximize retirement security and minimize any unintended harm. We take seriously each of the obstacles to annuitization discussed earlier and develop a process that weaves a thread through these issues. As a general matter, we think that an approach that is likely to be effective while minimizing the risk of doing harm is to give consumers the tools they need so that they are better positioned to evaluate their retirement distribution options. For a particular individual, the best course of action might or might not include additional annuitization. However, recognizing that many are unable to or prefer not to make these complicated evaluations, and that the benefits of lifetime income are often underappreciated, our proposed strategy would provide simple and effortless access to lifetime income.

3. The Proposal

Underlying Principles

Trial Income Payments

Many behavioral obstacles to annuitization stem from either misperceptions or limited understanding of lifetime income products. Consumers may be reluctant to give up a lump sum for a stream of payments because they do not sufficiently grasp the terms of the trade (Thaler 1980). Furthermore-since these products are complicated, consumers are unfamiliar with them, and there are no simple or common benchmarks with which to evaluate them-consumers are apt to avoid or mistrust these products, particularly when their peers are doing so.[10]

The way 401(k) benefits are presented does not facilitate the take-up of income payments at retirement. Account balances in 401(k) plans are presented as a lump sum. Consumers internalize this information and view the lump sum as the status quo. There is ample evidence that consumers tend to remain with the status quo, especially when the choices are complex. This "status quo bias" could very likely explain, to some degree, why only 6 percent of 401(k) participants choose to take distributions as an annuity when given the option (Hewitt Associates 2005).

Therefore, a strategy that allows consumers to learn about these products and reframes the status quo would go a long way toward correcting misperceptions, reducing mistrust, conveying the benefits of income options, and therefore increasing take-up of income options.

The usual method of providing information, however-through written materials, online, and by means of oral explanations-is unlikely to be enough, and may be more likely to benefit those who already have the financial acumen to understand the risk-pooling value of these products. Also, many will lack the time, ability, or desire to assimilate this kind of information, evaluate options, and formulate a distribution program when they retire. For these workers, new information about lifetime income products would be useful, but may not translate into action.

Since many people learn best by doing, giving consumers a chance to experience monthly income may be a more effective means of conveying some of the benefits of lifetime income to a wider audience than only providing written or oral presentations. Those who become "exposed" to regular income payments may become accustomed to them, better able to resist some of the behavioral biases described earlier, and therefore more open to choosing lifetime income products.

Currently, however, there is no process in place that allows consumers to "test drive" an income product. It would be costly for consumers to set up a trial program for themselves by purchasing either a lifetime income contract or a phased withdrawal plan in the individual market and potentially withdrawing from the contract or plan after a short time. Thus, an opportunity to experience "trial" income payments for a limited time, evaluate these monthly payments relative to monthly consumption needs, and update any prior perceptions of income products, all at a relatively low cost, would be a valuable planning tool for retirees.

An additional advantage of a trial period with income payments is that consumers may change their frame of reference after they start receiving regular monthly payments. The hope is that they may begin to perceive monthly payments-rather than the lump sum -as the norm or the status quo. If so, discontinuing these monthly payments would be perceived as a "loss," and, as a result, participants may be more inclined to remain with the income option even after the trial period ends.

For those who decide against a permanent lifetime income option, a third advantage of a trial arrangement is that it is temporary. As noted, workers vary in the degree to which they would benefit from annuitization in addition to Social Security (because the Social Security annuity replaces a higher percentage of preretirement income for low-income workers). Given consumers' varying needs, a permanent one-size-fits-all approach runs the risk of doing more harm than good. With a trial approach, however, income payments end after a limited trial period. If workers decide against additional annuitization, they can readily choose a different option at the end of the trial period (or even before the period starts).

Building on the Automatic 401(k)

The experience of automatic (default) features in 401(k) plans has demonstrated that a process that enlists the power of inertia can be used to significantly improve outcomes without restricting individuals' choices. Firms that have implemented automatic features in their 401(k) plans are enjoying striking success in expanding participation and improving the investment behavior of those who participate.[11] The automatic approach has the potential to apply to distribution choices, as well. Building on the success of the automatic approach in the enrollment and investment phases, automatic features could also be used to facilitate the learning process and final distribution choices in 401(k)-type plans. Funds could be automatically directed into a trial program that pays benefits monthly. This would put inertia to work on behalf of the income stream rather than on behalf of the lump sum. The automatic feature would not bind workers to a particular option-those who prefer to direct and manage their assets could opt out of the default and choose their desired manner of distribution-but those who are unable to or prefer not to make active decisions would not be required to do so.

A strategy that accesses the universe of employer-sponsored retirement plans should also significantly reduce the adverse selection pricing problem for lifetime income products and make them a better value to a larger population. As noted earlier, millions of 401(k)-type plan participants are expected to retire with substantial account balances. Defaulting more participants, with varying life expectancies, into a lifetime income plan would increase the diversity of the lifetime income pool. It is expected that some participants may choose to opt out of the program; these participants would tend to be financially savvy individuals or those who prefer to manage their resources on their own.[12] However, because the cost of

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remaining in the trial program is relatively low, it is expected that many would remain with the default, and the larger pool would reduce adverse selection and lower prices. Thus, 401(k)-type accounts provide a natural platform from which to implement a strategy of encouraging broader consideration of lifetime income.

An Automatic Trial-Period Income Strategy

We propose a strategy that includes automatic annuitization of assets in 401(k) plans. This strategy also builds in the opportunity for participants to "test drive" income products. Specifically, we propose the following:

- A substantial portion of assets in 401(k)-type accounts would be automatically directed into an income program for a two-year trial period (the default trial arrangement), unless workers affirmatively elect a different form of payout permitted under the retirement plan.[13]
- There would be trial income of twenty-four consecutive monthly payments.
- After the trial period, participants would regain the ability to opt for alternative forms of payment. Those who made no affirmative choice within a specified period would continue to receive income payments because the program converts automatically from trial-period income to permanent income.

Triggering the Default

The automatic (i.e., default) trial-period income option would be designed to avoid precipitating the depletion of retirement assets any earlier than would otherwise occur, and to avoid interfering with portability of retirement savings through pre-retirement-age rollovers. Accordingly, it would not apply to participants below a specified age (perhaps fifty-five), and in any event would not apply unless the participant has requested a distribution exceeding some threshold amount. Thus, for example, unless participants explicitly made an affirmative election to decline it, the automatic trial-period option would be triggered when cumulative voluntary withdrawals from 401(k)-type plans reached a certain threshold, such as $10,000 or 10 percent of the account balance, whichever is greater. A participant who requested a lump sum distribution triggering the trial-period default option would be informed that the trial-period income would be paid unless the participant affirmatively opted out of it in favor of the lump sum, another payout alternative, or no distribution at all. Under such an approach, an individual with an account balance of $500,000 could withdraw, cumulatively, up to $50,000 before automatic trial-period distributions applied. However, as discussed below, the automatic option would not apply to participants with account balances below a specified threshold.

Automatic payments would begin within a specified time period (a few months) after they were triggered. Flexibility would be built into the plan so that participants who wanted to begin taking trial monthly payments sooner could elect to do so even before reaching the withdrawal trigger thresholds.

Accounts Subject to the Trial Income Default

The plan sponsor could decide to apply the automatic trial-period income option only to accounts that exceeded a specified amount. The plan sponsor might conclude that participants whose account balances are sufficiently small (less than $100,000, for example) should maintain the entire balance as a contingency fund to give them the flexibility to meet emergencies or pay irregular expenses (such as health care expenses) during retirement. In addition, at some point the annual amount of an annuity might be small enough to raise questions for some plan sponsors about whether it justifies the administrative cost of providing it. For an account smaller than $30,000, for example, if half were defaulted into an annuity, the annuity payment might be less than $100 a month.

Selecting the Default Program

Plan sponsors could choose to administer the payout of the income program or could arrange for an outside provider to offer it. Plan sponsors would also be given the flexibility to offer as a default either a two-year lifetime income contract or a non annuity managed income payout. Because costs and specifics can vary tremendously, and in an attempt to minimize any inappropriate or perverse incentives, plan sponsors would be encouraged to compare across different but equivalent default plans and select a provider and terms of the arrangement (including cost, risk exposure, and terms on potential exit by the participant after the trial period) that satisfied applicable fiduciary standards.[14]

Alternatively, plan sponsors could choose from a list of qualified low-cost and low-risk default income options. Qualified providers and qualified income plans would meet federally specified standards relating to costs and risk exposure. The advantage of and incentive to choose a qualified default income option would be that plan sponsors offering these options would receive some measure of protection against fiduciary liability for any negative investment consequences resulting from their default income option. This arrangement would be somewhat similar to the qualified default investment alternative approach that applies to automatic investments in 401(k) and similar plans, where plan sponsors are allowed a measure of fiduciary relief when they use certain types of default investments.

Although plan sponsors could, in principle, choose any default trial income program, they may be limited in the type of default trial income program they could offer given the temporary nature of the trial-at least with the current product selection. Since individuals would be able to opt out completely after two years, any income contract purchased for the default would have to accommodate contract termination after two years. While some providers already offer products that are appropriately structured for a temporary trial plan (such as a recalculated withdrawal plan), others may have to develop new products to accommodate the temporary nature of default trial income plan.[15]

It is important to note that the permanent program would not face the same limitations. Furthermore, the trial plan is limited only as long as the product space is limited. As providers develop new and creative ways of financing their product and new products are developed that are more cost effective within the trail period, plan sponsors may have more options from which to select a trial income solution.

Plan Sponsors' Role

Plan sponsors that adopt the default trial program would have some discretion over how to structure and implement it and the post-trial default income options, subject to a limited number of regulatory standards. Plan sponsors could determine the portion of the account balance that would be subject to the default trial-period income option, within regulatory limits specifying the permissible upper (for example, 75 percent) and the lower bounds (for example, 33 percent). Sponsors also would choose the provider or providers and type of default trial income and post-trial income products, subject to regulatory guidelines. This would allow them to select products that may have particular appeal to participants because they provide the flexibility and other innovative features that participants seek.

These products could include annuity contracts that provide death benefits-whether by returning the annuitant's remaining unpaid premiums to the decedent's heirs or guaranteeing payments for a minimum fixed period of years even if the annuitant dies during that period-that give the owner the flexibility to make withdrawals under certain conditions; that guarantee a floor level of monthly income; that provide inflation protection (or that increase at a fixed percentage over time); and that provide upside potential by increasing monthly payments based on the highest market value that the account attained on any anniversary of its purchase. Some such features may be effective in inducing participants to choose lifetime income; at the same time, the same features can dilute the longevity risk protection, risk pooling, and mortality credits that give annuities much of their special value.

Postdefault Distribution Option

The plan sponsor or provider administering the default trial income would be required, before the end of the trial period, to give participants an explanation of the terms of the automatic continuation of the trial payments and the other distribution options. After the end of the trial period, participants who were receiving regular monthly income would continue to do so automatically with respect to the same portion of their account balance, unless they affirmatively opted for an alternative form of payout. If the trial income plan was payable as a recalculated withdrawal program, the plan sponsor could either continue payouts in the same form under their permanent income program, or change the income program to a lifetime income contract, with the default being a joint and survivor annuity for married participants or a single life annuity for unmarried participants.

Permitted Exemptions

After retirees reach age seventy and a half, the existing required minimum distribution rules generally require them to recognize income on a minimum amount of their aggregate tax-favored retirement accumulations each year. Although the rules do not require actually taking the funds out of saving (as opposed to simply removing them from the tax favored retirement account), many if not most retirees over age seventy and a half probably interpret the rules as a "signal," and in any event find it easiest to comply with the rules by withdrawing the funds from their savings. The minimum distributions are based on an annual recalculation of account balance divided by life expectancy, which is similar to a recalculated life expectancy income program and in keeping with the spirit and intent of the default trial income program. Therefore, the default trial-period income program would not apply to retirees who take distributions from their retirement plan via managed payouts that follow the pattern of the minimum required distributions.[16]

The proposal would also allow consumers who wished to purchase a lifetime income contract from the outset of the trial period to do so. The aim of the trial income program is to help level the playing field for income options; without that trial program, consumers tend to undervalue them. Thus, participants who have already chosen an income option for the long term would be deemed to have complied with the trial-period default.

Additional Benefits for Consumers

In addition to the benefits described previously, making monthly income the mode through the trial plan may suggest to employees that it is the payout form implicitly recommended by the plan sponsor or by financial experts, constituting an "endorsement effect" that might be persuasive to at least some employees. This should help change the way consumers view their retirement resources by framing them as an income stream rather than as a lump sum. Consumers accustomed to receiving account statements showing the accumulated balance in their retirement accounts tend to develop a sense of ownership over the lump sum. Research has shown that people can be powerfully motivated by a desire to avoid losing something they own. This may partly explain the high propensity to choose the lump-sum distribution option in 401(k) plans and other plans that present accumulated benefits as an account balance.

An automatic "trial" period of monthly income based on a substantial portion of their assets could accustom individuals to the consistency, security, and simplicity of receiving regular monthly payments and help reframe the way they view their retirement resources. The regular income stream (or "pension paycheck"), rather than the lump sum, may come to be seen as the status quo or presumptive form of benefit.

Additional Benefits for Providers

Insofar as the default proposal applied to a substantial portion of all retirement assets, it could generate substantial new volume of business for firms providing income products. Total 401(k) assets were approximately 38 percent of GDP in 2005. By some estimates, total 401(k) assets are projected to reach between 98 percent and 155 percent of GDP in 2040 (Poterba, Venti, and Wise 2007). This expected growth provides strong financial incentives for firms to participate in both the default trial and permanent income market. If greater fiduciary protection could be provided to plan sponsors that offered qualified trial income programs, income providers would have an added incentive to offer products that are competitively priced and comply with federal standards.

Increased sales of lifetime income products, in turn, could generate incentives and opportunities for insurers to develop and engage in more cost-effective capital and risk-management strategies.[17] For instance, anticipated growth in the income market spurred by the default proposal could provide the necessary impetus to develop new options for hedging aggregate longevity risks.[18]

Over time, improved capital and risk management and an increased retiree pool should further reduce the price of lifetime income contracts, further lowering another obstacle that has inhibited demand. In today's market, annuity contracts are often perceived as a poor value for the average person. However, as the pool of retirees purchasing annuities increases, it is likely to reduce insurers' capital and risk-management costs, ultimately reducing annuity prices. While these changes may take place gradually, over time the combination of new volume and responses on the supply side should substantially increase the value, and hence the appeal and utilization, of lifetime income products.

4. Other Significant Issues

The proposal outlined above provides an opportunity to provide greater retirement security to a large number of retirees. However, a number of key issues need to be addressed before such a proposal can be effectively implemented and sustained over

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time. Some are implementation issues, and include whether and how existing 401(k) and other qualified plan rules might need to be modified to accommodate lifetime income solutions, and whether special annuity selection safe harbors, such as giving plan sponsors added protection from exposure to fiduciary liability for selecting annuity providers, or other incentives would be appropriate to encourage plan sponsors to adopt the trial income option. Two important broader questions are whether further measures would be advisable to (i) protect participants (and plan sponsors) from products with excessive costs or costs that are not sufficiently transparent-especially because the annuity would be a default option-and (ii) guarantee the security of potentially billions of dollars of additional assets invested in lifetime income products. Some of these issues do not have immediately obvious solutions. These issues (and the form of the default trial program), however, would benefit from a dialogue with plan sponsors and other interested participants as to their merits and challenges, as well as further evaluation and (possibly) testing.

What Regulatory Modifications or Employer Incentives are Needed?

What regulatory modifications or employer incentives might be necessary and appropriate to promote a trial program and expand the use of income options in 401(k) and other similar plans? First, one concrete step would be to modify the current minimum required distribution rules to the extent necessary to accommodate lifetime income options, particularly longevity insurance and, to the extent necessary, the proposed automatic trial income program. Current federal law requires most participants in tax-qualified retirement plans (including 401(k) plans) and IRAs to start taking minimum "distributions" (for tax purposes) from their retirement accounts by April 1 following the year they reach age seventy and a half (or, if later, the year they retire in the case of a qualified plan). These rules do not require actual distribution or consumption of assets, but do require assets to be taxed as if they were distributed in order to prevent the use of the pension tax preference for estate planning instead of retirement security. The minimum distribution rules could constrain plans' ability to offer longevity insurance and other deferred withdrawal schedules. A possible accommodation of these rules to a strategy of encouraging annuitization is discussed in the forthcoming paper by Iwry and Turner.

Second, the possible application of the 10 percent early withdrawal penalty would need to be addressed. If trial-period income began before age fifty-five, or before age fifty-nine and a half to a participant still employed by the plan sponsor, a 10 percent early withdrawal penalty could apply unless the participant continued the life annuity or life expectancy payouts after the trial period. One possible approach would be to set age fifty-five as the earliest age at which the trial income default arrangement would be triggered, thereby avoiding the early withdrawal penalty in the typical case where the participant's employment has terminated. In the smaller number of cases where an active employee between age fifty-five and fifty-nine and a half could withdraw certain 401(k) balances, consideration could be given to amending the law to exempt default trial income from the penalty regardless of whether the individual annuitized after the trial period. In addition, these participants might be warned that, if they did not continue an annuity after the trial period and were then still under age fifty-nine and a half, the penalty would apply to any further withdrawals (which would be another incentive to annuitize).

Third, Congress recently relaxed, to some degree, the standards applicable to 401(k) plan sponsors in selecting an annuity provider. However, rules regarding plan sponsors' fiduciary responsibilities in the selection of income providers, the pricing of income products for married couples, and the application of the joint and survivor spousal protections to new income solutions may still add a measure of complexity and uncertainty to the administration of income solutions within 401(k)s.[19] This is one reason why only one out of five DC plans offers the option to annuitize account balances (Brown et al. 1999). These rules-including how the spousal survivor protections would apply to the automatic trial-period income option-need to be reviewed and clarified to minimize uncertainty and complexity in order to accommodate trial-period income, longevity insurance, and other deferred and immediate annuities.

In addition, it is worth considering whether special incentives should be provided to encourage 401(k) plan sponsors to adopt the trial income option and, more generally, to offer income options. One direction that might be explored is whether safe harbors relating to the selection of annuity providers would be feasible, appropriate, and consistent with the goal of protecting plan participants through operation of the pension fiduciary standards. Another possibility that might be explored would be a possible exemption of non-highly compensated employees from the application of the minimum required distribution rules in plans that offer a trial-period option.

How to Safeguard Assets in Income Plans?

To have a robust annuity market, consumers must have faith that the benefits from their annuity contracts will be paid. However, in any system where private sector companies provide annuities, sooner or later one or more of those companies will fail. Such a failure could result in the loss or significant reduction of benefits for retirees, shaking consumer confidence in annuities, and making it even harder to encourage them to consider appropriate lifetime income products. This is true not only in connection with efforts to promote the use of lifetime income options in 401(k)-type plans, but also with efforts to maintain or expand annuitization (as opposed to lump sum payouts) in DB pension plans. Under current law, if a DB plan provides benefits through the purchase of commercial annuities, the individuals entitled to those benefits must thereafter look solely to the insurance carrier that provides the annuities, rather than to the plan or the Pension Benefit Guaranty Corporation. The Pension Benefit Guaranty Corporation ceases to insure pension benefits once an annuity provider assumes the obligation to provide them.

Currently, state guarantee funds provide coverage for contracts issued by insurance companies in their state. The adequacy of the current arrangements is unclear, however, and coverage limits vary across states. If a major annuity provider failed, it is uncertain how effective the state guarantee funds would be in protecting annuitants. Moreover, retirees would have different coverage protection in different states even if they purchased identical contracts. Nonuniform state coverage results in unequal protection of retirees.

A federal insurance agency patterned on the Federal Deposit Insurance Corporation (FDIC) could provide uniform insurance coverage and establish uniform financial standards and safeguards for consumers, regardless of the state in which they purchased their contract. As long experience in the banking industry has shown, consumer confidence can be very fragile, but can also be restored through a federal guarantee. A previous bank run in the United States (Hartford Federal Savings and Loan, 1982) and the most recent bank run in the United Kingdom (Northern Rock, 2007) both promptly ended once a government guarantee of deposits was announced. However, such a guarantee should be more than a paper promise. As with the FDIC, lifetime income providers could pay an appropriate annual premium for this protection and be subject to regular reporting and examinations to ensure that they maintain appropriate assets and investments underlying the contracts, adequate management procedures, and appropriate consumer protections. Such federal oversight could both reduce the potential for provider failure and establish appropriate guidelines for their investment and other practices.

Thus, one approach might propose establishing federal insurance for lifetime income contracts, similar to federal deposit insurance provided through the FDIC. Federal annuity insurance could guarantee lifetime income payments, up to, for example, $500,000 in present value terms per contract holder if an insurance company failed or the contract outlived the insurer. Lifetime income contracts from different providers could be insured separately and up to the limit. Thus, a retiree with two contracts from two different insurers might be insured for as much as $1 million in annuity payments. An alternative approach would be for the federal insurer to guarantee up to a certain amount of monthly income in much the same manner as today's Pension Benefit Guaranty Corporation does for DB pension plans.

In return for the ability to display a seal similar to FDIC, providers could be required to meet federally specified minimum financial and management standards. This could include minimum reserve ratios and probably a requirement that an appropriate portion of the firm's assets be held in very long bonds or other appropriate investments, and that firms pay a risk-based insurance fee. The standards could provide some safeguards for consumers against excessive risk taking by providers.

One of the concerns such a proposal raises, however, is that federal insurance for lifetime income contracts might weaken the market discipline that contract holders might normally impose on insurers. While in banks, regular call reports and examinations have served as a substitute for this market discipline, similar procedures do not yet exist for annuity providers, and would have to be developed. Consumers whose benefits are guaranteed against potential losses might become relatively indifferent to the risks taken by lifetime income providers. This indifference, in turn, could make providers less cautious about taking risks.

There are also concerns that a federal entity would not have the political will or the incentive to set appropriate prices for risks, resulting in a possible mismatch between the premium and the risks that this federal insurance agency would face. Concerns have also been raised about the risk that surplus reserve funds from the insurance agency would be tapped to fund other more pressing or more politically sensitive programs, without appropriate regard to the long-run viability of the fund. The experience of the Pension Benefit Guaranty Corporation highlights some of the potential issues that might arise if a federal insurance program for lifetime income products were not carefully thought out in advance and closely monitored (Brown 2008).

While these concerns are valid, other federal insurance agencies, such as the FDIC, have operated relatively successfully.[20] It may also be possible (although not without potential political opposition) to adopt additional safeguards that give these federal insurance agencies greater autonomy in risk assessment, such as giving the federal insurance agency flexibility to establish risk categories based on variables that are relevant to an insurer's risk of failure and examiner risk rating.

How to Change the Conversation about Lifetime Income?

Moving the retirement market toward a more appropriate investment in lifetime income will involve a fundamental change in the way most American households think about providing for their retirement. The account-balance, lump-sum mindset that has become so prevalent is reinforced by the behavioral tendencies noted earlier, and has been promoted by the promotion and expansion of lump sum options in DB and 401(k) plans. Adjusting this mindset will be a challenge.

A national conversation is already under way regarding saving for retirement and other long-term needs. This includes campaigns to encourage households to plan and save for retirement and active discussions in the press and within and among consumer groups, policy makers, industry participants, and other interested parties. This discussion has recently turned to the potential role of lifetime income options in providing for a more secure retirement. It is, however, still at the early stages; it may be necessary to educate not only consumers, but also plan sponsors and financial providers to be more open to directing at least a portion of retirement saving into lifetime income options.

Many financial advisers and intermediaries have traditionally steered consumers away from lifetime income products in part because they were less profitable to them than other investment options. Increased consumer awareness and demand for these products may motivate some financial advisers to offer or recommend income products, but this may not be enough to motivate others absent new financial incentives. Income products such as variable annuities and recalculated phased-withdrawal income plans differ from fixed lifetime income contracts in that they require more active management of assets, and therefore tend to charge maintenance fees. On the one hand, higher maintenance fees make these products more profitable so that financial advisors may be more likely to promote them to consumers; on the other hand, if consumers do not fully understand the products they are buying, they may incur more harm than good in purchasing these products.

At the consumer level, lifetime income products would have a better chance of being seriously considered and adopted if their advantages could be translated more simply and effectively for the average saver and retiree. The case needs to be made-giving fair attention to drawbacks as well as advantages-in terms that most consumers can readily understand. In addition to making the point that people need to consider how to manage the risk of outliving their assets, an education campaign might usefully incorporate a different way to think about retirement planning. This could include the following points, among others:

- Framing lifetime income in payout terms, such as a regular pension paycheck similar in form to Social Security and as a supplement to fill the gap between Social Security income and monthly income needs in retirement.

- Reminding consumers and plan sponsors that purchasing lifetime income products is not an all-or-nothing proposition. These products can play a supporting role in an individual's retirement security strategy through investment of only a portion of available assets.

- Pointing out that guaranteed income simplifies the mechanics of retirement payout. It is an easy "set it and forget it" way to convert one's assets to regular income, and spares retirees the need to engage in active management of their assets.

Points such as these could usefully be developed and refined-and debated-through an open collective process to increase the

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level of awareness and thoughtfulness regarding lifetime income and, by increasing discussion and consumer demand, to help make inroads on entrenched resistance by those with contrary financial interests.

A concrete step to anchor the expanded awareness and discussion of lifetime income options would reframe 401(k) and IRA account statements. To help reinforce a sense of ownership of the income stream rather than of only the lump sum, DC plan sponsors and IRA providers should be required to present the participant's benefits as a stream of monthly or annual lifetime payments in regular statements and in summary plan descriptions, in addition to presenting the benefits as an account balance in accordance with current practice. It may be possible to develop an industry-wide method of computing and presenting the stream of payments, with appropriate disclaimers.[21]

Over time, this change may help encourage account owners to become accustomed to thinking of their retirement resources as monthly income. Taking the distribution as monthly payments would seem "natural"- that is, it would be equivalent to maintaining the status quo. The intent is to reposition their frame of reference so that consumers do not feel a "loss" when they receive an income stream rather than a lump sum. Portraying the payments from an annuity as a consumption stream has been found to be a useful and more illuminating way of presenting the benefits of annuities, and consumers appear to respond positively to this new frame (Kling et al. 2008).

Should an Optional Federal Insurance Regulator Exist?

Most existing annuity products are sold by insurance companies. However, the current state-based insurance regulatory system could hamper the development of innovative annuities by that industry. Thus, in addition to federal annuity insurance, a broader initiative that could facilitate the provision of annuities by insurance companies would be the creation of an optional federal insurance charter. This would allow an insurance company to opt for being regulated by one federal regulator rather than by a host of individual state insurance commissioners. While proposals relating to insurance generally are beyond the scope of this paper, because they implicate a host of issues apart from the provision of retirement annuities several substantial arguments in favor of an optional federal insurance charter relate specifically to the annuity line of business.

One federal agency, rather than fifty state agencies, would result in more uniform standards for licensure and regulatory compliance and should increase efficiency. Currently, these standards vary across states and product lines. Today, annuity providers that sell insurance contracts in multiple states must comply with the standards of each state. In particular, providers that sell contracts with an investment component, such as variable annuities, are governed by state regulators as well as by federal securities law. Regulation by multiple agencies can result in gaps in protection, as evidenced by the inconsistent treatment across states with respect to whether variable annuities are considered securities. Moreover, while other types of financial organizations will increasingly offer annuity-type products, those entities already have the option of a single federal regulator. An insurance company that opted for a federal charter could sell uniform annuity products in every state, which could be well suited to service the needs of a mobile workforce that may be employed in several states during the course of a career.

5. Conclusions

Future retirees are expected to retire with larger retirement assets, live longer than current retirees, and have fewer sources of longevity protection. These developments increase their risk of outliving their resources. This paper presents a strategy to increase retirement security for future retirees by reframing the way individuals view their retirement choices, providing them more information and time to decide (which should help them better evaluate their choices), and incorporating automatic features in 401(k)-type plans to facilitate the selection of income solutions.

Several important questions need to be resolved before this strategy can be implemented, and this paper does not attempt to answer all of these questions. Rather, it highlights the issues and maps out the first of several steps toward increasing the use of annuity-like products in 401(k)-type plans. Because existing consumer attitudes are so biased against lifetime income products, increasing their acceptance and use will be gradual. The strategy in this paper is designed to highlight the benefits of guaranteed retirement income, to give consumers the tools to evaluate the options and, ultimately, to increase the selection of lifetime income and improve retirement security.

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[1] Demand for lifetime income products is low in the group market and ever lower in the private market. A large literature has developed that seeks to explain this "annuity puzzle." Early seminal work includes Bernheim 1987; Friedman and Warshawsky 1990; Kotlikoff and Spivak 1981; Mitchell et al. 1999; Yaari 1965.

[2] The data are from the Health and Retirement Study and the sample includes adults aged sixty-five and older in 1999. For more details, see Johnson, Burman, and Kobes 2004.

[3] Essentially, those who survive the longest are financed by those who predecease them. This is sometimes referred to as the "mortality credit." The mortality credits from annuities increase with age as fewer survivors share the pooled resources.

[4] Partial, rather than complete, annuitization may be optimal because consumers may desire to leave bequests (see Davidoff, Brown, and Diamond 2005), to hold liquidity for uncertain medical expenses (see Sinclair and Smerters 2004 and Turra and Mitchell 2008 or for both reasons see Dynan, Skinner, and Zeldes 2002). In addition, family members may share risk and pool resources-through marriage, for instance-which provides an additional hedge against the risk of outliving their resources (Kotlikoff and Spivak 1981).

[5] Replacement rates were computed for scaled low, medium, high, and steady maximum earners. Estimated replacement rates are for workers retiring at the normal retirement age under intermediate demographic and economic assumptions; they are 56 percent, 42 percent, 35 percent, and 29 percent, respectively.

[6] Households with shorter life expectancy, who tend to be lower-income, would benefit less from lifetime income products. Brown (2003), however, finds that even those with shorter life-spans could benefit from annuitization.

[7] Aggregate longevity risk is the risk that life expectancy of workers born around the same time will either improve or decline. This is a concern for providers because unexpected increases in aggregate life expectancy would increase their payout obligations. Providers who are unable to hedge completely against this risk will transfer some of the increased risk to consumers through higher premiums. This paper does not address this issue directly. See Brown and Orszag (2006) for more discussion.

[8] Other behavioral biases have been inferred from the choices made by consumers. Consumers appear to worry overly about dying soon after buying an annuity and, for that reason, prefer products that guarantee payments for a certain time. About 73 percent of all immediate life annuities sold in the United States have guaranteed payments and a similar proportion of TIAA-CREF annuitants purchase a guarantee (Ameriks 2002). In the United Kingdom, an overwhelming majority of annuitants also purchase an annuity with a five- or ten-year guarantee period (Einav, Finkelstein, and Schrimpf 2007).

[9] Longevity insurance is guaranteed protection against living longer than expected by pooling longevity risk.

[10] See Kahneman and Tversky (1979) for more discussion about the tendency to make decisions relative to some benchmark.

[11] For additional details, see Gale and Iwry (2005); Gale, Iwry, and Orszag (2005); and Iwry (2003). Another major direction in which automatic strategies can expand retirement security is outside the 401(k)-through IRAs-which would benefit the 78 million working Americans who have no access to an employer plan (Iwry and John 2007). For more information on these topics and proposals, see *www.retirementsecurityproject.org*.

[12] An example of the former category are individuals with poorer health, who expect to have shorter-than-average life expectancy, and who are able to compute the benefits of the lifetime income product relative to an alternative investment option.

[13] The two-year trial default is part of a more general strategy of using defaults to encourage people to choose income solutions. Automatic features to promote the expanded use of guaranteed income could apply directly to the benefit payout decisions plan sponsors and individuals confront in the distribution phase of the plan or indirectly through plan sponsors' and participants' investment decisions toward the end of their careers. The two-year default explores the use of automatic strategies directly in the distribution phase. (The indirect use of automatic strategies in the investment phase to improve distribution decisions is explored in a forthcoming brief by Iwry and Turner.)

[14] The requirement of an apples-to-apples comparison may generate demand for a third party that collects, maintains, and disseminates (perhaps at a cost) information on prices and features. The Financial Services Authority in the United Kingdom maintains an annuity pricing Web site: *http://www.fsa.gov.uk/tables*. There is at least one similar comparative tool in the United States, and it is maintained by a private firm for retirement plans that subscribe to that service. Although a clearinghouse established for this purpose will likely charge a fee and may be accessible to plans rather than to consumers, as the market grows equivalent services will likely develop specifically for consumers.

[15] Providers that offer lifetime income contracts would have to accommodate two-year cash-outs. For some providers, this option may be costly to provide. One option around this issue may be to offer a "blended" product, which is a withdrawal plan in the first twenty-four months and a lifetime income contract (with longevity protection) when the default trial transitions to a permanent plan.

[16] The default program would apply to those who request lump sum distributions or partial lump sums that significantly exceed the minimum required distributions.

[17] See Cowley and Cummins (2005) for a discussion of possible strategies.

[18] For instance, insurers could look to reinsurers or capital markets for new ways to hedge against aggregate longevity risks. At least in the U.K. annuity market, some reinsurers are currently reluctant to reinsure lifetime income contracts because these contracts are opaque and the risks are difficult to evaluate. See "The Pension Annuity Market: Further Research into Supply and Constraints" prepared by The Association of British Insurers, February 2005 for more discussion about the pension annuity market in the U.K.

[19] For instance, plan sponsors must comply with qualified plan rules on what type of annuity to offer (joint and survivor for married participants, with spousal consent to an election of a single life annuity) and how to price annuities (unisex mortality tables), and sponsors must evaluate the soundness and claims-paying ability of lifetime income providers. See Brown et al. (1999) and Iwry-Turner (forthcoming) for additional discussion.

[20] The FDIC, in principle, assesses risk-based premiums; however, in practice, most financial institutions are assessed zero premiums because their reserves qualify them for an exemption.

[21] If the sponsor was one of those that chooses to add projections of potential future benefits that would likely accumulate if the participant continued contributions at an assumed rate for an assumed period, the projection could also be stated as an income stream in addition to an account balance.

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The paper will be updated in the next printing to reflect recent comments from industry experts.

Mission Statement

The Retirement Security Project is dedicated to promoting common sense solutions to improve the retirement income prospects of millions of American workers.

The goal of The Retirement Security Project is to work on a nonpartisan basis to make it easier and increase incentives for middle- and lower-income Americans to save for a financially secure retirement.

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