- Occasional Paper Series -

Capital Matters

No.6
September, 2010

GOING ON AUTOMATIC: THE RIGHT PATH TOWARD RETIREMENT INCOME SECURITY FOR ALL?

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Abstract

This paper is animated by the serious challenge to American households of enjoying income security in retirement. It strives to inform thinking about how to address this challenge by focusing on two policy initiatives. One was embodied in certain provisions of the federal Pension Protection Act of 2006 (the "Act"). These provisions facilitated the involuntary ("automatic") enrollment of workers in defined contribution plans proffered by their employers. These legislative changes were complemented by regulations that channeled contributions of automatically enrolled workers into one of several specified, so-called Qualified Default Investment Alternatives (QDIAs). The other initiative is embodied in a proposal by the Obama administration to automatically enroll into Individual Retirement Accounts (IRAs) many workers whose employers do not offer them participation in a retirement plan

The paper describes the rationales offered at the time for the Act's provisions, the manner in which the enacted policies have been implemented, and how effective they have been and are likely to be. It assesses the strength of the evidence available at the time to support advocates' contentions that automatic enrollment would be a success. It then considers as well the very limited post-enactment literature on the outcomes of automatic enrollment. It then reviews the literature on persistence (over time) of contributions to defined contribution (DC) plans and how realistic or justifiable those expectations of success were. The paper then characterizes the Obama administration's automatic IRA proposal, complements the earlier review relating to DC plan contributions with one pertaining to persistence (over time) of contributions to IRAs. This is followed by an evaluation of the workings and outcomes on New Zealand's KiwiSaver scheme. Of currently operating schemes, it bears the closest resemblance to what the Obama administration has proposed. Finally, drawing on the findings and observations in the preceding sections, the paper offers a broader perspective on the directions policy should take if there is to be a serious prospect of ensuring retirement income security for all households in this country.

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Introduction

The concern which animates this paper is the challenge to American households of enjoying income security in retirement. That it is a serious challenge – especially for post-boomer generations – is pretty much beyond dispute. There are a plethora of would-be policy solutions to the problem, including ones advanced by the current administration. However, even setting interest group politics and ideology aside – which, admittedly, given the process and conclusion of the debate over healthcare reform is hard to imagine – settling upon what solutions should be sought is no mean task. As two thoughtful scholars of the field have pointed out, important criteria according to which the wisdom and efficacy of different proposed policies might be assessed are not merely numerous but also often in tension with one another. Given those tensions they remark that there is no one “best” solution; rather, one or another “second-best” solution depending how various tradeoffs are made.[1] More specific to the American context, two recently formulated frameworks for retirement income security policy reform offer valuable, but multiple- (and in some measure norm-based) criteria for policies which might make for difficult decisions.[2] What these suggest is that – again, policy and ideology aside – the path to ultimately choosing policies that realistically can meet the challenge is not an easy one.

This paper strives to inform thinking about how to address this challenge by focusing on two policy initiatives, one seemingly modest which was enacted into law several years ago; the other of arguably greater potential import, but which is only now beginning to attract serious attention. The former is embodied in certain provisions of the federal Pension Protection Act of 2006 (the Act). These provisions facilitated the involuntary (“automatic”) enrollment of workers in defined contribution plans proffered by their employers. These legislative changes were complemented by legislatively-mandated regulations promulgated by the Department of Labor that channeled contributions of automatically enrolled workers into one of several specified, so-called Qualified Default Investment Alternatives (QDIAs) The latter are embodied in a proposal by the Obama administration to automatically enroll many workers at employers who do not offer participation in a retirement plan into Individual Retirement Accounts (IRAs). Although the administration has only offered only a broad outline of its ideas, in the recent past members of the House and Senate filed detailed bills that incorporated similar ideas, and recently there has been some attention before congressional committees (without further action being taken), thereby providing for more detailed insight into what such a plan might look like.

Our approach to the task will be as follows. First, we will describe the circumstances that set the context for and the reasons offered by those who pressed for enactment of the 2006 provisions, the manner in which the policies have been implemented as they relate to QDIAs, and how effective those policies as implemented have been and are likely to be. Second, we will take a very close look at the strength of the evidence that was available at the time in support of advocates' contentions that automatic enrollment would be a success; then consider as well the very limited post-enactment literature on the outcomes of automatic enrollment. We follow that assessment with a review of literature on persistence (over time) of contributions to such plans and how that bears on how realistic or justifiable those expectations of success were. We next turn to a brief characterization of the Obama administration's automatic IRAs proposals, complementing the earlier discussion about the empirical literature about persistence of DC plan contributions with an analogous one about persistence (over time) of contributions to IRAs. This is followed by an evaluation of the workings and outcomes of New Zealand's KiwiSaver scheme. Of currently operating schemes, it is apparently the only one which bears a close resemblance to what the Obama administration has proposed. The aim of these reviews and evaluations is to offer insights about what the Obama administration proposal might reasonably be believed to achieve in terms of participation, if enacted.

Finally, drawing on the findings and observations in those sections, we offer a broader perspective on the directions policy should take if there is to be a serious prospect of ensuring retirement income security for all households in this country. Suffice it to say, the text which precedes that last section strongly suggests that the administration's current proposal does not offer such a prospect.

Why Were the Automatic Enrollment and Qualified Default Investment Alternatives Provisions of the Pension Protection Act of 2006 (the Act) Enacted?

Certain provisions of the relatively recently enacted federal Pension Protection Act of 2006 (the Act) were ostensibly calculated to enhance retirement security by changing the framework within which contributions are made to defined contribution plans and according to which they are to be invested.

Briefly stated, they were thought to be warranted for the following reasons:

First, the prospects of the vast majority of American households for income security in retirement rest on what they can expect to receive in the form of Social Security benefits and cash income or distributions from employment-based retirement plans. For that substantial swath of the population, neither personal savings nor equity in homes is likely to loom large in that respect. (Indeed, given the financial meltdown and disasters in the housing market, home equity will almost certainly be even less important.)[3]

Second, Social Security will likely be the exclusive source of financial support for roughly half of retired households. For many more households, it will be a substantial source of support.[4] In either case, for many people Social Security will afford important (and basic) financial support in retirement, but nowhere near what households need to sustain their pre-retirement standard of living in retirement or, in some cases, a minimally adequate one.[5]

Third, this almost exclusive or substantial reliance is linked to the fact that at any given time during at least the past 25 years only about 50 percent of American workers were *offered* participation in an employment-based retirement plan (with a smaller percentage *actually participating.*)[6]

Fourth, despite the relative stability of the rate of participation in employment-based retirement plans, there has been a significant shift in the plans offered to workers. Namely, there has been a dramatic movement away from workers participating in defined benefit plans (for which participation has been mandatory) to those offered participation in defined contribution plans (for whom participation has been voluntary).[7]

Fifth, the shift by employers away from defined benefit plans to defined contribution plans appears to be associated with a decrease in monies spent by employers on retirement plans.[8]

Sixth, for a variety of reasons, employee contributions have been low in relation to what many believe realistically is required for them to maintain their standard of living in retirement.[9]

Seventh, employee contributions to defined contribution plans are sporadic for a number of reasons, because many workers who are offered participation in these plans do not take up the offer, while those who do so will not infrequently fail to maintain their contribution level or fail to make any contributions at all. Also, subsequent employers may not offer them participation in such plans, so employees may not have the opportunity to continue making contributions after changing jobs. (We return to these points below.)

Eighth, individual retirement accounts (IRAs) have been thought to be a useful means by which people can accumulate assets on an individual, non-employment basis. However, even though an enormous amount of assets have been accumulated in IRA accounts – though generally by higher income households – the sums are overwhelmingly the result of rollovers of assets previously accumulated in defined contribution plans at the time of job loss, job change, or retirement.[10] In other words, for the most part IRAs represent the outcomes of defined contribution plans in a different guise. (We return to this point as well below.)

Ninth, it should be noted that employment-based retirement plans in general, and defined contribution plans (and IRAs) in particular are strongly incentivized by and benefit from annual tax subsidies.[11] Indeed, almost perversely, the subsidies are skewed to higher income households.[12] Perhaps as problematic is the suggestion – though not an uncontested one – that as currently crafted, these subsidies do relatively little to increase national saving.[13]

Tenth, many contend that workers' investment decisions with respect to monies in their accounts have frequently been sufficiently ill-considered as to significantly undermine their prospects for accumulating sufficient assets by retirement. [14]

There are a number of reasons for the state of affairs described above. But prominent among them has been the relative triumph of the notion of voluntarism or choice. Thus, the relatively static percentage of workers offered plans may be seen as attributable to existing plans reflecting the ostensible voluntary arrangements between employers and workers about the terms of employment. The shift to defined contribution plans within retirement plans that are offered is said to reflect a further playing out of those voluntary arrangements; that is, defined contributions plans are what workers allegedly want or choose to have. In turn, the fact that significant percentages of workers offered participation in defined contribution plans do not participate; that if they participate do so on an irregular basis; and that when they do contribute the amounts contributed are irregular (and in all events frequently fall short of what by any reasonable measure is needed) are artifacts of their ostensibly voluntary decisions. Finally, workers' decisions about how to invest their contributions are justified as an expression and/or vindication of their voluntary choices, the problematic outcomes notwithstanding.

The Legislative Fix

The legislation on which we focus takes for granted this overall framework and is geared in certain specific and narrow ways to remedying some of its problematic outcomes. That is, the provisions focus only on defined contribution plans. They seek not to expand the universe of employers who offer participation in such plans to their workers or to increase the level of contributions by employers who do. Rather they aim to increase the percentage of those workers who take up the offer of participation and spur higher and more consistent worker contributions.

In essence, the effort to do so is grounded in the following considerations: In a sense the notion is that if an employer *automatically* enrolls workers in a plan, then even though those workers would have the chance to disenroll ("opt-out") then or at a later time, they will remain enrolled either (1) by reason of inertia on their part or (2) their recognition of the value of becoming and staying enrolled. Of course, the efficacy of this approach depends on the willingness of employers to offer plans, to automatically enroll their workers in them, and to give workers the opportunity to opt-out. There appears to have been serious enough concern among employers that doing so was risky as a legal matter. By definition, workers' enrollment would be involuntary – automatic – so, of necessity, employers would have to designate the investment vehicle(s) into which automatically enrolled workers' contributions would be placed. Employers' control over that decision combined with the potential for poor financial outcomes from the default investments raised the specter of employers being the object of breach of fiduciary duty legal claims.

The would-be solution took the form of amendments to section 404(c)(5)(A) of the Employee Retirement Income Security Act (ERISA). (These were a few among many other defined benefit and defined contribution plan related provisions of the so-called Pension Protection Act of 2006.) The legislation affords employers a "safe harbor" defense against breach of fiduciary duty claims if the kinds of "default investments" they choose satisfy legislative and regulatory requirements. The statute essentially left the prescription for what were safe harbor investments – termed "qualified default investment alternatives" (QDIAs) – to regulations to be promulgated by the Secretary of Labor. More particularly, the statute simply requires that the regulations "provide guidance on the appropriateness of designating default investments that include a mix of asset classes consistent with capital preservation or long-term capital appreciation or a blend of both."[15]

The relevant portion of the regulation issued by the Department of Labor (29 CFR § 2550.404c-5(e)(4)) provides that the investment can be one among three kinds of products, model portfolios or services. Of the three specified, for reasons explained below, the one of most interest here is

> (i) An investment fund product or model portfolio that applies generally accepted investment theories, is diversified so as to minimize the risk of large losses and that is designed to provide varying degrees of long-term appreciation and capital preservation through a mix of equity and fixed income exposures based on the participant's age, target retirement date (such as normal retirement age under the plan) or life expectancy. Such products and portfolios change their asset

> allocations and associated risk levels over time with the objective of becoming more conservative (*i.e.*, decreasing risk of losses) with increasing age. For purposes of this paragraph (e)(4)(i), asset allocation decisions for such products and portfolios are not required to take into account risk tolerances, investments or other preferences of an individual participant. An example of such a fund or portfolio may be a “life-cycle” or “targeted-retirement-date” fund or account.[16]

The provision refers to what is typically termed a “targeted-retirement-date” fund (what more commonly is referred to – and to which we refer to and describe in detail below – as a “target date” fund (TDF) As we shall see shortly, it is significant because of the massive flow of contributions into such investment vehicles.

However, before turning to that and other issues, we take note of the virtual absence of a public record of discussion of the automatic enrollment provisions at congressional hearings or in debate, the sparse, broad, and vague legislative language as to what might count as a QDIA, and what would appears to be a very limited record upon which that language was implemented through regulation by the Department of Labor. This is striking given the importance of the menu of qualified default investments to investment and ultimate retirement outcomes for plan participants. It is especially so in light of the wide variation in the default investment menus designated by other countries and the multiplicity of factors that arguably bear upon the appropriate formulation of those menus.[17] In essence, there needed to be a thoroughgoing consideration of what the prescription for permissible default investments should be in light of a host of potentially relevant factors. There seems to have been no such consideration.

Part I. Target Date Funds as a Qualified Default Investment Alternative

Target Date Funds: What They Are and the Rationales for Them

Although terminology in this area varies (and is not necessarily consistent), TDFs are a type of so-called *lifecycle fund*, which have been available since the early 1990s.[18] The investment strategy for such funds is informed by perceptions of what is appropriate and/or desirable in light of what are thought to be people’s typical life cycle circumstances and needs. In the first instance those circumstance and needs point to relatively riskier, but would-be higher-returns early in their life-cycle and the opposite toward the end. TDFs tie thinking about the changing mix to a specified date associated with the plan participant's ostensible date of retirement. The rebalancing process over time is typically referred to as the fund's "glide path." A commonly cited basic premise for this strategy is that when a person is young, he should invest in high-yielding funds despite the risks such actions entail, because he has many years until retirement to make up for any dip in the market that may occur at that time. By contrast, it is argued that someone nearing retirement age has much less time to compensate for such losses so should invest more conservatively. By periodically rebalancing the mix of assets, target-date funds are said to provide investors with a diversified portfolio that is tailored to serve as the one and only investment a person need make. Particular TDFs are typically labeled by a specific year associated with the would-be retirement date to which the fund's investment choices are geared.

By contrast with the above, a *lifestyle fund*, according to one characterization, has a mixture based on factors that "include an investor's age, level of risk aversion, the investment's purpose and the length of time until the principal will be withdrawn."[19] A more narrow definition offered by the leading investment company industry organization is that a lifestyle fund "maintain[s] a predetermined risk level and generally use[s] words such as 'conservative,' 'moderate,' or 'aggressive' in their names to indicate the fund's risk level."[20]

The focus on TDFs here rests, in part, on their prominence as the dominant default investment among the allowable QDIAs and TDFs having been hailed as a viable solution to four of the most serious problems with individual plan participants' management of the investments in their defined contribution accounts. The problems include poor diversification as a general matter, inappropriate diversification with regard to a person's particular investment goals, inertia in rebalancing investment portfolios, and emotional (crisis-driven) trading.[21] TDFs have been promoted as offering an attractive means for dealing with these problems.[22] It is said that they are straightforward, easy to understand, and a "set it and forget it" instrument, and that they simplify the role of everyday investors in planning for retirement or other important dates.[23] On this view, a worker need only choose a fund with a target date matching his or her planned retirement date. Thereafter someone else manages the money with the target date outcome in mind. Correspondingly, the worker's attention is said to be diverted from short-term performance.[24] Another claim made by some is that these funds "are meant to be steady performers, not shooting stars" without the kind of volatility that might scare account holders."[25]

The Growing Role of Target Date Funds in the Market for Retirement Plan Assets

The rapid growth of TDFs both in terms of the number of accounts in which they are held and the amount of assets invested is attributed to these factors. As discussed below, the enactment of the default investment provisions has given additional and considerable impetus to that growth.[26]

With regard to the number accounts, according to a 2009 end of the year survey by Vanguard (of plans for which it provided record keeping services), 75% of all defined contribution plan sponsors had TDFs on their investment menus, a sharp increase from 13% in 2004.[27] About 46% of all plans specifically designated a QDIA default with a TDF as the choice of the default.[28] In this regard, it was suggested that TDFs "are rapidly replacing risk-based life-cycle funds in investment menus."[29] Many, though not all, of these plans made use of automatic enrollment (or made employer contributions other than a match)[30]

Reported figures vary fairly widely depending on the survey or other source of information used. As of the end of 2009, "21% of Vanguard plans permitting employee-elective deferrals had adopted components of an autopilot design."[31] Of large (more than 5,000 employees) and mid-size firms (between 1,000 and 4, 999 employees), 43% provided that feature.[32] By contrast, just 14% of plans with fewer than 1,000 participants had automatic enrollment designs.[33] Overall, "43% of all participants [were then] in plans with automatic enrollment designs."[34] Of those plans that adopted automatic enrollment, the overwhelming number –- 90% –- a TDF fund was the default fund.[35] "Participants who enrolled in 2009 were contributing 42% of new monies to target-date funds." [36] Among all of Vanguard's plans, 58% were QDIA ones. Among them, 80% of the designated QDIAs were TDFs.[37] More generally (that is, regardless of automatic enrollment features), 75% of all plans offered a TDF. TDFs represented 12% of all plan assets. About 42 of all participants used TDFs. For participants with TDFs, 38% of all account balances were invested in that kind of vehicle.[38]

A different, April 2009 survey by an industry-related organization found that 91.9% of all plans had a default option and that 61.2% of them (or about 56% of all plans) employed TDFs as their qualified default option.[39] In addition, 17% of those surveyed "provide[d] [TDFs] as stand-alone [non-default] investment menu options."[40] The main vehicle by which such TDFs were delivered was a mutual fund.[41] The organization also reported that 39.6% of the plans surveyed had automatic enrollment compared to 35.6% in 2007, though it was much more prominent at large companies than small ones.[42] ("[M]ore than half (55.3[%]) of plans with 5,000 or more participants us[ed] automatic enrollment.")[43] "More than half of companies with automatic enrollment use[d] target date funds (59.7[%]) as the default investment vehicle." [44]

Another survey in May 2009 by that organization relating to 403(b) sponsors found that 27.3% had automatic enrollment (with moderate size employers having the highest rate, 34.3%).[45] About three-quarters of those were sponsors who automatically enrolled new hires; the remainder, all (previous) non-participants.[46] For those sponsors with automatic enrollment, 36.8% used TDFs as the default investment.[47] However, TDFs are more broadly available among 403(b) sponsors: 51.2% of all such plans offered TDFs as the default option or as a stand-alone fund.[48] Here, too the predominant structure for delivering the TDFs was through mutual funds.[49]

There have been reports from surveys by several major firms active in the retirement plan industry as well. According to a 2009 survey by a major consulting firm of 300 employers with a total of 3.8 million plan participants and $350 billion in plan assets, the percentage of employers who automatically enrolled their workers rose from 34% in 2007 to 58% in 2009.[50] The percentage of plans that defaulted their workers into TDFs rose from 50% to 69%.[51] (More generally, the percentage of plans offering TDFs rose from 58% to 78%[52]) According to a second consulting firm, in 2009, drawing on a survey of 600 employers – slightly less than half of which were publicly held (46%) and whose median number of employees as in the range of several thousand – stated that nearly half (47%) had a plan with "an automatic enrollment/negative election feature." Of those with such a provision, "[a] majority (77%) reported that auto-enrollment had increased participation rates."[53] A research center – based on what it described as a "nationally representative sample of 601 employers" including "301…large companies and 300…small companies" – found that 27% of these companies automatically enrolled new employees in the employee funded plan.[54] The figure for large companies was 31%; for small companies, 22%.[55] It noted, though, that "[f]ewer than five percent of employers plan to adopt automatic enrollment and the percentage has decreased since 2007."[56]

Although automatic enrollment into TDFs has almost certainly spurred some of this growth, according to one estimate, as of December 31, 2007, of all plan enrollees with TDFs, only 7.2 percent were auto-enrollees.[57] However, that percentage increased significantly with plan size: from 0.4 percent for plans with 1-10 participants to 31.8 percent for plans with 10,000 or more participants."[58] For a very high percentage of auto-enrollees with TDFs, TDFs were their only investment; this was the case with a more modest percentage of non-auto-enrollees.[59]

There has been a parallel growth in the number of vehicles for TDF investments and assets so managed. Prominent among those vehicles have been mutual funds. The number of TDF mutual funds increased steadily from 85 in 2004 to 347 by the end of 2008.[60] Assets in such funds grew from $44 billion in net assets in 2004 to $115 billion in 2006, $183 billion in 2007, and $204 billion as of May 2008. Although the figure dropped to $164 billion at the end of 2008 in the wake of the financial crisis, by the end of 2009 it had rebounded to $256 billion. (Net new cash flow into mutual fund TDFs was $43.4 billion in 2009, down from the 2008 pre-financial meltdown high of $56.2 billion in 2007).[61] Most TDF mutual fund assets (84%) were held in retirement accounts, about two-thirds in DC plans and about one fifth in IRAs (with a smaller percentage being held by other investors.).[62] Given that by far the bulk of IRA assets are the result of rollovers from defined contribution plans (rather than direct contributions), it may be that the TDF figure for IRAs reflects that fact as well. These increases were driven primarily by contributions, not investment returns.[63]

Such growth is projected to continue. According to one estimate, TDFs will reach $324 billion in assets by the end of this year[64] Others suggest that the figure will be over $450 billion.[65] A longer range projection by a research firm consulting to asset managers is that by 2018, TDF assets will be approximately $2.6 trillion (compared to what it reports to have been $0.3 trillion in 2008).[66] The firm also suggests that the mix investment managers responsible for TDFs investments will shift: while in 2008 44% of TDF assets were bundled by firms that the plan record keepers with those firms' TDF offerings, 38% were unbundled, and 17% were custom (a TDF option tailor-made for a particular client). It expects approximately 25% to be bundled, 38% to be unbundled, and 37% to be custom in 2018.[67]

Even though, as of August 2008, at least 36 mutual fund managers were reported to have offered approximately 250 different TDFs, the field is dominated by a few major players.[68] More particularly, at that time, the three largest fund families, those of Fidelity, Vanguard, and T. Rowe Price, together held 80% of all TDF assets.[69] As of September 30, 2009, of the 25 largest TDFs, which held 164.6 billion in assets, all but three were Fidelity, Vanguard, and T. Rowe Price funds (which altogether managed $155.0 billion of those assets).[70] Of these, Fidelity is the largest, with over $99.3 billion in TDF assets, or approximately 38.7% of the market.[71]

As the foregoing suggests, mutual funds have been the dominant vehicles for and providers of TDF funds. However, there appears to be a significant movement on the part of large sponsors to establish their own TDFs through collective investment trusts (CITs) created by those sponsors. According to one estimate, as of the end of 2008, CITs overall "held $1.4 trillion in assets…compared to approximately $5.0 trillion in long-term assets for mutual funds."[72] However, part of the former sum is in defined benefit plans and some in 401(k)-type plans.[73] According to another, "there are about 2,000 CITs" currently and "[s]ince 2000, more than 770…were launched."[74] Essentially, this entails companies either choosing existing funds, or creating TDFs through the establishment of managed pools of money.[75]

It appears that this move has been spurred by employers' believing that they can reduce management or administrative fees while maintaining high performance funds.[76] However it would appear to be more of a viable alternative for large companies but not for small ones for which the problem of the offering and participation in employment-based plans is most challenging.[77] (It should be noted that while CITs may offer advantages in terms of lower fees, they have disadvantages as well, though we do not canvass them here.[78])

Target Date Funds Are Associated With Diverse and Conflicting Goals

While the target date fund concept seems rather simple and straightforward, a number of important and challenging issues are posed when it comes to implementing the concept just within the American context.[79] They include significant differences over the retirement security-related goals TDFs should be designed to achieve as well as the methods by which those goals are to be attained. While these issues, which we detail below, are in and of themselves problematic, the difficulties are compounded for other reasons. As one major market research firm phrased the matter, "it is critical that funds disclose and be transparent about the "significant philosophical and pragmatic differences" they have with one another, because such an understanding is "critical in fully comprehending the potential risks and performance behavior" of the fund series and how they compare. However, what funds in fact offer in that regard is "in most instances inadequate."[80] For example, according to one study, "exactly half of target date fund families [in their prospectuses broadly and uninformatively] claim that their objectives 'derive from their asset allocation.'"[81] Indeed, the study author remarks that, "[i]f it is hard for Morningstar to get the information it needs to analyze target date funds, imagine the burden placed upon plan sponsor fiduciaries and individual investors to determine the objectives and holdings of individual target date funds."[82]

One major set of concerns relates to the wide difference in opinion among academics and practitioners as to the goals that TDFs should be designed to achieve. There is much contention over whether a TDF has served its purpose once the would-be target date is reached, or whether provision should be made for the TDF asset manager to continue to manage the assets in accordance with a pre-conceived plan beyond the target date. This is referred to as the *to or through* debate. Typically, it contrasts the need to account for not only market risk up until the ostensible date for retirement, but also the importance of addressing longevity risk (the risk that one might outlive one's savings) and inflation risk (that for those many participants with non-inflation adjusted benefits the inflation's serious erosion of real income over time).[83] Somewhat more broadly – in marketing terms at least – a portfolio manager for one of the largest fund families stated that its *through* products "are designed to be a one-stop lifetime option for plan participants," and not "just an accumulation product to safely get to retirement…A significant focus…[would be] to provide withdrawals over a long retirement.”[84] The through approach has elicited diverse and arguably more wide-ranging prescriptions (than for “to” funds) by scholars, analysts, and fund managers for the best approach to the investments required to meet those goals.[85]

In sharp contrast, critics of this approach contend that TDFs should not be used for, nor were they ever intended to be, lifetime funds. Rather, they argue, TDFs should focus only on the accumulation phase, as the TDF name suggests. They assert that the target date is a point at which the investor makes an important decision with respect his or her money, whether to buy an annuity, invest in Treasury Inflation-Protected Securities (TIPS), or make some other choice, and that investment goals should be geared to the required accumulation by that date. More specifically, they claim that (1) investors do not interpret or use TDFs as life-long funds because the majority withdraw their balance at retirement; (2) investors expect TDFs to be safe from serious investment risk at retirement (meaning a low equity allocation); (3) there are specialized investment tools for post-retirement that are arguably better suited for dealing with issues like longevity risk and inflation risk, or that serve as distribution mechanisms; (4) glide paths should only be risky if a standard of living is secured, which is rare; (5) glide paths that include high equity allocation cannot make up for inadequate savings, guarantee returns, or overcome longevity risk; and (6) a TDF that fails to protect from investment risk near the target date has failed in its primary purpose.[86] Moreover, according to one consultant/advisor “at the time of initial TDF selection, most plan participants thought they were buying ‘to’ funds with the goal of reaching retirement, as opposed to ‘through’ funds, with the end game being death.”[87] A perhaps more cynical critique of the “through” approach would suggest that because TDFs that are designed to operate as “lifetime” funds may require a shallower glide path with higher equity allocations at retirement (compared with the alternative), that will generate higher fees (or that, in all events, they can continue to earn fees because the assets remain under the management of the same company.)

A more general issue about goals pertains to the fact that while striving as such to accumulate assets is important, it is not an end in itself, nor is it necessarily the most fundamental concern. Arguably, there is likely an underlying income-related goal. For example, it might well be extended to which such assets can help ensure that a plan participant enjoys a post-retirement income sufficient in relation to his or her pre-retirement income. Nonetheless, on its face, most discussions by providers about plan participant goals not surprisingly appear to focus on the assets accumulated by the specified target date. Moreover, even within that narrow framework, there tends to be little discussion of the *risks* associated with whatever are the strategy or glide path of the TDF that is chosen; that is, what are the *probabilities* of accumulating different levels of those assets, assuming that available models and data even allow such probabilities to be fairly estimated.[88] (We explore this issue at greater length below.) And even then, there are differences about whether and how TDF funds should take account of participants' risk references (arguably bringing them closer in character to lifestyle funds).[89] For example, one firm offering TDFs argues that "to add risk-traunched target date series would not only add significantly to plan costs, but would also confuse participants, and, when confused, our experience tells us that participants will either make an election not to participate at all in the plan or to utilize common and suboptimal heuristics."[90]

Target Date Funds Use Widely Different Investment Methodologies and Formulas

As noted, the TDF concept envisions a shifting mix of assets from more to less risky assets over time as the chosen target retirement date approaches. However, even setting aside fundamental differences about the choice between "to" and "through" goals or strategies, there appear to be significant differences of opinion over what kinds of assets should be in the mix as a general matter, what the composition of the fund portfolio should be at the inception and target dates, how that portfolio should change over time, and what if any other actions should be taken over that period.

Thus, one major set of issues pertains to how assets are periodically rebalanced, that is, what the glide path is. Fund managers generally appear to agree on the need for a shift over time from more to less risky assets, the former usually being associated with equity assets. But opinions on the amount of equity before, at, and even beyond retirement differ widely.[91] For example, just a few years ago, TDFs were criticized by some for having levels of equity that were too low, in light of the need to take into account of inflation and longevity risk. At the time, most TDFs held equity at levels of no more than 90% initially for young investors, and as low as 35% for investors who had reached retirement.[92] However, TDFs have recently been the object of the opposite criticism; that their equity exposure is too high. This criticism may stem, at least in part, from an increase in the average equity held in target-date funds, which reached 68% at year end 2007 – up from 55% in 2002. Among those fund families which have been the object of critical comments were Vanguard and Fidelity, both of which raised the proportion of equity in their funds in 2006 and the beginning of 2007.[93] Perhaps most striking is that 2010 funds had the highest increase in common stock allocation, going from 41% in 2006 to 57% in 2007.[94]

The level of equity at the end of the glide path, namely at the targeted retirement date, has also been criticized because major losses near that time can cause serious and long-lasting harm for retirees.[95] Indeed, the situation of participants in many target-date 2010 plans, who have suffered greatly during the current economic downturn is a case in point. Despite the close proximity to retirement, the four largest 2010 funds maintained significant levels of equity, on the average, 52.2%**.**[96] For some 2010 funds, the figure was far higher: among a sample of funds, the percentage of equity in 2008 ranged from 26.0% to 72.0%.[97] As a result, losses for 2010 funds during 2008 ranged from -9.1% to -42.1% [98] For that year, the average loss for a 2000-2010 fund was -22.8%.[99]

While the possibility of a plan participant near his or her ostensible retirement age suffering extreme losses is problematic, there are arguably issues for the long term as well. For example, it is true, that, as a result of the (modest) economic recovery, 2010 TDFs returned an average of 22.4% in 2009. However (as of May 13, 2010), five-year total returns of 2000 to 2010 TDFs were just 3.17% (implying compound annual returns in the range of 0.5%).[100] For those 2010 TDF funds that reported 2010 five year (total) returns, they ranged from –10.1% to 5.2% (implying compound annual returns from roughly -2.0% to about 1.0%).[101] So for this particular cohort of would-be retirees, returns during the last years before their retirement yielded very poor returns.

Yet another point in contention has been the slope or even the shape of glide paths, that is, the rate at which they convert from risky to less risky assets. For example, a major investment consulting firm recently advocated changing glide paths so that the composition of the portfolio shifts from equities to bonds over a period of five years prior to retirement rather than 15 years. The assertion was that this would help investors withstand stock market volatility.[102] Arguments over glide paths extend to the post-retirement period (presumably insofar as a "through" strategy has won the day). For example, it has been said that "a participant is financially at risk the day that he or she retires because he or she has, at the point, the longest time to live and therefore the greatest amount of time for which he or she needs to fund retirement income," so the post retirement glide path should be "flat rather than sloped."[103] According to a different view, "the proportion invested in equity should be `hump-shaped' rather than a linear function of age."[104]

These debates over the proper level of equity investment are examples of a more general problem, namely that "there is little standardization among [identically-dated funds]."[105] For example, as of mid-2008, the Fidelity and T. Rowe Price families' 2010 target date fund held 49.7% and 61.5% in equities, respectively. For the 2025 TDFs the equity exposures were 70.3% and 84.5%, respectively.[106] According to another report in September 2009, 2010 funds spanned an equity range from 72% (AllianceBernstein) to 26% (Wells Fargo Advantage).[107] Generally speaking it appears that the further away the target date the narrower the range of equity allocations across funds (with minimal difference for 2055 funds).[108]

Managers' investment strategies with regard to the frequency or regularity with which they make changes to the asset allocation also appear to vary greatly. Some seem to alter the composition daily, while others may maintain it for years.[109] In addition "[t]here is little consensus…about how to approach allocating among the subasset classes."[110] More generally, there are a wide variety of approaches regarding which alternative investments are suitable or desirable for TDF funds.[111] Recommendations range from including TIPS on one hand to investing in emerging equity, REITs, private equity, and infrastructure on the other.[112] There are correspondingly disparate perspectives on how aggressive or conservative those strategies should be with respect to the mix of domestic publicly traded stocks and conventional bonds. In certain respects this multiplication of asset classes in which contributions are invested along with the adoption of a wide range of investment strategies seems to be tracking or reproducing what has occurred with defined benefit plans.[113] Insofar as fund managers employ esoteric or complex strategies, there may be questions about whether they have (or have retained those) with the specialized skills needed to properly formulate and execute those strategies. [114]

In addition, some investment managers consider active portfolio management along with efficient portfolio rebalancing and cash flow management as important to generating substantially higher returns over the long run, while others apparently do not.[115] Active management of most of the portfolio appears to be the predominant model. Among the largest managers, Vanguard actively manages very little (2.6%); Principal and Fidelity manage virtually all (98.7 and 96.15%, respectively), and T. Rowe Price, a very substantial amount (80.6%).[116]

Yet another set of issues arises with respect to fund managers' approach to post-retirement investing (again, assuming that one decides to take a "through" approach.) For example, if a person's risk profile changes after retirement, that has implications for portfolio composition, returns, and desirable or even necessary patterns of withdrawal to ensure sufficient funds for a person's entire lifetime (and perhaps even that of his or her spouse). Moreover, even where there is attention to the post-retirement period, the sensitivity of retirees to risk and their willingness to retain volatile assets is unknown.[117] Here, the recommendations of investment analysts differ markedly as well.[118]

There are even basic problems with fund terminology or descriptions. As noted, that funds have the same target date does not imply that there are meaningful similarities among them. Moreover while various firms may refer to their TDF as a "moderate fund," they mean different things by their use of that term.[119] Further, the investment fare offered by TDF fund managers is said to lack transparency about the details of the investment strategies used. For example, prospectuses often fail to inform the purchaser about the holdings of the underlying funds (beyond the broad categories of stocks, bonds, and cash), or what the portfolio manager's approach is.[120]

It is important to consider why there are such divergent approaches and the disparate rationales for them. To some observers, they might well be thought to arise from a reasoned and disinterested process. However, some critics have taken a less benign view of the matter. For example, it has been suggested that the reason parent companies offer funds with high equity allocations near the target date is because stock-based mutual funds are more profitable for them than (comparatively-safer) fixed-income funds [121] Other commentators charge that the TDF providers were in a race for returns in 2006 and 2007 – one which arguably was spurred by providers' drive for greater short-term performance – because returns are crucial criterion for purchasers when comparing one fund with another.[122] (Arguably such putative behavior may reflect a broader pattern of "gamesmanship" by fund managers.[123]) As noted, the significant losses suffered by TDF funds, including 2010 fund, was stark evidence of the serious adverse consequences of their holding high equity allocations.[124]

From this perspective, the debate between those who advocate that the tasks TDFs should be "completed" by the target date, and those who argue that they should serve as life-long investments, could take on a darker hue. That is, the choice by many companies to portray their TDFs as lifetime funds affords them occasion to reap additional profit in two important ways. First, it encourages investors to keep their money with the same asset manager for years past retirement. Second, this longer horizon can justify managers employing higher equity allocations closer to (and even beyond) retirement, affording them greater income because equity investments generate higher fees. While the foregoing might seem highly speculative, if one considers the possibility that these companies' use of higher equity allocations was driven by competition in the pursuit of returns (and in turn higher manager revenue), then the picture is one of great incentives to load TDFs with unnecessarily large and perhaps dangerous amounts of equity.

Another set of problems – ones which appear to originate with the constituent mutual funds – relates to the asset allocation manager's report not necessarily fairly representing the actual investments that are made. According to one critique, "most funds only invest 70 to 80% of the assets that fit the classification of their fund. Most in fact report that they can invest up to 25% in foreign securities. Many allow for significant percentages to be lent out in the form of securities lending programs, without disclosure and investment policy information to explain how they would invest the collateral."[125] Many use derivative strategies as well. Apparently many funds report having the authority "to invest up to 10% (some with no specified limits) of the assets in these types of strategies." [126]

Finally, a potentially fundamental issue – one which arguably cuts across the broad range of approaches to fashioning glide paths – relates to the regularity of contributions. One would imagine that the models by which the outcomes for different glide paths are calculated recognize and take account of the anticipated projection or flow of plan participants' contributions from year to year. That is, the projected outcomes depend upon the timing and amount of contributions and investment returns for the periods starting with the points in time when monies from various contributions first become available. It would also appear quite likely that insofar as TDF asset managers take account of the flow of contributions, they assume that the flow is uniform over time in amount or as a percentage of anticipated pay. However, for a variety of reasons, a particular person's pattern of contributions over time seems to be quite irregular.

For example, according to one extensive study of the pattern of contributions of those people who contributed at least once to an employer-sponsored tax-deferred retirement plan between 1990 and 2001, the patterns "bec[o]me increasingly variable as the length of the contribution period increase[d]." Thus, an increasing fraction of people had patterns deemed to be "fluctuating"– because "contribution rates rose and fell during the period" – with over half (53%), being so characterized by the end of the 12 years. Another 5% had "at least one complete year with no contributions between years with positive contributions."[127] Even though about 14% had a "steady" pattern, this meant only that "the annual change did not exceed one percentage point *in any years with contributions,*" not necessarily that contributions had been made in every year.[128] In all events, the consistency and size of real life contributions (and other working career-related characteristics) has a significant impact on final asset accumulations – a broad and extremely important matter to which we return below.

Questions About the Basic Concept

The concerns described above arise out of differences in approach to implementing TDFs, and thereby presuppose the validity or at least the merits of the general conceptual framework for these products. But the framework itself has also been challenged.[129]

For example, TDFs have been criticized precisely for the "one-size-fits-all" model on which they are based. Because TDFs are selected according to only one factor – the age of the account holder (and only occasionally, his or her preference for risk) – these funds may be unsuitable for many investors. As one report graphically phrased it: "how could anyone be so naive as to think, say, a top executive of a company and a janitor should have the same portfolio because they are the same age and claim to have the same risk tolerance?"[130]

Others find TDFs to be problematic because they do not appropriately account for outside assets. In the first instance, TDF design presupposes that all of a participant's (or, perhaps at least, all of his or her assets geared to retirement) are invested by means of the TDF. But if he or she holds significant assets outside of the TDF, that upsets the balance that the TDF allocation is ostensibly intended to achieve. As a result, the person's profile of investment risk will be changed. Related concerns arise when a person has an additional source of retirement income, such as a defined benefit plan or Social Security benefits; or equity in a house or a business.

There are related concerns with regard to non-financial assets. For instance, how should one factor in a person's human capital (often understood as an individual's future earning power)? Some would analogize human capital to a bond that is finally paid at retirement – the date you stop working. The present value of this human capital/wealth at any given time would be calculated using a properly chosen discount rate to the anticipated remaining income stream. On this logic, a correct weighing of human capital (or wealth) might require one to invest in a very high amount of equity early on (perhaps 100% of the portfolio), with significantly less near the time of retirement.[131]

But, of course, different kinds of workers – from a professional athlete, to a banker, to a construction worker, etc. – have very different potential work or employment trajectories. Moreover, those trajectories – both in terms of whether they might be employed and how as well as what they might earn – are likely to correlate to varying degrees with the behavior of equities and other securities. (Indeed, the conventional logic of TDFs has been questioned on these grounds.)[132] Therefore, if taking account of human capital is appropriate to any glide path analysis, doing so is no mean task.[133] The problem is related to an issue raised by one scholar, namely, whether plan sponsors might or should design TDFs for their employees in light of the industry in which they work, the notion being that such customized TDFs might underweight investments in the industry in which the employees work and avoid company stock altogether.[134]

In any case, the question is not simply whether a “set it and forget it” investment product can incorporate these considerations. Rather, there is also the matter of whether it can (and should) be revised at appropriate times as these issues arise. Certainly, a glide path ensures some periodic revisions of the asset allocation. What is less clear, though, is whether there is a need for a person to assess whether such an investment continues to be appropriate as the individual ages and their circumstances change, or at least for major changes in that person’s life circumstances (illness disability, employment, or simply changes in his or her appetite for risk).

There are other, investment-timing issues raised by the ostensibly hands-off, “set it and forget it” model For example, one scholar has questioned whether a mechanical and predestined glide path is really appropriate, pressing instead for periodic revisions to the portfolio in light of changes in the market. However, even if, in principle, there is merit to such short-term or tactical decision-making, there remain questions about the expense fund participants would incur for it, as well as their being able to make an informed judgment about the managers chosen to make such decisions and/or to the particular methodologies they might use.

Other challenges to TDFs go to the heart of the concept. For example, one critic of TDFs and advocate for target risk funds – in part drawing on some of the issues noted above – argues that TDFs “have critical limitations that include the inappropriateness of age-based rules for defining risk and…unregulated management and risk control policies.” He adds that with respect to the former, “[n]o formal, credible financial theory exists or can exist that rationalizes age-based risk for long-term investing” because it “ignores wealth level, income volatility, risk aversion, the health of an individual at a point in time, marital status that changes over time, and legacies for the future” and because “[e]ven empirically, age is on average unrelated to risk.” [135] (Offering a bit more cynical view of the matter he contends that ”[a]ge-based rules are basically artifacts that facilitate fund sales.

Age-based choice simplifies sales while encouraging investors to stay in the same fund until retirement."[136]) By contrast, as noted above, incorporating risk traunches only adds to costs while likely confusing plan participants.[137] Regardless of one's particular position with respect to that dispute, there are other serious issues about how realistic the judgments are of those who devise or adopt TDF investment strategies, both in understanding how participants view risk, and also whether their judgments are colored by certain biases.[138]

Other critics have expressed concern about other "traps, fallacies, and worst-practices" that may not be attended to, including mistaken notions that stocks are a hedge against inflation, the "fallacy of time diversification," that is, that "the risk of holding risky assets somehow decreases with the length of the holding period"), and exclusive "[r]eliance on probability statistics as a measure of risk" (that is, focusing only on the probability of a target being met without accounting for the additional matter of the magnitude of the shortfall).[139]

More generally speaking, it would appear that the vast majority of approaches are undergirded by Modern Portfolio Theory (MPT); yet serious academic and practitioner critics contend that key assumptions that MPT makes are wrong. If so, then TDF investment strategies grounded in MPT misestimate the risks that fund investors face.[140] Moreover, glide paths, which are "routinely" designed using "[m]ean/variance optimization (MVO) and Monte Carlo simulations," usually have historical data as input, but it is not clear that one should rely on such data.[141] Also, it is argued that MVO doesn't accurately capture risk.[142]

Participant Behaviors Undermine the Efficacy of the TDF Model

Apart from difficulties with the TDF concept and design, there are other serious problems which arise in practical application, simply because the *actual behavior* of participants appears to diverge from that which the models assume.

For example, many investors appear to misinterpret the purpose of TDFs as an "all-in-one" investment product, because they supplement their TDF with other securities, sometimes investing in multiple TDFs themselves. This effectively throws off the asset allocation of TDFs, taking the investor “off-target” in terms of the risks that person takes in relation to his or her target date.[143] So, according to a recent report by Vanguard on participants in those 401(k), 403(b), and other employer contributory plans for which it was record keeper and which offered TDFs – whether by automatic enrollment or otherwise – for only 46% was the TDF their sole investment. An equal percentage invested in both a single TDF and other, non-TDF investments. (An additional 2% invested in two or more target date funds, with no non-target-date assets. The remaining 6% of participants held two or more TDFs, as well as non-TDF investments.)[144] Similar results were found in an earlier study.[145] Because Vanguard’s prior research suggests (not surprisingly) that those holding *only* TDFs (“pure investors”) “are more likely to be younger, lower-wage participants who are defaulted into a single-fund option,” this would imply that a relatively higher percentage of non-automatically enrolled TDF investors hold non-TDF investments. It remains to be seen whether over time, those among automatic enrollees in TDFs who remain as plan participants will make an active choice to move into non-TDF (or perhaps multiple TDF) investments as well.[146]

In all events, critical are the two ways by which the Vanguard study suggests these outcomes might be interpreted. Participants may look at TDFs as a “lower-risk, equity-oriented option;” or they may not comprehend the diversified nature of these funds.[147] Vanguard categorizes the reasons for the results as either “rational” or “irrational.” Rational investors may be taking an “incremental approach” to using TDFs, placing only a portion of their assets in a TDF in order to give it a “test-drive” before committing fully. By contrast, irrational investors might be employing TDFs as a form of “naïve diversification,” in which they recognize the diversified nature of TDFs, but simply assume that “more is better,” combining the TDFs with other funds.[148] An alternative view of the matters is that the tendency to engage in “mixed” investing is a sign that TDF participants do not “feel diversified” in their holdings, largely due to a “lack of clarity” arising from not having chosen the investments themselves.[149] A related study by EBRI, though based on a somewhat different sample and categories yielded a broadly similar conclusion: “[S]ome mixed TDF investors (particularly, low-level TDF users) may fail to understand that a target-date fund is designed as an ‘all-in-one’ retirement investment solution.”[150] While another research report suggests that misuse of TDFs in the way described is not common, it is not clear how that conclusion squares with other of the findings in that report.[151]

The problem of accumulation of multiple TDFs may result in other ways. In the course of a working lifetime people are likely to hold many jobs, perhaps an average of ten.[152] Imagine, for example, the highly unlikely scenario that all employers have retirement plans for their workers, that those plans are all defined contribution plans, and that all use automatic enrollment with a TDF as the default investment. There is no reason to believe that the available choices of TDFs across employers would be the same. Indeed, that seems improbable. The result would be that workers would have investments in multiple, perhaps very different TDFs, an outcome which, at first blush, would be inconsistent with TDF goals and designs. Given that TDFs would be default investments, presupposing worker inertia there might well be little movement away from that default investment. Hence, worker awareness and scrutiny of any multiple TDF problem (let alone action to remedy the problems) would hardly be expected. Indeed, the sheer complexity of participating in multiple plans over time could be daunting.

While some of these problems might be ameliorated if workers' assets in their prior employers' plans were to be consolidated with assets in their new employers' plans, this scenario appears unrealistic. Employers are not currently obliged to allow their workers to roll over assets from former employment-based plans into the current plan they offer. While employers are required to allow people no longer working for them to keep their assets in the employers' retirement plans, insofar as they do, that fact and worker inertia might well reinforce the fragmentation of worker plan assets. Further, it is well known that there is substantial leakage of retirement plan assets at the time when people leave their jobs (see discussion below).[153] Assets diverted for other, perhaps laudable purposes (such as paying off debts, going back to school, etc.), are, of course, lost to workers striving to build financial security in retirement. In some cases, leakage may be into IRA accounts which are ostensibly self-managed. However, it is not at all evident what the impact of such diversion of assets into IRA accounts would be for accumulation of retirement assets. In the first instance, though, it would seem to wreak havoc with thinking about default investments in general and TDF versions of defaults in particular.

Further, insofar as workers leave participation in plans "behind" there may also be problems with workers simply losing track of their plans and/or previous employers losing track of former workers and their plans. For example, Australia has a near universal government mandated scheme entailing requiring employer contributions to and worker participation in employment-based defined contribution type plans. Each employer offers its own vehicle for investment management. (Moreover workers may choose an investment vehicle other than that offered by their employer and change their choice of vehicle essentially at any time.) According to a recent report, 10.5 million participating Australian workers were owners of some 27.9 million accounts overall in 2005. The number has been estimated to have increased since then. Of those workers, an estimated 4.3 million held multiple accounts, suggesting that this problem was concentrated among some sub-groups. Further, the study asserts that 5.4 million accounts were officially listed as "lost."[154]

Still other issues are inherent in the key reference of TDFs to a "retirement date" chosen by (or perhaps for, in a default investment context) the participant, a date at which, arguably, a shift in investment strategy is warranted. However, estimating an accurate or realistic retirement date seems to prove difficult for many people. This undermines their ability to select the TDF which best meets their needs. According to an annual survey of retirement confidence, a large proportion of individuals retire earlier than expected. These results are consistent across annual surveys (amounting to 47% of retirees in 2009).[155] Of those who retire early, just 10% cite only positive reasons. The majority refer to primarily negative factors, including downsizing/layoffs, health problems/disabilities, outdated skills, or having to care for a spouse or other family member.[156]

Further, the survey results suggest that workers might not take such important, adverse scenarios into account when they determine their retirement age. For example, respondents who claim to have "fair or poor" health nevertheless estimate that they will retire at a slightly later date than the average date estimated by those in good health, defying common sense.[157] By contrast, there is evidence which suggests that such destabilizing events close to retirement may be more common than not. More particularly, a survey of adults who were between the ages 51 to 61 in 1992 revealed that approximately 7 in 10 experienced serious health problems, unemployment, or lost spouses (due to death or divorce) within the following ten years. About one-third developed health problems that resulted in work disabilities.[158] It is not clear how prevalent these issues are among only those who are under the age of 65, but the study does suggest a high probability of serious incidents prior to, or shortly after, the currently more typical date of retirement (between the ages of 62 and 63).[159] Because such incidents can potentially result in substantial adverse financial consequences, negatively affecting retirement savings either through reduced contributions, or unanticipated withdrawals, these results may render determining a meaningful target-date problematic, insofar as that target-date is linked to amassing a certain amount of savings by a specific date.

There is yet other evidence to suggest that participants lack an understanding of the basic facets of TDF investment. According to a recent consulting firm survey of a small (though ostensibly representative) sample of American workers provided with a composite of actual promotional material from three premier TDF providers, respondents gave answers which not only were incorrect, but also indicated that the respondents might have dangerous notions about those funds, the risks of loss and the possibility of returns being guaranteed, their ability to retire on the specified target date, and their need to track investment and savings decisions.[160] Any of these beliefs could lead to harmful or inappropriate investment behavior, ultimately resulting in a lack of preparedness for retirement. More particularly, the firm reported that 61 percent of respondents said that TDFs made specific promises; that among them, 70 percent described promises they thought TDFs made that did not "in fact, exist."[161] Such promises included that "they will be able to retire on the target date" (60%), that TDFs "offer a guaranteed return" (38%) and; "they can save less money and still meet their retirement goals if they invest in a [TDF]."[162] The study suggests the focus on simplicity of TDFs "may cause people to misperceive them as a superior retirement investment solution along many dimensions, not just asset allocation."[163]

In addition, plan sponsors may unintentionally promote misguided investment behavior among participants. Some research points to participants using simple rules of thumb when making investment choices, such as avoiding extremes and moving towards more moderate options. However, just how "moderate" the options participants select actually are depends largely on the other choices provided by the plan sponsor. For example, when selecting among three portfolios labeled conservative, moderate, and aggressive, many participants will select the moderate option regardless of whether the equity allocations for the three portfolios are 0%, 40%, and 80%, respectively, or whether the equity allocations are 40%, 70% and 100%, respectively.[164] Applied to TDFs, this research might suggest that many individuals could find themselves drawn to funds that label themselves as "moderate," despite having equity allocations at retirement that are 50% or above.

Other evidence of plan participants' misuse of TDF accounts is reported in a late 2008 asset manager survey of 503 401(k) plan participants who held at least one TDF in their accounts and either were contributing to the plan and/or held at least $1,000 in those accounts.[165] The authors found, first, that participants were "over-diversified," namely, they used the fund "as tandem investments rather than as a single all-inclusive investment option or as a [QDIA)."[166] On average most owned approximately six TDF and other funds, and they held on average 59% of their 401(k) assets in those TDFs.[167]

Such choices rested ostensibly on participants' mistaken belief that by such ownership they were better able to achieve a more diversified portfolio and/or were better able to achieve their desired retirement income.[168] The nearly one in six who held more than one TDF did so based on inappropriate reasons such as uncertainty about when they would retire, choosing a fund based on when they anticipated leaving their employer (not their expected retirement date), and "seeking more upside potential."[169] Strikingly, not only did four in 10 respondents hold such misconceptions, but those errors "[cut] across all ages, income brackets and education levels."[170]

Perhaps even more striking was that a signification fraction – in many cases far more than a majority – of those surveyed had these and other significant misperceptions *regardless of the primary source of their advice*, which included employers, 401(k) administrators, those providing advice through the 401(k), outside professional advisors, friends, family and co-workers, and independent investment research.[171] Interestingly, far more of those who relied on employers as compared to others had the mistaken belief that "[l]ike a pension, my target-date fund guarantees me a certain income once I retire."[172] If one accepts the premise that lower income and less educated workers might make less informed and worse decisions, then the findings described above are frightening because the demographic profile of the survey was that of a relatively well-educated and higher income group of plan participants.[173]

The Lack of Credible, Shared Benchmarks by Which To Assess or Compare TDFs

The ability to meaningfully assess and compare TDFs is an oft-cited source of concern. Unlike with individual mutual funds, there appear to be no widely-accepted benchmarks by which this can be done for TDFs.[174] Indeed there seem to be sharp differences of opinion about how benchmarks should be crafted. Moreover, according to one investment consulting firm's survey, 85% of TDF managers "used proprietary benchmarks in evaluating the performance of their [TDFs]" which incorrectly focused on "measuring excess return, the return relative to the asset allocation" rather than "the appropriateness of the asset allocation itself."[175] By contrast, the firm contends that the benchmark should be "[a] consensus glide path index [which] reflects the range of [TDFs] available to the plan sponsor."[176]

These problems are further complicated by the short track record of most of these funds. Even when past-years' performance is provided, TDFs can be difficult to compare because the investor must assess entire portfolios containing different types of securities, each with a different (non-linear) glide path. The difficulty of evaluating TDFs makes this "simple solution" rather complex in terms of fund selection, and because there is no easy way to track target-date fund performance, one journalist has commented that TDFs "may prove to be much more cumbersome and time-consuming to monitor. A plan sponsor could conceivably have eight different portfolios that require monitoring, assuming its employee base ranges from 25 to 65 years of age."[177] For fiduciaries, whose responsibilities include periodically evaluating the menu of investments they offer, these issues are especially important.

A more general problem which makes the task yet more difficult for fiduciaries (or for that matter, certainly individual investors) as well as those who would benchmark funds for investors is lack of transparency in "[fund families'] explanation of their strategies and operations in public disclosure." This has led one major research firm to suggest it was "tough – if not downright impossible – for individual shareholders to understand how their target-date funds were designed and how they'll work (and may perform) going forward." Moreover, there is a lack of "detailed, timely, and useful information on target-date funds' underlying investments."[178] This, in turn, makes it difficult to determine whether to determine whether "funds' actual allocation [has] strayed from the allocation goals."[179]

For example, according to one critic's review of a major TDF fund offering, "20 of 24 underlying funds in the 2030 target-date fund failed to meet their own criteria." The fund not only "included 4 asset classes not authorized by the [Investment Policy Statement] IPS," but also arguably they were "specialty asset classes which pose substantial risk the plan sponsor had no idea were even utilized."[180]

TDF Fees Are Plagued By Concerns about Conflicts of Interest, Lack of Transparency, and Oligopolistic Practices

The fees charged for TDFs are an important matter of contention. Fees dramatically affect the assets that plan participants accumulate over a working lifetime and, in turn, the retirement income stream that can be derived from it. Indeed, according to one study, "differences in TDF design have a significantly smaller effect on retirement income than fees."[181]

Mutual fund TDFs are essentially "funds of funds." That is, investments in stocks, bonds, or other assets are made through the purchase of shares in other mutual funds. These mutual funds, of course, charge fees. On top of those fees, a number of TDFs typically charge a management fee, or what is sometimes termed an overlay fee.[182] In such cases, participants must pay not only the fees of the constituent mutual funds, but also the fees imposed by the firm which created and operates the TDFs. These charges can significantly erode investment returns over the long term. According to the president of one advisory firm, "lifecycle funds are made up of a group of underlying funds, so plan sponsors need to dig into the expenses of each one…If companies see 'zero' for expenses, that might just mean there is no overlying fee. But there will still be expenses associated with the underlying funds."[183] The consequence of these layered fees, suggests one analyst, is that "most [TDFs] have lower expenses than actively managed funds, but have substantially higher fees than Exchange-traded Funds (ETFs) or index funds" (though this depends on how many of the underlying funds are actively managed or invested in ETFs or index funds).[184] This issue looms large because it may effectively be the employer who decides which TDFs will be included in the investment menu for employees, yet it may well be employees who ultimately pay the fees. At first blush, under these circumstances, employers do not have a great incentive to select funds with low costs.

Estimates of these fees vary widely.[185] According to a major consulting firm report in 2010, retail mutual fund TDF fees ranged from 0.19% to 1.82%, with an average of 1.04%, while institutional mutual fund fees ranged from 0.19% to 1.41%, averaging 0.73%. (By contrast, institutional commingled fund fees ranged from 0.17% to 1.03%, averaging 0.55%.)[186] According to a fall 2009 survey of the industry, asset-weighted expense ratios ranged from 0.19% to 1.34%. While the lowest figure was for the number two industry player, Vanguard, with the first, third, and fourth industry players, Fidelity, T. Row Price and Principal, coming in at 0.69%, 0.73%, and 1.03%, respectively, "more than half the industry's fund series have annual expense ratios exceeding 1%."[187] In addition, there may well be overlay fees, an extreme case being State Farm's 1.06% overlay fee (on top of a 1.34% expense ratio).[188] According to one count, "26 of the target date mutual fund families charged an overlay fee and used proprietary funds" as of December 31, 2007."[189]

As suggested above, the length over time and the shifting composition of glide paths raise concerns about perverse financial incentives. For example, it appears that TDF fees have an inverse relationship to the proximity of the target-date. That is, if a fund's target date is very near or has already passed, it will have lower fees than a fund from the same family that has a target date decades away. A primary reason for this may be that distant target dates are associated with a higher percentage of equities, and there are higher fees associated with equities. For example, as of May 2008, Fidelity's Freedom 2000 fund had an expense ratio of 0.51%, while its Freedom 2050 fund was 0.80% [190] For T. Rowe Price, the costs ranged from 0.58% for its 2005 fund to 0.73% for its 2055 fund.[191] Vanguard, renowned for its comparatively lower prices, charged just 0.19% for its Target Retirement 2005 fund, and 0.21% for its Target Retirement 2050 fund. (Vanguard levies a $20 annual fee on any individual account with less than $10,000 and fails to meet certain conditions, which affect these percentages substantially for small accounts).[192] In all events, regardless of the target date, the higher the percentage of equities (or perhaps other higher fee investments) the greater the provider fees. Of course, "through" TDFs are, relatively speaking, more likely to have a greater percentage of higher fee investments, so in that respect such TDFs are more financially rewarding to providers for that reason alone.

Other criticism of TDF fees comes from a different direction. For example, one observer remarks on the putative low level of sophistication of TDF products in relation to their relatively high costs. The contention is that while the average 2040 TDF has much in common with an S&P 500 Index Fund, because it is heavily invested in large cap, domestic stocks, while "the S&P 500 Index fund may cost [0].25 percent in fees, the [target-date] options may exceed 1 percent."[193] The comparison is even more striking given that a TDF incorporates a glide path that decreases the equity allocation over time, while the S&P 500 Index fund, by definition, remains 100% invested in equity[194]

Concern over fees is heightened by the fact, noted above, that a handful of fund families manage most of the assets held in TDFs, a situation one commentator refers to as "oligopol[istic]."[195] The reasons for why such an oligopoly has emerged are important not only for the discussion of TDFs, but also for what alternative default investments might be on offer by mutual fund or other asset managers. For example, it is said that the distribution model of TDFs is critical to the success of these dominant players. Currently, the distribution model is one in which plan sponsors offer participants a number of a firm's TDFs (so as to provide a complete list of different target dates), these often being the only TDF choices on the menu.[196] In the first instance, such an outcome results from when the parent company's funds constitute the menu of investment vehicles available to make up the TDF asset portfolio. According to a recent report, "71% of leading investment complexes offering target-date options only invested in their own underlying funds."[197] The importance to TDF providers of being able to channel TDF investments into their own mutual funds is highlighted by the estimate that "[i]n one leading provider, the indirect investments through the target-date fund of funds represents almost 100% of the total assets in 2 of its funds and over 50% of total assets in 9 other funds."[198]

Serious concerns have been raised about the harm from TDF managers' use of "closed" versus "open architectures" although the precise impact is in dispute. For example, in its annual TDF survey, Morningstar concluded that neither architecture yielded performance significantly different from the other.[199] However, a firm that specializes in retirement plan and investment research sharply differed. It contended that closed TDFs have more aggressive glide paths as a result of higher average equity allocations, an outcome attributed to incentives of managers to earn larger fees associated with higher allocations. It argued that closed funds were much more likely to use higher cost active as compared to passive management of the underlying investments. Finally it found that while neither open nor closed funds added value through fund selection, closed funds subtracted an additional 1% a year from returns than open ones.[200]

While channeling is in and of itself a problematic practice (see discussion below), the ability of dominant providers to prevail in doing so is strongly linked to another role they play, that of plan record-keeper, and how they might leverage that role to require or spur plans to adopt the firms' own "proprietary" funds. The extent of the use of such leverage and its effectiveness has been hotly debated.

For example, the leading U.S. mutual fund industry advocacy organization, the Investment Company Institute ("ICI") cited a survey of 11 defined contribution plan record keepers (representing nearly 62,000 plans and over $600 billion in assets in early 2008) stating that nearly three-quarters of them reported that they offered non-proprietary TDFs. Among the subgroup of record keepers with proprietary TDFs, two-thirds were said to have made available alternative (non-proprietary) TDFs from which plans could choose.[201] However, there are several problems with these assertions. First, the accuracy of the numbers is disputed. Second, the accuracy of the numbers is really beside the point; that is, the question is less whether non-proprietary choices are made available, and more on how frequently plan sponsors take advantage of these choices, and why.

Thus, one retirement plan and investment research firm contends that the cited survey is not entirely clear as to whether the respondents were bundled or independent record keepers. As noted above, "bundled" record keepers provide their proprietary TDFs along with their recordkeeping services. "Independent" record keepers do not provide proprietary TDFs in conjunction with their services. Similarly, bundled TDFs are those that are proprietary products provided by the record keeper, in contrast to unbundled or third-party TDFs, and custom TDF products designed as collective investment trusts or as mutual funds. According to that firm's own study, which drew on data pertaining to *four of the top eight bundled record keepers* (representing nearly 75,000 plans, 22 million participants, and almost $900 billion in assets), approximately 94.1% of plans served by these bundled record keepers had proprietary TDFs.[202] These four record keepers – Fidelity, Vanguard, T. Rowe Price, and Principal – were also, as noted above, the *top four TDF mutual fund providers*.[203]

Thus, the contention is that plan sponsors largely select the TDFs of their record keepers "irrespective of whether that record keeper is a mutual fund complex or insurance company." Further, the firm notes that even when plan sponsors select non-proprietary TDFs, it is not clear if this is by choice, or simply the result of "legacy assets left over from a change of providers."[204] Indeed, it is also unclear whether this indicates a systematic problem with plan sponsors, record keepers, TDF asset managers, or all three. It would appear that many of these record keepers "stipulate adoption of their proprietary asset allocation funds (either target-date or target-risk) as part of the plan line up" and "[s]ome go as far as to require mapping to target-date options as part of the transition from one provider to another."[205]

Consistent with what we describe above, it appears that smaller plans often find it prohibitively expensive to create CITs. In some cases, providers like Vanguard "don't even recordkeep non-proprietary funds," so the only choice is to make what might be a difficult decision – difficult because "moving to a new platform is time-consuming and costly."[206] In other cases "[t]here are large pricing differences" should non-proprietary funds be chosen.[207] Depending upon where the costs of different choices fall, plan sponsors themselves may be failing to fulfill their fiduciary responsibilities by choosing the bundled TDF for a reason other than cost to the plan participant.

Whether as record keepers or otherwise, the relative success of TDF providers in channeling monies into their own mutual funds raises a variety of issues. It means that the mutual funds selected may not necessarily be the best available. Indeed, some commentators contend that it is implausible that a TDF provider will offer superior management for all of the underlying, proprietary funds in which it is invested. Moreover, while there might be advantages to managers of the various funds being employed by the same company, that they would be guided by "the same philosophy" and informed by the "same research resources" might well be a disadvantage.[208] Moreover, the concern is not merely a matter of lower competence. There is clearly also a divergence of interests between the investor and the provider, because, as suggested by the figures cited, channeling offers a financial incentive for a TDF provider to boost the enrollment in one of its own underperforming or unpopular mutual funds.[209]

While efforts at channeling TDF monies into proprietary funds discussed here are explicit in their nature and goal – solving providers' distribution problem – it is not unlike more subtle or indirect forms of channeling by mutual fund providers. From a financial perspective, clearly the goal is to maximize the amount of assets managed, because fees are charged as a percentage of assets managed. Presumably among the motivations for providers offering large families of mutual funds is to offer alternative investment choices for customers who have become dissatisfied with those of the providers' funds in which they have been invested. In addition, offering a large family of funds allows providers to anticipate that at least some among them will yield better returns than comparable funds of competitors and advertise only the winners as a means to sell the family as a whole.[210]

Even if sponsors recognize and act on the connection between providers as record keepers and asset managers, breaking that connection may not be simple or easy. According to a survey in July 2009, "[o]nly 2.21% of plan sponsors with less than $100 million in assets indicated that they were thinking of changing their record keeper or actively searching for a new one," a drop from 10% in 2005.[211] Curiously though, the same source states that "many plan sponsors are very dissatisfied with their record keepers."[212] According to the CIO of a major asset manager, even though a plan sponsor might be unhappy with one or more of a TDF's underlying investments "there is nothing to do – short of moving to a different target-date provider, and perhaps another record keeper. This logistical challenge tends to keep plans locked-in to proprietary target-date providers."[213]

Questions About the Abilities of, Incentives for, and Stakes Held by TDF Managers

A prominent survey of TDF industry practices also raises red flags about the adequacy of asset managers' skills and the financial incentives given to those managers. Because of the relatively brief history of TDFs, the survey focuses on the tenure and retention rates of the managers of the TDFs underlying funds. It finds that average manager tenure ranged widely, from around 2½ years to about 23 with 5-year retention rates being as high as almost 99% to as low as 79%.[214] Arguably manager financial incentives should be linked to strong long-term performance. However, according to the survey, of 20 pay plans studied, only six clearly based “most of the managers’ compensation on generating peer-beating returns over…periods of four years or more”; four “received no credit at all for aligning their compensation plans with shareholders’ best interests.” While the remaining 10 took account of long-term performance, it was unclear whether it was “the primary factor for the managers’ compensation.”[215] Finally, the firm cites evidence that indicates a correlation between superior performance and the extent to which managers have their own assets at risk when they make decisions on behalf of the fund. It is suggested that fund managers’ have at stake at least a $1 million ownership interest in the core funds they run. According to the survey, most managers do not have such a stake. Of 58 managers of the TDF series studied, 33 “had no investment whatsoever” and only 2 had $500,000 or more. Moreover, “the target-date managers’ investments in their portfolio’s underlying funds weren’t much better.”[216]

Concerns About Sponsor Competence and Self-Interest in Making TDF-Related Decisions

The preceding discussion has focused primarily on issues relating to those who design and/or manage TDFs and the plan participants who invest in those TDFs. There are, however, additional issues which pertain to the behavior of plan sponsors. Perhaps most striking in this regard is the report that “many employers are not even aware that they are fiduciaries.”[217]

We have already discussed the extent to which plan sponsors select TDFs that are provided by their record keepers and why that is problematic in and of itself. More generally, though, those sponsors may not fully understand the investment strategies behind TDFs.[218] According to a recent survey of 168 fund advisors, only 24% of them believed that plan sponsors understood the differences between different TDFs’ glide paths, and just 26% said that they believed plan sponsors “frequently or always had clear evaluation criteria” for choosing these funds.[219] Even though 77% of the advisors claimed that plan sponsors initially had a plan’s goals and objectives in mind, the survey found that overall, sponsors tended to select either the lowest-cost option or the one recommended by the record keeper. Advisors offer several reasons for these results. One suggests that while plan sponsors want to have a good plan, they are unwilling to spend a lot of time researching them. Another opines that sponsors lack either the staff or the time to fully evaluate their choices, and as a result, rely heavily on the judgment of advisors. Still others cite a failure on the part of sponsors to pay enough attention to the strategies behind the funds because they focus instead on costs and past performance.[220]

The foregoing suggests that sponsors often may lack the incentive or capability to seek out and offer appropriate, low-cost investment choices. They may even have conflicts of interests in making such decisions. These problems are neither new nor unique to TDFs. Recent breach of fiduciary litigation against plan sponsors highlights claims that they selected funds with excessively high fees.[221] The matter of high fees is extremely important because plan participants appear to pay the majority of investment fees and much of the record-keeping fees in employer-based plans.[222] A recent academic report suggests that "401(k) fees are so complex, confusing, or obscure that many sponsors and participants state that they do not understand either their magnitude or their consequences."[223] According to one survey, nearly 30% of plan sponsors did not "understand the fees and vendor revenue streams" relating to plans; 26% had 'never benchmarked their plan's record keeping fees"; and 18% were "not even sure" whether those fees were calculated on an asset level or participant basis.[224] More generally, one consultant/advisor remarked that "[r]etirement plan committees making the purchase decisions often don't understand the differences [as to assumptions, portfolio construction, strategy, and method of execution] in alternative products available."[225]

Some argue that even with conflicts of interest aside, many employers who act as plan fiduciaries lack both the time and expertise to execute their job in the fullest capacity. According to a 2006 study, "the majority of plan sponsors do not spend adequate time designing and maintaining their plans, understanding the fees charged for services, choosing and reviewing their investment menus, or understanding how they could minimize their legal liability."[226] More particularly, it has been suggested that it may be prohibitively difficult for plan sponsors to gain access to and utilize the information that would allow them to make sound decisions regarding plan fees. Indeed, the Government Accountability Office has said that even the Department of Labor lacks the information it needs to properly oversee 401(k) plan fees.[227] Further, plan sponsors are often not aware of additional costs (hidden fees) such as sub-transfer agent fees, where the record-keepers for a plan are paid by the mutual fund company for taking on additional work.[228] Moreover, "[t]he structure of fees does not correspond closely to that of costs."[229] In addition, plan sponsors might not be alert to potential conflicts of interest with regard to service providers, and may not always understand revenue sharing arrangements, resulting in restricted investment options or unnecessarily large fees for participants.[230] Also, "[f]ees for some services often are set high enough to subsidize the provision of other services within the plan."[231] Furthermore, "[i]n some circumstances, when the funds of a 401(k) plan are pooled with the funds of other investors, the plan's participants might be paying a share of the trading costs incurred by investors who do not belong to the plan.[232]

Plan sponsors face other challenges in TDF decision-making beyond the matter of excessive fees. As suggested above, there are an increasing number and variety of TDF products; some might even say a bewildering array of them. Part of the complexity relates to the increasingly broad range of investments that appear in TDF portfolios – "starting with domestic and foreign stocks, fixed income, and cash" and then ranging to "emerging-markets stocks, foreign bonds, high-yield bonds, commodities, and real estate, among others."[233] To these has been added the further "new wrinkle" of "incorporat[ing] low-correlation or absolute return funds that may employ a variety of complex strategies."[234] (According to one commentator, this phenomenon reflects a perceived desire or need to apply "the more sophisticated techniques and tools [used by defined benefit plans] to [TDF glide paths].")[235] At the same time there appears to be little consensus about what is the appropriate allocation to various asset classes.[236] Further, it is not obvious how many sponsors who are plan fiduciaries – let alone plan participants – are informed about and in a position to assess these allocations.

For example, recall that at the rhetorical level, TDFs are supposed to shift from ostensibly riskier equity investments to relatively more secure bond investments as the target retirement date approaches. One might wonder about how surprised sponsors/fiduciaries might have been by a report that 35% of the debt holdings in John Hancock's Lifecycle 2010 fund were junk bonds; (while other firms' funds held substantial though smaller percentages).[237] By contrast – and illustrative of the extreme variations in the composition of identically dated TDFs – "[t]hree of the nine largest target-date fund companies don't have any junk bonds in their 2010 or 2015 target-date funds."[238] Further complicating matters, it would appear that ascertaining these differences might prove difficult even for conscientious investors.[239]

Other challenges sponsors face relate to their need to examine the cost and performance of adding TDFs – or particular TDFs – to their plans. But the structure of these products, as well as their not having been around for long, can make this difficult, experts say.[240] Moreover, even comparing TDFs with the same target dates is not easy: "even where two funds have the same target date, there's a need to look at how the underlying asset classes have performed."[241] As noted above, the field is not well-established, so there is limited data on funds' track records. In addition, as with other investments, past performance does not necessarily indicate future performance. So sponsors and their consultants "need to establish predictive modeling to get a sense of how the funds will perform in the future."[242]

Given these challenges, the record of how plan sponsors decide on one TDF over another is problematic. For example, per the discussion above, according to the director of business development at a major asset manager, employer sponsors often select TDFs based on what their current record keepers offer. And although he adds that the presence of an increasing number of defined contribution consultants might check such behavior, the inference is that plan sponsors have not selected the best funds possible. As noted previously, this may offer still another reason why the field of TDFs is dominated by just a few major companies, despite the ostensible wealth of choices.[243] A managing director at a firm that advises retirement plans contends that the disproportionate success of a few companies may also be due to their short-term performance, which he suggests has been a primary factor in TDF selection by plan sponsors. The effect, he asserted, is that a plan sponsor will individually select the funds with the best short-term performance. That track record looms larger because "plan sponsors look at fees over time and are usually unwilling to pay very much for their services."[244]

A recent survey of sponsors of both large and small (by assets) defined contribution plans painted a more detailed and troubling picture of their role.[245] Most prominently, sponsors “generally do not evaluate and monitor target-date funds in the same way they do other funds in their investment menu.” Even though “nearly all agreed that the products should be held to the same [investment policy statement] standard as other funds,” “[t]he majority” had investment policy statements that do not cover TDFs.[246] Moreover, 40% “did not evaluate each individual target-date fund and its underlying funds when adopting a new target-date series, even when nearly all believed they should.”[247] Further, a majority “only offer[ed] single-manager [TDFs] even though three-quarters “believed that multi-manager [TDFs] were the better choice for quality and performance.”[248] Perhaps most remarkable, even though two-thirds were seriously concerned about being the object of litigation should they auto-enroll participants in a sub-standard TDF, “more than half…said they would do nothing if one individual fund within a series did not meet [the required] standard.”[249]

The Need to Acknowledge that TDFs *Target* Outcomes, Not *Guarantee* Them

Almost by definition, TDFs – or at least “to” TDFs – are focused on plan participants having “more” accumulated assets by the ostensible retirement date. The reality, of course, is that for reasons of investment risk alone, regardless of the design and implementation of glide paths, there is no guarantee that any particular anticipated accumulation will be realized.[250] Yet, it would seem that discussion about the probabilities of failure do not loom large in materials for the marketing of TDFs.[251] As critics have phrased it, there has been a TDF manager preference for “style” over “safety.”[252] One can only wonder how prominent and seriously it is considered by plan fiduciaries. Indeed, this lack of attention is strange given the intense focus on funding levels of defined benefit plans and, by inference, the expectations of plan participants being defeated. It is even more remarkable since defined contribution plan participants are, as described, largely left to their own devices on investment decisions (and outcomes) while defined benefit plan participants are not.

Some of the risks of failure simply relate to the nature and risks of investment decision-making. For example, there are a number of published studies of the shortfall risk of TDFs, assessed in different ways.[253] For instance, one author starts with specified assumptions about an individual, including a contribution rate of 9% of gross salary every year over a 35 year career and investments in the S&P 500 and U.S. Government long-term bonds, with the goal of replacing 75% of the individual's pre-retirement income. He calculates asset accumulation outcomes based on three different glide paths – which he terms aggressive, moderate, and conservative – and estimates what stream of lifetime income could be bought through the purchase of a single premium lifetime annuity. He finds that the probability that the individual would achieve the sought for replacement rate as ranging from 37.6% for the conservative strategy to 41.8% for the aggressive strategy. Even at a lower replacement rate, 50%, the odds of attaining it are not high: ranging from 58.3% for the conservative strategy to 34.0% for the aggressive strategy.[254] Regardless of the strategy, only when the savings rate reaches (the unusually high rate of) 14% is there more than a 90% chance of achieving the 75% replacement rate. [255].

Clearly, glide paths and particular asset allocations aside, investment outcomes and the corresponding risk of short fall depend upon beliefs or expectations about investment returns to be gained from various kinds of assets. For example, the author noted above observes in another paper that the outcomes estimated (for various glide paths) are quite sensitive to, among other things, assumptions about what returns on equity will be. Among those other considerations is that historically (and presumably in the future) projected multi-decade equity returns vary widely according to the calendar year during which the first investment is made. The author details how, in light of that variability, outcomes might differ depending upon the projected equity growth rates. He argues that "[e]ven at levels close to its historical average, the probability of a target date fund generating a real return greater than 3% a year is only 5%." He goes on to suggest that "approximately 60% to 70% of potential terminal real retirement wealth is at risk due to a nondiversifiable factor," in turn suggesting that "the traditional approach to life-cycle investing may be too simplistic." The good news would seem to be that there is, in his view, a solution to the problem. The perhaps less than good news would entail, among other things, use of "dynamic glide paths, multiperiod hedging, swaps, and options."[256]

As discussed previously, actual long-term investment outcomes are sensitive to the fees charged by TDF funds. According to one estimate for assumed aggressive, moderate, and conservative glide paths, the median projected income replacement rate that might be afforded by a conservative strategy would be 44.9% if the expense ratio were 20 basis points. If it were 140 basis points, the replacement rate would drop to 35.3%.

Stated in different terms, with an expense ratio of 20 points and a conservative strategy there would be only a 0.7% chance that the savings accumulated at retirement would not be enough to generate 25% of final salary income; with an expense ratio of 140 points, there would be a 5.8% chance.[257]

Moreover, estimates of the probabilities or prospects for failure in meeting an asset accumulation goal solely by virtue of investment risk run afoul of other critical realities. Realistic projections of what, in fact, is likely to be accumulated must take into account what at any given time is available to be invested. This, in turn, depends upon the real pattern of contributions and withdrawals that an individual makes over time. And it may well be that any would-be optimum glide path might vary with the pattern. Again, while there have been some academic and think-tank type studies that take into account these and other considerations, it seems relatively rare that materials used for selling to or decision-making by plan fiduciaries take serious account of them.

To their credit, some asset managers do highlight these concerns. For example, a study published by one stresses the differences between the optimistic assumptions made by most TDF managers, and the more realistic assumptions that ought to be employed.[258] For example, its authors eschew typical assumptions to the effect that participants will receive annual salary raises, avoid loans and pre-retirement distributions, initially contribute 6% of their pay, and reach a contribution rate of 10% by age 35. Rather, they argue that one should assume that salary raises will occur only once every 2 to 3 years, that 20% of participants will borrow an average of 15% of their account balance, pre-retirement distributions will be taken by 15% of participants over the age of 59 ½ (who withdraw an average of 25% of their assets), and contributions will start at 6%, but will increase more slowly, reaching 8% at age 40, and 10% only at age 55. Further, the authors contend that contrary to the prevailing assumption that once participants reach retirement, they will withdraw only 4% to 5% annually, "the average participant [will withdraw] over 20% per year at or soon after retirement."[259]

The authors' calculations based on these more realistic assumptions illustrate the adverse and substantial impact such conditions can have on the adequacy of retirement savings, even when investments are managed according to their company's proprietary TDF investment model, one which the authors contend is superior to the conventional sort. More particularly, they calculate outcomes for four different TDF models, termed “aggressive,” ”concentrated,” and “conservative” as well as the company’s model. The authors use Monte Carlo analysis methods based on an imagined group of 10,000 different participants earning final salaries averaging $65,000, each with individual savings and withdrawal patterns, as well as different market return conditions, to determine whether participants will have assets which, when combined with Social Security benefits, are sufficient to afford them a replacement rate.[260] The goal is to accumulate $400,000 in assets by retirement. That figure is chosen because it would yield a replacement rate of 75% of pre-retirement income. (The authors state that 40% would be provided by currently promised Social Security benefit payments).[261] The authors report that even with the proprietary model, nearly 1 in 4 participants would fall short of their savings target. Even more troubling, they estimate that with the conservative portfolio, which they contend is closest to the average portfolio held by most real participants, the result falls short of the target in 35% of the simulations.[262] For the bottom 5% of participants the outcomes are worse: $260,000, $236,000, $224,000, and $228,000, for the proprietary, conservative, concentrated and aggressive portfolios, respectively.[263]

A recent update to this study confirmed the previous conclusions. It also reported that participant savings behavior deteriorated further in 2007 and 2008: salary raises became more uneven, contribution levels were lower at the outset of participant’s careers and increased at a slower pace over their careers, and although slightly lower percentage of participants took loans from their accounts, the size of the loans increased. Also, pre-retirement withdrawals continued to be unpredictable, with a significant number of participants withdrawing the entirety of their accounts shortly after retirement.[264] It should be noted that for an individual between the ages of 60 and 64 in 2007, an annual income of $65,000 would have placed him or her somewhere in the upper third of all earners in that age group.[265] While those with lower pre-retirement income would enjoy somewhat higher replacement rates from Social Security, the problems highlighted in the study about interruptions or low contributions, withdrawals or loans, more erratic career paths, and the like, might very well result in a more unfavorable distribution of outcomes for overall replacement rates.

Great caution has to be exercised in considering even these more carefully calculated results for a number of reasons. The estimates require returns for each of the years for every one of the 10,000 participants. However, the report does not use historical returns, but rather forward-looking calculations based on long-term return assumptions, volatilities, and correlations across many asset classes.[266] While the assumption is that returns in one year are not correlated with returns in other years, this is not necessarily the case. There have been and can be sustained periods over which returns have been consistently low (or high). Moreover, presumably the sample of returns from which selections are made are assumed to follow a normal distribution, which is, again, not necessarily the case. Some account needs to be taken of so-called “fat-tails” to the distributions, “black swan” events, etc. Moreover, the calculation of the overall replacement rate presupposes the ability to purchase an annuity at a reasonable price with the assets accumulated. But what income can be secured from purchasing an annuity is very sensitive to the timing of the annuitization, particularly interest rates. Further, how large an annuity can be obtained varies widely accordingly to whether it is bought by an individual for him or herself or through a collectively organized purchasing scheme.[267]

Part II. Automatic Enrollment as a Means to Promote Participation in Employment-Based Defined Contribution Plans

Limited Evidence About Persistence in Plan Participation Spurred by Automatic Enrollment

Whatever the merits of the QDIA investment choices in terms of enabling plan participants to reach their anticipated asset accumulation, the models presuppose the efficacy of automatic enrollment in spurring workers to be enrolled in plans and persisting in making contributions over time.

There are only two reported empirical studies of the impact of automatic enrollment on plan participation which are of significance in this regard: one academic and the other by one of the largest mutual fund investment managers and plan record keepers. Only the former was published prior to promulgation of the Act. The latter was released some 3 years or so after the Act was passed.

The academic study – really a cluster of closely related papers – provides findings from a longitudinal study of the impact of the implementation of automatic enrollment at three companies.[268] The results of the research relevant here pertain primarily to only one of the companies – referred to by the authors in their second paper as Company "B" – because they concern both the *current participation* of employees in the plan (that is, the ratio of participants to non-participants at any given time), and the extent of opt-outs at the time of automatic enrollment. By contrast, for the other companies – referred to by the authors in the second paper as companies "A" and "C' – the results reported relate only to whether, over time, workers *ever participated* after being automatically enrolled.[269] Because participants are free to drop out at any point after being automatically enrolled, results reporting only the ratio of employees who ever participated in the plan can provide little insight into the long-term effectiveness of such an enrollment method.

Company B was a health services firm that employed approximately 30,000 workers. It offered no retirement savings plan other than the 401(k) plan in question. It implemented automatic enrollment on January 1, 1998. The researchers took 10 snapshots of administrative data at irregular intervals from June 1, 1997 through June 30, 2000. However, information on the initial date of 401(k) participation was not available, only 401(k) participation at the time of each snapshot.[270]

According to the authors, the overall participation rate among 401(k) eligible employees at Company B was 72.0% on June 30, 1999.[271] The participation rate (in the absence of automatic enrollment) was strongly correlated with job tenure: the rate increased from 49% for those with tenure between 1 and 2 years, 64% for between 3 and 5 years, and 83% with tenure in excess of 20 years.[272] By contrast, they found that ostensible comparable pre- and post-automatic enrollment participation rates for those with job tenure between 3 and 15 months were 85.9% and 37.4%, respectively.[273] The differences largely held up across gender, race/ethnicity, age, and compensation level, although the youngest (under the age of 20) workers and lowest compensated workers (under $20,000 per year) participated by far the least.[274] A subsequent report about Company B states that at 24 months' tenure, the pre-automatic enrollment cohort participant rate had risen to 49.8%, while the post-automatic enrollment cohort rate had stayed essentially steady at 85.7%.[275] Finally, it appears that at 48 months out, the former figure had risen to slightly more than 60% while the latter had remained steady.[276]

The other study, done by Vanguard, looked at the participation behavior of employees under automatic and voluntary enrollment schemes, drawing on recordkeeping data of a large sample of employees who were hired over a nearly three year period (January 1, 2004 to September 30, 2006).[277] Vanguard compared new hires from 50 plans which used auto-enrollment and 500 plans that did not, involving approximately 119,000 and 1,115,000 workers, respectively. It found that at the outset there was a wide spread between these two types of plans: 91% of automatically enrolled employees participated, compared to just 32% who voluntarily enrolled. However, over time there was an increasing and significant convergence between the two, with 82% of employees in auto-enrollment plans, and 59% voluntary-enrollment plans at the end of three years. According to estimates derived from a model drawing on a cross-sectional study of plan participants in June 2007, the report projects that participation rates would eventually settle at 87% for auto-enrollment plans and 79% for voluntary-enrollment plans (because some employees opt out of the former, while others opt in to the latter).[278]

Broadly speaking, the participation rates over time of voluntarily enrolled workers and the participation rates of workers at the outset of automatic enrollment reported by Vanguard are similar to those found (for Company B) by the academic researchers referred to above. However, as described above, while those researchers reported few drop-outs over time for automatic enrollees, the Vanguard authors describe an increasing number of dropouts over time: nearly one fifth of those who stayed in at the outset dropped out within three years. A more carefully review of the Company B study suggests that for reasons which will follow, the reported Vanguard figures are closer to the mark.

The participation rates reported by the academic study appear to be for *all* of those workers who were offered automatic enrollment. Thus, the figures include both workers who did not opt out at the outset but dropped out later *and* those who did opt out at the outset but later decided to participate in the plan. But, arguably the test of the efficacy of automatic enrollment pertains just to the former group, those who never opted out. Taking that into account, we estimate that the relevant participation rate after three years to be about 78%, somewhat lower than the Vanguard figure.[279] Also, the researchers state that overall for the cluster of 3 companies they study (not just Company B), opt-out rates for a 1 year period under voluntary enrollment are between 1.9% to 2.6%; under automatic enrollment these rates are higher by 0.3% to 0.6%.[280] Although they do not explicitly define what they mean by "opt-out," it appears to mean literally dropping out of the plan into which participants had voluntarily or involuntarily (by automatic enrollment) joined. Per the discussion above, it is not clear precisely which groups of workers they follow, all workers who were originally enrolled regardless of whether they were still employed after 1 year or just the smaller group that were still employed.

In all events that the authors refer to a not insubstantial opt out rate over a 12-month period strongly suggests that their figures showing rather stable current (not cumulative) participant rates over time does not capture the realities of automatic enrollee participation over time. If we assume that the opt-out rate for automatic enrollees after one year is at the mid-point of the range of 2.2% (= 1.9% + 0.3%) to 3.2% (= 2.6% to 3.2%), it would be 2.7%. This appears reasonable since, according to a projection in the Vanguard report, the participation rate of automatic enrollees decreases by about 3% annually.[281] If the 2.7% opt-out rate remained steady over time that would mean the participation rate after three years would drop by 8.1%. Since approximately 14% of the automatic enrollees left at the outset, the net figure would be 77.9% after one year, suggesting that the estimate above of an automatic enrollee participation rate of 78% after 3 years would not be improbable.[282]

Thus, while positive, the academic and Vanguard findings are hardly as strong as the former might suggest. Moreover, there are other reasons for caution.

First, the narrative in both studies suggests that the participation rates presented must, almost by definition, relate to people then currently employed by the firm(s) at the relevant times. Presumably, attrition among those hired at a particular point increases with time. Thus, the increasing smaller sample on which the studies appear to report is one which, overall, is increasingly tilted to workers with longer tenure. That would, in turn, seem to skew the results to higher rates of participation because longer tenure workers participate at a greater rate. Of course, the comparison group of voluntarily enrolled workers would also be slanted to longer tenure workers. It is not clear whether the extent of skewing would be the same.

Second, both the academic and Vanguard findings focus on the impact of automatic enrollment for eligible workers at large firms that typically offer plan participation to their workers. As noted, company B was estimated to have 30,000 employees. The Vanguard authors state that "[t]he average plan with automatic enrollment in this study is sponsored by a midsized firm with about 2,000 eligible employees. Approximately 5% of the plans studied have more than 5,000 eligible employees, and these plans account for approximately 30% of the participants in our study."[283] The average size of the firms in the sample of firms with only voluntary enrollment was also about 2,000.[284]

As a general matter, both the percentage of workers to whom employers offer participation in employment-based plans and the percentage who participate decrease dramatically with employer size (based on the number of employees). For example, according to tabulations of responses to the Federal Reserve Board's 2007 Survey of Consumer Finances, the percentage of workers offered participation in a DC plan ranged from 11.9% for firms with under 20 employees to 70.4% for firms with more than 500 employees. (The 2007 figure for the fewer than 20 employee firms' offer rate dropped markedly from 14.9% in 2004. By contrast, for the largest firms the offer rate increased.) Interestingly though, the take-up rate appears to vary little with firm size, ranging from 76.9% for firms with fewer than 20 employees and 80.9 percent for firms with over 500 employees. (The 2007 figure for the fewer than 20 employee firms' participation rate dropped from 80.1% in 2004. By contrast, for the largest firms the participation rate increased.)[285]

Third, there are other relevant issues associated with firm size and additional characteristics. For example, one recently completed study suggests that employment is more precarious at smaller firms as compared to larger ones. The researchers followed for many years a cohort of workers who were between the ages of 20 and 28 in 1985. In that study, somewhat more than one third of that cohort started a new job in that year. Of those new job takers, only 35.8% lasted more than one year in the job and only 23.3% lasted more than two.[286] The study found that "[e]stablishment size has a significant negative effect on [the length of tenure]," namely the smaller the firm, the shorter the tenure.[287] Thus, a significant percentage of workers at *any* firm would not even be in a position to continue participating for very long in plans in which they were automatically enrolled and a *very large* percentage of those at small firms would not.

There are related problems with respect to those younger workers. According to another longitudinal study – this one of people who were followed from 1979 (when they were between the ages of 14 and 22) and 2006-07 (when they were between the ages of 41 and 50) – age was highly correlated with how long workers held their jobs. For example, about 59% of those who started a job between the ages of 23 and 27 held it for less than 1 year and more than three-quarters held it for less than 2 years.[288] Between the ages of 23 and 32, people held on average about 6 jobs, so that the average length of employment was about 1.67 years.[289] Even for much older workers, the length of employment was modest: for those between the ages of 38 and 42, about 30% worked for less than a year and about 60% worked for less than 2 years at the job. On average they held about 2 jobs while in that age group. [290]

This suggests that the overall attrition over time among those in the automatic enrollment sample was likely significant and very much so for younger workers. Thus, while the relatively good news of the cited studies on automatic enrollment has been the higher participation and persistence rates of younger workers, the likely high employment attrition rate for those workers suggests that many simply do not have the opportunity to continue to participate in the employers' plans for an extended period of time.

Similarly, while the other relatively good news offered by the automatic enrollment studies was the higher participation and persistence rates of lower wage workers, such workers appear more likely to have shorter lengths of employment. For example, a study of women workers in the late 1990s found that only 35.5% of those who started work with wages in the lowest fifth quintile worked for at least two years, whereas 73.4% those with wages in the top fifth worked for at least that length of time.[291]

As noted, the academic and Vanguard research described here appears to be the only two studies that are relatively detailed and based on actual worker behaviors that were tracked. However, there are scattered reports of a different and more modest sort which shed some additional light on the matter but do not affect the points made above. Those reports are discussed in Appendix B.

Given the emphasis with automatic enrollment on driving up plan participation rates, it is interesting to look at the relationship between automatic enrollment and plan participation rates in the aggregate across the country. According to the recent report by Vanguard discussed above, the percentage of its plans with automatic enrollment rose from 5% in 2005 to 21% in 2009, with the figure likely to have been much lower in 2000.[292] However, the average plan participation rate for plans which permit employee-elective deferrals stagnated, fluctuating within the band between 74% and 77% during the period of 2000 to 2009, with the rate being 75% in 2009. The figures are little different for plan-weighted participations, as it was within the narrow band of 74% to 75%, with the rate being 75% in 2009.[293]

The introduction of automatic enrollment features appears to have, for the near term, shored up overall plan participation rates. That is, despite the overall stagnation, there have been underlying changes according to income, age, and job tenure that may well reflect the effect of automatic enrollment. Plan participation rates for those with income under $30,000 increased from 44% in 2000 to 52% in 2009, though the rate peaked at 56% in 2008.[294] By contrast there were substantial drops in other income categories, except for those with income above $100,000.[295] Participation rates by those under the age of 25 increased from 31% to 45%, though they peaked at 49% in 2009. There is little change for other age groups except for those over 65 (which increased from 61% to 66%). Finally, the rates for those with job tenure of 1 year or less, the rate fluctuated widely over the period with a figure of 43% in 2000 to 9% in 2009 down from a peak of 58% in 2008.[296]

Finally, it should be noted that the preceding discussion focuses on employee behavior or decision-making as they bear upon opting out initially, as well as persistence in participation after being defaulted into a plan. However, the nature and availability of these options are contingent upon employer behavior; therefore, lack of employer persistence in offering automatic enrollment schemes or changing them in ways that might detract from achieving desired account outcomes remain significant barriers to participation.[297]

While the focus here has been on participation effects of auto-enrollment, we should also note other issues that may be of concern. Two relate to the level of contributions, those by workers and those by employers. With respect to worker contributions, the Vanguard authors report that contribution rates were lower for auto-enrollment plans than for voluntary-enrollment plans, with averages of 2.9% and 5.0% of annual salaries, respectively. There are at least two factors to which this outcome might be attributed. One is the relatively low default contribution rates set for automatically enrolled participants.[298] The other is that very inertia which is said to make automatic enrollment effective also operates against increases in contributions: because workers are said to be passive, they not only do not act to opt out after being automatically enrolled, but also do not act to change their contribution rate. Vanguard noted this issue in its most recent annual report on defined contribution plans for which it is record keeper, stating that automatically enrolled participants had an average deferral rate of 6.3%, in comparison with the rate of 7.6% among voluntary enrollees; for those of low income (under $30,000) and young age (under 25 years) the disparities were greater: 6.1% compared with 4.1%, and 5.4% versus 3.1%, respectively.[299]

Another issue is the level of employer contributions. Here a couple of studies have yielded conflicting results. According to one paper on 401(k) plans at a sample of private sector firms with the largest (according to assets) 401(k) plans in 2007, “93 percent of plans without automatic enrollment offer[ed] a match, compared with only 82 percent of plans with automatic enrollment.” In addition, “the average match rate [wa]s 47 percent for plans without automatic enrollment, but only 34 percent for those with automatic enrollment.”[300] Arguably, one factor that might reduce matching rates is the additional cost to employers of making matches for workers who would not otherwise have participated in the plan. The authors’ further analysis suggested that “a 7 percentage point reduction in match rates would offset at least 42 percent of the increase in costs for firms with participation rates of 60 percent or more before automatic enrollment.”[301] While they caution that the noted correlation does not necessarily imply causation, that is, the results “would also be consistent with the scenario in which firms with lower match rates are more likely to adopt automatic enrollment,” they explore the former possibility by analyzing the average match rates for each over the period of 2000 to 2002 as compared to 2007, in other words, “in the years before automatic enrollment gained popularity with those in 2007."[302] They report that "automatic enrollment reduced match rates by about 9 percentage points" at the plan level.[303]

These results seem to conflict with those of a different study of 225 large plans that "did not have auto-enrollment in 2009 but that adopted it in 2009." The author states that on several measures of employer contributions (including the kind of match considered by the other study, the "first-tier match"),"the average change was positive under auto-enrollment."[304] The author states that "[t]he average 2009 first-tier match was 87.78 cents for each dollar contributed while the average 2005 first-tier match was 81.26 cents for each dollar contributed."[305] He distinguishes the other study's findings in two ways. First, it relied on estimates of the match rate while he used actual plan information.[306] Second, it did not have data on the particular year during which automatic enrollment was adopted whereas his was definitively focused on plans that adopted automatic enrollment in 2009.[307] However, as the authors of the other study point out, significant differences in the measures used by each study might well mean that there is in fact no conflict, because the first study "measures the ratio of employer to employee contributions for a sample of…401(k) plans" whereas the second "measures the change in the potential match rate for a sample that includes switches from defined benefit to 401(k) plans."[308]

The reference to defined benefits plans is an intriguing and arguably important one. The second study author notes previous work that "found an extremely large correlation between the adoption of automatic enrollment for a 401(k) plan and the freezing or closing of the defined benefit plan."[309] He then reports that employer compensation rates for frozen plans are much higher than the average compensation rate; for closed plans they are still higher.[310] The effect is even stronger with respect to those firms "that had changed their defined benefit plans between 2005 and 2009," confirming his hypothesis "that the 401(k) improvements were a result, at least partially, of a simultaneously *quid pro quo* for the decreased accrual in the defined benefit plan."[311] This raises more general questions about the results of studies of automatic enrollment and how the reported outcomes are affected by whether the firms studied had defined benefit plans, whether active, frozen, or closed, and for whom. At first blush, policy efforts at spurring automatic enrollment are most important for firms that offer no plan participation at all or for whom take up from 401(k) plans on offer are low; the former by definition would not offer any defined benefit plan and many of the latter would probably not as well.

Lack of Persistence in Plan Participation and Contributions, Apart from Automatic Enrollment

While there are reports based on four longitudinal studies of persistence in 401(k) plan participation – (apart from automatic enrollment) – that is, whether workers continue to both maintain accounts *and* contribute to them regularly from year to year – they are of limited value because none provide a full picture of participation over an extended duration.

The first study drew on four years of Panel Study of Income Dynamics (PSID) data, from 1999, 2001, 2003, and 2005. The sample consists of all current workers in each wave who were age 21-65 in 2005.[312]

The authors find that for individuals who worked all four sample years and contributed in at least one year, only 50.0% contributed in at least 2 years, 17.9% contributed in at least 3 years, and only 5.8% contributed in all four years.[313] The researchers then focus on the subsample of those who worked all 4 years and contributed in 1999. They report that just 69.2% contributed in at least 1 of the subsequent years studied, 42.4% contributed in at least 2 subsequent years, and 18.5% contributed in all three subsequent years.[314] When they restrict the sample to those who not only worked every one of the years in question but also did not change employers over the entire six year period – and hence, had an opportunity to contribute in every year – and contributed in 1999, they find that 78.3% contributed in one subsequent year, 54.8% contributed in two subsequent years, and 27.4% contributed in all three subsequent years, a rate that is still quite low.[315] Lastly, the researchers examine the persistence of contributions from year to year. They find that less than half of those who contribute in one year do so in the following survey year. For example, of those individuals who participated in 1999, only 42.9% contributed in 2001, while 26.7% contributed in 2003, and 16.2% did so in 2005. Figures are comparable for those who contributed in 2001 and 2003.[316]

The second study explored persistence of the making of contributions to 401(k) accounts over the period 1999-2002. It drew on data from individual tax returns and information returns, creating a panel of over 71,000 individual taxpayers who filed in all four years.[317] The panel was said to be representative of 143.2 million taxpayers who filed returns in each of those years. The study found that 60.4% of those who contributed to a 401(k) in 1999 continued to do so in each of the following three years, with a decline from one year relative to the previous one of about 15%. How much to credit these findings is not clear. Based on these numbers, one would conclude that 11.0% of all of these taxpayers contributed to a 401(k) in all four years.[318] But participation and persistence rates should be calculated on those who were employed during the tax year and were offered and participated in a plan. Certain people who are employed may not file a tax return (because they are not required to). Clearly, many taxpayers may not be employed, let alone be offered participation in and be members of a plan.

The third study offered some indirect evidence of persistence in 401(k) participation. It was done by Vanguard and pertained to the behaviors of participants covered by the EBRI/ICI 401(k) data base.[319] More particularly, the authors report that 2.4 million workers who were employed every year from 1999 through 2007 had 401(k) account balances with their employers at the end of every one of those years. That group represented only 23% of the 10.3 million participants who had accounts with their employers at the end of 1999. This suggests rather low sustained *participation* in the sense of maintaining accounts. The results do not offer any direct insights into persistence of *contributions* into those accounts. Moreover, even then, some caution must be accorded any conclusions about participation in the sense described. The authors refer to a sample of people who have maintained accounts. They do not state whether those people were employed with their 1999 employers throughout the entire period. This is important because a significant fraction of those who leave their employers by virtue of job loss, job change, or retirement, at the time of leaving choose to keep all or some of their accumulated assets in the plan they had with that employer. As discussed earlier, the extent of job loss or job change over time is great. For workers between the ages of 18 and 42, a very large proportion (from 65% to 94%) of workers are employed with any given employer for less than 5 years, and the vast majority (roughly over 90%) remain with that employer for less than 10 years.[320] Thus, on one hand, an increasing fraction of the 1999 sample would not have had the opportunity to contribute to the plan (by virtue of no longer being employees). On the other hand, despite no longer being employees, they might well have taken the opportunity to keep some of their assets in the accounts they had with their former employers.[321]

The fourth study combined Survey of Income and Program Participation (SIPP) data and administrative data from the Social Security Administration (SSA) Detailed Earning Records to examine employee participation over a 12-year period (1990-2001). Unfortunately, information on whether employees were offered participation in an employer-sponsored retirement plan was not available prior to 1997, so it is impossible to differentiate between those who chose not to participate from those who were not provided the choice before that time. Thus, for the most part the findings offer only a global perspective on the number of years in which people made contributions during the period examined, actions which may have been driven by not being employed, being employed but not being offered participation in a plan, and being offered participation and being members but not making contributions. Over the 12-year period 58% of those ages 20 to 69 in 2001 made *no* contributions to an employer-sponsored plan during *any* of those years. About one fifth (19%) contributed in 1 to 4 years, 17% contributed in 5 to 10 years, and only 6% contributed in 11 to 12 years.[322]

Finally, it should be noted that there is a very modest UK literature on the persistence of contributions to various kinds of individual account-type plans, although it has limited relevance here.[323]

Part III. The Obama Administration's Automatic IRA Proposal

The Obama administration offers no proposals to seriously expand the universe of employers who offer their workers participation in an employment-based plan. Rather, it largely takes such plans as they are, operating at the edges with respect to those who already have the opportunity to participate in a plan. That being said, perhaps most importantly, it would expand the Saver's Credit (which applies both to qualified employment-based plans and IRAs) to enable more people to be able to have the benefit of the credit. Correspondingly it very modestly tilts the current scheme of tax subsidies for retirement income security away from favoring higher income individuals.

Arguably, enjoying such a tax credit is an incentive for people to participate in defined contribution plans offered to them or make greater contributions if they do participate. Other proposals relate to increasing the transparency about 401(k) fees, averting biased investment advice, promoting greater disclosure about TDFs, and promoting the use of annuities and other forms of guaranteed lifetime income.

By contrast, the Obama administration's other proposals implicitly acknowledge the failure over many years of the system for employment-based retirement plans to induce plan participation beyond roughly half of the working population. But having done so, though, they work at the conceptual margins in policy terms to effect change (although the claimed potential impact is large). The solution, as they appear to see it, is for Individual Retirement Accounts to be the vehicle by which to reach workers who have been left out of the employment-based plan system. In so doing, they in many respects leave employers with little role, though that remaining role may be problematic.

In essence the Administration would require workers at all but the relatively smallest employers be automatically enrolled in and make contributions to IRAs, so long as those employers do not offer retirement plans. In such cases, employers would be required at most to be the instrument for effecting such enrollment, by collecting and passing on to the relevant entity the employees' contributions.[324] Employers would not be required to make any contributions, matching or otherwise. A worker's default contribution rate would be 3% of his or her annual wages.[325] Employees would have the right to opt out within 90 days of enrollment. (It appears that the default contributions would go into a Roth IRA; a worker who made an affirmative choice could select either a traditional or Roth IRA.)[326]

As of this writing, the Administration proposal is short on descriptions of the default and other investments into which contributions would be channeled or directed.

According to one of the creators of the scheme, "[u]nder the expected structure, workers will have a choice of three investment options ranging from a very low-cost savings account for new savers to a target date–type fund that automatically changes investments as the worker ages, with a third option available upon request. The savings account could be a government bond that automatically rolls money into a privately managed account once it reaches a certain amount."[327] However, he adds that employers will send deducted monies "to the private sector funds manager that administers the employer's Automatic IRA." He notes that the "employer selects that manager from an online list," though he says nothing about how that list is established. He remarks as well that "if the employer does not wish to choose a provider, that company will be assigned at random to a funds manager that is willing to accept all comers," though, again, without saying who would do the random assignment.[328] Certainly, the implicit assumption would be that some entity created by the federal government would play these roles in a manner that would look similar to New Zealand's KiwiSaver scheme, discussed below.

However, this author, along with another major proponent of automatic IRAs (who recently joined the Obama administration to press its retirement income security agenda) in a 2009 book on the subject have stressed their view that "to the fullest extent possible" investment, record-keeping, and other functions be performed by the private sector." In that regard, they "d[id] not see the Federal Thrift Savings Plan as necessarily the model for accomplishing these tasks. For example, private financial institutions could contract to provide the default accounts. They could be selected through competitive bidding to manage accounts based on geography or capacity."[329] By contrast, the "Automatic IRA Act of 2007" (S. 1141 of 2007) detailed the creation of a TSP Board [The Federal Retirement Thrift Investment Board] II with a not insubstantial role in determining possible default and other IRA investment choices.[330]

This approach has, however, been abandoned in the recently filed "Automatic IRA Act of 2010" (S. 3760 of 2010).[331] Individuals on whose behalf automatic IRA accounts are opened are limited to three investment options: "principal preservation," "blended investment," and "[a] broadly diversified class of assets or fund providing somewhat higher investment in equities than [the blended investment option."[332] The principal preservation categories nominally covers a vast range of potential investment vehicles.[333] The blended investment is characterized as being "a broadly diversified class of assets or fund….that is substantially similar to target date, life cycle, balanced or similar funds."[334]

If the individual does not make an election as to the investment choice, if his or her plan balance is below a specified modest amount, the default is the principal preservation option; if above, the blended investment option.[335] It would seem then that large sums in the form of default investments would be placed in blended investments, and given past experience with automatic enrollment in 401(k)s and TDFs, might very well be placed predominantly in TDF funds.

Employers can select a single provider of these investment options.[336] Alternatively the employer may select the Secretary of Labor as the provider by electing that the contributions be invested in U.S. Treasury issued “retirement bonds.”[337] The employer may also elect to have the default provider selected under a procedure by which providers are randomly assigned from among those selected by the Secretary of Labor through a competitive process.[338] The statutory criteria guiding the Secretary selections are minimal.[339] Apparently the employer may, but is not obliged to, allow an employee participant to choose his or her own IRA provider.[340] In all events, the bill makes clear that the employer has no fiduciary duty to its employees if it chooses a provider on the approved list or uses retirement bonds.[341]

While there have been a number of criticisms of the proposal we focus on two: one, the extent to which this legislation would expand on IRA participation, and the other, the wisdom or efficacy of the investment choices associated with the scheme. With respect to both, we strive to incorporate relevant learning from the above inquiry into the efficacy of automatic enrollment in 401(k) schemes.

Limited Participation and Persistence in Contributions to IRAs in the Absence of Automatic Enrollment

Insofar as we are concerned with the impact of automatic IRAs on participation, the evidentiary basis for the would-be policy appears to be at least as problematic as that for automatic enrollment in 401(k)s.

First, it would appear that with respect to the American experience, the only trial study was one of very modest scale and structured in a manner that makes its findings at best of modest relevance to the policies discussed above. The study was concerned with the question of whether offering matching incentives for IRA contributions can increase participation rates among low- and middle-income earners.[342] Potential participants were offered matches at the time they were having their taxes prepared, based on the assumption that they would be more likely to save tax-refund money than money from their weekly wages. The researchers found that offering matching incentives had a significant effect in increasing IRA participation and contribution rates. Contribution matches of 0%, 20%, and 50% produced take up rates (X-IRA account openings) of 2.9%, 7.7%, and 14.0%, respectively. [343] By contrast, simply educating tax preparation staff and study participants about IRAs (but offering no matches) had almost no effect on these rates.

It is not immediately clear whether any participants had IRAs at the time of being offered the incentive or whether the question was even asked. In all events, there appears to have been no follow up, so it is unknown whether those who made contributions to the IRAs maintained the accounts or contributed additional amounts over time.

Second, the literature on participation in IRAs in general and participation by individuals over time is not especially encouraging. More particularly, we have searched for and examined the available literature on the patterns of IRA use. We focused especially on the persistence of contributions by individuals across multiple years, as well as the frequency and magnitude of early withdrawals from IRAs. We found that there were few studies reporting findings on these subjects. Moreover, the studies not only extended to IRA use as far back as 1987 but also did not cover overlapping time periods, rendering meaningful comparisons of them difficult.

There were only three studies on the subject of the persistence of contributions, none of which were very recent. One examined tax years 1999 through 2002; another looked at tax year 1987 through 1996; and the third considered tax years 1982 through 1987. This last study would appear to be less useful, not simply because the data is well over two decades old, but because the tax treatment of IRAs changed dramatically in 1986.[344]

While reported research on pre-retirement withdrawals was more robust (and recent), it would seem hardly sufficient to draw firm conclusions. We found four studies with comprehensive information on the topic: a recent one that had annual data from 2007 and 2008 alongside pooled survey results from 1997 through 2007; another using data from 1993 and 1996; a third that tracked participants from 1992 through 2002, and a fourth that used tax return data from 1987 through 1996. Unfortunately, the purposes of these studies and the age groups that they studied differed in important ways, making comparisons among them difficult, though not impossible. In some cases, it was not clear whether a certain age group included retirees or individuals who were actively employed.

Nevertheless, despite inadequacies of the literature, it is still possible to draw some inferences. First, it would appear that people do not contribute to IRAs on a consistent (annual) basis. Rather, the results of two studies indicate that they more typically use IRAs as receptacles for depositing rolled-over contributions from employer-sponsored retirement plans, such as 401(k)s. The most recent research – covering the period from 1999 to 2002 – supports this conclusion. The authors find that the persistence of those who make contributions diminishes by approximately one-third every year. This results in a four year annual contribution persistence rate of just under 35% (that is, of those who contributed to an IRA in the first year, just under 35% continued to contribute in each of the following three years).[345] Comparable results were found by the researchers who looked at tax years 1987 to 1996. They found that only 10% of IRA participants contributed in each of the 10 years, while the majority, 64%, contributed in less than 5 of the 10 years.[346] This is interesting because if one were to accept the first study's finding that contribution persistence diminishes roughly by one-third each year and project it over a ten year period, one would find that only 4% of IRA participants contributed every year over that time period. These results are broadly similar to the second studies' finding of a 10% contribution persistence rate over a ten-year period.

Some confirmation of the foregoing observations is found in study, released just as this paper was coming to press, which was published by an organization representing U.S. investment companies.[347] The study drew on an extensive data base.[348] According to the research, in 2008, among "working-age" traditional IRA investors – defined as being between the ages of 25 and 69 – just 9.4% of them made a contribution to their IRAs that year.[349] Interestingly, the percentage decreased steadily with age, 11.5% of those between the ages of 25 and 29 contributing to 5.6% of those between the ages of 65 and 69.[350] Overall, of the relatively few traditional IRA investors who made a contribution in 2007, slightly more than a third (37%) of made one in 2008 as well.[351]

While there has been a dramatic growth in the level of IRA assets, the increase has been driven primarily by rollovers from 401(k) plans. For example, according to a survey of U.S. households owning traditional IRAs in 2008, 52% had accounts that included rollover assets. Moreover, 43% of traditional IRA participants said that the only IRA contributions they had ever made to their accounts were rollovers.[352] Further, a recent study found that in any given year between 1996 and 2004 (the latest period for which such data was available), total annual non-rollover contributions amounted to no more than 11.4% of total annual contributions (including rollovers). During one year the figure was only 4.2%.[353] Also, according to a review of a large panel of tax returns from 1987 to 1996, it would appear that many (if not the majority) of those who contributed the maximum allowable amount did not do so on a regular basis. Rather, they often failed to make any IRA contributions in some years, while contributing the maximum in others.[354] Additional evidence for the sporadic nature of contributions comes from research that found that in 2008 only 21% of traditional IRA-owning households contributed to their IRA, with a median contribution (among this group) of $4,000.[355] An earlier survey found that in 2004, only 26% of those who owned traditional IRAs made contributions in that year. The mean and median contributions in 2003 were $2,700 and $2,500, respectively.[356]

With regard to pre-retirement IRA withdrawals, the picture is one of small (but significant) leakage from accounts. One study looked at data from a survey population of individuals between the ages of 30 and 55, conducted in 1993 and 1996. It found that the ratio of total withdrawals to total account size fluctuated between 2% and 3%.[357] While such withdrawals might not make up a large proportion of total IRA assets in any given year that they are taken at all ages in a consistent fashion suggests that the cumulative effects are substantial. This is especially true if there is little year-to-year overlap between the individuals making pre-retirement withdrawals; that is, although a small proportion of individuals are depleting their accounts in any one year, the total population of individuals who have done so over the history of their lives is significantly higher.

Research using recent data offers some confirmation for the observation that the total number of individuals who have taken pre-retirement withdrawals is significantly larger than what annual figures on pre-retirement withdrawals might suggest. This is primarily because many of those who take such withdrawals in any given year do not appear to do so in subsequent years. According to the authors of one study, 5% of heads of household under the age of 59 who owned traditional IRAs made withdrawals from their accounts in 2008; 4% made withdrawals in 2007. Moreover, in 2007 and 2008, withdrawals by heads of household under age 59 were 10.5% and 13.6% of withdrawals by heads of households of any age. Yet pooled survey results from 1999 through 2007 suggest that 23% of all households that made IRA withdrawals were those whose heads were under age 59. So if it were true that the percentage of those below the age 59 who made a withdrawal in any given year was relatively stable over the period of 1999-2007, then the aggregate figure of 23% suggests that the practice of making at least one withdrawal was fairly widespread. Further, not only were withdrawals at least once a relatively frequent phenomenon but also when withdrawals were made they were substantial: the authors found that among heads of households under 59 who made withdrawals, a full 31% withdrew their *entire* account balance.[358]

Other data confirms both that the propensity to withdraw assets from IRA accounts increases with age as a general matter and that not insubstantial withdrawals are made prior to typical retirement age. According to a report based on Internal Revenue Service data from 2004, 9.6% of IRA owners younger than age 55 made a withdrawal from their account, while the figure was 10.8% of those between the ages 55 and 59. These withdrawals amounted to 3.0% and 2.5%, respectively, of the aggregate IRA balances for these age groups. Among those of age 60 to 64 (of which a significant portion might well not be retired), 19.6% made withdrawals amounting to 3.8% of the aggregate pre-withdrawal IRA balance for that age group. Of course, these figures rise steadily with age groups. For example, 28.6% of those between the ages of 65 and 69, and 93.0% of those of age 70 or over took withdrawals.[359]

Another study, this one based on 2004 and 2005 information from the Census Bureau's Survey of Income Program Participation (SIPP), also found that the fraction of those making withdrawals *over that two-year period* rose with age, from 3.1% for those age 25-34, 4.0% for those age 35-44, 4.3% of those age 45-54, and 4.5% of those age 55-58.

Overall the share of IRA account holders who made withdrawals was 4.0%. However, for those who took out money, the *size* of *all* withdrawals made during that period as a fraction of aggregate account balances decreased with age: 40.3% for those of age 25-34, 32.0% for those of age 35-44, 21.5% for those age 45-54, and 11.7% for those age 55-58. Among all IRA owners, the percentages for these same age groups were 1.5%, 1.3%, 1.4%, and 1.4%, respectively.[360] (Note that the results on the *incidence* of withdrawals "d[id] not include multiple withdrawals by the same respondents;" obviously, including this would in some measure increase the percentages. By contrast, results on withdrawal *amounts* were aggregated.)[361]

There are reasons to believe that these pre-retirement withdrawals (or withdrawals taken during ages that are likely pre-retirement) are the result of adverse financial circumstances.[362] According to the 1999-2007 study noted above, withdrawals by heads of households younger than age 59 were attributed most frequently to "pay[ing] living expenses" (28%), followed by "other reason" (24%), and "pay[ing] for healthcare" (13%).[363] Although those other reasons are not known, the high rankings of living expenses and health costs are indicative of adverse events. The results of another study appear roughly analogous: among a group of individuals of ages 51 to 54 who were tracked for 10 years (and who were therefore 61 to 64 at the end of the study), 29% withdrew funds during this period. Of those, most of their withdrawals were attributed to paying for "regular expenses" (41%), followed by "special purposes" (19%).[364]

Also relevant here is another study that drew on a ten-year panel of individual tax return data from 1987 through 1996. The authors found correlations between adverse financial events and the probability of taking pre-retirement withdrawals under circumstances where there would be a tax penalty (described below). They report that the probability of taking such a penalized withdrawal decreases as personal income increases, and that income shocks (such as households suddenly losing earners, involuntary job loss, and both wage and total income shocks) resulted in a greater probability of withdrawal the lower the person's income. A similar effect was found for those who had "lumpy" consumption needs – they purchased a house or had college-age dependents or medical expenses – though it was less pronounced.[365] By contrast, demographic shocks – having additional dependents or going through a divorce – had little impact.[366] The authors rely on these findings to support their hypothesis that individuals make penalized pre-retirement withdrawals as "a financing source of last resort." This finding, in conjunction with the data from the studies above, seems to suggest that many people rely on pre-retirement withdrawals as perhaps their only readily available means to meet pressing or basic needs.[367] The results of the SIPP study discussed above offer a somewhat similar perspective – that is, losing or switching jobs, experiencing the onset of poor health, or purchasing a home made it more likely that account holders between the ages of 25 and 58 (in 2004) would make IRA withdrawals. Also, having limited education, low income and few financial assets were associated with a greater likelihood of withdrawals, but it appears that "the lack of other financial assets to draw upon and events that trigger financial need explain these withdrawals more than education and income differences."[368]

It should be noted that the import of IRA withdrawals needs to be assessed in light of the disincentives for doing so, especially for those under the age of 59½, unless one of a handful of exception applies.[369] For example, for traditional IRAs, a 10% penalty on the entire withdrawal is imposed on top of the portion of a withdrawal attributable to tax favored contributions that would be taxable as ordinary income. The exceptions appear to be for distributions relating to purchase of a first home, for unemployed people who meet certain criteria, to payment of medical insurance premiums, to certain qualified higher education (college) expenses, certain unreimbursed medical expense, and if the individual is "disabled" (as specified in the relevant law).[370] These categories overlap with the kinds of reasons frequently offered by individuals for taking distributions. Most also overlap with the reasons why a high percentage of workers involuntarily retire, for example, due to health problems and disability.

KiwiSaver: A Less Than Auspicious Precedent for Automatic IRAs

Many countries, such as Chile, Sweden, and Mexico, have established individual account schemes, but they have been mandatory, rather than automatic enrollment ones, the difference being that in the former people cannot opt out. In the United Kingdom, legislation has been passed to create a personal account scheme similar to the Administration proposal into which workers will be automatically enrolled (with the opportunity to opt-out). However, while extensive preparations have been made, it is anticipated that implementation on a staged basis will only begin in 2011. As noted above, insofar as there was an evidentiary basis for the efficacy of such automatic enrollment, it largely relied on the limited range of studies discussed above.

Thus, as far as we can determine, the only policy precedent in place for the Obama administration's IRA proposal is New Zealand's KiwiSaver scheme, which began operating in 2007.[371] KiwiSaver is a defined contribution retirement plan that is organized by the New Zealand government, although the investments themselves are managed by the private sector. Individuals *of any age below 65* may enroll in KiwiSaver through a variety of voluntary and involuntary means: they may elect to participate through an employer, choose to participate through a private investment company (called a Kiwi provider), or they are automatically enrolled if they start a new job and are between the ages of 18 and 65.[372] Workers who are automatically enrolled are required to contribute 2% of their pay.[373] At the time of opening the account, the government makes a tax-free "kick-start" payment of NZ$1,000. In addition, for those 18 years of age and over, each year the government pays a tax credit to match employee contributions up to $1040. (Note that KiwiSaver contributions and investment income on them are taxed, though withdrawals are not).[374] At the time of the enactment of KiwiSaver, employers were required to make a matching contribution of 4% employee pay. In late 2008, the scheme was changed to reduce that contribution to 2%.[375]

It should be noted that the Obama administration's and other proposals are broadly speaking geared to relatively lower income households. By contrast, according to the view of New Zealand's Revenue Commissioner, "KiwiSaver was developed more for middle New Zealand," observing that "New Zealand's Superannuation, or our state pensions, cover our people in the low income." Indeed, she asserted, "[i]f you're a low-income person in New Zealand, some people get an increase in pay when they go on the pension."[376] It has been suggested that the small fraction of New Zealand's workers covered by private schemes may in part be a result of the success of poverty prevention.[377]

Participants who elect to participate may select the Kiwi provider that will manage their investments. If they fail to select a provider, one may be selected by their employer (if the participant is enrolling through an employer). Alternately, if the employer does not make an election as to the provider that will manage the Kiwi account, then the employee is randomly assigned to one of the six default schemes. After the first three months, the employee may switch to any other Kiwi scheme or provider that he or she chooses, or stay in the default scheme.

There are six default providers – private companies that were approved by the government according to a competitive tender process. (Companies that applied for default status were selected according to six criteria: security and organizational credibility, organizational capacity, proposed design of the providers default KiwiSaver scheme, administration capability, competitive fee levels, and investment capacity/capability). It would appear that each of these default providers offers a single default fund, into which those who do not make an affirmative election (and on whose behalf their employers did not make affirmative elections) are placed. All of these default funds are considered to have a "conservative" risk profile, defined as having mostly "income earning" assets like cash and fixed income investments, with "growth" assets (stocks and property) limited to 15%-25% of total assets.[378]

Automatically enrolled workers in KiwiSaver can opt out only if they give written notice between two and eight weeks after being enrolled. After eight weeks, opt-outs are allowed only in narrow, specific circumstances, such as permanent emigration. However, although it is very difficult for enrollees to close their accounts, they may take contribution holidays. During those holidays, neither they nor their employers are required to make contributions. Starting one year after having been enrolled, participants are not required to offer an excuse to halt contributions through holidays. The holidays can last anywhere from 3 months to 5 years. They are renewable at any time and indefinitely. Before that first year has elapsed, participants cannot take holidays unless they can prove financial hardship to Inland Revenue. Financial hardship holidays can extend anywhere from 3 months to a year. But once a participant has been in the Kiwi program for 12 months, he or she can then freely elect to take holidays as described above.

The only other pre-retirement withdrawals permitted are for home ownership. After being a member of KiwiSaver for three years, an individual "may be able to withdraw all or part of [his or her] savings (except for the $1,000 government kick-start and member tax credit) to put towards buying [a] first home."[379] Moreover, subject to what seem to be very generous income and other criteria, KiwiSavers who have been members for at least five years are eligible for a housing purchase subsidy of ”$1,000 for each year of contribution to the scheme, up to a maximum of $5,000.”[380]

As of March 31, 2010, there were 1,370,000 KiwiSaver members (net of opt-outs and account closures.) Of them, 512,000 were automatically enrolled (about 39% of all current members).[381] As of that date, 241,000 had opted out of their accounts.[382] Thus, about 32% of those who were automatically enrolled opted out.[383] Between August, 2007 and June 30, 2009, the percentage of opt outs had held rather steady at approximately 33%. (Note that 207,800 current members were opt-in enrollees by way of their employers.)[384]

There is a sharp difference between the income and age of those who have been automatically enrolled and those who have voluntarily enrolled. In 2008, “[t]wo-thirds (66%) of those who were automatically enrolled had incomes of up to $30,000…compared with approximately one-quarter (27%) of those who opted-in via their employer.”[385] While, as of June 30, 2009, the overall percentage of KiwiSavers was roughly the same for all age groups (ranging from about 15% to 18%), young adult (ages 18 to 24) members were nearly 30% of auto-enrollees and slightly older people (ages 25 to 34) were nearly 25%. By contrast older people (ages 35 to 44) and the oldest group of people (age 55+) represented over 25% and nearly 30%, respectively, of those who opted-in through their employers. Correspondingly only a relatively small percentages of younger adults opted in through providers while a much larger percentage of older workers did.[386]

As of June 30, 2009, KiwiSaver had reached most deeply into the youngest adult and oldest adult eligible population, relatively speaking. For example, the figure was over 45% for those 21 years of age, dropping fairly sharply to about 30% to those about 28 years of age, staying at that level until the age of 51 or so, then rising to a (smaller) peak of about 41% for those of age 61.[387]

The relatively high proportion of automatic enrollees to date who are younger adults might in part be attributable to younger workers perhaps being more likely to change jobs, and hence, must be enrolled by virtue of a job change. However, there are two significant incentives for people, especially younger adults, to remain enrolled. First, as noted, after a period of 3 years of membership, participants can withdraw monies for first time home ownership. With regard to this point the New Zealand Retirement Commissioner noted that "the reason [for the first time home ownership provision]…was we found [that] 18- to 24-year olds would not join a scheme when you lock it in until 65."[388] Second, also as noted, the subsidies for home ownership based on extended participation in KiwiSaver are substantial.

Data on opt outs according to age and income are not inconsistent with this view. The fractions of those who were automatically enrolled (and were still enrolled) as of mid-2009 decreased steadily according to age, from 28% for those between the ages of 18 and 24 to 15% for those between the ages of 45 and 54, and 8% for those over the age of 55.[389] This outcome might reflect the greater mobility and short job tenure of younger workers, and hence the greater likelihood of job turnover triggering automatic enrollment. As of the end of 2009, among those who had opted out, a relatively smaller fraction (23% as compared to 28%) were in the youngest adult group (ages 18 to 24), whereas relatively more were in the 25 to 34 years of age group (30% as compared to 25%).[390] (Differences for other groups appear to be minor.) Arguably, the home ownership subsidies described above (as well as the kick start government contributions and tax subsidies) might help explain the relatively high willingness of younger workers to stay enrolled.

The fractions of all those automatically enrolled (and still members as of mid-2009) decreased steadily with income: from 23% and 24% for those with incomes between $0 and $10,000 and $10,001 and $20,000, respectively to 8% and 2% for those with income between $50,001 and $60,000 and $80,001 and $90,000, respectively.[391] This result is plausible if we assume that automatic enrollment was more likely to be triggered for younger workers and relatively speaking, young worker incomes on average are lower than those of older workers. As of the end of the year, a relatively smaller fraction of those with incomes below $30,000 had opted out, whereas a relatively higher fraction of those with incomes about $30,000 had done so. For example, although 24% of currently active enrollees had incomes under $10,000, only 16% of all opt outs had that income. By contrast, while 13% of all currently active automatic enrollees had incomes between $30,001 and $40,000, 17% of that income had opted out[392] (Differences for other groups appear to be minor.) Here too, the factors just noted in combination with the incentives discussed in the previous paragraph might help explain these outcomes.

The early history of the program exhibits a small, but not insubstantial dropping out of automatic enrollees, not by opting out as such, but by exercising a right to stop contributions for a substantial period of time. More particularly, during the first year in which members were permitted to take contribution holidays (beginning on July 1, 2008), 25,900 people did so, an average of 2,200 per month. As of June 30, 2009, those on ordinary holidays represented about 4% of those eligible to be on such holidays (cumulatively).[393] Up until that time the increase from month to month was fairly steady. Other factors being equal, it is not clear what the steady-state percentage of those taking holidays will be.

Those who elected to take ordinary contribution holidays generally chose the longest available ones. Most important for this discussion, over 80% of the contribution holidays taken by automatic enrollees were for the maximum 5 years.[394] More particularly, as of December 31, 2009, 24,776 of 35,058 ordinary contribution holidays were for 5 years, almost 70%. About another 12% were for between 12 months and 3 years.[395] The decisions to take holidays of such significant lengths suggest they are generally not based on participant's assessments of their current nor near term financial circumstances. Participants would also hardly be in a position to reasonably conclude they would be unable to contribute for many months unless their current financial circumstances were dire. Thus, for many, the holidays may serve as version of an opt out of the scheme (even though no opt out is literally available.)

Automatic enrollees in the 18-34 age range were somewhat more likely than others to take contribution holidays.[396] Those in the $1 to $20,000 income range were relatively less likely to do so, as compared to higher income ones.[397] At first blush it is not clear how the interplay of the pressure of life cycle-related and other financial needs, the government provided incentives for continuing contributions, and other factors might have combined to produce these results.

Review and Observations

This last section has two parts. First we review key points in the discussion above with respect to (a) the provisions of the Pension Protection Act of 2006 enacted to spur automatic enrollment in employer-based defined contribution plans, as well as the role of default investments (including sections that relate to target date funds) in that act, and (b) the Obama administration's proposal to spur automatic enrollment in Individual Retirement Accounts with employers as intermediaries. In essence, the review suggests that the legislation (and implementing regulation) was not informed by serious discourse or extensive credible academic or other literature, that any substantial and sustained impact on participation remains yet to be demonstrated in a systematic way and may not be demonstrable; and that use of TDFs as the principal default investment is fraught with serious problems for plan participants. The review further suggests that the evidentiary grounding of the proposal for automatic IRAs is at least as problematic and that the only currently operating roughly analogous scheme (in New Zealand) does not offer strong encouragement for that approach.

Second, we offer observations about the broader implications of the review for retirement income security policy. We suggest that the problems of the legislation and proposal, such as illusory choice, agency, complexity, and expense, are likely to plague many efforts at creating individual accounts, either through employment, or otherwise. We argue that while the problems might not be insuperable, considerable effort would be required to meaningfully solve them; among the challenges are the nature, structure, and behavior of the financial service industry proffering investment products. We contend that serious attention needs to be given to alternative government or not-for-profit means for investing retirement contributions. Most generally, we assert that a truly considered approach to retirement income security policy requires much more thought about what are and should be the goals of that policy and how it relates to other policies that bear directly or indirectly on well-being in retirement.

Part 1

Prior to enactment of the legislative provisions aimed at spurring automatic enrollment in 401(k) plans, there was very limited published empirical evidence about the impact of such an approach on plan participation. The primary evidence of that sort was based a series of closely linked academic studies – all pertaining to the same small sample of large companies – which drew on outcomes of efforts by those companies to automatically enroll their workers. Indeed, information on current participation rates over time resulting from implementation of automatic enrollment was reported for only one of those companies.

On its face, that empirical evidence suggested that automatic enrollment might substantially increase participation at the outset, and perhaps for some months after enrollment, as compared with workers not automatically enrolled. This was especially true for those historically less likely to have participated in plans offered to them, including younger, lower income, and racial/ethnic minority workers. A much more recent, mutual fund asset manager report and a scattering of other, more anecdotal reports offer some confirmation of that work.

However, a more detailed look at the companies studied, and the cohorts of workers whose participation was the subject of study and other considerations suggests that the asserted conclusions or claims about the impact of automatic enrollment on participation might well be overstated for at least three kinds of reasons: (1) the greatest problems with plan participation are with employers much smaller than those studied; (2) if account is taken of the impact of job tenure on the sample being studied, the outcomes for the original automatically enrolled cohort are weaker; and (3) the adverse effect of taking account of job tenure is most pronounced both for the problematic smaller companies and for those who are younger or of low-income for whom the study outcomes were otherwise relatively strong. Although we have not canvassed the subject here in detail, we note that there is some modest literature pointing to certain negative consequences of automatic enrollment, among them that contribution rates by automatically enrolled participants are lower than those of voluntary ones and that employers who automatically enroll their workers may cut back on their matching contributions.

Publicly available reports suggest that there was minimal legislative discussion about which investments should be denominated as the qualified default investment alternatives into which automatically enrolled participants' contributions might be directed (to afford certain legal protection to employers). The legislative directive to the agency (the Department of Labor) to which Congress delegated the responsibility to more specifically prescribe those investments was very brief and very general. Published input in the form of comments to that agency on what the specification should be was almost entirely from industry interests. The arguments offered by the agency for the specification of default investments seem, at best, too thin. On their face neither Congress nor the agency drew on potentially relevant academic and other literature with regard to factors and considerations that bear upon designation of default investments. The nature of the agency's mission and role was arguably not one which would have afforded it the institutional knowledge and expertise that was needed to formulate the specification. The requirements other countries have imposed on the designation of default investments in government mandated or incentivized individual account schemes vary quite widely. While there is much to be learned from that experience, it appears not to have been consulted.

Of the default alternatives authorized by law and regulation, target date funds (TDFs) quickly emerged as the predominant one. The legislation and implementing regulations are associated in time with a dramatic increase in employer mandated automatic enrollment. They are also correlated with an enormous growth in contributions invested in TDFs running into the hundreds of billions of dollars with projections of future increases in the relatively near future running to several times that amount.

There are significant differences among practitioners and others as to what are the appropriate goals or purposes of TDFs as investment vehicles. In a number of important respects the lack of clarity about goals reflects most immediately the incremental, path-dependent nature of how legislative changes are typically made, but more generally the failure to consider how these changes and other proposals that have been broached fit within a broader, historical policy framework for income security in retirement. It is a framework the goals of which have neither been fully nor consistently articulated.

Even when practitioners and others seem to work from similar (if not identical) assumptions about goals and purposes, they appear to have sharp or fundamental differences as to what are the proper methodologies by which to determine the investments that should be included in TDFs.

Although the arguments in favor of TDFs are grounded in the premise that the TDF will be the participant's sole retirement plan investment, as a matter of investment theory this assumption appears to be highly problematic. It may also be dubious as a matter of practice, especially in light of evidence that plan participants' behavior with respect to their TDF and other investment choices frequently operates against that premise.

Moreover, TDF models typically assume that workers make regular contributions while with a particular employer and across jobs – both when participation is available at those jobs, as well as when no participation is offered – but in reality, such regular contributions are relatively rare. As a result, the rationale for the TDF model and possibly other permissible or possible default investment models is cast in doubt. In turn, projections based on such unrealistic assumptions are uninformative at best and misleading at worst.

The marketing and adoption of TDFs exhibit serious problems similar to those which have troubled defined contribution plans more generally. These include lack of sufficient diligence or competence on the part of fiduciaries in choosing investment vehicles and monitoring their performance, unwarranted fees being charged for providing those vehicles, and conflicts of interest in terms of who bears the cost of those fees, employers or workers.

TDFs are labeled or advertised in ways that are confusing and perhaps even misleading, so that even diligent, competent, and conflict-free fiduciaries face major challenges in choosing from among funds offered. Even where fiduciaries might otherwise be in a position to make a broad, considered selection of TDFs, they frequently end up with proprietary funds managed by plan record keepers, despite these not necessarily being the best or most appropriate choices. Such an outcome is driven, among other things, by the marketing and business practices of firms who offer both record-keeping and investment management services, the relative bargaining power of those firms and client companies, the size, capacity, and resources of those firms, and related incentives to accept bundled services. Moreover, fiduciaries' decisions are hampered by a lack of meaningful, broadly-agreed-upon benchmarks by which fiduciaries can assess the performance of different TDF vehicles.

There are concerns that the experience of TDF managers varies widely across the individual component funds and about the financial incentives given to them being sufficiently aligned with superior performance.

Generally speaking, discourse about and marketing of TDFs focuses on anticipated accumulations of assets by an ostensible retirement date based on the particular asset mixes and glide paths to be chosen. Even presupposing the wisdom of those choices, there are a wide range of possible outcomes at any given time in the future. Yet serious discussion of the risks of plan participants' accumulations falling short, or even far short, of asserted projections appears to be relatively rare. There are similar problems with projections defined by other commonly used measures, such as the anticipated rate of replacement of pre-retirement income.

The efficacy of implementing automatic enrollment (whatever the default investments) is critically dependent on plan participation rates, plan contribution rates, and assets accumulated by automatic enrollees as compared to voluntary enrollees. The modest pre-legislative enactment literature was suggestive of higher participation rates for the former as compared to the latter, at least over the near term, especially for groups of workers that historically have participated less than others. However, a more critical assessment of the literature suggests caution about high expectations.

Plan providers and sponsors would appear to have within their control large and meaningful sets of data that could shed considerable light on the matter of outcomes over the near and longer term. But rigorous studies based on that data are not publicly available (and perhaps may not have been done at all). The extent of academic or other independent analysis has been very limited. Such post-enactment literature as it exists appears to be almost exclusively available from industry sources based on proprietary data, and even then it is hardly enlightening.

While the focus here is on automatic enrollment, the experience with voluntary enrollment is relevant, especially the persistence and variability of contributions. While the modest accumulations in defined contribution plans over extended periods of time are in and of themselves testimony to the lack of persistence and inadequate levels of contributions that exist, there is surprisingly little published literature reporting on the probabilities from year to year as to whether any particular worker will be offered participation in a plan by his or her employer (assuming the worker is employed) and whether such participation would result in regular contributions. Certainly the scattered and limited studies point to rather low rates of persistence over time. Thus, even if at the outset automatically enrolled workers maintain participation at a rate higher than those voluntarily enrolled, the factors which impose a major drag on persistence in participation may well sharply attenuate such positive outcomes over time.

The Obama administration has advanced an automatic IRA proposal as a would-be solution to the problem of many workers having no access to an employment-based retirement plan and no involvement with other retirement-related individual account schemes. Like that administration's proposals relating to employment based plans, this one places no responsibility on employers to make contributions; rather, all of the burden is on workers. In this regard it stands in stark contrast to broadly similar schemes in the United Kingdom and New Zealand, to which proponents of the proposal sometimes appeal as a model and guide.

In all events, the prospective success of the proposal necessarily rests on the efficacy of automatic enrollment. It would appear that beliefs in what it might achieve rest almost exclusively on the already noted scanty and hardly compelling extant literature on the effects of automatic enrollment in the defined contribution plan context. Moreover, there are several reasons to believe that the automatic enrollment outcomes will be even worse for IRAs than for defined contribution plans. Because employers organize defined contribution plans, they presumably deem such plans to be important (whether as a recruitment or retention tool or otherwise). Thus, employers would have a significant interest in bringing opportunities to participate to the attention of their workers, educating them about the plans, and encouraging or incentivizing them to participate. Arguably such employer actions have had non-trivial impacts. By contrast, employers would be much more peripheral to government mandated and organized automatic enrollment in IRAs.

Indeed, an important issue is whether the legislation would spur employers to abandon their own retirement plans in favor of the proposed IRAs.[398] The available literature relevant to this issue is very modest at best. While a major study commissioned by the AARP was done to consider the feasibility, cost, and impact on savings of the Obama administration proposal, the section entitled “Effect of the Automatic IRA Proposal on the Incentives to Establish or Continue to Maintain Qualified Retirement Plans, is slightly over one page long and offers only plausible, broad gauge assertions about unproblematic outcomes.[399] In certain respects those projected results (and the reason for them) are, for reasons provided below, a two edged sword.

As noted, the UK is about to implement a scheme that is somewhat similar to the one the Obama administration has proposed. There debate over the scheme has included contentions that it would result in what has been termed “leveling down.”[400] A recent characterization of the effect was that

> “[t]here are existing schemes that provide higher benefits for members on low to medium incomes than personal accounts, or ‘qualifying schemes’. The Pensions Bill as drafted will make companies choose between undergoing an expensive restructuring of their present arrangements, or adopting personal accounts. Employers that do not currently auto-enroll employees into their arrangements will experience increased costs after 2012. Faced with the inflexibility and complexity currently being proposed many are likely to throw in the towel and opt for personal accounts for all employees.”[401]

One dramatic characterization drew on a survey and study by a major UK consulting firm, which asserted that “24% of employers who are currently making contributions over 3% will offer a lower contribution rate ‘than the one they offer their staff generally in their open pension schemes.’ This represents reduced provision for 2.4 million employees” (in the range of 10% of those working).[402] The 3% figure is significant because the UK legislation requires employer contributions equal to 3% of pay. While the reasons offered in connection with possible leveling down noted in the next two preceding paragraphs were “inflexibility and complexity,” the survey just referred to suggests that “commercial considerations” might be important in the decision.[403]

Recall that the Australian scheme discussed above - one which requires mandatory creation of, worker participation in, and employer contributing to individual accounts (at the rate up until recently of 9% of pay). There is some evidence of a negative effect of Australia’s mandatory creation and (employer) contributions to individual account schemes created through employers implemented more than a decade ago, though we have located no thoroughgoing study of the issue.[404] Also, we have not located a study of the anticipated or actual impact of New Zealand's KiwiSaver scheme on existing plans offered to workers.[405]

On its face, these factors suggest that imposing a required amount of employer contributions might bear heavily on whether employers level down in response, though as noted, the inflexibility and/or complexity (and perhaps attendant administrative or other expenses) might influence employer behavior. So the "good" news of the Obama administration proposal is that there are no required employer contributions. As the AARP report bluntly puts it, the proposal "requires no employer contributions no employer compliance with qualified plan or ERISA requirements, and no employer responsibility (or fiduciary liability) for selecting investments, selecting an IRA provider, or opening IRAs for employees."[406] The "bad" news is at least two-fold. The financial burden of contributions is solely on the workers unless he or she qualifies for the proposed modestly increased tax credit (the Savers Credit). In the first instance, there may be no effective fiduciary or other protection of workers as IRA investors. The weight and expense of stepping into the breach will be on the government (and federal taxpayers).

Further, there is remarkably little substantive literature on the persistence of (voluntary) contributions to IRAs. Such literature as appears to have been published suggests that individuals exhibit low levels of persistence in making year to year contributions to IRAs. (This behavior is, of course, exhibited by the relatively modest fraction of the population which has chosen to establish IRAs in the first place. Moreover, IRA account holders are relatively speaking more affluent than the general population; so, other factors being equal, persistence among lower income individuals might be even worse.) Also, while the evidence is fragmentary and uncertain at best, it would appear that a significant number of IRA holders make not insubstantial pre-retirement withdrawals, indeed, withdrawals prior to the age of 59½ despite a significant tax penalty for doing so. The overall low average and median accumulations in IRAs over extended periods of time is indirect confirmation of these behaviors.

Thus, if experience with voluntary participation is any guide, unless automatic enrollment can be anticipated to yield enormous improvements, the prospects for sustained participation by many workers would appear to be dim (and perhaps especially so among younger and lower income workers for whom concern is greatest). As the extended discussion above about TDFs as the predominant default vehicle for automatic enrollment in defined contribution plans suggests, there are a wide range of very serious and troubling problems that both employer fiduciaries and plan members face in deciding how participants' contributions are invested. There seems little reason to believe that the concerns raised by a similar approach with contributions to IRAs via automatic enrollment would be any less. Indeed, they are likely to be greater, not the least because such protections that employers might provide, spurred by their business interests and the obligations of fiduciary duty, would not be available.

Finally, there would appear to be only one currently operated government scheme for mandated automatic enrollment (with an opt-out) through an employer similar enough to the Obama administration proposal which might afford any meaningful insights as to how successful that proposal might be. As described above, certain aspects of New Zealand's KiwiSaver scheme are relevant, for example, provisions require automatic enrollment (with an opt out) of people when they start a new job. Also as described, while many workers have been enrolled in this way, during the relatively brief period of time during which KiwiSaver has operated, many have not remained enrolled. Over much of the life of the scheme the percentage of those opting out immediately has been over 33%. In addition, 4% of those who did not opt-out immediately have since taken advantage of the opportunity to take permissible contribution holidays, a substantial majority of which are five year holidays. Similarly, while those who are in KiwiSaver by virtue of automatic enrollment are younger workers, this outcome might be a consequence of younger workers being more likely to change jobs.

More importantly, there are very significant financial incentives for KiwiSavers to not opt out and continue to contribute that may be of special significance for younger (and arguably lower income) workers and which substantially outstrip what the closest American analogue, the Saver's Credit (as it would be expanded under another Obama administration proposal), affords to United States workers. This would suggest that in the absence of such great incentives, many more young (and lower income) workers and, hence, many more workers overall would either opt-out immediately or take contribution holidays.

In addition, it would appear that by virtue of its state pension scheme, New Zealand is quite generous to low income workers and for that reason, gears KiwiSaver to middle income ones. By contrast, the Obama proposal is more aimed at lower income workers for whom the United States' state pension scheme (Social Security) is relatively less generous. What effect this difference has on KiwiSaver participation in or the level of contributions by lower income workers to the scheme is not clear. For example, these workers appear to have the prospect of a relatively high government guaranteed income stream compared to their pre-retirement income, which might make them feel in a better position to divert current income to KiwiSaver.[407]

Part 2

Apart from the specific strengths and weaknesses of the origins, nature, and implementation of the 2006 legislation and what has been proposed by the Obama administration, they suggest broader or more general lessons to be learned. They include the following:

The concerns posed by an almost mind-numbing diversity of views about TDFs both generally and especially as a default investment for automatic enrollees, are in many respects peculiar to that investment vehicle. However in a number of important ways they reflect problems common to efforts to design individual account schemes, especially those schemes which incorporate provisions for automatic enrollment.

For example, in the abstract, the expectation (or hope) is that 401(k) or other individual account plan participants will increase their financial security in retirement by making consistent and sufficiently high contributions over an extended period and that the right choices for investing those contributions. The premise is that workers should have a choice in investment (and contribution) decisions. The investment choices are presumably those which, among other things, reflect their current and future life circumstances and preferences. This notion is paired with the presupposition that those workers will have the knowledge, skills, and other resources and capabilities to make the choices that are “right” for them. The weight of the evidence is by far against that presupposition. Moreover, for employment-based schemes it is actually plan fiduciaries who structure worker choices by fashioning the investment menus. So, by definition worker choice is constrained from the outset, if not devoid of much meaning. How much so depends, among other things, on the size and scope of the particular menus of investments workers are offered. In principle, the imposition of fiduciary duty is aimed at assuring sufficient diligence, competence, and disinterestedness in the formulation of the menus. Unfortunately, it is not at all obvious that employers (especially those who do not currently offer a retirement plan) are now or in the future likely to be ready, willing, and able to play the required role.

In all events, the extent to which efforts at automatic enrollment in tandem with specified default investments are sufficient to the task is presumably linked to how well they enable workers, through the choices they have as plan participants, to make enough progress in increasing their financial security in retirement. But that, in turn, requires a specification about what kind of progress is desirable or necessary. Making such a specification further supplants worker choice, because individual workers might otherwise use different criteria by which to assess their progress toward greater retirement income security.

In some measure the diversity of views about TDFs reflects their being the result of an effort to move beyond an over-simplified, model of workers’ circumstances and ostensible needs. Correspondingly, the more complicated versions of TDFs that are proffered are ostensibly driven by efforts to take better account of those circumstances and needs. But, almost of necessity, those more complicated versions entail both a broader range and greater number of layers of provider services. That, in turn, may well add to the expense of investments and, correspondingly, result in lower net returns on workers’ assets. The greater complexity of services and larger number of layers of providers also potentially increase the extent of principal-agent problems. Further, they raise demands on plan sponsor and fiduciary competence and diligence. Such demands would seem to be most problematic precisely for those employers heretofore thought least likely to have offered their workers any plan in which to participate – employers who also may well be the least equipped to operate such plans even if willing to do so:

small employers and employers in industries employing many low-wage and racial and ethnic minority workers.

It is close to ironic that in a number of important respects these more complicated efforts are carried out (intentionally or otherwise) in pursuit of mimicking or reproducing certain attributes of defined benefit plans – for example, the ability to invest in a broad range of asset classes and investment vehicles, to employ one or more sophisticated (and ostensibly effective) investment strategies, and to deliver income in the form of guaranteed streams of income, e.g., annuities, etc. To the extent they attempt to do so on an individual basis, the potential for proliferation of service providers with attendant higher costs and agency problems (among other issues) are in and of themselves sufficient to pose serious questions about the rationale for and efficacy of those efforts.[408]

As a practical matter, any move to a more complicated scheme is likely to further empty the nominal rationale for and ostensible commitment to plan participant choice of meaningful content. This possible outcome would manifest the worst of the so-called "nudge" approach to policy that has gained some currency generally and certainly some purchase within the Obama administration.[409] The approach – one version of what has been termed "libertarian paternalism" – aims to "alter[] people's behavior in a predictable way without forbidding any options or significantly changing economic incentives."[410] As one sharp critic of it has noted, nudge architects evidence a "lack of attention to how public policy is actually made…The specifics of who the choice architects are and what functions they perform are not spelled out, because if they were, they could not operate as choice architects."[411] There is not only a serious concern about the transparency in formulation of policy, but care in doing so. If policy is effected by mandate, it is clear who has made the policy decision. Arguably, because elected and other officials can be held accountable for a decision, they will act thoughtfully and thoroughly in reaching it. But policy effected through nudges leaves nominal choice (and responsibility for the outcomes) with the individuals. Under those circumstances, officials may well have less incentive to exercise care in how they choose the nudges. This is not only a matter of practical concern but perhaps also a moral one: It would seem irresponsible to nudge an individual into an action when by reason of his or her inertia, or being attentive to the nudge but ill-equipped to resist it is unrealistic to expect the individual to avoid those actions which might prove harmful to that individual.

In any case, the foregoing discussion also suggests that it is naïve and perhaps even foolhardy to formulate plans for a new or improved pre-funded retirement security scheme design without a hard look at how the financial service providers in the "marketplace" for investment products operate and are likely to function in relation to that scheme (or should be required to operate).[412] For example, on a somewhat more cynical view of the matter, the diversity and complexity of mutual fund offerings may reflect problematic characteristics of the mutual fund industry, a number of which it appears to share with what is exhibited by a broad range of consumer financial product providers. With respect to the latter, critics have suggested that not only are there common problems of consumers not having the resources to make sufficiently informed purchasing decisions and being confused by choice from among a plethora of products, but also that those problems are exacerbated by providers' ability to change what may be unessential characteristics and the corresponding terms of those products.[413] The similarity of this characterization to one made in the course of a government review of the mutual fund industry is striking: that is, it "exhibits the characteristics of monopolistic competition." Additional similarities include the presence of a large number of firms, easy entry into the market, and the particular products offered. As the GAO noted, "firms' products differ from one another in terms of quality, features, or services," and correspondingly, because the products are so differentiated, "firms can charge different prices from others firms," resulting in "higher pricing levels" and products that "are promoted by brand, rather than price."[414] As such, one critic has characterized the mutual fund industry more starkly as one which embodies "strategic complexity."[415]

Given how one commentator has characterized them, one might view TDFs as a case in point: "[t]he marketplace for [TDFs] is dominated by a lack of plan sponsor choice of target date fund selection, high exit barriers, imperfect buy-side information and heterogeneous products."[416] Insofar as that characterization is apt it renders even more problematic the rhetoric and reality or meaningfulness of choice that is one of the underpinnings for currently proposed automatic enrollment-related initiatives by the Obama administration. It seems implausible to believe that the marketplace-related problems of TDF funds would not extend to the broader range of mutual fund or other products available now or in the future..

In certain respects this concern in conjunction with automatic enrollment resonates with others raised in the recent debate over health care insurance "reform." Certainly, there was (and there remains) much inflammatory and otherwise dubious rhetoric about "socialism" in connection with nearly compulsory enrollment in a government-mandated health insurance scheme. But that notwithstanding, at minimum, it reflects a core of legitimate concern about what is akin to default enrollment into a plan in which participants will face a marketplace organized and dominated by corporate players whose interests and behavior may not be well-aligned with those of plan participants.

More generally, the financial markets meltdown, the role of major financial services companies in it, and the devastating consequences for working people, retirees, and would-be retirees alike, offer a cautionary tale about the relationship between meaningful reform as it relates to retirement security and financial markets reform more generally. That analogous and serious fears about the role of firms in the financial services markets referred to above have given rise to an extraordinarily strong effort to protect consumers through a new agency with wide reach and a panoply of powers is indicative of the challenges individual investors face. It appears that the massive financial markets reform bill did not place key retirement financial services products within the purview of any such agency. These fears exacerbate others suggested above that any would-be government policy reliant on IRAs (or other individual account arrangements) as primary vehicles for enabling all households to gain financial security in retirement would, in the first instance, leave those enrolled even more at the mercy of purveyors of products than would-be participants in plans established and operated by their employers.

Financial markets reform as a general matter in combination with a powerful and effective consumer financial services products agency accorded authority over individual retirement investment products in particular might meaningfully reshape the relationship between market providers and ultimate users, individual plan participants. But failing that, the use of existing or the creation of new, non-market driven asset manager intermediaries and/or intermediaries with different accountability structures is worthy of serious attention. In the first instance, one might think of a government operated entity.[417] Of course, whatever the reality, popular perceptions about the efficiency and effectiveness of government agencies might result in a call for such an approach at best falling on deaf ears. Failing that approach, looking to not-for profit-bodies with governance structures that incorporate accountability to workers as members and/or as taxpayers or citizens merits consideration.[418]

Finally, whatever the intermediary and its governance structure, there still remains the question of the extent to which reform of retirement income security policy should be geared to individual accounts and individual investment decision-making. Certainly that is a topic fraught with controversy – ideological, political, and otherwise. On one hand, notwithstanding criticism, the U.S. has successfully operated a nearly universal, mandatory pay as you go scheme – Social Security – which is collective in nature, that is, there is no individual choice as to whether a contribution is to be made or what is done with the monies. (Note, too, Social Security requires equal employer and employee contributions; by contrast, the Obama administration proposals require no contributions by employers.) Further the apparent success of a broadly similar but partially pre-funded scheme in Canada suggests that a(n at least partially) pre-funded Social Security could, in principle, work here as well. Indeed there already is some precedent for such an approach in the United States.[419] On the other hand, notwithstanding the weaknesses or problems associated with them, individual account schemes that are other than universal and other than mandatory might under certain circumstances have a place. In that respect, the issue resolves itself into one as to roughly where in the spectrum between the two any major new federal scheme that is a supplement to Social Security should be located.[420]

A thoughtful and perhaps wise judgment in that regard would appear to rest on (among other things): (a) what constitutes as a societal matter the minimal acceptable standard of living that people should enjoy after the time when they might reasonably be expected to have fully retired; (b) again as a societal matter, what standard of living in retirement of those who have had a full working life should reasonably expect in relation to that which they enjoyed during their working lives; and (c) the role of federal policies through cash and non-cash payments, tax subsidies and the like that bear directly or indirectly on the standard of living people enjoy in retirement. Arguably, the mix of universal, mandatory, and more secure elements as compared to not-necessarily-universal, voluntary and riskier elements would shift with the goal: tilt sharply toward the former for achieving a minimally acceptable standard of living, less so with regard to sustaining a pre-retirement standard of living, and even less so with reference to a higher one.[421]

Appendix A

As suggested in the main text, there needs to be clarity about the overall retirement policy framework and the goals that it embodies. For example, the primary or perhaps even exclusive goal might be to *ensure* that people have some minimally adequate financial security in retirement. In those terms, a secondary goal might be to afford workers meaningful opportunities to sustain themselves beyond what that minimal standard would afford. Even if it the exclusive or primary goal were as suggested, questions remain as to how to define minimally adequate financial security. It could be determined in relation to a person's pre-retirement standard of living as measured, for example, by some replacement rate of his or her pre-retirement income. Alternatively, it could be based on an absolute standard of well-being, using an official "self-sufficiency" or "poverty" benchmark. Or the standard could reflect concerns about social inclusion or equality, for example, the amount of retirement income anticipated as a percentage of the median income of all retirees or, perhaps, of all workers.

As noted, the goal might alternatively embody a less strong commitment. That is, it might be just to *enable* or *afford an opportunity to* workers to attain a measure of financial security in retirement. In that case, while such a goal might reference one or another standard of financial security, the concern would be to ensure workers having a sufficient *chance* to attain that standard. There are or would be a multiplicity of risks (which might vary according to the nature of the specific retirement scheme) that would bear upon that chance. To name but a few they would be individual and cohort longevity, disability, employment, inflation, investment risk, operational, and political risk.

To set this discussion in context it is important to recall the basic character and goals of the first (and for many households, still) central pillar of retirement security, Social Security. The basic character of the scheme was "national, compulsory, and contributory" with "[c]overage [that was] almost universal" and with "[b]enefits a matter of right."[422] More particularly, it was conceived of as a "property right rather than a civil right."[423] Contributions based on earnings were the link between the nominal entitlement and the specific benefit. As a general matter it appears that in the history of Social Security there has been no explicit definition of "adequacy."[424] However, in the first instance, benefits were tied to earnings in part on the "assum[ption] that all able-bodied workers (men, primarily, and women without small children) would be in the paid labor force…and thus would earn a right to benefits to insure against poverty caused by the specific anticipated eventuality of inability to work in old age."[425] Moreover, the benefit formula was "weighted in favor of low income workers."[426] This feature, combined with "family benefits without reduction in the basic worker's benefit amount," reflected the aim of "mak[ing] retirement possible for lower and middle wage workers."[427]

One frequently used measured of adequacy is the "replacement rate": income immediately after retirement as a fraction of income immediately pre-retirement. This measure is geared to the notion of retirees maintaining their pre-retirement standard of living in retirement. Estimates vary as to what that percentage is or should be, but typically the figure falls in the range of 70 to 80 percent. With respect to Social Security, it appears that for the period 1940 to 2000, for the "average steady earner," Social Security benefits represented a replacement rate which ranged from below 30 percent in 1940 to a low below 20 percent around 1950 to a high of over 50 percent in the early 1980s. For the "low steady earner" the figures were about 40 percent, slightly below 30 percent, and over 70 percent, respectively. For the "high steady earner" they were about 20 percent, somewhat more than 15 percent, and about 40 percent, respectively.[428] These changes reflect numerous congressionally mandated, some *ad hoc* and some dramatic, to the basic benefit formula over the intervening years reflecting concerns about inflation. According to a 2007 estimate by the trustees of the Social Security system, the replacement rate for the low earners retiring at age 65 would drop from 54.2 percent in 2007 to 48.9 percent in 2040; for medium earners, from 40.2 to 36.3 percent; and for maximum earners, from 27.9 percent to 23.9 percent.[429]

As noted, the figures cited refer to replacement rates at retirement age. However, the concern, more realistically, may well be sustained enjoyment of whatever standard of living is attained immediately after retirement. If so, then one dramatic difference between the original legislative prescription for the level of Social Security benefits and the current one is the result of the 1972 legislative decision to mandate automatic cost of living adjustments to benefits provided starting at the time of retirement. As suggested above, Congress was over the years in some measure cognizant of concerns about inflation eroding real benefits. However, legislative adjustments reflecting such concerns were episodic and *ad hoc*.

It must be remembered though that the contribution-based, pay-as-you go scheme which is popularly referred to as "Social Security," but which actually was called "Old Age Insurance" (OAI), was just part of the Social Security Act. Title I of it included what was then termed the Old Age Assistance (OAA). OAA "gave cash payments to poor elderly people, regardless of their work record. OAA provided for a federal match of state old-age assistance expenditures."[430] OAA was driven by an immediate need to assist those who were then elderly people and others who would likely accumulate few OAI benefits should they retire at the time (when OAI benefits were then scheduled first to be paid). OAA was built on pre-existing state old-age assistance programs and involved federal matching contributions to those state programs. The federal contributions were supported by general revenues, not OAI contributions; state contributions were supported by state general revenues. In 1972, OAA was transformed as part of a larger legislative package which created the Supplemental Security Income (SSI) program which concerns the needs of aged, blind and disabled people. It was "designed to provide a positive assurance that the nation's aged, blind and disabled people would no longer have to subsist on below-poverty incomes."[431] Age-eligible recipients qualify if they are at least 65 years of age and satisfy maximum "countable income" and "countable resources [assets]" requirements. There are specified uniform federal payments which may be supplemented by State payments. The federal payments are adjusted for changes in the cost of living.[432]

In essence then, the Social Security Act was, in part, informed by the goal of guaranteeing people a level of income at retirement. With respect to the OAI provisions, the particular level was in considerable measure linked to the amount of time people spent in the work force and the amount of their earnings. Such a link was grounded in the premise that benefits were rights earned by virtue of participation in the workforce. In that regard, then, the level of benefits guaranteed was, in the first instance, tied to measures of lifetime earnings. However, there were at least two-fold concerns about the adequacy of the level of benefits which informed the prescription for such benefit levels. First, there was a decision to adjust them so that they were relatively higher for lower lifetime earners as compared to relatively higher lifetime earners. While no actual standard of adequacy was specified, the choice to ensure relatively higher replacement rates for low earner workers arguably reflected an implicit understanding or view about what level of benefits was absolutely and minimally adequate at any given time. Second, there was a decision to also set benefit levels to take into account the level of earnings by active workers prevailing at the time of retirement. Arguably, this choice reflected a judgment that retirees should enjoy a level of well being at retirement that corresponded in some measure to the level of well being enjoyed by the larger society – and especially or more particularly – the working population at that time.

In addition, as suggested above, Social Security was focused not only on individual workers but also their households. Thus, retired workers' spouses (of qualifying age) were entitled themselves to receive benefits equal to up to half of those workers' benefits (depending upon whether the spouses themselves, by virtue of their own work history, were directly entitled to receive retirement benefits.) In addition it included protection in the case of the disability or death of the working participant. Disability entitled workers to a substitute for some of the earned income they would have received during their remaining working lifetime and, in turn, retirement benefits relating to the working and disabled segments of that lifetime. Surviving spouses, as noted, could receive an amount equal to up to one half of their retired spouse's Social Security benefits and were entitled to continue to receive up to an amount equal to those benefits upon the spouse's death.

All of these provisions reflect the predominantly social insurance character of the original Social Security Act protections against (at least) the risk of being unable to work or greatly burdened by working beyond a certain age; the risk of being disabled during a working lifetime and having inadequate income during the remainder of that lifetime and into what would otherwise have been retirement; and the risk of individuals (at the time, usually women) who were most likely out of the labor market from some period of time by virtue of being family care providers losing the cash income earned by their spouses.

We say predominantly, because the OAA provisions of the Social Security Act entailed a further overlay of goals. At the time they were largely seen as stop-gap to meet the immediate needs of indigent people who were then elderly or who would be of retirement age by the time OAI payments were (later) scheduled to first kick-in. However, as an historical and practical matter, OAA, now under the umbrella of the federal Supplemental

Security ("SSI") program, remains an important support for millions of indigent seniors to this day. As articulated in 1972, the relevant goal of SSI was to ensure that seniors did not live in "poverty." However, although SSI benefit levels "are often compared with the [official federal] poverty threshold, SSI benefit adjustments are not calculated based upon the poverty measure."[433] Indeed, "the SSI federal base benefit has, at no time in its history, brought recipients up to that threshold," because it was assumed "that SSI recipients would also receive benefits from other programs such as Social Security and Food Stamps."[434] Even if the official poverty threshold were reached there is serious doubt about whether it is a realistic measure of what elders require for a minimally adequate standard of living.[435]

Thus, debates about income security in retirement are framed or informed by multiple and overlapping goals. To date, social insurance type provisions in the original Social Security Act embodied the attainment of a level of retirement income through OAI linked to (1) lifetime workforce participation and earnings; (2) an implicit absolute standard of well-being associated with assuring low lifetime earners a relatively higher replacement rate; (3) a relative standard of living associated with linking benefit levels to prevailing earnings levels at the time of retirement; (4) the preservation throughout retirement of the standard of living attained at retirement associated with guaranteed cost of living adjustments each of which complemented by (5) protections in the face of the risk of the untimely death or disability of covered workers. These were supplemented by provisions in the form of OAA (now SSI) (6) conceptually and (loosely) practically to enjoyment of at least a "poverty"-level standard of income.

At the time of the creation of Social Security, employment-based retirement plans were, relatively speaking, few and far between. It was only during the post-World War II years that such plans became broadly significant. For the broad mass of workers they were initially driven by collective bargaining agreements negotiated on behalf of the unionized private sector. But these norms for receipt of such retirement benefits extended to many other private sector, non-unionized workers. In the first instance they embodied the goal of enhancing retirees' income beyond what Social Security would afford them. They took the form of what were ostensibly guaranteed cash retirement income payments, "pensions." (That ostensible guarantee was more problematic or illusory than met the eye. Enactment of the Employee Retirement Income Security Act in 1974 was required to render those guarantees more substantial.) These pensions were, in some measure, geared to enabling retirees to sustain their pre-retirement level of well-being (expressed in terms of income) after retirement.[436] Correspondingly, it appears that a set of widely held expectations crystallized around the greater level of well-being that might be achieved – and to some degree has been achieved – by participation in employment-based retirement plans, with a benchmark replacement rate being a measure of the extent of that achievement.

In sum there was a scheme for shared protection against risk of the inadequacy of (what had been working) households' income in retirement. In considerable measure, the employment-based retirement schemes that emerged after the enactment of Social Security and especially after World War II, and which were spurred and supported as a matter of official government policy, afforded additional protection for those workers who were fortunate enough to be covered. That protection took the form of pensions (defined benefit plans) which provided workers with guaranteed income benefits above and beyond what Social Security offered. Both were artifacts of public policy. The former was a mandatory scheme for social insurance. The latter involved ostensibly voluntarily assumed obligation but as heavily supported and incentivized by significant tax subsidies. The combination of guaranteed income from both arguably reflected a different, more expansive, understanding of inadequacy. The subsequent development of defined contribution plans – in the first instance, 401(k) plans – was, again, spurred and supported by government policy. Initially at least, it was not seen as a way of supplanting defined benefit plans. Indeed, it might in some measure be an irony of history that they have come to embody a dramatic move away from what defined benefit plans offered. Similarly, the shifting, erratic legislative history to date of IRAs, originally thought to offer means to workers outside of the defined benefit system to build income security in retirement, reflects not merely a failure to achieve that objective but also successful leveraging to the system of tax subsidies to the benefit of relatively higher income households.[437] In all events, as a policy matter there has been no ready link between either 401(k) (or other defined contribution plans) or IRA policies and specified goals for income security in retirement.

The foregoing suggests several important ways to think not only about the legislation and Obama administration proposals discussed in detail in the main text but also retirement income policy more generally. First, there is a need to focus clearly on the great importance of a policy commitment to guaranteed income as both an historical and practical matter. Second, and in turn, there is a need to attend to what the precise nature and extent of that guarantee should be. For this and future generations it requires a reassessment and accommodation of multiple, diverse, and overlapping goals relating to such a guarantees embodied in initial and subsequent policy for Social Security and then for employment-based plans. As suggested in the conclusion to the main text, there may very well be a range of effective means for providing that guarantee in connection with the design of new policies, whether pay-as-you-go (like Social Security) or pre-funded (like contribution-based individual account policies such as those pertaining to employment-based defined contribution plans or Individual Retirement Accounts). But in all events, the design must be anchored in that guarantee.[438] Third, insofar as policies should extend beyond ones that embody guarantees, then their design should reflect clear goals about the extent to which they might add to retirement security, a realistic understanding of the risks that those goals might not be achieved, and realistic appraisal of individuals' ability to understand, make choices, and bear those risks. Fourth, achievement of the third task is closely tied to achievement of the first two. The extent to which aspects of any reformed policy scheme for retirement security embody guarantees may greatly affect the ability of individuals to bear the risk of their participation in aspects that don't embody guarantees, and perhaps as well, their perceptions about those risks.

Appendix B

With regard to the United States, a more indirect approach to estimating automatic enrollment's impact on participation was taken by a group of government researchers. Some of their conclusions are in accord with what is reported by the academic researchers discussed in the main text, and some not. Here, they draw on survey data about worker characteristics to estimate the likelihood that they would withdraw or remain in after being automatically enrolled. In particular, they rely on data from the 2001 federal Survey of Income and Program Participation (SIPP) panel (a nationally representative sample of 37,000 individuals). The 2001 SIPP does not contain data distinguishing automatic enrollment-based plans from voluntary ones. As a substitute, the authors utilize survey respondents' answers to questions about their lack of participation in plans, and their interest (or lack thereof) in participating in the future to gauge whether individuals with certain characteristics would opt out or stay in face of automatic enrollment.[439]

First, to assess the likelihood of staying in a plan if automatically enrolled, the authors look at the reasons workers offer for not participating in a retirement plan. They distinguish between those who state that they lack the financial means to do so, and those who offer a reason relating to procrastination or inertia. They deem a person likely to stay enrolled after automatic enrollment if that person reports that (1) he or she has not participated due to procrastination; and (2) although not participating at present, he or she intends to participate at some time in the future. According to a probit analysis, neither income nor race were statistically significant factors. However, age was. Individuals in their 20's were 6% to 10% more likely than their older peers to participate under automatic enrollment.[440]

Similarly, the authors base their estimates of who is likely to opt out on responses stating that the person is not participating due to financial constraints, and that he or she does not intend to participate in the future. Here, age, race, and income were significant factors to varying degrees. People in their 50's or 60's are 21% more likely to opt out than those in their 20's. Blacks are 19% more likely than whites to drop out, though "Asian/Native Americans" and "White Hispanics" showed significant differences from whites. Individuals who earned less than $50,000 were approximately 13% more likely to opt out than those who made $80,000-$130,000. But there was no significant difference between those who earned less than $30,000 and those who earned $30,000-$50,000 (though the basis for that conclusion is not clear).[441] The authors do not offer a suggestion as to why race and income appear to be significant with regard to the likelihood of opting out of automatic enrollment, but not with regard to staying in once enrolled.[442]

Shortly before the completion of this paper the result of a another study was released, which offers (albeit indirectly) some insight into what the initial take up would be for automatic IRA plans by low income individuals. The authors actually focus on 401(k) participation. They estimate the likelihood that low income individuals who are currently not offered participation in a 401(k) plan would participate in such a plan if offered to them. They conclude that "only 33 percent in the lower income tercile are likely to participate in an offered [401(k)] plan."[443] These results are at best only suggestive for a variety of cross-cutting reasons. First, the authors consider only full-time workers. Participation rates of part-time workers in 401(k) plans are generally lower than for full-time workers. Thus, the percentage of all workers who are not currently offered participation in a 401(k) plan who would participate if offered one would be lower than 33%, perhaps substantially so. Second, as the authors acknowledge, projecting from their results to those for an automatic enrollment scheme ignores the possible positive effect of automatic enrollment.[444] That, of course, begs the question of how positive that effect is for 401(k) plans. Third, the willingness of any workers to participate in 401(k) is in some measure positively affected by the extent of employer matches of their contributions. There are no employer matches required by the proposed automatic IRA scheme, though the proposed enhanced Savers Credit that is primarily targeted to relatively lower income workers might serve a somewhat similar function. However, in the absence of relevant data and analysis, it is difficult to say how different the impacts of the two kinds of incentives would be.

On the industry side of the equation, there is some additional information about outcomes, but the sources do not report important details of their samples and/or those outcomes by which they could be evaluated. These are discussed in Appendix C.

Note that the response to an inquiry about supporting literature on the outcomes for automatic enrollment by one of the authors of two major studies commissioned by the AARP about the impact of the implementation of the proposed automatic IRA proposal was that the Vanguard study discussed in the main body of this paper "was by far the most in-depth examination of automatic enrollment that I have seen."[445]

With respect to the United Kingdom there were a series of case studies produced, in connection with efforts which led to a decision to implement a government mandated scheme of automatic enrollment (through employment) with an opt-out. They involved interviews at 11 private sector pension schemes and two public service schemes in the UK, supplemented by administrative data from payroll and membership records, when available from employers and pension providers. The authors of the government report on those efforts emphasize that their data is qualitative and rich in anecdotal detail, but not intended to support quantitative analysis. Differences in the data collection methods of these employers and providers mean that the results for these schemes could not be immediately compared. The researchers also note that because data on participation rates were collected shortly after the transition to automatic enrollment (collected once, at a minimum of four months after automatic enrollment was implemented), persistence could not be evaluated, limiting the relevance of the data with regard to the issues discussed in this paper.[446]

Four companies that implemented automatic enrollment are examined. However, all four exhibit characteristics that make them differ significantly from the way automatic enrollment is typically implemented in the United States. One company does not allow employees to enroll voluntarily if they choose to opt out of the plan at any time. Another company offered a "cash-in-lieu" alternative to the retirement plan, through which employees could opt to get the employer contribution in cash, added to their paychecks, instead of participating in the retirement plan. The other two companies started off with unusually high participation rates under voluntary enrollment (both over 85% participation), one of which suspended automatic enrollment for a period of time due to contractual issues.[447]

There were also several studies based on surveys which are suggestive in character but are of very limited value because of the lack of information or detail which would make them meaningful.

A 2005 report by the UK Government Actuary on "open schemes with more than 12 members" offers a cryptic reference to "active employee membership" for DC plans to the effect that if all workers are automatically enrolled (with an opt-out), 90% participate as compared to 53% when none are automatically enrolled.[448] ("[I]t is not permitted for schemes to make membership compulsory."[449]) However, no time frames with regard to automatic enrollment are discussed, and it appears that there may have been a wide range of other employer actions taken in conjunction with automatic enrollment to spur participation. Also, it is interesting to note that almost as large an effect was produced by automatic enrollment into DB plans: 89% as compared to 66%.[450] There is indirect evidence suggesting that the impact of automatic enrollment was stronger when all employees were automatically enrolled rather than some.[451]

According to a citation – we have been unable to locate the report itself – to a survey by a major consulting firm in 2006 of employers with at least five employees, while 56% of employees were eligible to join those plans *to which employers made contributions*, "participation levels rose to 90% among employers who auto-enrolled employees into these schemes."[452] Here, the reference appears to be to automatic enrollment into any kind of scheme and it is not clear what employer actions were made in conjunction with such enrollment. Moreover, at first blush it is difficult to square figures on automatic enrollment here, in the Government Actuary report, and another source.[453]

A 2005 report based on a survey by the UK Department of Work and Pensions found that for firms with fewer than 20 employees, the fraction of workers participating in pensions who were automatically enrolled was about the same as for those who opted in (67% as compared to 68%) although the median figure was higher (80% as compared to 69%).[454] The effects were greater for firms with more than 20 employees: the average rate was 60% as compared to 43%; the median rate was 77% as compared to 26%.[455] It would appear that these figures refer to all kinds of retirement plans, not just DC plans.

Additional studies pertaining to automatic enrollment appear to have been written by CBI/Mercer, and Watson Wyatt, but we have not been able to find them. However, questions have been raised with regards to the usefulness of their conclusions.[456]

Finally, we note that in response to an inquiry of a person who should have knowledge on the point, given his government role in planning and implementing pension research in the UK, he responded with no other sources or supporting literature on the outcomes for automatic enrollment that were not already discussed in this paper.[457]

Appendix C

According to recent congressional testimony by Fidelity Investments, immediately after implementation of automatic enrollment in corporate DC qualified plans for which the company was record keeper, the average participation rate was 95%, with 76% being automatically enrolled, 19% enrolling by choice to invest at other than the default level, and 5% opting out. Fidelity also reports that an additional 6% opted out over the subsequent 12 months, resulting in an overall participation rate of 89%, the same figure projected by Vanguard based on an analysis of its plans discussed in the main text.[458] Note, in this regard, that Fidelity states that the percentages reported are those "still actively employed by the plan sponsor"; thus, the percentages necessarily cannot reflect the behavior of the cohort of all those who were originally automatically enrolled.[459] (As discussed in the main text, presumably it is still the actively employed upon which the Vanguard report focuses.) However, because the Fidelity testimony gives virtually no detail about the sample of automatically enrolled workers, it is very difficult to know whether the outcomes in the Vanguard and Fidelity reports can meaningfully be compared.[460]

There are also reports based on surveys by several retirement plan consulting firms. One described its study of participation and other outcomes for defined contribution plans with and without automatic enrollment as of the end of 2005. However, the sample was limited to "large plans," a term not defined in the study.[461] On its face the study relates findings about participation rates similar to what is detailed in the main text. That is, it found that the participation rate for the automatic enrollment group was 91%; participation was substantial across age, salary, and tenure categories; and that there were dramatic increases among younger, lower-tenure, and /or lower-salaried employees.[462] However, the document does not state whether the reported figures pertain to those who had not opted out by the end of the relevant opt out period or (a) subsequent time(s). A second (smaller scale but more recent) survey of only large employers (over 1,000 employees) in 2010 by another major consulting firm states that "in 2009 relatively few employees" opted out after they were automatically enrolled – "85% of companies report fewer than 10% of employees opted out of the 401(k) plan." As of this writing it offered no details beyond that, e.g., the behavior after the end of the opt out period of workers who did not opt out initially.[463]

The Society for Human Resource Management (SHRM) in 2009 offered a snapshot of automatic enrollment outcomes. It reported in 2009 that "38% of SHRM member firms automatically enroll their employees in defined contribution plans, versus 19% in 2006…SHRM research shows that the opt-out rate is 4% or less at 90% of SHRM members' organizations, and it is less than 1% at more than 50% of all auto-enroll employers."[464] No other information was provided.

A report on the implementation of automatic enrollment at a major insurance company found that after one month, participation rates had increased from 26,192 individuals to 32,609 (out of 34,151 eligible associates), and the average deferral rate increased from 5.8% to 6.8%. (It is not clear if this rate factors in non-participants as 0% or excludes them).[465] Unfortunately, no long-term data was available.

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[1] "Reforming Pensions," by Nicholas Barr and Peter Diamond, CESIFO Working Paper No. 2523, January 2009. Available at http://www.ifo.de/pls/guestci/download/CESifo%20Working%20Papers%202009/CESifo%20Working%20Papers%20January%202009/cesifo1_wp2523.pdf.

[2] See "Principles for a New Retirement System," Retirement USA. Available at http://www.retirement-usa.org/wp-content/uploads/2009/03/091005-RUSA-Principles-FINAL.pdf; and "Constructing New Retirement Systems: Choosing between Insurance and Investment, Choice and Default," by Emily K Kessler. Available at http://retirement2020.soa.org/files/2009-constucting-new-kessler.pdf. For specific proposals consonant with each set of principles see See winning and other papers discussed at Retirement USA's Reenvisioning Retirement Security conference on October 21, 2009. Available at http://www.retirement-usa.org/about/re-envisioning-retirement-security/proposals-for-a-new-retirement-system and winning and other papers highlighted at the Retirement 20/20: New Designs for a New Century conference on June 2-3, 2010 in Washington D.C. Available at http://retirement2020.soa.org/new-designs.aspx.

[3] In 2006, median annual income from assets in the lowest and second lowest quintile of people age 65 and older was $297 and $592, respectively; their median annual income from pensions and retirement savings, survivors'' benefits, and disability income was $1,872 and $2,400 respectively. "Sources of Income for Older Persons, 2006," by Ke Bin Wu, AARP Public Policy Institute, April 2008, p. 5 and Table 3. Available at http://assets.aarp.org/rgcenter/econ/fs143_income.pdf.

[4] According to a recent estimate, 13.8% of elderly individuals depending on Social Security for all of their family income and 23.0% for at least 90%; 49.1% depended on it for at least 50% of family income. "Social Security: Who's Counting on It?" by Selena Caldera, AARP Public Policy Institute, April, 2010, p. 2 and Table 1. Available at http://assets.aarp.org/rgcenter/ppi/econ-sec/fs178-socsec.pdf.

[5] In 2008, "9.7% of people aged 65 and older had incomes below the poverty level thresholds of $10,326 for an individual and $13,014 for a couple; however, another 13.1% were "near poor," .that is, "had family incomes between 100% and 149% of the poverty threshold." "Income and Poverty among Older Americans in 2008," by Patrick Purcell, Congressional Research Service, October 2, 2009. p. 24. Available at http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1677&context=key_workplace.

[6] The percentage of employers of all private sect or wage and salary workers, ages 25 to 64, who offered participation in a retirement range was 55.0% in 1990, peaked at 61.4% in 2000 and was 53.2% in 2008. The percentage of such employees who participated in plans was 44.7% in 1990, peaked at 50.3% in 2000 and was 43.6% in 2008. "Pension Sponsorship and Participation: Summary of Recent Trends," by Patrick Purcell, Congressional Research Service, September 11, 2009, p. 6 and Table 2. Available at http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1659&context=key_workplace.

[7] See, for example, "Employer-Provided Pensions: Less to Count On," by Sandy Mackenzie and Ke Bin Wu, AARP, October, 2009, p. 4, Figure 1 and p. 5, Figure 2. Available at http://assets.aarp.org/rgcenter/ppi/econ-sec/2009-17-pensions.pdf. Note there is debate over how plan participation is measured. See for example "Defining participation in defined contribution pension plans," by John Turner, Leslie Muller, and Satyenda K. Verma, *Monthly Labor Review*, August 2003 (noting that "previous studies use three definitions of defined contribution pension participation: (1) the

worker has a positive account balance; (2) the worker answers 'yes' to the question, 'Are you a participant?', and (3) the worker contributes to the plan," arguing that the third concept is the better one, and contending "that traditional measures of participation in defined contribution plans may substantially overstate the number of workers who are actively accruing benefits in those plans."), pp. 36 and 42. Available at http://www.bls.gov/opub/mlr/2003/08/art3full.pdf. See also "Pension Sponsorship and Participation: Summary of Recent Trends," by Patrick Purcell, Congressional Research Service, September 11, 2009 (comparing different outcomes for participation in employment-based retirement plans depending upon whether data from Bureau of Labor *Statistics' National Compensation* employer survey or the U.S. Census Bureau's *Current Population Survey* of households are used), pp. 13-15. Available at http://assets.opencrs.com/rpts/RL30122_20090911.pdf.

[8] See, for example, "How defined contribution plans and 401(k)s affect employer pension costs," by Teresa Ghilarducci and Wei Sun*, Journal of Pension Economics and Finance*, Volume 5 No. 2, 2006, pp. 175-196 (focusing on employer contributions per worker, reporting that "a 10% increase in the use of defined contribution plans (including 401(k) plans reduces employer pension costs per worker by 1.7 – 3.5%" and noting, also that "[l]ower administrative expense may also explain the popularity of DC plans.") Note , however, according to report on retirement plan contributions in 2005 (for plans with more than 100 participants), "contributions per participant in DC plans were higher than contributions *per participant* in DB plans" while "DB plans had higher contributions per *active participant* than DC plans." "Retirement Plan Contributions, Benefits and Assets: Highlights from Form 5500 reports," Watson Wyatt, May 2008 (emphasis added). However, the just-cited figures appear to be for employer and employee contributions combined. For example, according to the Form 5500 results from 2005, contributions received or receivable for DB plans included $84.8 billion from employers and $0.8 billion from participants. By contrast, for DC plans the figures were $69.0 billion and $115.8 billion, respectively. Id., Table 4. Available at http://www.watsonwyatt.com/render.asp?id=19139. Also, see "Employer Commitment to Retirement Plans in the United States," Towers Watson, December 2009 (offering as one of the conclusions that "companies that offer only a DC plan prove a lower level of retirement benefits, as measured by a percentage pay" and providing charts offering details in support of that assertion), p.2. Available at http://www.towerswatson.com/research/649.

[9] See, for example, "Alternative Approaches Could Address Retirement Risks Faced by Workers but Pose Trade-offs," Government Accountability Office, July 2009 (revised September 1, 2008) ("Estimates vary for a target contribution rate to achieve adequate retirement income from a DC plan. Pension experts we interviewed cited target contribution rates of between 12 and 20 percent of pay. Research suggests that contributions to DC plans for many workers are less. For example, according to a study by an investment management firm which manages a large number of DC plans, the majority of contributions are made by workers, not employers, and the median worker contribution in 2007 was 6 percent among plans managed by this firm."), p. 12. Available at http://www.gao.gov/new.items/d09642.pdf.

[10] Those individuals among the top 10% by net worth are estimated to hold two-thirds of all IRA and Keogh plan assets ($2.66 trillion) in 2010; those with family income of $150,000 or more are projected to hold over 50% ($2.00 trillion) of such assets. "Total Individual Account Retirement Plan Assets, by Demographics, 2007, With Market Adjustments to March 2010," by Craig Copeland, Employee Benefits Research Institute, May 2010, page 9 and Figure 5. Available at http://www.ebri.org/pdf/notespdf/EBRI_Notes_05-May10.IAs.pdf. For 2010 it was estimated that those individuals among the top 10% by net worth and those with family income of $150,000 or more held slightly more (52.8%) and slightly less (48.9%) of all employment-based individual account retirement plan assets. Id. at 3, Figure 1.

[11]Tax expenditures for employment based plans were projected to be about $94.9 billion fiscal year 2010, with $53.5 billion of it associated with 401(k) plans; expenditures for IRAs were estimated at $12.8 billion. (Cumulatively, over the period 2011-205, the figures were estimated to be $247.5 billion, $360.8 billion, and $78.9 billion.) "Tax Expenditures and Employee benefits: Estimates from the FY 2011 Budget," Employee Benefit Research institute, March 2010, p. 6. Available at http://www.ebri.org/pdf/publications/facts/FS-209_Mar10_Bens-Rev-Loss.pdf.

[12] See, for example, "Distributional Effects of Defined Contribution Plans and Individual Retirement Accounts," by Leonard E. Burman, William G. Gale, Matthew Hall, Peter R. Orszag, Discussion Paper No. 16, Urban Institute, August 2004 (revised). Available at http://www.urban.org/uploadedPDF/311029_TPC_DP16.pdf.

[13] See, for example, "Saving Incentives: What May Work, What May Not," by Thomas L. Hungerford, Congressional Research Service, June 20, 2006 (Noting in the Summary that "[t]he government offers tax incentives to individuals and families to save."; that "[t]he empirical evidence on the relationship of tax incentives to the saving rate mostly comes from examinations of traditional individual retirement accounts (IRAs) and 401(k) plans"; and that "[t]he reported results are mixed, but generally indicate small effects.) Available at http://www.policyarchive.org/handle/10207/bitstreams/2867.pdf.

[14] For example, according to a 2004 survey of older Americans, "only half of the respondents correctly answer two simple questions regarding interest compounding and inflation, and only one-third correctly answer these two questions and a question about risk diversification. In other words, financial illiteracy is widespread among older Americans." "Financial Literacy and Planning: Implications for Retirement Wellbeing," by Annamaria Lusardi and Olivia S. Mitchell, Michigan Retirement Research Center, Working Paper 2005-108, p. 15. Available at http://ssrn.com/abstract=881847. In addition, "only 31% of these older people had ever tried to devise a retirement plan and only two thirds of these succeeded. For the sample as a whole, only 19% engaged in successful retirement planning." Id. at 16. The authors note that "[s]ome researchers contend that government and employer]programs aimed at spurring financial planning "have only minimal effects on saving" but suggest that better targeting would make a difference. Id.

See also "Investment Returns: Defined Benefit vs. 401(k) Plans," by Alicia H. Munnell, Mauricio Soto, Jerilyn Libby, and John Prinzivali, Center for Retirement Research at Boston College. September 2006 (reporting that "detailed data on the asset allocation of individual participants show that nearly half of all [401(k)] participants have either none of their account in equities or virtually all of their account in equities). So even though the aggregate data suggest that participants make sensible investment choices on average, the individual data reveal that a majority of participants are not diversified at all. Given their choices, most participants face the risk of ending up with inadequate retirement income or exposing themselves to large swings in the value of their assets."), p. 5. Available at http://crr.bc.edu/images/stories/Briefs/ib_52.pdf?phpMyAdmin=43ac483c4de9t51d9eb41. Note that the authors further report that "the rate of return numbers suggest that UIA investment produced significantly lower returns than either defined benefit or 401(k) plans during the [1998-2003] period." Id. at 6.

[15] "Pension Protection Act of 2006," United State Public Law 109-280 sec. 624(a)(5)(A), August 17, 2006. Available at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_public_laws&docid=f:publ280.109.pdf. (Part (A) of subsection (5)added to Section 404(c) of the Employee Retirement Income Security Act of 1974 (29 U.S.C. 1104(c)), as amended by section 622.

[16] The other two are as follows:

> (ii) An investment fund product or model portfolio that applies generally accepted investment theories, is diversified so as to minimize the risk of large losses and that is designed to provide long-term appreciation and capital preservation through a mix of equity and fixed income exposures consistent with a target level of risk appropriate for participants of the plan as a whole. For purposes of this paragraph (e)(4)(ii), asset allocation decisions for such products and portfolios are not required to take into account the age, risk tolerances, investments or other preferences of an individual participant. An example of such a fund or portfolio may be a "balanced" fund.
>
> (iii) An investment management service with respect to which a fiduciary, within the meaning of paragraph (e)(3)(i) of this section, applying generally accepted investment theories, allocates the assets of a participant's individual account to achieve varying degrees of long-term appreciation and capital preservation through a mix of equity and fixed income exposures, offered through investment alternatives available under the plan, based on the participant's age, target retirement date (such as normal retirement age under the plan) or life expectancy. Such portfolios are diversified so as to minimize the risk of large losses and change their asset allocations and associated risk levels for an individual account over time with the objective of becoming more conservative (*i.e.* , decreasing risk of losses) with increasing age. For purposes of this paragraph (e)(4)(iii), asset allocation decisions are not required to take into account risk tolerances, investments or other preferences of an individual participant. An example of such a service may be a "managed account."

"Part III – Department of Labor – Employee Benefits Security Administration – 29 FCR Part 2550 – Default Investment Alternatives under Participant Directed Individual Account Plans; Final Rule," Federal Register 60452, October 24, 2007. Available at: http://edocket.access.gpo.gov/2007/pdf/07-5147.pdf (s. 2550.404c-5(d)(4) as added by amendment tog Subchapter F, part 2550 of Title 29 of the code of Federal Regulations).

[17] For example, according to one report, in Europe, lifestyle funds, rather than lifecycle funds - see discussion in the main text at p. 8 – are used in defined contribution plans. "A snapshot of DC lifestyle solutions in continental Europe," by Tim Burggraf, in "Lifecycle funds – one size fits all?" Mercer, May 2008, p. 9. Available at http://www.mercer.com/referencecontent.htm?idContent=1305145. In the Netherlands, all defined contribution schemes are required to have a lifestyle default. Id. Similarly, it appears that Spain requires participation in a lifestyle fund "Emergence of lifecycle investments in Spain," by Bea Canto, in "Bridging the Knowledge gap: Improving Communications and Participant Understanding of DC Plans," Mercer, April 2010, p. 9. Available at http://www.mercer.com/referencecontent.htm?idContent=1305145.

More generally, according to one report, "[t]he weight of the DC portion in total retirement income should be a key deciding factor in the design of default investment strategies. In Chile and Mexico, where the mandatory DC pension is very large in relation to total income, the default fund for a worker ten years from retirement has a maximum 20% and 0% allocation to equities, for each country respectively. In contrast, some European countries with mandatory DC systems like Estonia, Hungary and the Slovak Republic have set the conservative portfolio (with no equities) as the default for all ages. Such portfolios may be inadequate for younger cohorts as they imply lower expected retirement benefits. In Australia, the default option for the mandatory DC pension system - which provides a large part of retirement income – is not regulated, and is often in practice a balanced fund with a large equity allocation (over 60% in some cases). In Sweden, where the mandatory DC system accounts for a very small part of total retirement income (contributions equal 2.5% of wages) the equity allocation of the default fund is even higher (around 90%)." "Investment Regulations and Defined Contribution Pensions," by Pablo Antolin, Sandra Blome, David Karim, Stéphanie Payet, Jordy Peek, Gerhard Scheuenstuhl, and Juan Yermo, OECD, July 2009, p. 4. Available at http://www.projectm-online.com/en/research/Documents/091119_OECD_Investment_Regulations_and_Defined_Contribution_Pensions.pdf.

The authors add that "[p]olicymakers throughout the world are considering possible initiatives to prevent 'excessive' risk exposure in DC plans. Some countries, especially those were DC plans are mandatory, use a quantitative approach to investment regulations and in some cases limit the exposure to equities and lower this ceiling as the member reaches retirement. Age-based or life-cycle investment strategies are also increasingly popular as default options in voluntary DC systems. A few countries have gone further and imposed quantitative performance requirements on pension funds, such as minimum or target investment returns, or set limits on quantitative investment risk measures." Id. at 5.

For a more recent discussion of these issues and modeling of outcomes for several different default investment models, see "Assessing Default Investment Strategies in Defined Contribution Plans," by Pablo Antolin, Stephanie Payet, and Juan Yermo, OECD Working Papers on Finance, Insurance and Private Pensions No. 2. Available at http://www.oecd.org/dataoecd/22/63/45390367.pdf. They note, for example, that the design of default options should not only take account of age but also "consider other systemic factors such as the weight of the DC pension relative to the overall pension, the possibility of major consumption needs in old-age (such as health and long-term care), the expected contribution and retirement period and the structure of the payout phase of DC pension plans (e.g., life annuities or programmed withdrawals)" as well as "[i]ndividual circumstances…such as wage profiles and other forms of saving including housing wealth." Id. at 8 and note 4. A number of the considerations are touched upon in the main text of this paper.

[18] "The first target-date mutual funds were launched in the early 1990s. Early adopters included Fidelity, Wells Fargo, and the former Barclays Global Investors. "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, p. 4. Available at http://corporate.morningstar.com/us/documents/MethodologyDocuments/ResearchPapers/TargetDateFundSeries_IndustrySurvey.pdf.

[19] "Lifestyle fund," Investopedia. Available at http://www.investopedia.com/terms/l/lifestylefund.asp.

[20] "2009 Investment Company Fact Book," Investment Company institute, 2009, p. 189. Available at http://www.icifactbook.org/pdf/2009_factbook.pdf.

[21] According to an academic study of 1.2 million participants in 1,500 defined contribution plans over two years, 80 percent made no trades and another 11 percent just a single trade. "The Inattentive Participant: Portfolio Trading Behavior in 401 (k) Plans," Mitchell et al, the University of Michigan Retirement Research Center, June 2006. Available at: http://www.mrrc.isr.umich.edu/publications/Papers/pdf/wp115.pdf; Additionally, one mutual fund research report asserts that because many investors have neither the time, resources, nor expertise to construct a good allocation strategy on their own, they often mismanage their 401(k) plans and IRA accounts, and enter retirement with insufficient savings. "Lifestyle funds enter next generation," by Monica Townson, Employee Benefits News Canada, September 1, 2005; and although this has been a problem since the debut of 401(k)s, efforts to educate everyday retirement investors have produced mixed results. "New Rules May Help Target-Date Funds," by J. Alex Tarquinio, *The New York Times*, April 6, 2008. Available at: http://www.nytimes.com/2008/04/06/business/mutfund/06target.html. According to a study published in January 2007, life-cycle plans might be a better option than alternative investments when considering investors who do not actively re-balance their portfolio. The study found that in comparison to those who made no trades, account holders who were "passive rebalancers," meaning those invested in a life-cycle or balanced fund, gained an additional 0.84 percentage points each year on their investments in comparison to those who made no trades, and 0.60 percentage points more than "active rebalancers" who initiated multiple trades without relying on a balanced or life-cycle fund. (Findings are based off of data collected in 2003 and 2004; no explicit definition of "lifecycle fund" is available; figures likely do not account for fees that might significantly reduce or eliminate differences in yield.) "Do Traders Win? Trading Behavior and 401(k) Portfolio Performance," by Gary R. Mottola and Stephen P. Utkus, Vanguard Center for Retirement Research, January 2007, p. 6. Available at: https://institutional.vanguard.com/iip/pdf/VCRRDTW.pdf; "Winners and Losers: 401(k) Trading and Portfolio Performance," by Yamaguchi et al, Michigan Retirement Research Center, June 1, 2007. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=942378

[22] "Popping the Hood: an Analysis of major Life Cycle Fund Families," Joseph C. Nagengast, et al., Turnstone Advisory Group, LLC/ Target Date Analytics, 2005. Available at: http://www.tdbench.com/Articles/PoppingTheHood2005.pdf; "New Rules May Help Target-Date Funds," by J. Alex Tarquinio, *The New York Times*, April 6, 2008. Available at: http://www.nytimes.com/2008/04/06/business/mutfund/06target.html

[23] "The Pros and Cons of Target-Date Funds," by Lee McGowan, About.com: Mutual Funds. Available at: http://mutualfunds.about.com/od/typesoffunds/a/targetdatefunds.htm

[24] "Dealing with the Reluctant Investor: Innovation and governance in DC pension investments," by Alistair Byrne, Debbie Harrison and David Blake, published by the Pensions Institute, Cass Business School, April 2007. Available at http://www.pensions-institute.org/reports/PI_DC_Investment_Final.pdf

[25] "A Wider Bull's-Eye: Target funds, which reshuffle assets as you age, are adding more ways to play," by Lauren Young, *BusinessWeek,* July 24, 2006, 2006 Retirement Guide. Available at http://www.businessweek.com/print/magazine/content/06_30/b3994410.htm?chan=gl

[26] For a something of a hard-nosed characterization of the growth of TDFs see "The Future is very bright for the already popular lifecycle funds," by Melanie Waddell*, Investment Advisor Magazine*, December 2007(observing that "[a] few years ago, you'd be hard-pressed to hear the term `lifecycle' or `target date' funds being bandied about" but that now [that is, in late 2007]," they were "on the tips of everyone's tongues, particularly [since the issuance of the DOL final QDIA rules]; and that TDFs "have been near saviors of the moribund mutual fund industry," citing an industry research source as to the `declining-to-negative flows into…other domestic offerings since mid- to late-2003'"). Available at http://www.investmentadvisor.com/Issues/2007/December%202007/Pages/Target-Date-Now.aspx.

[27] "Target-date fund adoption in 2009," Vanguard, March 2010, p.1 and Figure 1. Available at https://institutional.vanguard.com/iam/pdf/CRRTDFA.pdf. The report results are based on an analysis of "3.2million unique participants holding 3.4 million accounts in 2,200 DC plans." Id. at 11. According to a different study of Vanguard defined contribution plans, the use of TDFs as default funds for automatic enrollees increased from 42 percent of all funds in 2005 to 63 percent in 2006 to 81 percent in 2007 (based on recordkeeping data). "How America Saves 2008," Vanguard Institutional Investor Group, p, 28, Figure 24. Available at https://institutional.vanguard.com/iwe/pdf/HAS08.pdf?cbdForceDomain=false

[28] "Target-date fund adoption in 2009," Vanguard, March 2010, p. 2 and figure 2. Available at https://institutional.vanguard.com/iam/pdf/CRRTDFA.pdf. In a yet more recent report, Vanguard stated that "today, 56% of the default funds used in all [of its] plans…are target-date funds." "Vanguard Touts Auto Design Advantages," PlanSponsor.Com. Available at http://www.dol.gov/ebsa/PDF/2007pensionplanbulletin.PDF. Moreover, "[a]mong plans designating a QDIA, 80% use target-date funds." Id.

[29] "Target-date fund adoption in 2009," Vanguard, March 2010, p. 2. Available at https://institutional.vanguard.com/iam/pdf/CRRTDFA.pdf.

[30] Id. at 2, Figure 3.

[31] "How America Saves: A Report on Vanguard Defined Contribution Plan Data," Vanguard, 2010, p. 19. Available at https://institutional.vanguard.com/iam/pdf/HAS.pdf.
[32] Id. at 18, Figure 10.
[33] Id. at 18, Figure 10.
[34] Id. at 19.
[35] Id. at 19 and Figure 11.
[36] Id. at 44 and Figure 43. The allocations to TDFs were much higher among younger (under the age of 25) workers – 41% -– as compared to much older workers (ages 55 to 64) – 8%. The allocations were substantially higher among shorter tenure workers (0 to 1 year) – 27% – as compared to longer tenure workers (over 10 years) – 8%. However there was little variation according to income, ranging between 8% and 10% across all income classes. Id. at 46 and Figure 45.
[37] Id. at 52 and Figure 52. Among non-QDIA plans, 22% of them selected TDFs as a default. Id.
[38] Id. at 54 and Figure 55.
[39] "PSCA Target-Date Funds Survey," Profit Sharing/4001k Council of America, May, 2009, p. 2. Available at http://psca.org/Portals/0/pdf/research/TDF%20FINAL%20Summary%205-4-09.pdf.
[40] "Both 403(b) and 401(k) Sponsors Are Adding Target-Date Funds to Their Lineups," by Hattie Greenan, Defined Contributions Insights Magazine, PSCA.org, September/October 2009. Available at http://www.psca.org/DCIMagazineMembers/tabid/133/ctl/Detail/mid/490/Id/1068/Archive/Default.aspx. It was also reported that 50% of those plans which did not use a TDF as a default option offered either a TDF or target risk fund as a stand-alone (non-default) option. "PSCA Target-Date Funds Survey," Profit Sharing/4001k Council of America, May, 2009, Question 5. Available at http://psca.org/Portals/0/pdf/research/TDF%20FINAL%20Summary%205-4-09.pdf. PSCA reports that it surveyed 908 plans which had 7.4 million participants and more than $600 billion in plan assets, and that "represented in the survey are diverse, representing companies of all sizes and regions across the United States." "PSCA Releases 52nd Annual Survey of Profit Sharing and 401(k) Plans," PSCA.org, September 28, 2009. Available at http://www.businesswire.com/portal/site/home/permalink/?ndmViewId=news_view&newsId=20090928005832&newsLang=en.
[41] The structures of the funds were as follows: mutual funds, 76.9%; commingled/bank trusts, 5.7%, unitized separate accounts, 7.7%; and managed accounts, 9.7%. "PSCA Target-Date Funds Survey," PSCA.org, May 2009, Question 12. Available at http://psca.org/Portals/0/pdf/research/TDF%20FINAL%20Summary%205-4-09.pdf. According to that organization's 52nd annual survey of profit-sharing and 401(k) plans, "[o]verwhelmingly defined contribution assets are managed in mutual funds, except in very large plans where collective trusts and separately managed accounts are also used. In plans with more than 5,000 participants 32.0 [%] use collective trusts and 10.7[%] use separate managed accounts for indexed domestic equity funds." "52nd Annual Survey in Review," Defined Contributions Insights Magazine, PSCA, November/December 2009. Available at http://www.psca.org/DCIMagazineMembers/tabid/133/ctl/Detail/mid/490/Id/1089/Archive/Default.aspx.
[42] Id.
[43] Id.
[44] Id. According to a survey of "a cross section of 334 large employers" - in April and May 2010, "57% automatically enroll[ed] employees into their 401(k), with 39% automatically enrolling new employees and 18% automatically enrolling all employees." "Automatic Enrollment in 401(k) Plans Now Dominates employers, Towers Watson Survey finds," Towers Watson, June 30, 2010. Available at http://www.towerswatson.com/press/2376?=1.
[45] "403(b) Target-Date Fund Survey," Profit Sharing/401k Council of America, July 2009, p. 8 and Table 5 Available at http://www.principal.com/about/news/documents/psca_403btargetdatesurvey.pdf. The structures of the funds were as follows: mutual funds, 80.7%; unitized separate accounts including insurance contracts, 3.2%; managed accounts, 15.1%; and other, 1.1%. Id. at 12 and Table 13.
[46] Id. at 8 and Table 6
[47] Id. at p.10 and Table 9.
[48] Id. at 11 and Graph 7. According to the study, smaller (1 to 49 employee) organizations offered TDFs at a lower rate, 35.9%, than the larger ones (over 1,000 employees), 81.8%. Id, at p 11 and Table 10.
[49] The structures of the funds were as follows: mutual funds, 80.7%; unitized separate accounts including insurance contracts, 3.2%; managed accounts, 15.1%; and other, 1.1%. Id. at 12 and Table 13.
[50] "Trends and Experience in 401(k) Plans, 2009," Hewitt Associates LLC, 2009, p. 3. Available at http://www.hewittassociates.com/_MetaBasicCMAssetCache_/Assets/Articles/2009/Hewitt_Research_Trends_in_401k_Highlights.pdf.
[51] Id. at 3.
[52] Id. at 4. According to an analysis of J.P. Morgan Retirement Plan Services' recordkeeping data on "over 350 defined contribution plans with 1.7 million participants, as of December 31, 2009, 22% of all participants invested in TDFs with almost half of them (49%) being defaulted into those investments." "Ready! Fire! *Aim?* 2009 for Defaulted Participants." J.P. Morgan Asset Management 2010, p. 1 and Exhibit 1. Available at http://www.jpmorgan.com/cm/cs?pagename=JPM/DirectDoc&urlname=jpmorgan/am/ia/research_and_publications/insights/ready_fire_aim_defaulted. Note this paper itself does not specifically mention the data set but appears to reference the data set referred to in "Ready! Fire! *Aim?* 2009," by Anne Lester and Katherine Santiago, J.P. Morgan Asset management, December 2009, p.3. Available at http://www.jpmorgan.com/cm/Satellite/Ready!_Fire!_Aim__2009_How_some_target_date_fund_designs_continue_to_miss_the_mark_on_providing_retirement_security_to_those_who_need_it_most.pdf?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1158571701753&ssbinary=true.
[53] "401(k) Benchmarking Survey, 2009 Edition," Deloitte, International Foundation of Employee Benefit Plans, and International Society of Certified Employee Benefit Specialists, 2009, p. 6 and Exhibits 3 and 4; p. 11 and Exhibit 2; and p. 14 and Exhibit 31. Available at http://www.deloitte.com/assets/Dcom-

UnitedStates/Local%20Assets/Documents/us_consulting_401%28k%29AnnualBenchmarkingSurvey2009_081409.pdf. The 77% figure was a 5 percentage point drop from what was reported the year before. Id.

[54] "A Tale of Two Retirements: The Importance of 401(k) or Similar Employee-Funded Retirement Plans in the Workplace, Transamerica Center for Retirement Studies, April 2010, pp. 6 and 47. Available at http://www.transamericacenter.org/resources/TCRS%2011th%20Annual%20Employer%20Report_FINAL.pdf. Large employers were defined as those with 500 or more employees; small ones, from 10 and 499 employees. Id. at 7.

[55] Id. at 48.

[56] Id. at 48.

[57] "Use of Target-Date Funds in 401(k) Plans, 2007," by Craig Copeland, *Employee Benefit Research Institute Issue Brief* no. 327, March 2009, p. 8. Available at: http://www.ebri.org/pdf/briefspdf/EBRI_IB_3-2009_TrgtDtFnds.pdf The authors draw on data from the EBRI Participant-Directed Retirement Plan Data Collection Project, "which has almost 22 million participants." Id. at 1. Note, though that the database "does not contain specific information on whether a plan had automatic enrollment." Id. at 5. The authors use as a proxy for auto-enrollees, those "participants who had less than two years tenure, had 90 percent or more of their account balance in target-date funds plus company stock and were in a plan where at last 60 percent of the participants who had less than two years tenure were 90 percent or more invested in a target date fund." Id. at 5.

[58] Id. at 8.

[59] Id. at 8, Figure 3. Available at: http://www.ebri.org/pdf/briefspdf/EBRI_IB_3-2009_TrgtDtFnds.pdf. The authors do not give figures overall but just according to plan size. For auto-enrollees the numbers are about 90 percent for plan size ranges below 10,000 and 79.4 percent for plans about 10,000. For non-auto-enrollees the percentage drops for the most part drops with plan size from 50.8 percent for plans with 1-10 participants to 29.9 percent for plans with more than 10,000 participants. Id.

[60] "2009 Investment Company Fact Book," Investment Company Institute, 2009, pp.158-159. Available at: http://www.icifactbook.org/pdf/2009_factbook.pdf.

[61] "2010 Investment Company Fact Book," Investment Company Institute, 2010, P. 173 and Table 50. Available at http://www.ici.org/pdf/2010_factbook.pdf. By contrast, although investments in mutual fund lifestyle funds have increased rapidly over the years, net new cash flow into them has sharply dropped from a pre-financial meltdown $335 billion in 2005 to just under $9 billion in 2009. Id.

[62] Id. at 117 and Figure 7.21. (By contrast only about 45% of lifestyle mutual fund assets were held in retirement accounts. Id. at 116.) The figures were $168 billion, $47 billion, and $41 billion for employer-sponsored DC plans, IRAs, and other investors, respectively. Id. at 117 and Figure 7.21. (The figures for lifecycle funds were $61 billion, $54 billion, and $140 billion respectively. Id.)

[63] For a discussion of the source of flows into and the growth of IRAs, see the discussion, infra, at p. 61.

[64] "Firms keep fees low in the race for target-date assets," by Jenna Gottlieb, Pensions & Investments, June 11, 2007. Available at http://www.pionline.com/apps/pbcs.dll/article?AID=/20070611/PRINTSUB/70608035/1031/TOC

[65] "Age isn't Everything: Why Risk Tolerance Still Matters in Target-Date Funds," Old Mutual Investment Partners, March 2008, p.2. Available at: https://investors.oldmutualfunds.com/_assets/downloads/public/whitepaper/TDF_White_Paper.pdf.

[66] "Target-Date Retirement Funds: The New Defined contribution Battleground," Casey Quirk, November 2009, pp. 4-5, 9. Available at: http://www.caseyquirk.com/docs/whitepapers/Target-Date_Retirement_Funds_November_2009.pdf. Although the authors do not explicitly state so, it appears that this figure refers to the entire TDF universe, that is, a universe not limited to TDFs provided by mutual fund managers.

[67] Id. at 4-5, 9. Available at: http://www.caseyquirk.com/docs/whitepapers/Target-Date_Retirement_Funds_November_2009.pdf. According to May 2009 survey, only 9.5% of the organizations chose custom-designed TDF products for their 403(b) plans. "403(b) Target-Date Fund Survey," Profit Sharing/401k Council of America, July 2009, p.13 and Table 14. Available at http://www.principal.com/about/news/documents/psca_403btargetdatesurvey.pdf. For 401(k) plans the figure was slightly higher, 9.5%. "PSCA Target-Date Funds Survey," Profit Sharing/4001k Council of America, May, 2009, Question 6. Available at http://psca.org/Portals/0/pdf/research/TDF%20FINAL%20Summary%205-4-09.pdf.

[68] The list of companies that offer target-date funds is broad, and includes American Century, Barclays, Dreyfus, Exeter, Fidelity, First American, ING, MassMutual, Principal, Putnam, Russell, Charles Schwab, Scudder, State Farm, Strategic Partners, T. Rowe Price, Vanguard, Vantagepoint, and Wells Fargo, among others. See "Lifecycle Fund List," Dustin Woodard, About.com, Available at: http://mutualfunds.about.com/od/lifecyclefunds/a/lifecyclelist.htm

[69] "The Target-Date Retirement Strategy," ConsumerReports.org, August 2008. Available at: http://www.consumerreports.org/cro/money/retirement-planning/target-date-retirement-funds/overview/target-date-retirement-funds-ov.htm

[70] "50 Largest Target Date Funds with Trailing Returns," Investment News. Available at: http://www.investmentnews.com/article/20091108/CHART/911069964

[71] "Target-Date Series Research Paper: 2010 Industry Survey," by Josh Charlson, David Falkof, Michael Herbst, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, 2010, p. 6. Available at: http://corporate.morningstar.com/US/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSurvey_2010.pdf

[72] "A New Look at Collective Investment Trusts," by Melissa Markley, ING Investment Weekly, Vol 15, Issue, 55, November 30, 2009.

[73] "A Low Fee Option May Be Coming to a 401k Near You," Associated Press, *The New York Times*, March 16, 2010 (citing "[e]stimates that "collective trusts hold about $1.6 trillion in assets, about half in pension plans and half in 401(k)-type plans.").

[74] Id.

[75] "Doing the homework on lifecycle funds," by Jessica Marquez, Workforce Management, February 26, 2007. Available at http://www.workforce.com/section/02/feature/24/83/35/index.html.
[76] For example, it has been suggested that "[m]utual funds charge an average of 1.25 percent of assets," that is "twice the average 0.63 [percent] fee level of collective trusts." However, it should be noted that "many plan sponsors currently use institutional fund shares, which can have expense ratios well below 1%," so the contrast is not as stark as suggested "CITs in 401ks: The Good, the Bad and the Ugly," by Chris Caarosa, FiduciaryNews.Com, March 22, 2010.
[77] One commentator suggests that the CIT approach is suited for employers with at least $20 million in assets to manage. "Doing the homework on lifecycle funds," by Jessica Marquez, Workforce Management, February 26, 2007. Available at http://www.workforce.com/section/02/feature/24/83/35/index.html. She argues that while CIT fees "also are more negotiable," that may be more aptly said with respect to larger companies. Another commentator contends that because small companies have much less leverage, "a bank [– CITs can only be offered by banks and trust companies –] will often charge a typical trust fee, which can range from 1% to 1.5%, much higher than the expense ratio of institutional class mutual fund shares." "CITs in 401ks: The Good, the Bad and the Ugly," by Chris Caarosa, FiduciaryNews.Com, March 22, 2010. "A Low Fee Option May Be Coming to a 401k Near You," Associated Press, *The New York Times*, March 16, 2010. The foregoing appears to be confirmed by one report suggesting that a company's plan is more likely to have a collective trust if has more than 1,000 employees. "Id.
[78] For example, on one hand, because CITs are subject to regulation by federal banking regulators rather than the SEC, compliance costs are said to be lower and the marketing costs of mutual funds are avoided,. "A Low Fee Option May Be Coming to a 401k Near You," Associated Press, *The New York Times*, March 16, 2010. " On the other hand, "workers don't receive extensive performance documentation" and they "cannot directly roll their balances over to another 401(k) or IRA." Id. Moreover, they don't enjoy the stronger protection of the SEC and the Investment Company Act of 1940 which mutual fund investors do. "CITs in 401ks: The Good, the Bad and the Ugly," by Chris Carosa, FiduciaryNews.Com, March 22, 2010. Available at: http://fiduciarynews.com/2010/03/cits-in-401ks-the-good-the-bad-and-the-ugly/.
[79] As the ensuing text will suggest, even with the discussion limited to TDFs as understood in this country agreement on a wide range of important issues is rare. The matter would be even more complicated if TDFs as understood in other countries were taken into account. For example, there appear to be at least "two notable differences between the typical European and the typical North American target date/age funds." First, in the U.S. – as discussed in the main text – involves an individual selecting an expected retirement date; in Europe, "there are different funds for each specific age, and participants move from one fund to another as they grow older." Second, in the U.S., the glide path "generally reduces at a regular rate until retirement, producing a smooth glide path" whereas "[i]n the UK and Ireland, where lifestyle is most prevalent, equity exposure generally remains constant until 5 or 10 years before retirement and only then reduces." "A snapshot of DC lifestyle solutions in continental Europe," by Tim Burggraf, in "Lifecycle funds – one size fits all?" Mercer, May 2008, p. 12. Available at http://www.mercer.com/referencecontent.htm?idContent=1305145.

An illustration of the first found is found with respect to required contributions to the Swedish Premiesparfonden (Premium Fund) and those who have not actively selected a pension fund manager from the others available in the Swedish system, it was recently reported that "[t]he default option for all savers, called Såfa, will consist of two new 'life cycle' funds. The first is a global equity fund and caters for individual savers up to the age of 55. Once past this age, savers will transfer to the second fund, which is invested entirely in a wide range of fixed income. Savers will see their money gradually transfer from equity into fixed income at a rate of three per cent every year until age 75." "Swedish AP7 undergoes major structural changes," by Nick Reeves, Nordic Region pensions and Investments News, February 9, 2010. Available at http://www.nrpn-online.com/news/fullstory.php/aid/706/Swedish_AP7_undergoes_major_structural_changes.html.
[80] "Target Date Series: Research Paper: 2010 Survey," Josh Charlson, et al, Morningstar, p. 12. Available at http://corporate.morningstar.com/US/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSurvey_2010.pdf.
[81] "Real Facts about Target Date Funds," BrightScope Blog, p. 3. Available at http://www.brightscope.com/blog/2010/02/09/real-facts-about-target-date-funds-an-ici-rebuttal/.
[82] Id. at 3.
[83] "Market risk is the measure most in our industry tend to myopically focus on… [b]ut when you step back and look at the problem [of saving for retirement] market risk is part of the equation, but savings shortfall, longevity risk at retirement and inflation risk are also factors. You have to think about balancing these risks." "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, Investment News, August 6th, 2007 (quoting Thomas J. Fontaine). Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04; "Target-Date Retirement Funds: The New Defined contribution Battleground," Casey Quirk, November 2009, p.7. Available at: http://www.caseyquirk.com/docs/whitepapers/Target-Date_Retirement_Funds_November_2009.pdf
[84] "Glidepath," by Susan Trammell, *CFA Magazine*, January-February 2009, p. 40. Available at: https://www.cfainstitute.org/learning/products/publications/cfm/Pages/cfm.v20.n1.8.aspx?WPID=Topic_List_Tabbed&PageName=All. (quoting Jerome Clark, CFA, Portfolio Manager for T. Rowe Price Retirement Funds.)
[85] One critic has noted that while both cash and long-term nominal bonds are safe in terms of market risk, their use in TDFs poses a substantial inflation risk, potentially making them a poor choice even for conservative portfolios. Instead, long-term inflation indexed bonds, or TIPS, are recommended, because they provide safety from both market risk and inflation risk. This source also recommends that in keeping with a diversified portfolio, the allocation of equity should include a "healthy" amount of foreign stock, hedging any non-European currencies. Moreover, it is suggested that growth stocks be given a greater weight than value stocks early on, and that this difference be reduced as the target date nears, because growth stocks appear to be safer than value stocks over long-term periods. "Life-Cycle Funds," by Luis M. Viceira, Harvard Business School, NBER and CEPR, May 22, 2007; Similarly, a senior portfolio managers contends that although cash might be a safer investment in terms of market risk, equities are preferable when considering longevity risk, because they are less likely to be eroded by inflation, and have the potential to provide higher returns, stating: "cash is a safer asset class in terms of market risk, but equities are a safer asset class in terms of longevity risk… If your enemies

are longevity and inflation, then equities and inflation-protected securities are actually lower risk than bonds." "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, Investment News, August 6th, 2007 (quoting Thomas J. Fontaine, senior portfolio manager at AllianceBernstein Core/Blend Services, a division of AllianceBernstein Institutional Investment Management of New York). Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04.

[86] "The Target Date Emperor Has No Clothes," by Ron Surz, TDBench.com, March 2009. Available at: http://www.tdbench.com/Articles/Emperor-No-Clothes-Surz-20090311.pdf; "2010, A Fund Odyssey," by Craig L. Israelsen, Ph.D., *FinancialPlanning.com*, November 1, 2008. Available at: http://www.financial-planning.com/fp_issues/2008_11/2010-fund-odyssey723232-1.html; "What Target Date Funds Can Do… and What They Can't," by Joseph Nagengast, *Target Date Analytics,* October 23, 2008*.* Available at: http://www.tdbench.com/Articles/What-Target-Date-Funds-Can-Do-Nagengast-20081024.pdf.

[87] "What is the End Game With Target-Date Funds; Retirement or Death?" by Jeb Graham, 401khelpcenter.com. Available at http://www.401khelpcenter.com/401k/graham_target-date_end_game.html.

[88] In this regard note recent testimony by one TDF provider arguing that the choice or TDF portfolio "is to minimize the risk to less than a one-in-ten chance that a retiree is forced to significantly alter [his or her] consumption pattern in retirement and that alteration…[is] due to market dislocation or because of higher than average life span" and emphasizing that this "stable consumption approach…focuses on minimizing the effect of the extreme event whereas the income replacement approach focuses on increasing the mean or maximizing the income in normal market conditions." Testimony by Chip Castille, Barclays Global Investors at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009, pp. 205 and 207. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf.

[89] For example, the Managing Director of Investment Services at Russell Investment Group has cautioned that basing portfolio composition on targeting financial goals is not the only factor that must be considered, but also whether the level of risk and volatility will appeal to customers and retain their investments. "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, Investment News, August 6th, 2007. Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04.

[90] Testimony by Chip Castille, Barclays Global Investors at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009, p. 208 and 207. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf.

[91] According to a survey of 30 U.S. consulting firms serving nearly 2,000 plan sponsors with $1.7 trillion in aggregate DC plan assets as of December 31, 2009, "44% believe[d] existing glide paths were somewhat to highly inappropriate (i.e., too aggressive)," that is, had too high a proportion of equity. "Survey Highlights: 4th Annual Defined Contribution Consulting Support and Trends," PIMCO DC practice, 2010, p. 4. Available at http://www2.pimco.com/dc/DCSurveyHighlights0410.htm.

[92] "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, InvestmentNews, October 24, 2005. Available at: http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04.

[93] According to a June 2007 article, Fidelity had recently increased the equity in its 2050 Freedom Fund from 87% to 90%, while Vanguard increased the equity in its 2035 TDF from 60% to 82.5%. Another article from 2006 notes that Vanguard planned to increase its equity exposure for TDFs by "10 to 20 percentage points," and that Fidelity also planned an increase (though this article does not say by how much). "Vanguard Targets Retirement Funds," by John Spence, MarketWatch, March 20, 2006. Available at: http://www.marketwatch.com/story/vanguard-to-expand-target-date-fund-lineup.

[94] "Target Date Funds: Good news-Bad News," by Laurence Booth and Bin Chang, December 2009, p. 12. Available at http://xfi.exeter.ac.uk/documents/conferences/pensions_conference/papers/laurence_booth_bin_chang.pdf. The authors further remark as follows: "The allocation to equities then stayed at 50 percent through 2008 and into the market trough in 2009Q1 despite the drop in the market value of the AUM. This indicates that fund managers tried to maximize the return on these short dated funds very close to their target date when the funds 'expired.' This tactical asset allocation decision is opposite to the strategic asset allocation of these funds and contrary to the common sense notion that these funds move more heavily into lower risk securities as the target date approaches." Id.

[95] According to a survey of 30 U.S. consulting firms referred to in footnote 90, "[o]ver half (54%) said an appropriate allocation to uncertain assets (e.g., equities) at retirement age is 30-50%; nearly one-third of consultants (29%) said less than 30% allocation to equities is appropriate." "Survey Highlights: 4th Annual Defined Contribution Consulting Support and trends," PIMCO DC practice, 2010, p.4. Available at http://www2.pimco.com/dc/DCSurveyHighlights0410.htm.

[96] "2010, A Fund Odyssey," by Craig L. Israelsen, Financial Planning, November 1, 2008. Available at: http://www.financial-planning.com/fp_issues/2008_11/2010-fund-odyssey723232-1.html

[97] "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Charlson, et al, Morningstar, September 9, 2009, p.7.Available at http://corporate.morningstar.com/US/documents/MethodologyDocuments/ResearchPapers/TargetDateFundSeries_IndustrySurvey.pdf.

[98] Id. at 7.

[99] Id. at 13.

[100] "Target Date 2000 – 2010, Total Returns," Morningstar, May 14, 2010. Available at http://news.morningstar.com/fundReturns/FundReturns.html?category=$FOCA$TA.

[101] Id.

[102] "Target-Date Glidepaths Must Change, Mercer Says," by Jeff Nash, Pensions & Investments, July 27, 2009. Available at: http://www.pionline.com/article/20090727/PRINTSUB/307279970

[103] Testimony by Josh Cohen, Russell Investments, at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department

of Labor, June 18, 2009, pp. 194 and 195. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf.

[104] "Making Investment Choices as Simple as Possible: An Analysis of Target Date Retirement Funds," by Zvi Bodie and Jonathan Treussard, January 21, 2007, p. 12. Available at: http://ssrn.com/abstract=900005. Note that this view is grounded, among other things, on the need to take into account the individual's human capital – see discussion in the main text at p. 22 - and more specifically, "[t]o reflect gradual changes in human capital risk over the life-cycle from predominantly 'stock-like' to mostly 'bond-like.'" Id. at 1.

[105] "Target Date Funds Criticized Over Risk," by Lisa Shidler, InvestmentNews, May 5, 2008. Available at: http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20080505/REG/904003624/1009/TOC

[106] "Fidelity Freedom Funds Prospectus," Fidelity Investments, May 29, 2008; "Prospectus: T. Rowe Price Retirement Funds," T. Rowe Price, October 1, 2008. One fund manager stated that TDFs did not have a high enough equity exposure: "[m]ost target date retirement funds…do not have enough invested in equities, leaving retirees vulnerable to running out of money, according to a new report." "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, Investment News, August 6th, 2007. Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04. Alternatively, a senior portfolio manager with one firm recommended that equity allocations be raised to as much as 95% for those far from their target date, and 65% for those who have reached retirement (whereas in 2005 when the report was released, TDF equity allocations were usually no higher than 90% for younger groups, dropping to as little as 35% for retirees). "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, Investment News, August 6th, 2007. Available at: http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04.

[107] "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, p. 8. Available at http://corporate.morningstar.com/us/asp/subject.aspx?filter=404&xmlfile=403.xml.

[108] Id. at p. 8. It has been suggested that in certain respects, differences in equity asset allocations are sensible insofar as founds choose them in light of the demographic characteristics of plan members. Id. at 9 (citing TIAA-CREF and Vantage point [as] construct[ing] their glide paths to align with the needs of their particular investor bases.)

[109] "[I]nvestment strategies employed by managers of lifecycle funds vary wildly. Some fund managers tweak their funds' holdings daily. Others keep the same holdings for years." "Top 401(k) Managers: DC Plan Sponsors Scrutinize Life Cycle Funds," by Lisa Shidler, Investment News, September 25, 2006. Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20060925/SUB/609250739/-1/INIssueAlert04.

[110] "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, p. 10. (The report notes that some firms approach the allocation among subasset classes by "starting with domestic and foreign stocks, fixed-income, and cash and then divvying up domestic stocks along Morningstar Style Box criteria" while "[o]hers introduce specialized subasset classes" and yet others "incorporate low-correlation or absolute-return funds that may employ a variety of complex strategies.") Available at http://corporate.morningstar.com/us/asp/subject.aspx?filter=404&xmlfile=403.xml.

[111] "The split between stocks and bonds varies all over the place and is generally too conservative." "Life-Cycle Funds – The Pros and Cons," by Ed Hynes, The Sound Investor Series #10, Farm Creek Securities, August 3, 2005. Available at: http://www.farmcreeksecurities.com/Sound_Investor10_Life-Cycle_Funds%96The_Pros_and_Cons_8-03-05.html; "[M]any target date funds have too much equity exposure, and that can harm participants." "Target date funds off target, critics say," by Lisa Shidler, Investment News, April 30, 2007 (citing Joe Nagengast, a principal in Turnstone Advisory Group LLC). Available at: http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20070430/FREE/70430010/-1/INIssueAlert04

[112] For a conservative approach to TDF construction, see "Making Investment choices as Simple as Possible, but Not Simpler," by Zvi Bodie and Jonathan Treussard, *Financial Analysts Journal*, Volume 63, No. 3, 2007. For a more aggressive approach, see "Ready? Fire! Aim?" prepared by Anne Lester and Katherine Santiago, JP Morgan Asset Management, March 20, 2007. By contrast, "[Thomas J. Fontaine] advocates an exposure not only to growth and value stocks but to stocks across the capitalization spectrum, and also international stocks and real estate investment trusts." "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, Investment News, August 6th, 2007. Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04.

[113] See, for example "Putnam to Launch Target-Date – Twist – New Funds to Strive for 'Absolute Return.'" By Jennifer Levitz, *The Wall Street Journal*, September 22, 2009 (describing how Putnam "will unveil 10 target-date funds with an 'absolute return' twist," noting that such a strategies "have been sued by institutional investors and hedge funds," and also observing that "[d]espite the name, the strategy doesn't guarantee an absolute return" (!)) p. C9. See also "Survey Highlights: 4th Annual Defined Contribution Consulting Support and Trends," PIMCO DC practice, 2010 (describing results of survey of DC plan consultants – see note 90 – indicate that nearly three-quarters "believe that a Liability Driven Investment (LDI) approach" – one which has because prominent in the DB plan world – "is applicable when designing an asset-allocation structure in within a DC plan."), p. 6. Available at http://www2.pimco.com/dc/DCSurveyHighlights0410.htm.

[114] "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, p. 10. Available at http://corporate.morningstar.com/us/asp/subject.aspx?filter=404&xmlfile=403.xml.

[115] "In addition to establishing higher equity allocation, actively managing the underlying assets of a target date retirement fund can deliver an additional 1 percentage point in incremental annual returns over the duration of the life cycle fund, while efficient re-balancing and cash flow management can add even more." "Most Life Cycle Funds Too Light on Equities," by Gregory Crawford, Investment News, August 6th, 2007 (citing Thomas J. Fontaine, senior portfolio manager at AllianceBernstein Core/Blend Services, a division of AllianceBernstein Institutional Investment Management of New York). Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04.

[116] Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, p. 17. Available at http://corporate.morningstar.com/us/asp/subject.aspx?filter=404&xmlfile=403.xml).

[117] "Stephen P. Utkus, a Principal at the Vanguard Center for Retirement Research… added that little is known about people's risk tolerances when they retire…'once you hit retirement, the real question - and the answer is unknown - is, will people become more risk sensitive and less willing to hold more volatile assets?'" "Most life cycle funds too light on equities," by Gregory Crawford, Investment News, August 6th, 2007 (quoting Stephen P. Utkus, a principal at the Vanguard Center for Retirement Research in Malvern, Pa.). Available at: http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04

[118] One analyst asserts that "significant" equity exposure is necessary during the first decade of retirement, as a larger asset base provides compound savings. Id. (citing Thomas J. Fontaine, senior Portfolio Manager at AllianceBernstein Core/Blend Service). Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20051024/SUB/510240701/-1/INIssueAlert04.

[119] "'Every company that offers a life cycle fund – whether it be Fidelity or Schwab – they are all slightly different,'…'You can't say a moderate fund is a moderate fund.'" "Top 401(k) Managers: DC Plan Sponsors Scrutinize Life Cycle Funds," by Lisa Shidler, Investment News, September 25, 2006 (quoting Darin Richards, Chief Investment Officer of Wealth Advisors LLC). Available at http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20060925/SUB/609250739/-1/INIssueAlert04.

[120] "'You have a prospectus that doesn't tell you the holdings or what the portfolio manager will do,'…'It doesn't tell you the types of holdings other than the stocks, bonds and cash. You may not know what percentage will be in large-cap. Basically, all you know is someone is buying stocks, bonds and bills.'" "Some Advisers Urge Plan Sponsors to Skip Target Date Funds," by Lisa Shidler, Investment News, October 16, 2006 (citing Joseph Masterson, senior vice president of Diversified Investment Advisors Inc.). Available at: http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20061016/SUB/610160729/-1/INIssueAlert04.

[121] "Special Commentary for Plan Sponsors Regarding Target Date Funds," by Bud Green, *MJM Wire*, Second Quarter 2009, MJM401k, July 1, 2009. Available at: http://www.mjm401k.com/publications/target_date_funds_white_paper.pdf.

[122] "The Target Date Emperor Has No Clothes," by Ron Surz, TDBench.com, March 2009. Available at: http://ppca-inc.com/pdf/Emperor-No-Clothes.pdf; According to Chris Karam, Managing Director of Sheridan Road Financial, short-term performance is a primary component of how plan sponsors select TDFs. "FAAF/EC – Success Stories," by Sara Kelly, Plansponsor.com, August 24, 2009. Available at: http://www.plansponsor.com/pi_type11/?RECORD_ID=47377&page=1.

[123] See, for example, the testimony of James P. Lauder, Chief Executive Officer of Global Index Advisors, Inc., an asset advisor and manager, "Public Hearing on Target Date funds and Other Similar Investment Options," United States Department of Labor and Securities and Exchange Commission, June 18, 2009 (Amended July 17, 2009) (stating that "[w]e have to make sure that we eliminate the opportunities for the gamesmanship and the returns and jacking up the equity exposures to play peer group games to be a top quartile performer next quarter."), p. 238. Available at http://www.dol.gov/ebsa/pdf/TDFhearingtranscript.pdf.

[124] For a very detailed discussion of the performance of a wide range of 2010 TDFs during the 2006 through 2009 see "Target Date Funds: Historical Volatility/Return Profiles," by Michael J. Brien, Philip J. Cross, and Constantijn W.A. Panis, Deloitte Financial Advisory Services LLP in conjunction with Advanced Analytical Consulting Group Inc. for the U.S. Department of Labor, Employee Benefits Security Administration. Available at http://www.dol.gov/ebsa/pdf/deloitte2009-2.pdf.

[125] "Target-Date Funds Provide Windfall for Investment Complexes, Devastations for Participants and Increased Liability Exposure for Fiduciaries," Employee Benefits Committee, American Bar Association, Summer 2009 Newsletter. Available at: http://www.abanet.org/labor/ebcomm/newsletter/09/summer/target-date.shtml

[126] "Target-Date Funds Provide Windfall for Investment Complexes, Devastations for Participants and Increased Liability Exposure for Fiduciaries," Employee Benefits Committee, American Bar Association, Summer 2009 Newsletter. Available at: http://www.abanet.org/labor/ebcomm/newsletter/09/summer/target-date.shtml.

[127] "Deferring income in Employer-Sponsored Retirement Plans: The Dynamic of Participant Contributions," by Karen E. Smith & Richard W. Johnson, Leslie A. Muller*, National Tax Journal*, Vol. LVII, No. 3, September 2004, 639-670,652 and 654-655 and Figure 12. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1145542. About 5% had a "falling" pattern, that is, "the annual decrease in the contribution rate exceeded one percentage point in at least one year with positive contributions, and the contribution rate never increased by as much as one percentage point." And about 28% had a "rising pattern," that is, "the annual increase in the contribution rate exceeded one percentage point in at least one year with positive contributions and the contribution rate never fell by as much as one percentage point." Id at 654-655 and figure 12. According to a more recent study of "more than a million participants in 1,176 Vanguard plans, in the years 2006, 2007, and 2008, 26%, 29%. and 32% of participants changed their deferral rates, respectively. "Dynamics of participant plan contributions, 2006-2008," by Cynthia A. Pagliaro and Stephen P. Utkus, Vanguard, August 2009, p. 2 and p.4 and figure 2. Available at https://institutional.vanguard.com/VGApp/iip/site/institutional/researchcommentary/article?File=RetResPartPlanContrib
For those years, the fraction of those decreasing contributions was 6%, 7%, and 10%, respectively; for those who stopped them entirely, it was 2%, 2%, and 3% respectively. Id. at 4 and figure 2. According to the authors, "participants who stop contributing tend to be, on average, younger and less tenured with low account balances." Id. at 6. See also id. at 9 and figure 9. Note that the authors offer slightly different figures in a different publication, namely, for the years 2006, 2007, and 2008, the fraction of active participants who stopped making elective deferrals was 2.5%, 2.4%, and 3.1%, respectively. "Research Note: Participant decisions to stop contributions 2006-2008," by Cynthia A. Pagliaro and Stephen P. Utkus, February 2009, Available at https://institutional.vanguard.com/VGApp/iip/site/institutional/researchcommentary/article?File=RetResParticipantsStopContribs.

[128] Id. at 652 and 655 and figure 2 (italics added). Note that by this definition a person with a steady pattern would not necessarily have contributed during every one of the twelve years. Whether and how glide paths might or should be adjusted in light of such irregular patterns is not obvious.
[129] Among those critics of the concept, one which stands out (if only for the starkness of the phrasing) has been the managing director of the Austrian multi-employer pension fund APK. According to one report of his view, "[c]hanging the asset allocation in a portfolio solely on the basis of the members' age is 'complete nonsense', as are other strictly 'mechanical portfolio management concepts.'" "Life cycle investment is 'utter nonsense,' claims IPE winner," by Barbara Ottawa, Investments and Pensions in Europe, November 29, 2007 (citing and quoting Christian Bohm, 2007 double IPE award winner). Available at http://www.ipe.com/news/Life_cycle_investment_is_utter_nonsense_claims_IPE_winner_26221.php.
[130] "Managing by facts: Age-based funds are just one example of how ideology can cloud evidence in investment," by Frank Sortino, Mark Kordonsky and Hal Forsey, *Pensions & Investments*, February 19, 2007. Available at: http://www.pionline.com/article/20070219/PRINTSUB/702190714. Of course, a top executive and the janitor may differ not only in their risk tolerance, but also in their tax profiles as well. Indeed, TDFs have been faulted for not being tax-efficient options for many investors. Because fixed-income assets are taxed more heavily than equities, were an investor to save more than the IRS tax-deferred limit, both a taxable and a tax-deferred retirement account would be necessary. On this view, the investor should first fill the tax-deferred account with the fixed income assets, and top it off with equities if any space remains, in order to avoid unnecessary taxes. Unfortunately, with the all-in-one structure of TDF, such an investor would have no control over which part of the portfolio is taxed. "Life-Cycle Funds," by Luis M. Viceira, Harvard Business School, NBER and CEPR, May 22, 2007, p.22-23; "Life-Cycle Funds – The Pros and Cons," by Ed Hynes, The Sound Investor Series #10, Farm Creek Securities, August 3, 2005. Available at: http://www.farmcreeksecurities.com/Sound_Investor10_Life-Cycle_Funds%96The_Pros_and_Cons_8-03-05.html.
[131] "Life-Cycle Funds," by Luis M. Viceira, Chapter 5 in Overcoming the Saving Slump: How to Increase the Effectiveness of Financial Education and Saving Programs, edited by Annamaria Lusardi. University of Chicago Press, March 2009. http://www.people.hbs.edu/lviceira/Life-Cycle%20Funds_Lusardi_011008.pdf. (Arguably though, it would seem that the relevant measure of potential future wealth would be calculated in light of what portion of that expected income flow might be diverted through saving over time. Such a perspective comports with a somewhat different characterization of the need to take account of human capital – or really the age of the individual as it bears upon future earning power – that is, the longer time horizon allows time for the individual to make up through employment income (and saving from it) for losses that might be suffered from equity investments in his or her younger years.)
[132] See "Portfolio Theory, Life-Cycle Investing, and Retirement Income," Social Security Administration, October 2007, (Taking note of "some recent work [that] questions the theoretical and intuitive underpinnings of life-cycle funds," more particularly, "that changes in labor income tend to be more heavily correlated with stock returns over long horizons," the report postulates that "rather than being 'bondlike' in its variability, labor income is 'stocklike' overlong horizons," which would suggest that "individuals should diversify by holding less risky assets (such as bond) when young and riskier assets (such as stocks) at later ages."), p. 5. Available at http://www.ssa.gov/policy/docs/policybriefs/pb2007-02.pdf.
[133] For a characterization of one approach see "The New Era of Retirement Plan Investments," by Rod Bare, Morningstar at the ABA Annual meeting 2009 (referring to "[t]hree levels of Human Capital capacity for market risk, "safe capital" ("tenured professors, certain gov't /civil occupations"); "risky human capital" ("sales professionals, sensitive sectors (fin svc./auto"), and "average human capital" ("middle of the road" – suggesting that human capital might be seen as "70% bond, 30% stock; describing incorporation of changes in human capital over a lifetime into decisions about the target portfolio mix) Available at http://www.abanet.org/jceb/Mstar%20Target%20Date%20Slides%20ABA%20Meeting09%20v2.pdf.
[134] "Life-Cycle Funds," by Luis M. Viceira, Harvard Business School, NBER and CEPR, May 22, 2007.
[135] Testimony by Richard Michaud, New Frontier Advisors, at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009, pp. 210 and 211. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf. The notion of customizing TDFs extends far beyond these characteristics. Given the figures about assets in customized TDF funds cited in the main text – see supra p. 13 – that notion clearly has considerable purchase. However, in the view of one professor of finance economics, "customisation of portfolios was difficult as too little is known on the individuals and could only rely on surveys or questionnaires." "Redefine DC categories, argues Nobel Laureate," Investment & Pensions Europe , November 30, 2007 (citing remarks by Stephen Zeldes of Columbia University at Investment & Pension's European colloquium on November 29, 2007). Available at http://www.ipe.com/news/Redefine_DC_categories_argues_Nobel_laureate_26226.php. Zeldes added that "[c]ustomisation would be based mostly on noise, leading customized portfolios to be worse than one-size-fits all models." Id. (quoting Zeldes).
[136] Testimony by Richard Michaud, New Frontier Advisors, at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009, p. 211. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf
[137] See supra at 8.
[138] For example, Douglas J. Scheidt, Associate Director and Chief Counsel, Division of Investment Management, Securities and Exchange Commission, remarked at the SEC/DOL hearing on target funds the following: "Has anyone done any research to see whether high equity allocations for younger workers is actually a deterrent to investing in the Target Date Fund? I can imagine that some workers that don't have a lot of money for retirement don't want to risk losing a big portion of that small amount that they have, that they would rather invest more conservatively at the outset until they have a bigger pot to take a risk with." "Public Hearing on Target Date funds and Other Similar Investment Options," United States Department of Labor and Securities and Exchange Commission, June 18, 2009 (Amended July 17, 2009), p. 226. Available at http://www.dol.gov/ebsa/pdf/TDFhearingtranscript.pdf. At the same hearing, James P. Lauder, Chief

Executive Officer of Global Index Advisors, Inc., an asset advisor and manager, referring to those who made decisions about the choice of TDF funds, stated: "I think, first of all, they have to understand their participant base may not be the same as them as far as their risk tolerance. You usually have people that are on an investment committee. You've got CFOs. They might be a lot more sensitive to risk than you are sitting in that chair as a fiduciary. Secondly, I think it's very important to know that participants care about the magnitude of potential outcomes much more than they do about the probability of those outcomes. And I believe we've had several questions on that today." Id. at 235-236.

[139] "Unsafe at Any Speed? The Designed-In Risks of Target-Date Glide Paths," by Zvi Bodie, Richard K. Fullmer, and Jonathan Treussard, Journal of Financial Planning, March, 2010, pp. 46-47. Available at http://www.fpajournal.org/CurrentIssue/TableofContents/UnsafeatAnySpeed. The authors, in illustrating the last point, focus on what they see as an erroneous or inadequate characterization of TDF glide paths' ability to "address' longevity risk." Id. at 47.

[140] "Target-Date Funds - The Next Wave of Litigation?" by Thomas B. Bastin. Available at http://www.401khelpcenter.com/401k/bastin_target_date.html. Among the assumptions which some would deem to be dubious are that markets are efficient, that there are fixed correlations between different asset classes, that returns today are not correlated with future returns, and that the expected distribution of returns is a so-called normal or Gaussian (bell-shaped curve) distribution.

[141] "Target Date Funds: A Wonder Drug for Participants or a Pandora's Box for All Concerned," by Richard D. Glass, Working Paper No. 23, March 2010, p. 3. Available at http://www.investmenthorizons.com/Papers_Target_Date_Fund_Pandoras_Box.pdf. This author also questions the reliance on MPT, noting "[t]he assumptions being called into question include: markets are efficient; investors are ruled by rational thought rather than Keynes;' `animal spirits'; and the riskiness of stocks decreases over time." Id. at 3.

[142] See discussion in id. at 7-10.

[143] "[W]hile target date funds are intended to be a complete portfolio aimed at the employee's retirement date, they don't take into account the possibility that the employee may have other assets outside the plan - for example, a big inheritance…this could potentially undermine the asset mix established in the target date plan so that the employee's overall asset mix could end up being too conservative or too risky." "Lifestyle Funds Enter Next Generation," by Monica Townson, Employment Benefit News Canada, September/ October 2005. Available at: http://findarticles.com/p/articles/mi_km2923/is_200509/ai_n15663028/.

[144] "How America Saves 2009," Vanguard Institutional Investor Group, August 2009, p. 54, figure 55. Available at: https://institutional.vanguard.com/iam/pdf/HAS09.pdf. The universe "consists of more than 2,200 qualified plans, 1,800 clients, and more than three million participants." About 1 in 10 was "an employer-contributory DC plan, such as a profitsharing or money purchase plan where investments are directed by participants." Id. at 80. Unless indicated to the contrary, the reported figures are for December 31, 2008. Id. Similar figures are reported for the end of 2009. See "Target-date fund adoption in 2009," by Cynthia A. Pagliaor and Jean A. Young, Vanguard, Research Note, March 2010, p. 3. Available at https://advisors.vanguard.com/VGApp/iip/site/advisor/researchcommentary/research/article?File=IWE_RetResTargetDateAdopt. That publication refers to an analysis of "3.2 million unique participants holding 3.4 million accounts in 2,220 DC plans." Id. at 1.

[145] In a study of more than 2,200 defined contribution plans and nearly 3.2 million participant accounts record kept by Vanguard, the company found that as of year-end 2007 only 34% of target-date investors were "pure" ones. Measured on the basis of total contributions for 2007, 45% were "pure" target date investors. The figure rose to 53% if the first employee contribution in January 2008 was the measure. "Target-date funds: Plan and participant adoption in 2007," Vanguard Center for Retirement Research, Vanguard Institutional Investor Group, November 2008, pp. 3, 6. Available at: https://institutional.vanguard.com/VGApp/iip/site/institutional/researchcommentary/article?File=RetResPPA.

[146] An earlier, related Vanguard study on essentially the same sample for 2007 found that TDF investors, in general, tend to be younger than non-TDF investors, with lower incomes and shorter job tenures, though these differences are not great except for average balances. Non-TDF investors had balances of $42,000 compared to $11,500 for TDF investors. Mixed TDF investors tend to look a bit more like non-TDF investors in that they tend to be older than "pure" TDF investors, have higher incomes, longer job tenures, and have an average account balance of about $32,300, compared to only about $4,700 for pure TDF investors. Given the discussion in the main text, some of these differences may be associated with the apparent fact that younger, lower wage (and perhaps shorter job tenure) workers are more likely be defaulted into TDFs. Id. at 4-6. "[We] assess the impact of target-date funds on DC plans using recordkeeping data drawn from more than 2,200 DC plans and nearly 3.2 million participant accounts record kept by Vanguard." Id. at 3.

[147] "How America Saves 2008," Vanguard Institutional Investor Group, 2008. Available at: https://institutional.vanguard.com/VGApp/iip/site/institutional/researchcommentary/article?File=CRR_HowAmericaSaves08. Another study is said to have shown that only 31% of those participants who invest in lifestyle funds chose them as one-stop savings sources and instead invest in additional funds. Incredibly, 20% of them owned multiple lifecycle funds. "Target practice: Keeping investors on target with target-date retirement funds may take more work than employers realize," by Jane White and Rick Meigs, Employee Benefit News, May 1, 2007. Available at http://ebn.benefitnews.com/news/target-practice-keeping-investors-target-target-date-240181-1.html.

[148] Vanguard suggested six possibilities for why an investor would take a mixed approach, three that showed "rational" decision-making on the part of investors, and three that were "naïve." The investor would be seen as making a "rational" decision if: (1) the participant is utilizing an "incremental approach," placing only a portion of his or her assets in the fund to test it out before making a full commitment; (2) the participant could be employing a "core/satellite approach," adding other fund options to the portfolio to adjust the risk; or (3) "employer effects" might affect the participant's portfolio, i.e. if the employer provides matching or other non-elective contributions in the form of company stock or contributions to a non-target-date default. Among the three possibilities for "naïve" decision-making, are: (1) "financial illiteracy," meaning that the participant does not understand the role of a target-date fund as an "all-in-one" investment option; (2) the investor might be demonstrating a form of "naïve diversification," as he or she recognizes the diversified nature of target-date

funds, but, under the assumption that "more is better," combines them with other funds; or (3) "inertia" might play a role, as investors may intend to invest exclusively in a single target-date fund, yet fail to rebalance their portfolios. Vanguard went on to rule out the likelihood of the "core/satellite approach," as they found that not only does the median "mixed" investor hold three funds in addition to the target-date fund, but he also contributes only 30% of his elective deferrals to the target-date fund. Indeed, among "mixed" investors, only 15% diverted more than half of their contributions to a target-date fund. (This would also seem to limit the possibility that "employer effects" explain a significant portion of "mixed" investments.) Vanguard concluded that although they could not be certain, it was most likely that "mixed" investors were either taking an "incremental approach" or engaging in "naïve diversification." "Target-date funds: Plan and participant adoption in 2007," Vanguard Center for Retirement Research, Vanguard Institutional Investor Group, November 2008, p. 8. Available at: https://institutional.vanguard.com/VGApp/iip/site/institutional/researchcommentary/article?File=RetResPPA

[149] "Age-Based Retirement Investing: A better solution for participants and plan sponsors in the age of transparency," by Paul Hirschboeck and Kent Peterson, Securian Retirement, September 2008, p. 5. Available at: https://advisors.securianretirementcenter.com/shared/retirementplans/pdf/F68620TA_Paper.pdf. Securian offers as a solution in the form of a target-age fund for which the proportion of equity to fixed income varies with the age of the participant, although they allow the investor to choose the actual funds within those categories. Securian contends that this has the effect of giving participants a hands-on feel, while still keeping the overall allocation strategy within the company's control. The premise here is that this will allow participants the clarity they need to feel comfortably diversified. Id.

[150] "Investment Behavior of Target-Date Fund Users Having Other Funds in 401(k) Plan Accounts" by Youngkyun Park, Employee Benefit Research Institute, EBRI Notes Vol. 30, No. 12, December 2009, p. 8. Available at http://www.ebri.org/pdf/notespdf/EBRI_Notes_12-Nov09.TDFs.pdf. After filtering, the sample "2008 EBRI/ICI 401(k) database" represented "759,314 TDF users from 13,815 401(k) plans." Note, though, that care must be taken to distinguish the categories used and sample studied. For example, this study looked only at plans with at least 10 participants, participants with more than 1% of their assets in TDFs, of ages 20 to 69, and with balances between $10,000 and $250,000 as of December 31, 2008. The $10,000 threshold "was chosen to minimize the potential effects of automatic enrollment with TDFs." Id. at 10, note 4. Those among them who invested in more than one TDF were deemed to be mixed TF users. Those who invested more than 99% of their assets in TDFs were referred to as pure TDF users." A modest percentage (7.3%) of pure users invested in more than one TDF; more than twice the percent age (17.3%) of mixed users chose more than one TDF. Id. at figure 1, p. 4. Most mixed investors held less than half of their assets in TDFs and more than half held less than quarter. Id. at 5, Figure 3. On average, they held five (other than TDF) funds, including three equity funds. Id. at. p. 4, and p. 6, Figure 4. "[A]lthough most mixed users invest [sic] in TDFs follow the age-specific rule for target-date funds, some users near retirement (in their 50s and 60s) invest in TDFs that are not closely related to their expected retirement age," that is, remain in later dated, less conservative funds. Id. at 6.

[151] The report in question was based on "participant data as of the end of April 2008 from over 100 401(k) plans of all sizes [all but one of which offered T. Row Price Retirement Funds], all of which offer[ed target-date funds as well as other investment options. A little over half of the plans (56%) automatically enroll[ed] eligible employees, and in all of these cases, contributions [were] automatically invested in the plan's age-appropriate target-date fund alternative" in the absence of an active election to the contrary." "Participant Behavior Insight: How Participants Are using Target-Date Funds," by Jodi DiCenzo, T. Rowe Price, p.. 3. Available at http://www.behavioralresearch.com/Publications/How_Participants_are_Using_Target-Date_Funds.pdf. It appears that the assertion cited in the main text is based on allocation of future contributions: 86.2% of all participants in automatic enrollment plans exclusively invested in a single TDF; 95.0% of new hires in such plans invested in a single TDF, the figures for opt-in plans were 68.67% and 80.4%, respectively. Id. at 6 and figure 5. However. the outcomes are very different when based on *account balances* : only 45.1% of all participants in automatic enrollment plans exclusively invested in a single TDF; 48.7%new hires in such plans invested in a single TDF and other funds, and the figures for opt-in plans were 59.9% and 37.5%, respectively. Id. at 6 and figure 4. It is not clear how these two outcomes can be squared.

Other findings offered in the report seem to suggest a movement away over time from investment in a single TDF. For example, it would appear that over the long term, being defaulted (or not) into a TDF makes no difference in terms of the prospects of individuals to move away from the TDF. According to major mutual fund asset manager, while "participants in plans with automatic enrollment in target-date funds are 23 percentage points more likely to invest in these funds than participants who are not automatically enrolled…the default effects are relatively short lived, and after about four years of employment, the percentage of participants investing in target-date funds is about the same for participants who were defaulted into these funds as it is for other participants." "Participant Behavior Insight, How Participants Are Using Target-Date Funds," by Jodi DiCenzo, .T. Rowe Price, p. 4. Available at http://www.behavioralresearch.com/Publications/How_Participants_are_Using_Target-Date_Funds.pdf.

[152] See "National Longitudinal Surveys: Frequently Asked Questions – Number of Jobs Held in a Lifetime," Bureau of Labor Statistics, United States Department of Labor. Available at http://www.bls.gov/nls/nlsfaqs.htm#anch41.

[153] See, for example, "Policy Changes Could Reduce the Long-term Effects of Leakage on Workers' Retirement Saving," Government Accountability Office, GAO-09-715, August, 2009. Available at http://www.aging.senate.gov/letters/gao401kleakage.pdf.

[154] An account is considered "lost' when there has been no contribution it for more than two years, or if two pieces of mail have been returned to the fund. In some cases, the account might not actually be lost by the account holder, but simply inactive. "The Super Secret: How Multiple Accounts Cost Consumers Billions," Choice Research Report, November 2006, pp. 5 and 25. Available at: http://www.choice.com.au/files/f126838.pdf. See also "Automatic Enrollment Shows Promise for Some Workers, but Proposals to Broaden Retirement Savings for Other Workers Could Face Challenges," United States Government Accountability Office, October 2009 (citing an AARP/pension industry study which "noted that it might

be difficult for some workers to keep track of their accounts when they move from job to job or if their employer goes out of business" and that "automatic IRA proposals do not impose record-keeping responsibilities on employers, beyond withholding and transmitting IRA contributions.") p. 29. .Available at http://www.gao.gov/new.items/d1031.pdf.

[155] "The 2009 Retirement Confidence Survey: Economy Drives Confidence to Record Lows; Many Looking to Work Longer," by Ruth Helman, Matthew Greenwald & Associates, Craig Copeland and Jack VanDerhei, Employee Benefit Research Institute Issue Brief, No. 328, April 2009, p.4. Available at: http://www.ebri.org/pdf/briefspdf/EBRI_IB_4-2009_RCS2.pdf For very similar, though more recent figures see "The 2010 Retirement Confidence Survey: Confidence Stabilizing, But Preparations Continue to Erode," by Ruth Helman, Mathew Greenwald and Associates, and Craig Copeland and Jack VanDerhei, Employee Benefit Research Institute. Available at http://www.ebri.org/pdf/briefspdf/EBRI_IB_03-2010_No340_RCS.pdf.

[156] "The 2009 Retirement Confidence Survey: Economy Drives Confidence to Record Lows; Many Looking to Work Longer," by Ruth Helman, Matthew Greenwald & Associates, Craig Copeland and Jack VanDerhei, Employee Benefit Research Institute Issue Brief, No. 328, April 2009, p. 15. Available at: http://www.ebri.org/pdf/briefspdf/EBRI_IB_4-2009_RCS2.pdf.

[157] "Id. at pp. 13-15.

[158] "When the Nest Egg Cracks: Financial Consequences of Health Problems, Marital Status Changes, and Job Layoffs at Older Ages," by Richard W. Johnson, Gordon B.T. Mermin, and Cori E. Uccello, The Urban Institute, January 2006. Available at: http://www.urban.org/UploadedPDF/411265_nest_egg.pdf

[159] This requires that Social Security retired worker benefit awards be thought to be indicative of when people "retire." The percentage of men between the ages of 62 and 64 who received such awards peaked in 2002 at 76.9%; in 2007, it was 67.6%. (For women, the figures were 80.7% and 73.1%, respectively.) For those of age 65, the percentage of awards to men was 19.6% in 2002 and a high of 28.6% in 2007. (The figures for women were 1.4% and 21.3%, respectively.) "Older Workers: Employment and Retirement Trends," by Patrick Purcell, congressional Research Service, September 16, 2009, p. 12 and Table 7. Available at http://assets.opencrs.com/rpts/RL30629_20090916.pdf. This shift to later awards is driven by a number of factors, include the fact that the age at which people are entitled to full Social Security benefits has been rising. See, for example, "Retirement benefits by year of birth," Social Security Administration. Available at http://www.socialsecurity.gov/retire2/agereduction.htm.

[160] The survey, carried out by Behavioral Research Associates, drew on an admittedly small sample of 251 individuals. It found that only 16 percent had heard of TDFs prior to being provided with the materials. After receiving the materials, 62% of those surveyed believed that with TDFs, one would be able to retire on his or her target date, and that the funds would allow them to spend less time tracking their retirement goals, ideas that don't square with what fund providers might say about the role of the actual target date. More worrisome, however, were the 49% who assumed "you can stop worrying about investment and savings decisions and leave everything up to an investment professional." Moreover, 36% thought that their money would grow faster in TDFs than in similar investments, 30% though they could save less money with TDFs and still achieve their retirement savings goals, 24% thought there was "little to no chance" of losing money after the target date, and 23% thought there was similarly "little to no chance" of loss prior to the target date. Add to this the 28% who though TDFs entailed a guaranteed return, and the 57% of those surveyed who thought that there was little to no chance of losing money over a 10-year period, and one begins to see the dangerous misalignment between what fund providers say, and what participants hear. "Employee Misperceptions About Target-Date Funds," by Emily Brandon, U.S. News and World Reports, May 07, 2009. Available at: http://www.usnews.com/blogs/planning-to-retire/2009/05/07/employees-have-misperceptions-about-target-date-funds.html. See also, "Testimony by Behavioral Research Associates at June 18th SEC/DOL Hearing on Target-Date Funds, Presented by Jodi DiCenzo and Michael Liersch, Behavioral Research Associates, LLC, June 18, 2009." Available at http://www.behavioralresearch.com/?q=testimony. And "Public Hearing on Target Date Funds and Other Similar investment Options," United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009 (Amended: July 17, 2009), transcript of oral testimony by Jodi DiCenzo, pp. 177-179. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf.

[161] Testimony by Jodi DiCezno, Behavior Research Associates at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009, pp. 178 and 183. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf.

[162] Id. at 178-179. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf.

[163] Id. at 180. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf. Note that "[o]nly 9 percent of [the] respondents actually self-reported that they invested in Target Date Funds." It appears that "[t]he only other behavioral study" of a similar kind," but one which involved "only…people who self-reported that they invested" in TDFs," found that 19% "thought that [TDFs] provided some sort of a guaranteed level of income at retirement" (citing a study by Janis). Id. at 182.

[164] Though the authors do not address the point explicitly, it may be possible that some plan participants come to view the range of options provided by their plan sponsor as something of a microcosm of the larger investment universe, and in that way proportionally representative of the larger whole. "How Much is Investor Autonomy Worth?" by Shlomo Benartzi and Richard H. Thaler, March 2001, pp. 21-23. Available at: http://www.anderson.ucla.edu/faculty/shlomo.benartzi/autonomy.pdf.

[165] "The Burden of Good Intentions: Opportunities and Challenges for Target Date Funds," Investment Insights Series, Janus Capital Group, April 2009, p. 2. Available at: https://ww3.janus.com/advisor/research-white-papers/white-papers.

[166] Id. at 6.

[167] Id. at 6. On average, of the assets other than TDFs held by respondents, 10% was in their own company's stock, 50% in equities in other companies or stock mutual funds; 25% in bonds or bond mutual funds; and 15% in cash or money market mutual funds. Id. at 15, Exhibit A3, and p. 17, Exhibit A7.

[168] Id. at 6.

[169] Id. at 6.
[170] Id. at 6 and 7.
[171] Id. at 7 and 8.
[172] Id. at 8, Exhibit 3. The figure for employers as sources was 56%. Perhaps not surprisingly, for friends, family and co-workers, it was 39%. For the other sources it ranged between 12% and 20%. Id.
[173] Over 60% of the respondents had four or more years of secondary education, had an average household income of 89,000 and personal income of $89,000, had average 401(k) balances of $71,000, and had, on average, just under $4000,00 in investable assets, excluding their 401(k). Id. at p. 16, Exhibit A5. Note, 70% of the respondents were male. Id.
[174] "Doing the homework on lifecycle funds," by Jessica Marquez, Workforce Management, February 26, 2007. "[A] wide range of target date solutions make the evaluation process complex. Currently Target Date Fund performance is very basic, however." Testimony by Lori Lucas, Callan Associates, Inc., at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009, p. 199. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf. See also, "Compared to What?" by Mike Barry, PlanSponsor.com. (Stating that "[s]o far as I'm aware, there are no clearly recognized 'norms,' no target-maturity 'beta,' against which to judge whether any particular manger is adding any alpha" and that despite the possible merits of "high-return" as compared to low-cost index fund strategies, arguing "that we have no accepted standard, no benchmark for evaluating the performance of particular high-return strategies. Nor do we have a standard for judging between a good high-return strategy and a good low-cost strategy.") Available at http://www.plansponsor.com/MagazineArticle.aspx?id=4294990254.
[175] Testimony by Lori Lucas, Callan Associates, Inc., at the "Public Hearing on Target Date Funds and Other Similar Investment Options," June 18, 2009, United States Securities and Exchange Commission and United States Department of Labor, June 18, 2009, p. 199. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf.
[176] Id. at 200. Available at http://www.sec.gov/spotlight/targetdatefunds/targetdatefunds061809.pdf. See also in this regard, "Not All Target-Date Portfolios Are Created Equal," Arrnerich Massena & Associates, Inc., April 2009, p. 8. Available at https://www.am-a.com/company/research/wp_targetdate.pdf.
[177] "Lifestyle funds enter next generation," by Monica Townson, Employee Benefits News Canada, September 1, 2005.
[178] "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, p. 26. Available at http://corporate.morningstar.com/us/asp/subject.aspx?filter=404&xmlfile=403.xml.
[179] Id. at 26. For example, "[i]nvestors routinely can see a list of the funds included in the target-date offerings, but most series don't give any details on asset allocation beyond the broad stock-bond-cash allocations." Id.
[180] "Target-Date Funds - The Next Wave of Litigation?" by Thomas B. Bastin. Available at http://www.401khelpcenter.com/401k/bastin_target_date.html. Some deviations related to the managers of the underlying funds, namely "10 did not have the requisite manager tenure…and six failed enough criteria to warrant immediate replacement." Id.
[181] See "Quantifying the Effect of Target Date Fund Fees," Towers Watson, 2010. Available at http://www.towerswatson.com/assets/pdf/1405/WT_2010_15856.pdf. According then study, an additional 20 points in fees "reduced retirement income by 1-3 years" (depending upon participant salaries and savings rates) while "fees of 50-100 basis points eliminated 7-12 years of retirement income for most participants." Id. at 3. It also stated that of five TDF strategies, four "did not alter retirement income by more than two years," and although the fifth had sizable variation, it was "due to its much more conservative investment strategy." Id. at 6. Moreover, the variation in outcome did not change materially between salaries and savings levels." Id.
[182] "Experts tackle latest topics of interest to employers, employees," by Marshall Cobb, Houston Business Journal, April 7, 2006. Available online at http://houston.bizjournals.com/houston/stories/2006/04/10/focus3.html.
[183] Quoting Joe Nagengast, then president of Turnstone Advisory Group. "Doing the homework on lifecycle funds," by Jessica Marquez, Workforce Management, February 26, 2007. Available at: http://www.workforce.com/section/02/feature/24/83/35/index.html
[184] "Life-Cycle Funds – The Pros and Cons," by Ed Hynes, The Sound Investor Series #10, Farm Creek Securities, August 3, 2005. Available at: http://www.farmcreeksecurities.com/Sound_Investor10_Life-Cycle_Funds%96The_Pros_and_Cons_8-03-05.html
[185] "[Target-date fund providers] typically charge plans between 60 and 90 basis points per age-based or risk-based asset allocation fund." In a survey of eight target-date fund families produced in June 2007, Pensions and Investments found that JPMorgan charged between 0.6% and 0.9%, Fidelity charged between 0.51% and 0.87%, T. Rowe Price charged between 0.6% and 0.9%, Vanguard charged 0.21% (plus a $20 annual fee for accounts below $10,000), Schwab charged between 0.54% and 0.89%, Putnam Investments charged between 0.77% and 0.96%, Wells Fargo charged between 0.62% and 0.69%, and John Hancock charged 1.0%. Thus, among seven of those fund families, Hancock charged the highest fees, while Wells Fargo's were the lowest (Vanguard floats because of the $20 annual fee, which could place it as the most expensive fund if the investor's account held only $2,500, or the least expensive if there was $10,000 or more invested). "Firms keep fees low in the race for target-date assets," by Jenna Gottlieb, Pensions & Investments, June 11, 2007. Available at http://www.pionline.com/apps/pbcs.dll/article?AID=/20070611/PRINTSUB/70608035/1031/TOC. "The average expense ratio for target-date retirement funds was a relatively steep 1.29% at the end of 2006, according to the latest data from Morningstar Inc., Chicago." "Data show average expense ratio of target-date funds at 1.29," by Susan Kelly, Pensions & Investments, February 5, 2007. Available at http://www.pionline.com/apps/pbcs.dll/article?AID=/20070205/PRINTSUB/702050741/1031/TOC. Additionally, Morningstar was cited in July 2008 as stating that the fees for retail-priced target-date funds were averaging around 1% of assets. "Report Tags Many Target-Date Funds with Poor Grades," by Mark Bruno, Financial Week, July 14, 2008. Available at: www.financialweek.com/apps/pbcs.dll/article?AID=/20080714/REG/655316802.

[186] "Quantifying the Effect of Target Date Fund Fees," Towers Watson, 2010, pp. 2-3. Available at http://www.towerswatson.com/assets/pdf/1405/WT_2010_15856.pdf. In July 2008, Target Date Analytics was reported to have found that the average fee for institutionally priced target-date funds was approximately 0.78% of assets. "Report Tags Many Target-Date Funds with Poor Grades," by Mark Bruno, Financial Week, July 14, 2008. If the figures refer to mutual fund TDFs they would be broadly compatible with those referred to in the main text. Available at: www.financialweek.com/apps/pbcs.dll/article?AID=/20080714/REG/655316802

[187] "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, pp. 19-21. Available at http://corporate.morningstar.com/us/asp/subject.aspx?filter=404&xmlfile=403.xml.

[188] Note that while it appears that some TDF asset managers "have cut their costs temporarily through fee waivers," they, by definition, do not represent permanent changes to the fee structure. Id. at 21 (noting that "Vantagepoint…increased its expense ratio by 10 percent per annum in mid-2009 when the fund board voted not to renew the waiver").

[189] "Real Facts about Target Date Funds, BrightScope Blog, p. 4 (citing in footnote 10 the names of the 26 fund families). Available at http://www.brightscope.com/blog/2010/02/09/real-facts-about-target-date-funds-an-ici-rebuttal/

[190] "Fidelity Freedom Funds Prospectus," Fidelity Investments, May 29, 2008. Available at: http://content.members.fidelity.com/epro/PROS/315792663/?format=HTML&app=RETAIL&part=FRAMESET&submit=I+agree. As of early 2010 Fidelity's Freedom 2050 fund reveals an aggregate fee of 0.82%, essentially equal to that of the fees for the underlying fund, indicating that no overlay fee was charged (based on our own calculations).

[191] "Prospectus: T. Rowe Price Retirement Funds," T. Rowe Price, October 1, 2008. Available at: http://individual.troweprice.com/public/Retail/Mutual-Funds/hProspectuses&Reports/Prospectuses-&-Reports.

[192] "Vanguard Target Retirement Funds: Prospectus," The Vanguard Group, January 25, 2008. Available at: https://personal.vanguard.com/us/LiteratureRequest?FW_Activity=ViewOnlineActivity&litID=2210039445&FW_Event=start&cbdForceDomain=false.

[193] "Experts tackle latest topics of interest to employers, employees," by Marshall Cobb, Houston Business Journal, April 7, 2006. Available online at http://houston.bizjournals.com/houston/stories/2006/04/10/focus3.html.

[194] The suggestion is that "[s]ome of the extra cost goes to pay for the active management of the underlying funds. The remainder is often passed straight to the vendor's bottom line." "Experts tackle latest topics of interest to employers, employees," by Marshall Cobb, Houston Business Journal, April 7, 2006. Available online at http://houston.bizjournals.com/houston/stories/2006/04/10/focus3.html.

[195] Updated testimony submitted by Chris Tobe, consultant for an institutional pension consulting firm, submitted to the United States Department of Labor and Securities and Exchange Commission hearing on June 18, 2009. Available at http://www.dol.gov/ebsa/pdf/BCAP061709.pdf.

[196] "The real key to running a successful target date fund is distribution." "Real Facts about Target Date Funds, BrightScope Blog, p. 5. Available at http://www.brightscope.com/blog/2010/02/09/real-facts-about-target-date-funds-an-ici-rebuttal/.

[197] "Target-Date Funds Provide Windfall for Investment Complexes, Devastations for Participants and Increased Liability Exposure for Fiduciaries," Employee Benefits Committee, American Bar Association, Summer 2009 Newsletter (citing data from Financial Research Corporation). Available at http://www.abanet.org/labor/ebcomm/newsletter/09/summer/target-date.shtml.

[198] "This same provider placed 26 of its funds in the target-date vehicles, several of which were duplicative asset classes." Id.

[199] "Target-Date Series Research Paper: 2010 Industry Survey," Josh Charlson, et al. 2010, pp. 3, 25-29. Available at: http://corporate.morningstar.com/US/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSurvey_2010.pdf. Morningstar found that 'open architecture' series, which feature managers who are independent of the funds' advisor, have offered no performance advantage during the period under study." For a detailed discussion of these points, see pp. 25-29.

[200] "Thoughts on Morningstar's Target Date Fund Research," by Ryan Alfred, BrightScope, March 29, 2010 (reporting that open and closed architecture 2010 TDF funds had average equity allocations of 36.6% and 49.1%, respectively; that only 1 in 7 of the former but 12 of 17 of the latter included in the report invested 100% of their assets in actively managed funds; and stating that performance attribution was -0.64% for the former and -1.77% for the latter). Available at http://www.brightscope.com/blog/2010/03/29/thoughts-on-morningstars-target-date-fund-research/.

[201] "U.S. Senate Special Committee on Aging – Default Nation: Are 401(k) Target-Date Funds Missing the Mark?" Statement by the Investment Company Institute, October 28, 2009 (citing the results of a survey done by the Financial Research Corporation). Available at: http://ici.org/pressroom/speeches/09_senate_aging_tdrf_tmny. Only small portions of the survey report, "FUTURE OUTLOOK FOR LIFECYCLE FUNDS, Insights into Emerging Trends and Growth Opportunities" Financial Research Corporation," are publicly available on the web. See http://www.frcnet.com/documents/FRC-2008-Lifecycle-Study-TOC.pdf.

[202] The survey sample, which referred to year end 2007 data, appears to have included "1137 plans…of which 1268 were proprietary." "Real Facts about Target Date Funds, BrightScope Blog (italics added), p. 5. Available at http://www.brightscope.com/blog/2010/02/09/real-facts-about-target-date-funds-an-ici-rebuttal/

According to another study by a firm consulting to investment management firms, approximately 44% of TDF assets are bundled, 38% unbundled, with the remaining 17% being custom TDF products "Target-Date Retirement Funds: The new Defined Contribution Battleground," Casey, Quirk & Associates, November 2009, pp. 4, 9. Available at: http://www.caseyquirk.com/docs/whitepapers/Target-Date_Retirement_Funds_November_2009.pdf. These disparate results might be squared in the following way: officials from both firms suggest that the primary difference may relate to the distinction between the size of assets compared with the number of plans and differences in the kinds of funds surveyed. Smaller plans, it would appear, are more likely to use the proprietary TDF of the record keeper, while the largest plans are able to take advantage of their purchasing power to select non-proprietary TDFs, by either choosing unbundled TDFs or creating collective investment trusts (CITs) that can manage very large pools of assets. Thus, the differences in the two studies' results can be reconciled if the funds included in the retirement plan and investment research firm study were skewed towards the largest funds. A review of the distribution of plans (in terms of asset size) that were included in both studies strongly points to some notable differences in the proportion of large and small plans considered in both studies. (Information gathered via telephone conversation of Matthew Becker with Justin White, Associate Director, Casey Quirk; January 6, 2010. E-mail(s) with Ryan S. Alfred, Co-founder and President, BrightScope; January 12, 2010.) However, apart from whether it is 94.1% of plans or 44% of assets, it is clear that a large proportion of plan sponsors use the TDFs provided by their record keepers. Indeed, according to yet another survey, this time of plan sponsors, "[r]egardless of plan size, more than 70% of defined contribution plan sponsors…which have a [TDF] fund option in place use a fund that is proprietary to the plan's record keeping firm." "Target Practices" RiverSource Investments and PLANSPONSOR. Available at http://www.plansponsor.com/pdfs/riversource_p2.pdf. The figures for plans with less than $20 million and more than $200 million in assets were 74.5% and 70.0%, respectively. Id.

[203] Id. (italics added). Note should be taken of a recent report that, perhaps because of criticism of the sort referred to in the main text, as of the end of 2009 Fidelity Investments was "discussing adding non-proprietary funds to its advisor-sold 401(k) platform" with an eye to "offering outside target-date funds by he end of the second quarter [of 2010]." "Fidelity eyes adding rivals' target-date fund to its 401(k) mix," by Jessica Toonkel Marquez, *Pensions & Investments*, December 22, 2009. Available at http://www.pionline.com/article/20091222/REG/912229985.

[204] "BrightScope's Response to the Statement of the Investment Company Institute dated 10/28/2009," BrightScope. Obtained through an email exchange with Ryan S. Alfred, Co-founder and President, BrightScope; January 4, 2010.

[205] "Target-Date funds Provide Windfall for Investment Complexes, Devastations for Participants and Increased Liability Exposure for Fiduciaries," by Jessica R. Flores, American Bar Association Section of Labor and Employment Law Newsletter, Summer 2009. Available at: http://www.abanet.org/labor/ebcomm/newsletter/09/summer/target-date.shtml. See also "Are Single-Manager Target-Date Funds Risky for Large Plan Fiduciaries," by Thomas J. Fontaine and Daniel A. Notto, Alliance Bernstein, 2009 (noting that if a TDF has a single-manager and that "record keeper also happens to be the incumbent single-manager target-date fund provider, it may not allow the change, forcing the plan to move to a new record keeper at great disruptions and expense."), p. 1. Available at https://www.alliancebernstein.com/Instrumentation/Research-Articles/Single-vs-Multi-Inst_LTR.pdf. However, these figures may not remain so high if TDF trends continue in their current trajectory – according to the consulting firm that found 44% of TDF assets to be affiliated with their record keepers, the trend among large plan sponsors towards customized TDFs and the increasing popularity of passive investments may reduce the rate of affiliated funds to 25%-34% by 2018. "Target Date Retirement Funds: The New Defined Contribution Battleground," Casey Quirk & Associates, November 2009, Exhibit 6, p. 9. Available at: http://www.caseyquirk.com/docs/whitepapers/Target-Date_Retirement_Funds_November_2009.pdf

[206] "Real Facts about Target Date Funds, BrightScope Blog, p. 6. Available at http://www.brightscope.com/blog/2010/02/09/real-facts-about-target-date-funds-an-ici-rebuttal/. Note that according to one recent article at least certain 401(k) sponsors appeared to be much more reluctant to change record keepers than advisers. "401(k) plan sponsors more likely to change advisers than record keepers," by Fred Barstein, Employee Benefit Adviser, September 1, 2009 (taking note of a survey results which indicated that in July, 2009, "[o]nly 2.21% of plan sponsors with less than $100 million in plan assets indicated that they were thinking of changing their record keeper or actively searching for a new one, while almost 11% indicated they were likely to change their adviser"). Available at http://eba.benefitnews.com/news/401k-plan-sponsors-more-likely-to-change-advisers-than-record-keepers-2681573-1.html.The author suggest as reason for this difference that (1) "Platforms have more investment options, so there is less need to change record keepers to get new funds"; (2) "Consolidation has driven out really bad providers"; (3) "There is no magic bullet service or feature that causes a change"; (4) "There is less incentive for advisers to force a switch"; and (5) "We're seeing commoditization of technology and service offers". Id.

[207] "Real Facts about Target Date Funds," BrightScope Blog, p. 6. Available at http://www.brightscope.com/blog/2010/02/09/real-facts-about-target-date-funds-an-ici-rebuttal/

[208] "The Transparency of Target Date Portfolios," by Charles Hodge, Milliman, Benefits Perspectives, Winter 2009/2010, p. 2. Available at http://publications.milliman.com/periodicals/bp/pdfs/BP03-18-10.pdf.

[209] "Many life-cycle funds are made up of 'actively managed' funds also offered by a vendor. While some of the underlying funds have decent performance, others may be unpopular with investors; they're included in the life-cycle fund to create a market for them." "Experts tackle latest topics of interest to employers, employees," by Marshall Cobb, Houston Business Journal, April 7, 2006. Available online at http://houston.bizjournals.com/houston/stories/2006/04/10/focus3.html; "Most fund companies build their own target-date funds using only their own mutual funds, another aspect that elicits some concern…'You're counting on one shop to be the best at all styles' of investing' said one investment manager." "Data show average expense ratio of target-date funds at 1.29," by Susan Kelly, *Pensions & Investments*, February 5, 2007. Available at http://www.pionline.com/apps/pbcs.dll/article?AID=/20070205/PRINTSUB/702050741/1031/TOC

[210] In some respects this is a variant of "loss leader" selling whereby stores offer exceptionally cheap prices on particular items as a means for enticing customers into the establishment and selling them other, normally priced goods.

[211] "401(k) plan sponsors more likely to change advisers than record keepers," by Fred Barstein, Employee Benefit Adviser, September 1, 2009 (citing report by 401kExchange). Available at http://eba.benefitnews.com/news/401k-plan-sponsors-more-likely-to-change-advisers-than-record-keepers-2681573-1.html. (By contrast, "almost 11% indicated that they were likely to change their adviser"). Id. The reasons offered for the drop include (1) "Platforms have more investment options, so there is less need to change record keepers to get new funds"; (2) "Consolidation has driven out really bad providers"; (3) "There is no magic bullet service or feature that causes a change"; (4) "There is less incentive for advisers to force a switch"; and "[there has been] commoditization of technology and service offerings." Id. Note that while the main text has focused on the fee related reasons for record keepers requiring or pressing clients to take on record keepers' TDFs, there may be other considerations as well. For example it has been suggested that "a lot of recordkeeping systems can't handle a third-party glide slope producer, if you will, or manager, to plug into the system, so therefore a lot

of record keepers want to push for Target Date Funds because they're easier for the recordkeeping system, and you don't have to spend millions of dollars with Sungard or internally to build the platform out." Testimony of James P. Lauder, Chief Executive Officer of Global Index Advisors, Inc., "Public Hearing on Target Date funds and Other Similar Investment Options," United States Department of Labor and Securities and Exchange Commission, June 18, 2009 (Amended July 17, 2009), p. 244.

[212] "401(k) plan sponsors more likely to change advisers than record keepers," by Fred Barstein, Employee Benefit Adviser, September 1, 2009 (there was a "30% to 40% drop in satisfaction in the 401kExchange 2009 Mid-Year Ratings and Market Share Report). Available at http://eba.benefitnews.com/news/401k-plan-sponsors-more-likely-to-change-advisers-than-record-keepers-2681573-1.html.

[213] "Testimony to joint DOL/SEC Hearing on Target Date-Date Funds," by Seth Masters, CIO – Blend Strategies and Defined Contributions, Alliance Bernstein L.P., June 18, 2009(noting that the mutual fund company which "designs the glide path and manages ALL the underlying [investments]…[f]requently (and not coincidentally)…also provides recordkeeping") , p. 3. Available at https://www.alliancebernstein.com/Research-Publications/Migration-batch2/PDFs/Seth-Masters-SEC-Testimony-Hearing.pdf.

[214] "Target-Date Series Research Paper: 2009 Industry Survey," by Josh Carlson, Michael Herbst, Lailin Lieu, Laura Pavlenko Lutton, and John Rekenthaler, Morningstar, September 9, 2009, p. 22. Available at http://corporate.morningstar.com/us/asp/subject.aspx?filter=404&xmlfile=403.xml).

[215] Id. at 23.

[216] Id. at 24.

[217] "Storm Clouds Ahead for 401(k) Plans?" by Pamela Perun, Urban Institute, July 2008 (citing "Inside the Minds of Plan Sponsors: What They Care About and Want," by Daniel P. Gagemi and Matthew P. Mintzer, AllianceBernstein, LP, 2006), p. 5. Available at http://www.urban.org/UploadedPDF/411747_401k.pdf. More particularly, according to that study "60 percent of defined contribution plan sponsors asserted they were not fiduciaries, with about 80 percent of sponsors in very small plans and 62 percent of sponsors in small plans holding that belief" and "[e]ven over 50 percent of employers in medium size plans and over 40 percent in large plans [having a similar belief]." Id.

[218] For example, in testimony at the SEC/DOL hearing on TDFs. Richard C. Dunne, President and CEO of Bdellium, Inc., an investment management process advisor, remarked: "Retirement plan fiduciaries are routinely expected to make complicated decisions involving competing and sometimes conflicting demands, multiple options, limited resources and uncertain outcomes. The way in which decisions are made critically affects the quality of the results achieved. Now, ERISA wisely reflects this by focusing on the quality of decision-making processes when determining whether a fiduciary has acted prudently. However, based on my experience over particularly the last ten years, I find that the decision-making procedures used by many fiduciaries have not evolved to keep pace with the increasing complexity of the choices they are required to make." Public Hearing on Target Date funds and Other Similar Investment Options," United States Department of Labor and Securities and Exchange Commission, June 18, 2009 (Amended July 17, 2009), pp. 246-247. Available at http://www.dol.gov/ebsa/pdf/TDFhearingtranscript.pdf.

He also observes: "[N]o single product can simultaneously be best on every single selection or decision criteria, and therefore inevitably plan sponsors have to make a series of tradeoffs. Most decision-making methods used by plan sponsors and their advisors today focus on a single measurement at a time, and they do a very poor job of balancing multiple selection criteria. Very often decision-makers use some combination of simplified screening or scoring methods to reduce the number of decision variables to a level where they can intuitively identify their preferred choices. Such methods suffer from severe deficiencies. Screening fails to reflect the relative importance of different criteria and fails to take into account the degree of performance difference on each criterion. The value of many scoring systems is severely limited because of the way in which the scores are assigned. Using a flawed methodology might actually be more dangerous than helpful because it creates a superficial impression of being systematic when in reality it fails to meet minimum requirements for validity and effectiveness." Id. at 247-248.

He adds: "Unfortunately most fiduciaries are so busy dealing with day-to-day operational issues, they rarely have time to consider the effectiveness of their decision-making processes. Furthermore, while the pension industry is overflowing with investment and legal experts, it severely lacks expertise in decision process management. Perhaps, therefore, it's not surprising that on the rare occasions that pension governors do review decision-making procedures, the focus is usually on meeting legal and regulatory requirements rather than improving the quality of the decisions they are making." Id. at 248-249.

Note that, in principle, the fiduciary's decisions should be made within the framework of a plan investment policy. Based on a "review[of] the investment policy statements of several plan sponsors," one practicing attorney has taken notice of "either an absence of provision for qualified default investment alternatives or, if there are provision, inadequate descriptions of the selection and monitoring process.' "Investment Policy Statements and QDIAs," by Fred Reish, April 2010. Available at http://www.reish.com/publications/article_detail.cfm?ARTICLEID=924.

[219] "Plans' lack of target date savvy presents opportunity: Sponsors are said to be struggling to evaluate the funds," by Sue Asci, Investment News, November 30, 2008. Available at: http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20081130/REG/312019977/1031/RETIREMENT.

[220] Id.

[221] "It's Time to Rethink Retirement Plans," by Blaine F. Aikin, Investment News, July 12, 2009. Available at: http://www.investmentnews.com/article/20090712/REG/307129994

[222] Id.

[223] "The Structure of 401(k) Fees," by Richard W. Kopcke, Francis Vitagliano, and Dan Muldoon, Center for Retirement Research at Boston College, February 2009, p. 1. Available at http://crr.bc.edu/images/stories/Briefs/ib_9-3.pdf.

[224] "Retirement Plan Survey,2009," Grant Thornton LLP, Drinker Biddle & Reath LLP, and Plans Sponsor Advisors, 2009, p. 15. Available at http://www.gt.com/staticfiles/GTCom/files/Surveys/2009_retirement_survey_final.pdf.
[225] "What is the End Game With Target-Date Funds; Retirement or Death?" by Jeb Graham, 401khelpcenter.com. Available at http://www.401khelpcenter.com/401k/graham_target-date_end_game.html. "Perhaps the most glaring problem with TDFs is an overall lack of understanding of the products in general…of the assumptions, the portfolio construction, the strategy and the underlying method of execution. Retirement plan committees making the purchase decisions often don't understand the differences in the alternative products available. I believe participants understand even less, despite the surge of dollars into TDFs over the past few years." Id. Note that while the author says that "[t]he general level of understanding by retirement plan committees, as to the differences in the products, is slowly moving up the learning curve…for many plan sponsors it is still not adequate to make informed choices," to that he adds that most TDFs "were selected simply because that was the proprietary product their plan vendor offered" and that "[t]here has traditionally been minimal transparency as to the investments being used in portfolio construction." Id.
[226] "Storm Clouds Ahead for 401(k) Plans?" by Pamela Perun, Urban Institute, July 2008 (citing "Inside the Minds of Plan Sponsors: What They Care About and Want," by Daniel P. Gagemi and Matthew P. Mintzer, AllianceBernstein, LP, 2006), p. 5. Available at.http://www.urban.org/UploadedPDF/411747_401k.pdf.
[227] "Changes Needed To Provide 401(k) Plan Participants and the Department of Labor Better Information on Fees," Government Accountability Office, GAO-07-21, November 2006. Available at http://www.gao.gov/new.items/d0721.pdf.
[228] "Uncovering and Understanding Hidden Fees in Qualified Retirement Plans," by Matthew D. Hutcheson, 2nd edition, February 1, 2007.
[229] "The Structure of 401(k) Fees," by Richard W. Kopcke, Francis Vitagliano, and Dan Muldoon, Center for Retirement Research at Boston College, February 2009, p. 1. Available at http://crr.bc.edu/images/stories/Briefs/ib_9-3.pdf.
[230] See, for example, "Conflicts of Interest Can Affect Defined Benefit and Defined Contribution Plans," Statement of Charles A. Jeszeck, Acting Director Education, Workforce, and Income Security, Before the Subcommittee on Health, Employment, Labor and Pensions, Education and Labor Committee, House of Representatives, March 24, 2009, p. 7. Available at http://www.gao.gov/new.items/d09503t.pdf.
[231] "The Structure of 401(k) Fees," by Richard W. Kopcke, Francis Vitagliano, and Dan Muldoon, Center for Retirement Research at Boston College, February 2009, p. 1. Available at http://crr.bc.edu/images/stories/Briefs/ib_9-3.pdf.
[232] Id. at 1. According to a 2009 survey, the asset classes that various respondents reported they included in their TDFs included the following: global equity, high yield, global fixed income, emerging market equity, emerging market date, REITs, direct real estate, fund of hedge funds or hedge funds, 130/30 strategies, private equity and commodities. "PSCA Target-Date Funds Survey," Profit Sharing/4001k Council of America, May, 2009, Question 20. Available at http://psca.org/Portals/0/pdf/research/TDF%20FINAL%20Summary%205-4-09.pdf. (Of course, not all respondents include all asset classes in their portfolios and some rejected ones because of liquidity issues, lack of transparency, fiduciary concerns, and concerns about riskiness. See id., Question 22.)
[233] "Target Date Series: Research Paper: 2010 Survey," Josh Charlson, et al, Morningstar, p. 15. Available at http://corporate.morningstar.com/US/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSurvey_2010.pdf. For recent developments with respect to commodities see "Target-Date Funds Embrace commodities," by Ian Salisbury, *The Wall Street Journal*, August 9, 2010 (noting that "many target-date funds are turning to…commodities" either directly or through stocks of companies "whose fortunes are closely tied to commodity prices"; taking note of "[a]dvocates [who] say commodities can help damp price swings" but suggesting that "[i] brings a new level of complexity to what are supposed to b e plain-vanilla holdings for millions of investment novices").
[234] "Target Date Series: Research Paper: 2010 Survey," Josh Charlson, et al, Morningstar, p. 15. Available at http://corporate.morningstar.com/US/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSurvey_2010.pdf.
[235] Description of the panel comments of Chris Karam, Managing Director of Sheridan Road Financial, at Plansponsor's 2009 future of Asset Allocation Funds Conference – East Coast. "FAAF/EC – Success Stories," by Sara Kelly, Plansponsor.com, August 24, 2009. Available at: http://www.plansponsor.com/pi_type11/?RECORD_ID=47377&page=1
[236] "Target Date Series Research Paper: 2010 Survey," Josh Charlson, et al, Morningstar, p. 15. Available at http://corporate.morningstar.com/US/documents/MethodologyDocuments/MethodologyPapers/TargetDateFundSurvey_2010.pdf.
[237] "Target-date Retirement Funds Use Junk Bonds for Yield (Update2)," by Margaret Collins and Jeff Plungis, Bloomberg.com, December 16, 2009 (citing information provided by Morningstar Inc.). Available at: http://www.bloomberg.com/apps/news?pid=20603037&sid=aXE4c8hMe.Kw. Principal Funds' Lifetime 2010 Fund, Fidelity Freedom 2010 Fund, and T. Rowe Price's Retirement Fund 2010 had 21%, 17.1%, and 13.1%, respectively, of their bond holdings in below investment grade bonds. Id
[238] Id.
[239] "An investor receiving a semi-annual report for Fidelity's Freedom 2010 Fund, for example, would need to read through to page 20 to find the allocation in its high-yield fixed-income funds. he report doesn't break down the percentages of bonds rated below investment grade." Target-Date Funds Provide Windfall for Investment Complexes, Devastations for Participants and Increased Liability Exposure for Fiduciaries," by Jessica R. Flores, Employee Benefits Committee, American Bar Association, Summer 2009 Newsletter. Available at http://www.abanet.org/labor/ebcomm/newsletter/09/summer/target-date.shtmlId. Further complicating the task is the fact that "Fidelity's Freedom 2010 fund held 25 underlying funds, according to Bloomberg data." Id. See also "The Best Target Funds," by Steven Goldberg, Kiplinger, July 6, 2009 (stating that Fidelity Freedom 2010 had 5.5% in high-yield "junk" bonds, with the 2030 fun having 8%). Available at http://www.kiplinger.com/columns/value/archive/2009/va0706.htm.
[240] "Doing the homework on lifecycle funds," by Jessica Marquez, Workforce Management, February 26, 2007 Available at http://www.workforce.com/section/02/feature/24/83/35/index.html.
[241] "Lifestyle funds enter next generation," by Monica Townson, Employee Benefits News Canada, September 1, 2005. Available at http://findarticles.com/p/articles/mi_km2923/is_200509/ai_n15663028/. (Registration required.)

[242] "Doing the homework on lifecycle funds," by Jessica Marquez, Workforce Management, February 26, 2007. Available at http://www.workforce.com/section/02/feature/24/83/35/index.html.
[243] Description of the panel comments of James A. Sia, Director of Defined Contribution Business Development at Willington Management Company, at Plansponsor's 2009 future of Asset Allocation Funds Conference – East Coast. "FAAF/EC – Success Stories," by Sara Kelly, Plansponsor.com, August 24, 2009. Available at: http://www.plansponsor.com/pi_type11/?RECORD_ID=47377&page=1. One critique goes so far as to suggest that the investment industry, through "ownership stakes in many 'independent' fund evaluation services...ha[s] successfully limited the development of valuable resources for plan fiduciaries to use in evaluating and comparing…options."[243] "Target-Date Funds Provide Windfall for Investment Complexes, Devastations for Participants and Increased Liability Exposure for Fiduciaries," by Jessica R. Flores, Employee Benefits Committee, American Bar Association, Summer 2009 Newsletter. Available at http://www.abanet.org/labor/ebcomm/newsletter/09/summer/target-date.shtml.
[244] Description of the panel comments of Chris Karam, Managing Director of Sheridan Road Financial, at Plansponsor's 2009 future of Asset Allocation Funds Conference – East Coast. "FAAF/EC – Success Stories," by Sara Kelly, Plansponsor.com, August 24, 2009. Available at: http://www.plansponsor.com/pi_type11/?RECORD_ID=47377&page=1.
[245] "The Burden of Good Intentions: Opportunities and Challenges for Target Date Funds," Investment Insights Series, Janus Capital Group, April 2009, p. 2. Available at: http://www.investmentthinktank.com/wp-content/whitepapers/Target%20Date/Target%20Date%20Whitepaper_JGA_exp02.28.10.pdf. The survey entailed e-mailing 25,000 questionnaires to sponsors of DC plans that were well-diversified by size (less than $5 million to more than $200 million in assets). There were 6,123 "usable responses received." Id. The survey respondents included 37% with plan assets under $5 million, 34%, between $5 and $50 million, 13% between $50 and $200 million, and 16%, above $200 million." Id. at 18, Exhibit A9.
[246] Id. at 9.
[247] Id. at 9, 10, Exhibit 7.
[248] Id. at 10, Exhibit 8.
[249] Id. at 10-11, Exhibit 10.
[250] Moreover, whatever the sought for pattern over time of desired post-retirement assets for "through" TDFs, the same problem is posed.
[251] By contrast, for a detailed review of the regulation of defined contribution plans in relation to the characterization and estimation of risks for participations associated with different investment strategies, see "Investment Regulations and Defined Contribution Pensions," by Pablo Antolin, et al, Organization for Economic and Community Development, July 2009. Available at http://www.oecd.org/dataoecd/38/15/43347646.pdf.
[252] "Many TDF providers appear more concerned with style than safety. Here, 'style' refers to marketing efforts to tell the story about how their glide paths work and why their methodology is superior to that of competitors." "Providers may even avoid the content of safety entirely. They may emphasize the 'need' to take risk in order to achieve the higher investment returns 'necessary' to achieve one's retirement goals. Rarely do they acknowledge that these goals can be funded without taking any investment risk at all by using risk-free assets (TIPS)." They add that "there appears to be little economic incentive for TDF manufacturers and others involved in their distribution networks to highlight product safety to prospective buyers." Indeed, "[e]ven if the objectives are fully disclosed, the degree of risk inherent in achieving them may not be. Such disclosures are clearly not in the participant's interest." "Unsafe at Any Speed? The Designed-In Risks of Target-Date Glide Paths," by Zvi Bodie, Richard K. Fullmer, and Jonathan Treussard, *Journal of Financial Planning*, March, 2010, p. 45. Available at http://www.fpajournal.org/CurrentIssue/TableofContents/UnsafeatAnySpeed.
[253] For a recent U.S. Department of Labor commissioned study using scenario analyses involving various TDFs and other fund strategies to project wealth accumulation (and reviewing recent literature along similar lines) see "Target Date Funds and Retirement Savings," by Michael J. Brien, Philip J. Cross, Thomas A. Dunn, and Joice A. Pharris, MBA, Deloitte Financial Advisory Services LLP March 2010 (done in conjunction with Advanced Analytical Consulting Group Inc. for the U.S. Department of Labor, Employee Benefits Security Administration. Available at http://www.dol.gov/ebsa/pdf/deloitte2009-4.pdf.
[254] "Assessing Shortfall Risk in Life-cycle Funds," by Nigel D. Lewis, *The Journal of Wealth Management,* Summer 2008, 5-19. See Exhibit 5, p 17.
[255] Id. at Exhibit 6, p 18.
[256] "What Can We Expect from Target Dates Funds Over the Long Run?" by Nigel D. Lewis, *The Journal of Investing*, Summer 2010, 1-8. See p. 7.
[257] "Assessing the Impact of Fees on Performance and Shortfall Risk in Target Date Investment Funds," by Nigel D. Lewis, *The Journal of Investing*, Winter 2009, 72-78, pp. 74 and 76. For another characterization of the impact of fees see "The New Era of Retirement Plan Investments," by Rod Bare, Morningstar at the ABA Annual meeting 2009 (based on assumptions in model, showing that portfolio fees of 0.25% a year as compared with 0.75% a year, the former would enable investors to enjoy about 10 additional years of retirement income at an 80% replacement rate, starting at about age 87). Available at: http://www.abanet.org/jceb/Mstar%20Target%20Date%20Slides%20ABA%20Meeting09%20v2.pdf.
[258] "Ready! Fire! *Aim?*" prepared by Anne Lester and Katherine Santiago, JP Morgan Asset Management, March 20, 2007. Available at: http://www.dol.gov/ebsa/pdf/TDFSupp6.pdf. As another example, note the testimony at the joint SEC/DOL hearing on target date funds by Chip Castile, Head of US Defined Contribution Product Development Managing Director with Barclays Global Investors (BGI), who stated that in constructing their glide paths, the "very specific investment objective…is to minimize the risk to less than a one-in-ten chance that a retiree is forced to significantly alter their consumption pattern in retirement, and that alteration comes from either [sic] due to market dislocation or because of a higher than average life span." Referring to it more generally, he asserted that BGI's "stable consumption approach…focuses on minimizing the effect of the extreme event whereas the income replacement approach focuses on increasing the mean or maximizing the income in normal market conditions." "Public Hearing on Target Date funds and Other Similar Investment Options," United States Department of Labor and Securities and Exchange Commission, June 18, 2009 (Amended July 17, 2009), pp. 205-206. Available at http://www.dol.gov/ebsa/pdf/TDFhearingtranscript.pdf. He

adds: "I don't think that there's the recognition yet in the Target Date Fund space that the funds themselves are actually pursuing different investment objective that are going to lead to different outcomes, and, until you get to the big event that illustrates that, wow, you know, there's a big dispersion in these funds here." Id. at 217.

[259] Data on participant savings behavior comes from the JP Morgan Retirement Plan Services Database, which comprises 1.3 million participants in 350 retirement plans among 250 employers from 30 industries in 36 states across the U.S. The average salary range is $30,000 - $70,000, with approximately 10% of individuals above $100,000, and another 10% below $30,000. The authors do not state whether average savings behavior is worse among participants from lower income levels, though it seems plausible that such a result would be in keeping with general findings regarding income levels and savings behavior. The study assumes a 3% employer match for participants, but does not appear to account for periods of unemployment. "Ready! Fire! *Aim?*" prepared by Anne Lester and Katherine Santiago, JP Morgan Asset Management, March 20, 2007. Available at: http://www.dol.gov/ebsa/pdf/TDFSupp6.pdf

[260] The authors choose to employ Monte Carlo analysis along with forward-looking capital market assumptions (JP Morgan Asset Management long-term capital market assumptions), rather than historical returns. They contend that returns which reflect unprecedented bull markets for both stocks and bonds within the past two decades would not be representative. They also express reservations regarding the incomplete histories of certain asset classes, such as REITs and emerging market equity and debt. Id.

[261] The authors also note that for those who earn a higher final salary, the replacement rate is slightly higher due to higher income tax rates, and Social Security amounts to a lower portion of this replacement rate. For example, among those who earn $85,000 just before retirement, the total recommended replacement rate is 77% (versus 75%), Social Security will likely amount to 35% (compared to 40%), leaving a difference of 42% (whereas someone earning $65,000 would need to replace only 35%). Id. It should be noted that for an individual between the ages of 60 and 64 in 2007, an annual income of $65,000 would place him or her somewhere in the upper third of all earners in that age group. "Table 19. Earnings of Full-Time, Year-Round Workers 55 Years and Over by Sex and Age: 2008," U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2008. Available at: http://www.census.gov/population/www/socdemo/age/older_2008.html

[262] "Ready! Fire! *Aim*?" prepared by Anne Lester and Katherine Santiago, JP Morgan Asset Management, March 20, 2007. Available at: http://www.dol.gov/ebsa/pdf/TDFSupp6.pdf

[263] Id.

[264] In the previous study, individuals received salary raises approximately 67% of the time (2 out of 3 years), while the rate dropped to 63% in 2007 and 50% in 2008. Contribution levels stayed the same in 2007, but in 2008 initial contribution levels dropped from 6% to 5.7%, while participants tended to reach an 8% contribution level at age 45.5, compared to age 40, and reached 10% at age 57, instead of 55. Although the frequency of loans dropped from 20% to 18% in 2007 and 17% in 2008, the average loan amount climbed from 15% of the account balance to 20% in 2007, and 25% in 2008. The average percentage of participants who took cash withdrawals increased from 5.5% in 2006, to 6.2% in 2007, and 7.3% in 2008. "Ready! Fire! *Aim*? 2009," prepared by Anne Lester and Katherine Santiago, JP Morgan Asset Management, December 2009, pp. 6-8 Available at: http://www.jpmorgan.com/cm/Satellite/Ready!_Fire!_Aim__2009_How_some_target_date_fund_designs_continue_to_miss_the_mark_on_providing_retirement_security_to_those_who_need_it_most.pdf?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1158571701753&ssbinary=true.

[265] "Table 19. Earnings of Full-Time, Year-Round Workers 55 Years and Over by Sex and Age: 2008," U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2008. Available at: http://www.census.gov/population/www/socdemo/age/older_2008.html.

[266] "Ready! Fire! Aim?" prepared by Anne Lester and Katherine Santiago, JP Morgan Asset Management, March 20, 2007. Available at: http://www.dol.gov/ebsa/pdf/TDFSupp6.pdf.

[267] In calculating the value of the annuity that would be required in its model, the JPMorgan Asset Management study described in the main text assumes a 5% return and 2.5% inflation rate over the course of investment, while the annuity values are inflation-adjusted to represent 2007 dollars. The annuities that are purchased do not appear to be inflation-protected "Ready! Fire! *Aim*?" prepared by Anne Lester and Katherine Santiago, JP Morgan Asset Management, March 20, 2007, p. 6. Available at: http://www.dol.gov/ebsa/pdf/TDFSupp6.pdf.

[268] In some of the related papers the authors look at a somewhat larger number of companies.

[269] The three other reports that reference Company B provide little additional detail that might inform our understanding of participation rates under automatic enrollment. The first report ("The Power of Suggestion") involves only preliminary data, while the second report ("For Better or for Worse") is the one we reference for most of the pertinent information. The third report ("Defined Contribution Pensions") provides more precise figures for participation rates at Company B, as well as a comparison of drop-out rates under voluntary enrollment and automatic enrollment. Finally, the fourth study ("Plan Design and 401(k) Savings Outcomes") extends the data on Company B from 27 months of tenure to just under 48 months. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," by Bridgitte C. Madrian and Dennis F. Shea, *The Quarterly Journal of Economics*, Vol. 116, Issue 4, November 2001. Available at: http://www.retirementmadesimpler.org/Library/The%20Power%20of%20Suggestion-%20Inertia%20in%20401%28k%29.pdf; "For Better or for Worse: Default Effects and 401(k) Savings Behavior," by James J. Choi, David Laibson, Bridgitte C. Madrian, and Andrew Metrick, National Bureau of Economic Research Working Paper 8651, December 2001. Available at: http://www.nber.org/papers/w8651.pdf?new_window=1; "Defined Contribution Pensions: Plan Rules, Participation Choices, and the Path of Least Resistance," by James J. Choi, David Laibson, Bridgitte C. Madrian, and Andrew Metrick. National Bureau of Economic Research, Tax Policy and the Economy, Vol. 16, ed. James M. Poterba, January 2002. Available at: http://www.nber.org/chapters/c10863.pdf; "Plan Design and 401(k) Savings Outcomes," by James J, Choi, David Laibson, and Brigitte C. Madrian, *National Tax Journal*, Vol. LVII, No. 2, Part 1, June 2004. Available at: http://www.economics.harvard.edu/faculty/laibson/files/plandesign.pdf.

[270] The authors do not make clear what effect the absence of initial 401(k) participation date information might have on the research, nor do they make explicit how they deal with this shortcoming. "For Better or for Worse: Default Effects and

401(k) Savings Behavior," by James J. Choi, David Laibson, Bridgitte C. Madrian, and Andrew Metrick, National Bureau of Economic Research Working Paper 8651, December 2001, pp 6-9. Available at: http://www.nber.org/papers/w8651.pdf?new_window=1

[271] "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," by Bridgitte C. Madrian and Dennis F. Shea, *The Quarterly Journal of Economics*, Vol. 116, Issue 4, November 2001, p. 1158. Available at: http://www.nber.org/papers/w7682.pdf

[272] Id. at 1158, Figure 1.

[273] Id. at 1160, Table IV.

[274] The participation rates for workers under the age of 20 and between the ages of 50 and 59 were 73.6% and 90.0%, respectively. The participation rates for workers with compensation under $20,000 and about $80,000 were 79.5% and 94.2%, respectively. Id. Also, the participation rates of Hispanics and Whites were 75.1% and 88.2%, respectively. Id.

[275] "Defined Contribution Pensions: Plan Rules, Participation Choices, and the Path of Least Resistance," by James J. Choi, David Laibson, Bridgitte C. Madrian, and Andrew Metrick. National Bureau of Economic Research, Tax Policy and the Economy, Vol. 16, ed. James M. Poterba, January 2002, p. 77 Table 3. Available at http://www.nber.org/chapters/c10863.pdf

[276] "Plan Design and 401(k) Savings Outcomes," by James J. Choi, David Laibson, and Bridgitte C. Madrian, *National Tax Journal*, Vol. LVII,. No. 2, Part 1, June 2004, p, 277, Figure 1b.

[277] "Measuring the Effectiveness of Automatic Enrollment," by William E. Nessmith, Stephen P. Utkus, and Jean A. Young, Vanguard Center for Retirement Research, December 2007, p. 6. Available at: https://institutional.vanguard.com/iip/pdf/CRRAUTO.pdf.

[278] "Measuring the Effectiveness of Automatic Enrollment," by William E. Nessmith, Stephen P. Utkus, and Jean A. Young, Vanguard Center for Retirement Research, December 2007, pp. 9-10, 12. Available at: https://institutional.vanguard.com/iip/pdf/CRRAUTO.pdf.

[279] We derive that result as follows: the authors do not give a table with the figures, but only a graph, so estimates are limited by that. As of the opt-out time, 85.9% of those offered automatic enrollment had not opted out and 14.1% did. After three years, about 60% of non-automatically enrolled workers are currently participating. So, roughly speaking, 14.1% x 0.60 of those who opted out of automatic enrollment would later have chosen to enroll voluntarily = ~8.5%. The authors report that at three years out the overall participation rate is still roughly 86%. Subtracting the 8.5% yields a figure comparable to the Vanguard figure, 77.5%. See "Plan Design and 401(k) Savings Outcomes," by James J. Choi, David Laibson, and Bridgitte C. Madrian, *National Tax Journal*, Vol. .LVII,. No. 2, Part 1, June 2004, p, 277, Figure 1b.

[280] "Defined Contribution Pensions: Plan Rules, Participation Choices, and the Path of Least Resistance," by James J. Choi, David Laibson, Bridgitte C. Madrian, and Andrew Metrick. National bureau of Economic Research, Tax Policy and the Economy, Vol. 16, ed. James M. Poterba, January 2002, p. 78. Available at: http://www.nber.org/chapters/c10863.pdf

[281] Figure derived by looking at the difference between projected enrollment rates at 3 months and 15 months, as well as 15 months to 27 months. "Measuring the Effectiveness of Automatic Enrollment," by William E. Nessmith, Stephen P. Utkus, and Jean A. Young, Vanguard Center for Retirement Research, December 2007, p. 10, Figure 7. Available at: https://institutional.vanguard.com/iip/pdf/CRRAUTO.pdf.

[282] Assuming that opt-out rates for Company B under automatic enrollment were somewhere between 2.2% at minimum and 3.1% at maximum, and given that the initial participation rate was approximately 85.9%, the participation rate of those individuals who were automatically enrolled and never opted-out should be between 79.3% and 76.6%.

[283] "Measuring the Effectiveness of Automatic Enrollment," by William E. Nessmith, Stephen P. Utkus, and Jean A. Young, Vanguard Center for Retirement Research, December 2007, p. 19. Available at: https://institutional.vanguard.com/iip/pdf/CRRAUTO.pdf.

[284] Id. at 3, Figure 1.

[285] "401(k) Plans and Retirement Savings: Issues for Congress," by Patrick Purcell and John J. Topoleski, Congressional Research Service, July 14, 2009, p. 7, Table 2. Available at: http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1637&context=key_workplace.

[286] "The Relationship Between Employee Turnover and Employee Compensation in Small Business," by John B. Hope and Patrick C. Mackin, SBA Office of Advocacy, July, 2007, Table 9 and p. 20. Available at: http://www.sba.gov/advo/research/rs308tot.pdf.

[287] Id. at Tables 10 and 11 and p. 20-21.

[288] "Number of Jobs Held, Labor Market Activity, and Earnings Growth Among the Youngest Baby Boomers: Results From a Longitudinal Survey," Bureau of Labor Statistics, United States Department of Labor, June 27, 2008, Table 2. Available at: http://www.bls.gov/news.release/pdf/nlsoy.pdf.

[289] Id. at Table 1.

[290] Id. at Tables 1 and 2.

[291] "Staying Employed After Welfare," by Heather Boushey, Economic Policy Institute, June 1, 2002, Table 3. Available at http://www.epi.org/publications/entry/briefingpapers_bp128.

[292] "How America Saves: A Report on Vanguard Defined Contribution Plan Data," Vanguard, 2010, p. 18 and Figure 9. Available at https://institutional.vanguard.com/iam/pdf/HAS.pdf.

[293] Id. at, 21 and Figure 13.

[294] Id. at 22 and Figure 15.

[295] Id. at 22 and Figure 15.

[296] Id. at 22 and Figure 15. The end of the year figures for plan participation with and without automatic enrollment mirror what is discussed at length in the main text, with an average overall plan participation rates of 86% and 59%, respectively, with the greatest differences being for those with under $30,000 in income, under the age of 25, and with job tenure less than a year. Id. at 24 and Figure 18.

[297] See, for example, "Storm Clouds Ahead for 401(k) Plans?" by Pamela Perun, Urban Institute, July 2008 (arguing that (1) "[i]ntended to raise average savings rates, [automatic savings features] have, unless carefully chosen, the potential to

lower them"; (2) "because auto-enrollment creates many more accounts, it raises plan costs" – according to one estimate, full automatic enrollment could raise matching costs by 20 to 30% - which has already spurred some employer resistance; and (3) "without significant employer contributions, too many accounts will remain small, raising plan costs, that reduce the return to saving."), p. 3. Available at: http://www.urban.org/UploadedPDF/411747_401k.pdf. For example, McDonald's, which in 1984 "pioneered" automatic enrollment, "achieving a 93 percent participation rate" found that while "[it] was certainly successful in creating large numbers of accounts[,]…too many remain small, raising administrative costs, and too many were abandoned by workers when they quit." As a result, in 2002, it "removed auto-enrollment features from the plan covering its typically low-wage, short-tenure workforce." Id. at 1.

[298] "Measuring the Effectiveness of Automatic Enrollment," by William E. Nessmith, Stephen P. Utkus, and Jean A. Young, Vanguard Center for Retirement Research, December 2007. Available at: https://institutional.vanguard.com/iip/pdf/CRRAUTO.pdf.

[299] "How America Saves 2009," Vanguard Institutional Investor Group, August 2009, p. 29 and Figure 26. Available at: https://institutional.vanguard.com/iam/pdf/HAS09.pdf. The figures reported are for Vanguard plan recordkeeping data "and exclude eligible employees not contributing to their plans." Id at p. 25.

[300] "Will Automatic Enrollment Reduce Employer Contributions to 401(k) Plans?" by Mauricio Soto and Barbara A. Butrica, Urban Institute, December 2009, p. vi. Available at http://www.urban.org/UploadedPDF/411995_employer_contributions_paper.pdf. The cited figure is the result of regressions using a sample of 532 employers which had a total of 926 plans. The authors note that although the sample "represents only 11.7 percent of all….plans [required to file Department of Labor Form 550], it accounts for 50.8 percent of all plan assets and 29.6 of all plan participants." Id. at 16. Also, "sponsors of private multi- and multiple-employer plans (such as plans for carpenters or Teamsters)" were excluded from the sample, so it included only single-employer plans. Id. at 15.

[301] Id. at vi. Available at http://www.urban.org/UploadedPDF/411995_employer_contributions_paper.pdf.

[302] Id. at 22.

[303] Id. at 23. This finding was significant at the 90 percent confidence level. They state that there is also a 5 percent reduction at the firm level, but the correlation is not statistically significant. Id. and Table 23.

[304] "The Impact of Automatic Enrollment in 401(k) Plans on Future Interest Accumulations: A Simulation Study Based on Plan Design Modifications of Large Plan Sponsors," by Jack VanDerhei, Employee Benefit Research Institute, April 2010, p. 1. Available at. http://www.ebri.org/pdf/briefspdf/EBRI_IB_04-2010_No341_Auto-Enrll.pdf.

[305] Id. at 9.

[306] Id. at 1 and 7.

[307] Id. at 7.

[308] "The Impact of Automatic Enrollment on 401(k) Match Rates: A Methodological Note," by Barbara A. Butrica and Mauricio Soto, Urban Institute, February 2010 (referring to "an advance summary" of the EBRI study). Available at http://www.urban.org/UploadedPDF/412021_automatic_enrollment.pdf.

[309] The Impact of Automatic Enrollment in 401(k) Plans on Future Interest Accumulations: A Simulation Study Based on Plan Design Modifications of Large Plan Sponsors," by Jack VanDerhei, Employee Benefit Research Institute, April 2010, p. 8. Available at. http://www.ebri.org/pdf/briefspdf/EBRI_IB_04-2010_No341_Auto-Enrll.pdf.

[310] Id. at 8.

[311] Id. at p. 9.

[312] Individuals who provided contribution amounts for the survey are counted as having contributed to a plan. Interviews for PSID were primarily conducted in the months of March through June of each year, asking the question: "What amount or percent of pay do you voluntarily contribute currently?" The authors state that this approach "provides a better measure of persistency than examining whether the person contributed at all during the year," although they do not elaborate on this point, and it is not immediately clear to what they are alluding. One might argue that if the question is asked between a certain subset of months prior to the end of the year, it is possible that some individuals who make contributions closer to the end of the year would be unintentionally excluded from the sample. Also, because the question does not ask whether a person contributes, but rather how much they contribute, it is arguably possible that the interviewee may answer incorrectly and introduce error. "The Persistence of Employee 401(k) Contributions Over a Major Stock Market Cycle," by Leslie A. Muller and John A. Turner, Pension Policy Center, November 2008, pp. 4-5.

[313] Id. at 7, Table 3.

[314] Id. at 8, Table 4.

[315] Similar figures are also available for those who contributed in 1999 but did not necessarily work during all four years. Id. at 8, Table 5.

[316] Id. at 10, Table 8; Among those who contributed in 1999 and worked all four survey years, 46.1% contributed in 2001, only 15.3% contributed in 2003, and 38.3% contributed in 2005 (the authors do not comment on this increase in contributions for 2005). Id. at p. 10, Table 9. The authors note their surprise at the low level of persistence that their study found, and said they planned to investigate the accuracy of the responses. Id. at 11.

[317] Information returns include Forms W-2 and 5498. "Trends in 401(k) and IRA Contribution Activity, 1999-2002 – Results from a Panel of Matched Tax Returns and Information Documents," by Peter Sailer, Victoria L. Bryant, and Sara Holden, Statistics of Income Bulletin, US Internal Revenue Service, December 22, 2005, p. 167. Available at: http://www.irs.gov/pub/irs-soi/05sailer.pdf.

[318] "Trends in 401(k) and IRA Contribution Activity, 1999-2002 – Results from a Panel of Matched Tax Returns and Information Documents," by Peter Sailer, Victoria L. Bryant, and Sara Holden, Statistics of Income Bulletin, US Internal Revenue Service, December 22, 2005, pp. 167, 171. Available at: http://www.irs.gov/pub/irs-soi/05sailer.pdf.

[319] "What Does Consistent Participation in 401(k) Plans Generate?" by Sarah Holden and Luis Alonso, Employee Benefits Research Institute and Investment Company Institute, July 2009, p. 3. Available at http://www.ebri.org/pdf/briefspdf/EBRI_IB_7-2009_No332-SR_ConsistPart.pdf and http://www.ici.org/pdf/per15-01.pdf.

[320] "Number of Jobs Held, Labor Market Activity, and Earnings Growth Among the Youngest Baby Boomers: Results From a Longitudinal Survey," Bureau of Labor Statistics, United States Department of Labor, June 27, 2008, p. 7 Table 2. Available at: http://www.bls.gov/news.release/pdf/nlsoy.pdf.

[321] Also, although the average number of years of participation generally increased between the ages of 30 and 59, only 8% of those ages 50 to 59 participated in every year. Id.

According to one reference to a study by Hewitt Research Associates, "45 percent of 401(k) participants who left their jobs in 2005 cashed out their lump sum, 32 percent left it in the plan, and 23 percent rolled it over to another tax-qualified plan." "Lump Sum Distributions at Job Change," Employee Benefit Research Institute, Notes, Vol. 30, No. 1, January 2009, p. 10. Available at: http://www.ebri.org/pdf/notespdf/EBRI_Notes_Jan09_Rollovers.pdf. According a different study by EBRI of decisions people had made when they left their last job: 51% received a lump sum only, 38% maintained participation in their former employer, and 11% took only a partial lump sum while maintaining that participation. "Retirement Plan Participation and Retirees' Perception of Their Standard of Living," by Craig Copeland, EBRI Issue Brief No. 289, January 2006, p. 24 Figure 11. Available at http://www.ebri.org/pdf/briefspdf/EBRI_IB_01-20061.pdf. The author of that study later, in citing the Hewitt report, remarked that "[t]he percentage of individuals who left their assets in a previous employers' plan has been estimated to be approximately one-third." "Lump Sum Distributions at Job Change," Employee Benefit Research Institute, Notes, Vol. 30, No. 1, January 2009, p. 11 and note 5. Available at http://www.ebri.org/pdf/notespdf/EBRI_Notes_Jan09_Rollovers.pdf. Yet another study, which focused only on choices at retirement (for those retiring between 2002 and 2007), states that "[j]ust over half (52 percent) of DC plan participants received their distributions as a lump sum" while 16 percent deferred distribution of the entire balance." "Defined Contribution Plan Distribution Choices at Retirement, A Survey of Employees Retiring Between 2002 and 2007," Investment Company Institute, Fall 2008, p. 50 and Figure 4.5 (noting that "104 of the 608 respondents," namely 17.1% of all respondents reporting that they "deferred all or some of their DC withdrawal" (left the balance in the employers' plan at retirement)). Available at: http://www.ici.org/pdf/rpt_08_dcdd.pdf. It appears that 1 percent deferred distribution of a part of their balance. "Defined Contribution Plan Distribution Choices at Retirement, A Survey of Employees Retiring Between 2002 and 2007," Investment Company Institute, fall 2008, p. 7 and Figure S.1. Available at: http://www.ici.org/pdf/rpt_08_dcdd.pdf.

[322] "Deferring Income in Employer-Sponsored Retirement Plans: The Dynamics of Participant Contributions," by Karen E. Smith, Richard W. Johnson, and Leslie A. Muller, *National Tax Journal*, Vol. LVII, No. 3, September 2004, pp. 651-652. The authors find that retirement plan participation frequency among this sample increased from 17% in 1990 to 43% in 2001, averaging approximately 27% during this period. However, because only 42% of employees were offered retirement plans in 1997 (the first year such data was available), the authors note that the participation rate in that year rises from 30% to 72% when the sample is restricted to only those who received such an offer (similar figures for later years are not provided). The mean real annual contributions over this period amounted to 5.4% of total earnings, or $3,300 (in 2004 dollars). Similar to participation rates, annual contribution rates increased over this period (from $3,000 in 1991 to $3,600 in 2001), a growth that was only partially attributable to a growth in real earnings, as the ratio between contributions and total earnings increased for those under 50 during this period. Id. at 645, 649.

The authors also looked at longitudinal participation patterns among these individuals, grouping them according to five categories of behavior, although the exact criteria for these groupings were not made explicit, and the results were further weakened by the absence of figures regarding which years individuals were offered participation in a retirement plan. Considering only those in the sample who contributed to an employer-sponsored plan during this period (and were thus offered participation in a retirement plan for part, though not necessarily all, of this period), the authors classified individuals according to four groups of contribution patterns: 27% made steady contributions over this period, 24% exhibited only rising contributions, 19% had intermittent contributions (at least one calendar year of no contributions between other years in which contributions were made), 8% had falling contributions over this period, and 23% exhibited fluctuating contributions (contribution rates that rose and fell during the period). (It would appear that an individual who did not contribute for the entire 12-year period, but who nonetheless contributed in one continuous period, would not be classified as intermittent – as such, interpretation of this data is further complicated because it is not clear for what years these individuals were offered participation in a retirement plan.) The authors cite the high proportion of individuals with some change in their contribution rates as evidence that calls into question previous research asserting that individuals rarely change their contribution behavior over time. The authors also found that contribution patterns varied more with additional years of contributions, as 53% of those who contributed for 12 years had fluctuating contribution patters, compared to 26% for those who contributed for only 5 to 7 years. Id. at 653-655.

Note, according to a recent report by a major retirement plan consultant, from 2007 to 2008, 12.9% of plan participants decreased their contribution rate (on average by 6.3%); 15.4% increased it (on average by 3.2%). "How Well Are Employees Saving and Investing in 401(k) Plans, 2009 Hewitt Universe Benchmarks," Hewitt Associates, p. 9. Available at: http://www.hewittassociates.com/intl/na/en-us/KnowledgeCenter/ArticlesReports/ArticleDetail.aspx?cid=6863&tid=0. (Sign-up required).

[323] See, for example, "Persistency of pension contributions in the UK: Evidence from aggregate and micro-data," by Sarah Smith, January 2006 (and sources cited). Available at: http://www.bristol.ac.uk/cmpo/publications/papers/2006/wp139.pdf. (Note the related journal publication, "Persistency of pension contributions in the UK: evidence from the British Household Panel Survey," by Sarah Smith, *Journal of Pension Economics and Finance*, Vol. 5 No. 3, 2006, pp. 257-274). Probably most relevant to the American experience may be the findings as to the reasons why there are lapses in contributions. For example, the author concludes that "[c]hanges in individuals' circumstances – unemployment, worsening health and financial position, arrival of a new baby and a change in marital status – are all associated with stopping contributions [to individual DC pensions]. Also, moving to a new employer who offers a pension." However, also relevant were "an individual's underlying propensity to save…and an individual's household income." Id. at 21. For a related discussion

about 401(k) contributions, see "What determines 401(k) participation and contributions," by Alicia Munnell, Annika Sunden, and Catherine Taylor, *Social Security Bulletin*, Vol. 64, No.3, 2001. Available at: http://www.ssa.gov/policy/docs/ssb/v64n3/v64n3p64.pdf.

[324] More particularly, the administration would require employers that have been in business for at least two years and employ 10 or more individuals to automatically enroll their employees in an IRA option on a payroll-deduction basis, beginning in 2012. Employers that already sponsor a qualified retirement plan or SIMPLE IRA would not be required to participate, unless the plan excludes a legislatively specified portion or class of the employees. If so, the excluded employees would then have to be covered by an automatic IRA. Also, employers would not have to comply with qualified plan requirements, nor would they be liable or responsible for "determining employee eligibility to make tax-favored IRA contributions or for opening IRAs for employees." Information and basic educational materials would be made available through a national website, though "individuals (not employers) would bear ultimate responsibility for determining their IRA eligibility." A temporary tax credit would be extended to employers who participate in the program, amounting to $25 per enrolled employees, up to a total of $250, and would also be available to employers who were not required to participate but enrolled employees nonetheless. "CCH Payroll – 02/09/10: President's 2011 Budget Includes some Payroll Items," CCH Aspen Publishers Technical Answer Group, February 9, 2010. Available at: http://hr.cch.com/news/payroll/020910a.asp.

[325] The enrollment process would commence with a standard notice and election form that would be provided to employees by the employer, informing them of their enrollment and allowing them to opt out. Those employees who make an affirmative choice of the contribution level could set it from $0 up to the IRA dollar limit. The assumption is that the actual procedure of payroll deductions would in most cases be facilitated by the "excess capacity" of most payroll systems, having them allocate contributions in a way not unlike the "direct deposit" methods that allow paychecks to be automatically transferred to an employee's bank account. "General Explanations of the Administration's Fiscal Year 2010 Revenue Proposal," U.S. Department of the Treasury, May 2009. Available at: http://www.ustreas.gov/offices/tax-policy/library/grnbk09.pdf

[326] "White House backs Roth IRAs as default pension investment vehicle," by Sara Hansard, Investment News, February 1, 2010. Available at http://www.investmentnews.com/article/20100201/FREE/100209944.

[327] "Automatic IRA Builds Retirement Security," David C. John, Webmemo No. 2798, Heritage Foundation, February 5, 2010, p. 1. Available at http://thf_media.s3.amazonaws.com/2010/pdf/wm_2798.pdf.

[328] Id at 2.

[329] "Pursuing Universal Retirement Security Through Automatic IRAs: How they would Invest," by J. Mark Iwry and David C. John, in *Automatic: Changing the Way America Saves*, Brooking Institution Press, 2009, p. 67.

[330] For example, according to that Act "the TSP II Board shall provide for the establishment and maintenance of individual retirement plans (including automatic IRAs) into which contributions may be deposited under paragraph (3). To the maximum extent practicable, the TSP II Board shall — ''(i) enter into contracts with persons eligible to be trustees of individual retirement plans under section 408 to establish 4 such plans, to provide the investment funds and investment management, and to provide notice, record keeping, and other administrative services, and ''(ii) ensure that the costs of investment management and administration are kept to a minimum, including through consideration of the use of investments which involve passive management and which seek to replicate the performance of a portion of the market." SEC. 408B (f)(4)(A). **"**Automatic IRA Act of 2007" S. 1141 of 2007, pp. 13-14. Available at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:s1141is.txt.pdf. Moreover, the TSP II Board must, by regulation specify investment options which must include "[o]ptions which are similar to all investment options which are available…to a participant in the Thrift Savings Fund" SEC. 408C (c)(2)(A) and "[a]ny other investment option specified in the regulations" (SEC. 408C (c)(2)(B). Id. at 30.

[331] Available at http://bingaman.senate.gov/policy/autoira.pdf. This bill was filed by Senators Jeff Bingaman (of New Mexico) and John Kerry (of Massachusetts) . Id. It appears that an identical bill has been in the House of Representatives. See "Summary of the Automatic IRA Act of 2010 Introduced by Rep. Richard Neal August 10, 2010." Available at http://www.house.gov/neal/pdfs/Summary_Auto_IRA_Act_2010.pdf.

[332] Proposed Sec. 439(c)(2) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[333] They include "passbook savings, certificate of deposit, insurance contracts, mutual funds, United States savings bonds…, or similar classes of assets" Proposed Sec. 439(c)(2)(A) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[334] Proposed Sec. 439(c)(2)(B) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[335] Proposed Sec. 438(d)(3)(A) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[336] Proposed Sec. 438(g)(1)(A) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[337] Proposed Sec. 438(g)(1)(C) Sec. 438(g)(1)(A) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986. These bonds are described in proposed Sec. 440(d). The bonds are supposed to interest rates "that take into account the expected duration of the funds invested," which are "determined or adjusted…to provide substantial protection from inflation" and be "designed for investment under an automatic IRA" Id.

[338] Proposed Sec. 440(c) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[339] Proposed Sec. 440(c)(2) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[340] Proposed Sec. 438(d)(1)(B)as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986.

[341] Proposed Sec. 440(f)(2) as an addition to Subchapter D of chapter 1 of the Internal Revenue Act of 1986 , amending the fiduciary duty provisions of Sec. 404©(2) of ERISA..

[342] Adjusted gross incomes among participants averaged about $43,000, though there was a substantial difference between married taxpayers, who averaged approximately $68,000, and non-married taxpayers, who averaged about $29,000. "Savings Incentives for Low- and Middle-Income Families: Evidence from a Field Experiment with H&R Block," by Duflo et al., *The Quarterly Journal of Economics*, November 2006, p. 33, Table 1. Available at: http://www.nber.org/papers/w11680.

[343] The authors employ a randomized experiment in which 14,000 tax filers received matches of either 0%, 20%, or 50% of their contributions to IRAs, so long as these contributions were above $300 (matching a maximum of $1000, though there was no cap to contributions). The experiment took place between March 5 and April 5, 2005, at 60 H&R Block offices in low- and middle-income neighborhoods in St. Louis, as a means of obtaining results among low- and middle-income individuals and families. The experiment employed a product called Express IRA (X-IRA), which H&R Block uses to offer client the opportunity to make IRA contributions concomitant with tax preparation. Id. at 2-9. Available at: http://www.nber.org/papers/w11680.

[344] The Tax Reform Act of 1986 imposed certain restrictions on the deductibility of IRA contributions, starting in 1987. "Information and IRA Participation: the Influence of Tax Preparers," by Warren B. Hrung, Office of Tax Analysis, US Department of the Treasury, March 2000.

[345] "Trends in 401(k) and IRA Contribution Activity, 1999-2002--Results from a Panel of Matched Tax Returns and Information Documents," by Sailer et al., Statistics of Income Bulletin, US Internal Revenue Service, December 22, 2005, pp. 167-169. Available at http://www.irs.gov/pub/irs-soi/05sailer.pdf.

[346] "Retirement Saving over the Long Term: Evidence from a Panel of Taxpayers," by Paul A. Smith, Dept. of Treasury and Federal Reserve Board, December 2002, table 9. Available at: http://paul.marginalq.com/retirement%20savings%20over%20the%20long%20term.pdf

[347] "The IRA Investor Profile, Traditional IRA Investors' Contribution Activity, 2007 and 2008," Investment Company Institute, 2010. Available at http://www.ici.org/pdf/rpt_10_ira_contributions.pdf. The research was based on collaboration between the Investment Company Institute and the Securities Industry and Financial Markets Association.

[348] The organizations' "IRA Investor Data Base" contained "account-level information from a wide range of mutual fund and insurance companies, which provided data for more than10 million IRA investors in 2007 and 2008." Id. at 3.

[349] Id. at 31, Figure 24.

[350] Id. These figures were, not surprisingly, lower than for 2007. For that year the overall percentage was 11.2% and was 13.1% to 6.9% for the 25 to 29 and age 65 to 69 age groups, respectively. Id. at 32, Figure 25. Also, again not surprisingly the percentage increased with income. In 2008, the overall percentage was 12.9% for those with incomes of $140,000 or more, 8.8 % for those with incomes between $50 and $65,000, and 7.6% for those within incomes under $30,000. Id. at 34, Figure 27.

[351] Id. at 44, Figure 37. The figures are based on the sample of "6.0 million work-age traditional IRA investors who also had traditional IRAs at the same financial services firm in the 2007 data base" which allowed tracking of persistence of their contributions. Id. at 44.

[352] "The Role of IRAs in U.S. Households' Saving for Retirement, 2008," prepared by Sarah Holden and Daniel Schrass, Investment Company Institute, *Research Fundamentals* Vol. 18, No. 1, January 2009, p. 8. Available at: http://www.ici.org/pdf/fm-v17n1.pdf.

[353] "The U.S. Retirement Market, 2008," prepared by Peter Brady, Sarah Holden, and Erin Short, Investment Company Institute Research Fundamentals, Vol. 18, No. 5, June 2009, p.8. Available at: http://www.ici.org/pdf/fm-v18n5.pdf

[354] According to the study, only 10% of all taxpayers in the panel ever contributed the maximum amount to an IRA, while just under three-quarters of taxpayers who contributed to an IRA in that period contributed the maximum amount in at least one year. Furthermore, there is some indication that maximum contributions might be sporadic, though this requires a critical analysis of the studies findings: although the study found that 73% of those who contributed the maximum amount to an IRA did so in every year that they made a contribution, it is important to note that this does not imply that they made a contribution in every year of the 10-year period. Indeed, it is possible for someone to have contributed just once, but also have contributed the maximum amount in that year, and fall into the 73% category of contributors. Given that roughly three-quarters of those who contributed during the study period did so by making only maximum contributions, and also noting that 64% of those who contributed any amount to their IRA during this period did so in less than half of the years studied, while only 10% contributed in all of the years studied, it would appear that many (if not the majority) of those who contributed the maximum amount to their IRAs did not contribute anything during other years of the study period. "Retirement Saving over the Long Term: Evidence from a Panel of Taxpayers," by Paul A. Smith, Dept. of Treasury and Federal Reserve Board, December 2002, table 10. Available at: http://paul.marginalq.com/retirement%20savings%20over%20the%20long%20term.pdf.

According to the just published study cited in the main text, while 11.7% of all working -age traditional IRA investors made IRA contributions in 2007, about half of them, namely 6.9% of all investors made contributions at the statutory limit. [354] "The IRA Investor Profile, Traditional IRA Investors' Contribution Activity, 2007 and 2008," Investment Company Institute, 2010, p. 46. Figure 39. Available at http://www.ici.org/pdf/rpt_10_ira_contributions.pdf. Of the latter, slightly more than half (52.7%) made a contribution at the limit in 2008. (One third made no contribution). Id. Thus, only slightly more than 3% of all working-age traditional IRA investors made maximum contributions in both 2007 and 2008. Note that of those who made less than the maximum contribution in 2007, only a small fraction of them (5.3%) made the maximum contribution in 2007.

[355] It is not clear if these figures include rollover assets in the calculation of contribution frequency and amount. "The Role of IRAs in U.S. Households' Saving for Retirement, 2008," and "Appendix: Additional Data on IRA Ownership in 2008," prepared by Sarah Holden and Daniel Schrass, Investment Company Institute, *Research Fundamentals* Vol. 18, No. 1 and No. 1A, January 2009, appendix, p. 9. Available at: http://www.ici.org/pdf/fm-v17n1.pdf and http://www.ici.org/pdf/fm-v18n1_appendix.pdf.

[356] "The Individual Retirement Account at Age 30: A Retrospective," by Sarah Holden, Kathy Ireland, Vicky Leonard-Chambers, and Michael Bogdan, Investment Company Institute Perspective, Vol. 11, No. 1, February 2005, p. 7, Figure 4. Available at: http://www.ici.org/pdf/per11-01.pdf.

[357] "Modeling IRA Accumulation and Withdrawals," by John Sabelhaus, Congressional Budget Office, *National Tax Journal* Vol. LIII, No. 4, Part 1, December 2000. Available at: http://www.econ.umd.edu/research/papers/521.

[358] Note also that apart from those heads of household under age 59 who took IRA withdrawals, there were likely many more individuals in the next older age group (ages 59 to 69) who took withdrawals, as well. This is important insofar as the focus is on withdrawals by those who have not yet retired. In light of the per-age 59½ penalties on IRA withdrawals, a substantial but unknown proportion of withdrawals by those under the age of 59 are unrelated to retirement (perhaps even a majority). If we assume that the average age of retirement is around age 63, and we note that 27% of IRA withdrawals in 2008 were by those aged 59 to 69 (or 34% of withdrawals in 2007), then we might surmise that a substantial fraction of this figure was made up of pre-retirement withdrawals. "The Role of IRAs in U.S. Households' Saving for Retirement, 2008," and "Appendix: Additional Data on IRA Ownership in 2008," prepared by Sarah Holden and Daniel Schrass, Investment Company Institute, *Research Fundamentals* Vol. 18, No. 1 and No. 1A, January 2009, p. 13 and appendix, p. 18. Available at: http://www.ici.org/pdf/fm-v17n1.pdf and http://www.ici.org/pdf/fm-v18n1_appendix.pdf

According to the just published study cited in the main text (p. 61), of traditional IRA investors of "working-age" (between the ages of 25 and 69), "9.5 percent had taken withdrawals" in 2007 and that this outcome was "in line with [Investment Company Institute] household survey information which indicates that 8.4 percent of working-age households owning traditional IRAs in 2008 had taken withdrawals in tax year 2008." "The IRA Investor Profile, Traditional IRA Investors' Contribution Activity, 2007 and 2008," Investment Company Institute, 2010,p. 51, Note 43. Available at http://www.ici.org/pdf/rpt_10_ira_contributions.pdf.

[359] "The Evolving Role of IRAs in U.S. Retirement Planning," prepared by John Sabelhaus and Daniel Schrass, Investment Company Institute Research Perspective Vol. 15, No. 3, November 2009, p. 20 and figure 18. Available at: http://www.ici.org/pdf/per15-03.pdf. According to IRA statistical analysis, taxpayers age 60 and under made 3.9 million IRA withdrawals (32% of the total of the total of 12.3 million withdrawals). These withdrawals totaled $28.1 billion (20% of the amount of all withdrawals, $139.6 billion). "Accumulation and Distribution of Individual Retirement Arrangements, 2004," by Victoria L. Bryant, Statistics of Income Bulletin, Internal Revenue Service, Spring 2008, p. 98 and Table 4. Available at http://www.irs.gov/pub/irs-soi/04inretirebul.pdf.

[360] "Understanding Early Withdrawals from Retirement Accounts," by Barbara A. Butrica, Sheila R. Zedlewski, and Philip Issa, Urban Institute Retirement Policy Program Discussion Paper 10-02, May 2010, pp. 20 and 23, Tables 5 and 6. Available at: http://www.urban.org/UploadedPDF/412107-early-withdrawals.pdf. Note that the sample "includes adults ages 25 to 58 in 2004, present during the entire 24 months between 2004 and 2005, living in families with IRAs…having positive balances, who withdrew from their IRAs…between 2004 and 2005, and whose withdrawal amounts were not missing [from the survey responses]." Id. at 23.

[361] Id. at 13, Available at: http://www.urban.org/UploadedPDF/412107-early-withdrawals.pdf

[362] According to a recent survey of the actual age of retirement, 10% retired before the age of 55 and 21% between the ages of 55 and 59. "The 2010 Retirement Confidence Survey," by Ruth Helman, Craig Copeland, and Jack VanDerhei, Employee Benefits Research Institute, March 2010, p. 29 and Figure 31. Available at: http://www.ebri.org/pdf/briefspdf/EBRI_IB_03-2010_No340_RCS.pdf. Note that for these individuals, drawing on Social Security benefits at the time of retirement would be an incentive to retire, because 62 is the earliest permissible age under Social Security for drawing benefits. (For the trends over the past 20 years in retirement age see id. at p. 29 and figure 30.)

[363] "The Role of IRAs in U.S. Households' Saving for Retirement, 2008," and "Appendix: Additional Data on IRA Ownership in 2008," prepared by Sarah Holden and Daniel Schrass, Investment Company Institute, *Research Fundamentals* Vol. 18, No. 1 and No. 1A, January 2009, appendix, p. 18. Available at: http://www.ici.org/pdf/fm-v17n1.pdf and http://www.ici.org/pdf/fm-v18n1_appendix.pdf.

[364] "Annuitized Wealth at Older Ages: Evidence from the Health and Retirement Study," by Richard W. Johnson, Leonard E. Burman, and Deborah I. Kobes, The Urban Institute, May 2004, p. 31. Available at: http://www.urban.org/UploadedPDF/411000_annuitized_wealth.pdf.

[365] "What Explains Early Withdrawals from Retirement Accounts? Evidence from a Panel of Taxpayers," by Gene Amromin and Paul A Smith, *National Tax Journal*, Vol. 56 (September 2003), pp. 608-611. Available at: http://paul.marginalq.com/early_withdrawals_ntj_print.pdf.

[366] Id. at 608-611.

[367] Id. at 607 and 610. Available at http://paul.marginalq.com/early_withdrawals_ntj_print.pdf

[368] Understanding Early Withdrawals from Retirement Accounts," by Barbara A. Butrica, Sheila R. Zedlewski, and Philip Issa, Urban Institute Retirement Policy Program Discussion Paper 10-02, May 2010, p. 32.
Available at: http://www.urban.org/UploadedPDF/412107-early-withdrawals.pdf. Note that according to one report "[s]ince the mid-1990, the share of all returns with a penalty [from early IRA and pension plan withdrawals had] risen fairly steadily, from 2.3 percent in 1993 to 3.8 percent in 2002." "Penalties on IRAs and 401(k)s" by Peter R. Orszag, Tax Policy Center, Urban Institute and Brookings Institution, August 15, 2005. Available at http://www.taxpolicycenter.org/UploadedPDF/1000812_Tax_Fact_8-15-05.pdf.

[369] See "Instructions for Form 5329 (Additional Taxes on Qualified Plans (Including IRAs) and Other Tax-Favored Accounts)," Internal Revenue Service. Available at http://www.irs.gov/pub/irs-pdf/i5329.pdf.

[370] "Five penalty-Free IRA Withdrawals," by Eric Fox, *Forbes*, May 26, 2010. Available at http://www.forbes.com/2010/05/26/penalty-free-ira-withdrawal-personal-finance-withdrawal.html.

[371] Note that a report geared to "reviewing the international literature on savings incentives that is relevant to gauging the probable outcomes of KiwiSaver and designing ways to measure its outcomes," canvasses (among others) papers' findings relevant to the issues with which we are concerned here. Among the papers are ones which we have cited and reviewed; the others do not offer findings which bear directly on those issues. "Final Report to Inland Revue: KiwiSaver Evaluation Literature Review," by Eric Toder and Surachai Khitatrakun, Tax Policy Center (Urban Institute and Brookings Institution), December 4, 2006, pp.15-16. Available at http://www.treasury.govt.nz/publications/informationreleases/kiwisaver/background/ks-eval-lit-review-dec06.pdf.

[372] The self-employed are not required to enroll but may voluntarily do so. "Your Introduction to KiwiSaver, Employee Information Pack" Inland Revenue, New Zealand, p. 4. Available at: http://www.ird.govt.nz/resources/6/c/6c1eca804bbe5728ac07fcbc87554a30/ks3.pdf.

[373] Id. at 5. Available at http://www.ird.govt.nz/resources/6/c/6c1eca804bbe5728ac07fcbc87554a30/ks3.pdf. Although Kiwisaver requires a minimum contribution of 2% of a person's gross annual wages, this requirement is only enforced for individuals who are signed up through an employer (thereby giving Inland Revenue access to the Employer Monthly Schedule wage data, from which gross income is calculated). "Payments made to Inland Revenue outside the EMS mechanism or directly to scheme providers are excluded." "Kiwisaver Evaluation – Annual Report July 2008-June 2009." Evaluation Services, Inland Revenue, September 2009, p. 21. Available at: http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf.

[374] "KiwiSaver and Tax," Inland Revenue, New Zealand. Available at http://www.kiwisaver.govt.nz/already/contributions/tax/.

[375] "Your Introduction to KiwiSaver, Employee Information Pack," Inland Revenue, New Zealand. Available at: http://www.ird.govt.nz/resources/6/c/6c1eca804bbe5728ac07fcbc87554a30/ks3.pdf.

[376] The Auto IRA: Strategies for Successful Implementation," AARP Solutions Forum, Monday, October 26, 2009" (Transcript; quoting Diana Crossan, Retirement Commissioner), New Zealand, p. 20-21. Available at: http://assets.aarp.org/rgcenter/ppi/econ-sec/transcript_forum_090926.pdf.

[377] "Challenges and Choices, New Zealand's Long-Term Fiscal Statement," The Treasury, New Zealand Government, October 2009, p. 59. Available at http://www.treasury.govt.nz/government/longterm/fiscalposition/2009/ltfs-09.pdf. The report cites a study "that showed 23% of workers had private pensions in 1990," but only 14% was covered by private schemes in 2004. Id. at 59 (attributing this outcome to successful poverty prevention efforts and "changes to the taxation of pensions"). See "Review of international pension reform," by Sharon Collard and Nick Moore, UK Department of Work and Pensions, Research Report No. 663, 2010 (citing a New Zealand Treasury study which "middle-income New Zealanders were at particular risk of a substantial drop in their living standards unless they saved more," though also note concerns about younger workers having "lower standards of living in retirement than current retirees and those approaching retirement, due to high levels of debt, student loans, child-bearing at later ages and potentially fewer mortgage-free homes."), p. 22. Available at http://research.dwp.gov.uk/asd/asd5/rports2009-2010/rrep663.pdf. The authors also note "the fact that New Zealand had relatively low levels of private pension saving," with only 14.7 percent of the employed work force in 2006 being covered by an occupational pension plan. Id. at 22-23.

[378] "Easier Saving One Step Closer – KiwiSaver Default Providers Signed Up – Ministers of Finance and Commerce Media Statement," by Hon. Michael Cullen and Hon. Lianne Dalziel, Ministry of Economic Development, New Zealand, April 2, 2007. Available at: http://www.med.govt.nz/templates/MultipageDocumentTOC____26291.aspx.

[379] "Your Introduction to KiwiSaver, Employee Information Pack" Inland Revenue, New Zealand, p. 3. Available at: http://www.ird.govt.nz/resources/6/c/6c1eca804bbe5728ac07fcbc87554a30/ks3.pdf.

[380] "Buying your first home with KiwiSaver," Housing New Zealand. Available at http://www.hnzc.co.nz/hnzc/web/rent-buy-or-own/buying-your-first-home-with-kiwisaver/buying-your-first-home-with-kiwisaver.htm.

[381] "KiwiSaver statistics as at 31 March 2010," Inland Revenue, New Zealand. Available at http://www.kiwisaver.govt.nz/statistics/ks-stats-10-03-31.html. Note that a substantially larger number voluntarily enrolled directly through a provider (649,745, about 47%) or voluntarily through an employer (207,873, about 16%) Id. As of mid-year 2009, above 35% of those who opted in via a provider were age 17 or under so were almost certainly not employed and were probably enrolled at the behest of their parents. Otherwise, opt-ins in this way were low for young adults and increased markedly with age (ranging from about 7% for those between the ages of 18 and 24 to about 23% for those over the age of 55). Voluntary opt-ins by way of an employer also exhibited a similar pattern (ranging from 8% for those 17 years of age or under and 15% for those between the ages of 18 and 24 to 28% for those over the age of 55). "Annual Report, July 2008 – June 2009," KiwiSaver Evaluation, Inland Revenue, New Zealand, September, 2009, p. 18 and Figure 3.2. Available at http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf.

[382] "KiwiSaver statistics as at 31 March 2010," Inland Revenue, New Zealand. Available at: http://www.kiwisaver.govt.nz/statistics/ks-stats-10-03-31.html. An additional 12,000 had closed accounts, although they were "primarily due to people being incorrectly enrolled or being ineligible for enrolment, or a provider initiated closure, for example due to the death of a member." Id.

[383] See also "The Auto IRA: Strategies for Successful Implementation," AARP Solutions Forum, Monday, October 26, 2009," (Transcript; quoting Diana Crossan, Retirement Commissioner, New Zealand, to the effect that "[t]hirty-four percent of those auto-enrolled have opted out" and noting that "39 percent [of all KiwiSavers] came in through auto-enrollment.") p. 19. Available at http://assets.aarp.org/rgcenter/ppi/econ-sec/transcript_forum_090926.pdf.

[384] "KiwiSaver statistics as at 31 March 2010," Inland Revenue, New Zealand. Available at http://www.kiwisaver.govt.nz/statistics/ks-stats-10-03-31.html. According to the KiwiSaver evaluation report based on a modest number of interviews of 45 employees and 34 employees during June and July 2008, "[t]he minimum contribution rate is still the main feature that discourages some staff from taking up KiwiSaver they cannot afford to contribute 4% of their gross pay. A few of the participating employers and employees had agreed to a transitional contribution rate, where the employers' contributions count towards the employees' minimum contribution. This finding has led the evaluation to recommend that it will investigate further the effect of the minimum rate on participation." On the other hand, the report stated that, "[a]s in phase 1 of the employer panel, KiwiSaver's financial incentives are continuing to encourage employees to join the initiative (eg the CEC [that is, compulsory employer contributions], MTC [that is, the member tax credit], kick-start payment)." "KiwiSaver Evaluation of Implementation in the Workplace, Employer Panel: Phase 2 Report," Inland Revenue, New Zealand, September, 2008, p. 7. Available at http://www.ird.govt.nz/resources/2/1/2130e2804bfc2d3a81dd89e3cd4d5afa/ks-phase2-report.pdf.
In 2009, the minimum employee contribution was reduced from 4% to 2%, employer contributions which were scheduled to rise were capped at 2%, and an employer tax credit and annual subsidy to account holders were eliminated. "International Update: Recent Developments in Foreign Public and Private Pensions," U.S. Social Security Administration,

July 2009, p. 2. Available at http://www.ssa.gov/policy/docs/progdesc/intl_update/2009-07/index.html.These changes arguably would have both positive and negative impacts on opt-outs and contribution holidays. However, neither the level of opt-outs nor contribution holidays appears to have changed in a significant way since the changes were made.

[385] Annual Report, July 2008 – June 2009," KiwiSaver Evaluation, Inland Revenue, New Zealand, September, 2009, p. 25 and Figure 3.4. Available at http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf.

[386] Id. at18 and Figure 3.2. Over 35% of opt-ins through providers were under the age of 18. Of those between the ages of 18 and 24 and 25 and 34, about 7% and 8%, respectively, opted in though providers. By contrast, of those between the ages of 45 and 54 and above 55, about 14% and 22%, respectively, opted in through that route. Id.

[387] Id. at 19 and Figure 3.4.

[388] "AUTO IRA: Strategies for Successful Implementation," AARP Solutions Forum, Monday, October 26, 2009," (Transcript; quoting Diana Crossan, Retirement Commissioner) New Zealand, p. 21. Available at: http://assets.aarp.org/rgcenter/ppi/econ-sec/transcript_forum_090926.pdf.

[389] Annual Report, July 2008 – June 2009," KiwiSaver Evaluation, Inland Revenue, New Zealand, September, 2009, p. 19 and Figure 32. Available at http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf. More particularly, the fractions were: 28% between ages of 18 and 24; 25% between the ages of 25 and 34; 20% between the ages of 35 and 44, 15% between the ages of 45 and 54; and roughly 8% over the age of 55. Id.

[390] Letter from Andy Rodger, Manager, Commissioner's correspondence, Office of the Commission, Inland Revenue, May 17, 2010. More particularly, the figures were: 23% between the ages of 18 and 24; 30% between the ages of 25 and 34; 19% between the ages of 35 and 44, 15% between the ages of 45 and 54, and 15% of those over the age of 55. Id.

[391] Annual Report, July 2008 – June 2009," KiwiSaver Evaluation, Inland Revenue, New Zealand, September, 2009, p. 209 and Figure 3.5. Available at: http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf. More particularly, the figures were: 23% ($0-$10,000); 24% ($10,001-$20,000); 18% ($20,001-$30,000); 14% ($30,001-$40,000); 11% ($40,001-$50,000); 8% ($50,001-$60,000); 6% ($60,001-$70,000); 3% ($70,001-$80,000); and 2% ($80,001-$90,000). Id.

[392] Letter from Andy Rodger, Manager, Commissioner's correspondence, Office of the Commission, Inland Revenue, May 17, 2010. Some of other figures for opt-out/current participation rates by income are as follows: $40,001 to $50,000 (12%/8%); $50,001-$60,000 (7%/ 5%); $60,001-$70,000 (4%/ 3%).

[393] "Annual Report, July 2008 – June 2009," KiwiSaver Evaluation, Inland Revenue, New Zealand, September, 2009, p. 25 and Table 3.5. Available at: http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf. The holidays were overwhelmingly ordinary rather than financial hardship holidays. Id.

[394] Letter from Andy Rodger, Manager, Commissioner's correspondence, Office of the Commission, Inland Revenue, June 15, 2010.

[395] Id.

[396] For example, as of June 30, 2009, automatic enrollees in the age groups 18 to 24 and 25 to 35 represented 29% and 25%, respectively, of all automatic enrollees (who had not opted out). "Annual Report, July 2008 – June 2009," KiwiSaver Evaluation, Inland Revenue, New Zealand, September, 2009, p. 18 and Figure 3.2. Available at http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf. By contrast, automatic enrollees in those age groups represented 33.4% and 30.0%, respectively, of those who were automatically enrolled and had taken contribution holidays as of December 31, 2009. Letter from Andy Rodger, Manager, Commissioner's correspondence, Office of the Commission, Inland Revenue, June 15, 2010.

[397] For example, as of June 30, 2009, automatic enrollees in the $1 to $10,000 and $10,001 to $20,000 income groups represented 23.0% and 24.5% of all automatic enrollees (who had not opted out). "Annual Report, July 2008 – June 2009," KiwiSaver Evaluation, Inland Revenue, New Zealand, September, 2009, p. 20 and Figure 3.5. Available at: http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf. By contrast, automatic enrollees in those income groups represented 18% and 21%, respectively of those who took contribution holidays as of December 31, 2009. Letter from Andy Rodger, Manager, Commissioner's correspondence, Office of the Commission, Inland Revenue, June 15, 2010. For those with incomes between $20,001 and $30,000 the figures were the same, 30%. For all other income groups the percentage of all enrollees who took holidays was higher than their percentage in the enrollee population.

[398] For example, according to a joint House-Senate document prepared for a hearing on past and proposed IRA policies including automatic IRAs noted with respect to the latter:

"There may be some risk that, if automatic IRA programs become very simple, risk-free, and low cost for employers, some employers who already maintain an employer sponsored retirement plan might drop their plan and instead adopt an automatic IRA program. They may view this as a less expensive alternative to an employer sponsored plan. This may be particularly true, for example, in the case of a small sole proprietor who does not believe that the value of the plan to employees justifies the cost and who personally cannot afford to contribute more than the maximum IRA contribution. Still, such employers can drop their employer sponsored plan absent the proposal."

"Present Law and Analysis Relating to Individual Retirement Arrangements, Scheduled for a Public Hearing Before the Select Revenue Measures Subcommittee of the House Committee on Ways and Means on June 26, 2008," Prepared by the Staff of the Joint Committee on Taxation, June 24, 2008. Available at http://www.jct.gov/x-53-08.pdf.

[399] See "Automatic IRAs: Are They Administratively Feasible, What Are The Costs To Employers And The Federal Government, And Will They Increase Retirement Savings?" by Mary M. Schmitt, Judy Xanthopoulos Optimal Benefit Strategies, LLC, March 8. 2007, p. 45-46. Available at http://assets.aarp.org/rgcenter/econ/auto_ira.pdf

[400] For suggestive estimates, among others, of the impact of auto-enrollment, see "Will Personal Accounts increase pension saving?" Pensions Policy Institute, November 2007. Available at http://www.pensionspolicyinstitute.org.uk/uploadeddocuments/PPI_Will_Personal_Accounts_increase_pension_saving_Nov2007.pdf. According to a broad view from another major consulting firm, "almost all employers expect to use a DC

scheme to comply with their legal duties… with 69% of respondents not fully understanding the cost and other implications of auto-enrollment on their business." "DC is preferred vehicle for UK auto-enrollment, says PwC," by Nyree Stewart, June 14, 2010 (citing PriceWaterhouseCoopers' survey of 179 employers, include 38 FTSE 100 companies). An earlier survey of slightly smaller sample indicated that 35% of the respondents "envisage[d] offering the bare minimum pensions required by law under auto-enrollment." "Pensions shake-up? PWC survey of 157 companies following Budget 2009," PriceWaterhouseCoopers, June 2009, p. 3. Available at http://www.ukmediacentre.pwc.com/content/detail.aspx?releaseid=3291&newsareaid=2.

[401] "Personal Accounts Delivery Authority risk compromising employer-sponsored pension schemes," Mercer, April 29, 2008 (quoting Deborah Cooper, principal at the consulting firm Mercer). Available at http://www.mercer.com/summary.htm?siteLanguage=100&idContent=1305245

[402] "Employer Pension Contributions and Pension Reform," Report by Deloitte & Touche LLP for the Association of British Insurers (ABI Research Paper 2), November 2006, p. 4. Available at http://www.abi.org.uk/Publications/Employer_Pension_Contributions_and_Pension_Reform1.aspx. Note that the report references other publications which offer a different, less somber view of the impact in such terms. See id. at 36-37.

[403] Id. at 37.

[404] One broad characterization of the effect of Australia's mandatory creation and (employer) contributions to individual account schemes created through employers is as follows:

"Prior to award superannuation, most members were in defined benefit funds; for example, in 1982/83, 82 per cent of fund members were covered by defined benefit funds. Generally, the industry funds established to accept award (and, later, superannuation guarantee contributions) were accumulation funds. The administrative complexity of defined benefit funds compared to accumulation funds made them less attractive for employers to use to satisfy their superannuation guarantee obligations. Other reasons for the decline in defined benefit funds are their typically higher and uncertain costs that with the passage of time could overshadow corporate balance sheets. By 2005/06, 97 per cent of members were in funds that provided either accumulation benefits or a mixture of accumulation benefits and defined benefits."

"A recent history of superannuation in Australia," Apra Insight, Australian Prudential Regulation Authority, issue Two, 2008, p. 3. Available at http://www.apra.gov.au/insight/upload/history-of-superannuation.pdf.

[405] The most recent annual evaluation report on KiwiSaver states that "[o]ver the current financial year (2009/10) the evaluation is planning research with employers to determine more fully the costs of KiwiSaver for employers, including the ongoing costs of administering KiwiSaver and complying with requirements, the impact of KiwiSaver on remuneration approaches and the costs associated with making changes in this area, and impacts on existing workplace-based superannuation schemes." "Annual report July 2008 – June 2009)," Inland Revenue, New Zealand Available at http://www.ird.govt.nz/resources/2/3/236969804fea97e9881ceb53c1fd2485/ks-ar-2009.pdf .

[406] See "Automatic IRAs: Are They Administratively Feasible, What Are The Costs To Employers And The Federal Government, And Will They Increase Retirement Savings?" by Mary M. Schmitt, Judy Xanthopoulos Optimal Benefit Strategies, LLC, March 8. 2007, p. 45. Available at http://assets.aarp.org/rgcenter/econ/auto_ira.pdf

[407] Interestingly, there is some evidence to suggest that workers who have a defined benefit plan are no less likely than those who do not, to contribute to defined contribution plans (in which they are offered participation) and contribute more to those defined contributions plans. "Defined Contribution Pension Plans: Determinants of Participation and Contributions Rates," by Gur Huberman, Sheena S. Iyengar, and Wei Jiang, Journal of Financial Services Research, Vol. 31 No. 1, 2007, pp. 1 and 15. Available at: http://www.columbia.edu/~ss957/articles/Participation%20and%20Contribution%20Springer%20Full%20Text.pdf. Indeed, according one major retirement plan consultant "DC-only employees tend to participate [in the DC plan offered to them] less and save less (as a percentage of pay) compared to their counterparts who are covered by a [defined benefit] plan." "Retirement Income Adequacy at Large Companies: The Real Deal," Hewitt Associates LLC, 2010, p. 3. Available at: http://www.hewittassociates.com/_MetaBasicCMAssetCache_/Assets/Articles/2010/Hewitt_Research_Retirement_Income_Adequacy_2010.pdf. [Note that this paper reports on Hewitt's projections of "resources and needs for 2.1 million employees of 84 large employers." Id. at 2. The projections, which are based on the (arguably implausible) assumption that current participants work a full career at their employer, are sobering.]

[408] For a discussion of investment outcomes of DB as compared to DC plans and DB plans as compared to mutual funds (a typical DC plan investment vehicle), see, for example "Defined Benefit vs. 401(k) Investment Returns: The 2006-2008 Update," Towers Watson (reporting, consistent with previous studies, that "DB plans outperformed DC plans by an average of 1 percentage point per year.") Available at http://www.towerswatson.com/research/845; "Investment Returns: Defined Benefit vs. 401(k) Plans," by Alicia H. Munnell, Mauricio Soto, Jerilyn Libby, and John Prinzivalli, Center for Retirement Research at Boston College, September 2006 (reporting that "over the period 1988-2004 defined benefit plans outperformed 401(k) plans by one percentage point. This outcome occurred despite the fact that 401(k) plans held a higher portion of their assets in equities during the bull market of the 1990s."), p. 1. Available at http://crr.bc.edu/images/stories/Briefs/ib_52.pdf; "The Performance of US Pension Funds," by Rob Bauer and Rik Frehen, Netspar Discussion Paper 2007 – 045, January 28, 2008 (reporting that '[p]ension funds perform close to their benchmarks, whereas size-matched mutual funds strongly underperform," that "[c]ost, risk and style differences do not explain the performance gap between the two institutional arrangements," and that the "results are consistent with the notion that pension funds are less exposed to hidden agency costs than mutual funds.), p. 1. Available at http://arno.uvt.nl/show.cgi?fid=78520; and "A Better Bang for the Buck: The Economic Efficiencies of DB Plans," by Beth Almeida and William B. Fornia, National Institute on Retirement Security, August 2008 (finding that "the cost to deliver the same level of retirement income to a group of employees is 46% lower in a DB plan than it is in a DC plan."), p. 1. Available at http://www.nirsonline.org/storage/nirs/documents/Bang%20for%20the%20Buck%20Report.pdf.

[409] An approach linked to that articulated in *Nudge: Improving Decisions About Health, Wealth, and Happiness* by Richard H. Thaler and Cass R. Sunstein, Yale University Press, 2008. Note that Sunstein is currently on leave from his faculty

position at Harvard Law School, serving as the Administrator of the White House Office of Information and Regulatory Affairs in the Obama administration.

[410] Id. at 6. "To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates." Id.

[411] "All Power to the Choice Architects: A Liberal Critique of Libertarian Paternalism," by Alan Wolfe, Center for American Progress, November 9, 2009. Available at http://www.newamerica.net/publications/policy/all_power_to_the_choice_architects. Wolfe adds:

> "Given how policy is made in Washington, there is every reason to believe that nudging will prove to be opaque to those being nudged. Manipulating tax incentives is always good business for accountants and cumbersome for everyone else; given everything we know about how politics in the United States works, knowledgeable upper-middle class Americans will take advantage of incentives while poorer and time-strapped ones will not. No one can safely predict that the incentives policymakers introduce will turn out to work as they are expected to do; to be sure, more people will invest in old age pensions if they have to take the active step of opting out of them, but in more complex areas of human behavior, the same peer pressure aimed to help young people eat better could also help them become better consumers of dangerous drugs. Most harmful of all, policies along these lines are likely to reinforce invidious distinctions between people; 'good' citizens will be defined as those who respond the way the theory predicts they should, while those who stubbornly resist will be viewed as harmful to the health care or retirement system that is being redesigned."

[412] In this regard it is essential to attend to the critical role of one or another segment of the financial services industry in driving retirement policy change. See, for example *The Origins of the Ownership Society, How the Defined Contribution Paradigm Changed America*, by Edward A. Zelinsky, Oxford University Press, 2007 (Observing that "[f]or the financial services industry, self-directed plans have proved an attractive product with the industry providing a panoply of services such as plan documents, investment advice to employees, and the actual investments themselves including the means for employees to switch their allocations, often quite frequently," adding that"[t]he insurance industry had played a critical role in the early stages of the private pension system, encouraging firms to establish plans and to fund such plans with the industry's insurance and annuity products. Banks have long served as trustees and financial advisors for corporate pension and profit sharing plans" and that "the role of [the financial services] industry hasted the shift toward the defined contribution paradigm as [it] became a major advocate of and advertiser for 401(k) plans and IRAs"), pp. 50-51. See also *The Rise of Mutual Funds*, by Matthew P. Fink, Oxford University Press, 2008 (contending that "ERISA enacted the mutual fund industry's *entire* wish list and laid the foundation for funds' future explosive growth.") (Emphasis in original.), p. 118.

[413] See, for example, "The Consumer Financial Protection Agency: Sorting the Critiques," by Oren Bar-Gill, Lombard Street, Volume 1 Issue 12, September 14, 2009, pp. 4-13. Available at http://www.finreg21.com/lombard-street/the-consumer-financial-protection-agency-sorting-critiques.

[414] "Mutual Fund Fees, Additional Disclosure Could Encourage Price Competition," United States General Accounting Office, June 2000, pp. 56-57. Available at http://www.gao.gov/archive/2000/gg00126.pdf.

[415] See "Winning by Default? Testing for the Relationship Between Fund Flows and Performance in the Australian Superannuation Industry," by Dick Bryan, Roger Ham, Philipp Harmueller, Mike Rafferty and Serena You, Workplace Research Centre, The University of Sydney, September 2009 (citing a variety of sources to describe how "financial firms invest[] considerable marketing and other resources to differentiate similar financial products, which increases [buyer] search costs" and "adds complexity to the task of comparing the pricing and performance attributes of financial products," and "how obfuscation by financial firms can offset any gains in financial literacy or information available to investors."), pp. 17-18. The authors take note of "[a]nother benefit of complexity…from the increasing probability that one of the options will be a top performer in that option category, despite the additional overall cost that so many options may add to the cost base of the fund. This gives the fund conglomerate increased opportunity to advertise its star performer, and use that star to signal to uninformed investors something about the quality of the fund in general." Id. at 19. Note that this paper and two related ones suggest striking similarities between the behavior of U.S. mutual funds and so-called retail funds – which serve as one of the dominant investment vehicles for investment of mandatory contributions pursuant to Australia's mandatory superannuation (retirement) scheme. See "Agents With Too Many Principals? An Analysis of Superannuation Fund Governance in Australia, Australian Institute of Superannuation Trustees," by Dick Bryan, Gillian Considine, Roger Ham, and Michael Rafferty, March, 2009. Available at http://www.aist.asn.au/media/13073/aist_agents_with_too_many_principals_consolidated_final.pdf and "Does Good Money Go After Bad in the Australian Superannuation Industry?," by Dick Bryan, Roger Ham, and Michael Rafferty, Workplace Research Centre, University of Sydney for Industry Superannuation Network, June 2009.

[416] "Real Facts about Target Date Funds, BrightScope Blog, p. 6. Available at http://www.brightscope.com/blog/2010/02/09/real-facts-about-target-date-funds-an-ici-rebuttal/

[417] A number of thoughtful observers have pointed to the merits of non-profit vehicles – whether those associated with government or otherwise – as a better means by which investments might be managed on behalf of individuals. See for example, "Why We Need a Pension Revolution," by Keith Ambachtsheer, *Canadian Public Policy, Vol. XXXIV,* Supplement 2008 (arguing for management of assets by a pension co-op, contending that such an "arms-length, expert pension co-op…was a critical element of Peter Drucker's (1976) vision of the ideal workplace pension. He considered institutions that acted as motivated, expert owners to be ideally equipped to own capitalism's means of production. Drucker astutely recognized that if pension funds were mere captives of their plan sponsors or of for profit financial intermediaries, they were unlikely to play the critically important role of launching and sustaining the workplace pension revolution he envisioned. Instead of being captives, pension delivery institutions needed to be set up with the sole mandate to create value for plan participants, and so attain the necessary 'legitimacy' to be successful."), p. 10. Available at http://economics.ca/cgi/jab?journal=cpp&view=v34s1/CPPv34s1p007.pdf, (Note the reference is to Peter Drucker's book *The Unseen Revolution: How Pension Fund Socialism Came to America*, published in 1976.)

[418] Given American attitudes and experience there might well be a reasonable skepticism regarding such an idea, though some might find it surprising to learn that the second largest (by assets) pre-funded retirement scheme in the United States is the federally-run Thrift Savings Plan for federal employees. (The five members of the Federal Retirement Thrift Savings Board are presidential appointees who must have "substantial experience, training, and expertise in the management of financial investments and pension benefit plans." 5 U.S.C. 8472(d).)

Some of the concern relates to fears about centralized federal influence over a large pool of assets. However, a federally created scheme need not be centralized. A cluster of new, not for profit entities could be chartered and/or could be built on existing ones, such as public sector pension funds. The latter are interesting from an accountability perspective: the vast majority have been structured to have accountability structures that reflect the interests and needs of people as workers and as citizens/taxpayers. The Australian mandatory scheme, discussed briefly in the main text, requires that certain of the superannuation funds it authorizes – so-called industry funds – be jointly trusteed by employers and workers. As mentioned previously – see note 398 – those funds are reported to exhibit investment performance superior to that of so-called retail funds, which have a very different accountability structure and which bear similarities to U.S. mutual funds.

[419] "RISK POOLING AND THE MARKET CRASH: LESSONS FROM CANADA'S PENSION PLAN," by Ashby H.B. Monk, and Stephen A. Sass, Center for Retirement Research at Boston College, June 2009 (describing how contributions to the Canadian Pension Plan are invested "in a diversified and actively-managed portfolio of securities, with a significant share in equities," with responsibility for the decisions assigned to a " largely autonomous entity with [those] decisions placed well beyond the reach of any politician or interest group," with the expectation that by 2080 investment income would "be about 30 percent of benefit outlays."), pp. 2 and 3. Available at http://crr.bc.edu/images/stories/Briefs/ib_9-12.pdf. Indeed, given continuing retirement income adequacy challenges in Canada – for many reasons not dissimilar to those in the United States – serious consideration is being given to expanding the Canadian Pension Plan. See, for example. "Is an enhanced CPP good for private pensions," by Phillip Morse, BenefitsCanada, July 6, 2010. Available at http://www.benefitscanada.com/pension/governance/article.jsp?content=20100706_095117_6020.

In the United States, the National Railroad Retirement Investment Trust was established in 2001 with "[t]he sole purpose of …manag[ing] and invest[ing] Railroad Retirement assets. The Trust is authorized to "invest the assets of the Railroad Retirement Account in a diversified investment portfolio in the same manner as those of private sector retirement plans." Previously, as with Social Security, "investment of Railroad Retirement Account assets was limited to U.S. government securities." NRRIT Introduction," National Railroad Retirement Investment Trust. Available at: http://www.rrb.gov/mep/nrrit.asp. It is especially interesting to note that The Board of Trustees of the Trust "is comprised of seven Trustees, three selected by railroad labor unions and three by railroad companies. The seventh Trustee is an independent Trustee selected by the other six Trustees." "Questions and Answers," National Railroad Retirement Investment Trust. Available at http://www.rrb.gov/nrrit/QandA.asp.

[420] This statement presupposes that simply increasing contributions to Social Security for the purpose of increasing post-retirement levels of income (rather than to solve the current systems imbalance of contributions to presently promised benefits) is off the policy table. That we make such a presupposition does not imply that we think it is necessarily wise to do so.

[421] As noted at the outset of this paper, although the issues we examine are important, we focus on only a few of a host of other factors that need to be taken into account in fashioning retirement income policy.

[422] "The Genesis of Social Security in America," by J. Douglas Brown, Industrial Relations Section, Princeton University, 1969. Available at http://www.ssa.gov/history/jdb5.html.

[423] "Taking Public Rights Private: The Rhetoric of Social Security Privatization," by Patricia E. Dilley, 41 *Boston College Law Review* 975-1057 (September 2000), p. 1033.

[424] "Social Security Reform: Answers to Key Questions," Government Accountability Office, GAO-05-193SP May, 2005, p. 62. Available at: http://www.gao.gov/new.items/d05193sp.pdf.

[425] "Taking Public Rights Private: The Rhetoric of Social Security Privatization," by Patricia E. Dilley, 41 Boston College Law Review 975-1057 (September 2000), p. 1031.

[426] Id. at 1031.

[427] Id. at 1032.

[428] "Social Security: Program's Role in Helping Ensure Income Adequacy," Government Accounting Office, GAO-02-62, November 2002, Figure 4, p.19. Available at http://www.gao.gov/new.items/d0262.pdf.

[429] "THE 2007 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL DISABILITY INSURANCE TRUST FUNDS," Appendix F, Table VI.F10, p 186. Available at http://www.ssa.gov/OACT/TR/TR07/tr07.pdf.

[430] "Social Security Act Creates National Old-Age Assistance," by Karen Stevenson, Elderweb, April 29, 2007, Available at http://www.carejam.com/home/node/9667.

[431] "Supplemental Security Income (SSI): Yesterday, Today and Tomorrow," by Laurel Beedon, Public Policy Research Institute, Research Group, AARP, February 2000 (quoting "the U.S. Senate Finance Committee Report that accompanied the legislation in 1972, when the SSI program revamped the "three means-tested poverty program for the aged, blind, and disabled – Old Age Assistance, Aid to the Blind, and Aid to the Permanently and totally Disabled"), pp 1 and. 3. Available at: http://assets.aarp.org/rgcenter/econ/dd43_ssi.pdf.

[432] "2009 Annual Report of the SSI Program," Social Security Administration, p. 22. Available at http://www.ssa.gov/OACT/ssir/SSI09/ssi2009.pdf.

[433] "Supplemental Security Income (SSI): Yesterday, Today and Tomorrow," by Laurel Beedon, Public Policy Research Institute, Research Group, AARP, February 2000, p. 3. Available at http://assets.aarp.org/rgcenter/econ/dd43_ssi.pdf.

[434] Id. at 3. Available at: http://assets.aarp.org/rgcenter/econ/dd43_ssi.pdf.

[435] For a critique of and alternative approach to defining such a minimally adequate standard of living see, for example, "A Methodology to Determine Economic Security for Elders," by Laura Henze Russell, Ellen A. Bruce, and Judith Conahan, Gerontology Institute, John W. McCormack Graduate School of Policy Studies, University of Massachusetts Boston and Wider Opportunities for Women, December 2006. Available at http://www.wowonline.org/ourprograms/eesi/documents/FinalWOWGINationalMethodology.pdf.

[436] As discussed below, there always have been many workers who do not participate in these plans and must rely almost exclusively on Social Security. Also, in some states, public sector workers are not allowed to participate in Social Security so must rely almost exclusively on their defined benefit plan for financial support in retirement.

[437] See, for example *The Origins of the Ownership Society, How the Defined Contribution Paradigm Changed America*, by Edward A. Zelinsky, Oxford University Press, 2007 (describing how "architects of ERISA" used the IRA to solve the problems of "'portability' and 'coverage' for those not participating in employer-sponsored plans." and how, in enacting Section 401(k) of the Tax Code they "inadvertently but decisively accelerated the trend toward the defined contribution culture."), pp. 40-41 and 49.

[438] The design effort must be accompanied by recognition that guarantees do not come free, that correspondingly, cost needs to be priced and allocated, and thoughtful consideration needs to be given to whether the would-be guarantor can meet its obligations.

[439] "Who is Likely to Opt Out of an Automatic Enrollment Plan? Who is Likely to Stay In? A Study of 401(k) Participant Choices," by Leslie A. Muller, James H. Moore Jr. and Kenneth R. Elliot, *Benefits Quarterly*, First Quarter 2009.

[440] The authors do not find any significant correlation between the likelihood of staying in after automatic enrollment and either race or income levels. Id. at 57-58.

[441] It is not immediately clear how the authors came to this last conclusion. The table they provide with the results of their probit analysis does not report the values for those who earned less than $30,000, and the results for the $30,000-$50,000 group were not significant. The results for the two income groups above this level were, however, statistically significant. The marginal effects of higher income were increasingly negative. (That is, with regard to these two groups, higher incomes were negatively correlated with the two factors that the authors believe are indicative of opting out, financial impediments to saving and a disinterest towards saving in the future). Id. at 58-59, Table VII.

[442] The authors do note, however, that these results with reference to income and race are at odds with two previous studies which examine actual cases of automatic enrollment. They observe that both Madrian and Shea (2001) and Nesmith et al. (2007) found that automatic enrollment significantly increased participation among low-income workers. The former also reported that the implementation of automatic enrollment produced a "relative equalization" of participation rates between whites and blacks. The authors suggest that the conflicting outcomes might be the result of either (1) employees responding differently from predicted behavior because they treat automatic enrollment as a form of employer investment advice which they should follow; or (2) the other studies examine only behavior at single companies rather than a nationally representative sample of them. Id. at 60-61.

[443] "Pension Participation and Uncovered Workers," by Nadia Karamcheva and Gregory Sanzenbacher, Center for Retirement Research at Boston College, August 2010, p. 4. Available at http://crr.bc.edu/images/stories/Briefs/ib_10-13.pdf.

[444] "[S]ome improvement in coverage is better than none at all…And given the success of auto-enrollment when applied to 401(k) plans, our estimates may represent a lower bound of the potential increase in participation." "Pension Participation and Uncovered Workers," by Nadia Karamcheva and Gregory Sanzenbacher, Center for Retirement Research at Boston College, August 2010, p. 4. Available at http://crr.bc.edu/images/stories/Briefs/ib_10-13.pdf.

[445] E-mail reply from Mary M. Schmitt, Optimal Benefits Strategies in response to inquiry by Matthew Becker, March 12, 2010. The two reports themselves cite no sources of information not discussed in this paper.

[446] "An Evaluation of Scheme Joining Techniques in Workplace Pension Schemes with an Employer Contribution," by Sarah Horack and Andrew Wood, Department for Workplace Pensions, Research Report No. 292, 2005, pp. 1-2, 19. Available at: http://research.dwp.gov.uk/asd/asd5/rports2005-2006/rrep292.pdf.

[447] Id. at 37-41.

[448] "Occupational Pension Schemes 2005: The thirteenth survey by the Government Actuary," The Government Actuary's Department, London, UK, June 2006, p.39 and Table 3.8. Available at http://www.statistics.gov.uk/downloads/theme_social/Occ_Pension/OccupationalPensionSchemes2005.pdf. Note that there was automatic enrollment for *all* employees for 54% of DB schemes and 31% of DC schemes. (Rates of automatic enrollment for only *some* employees were 15% and 2%, respectively.) Id. at 38 and Table 3.7.

[449] Id. at 38.

[450] Id. at 39 and Table 3.8.

[451] DB plan participation when all employees were automatically enrolled, only some enrolled, and none so enrolled were 89%, 77%, and 6%, respectively. "Occupational Pension Schemes 2005: The thirteenth survey by the Government Actuary," The Government Actuary's Department, London, UK, June 2006, p.39 and Table 3.8. Available at http://www.statistics.gov.uk/downloads/theme_social/Occ_Pension/OccupationalPensionSchemes2005.pdf. Because the sample was too small, there were no figures for participation rates in DC plans when only some workers were automatically enrolled.

[452] "Employer Pension contributions and pension reform," Report by Deloitte & Touche LLP for the Association of British Insurers (ABI Research Paper 2), November 2006, p. 19. Available at: http://www.abi.org.uk/Publications/Employer_Pension_Contributions_and_Pension_Reform1.aspx. Even though we cannot locate the Deloitte report, the different one cited here includes material pertaining to some of the findings of that report.

[453] Id. at .18-19, Table 2.

[454] "Employers' Pension Provision Survey 2005," by Steven McKay, Department of Work and Pensions, Research Report No. 329, p. 112 and Table 9.8. Available at http://research.dwp.gov.uk/asd/asd5/rports2005-2006/rrep329.pdf. The author offers the results of a statistical analysis that he suggests "does provide further evidence of the positive impact of

automatic enrolment methods on the likelihood of employees joining employer pension schemes." Id. at 113 and 150, Table B.5. Available at http://research.dwp.gov.uk/asd/asd5/rports2005-2006/rrep329.pdf.

[455] Id. at 112 and Table 9.8, pp. 113 and 150, Table B.5.

[456] According to the lead researcher, part of the Enabling Retirement Savings Programme team in the Workplace Pension Reform Strategy Division at the UK's Department of Work and Pensions, involved in coordinating and managing implementation of a new scheme similar in a number of ways to that proposed by the Obama administration, "[these studies] were all quant studies which compared the membership levels of companies operating auto enrolment, with those companies operating more traditional joining techniques, but I can't locate the research, or the full references. However, I'm aware that DWP researchers were concerned about the sample sizes/methodology for those studies, so there are question marks over the extent to which we would consider them sufficiently robust." E-mail exchange of Matthew Becker with John Stafford on May 5, 2010.

[457] E-mail exchanges of Matthew Becker with John Stafford March 16 and May 5, 2010.

[458] See "Senate Committee on Aging Hearing on Target Date Funds; Testimony by Ralph Derbyshire," October 28, 2009 (referring to Fidelity record-keeping data for 2,690 qualified corporate DC plans with 5.2 million workers.), p. 2 and Figure 3. Available at http://aging.senate.gov/events/hr217rd.pdf, and "Measuring the Effectiveness of Automatic Enrollment," by William E. Nessmith, Stephen P. Utkus, and Jean A. Young, Vanguard Center for Retirement Research, December 2007, p. 10, Figure 7. Available at: https://institutional.vanguard.com/iip/pdf/CRRAUTO.pdf.

[459] "Senate Committee on Aging hearing on Target Date Funds; Testimony by Ralph Derbyshire," October 28, 2009, Appendix, Figure 32. Available at http://aging.senate.gov/events/hr217rd.pdf.

[460] Even though, according to Fidelity, 95% of workers who were involuntarily/automatically enrolled did not act to opt out right away, 19% took some voluntary action, namely to choose a contribution rate other than the default rate. Interestingly, it would appear that according to the Vanguard study, the figures were 86% and 19%, respectively. See "Measuring the Effectiveness of Automatic Enrollment," by William E. Nessmith, Stephen P. Utkus, and Jean A. Young, Vanguard Center for Retirement Research, December 2007, p. 7, Figure 4. Available at: https://institutional.vanguard.com/iip/pdf/CRRAUTO.pdf. We write "appears" because, as pointed out in the main text, it is not clear whether the kinds of samples Fidelity and Vanguard looked at were the same.

[461] "The study examined 2.5 million eligible employees across approximately 120 large defined contribution plans." "How Do Participants Save and Invest in 401(k) Plans With Automatic Enrollment" Hewitt Associates, October 2006, p. 1.

[462] Id. at 1.

[463] "Automatic Enrollment in 401(k) Plans Now Dominates employers, Towers Watson Survey finds," Towers Watson, June 30, 2010. Available at http://www.towerswatson.com/press/2376?=1.

[464] "2009 SHRM Executive Roundtable on the Future of Retirement, Executive Summary," Society for Human Resource Management, 2009, p. 12. Available at http://www.shrm.org/Research/FutureWorkplaceTrends/Documents/09-0697%20Future_Retire_FNL_VIEW_ONLY_3.pdf.

[465] The figures for before automatic enrollment come from the end of 2006. A consulting group that helped with the analysis also created a benchmark to determine how many individuals were saving a (potentially subjective) adequate amount of money for retirement according to their projected needs, creating an assessment called PREParedness. Prior to automatic enrollment, 54% of the eligible employees were considered PREPared; after automatic enrollment, 64% were PREPared. Based on a breakdown by age group, it would appear that automatic enrollment had a greater impact on raising PREParedness levels for younger employees than older ones. The authors noted that the ten point increase in overall PREParedness was far above the results that they expected. When they looked in to why it occurred, they found that many participants who for one reason or another were not directly impacted by automatic enrollment had nonetheless increased their contribution amounts. [It is not clear why they were not affected by automatic enrollment, though they might have already been contributing at a rate of 6% or above, which is the cut-off point for rate increases under auto-enrollment. Initially, these individuals might not have met the criteria for PREParedness due to their age or some other factor.] The authors concluded that these participants were likely influenced by the frequent correspondence they received regarding the institution of automatic enrollment, and decided to raise their contribution rates as a result. "Nationwide Savings Plan Automatic Enrollment Getting Associates PREPared for Retirement," by Mark D. Swanson and D. Bryan Farnen, *Benefits Quarterly*, Third Quarter 2008, pp. 13-14, 17.

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PENSIONS AND CAPITAL STEWARDSHIP PROJECT, LABOR AND WORKLIFE PROGRAM, HARVARD LAW SCHOOL

The Pensions and Capital Stewardship Project focuses on issues of retirement security, including employment-based retirement plans, and pension fund governance and management. It is also concerned with institutions, systems, and practices of pension fund investment that encourage capital markets and corporate policies to work more effectively for workers and the health and well-being of the community at large. The Project does this through research, education, and engagement with scholars and researchers, workers and unions, and practitioners.

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