



SOCIETY OF
ACTUARIES

PENSION
SECTION

ISSUE 88 FEBRUARY 2016

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Pension Section News

Issue Number 88 • February 2016

This newsletter is free to section members. Current issues are available on the SOA website (www.soa.org).

To join the section, SOA members and non-members can locate a membership form on the Pension Section Council Web page at <http://www.soa.org/pension/>

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Chairperson's Corner

By Julie Curtis

Pension plans often appear in the news these days. As I write this column, my first as chairperson of the Pension Section Council, pension and retirement plans are a large part of the budget debate in Congress. When you read this—several weeks after it's been written—pensions and retirement security will probably still be in the news. The particular issues may have changed (or not—the particular flashpoint as of this writing happens to be PBGC premiums), but pension and retirement concerns will be with us for a very long time.

We are practicing our profession in a time of unusual transition; traditional private pension plans are in decline, funding public pension plans is the subject of vigorous debate, and reliable, widespread alternatives are just emerging. It is intimidating, but exciting, to assume the role of chairperson during this time of change. Fortunately for me, Aaron Weindling, the outgoing chair, set a strong foundation. He leaves a dedicated Pension Section Council that is engaged in education, outreach and research. Many thanks to him and to Monica Dragut and Martin McCaulay, the other two outgoing members of the council. In addition to serving three years on the council, Monica chaired the continuing education team—the team that develops the pension-related sessions during SOA conferences, and Martin chaired the communications team—the team that produces publications such as this *Pension Section News, Updates* and the *Pension Forum*.

We welcome our newly elected council members: Randy Dziubek, Nathan Zahm and Bonnie Twohig. All three bring a fresh perspective. Randy works in the public plan sector. Nathan has practiced as U.S. pension actuary, but has recently moved to Australia where he will be able to share the experiences and insights of pension practices in another country. Bonnie joins us after an extensive career in consulting.

We also extend a warm welcome to Faisal Siddiqi, who rejoins council as interim chair of the communications team. Faisal served as chair of the council several years ago, so he brings experience that will be especially helpful in the coming months.

The Pension Section Council recently met in person and discussed what actions we could take to help retirement actuaries strengthen their practice. One useful source of potential ideas was the member survey that was conducted this fall. Most of the



themes that emerged from the survey relate to adapting our practice to the changing times. Suggestions included more research, education and outreach for risk-sharing plan designs, improving knowledge on the investment side (not to replace professionals who specialize in the investment aspect of retirement security, but to familiarize pension actuaries with the underlying concepts and emerging trends so that we will be able to integrate the two sides better), educating our membership on the issues surrounding public pension plans, and emphasizing fields that are becoming more important with the shift away from traditional pension plans, areas such as longevity risk and decumulation of DC plans.

When we look at these suggestions and consider the importance of maintaining skills and research related to traditional pension plans, which are still a substantial factor in today's workforce and the general economy, it's clear that the council has a busy year ahead.

As always, the council welcomes suggestions and volunteers for our three primary teams (communications, research, and continuing education) and our ad hoc work groups. We are also interested in expanding section membership to include all SOA members who are interested in pension and retirement practice. Finally, if you have a particular area of retirement practice that you would like to see the pension section address, please let us know. Here is a link to the volunteer page for the SOA website:

<https://www.soa.org/about/volunteer/default.aspx>

We would be happy to hear from you. In the meantime, as the year goes on, I plan to report on our activities in this column. Stay tuned! ■



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A View from the SOA's Staff Fellow for Retirement

By Andrew Peterson

Happy 2016! As we finish one year and start another, we often take to time to reflect on accomplishments of the past year and plan for a new year. In that spirit, I would like to try to do a little of both as I reflect on some of the recent accomplishments of the SOA's Pension Section and related groups while highlighting opportunities for pension actuaries.

As I talk with members, I often find that SOA members aren't aware of the different opportunities and resources available to them through the SOA. In this age of information overload, that is understandable. It's not unusual to get a response of, "I didn't know you did that..." So with that background, let me provide a list of some recent accomplishments with the hope that it will pique interest for follow-up on one or two items.

- The Pension Section sponsored another iteration of their one-day seminar, [Investment Boot Camp for Pension Actuaries](#) after the 2015 SOA Annual Meeting & Exhibit. This seminar is aimed at pension actuaries who want to improve their understanding of investments topics in the context of pension investment topics and strategies. The next event is scheduled for Feb. 9, 2016, in Montreal, Quebec, where there will be a particular focus on the Canadian pension investment landscape. Reviews for this event have been very positive with a format that allows for significant interaction with the instructors.
- The Pension Section has sponsored a series of [podcasts](#), including a recent three-part series completed in the fall of 2015, providing an overview of multiemployer pension plans (MEPP) to non-MEPP actuaries. In light of the publicity some of these plans are facing in the United States due to financial challenges, these podcasts are a great primer for individuals who don't work in this specialty. You can listen to the podcasts directly from the [SOA website](#) or through subscribing to the SOA Podcast Channel on iTunes (or similar for Android users).
- Speaking of MEPP plans, in August 2015, the SOA also published, [Multiemployer Plan Stress Metrics](#), a research report by SOA staff that introduces new metrics to measure financial stress in MEPP. Stay tuned for more work in this area.



- The SOA has just completed a publication, [Investment and Retirement Advice – A Guide for Employers](#). While aimed at helping U.S. plan sponsors understand issues related to providing retirement advice to their participants, I expect many pension actuaries in other jurisdictions could pick up some important learnings from reading the guide. Then if you're a consultant, you could pass the guide along to your clients.
- An August 2015, report was published covering risk management in the context of corporate pension plans: [Corporate Pension Risk Management and Corporate Finance: Bridging the Gap between Theory and Practice in Pension Risk Management](#). Plans are underway to leverage this content into a 2016 webcast.
- There is a four-phase project [Optimal Retirement Income Solutions in DC Retirement Plans](#), that looks at how to create different solutions for providing lifetime income in DC plans. These reports by Steve Vernon, Wade Pfau, and Joe Tomlinson, provide significant analysis that should be of interest to many actuaries, particularly for actuaries interested in finding an actuarial role in DC plan issues.

Hopefully you will have seen something that looks interesting based on the list above to pursue a bit more and further your own learning and development. If you have a specific project (research-based or not) that you think the SOA Pension Section should pursue, please feel free to contact me. ■



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Perspectives from Anna: Getting Better Results in a DC plan

By Anna Rappaport

Defined contribution (DC) plans are increasingly becoming the predominant form of employer supported retirement arrangements in the United States. At the same time, there is extensive documentation from the Society of Actuaries and many other sources of continuing financial literacy problems and gaps in planning. Some of the financial and retirement literacy problems are very basic and some are specific to retirement. While some Americans have large balances in their 401(k) accounts and IRAs, there are many others whose balances are very modest as they reach retirement ages. Such balances will not even come close to replacing most of their income in retirement. In addition, most individuals have difficulty translating their lump sum into a lifetime retirement income.

This emerging environment leaves plan sponsors with questions about what they should do with their DC plans and about what success means for them when they consider their support for their employees' retirement. While the idea of a DC plan is quite simple, the plans themselves can be quite complex. There are a number of design options, legal issues and administrative complexities involved in establishing plans and the default options that go with them. For actuaries who are working with retirement security and whose training and background was more focused on pensions and the financing of defined benefit (DB) plans, the mosaic of DC issues to think about has radically expanded. Some of these issues include:

- What decisions are best made by the plan sponsor vs. the participant?
- What support needs to be put in place to enhance participant decision making?
- What are the plan sponsor's fiduciary responsibility and litigation risks?
- What default options should be considered and implemented at the various decision points?
- How can the plan sponsor get more employees enrolled and encourage higher levels of savings?
- How can the plan sponsor help participants achieve good investment results?
- How can the plan sponsor educate participants about the risk of leakage and appropriate use of plan funds?

- How can the plan sponsor help participants understand how to best utilize assets in the post-employment period?

For pension actuaries, this means continually learning more about different areas of business practice and the underlying technical issues. As with everything else, this is an area of change.

A GOOD LEARNING OPPORTUNITY: THE 2015 DIMENSIONAL DEFINED CONTRIBUTION CONFERENCE

In July 2015, I learned more about some of the options and issues when I attended the 2015 Dimensional Defined Contribution Conference, and was very interested in several ideas that made me think. Some come from the presentations and some from the discussion with others. The conference provided thought leadership applicable to both large and small DC plans. For me, these are some of the things that feel worth thinking more about. I want to encourage others who are thinking about retirement system issues to focus on these issues.

- (1) Technical requirements. There are many technical issues involved in the structuring of DC plans. It serves those of us who are focused on the retirement system to try to learn more about those issues, and the options for structuring plans.
- (2) Timing of retirement. Sequence of returns risk is enormously important and can make a huge difference in retirement income adequacy. There was very interesting quantitative modeling presented by Michael Drew from Australia. He presented historical scenarios where participant wealth was greatly impacted based solely on when they retired. Put simply, when you retire can impact how much income in retirement you will have. This is a familiar idea, but looking at modeling results strongly reminded me that decision-making about strategies should take this into account.



- (3) Policy impact by gender. Policy in most countries is supported by research based on predominantly male life paths. Stated this way, this is a very powerful statement. It reminds us to be sure to recognize gender issues and differences, and life paths, in considering retirement program structures. While I have long thought about gender issues, I had not focused on this link between research and policy. One set of policy issues that is particularly important to women are requirements with regard to offering payout options. Lifetime income options are more valuable to women because they live longer. Spousal consent requirements, which may be linked to payout options, affect women more than men.
- (4) Enrollment process. There are a variety of ways to frame and set-up the process and decisions involved in plan enrollment as well as participant choices of savings rates. Punam Keller from Dartmouth spoke at the Dimensional conference, and she presented some very different ideas about enrollment. She focused on four types of enrollment. This is discussed more below.
- (5) Matching plan strategies with plan goals. There was discussion about framing the goals for DC plans and a lot of discussion about income and the post-retirement period. There was emphasis on the difference between goals that are focused on producing a stable and adequate income during retirement vs. accumulating as much money as possible. Plan strategies are likely to be quite different for these two types of goals. Dimensional has had a lot of client interest and thus has created a new DC solution designed to reduce the income volatility of participant retirement income, regardless of how well or poorly the employee makes decisions. I was impressed at the amount of emphasis on this topic. This has been a major area of emphasis for actuaries, but there were different viewpoints presented in these discussions.
- (6) Considerations for post-retirement period. The discussion about income has several components: investment strategy including post-retirement strategy, the issue of whether the money stays in the plan or goes elsewhere, and the question of whether to buy an annuity with some of the DC balance. But of course for the plan sponsor, the first question is “Should we even focus on the post-retirement period and why?”
- (7) Understand the importance of and differences in Target-Date options. Target-Date funds have become very popular and they are often used for the post-retirement as well as the pre-retirement period. Many go to age 90. There are numerous variations in how they are structured. For people who want to learn more about Target-Date funds, the Investment Company Institute’s question and answer

document is a good place to start. Morningstar’s 2014 Target-Date Research Paper offers an overview of Target-Date funds. Some of the variations reviewed included target strategies that go to retirement age vs. those that go to higher ages, use of indexed vs. actively managed component funds, and open architecture vs. use of the company’s funds only. There are also funds customized for individual participants. There are often significant cost advantages for an individual to remain with an employer plan vs. rolling assets into an IRA. The difference in costs depends on both plans. My big take-away was the large variation in Target-Date funds and the importance of thinking about these variations.

- (8) Stay abreast of DC litigation. There is currently important litigation affecting DC plans. This influences the strategies used by DC plan sponsors. Litigation has increased in recent years. Fees and fiduciary duties are two focuses of recent litigation.
- (9) Lifetime income illustration accuracy and responsibility. A question was raised in one of the sessions with regard to lifetime income illustrations. The question was “Who owns the risk that projections are wrong-- the employer, the plan administrator or the DOL?” Given the amount of other litigation, this is an important question. I have long supported the idea of illustrations and have my own ideas about them, but this question raises a new aspect of the issues.

FOUR TYPES OF ENROLLMENT

Before this discussion, I thought about traditional vs. auto-enrollment, but there are more options than that. The four types of enrollment are opt-in, automatic enrollment (opt-out), active enrollment and enhanced active enrollment. Opt-in is traditional enrollment which often does not get the desired participation. Active enrollment requires you to respond yes or no. Enhanced active enrollment is yes or no, but with statements attached to the yes and no. I had not really thought about active enrollment or enhanced active enrollment. Note that these concepts can be used for annual enrollments as well as one-time enrollments.

Here are examples of enhanced active enrollment from the Punam Keller presentation:

Example linked to retirement plan: *“I choose to remain in the Employer Sponsored Retirement Plan knowing that I have other options because I want to pay lower fees and enjoy more protection.”* The other choice is: *“I choose to leave the Employer Sponsored Retirement Plan, even though I know I will pay higher fees and may not be as protected.”*

Example linked to a request to increase savings percentage: *“I prefer to increase my participation because the minimum level will not cover my retirement needs.”* The other response is: *“I*

want to remain at the lowest level because I will get more money from somewhere else to cover my retirement needs.”

Example linked to auto-increases: “I would like to join the auto-escalation plan because I like the no-hassle automatic increases in my retirement account.” The other response is: “I don’t want to join the auto-escalation plan even if I end up with more anxiety and hassle to manage the sporadic boosts in my retirement plan.”

The presentation included data showing case examples where active enrollment increased participants selecting the desired action. I discussed the presentation later with other people at the conference. The first reaction was that it was fascinating. However, I also discussed it with a very senior ERISA lawyer, and he expressed great concern about the legal issues and potential for litigation from some of the statements. My impression is that while enhanced active enrollment can improve election of a desired choice, plan sponsors would need to be very careful and discuss the risks with legal counsel before they decide to use this option. In addition, they would need to work with legal counsel on the specific language of the options. While there may be situations where it is a great idea, there are probably others where it would be too dangerous. My take-away from this discussion is to be open to new ideas and also to be careful when thinking about them.

MAKING THE SYSTEM BETTER

An entirely different set of ideas is presented in a July, 2015 viewpoint from Russell Research “[The Future of Retirement: Three big ideas that could reshape the U.S. retirement system.](#)” Bob Collie presents a survey exploring three ideas:

- What if neither the benefit (DB) nor the contribution (DC) were fixed, but we made both vary according to plan experience?
- Should workers be required to participate in the retirement system?
- Should there be multiple DC plans available, allowing employers to participate in a plan without sponsoring or running it?

The survey was administered to their clients at a client conference.

The results showed a lot of interest in risk sharing ideas, and that is encouraging for those of us who think this is an important idea for the future. The survey also showed a lot of support for requiring that some money be saved for retirement. It also showed support for letting people opt-out. One of the big issues facing the retirement system is the coverage issue, with a question for the United States about what should be required beyond Social Security. My view is that for many of the people without addi-

tional coverage, mandates are the only way to get more saved for retirement.

The responses to the third question indicated interest in multiple plan options as long as fiduciary protections and the right regulatory frameworks are in place. The US Multiple Employer Plans (MEPs) can be used to cover the employees of a number of entities. At present, there is a requirement that the groups be related in some way, but there have been proposals to remove that restriction. In my view, it is important that such proposals not afford a route to pension coverage without appropriate oversight and participant protection. Prototype plans and simplified plans are already offered in the marketplace. I think the respondents to the survey, when they focused on appropriate regulatory oversight, are “right on” but that does not set forth exactly what that might mean. This is an area likely to stay in the limelight.

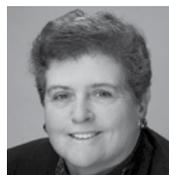
THE ROLE OF THE ACTUARIAL PROFESSION IN EXPLORING THESE ISSUES

The Society of Actuaries set up a multidisciplinary team to look at retirement system issues broadly when it set up *Retirement 20/20* about 10 years ago. The project established some principles for the future of the retirement system, but did not focus on specific issues related to the structure of DC plans, except to the extent that part of the project looked at models for the future. All of the *Retirement 20/20* solutions included consideration of the post-retirement periods, and I believe that generally the people involved in *Retirement 20/20* strongly support post-retirement solutions.

The Retirement for the AGES project sponsored by the American Academy of Actuaries builds on *Retirement 20/20* by establishing principles which represent a broad framework for the future but does not deal with specific DC trends. It does assess existing DB, DC and hybrid retirement systems and proposals.

The Society of Actuaries’ Pension Section had a call for essays in 2013 on improving DC plans. The essays were published in the [January 2014 issue of Pension Section News](#). There have been several Calls for Papers that included DC issues over the last decade or more, as well as a variety of meeting sessions.

A personal discovery for me was that I have a lot to learn with regard to many of the detailed DC issues and their variations. I hope that more actuaries will focus on these issues and participate in the discussions about them. ■



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Discussion with the Pension Section Council: An Interview with Grace Lattyak

By Andrea Sellars

The Pension Section Council has a number of recently completed and upcoming initiatives that will be of interest to Pension Section membership. Grace Lattyak, a Pension Section Council member, provided her thoughts on what's noteworthy.

Over the last year, the Pension Section Council has been extremely productive with research and thoughtful exploration of topics that impact the Retirement Industry and Pension Actuaries. Which Pension Section Council deliverables do you think were among the most important contributions to our practitioners over this last year, and that no Pension Actuary should miss?

One very interesting piece of research, stands out to me: "Corporate Pension Risk Management and Corporate Finance: Bridging the Gap between Theory and Practice in Pension Risk Management." As the work of single employer plan actuaries has shifted more into the finance function of our clients, it is increasingly important that we can speak in the language of corporate finance and provide relevant information for our clients to understand the risks inherent in their pension liabilities. The Pension Section Council had the privilege of having the authors of the paper, Liaw Huang and Minaz Lalani, present the results of the paper to us during our November meeting and we were all riveted and collectively found this to be very important to our practice. Look for more in the coming year on this topic.

<https://www.soa.org/Research/Research-Projects/Pension/research-2015-corporate-pension-risk-management.aspx>

I would also like to call out the great work our continuing education team did in putting together a great track of pension sessions at the 2015 SOA Annual Meeting & Exhibit in October. I found the sessions to be very forward-thinking and challenged me to think beyond my every day work to thinking about retirement plans holistically.

What are some of the in-progress Pension Section Council activities that we should be watching for over the next year?

My pet project is a series of podcasts the Pension Section Council is putting together to provide introductions to topics an actuary might want to be conversant in, but that don't necessarily represent the core work for most pension actuaries. Topics might include international plans, the Ontario Retirement Pen-

sion Plan, discussions on possible Canada Pension Plan changes, longevity solutions, and many more. You may have seen the first series on multiemployer plan issues. It was intended for actuaries that don't typically work with multiemployer plans. If you have any ideas for what you would like to see us make a podcast on, let us know!

The Pension Section Council and its members have been very effective in reaching out and collaborating with other organizations and experts that touch and influence the future success of pension systems.

In your opinion, what are some of the most important organizations that the council or some of our committees are working with, that will make a significant impact on how we address retirement issues in the future?

I am also a member of the Committee on Post Retirement Needs and Risks (CPRNR), a committee which works closely with the Pension Section. The CPRNR is a multi-disciplinary committee that focuses on the risk of those in or close to retirement. One recent example of collaboration between the pension section council and the CPRNR is support the Pension Section gave to the CPRNR to perform focus group interviews with retirees to understand shocks during the retirement period.

How do you see these collaborations contributing to our pension actuarial practices?

We have found this collaboration extremely important as we need to better understand retirement risk in order to empower pension actuaries to design the most efficient and effective retirement plans. While single employer pension plans are generally no longer the primary retirement source for many employers, there are still retirement risks that pension actuaries are best positioned to help employers and workers manage. The CPRNR research educates actuaries in the ever shifting risks of the retirement period.

From your personal point of view, what is one of the most important research projects that you hope is completed during your Pension Section Council term?

Workforce analytics has been a hot topic for a while, but I think there is a lot more that we as actuaries can do to help our clients understand the shifts in their workforce that are coming due to changes in retirement. This is a topic regularly discussed in council meetings and was brought up in our recent survey. I hope to see the Pension Section Council encourage research on innovate workforce planning methods and provide education on the topic to our members. ■



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How Employers Can Benefit from Recent Retirement Research Analyzing Income Options: A Perspective by David Manuszak

INTRODUCTION BY ANNA RAPPAPORT

The Society of Actuaries, working with the Stanford Center on Longevity, recently completed a new study: Optimal Retirement Income Solutions in DC Retirement Plans. In four parts, the study defines efficient frontiers for retirement income and provides analysis of the trade-offs between different options which were not previously available. The study examines a number of income options available at retirement, delaying Social Security and integrating Social Security and plan income options, the use of qualified longevity annuity contracts (QLACs), and options for purchasing income prior to retirement age. The researchers are Steve Vernon, Joe Tomlinson and Wade Pfau. David Manuszak, a member of the Project Oversight Group, has spent many years in employee benefit management. Before retiring, he was executive director of National Employee Benefits Administration, a division of the Blue Cross and Blue Shield Association that provides benefits and benefit management to employees of Blue Cross and Blue Shield plans nationwide. We have asked him to draw on his experience and to represent the plan sponsor point of view.

* * *

Reviewing the four parts of the study sponsored by the Society of Actuaries Committee on Post-Retirement Needs and Risks has been rewarding to me both from a personal standpoint and from the standpoint of a plan sponsor. I have been privileged to participate in a small way in shaping the studies as part of the project oversight group. Moreover, the work has made me aware of some of the most forward thinking available today on the subject of how to best protect oneself from outliving one's assets. All of this is in light of key unknowns: how long one will live, how one will fare during that lifespan, and how one will avoid outliving one's funds. I have witnessed the shift from DB to DC, and I share a concern about a rational method of payout of benefits with others on the project team.

This study defines the retirement wealth portfolio to include regular income, and the portfolio's asset mix includes the value of regular income provided through an annuity. The parts state



clearly that it is very important to cover basic living expenses with a combination of Social Security, pensions and annuities. They then look at investment choices for people who have a portfolio generating secure income plus additional assets to invest. They use analytical techniques comparable to those used to compare investment classes to provide new measures and insights about the differences between options.

The study focusses on how annuities and other forms of regular income can be used to build a post-retirement income plan. Annuities show up very well when amount of life income is the goal because of the mortality dividend. With immediate life annuities, the asset pool is divided among the survivors. The assets contributed by the individuals who die are redistributed to the survivors. As actuaries and mathematicians look at the landscape and run the numbers, it seems obvious to them that having an asset that provides guaranteed annual income as a base is a sine qua non. The studies examine different types of annuities with comments about their pluses and minuses. In much of this, I am reminded of an old Metropolitan Life survey of retirees that found the happiest retirees to be those who had reasonably good health, had a regular source of guaranteed income, and had additional assets that enabled them to do special things. Well, yes. That survey was taken toward the end of an era in which retirees might be expected to have a pension as well as Social Security and personal savings. Currently, however, annuities have fallen out of favor, and many retirees are not yet fully involved in longer-term planning. It will take a major effort to focus people on the long term—to help the populace at large understand the options and their pros and cons. That may well be a future effort where the actuarial community can add a lot of value.

The work brings to the forefront the best thinking on Social Security, namely, that if possible one should delay taking Social

This suggests to me that, at the least, retirees should consider much higher equity components in their portfolios than they had once thought appropriate.

Security until the latest point at which it makes economic sense. This point is age 70. The delaying approach, which has been gaining wider publicity lately, contradicts the formerly favored approach, which was to take Social Security as early as possible in order to take more funds from the system. With the current 8 percent annual increase in monthly income between normal retirement age and age 70, this is a very attractive reward for delaying taking Social Security to age 70. If one is able to delay taking Social Security to age 70, this is a good deal.

Perhaps most surprising to me is the proposition that the best option for investing the additional assets after all basic needs have been covered through Social Security and annuities or pensions is to invest 100 percent of one's remaining assets in equities.

Comments from Anna Rappaport: *“Best” here focuses on the greatest expected value. Stocks have the highest expected return over the long term, but they are more volatile. While stocks have the highest expected return in the end, they can also lose money and have much lower returns in the interim. The study does not shift away from an approach that is safe to cover basic needs. It does shift away from using bonds as the investment to accomplish this and toward employing greater use of annuities.*

This proposition is particularly surprising in light of the heretofore prevailing wisdom that a major portion of assets in retirement should be invested in bonds. Earlier advice sought to assist retirees in avoiding risk of loss. However, the new thinking is that there is ultimately more probability that such an approach will actually promote a greater risk of outliving one's assets. Two current factors come to mind here. The first is that individuals, in general, are living longer than their parents or grandparents. Secondly, the poor returns available from bonds in the current environment lead one to explore alternative low risk investments and make annuities more attractive as a low risk investment. This also means that someone invested wholly or in major part in bonds is actually falling behind with respect to inflation. Desirable strategies may need to be rethought as there are the future changes in markets and living conditions.

The authors show that investing 100 percent of the residual in equities after protecting income needs must be considered a tenable solution. This is a different way to think about asset mix. The

safe part is viewed as a match to income needs and the remainder is then invested differently. This suggests to me that, at the least, retirees should consider much higher equity components in their portfolios than they had once thought appropriate.

From the point of view of a plan sponsor, these studies are rich with suggestions. Yet a plan sponsor is always cautious not to undertake either unwanted costs or undue fiduciary responsibility. In the background are the pension liabilities that, when ill-managed, burdened or sank many companies and that are currently bedeviling the public sector. No one wants to go back. The move to defined contribution pulled plan sponsors from the brink. If a defined contribution plan is designed and set up well, sponsors were told, and the investment elections evidenced sufficient procedural prudence and due diligence, the sponsor's responsibilities were a quantum leap back from those incurred in the days of pensions. Liability was on the front end, and lifelong connection and financial commitment was gone.

Some of what the studies show will have an uphill battle among plan sponsors. The ability to purchase annuities is offered currently by a growing number of defined contribution plans. The takers among plan participants are, as I understand it, few. For those retirees and pre-retirees with long memories, the recollection of the effect of double-digit inflation in the 70s on retirees who were receiving fixed monthly benefits is all too vivid. In addition, bankruptcies of annuity providers such as Mutual Benefit and Executive Life and of other insurance companies are a continuing caution. Perhaps most of all, pre-retirees and investors have grown wary of handing over large sums of money on the basis of a promise to pay in the future. If one were going to embrace annuities, the best and most cost-efficient way to obtain an annuity benefit, as many actuaries have pointed out, is through a defined benefit plan, and that ship has sailed. Moreover, movement of the funding of retirement over time from insurance companies, who once did it all, to investment companies has caused the annuity muscle to, as it were, atrophy. Innovative companies, such as United Technologies, that now offer an annuity piece as a possible outcome of their 401k plans are rare. The instances are characterized by a well-paid, well-educated, longstanding workforce in a large company in an industry that has been remarkably stable. Even with all that, it may be that some fiduciary risk for the company remains as the scheme plays out over time. Smaller companies, or companies that do not have that kind of workforce or stability, are more reluctant to take that gamble on their own. Moreover, plan sponsors would likely be more inclined these days, in a risk-averse posture, to “enable” a suitable retirement rather than to “provide” one.

The actuarial community has a significant task ahead of it: to rehabilitate the annuity and its providers in the minds of pre-retirees, retirees, and plan sponsors. Simply put, there is a lack of trust. Explaining in simple terms what annuities do and how best

to choose an annuity provider would be a useful point at which to begin. In addition, creating matrices that explore in detail the pluses and minuses of the various types of annuities available in the market today and the companies that provide them would be a valuable service.

Investment advisors are critical to the process, but few would be so bold as to advise a retiree to invest 100 percent of residual assets in equities. Especially now at a time when advisors are being asked to take on additional fiduciary responsibility, the tendency will be to go with what has been perceived in the prevailing wisdom to be the more conservative route in recommending an investment strategy. No one wants to be sued by disgruntled advisees during a market correction, as we have experienced recently, or even a long-term bear market. So, there is a need to educate advisors as well.

Certain innovations, such as the recently approved Qualified Longevity Annuity Contract, or QLAC, show much promise by reintroducing the annuity in a context that has a regulatory seal of approval. But there is an uphill struggle to make this approach understandable. One of the most positive aspects of the QLAC is that their establishment shows that regulators are receiving quality advice from retirement practitioners on products that will enhance the lives of retirees and are acting on that advice. That alone is an indication that the tide may be moving in a good direction.

In a final segment, the authors discuss how pre-retirees might begin to position themselves as they approach retirement. Given the robust discussions of options in the preceding sections, this section provides food for thought for the pre-retiree, plan sponsor, and advisor communities alike. Its inclusion draws the implications of the first three sections back to the preparatory stage for retirement and makes the entire effort a whole-cloth of how to find optimal retirement income solutions through defined contribution plans.

In summary, these studies have provided an enormous service by bringing together some of the best thinking available on the slippery problem of how to live a lengthy retirement in a prosperous way, given the regulatory and investing landscape as it now presents itself. The authors have incorporated the best forward-looking thinking with current investment vocabulary, and they have provided mathematical and statistical underpinnings for expert readers. In a textual summary, the studies have significant merit and provide food for thought, both for individuals and for plan sponsors.

* * *

Comment from Anna Rappaport: *I want to thank David for this interesting perspective. As one of the actuaries who David expects to have an uphill struggle, I am seeking ways to increase understanding and interest in more organized longer-term planning, and more planned lifetime income solutions. Other research from the CPRNR shows that many people want to hold on to their assets, and that Required Minimum Distributions become the default method of withdrawing money from tax-protected retirement savings. My view is that many of these people do not have a good understanding of alternatives for generating retirement income, and some of them do not focus on the fact that RMD is a method of drawing down assets. This paper is exciting to me because it opens up the way to much stronger analytical comparisons of a range of options, and provides new ways to think about the comparison. My hope is that while employers will generally not want to guide people to a particular option, they may be willing to encourage longer-term planning that supports better comparisons of the options. ■*



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SOA Partnership Produces New Research on the Finances of Older Americans

By Anna M. Rappaport

The Society of Actuaries is partnering with the Social Security Administration to support research conducted by the Center for Economic and Social Research at the University of Southern California (USC). This article is about the first project that is resulting from this collaboration. There are more in the early stages. The Committee on Post-Retirement Needs and Risks (CPRNR) is very pleased to have this opportunity to provide input to the researchers and to bring our experience in working with employee benefits and financial products to them.

INTRODUCTION

The 2015 new study, “How Americans Manage Their Finances”,¹ provides insights into financial management at all ages and is based on The Older Adult Survey research previously conducted by RAND for the Federal Reserve Board’s Consumer and Community Affairs Division in 2012.

The issues included in this study overlap some of the issues in the Society of Actuaries Post-Retirement Needs and Risk Research. Debt and shocks are important issues in the 2015 Post-Retirement Risk Research and in the “How Americans Manage Their Finances” Study. Both studies provide some insights into how people are planning for the future. This article highlights a few issues from both studies and I hope it will encourage you to look for more results from both reports.

METHODOLOGY

Both studies use online surveys, but they use different panels that have been recruited differently. The “How Americans Manage their Finances” uses the Understanding America Study (UAS) panel and the SOA research uses the Research Now online consumer panel. Neither one is slanted to a particular segment of the population, but small differences in numerical results may be due to differences in the populations surveyed. Where the same issues appear with the same general results, we know that the results are important and add to our knowledge. The Understanding America Study panel data is updated regularly with additional studies. This data is available for further research. For more information, visit uasdata.usc.edu, or contact Tania Gutsche at tgutsche@usc.edu.

FINANCIAL STRESSES, SHOCKS AND UNEXPECTED EXPENSES

The USC study asked respondents whether their household had experienced financial stress in the last three years. Results varied greatly by age. Some highlights are shown in Exhibit I.

Exhibit 1

Financial Stresses Over Last Three Years by Age
Results for Selected Stresses and Ages
Values shown are %

Note: Total group includes ages 18 and up

Type of Stress	All	Ages 40-49	Ages 60-69	Age 70+
Experienced no stress	55%	52%	66%	75%
Lost job or had work hours reduced	22	27	9	0
Had significant health issue	13	16	13	8
Provided help to family members or family member lost job	9	9	6	4
Lost spouse/partner	2	2	1	5
Had unpaid taxes	4	4	2	4
Had mortgage balance higher than property value	3	7	2	0

Note: See working paper for results at other ages.

The USC study also explored how people managed the financial shock and whether or not they got help from others, borrowed, withdrew from savings, cut expenses, or did not pay the amount owed. In the age 70+ group, 34 percent withdrew from savings, 24 percent cut expenses, and 23 percent got help from others. Not many borrowed and none of them reported not paying the expense.

The SOA study had a different set of questions looking at shocks and unexpected expenses and did not have the three year limit for the question. It focused on the period since retirement. For that study, the largest shocks and unexpected expenses included major home repairs and updates (28 percent), dental expenses (24 percent), and significant out of pocket medical and prescription drug expenses (20 percent). 28 percent of the retirees in the SOA survey had not experienced any shocks since retirement. The SOA study showed that retirees are generally very resilient and that many of them deal with quite a few shocks and unexpected expenses very well.

The two shocks that were most difficult for retirees in the total SOA research were major long-term care events and getting divorced after retirement. Note that none of the respondents in the USC survey after age 60 reported getting divorced and long-term care issues were not significant. The SOA research included focus groups with people retired more than 15 years and interviews with caregivers of people experiencing long-term care needs. It also included questions about the experiences of

respondents' parents. The long-term care results show up in the questions about parents and the interviews.

DEBT AND RETIREES

One of the concerns of the CPRNR is understanding debt and what impact it has on retirees. Both research studies focused on debt and its impact on older persons. The USC research provides much more detail on how retirees are using debt and responding to it.

The USC study indicated that many of the homeowner respondents have mortgage debt, including half of those in their 60s and nearly a third of those over age 70. The USC Study reports that ¼ of respondents with mortgages have tried to refinance in the last three years. Both studies indicate little interest in reverse mortgages. The USC study offers more information on mortgages and refinancing decisions.

In the SOA study, 35 percent of retirees have credit card debt and 24 percent have car loans. Among retirees with debt, about half have debt other than their mortgage of less than \$10,000. In the SOA study, many retirees with debt feel that it has had little impact on their lifestyle. 36 percent said it has had no impact on their ability to maintain their desired lifestyle and 28 percent said little impact. In contrast, 15 percent report that it has had a great deal of impact. The retirees in the SOA study are not older than age 80. One of the unanswered questions is whether people will have problems later in life. The CPRNR is considering whether it can do more investigation of people in their 90s.

OTHER FINDINGS OF INTEREST

The USC study explored the use of bank accounts, and other types of credit and a number of planning issues. In some areas there are big differences by age, but not in others.

The USC study also explored what level of unexpected expense individuals could pay without problem. When asked about how hard it would be for them to pay an unexpected expense of \$1,000, less than 1/3 of respondents said they could easily pay this expense. One in six could easily pay for an unexpected expense of \$5,000 and one in ten could easily pay for an unexpected expense of \$10,000.

One of the concerns today is that a number of Americans are unbanked.² However, in the USC study, relatively few people over age 60 were unbanked. While 10 percent were unbanked at all ages, only 5 percent were unbanked at 60-69 and 4 percent at age 70 and over. 87 percent of the unbanked had an income of less than \$30,000. Respondents age 70 and over are also much less likely to get payday loans when compared to younger groups. 96 percent of the 70 and over group report that they have never considered a payday loan compared to 84 percent of the total group.



The age 70+ group is much less likely to use a bank “app” on a mobile phone than the younger population, and they are a little less likely to do online banking. These results may be interesting to financial service companies and benefit administrators in understanding what types of interaction will work with different groups. The age 70+ group is just as likely to use automatic bill payment as are younger individuals.

91 percent of individuals at ages 70 and over use credit cards compared to 76 percent of the respondents at all ages. However the older group is much more likely to pay their balance in full. 68 percent of the 70 and over group reports paying the balance in full compared to 43 percent at all ages. They are also less likely to use credit card debt and/or cash advances.

21 percent of the respondents in the USC study had investments managed professionally. At age 70 and over, this rose to 34 percent.

These are just a few of the items covered by the two studies. The USC study also includes information about fraud and about retirement and long-term care planning.

PERSPECTIVE ON THESE RESULTS

Actuaries are very focused on retirement planning and encouraging people to save early and save more. These results make it clear that for long-term financial success, in addition to having an emergency fund, debt management, and good decisions about mortgages are also critically important for long-term financial success, as well as success in retirement.

Several years ago the CPRNR sponsored a round table on *Running Out of Money*. A comment was made that it was important to get people to enroll in 401(k) plans and save more, and generally this is true. But, it may not be the best strategy in all situations. One of the participants pointed out that people with

credit card debt should pay off the credit card debt first rather than saving more in a 401(k) plan. With the high interest rates that apply to many credit cards, this is very important. It is even important that people do not save in the 401(k) and then use payday loans to live on since the effective interest rate for payday loans is over 100 percent.

As we think about long-term security, we need to focus on the bigger picture. Employee benefit plans traditionally focused on several key risks. Having an emergency fund and debt management are important additions to the traditional list. Emergency funds are especially important to allow people to avoid using payday loans and the alternative financial system.³ The results of these studies provide valuable insights into the financial picture of many Americans and helps broaden our perspective. The more I think about it, the more I realize that financial wellness is really important but that it involves a broad range of issues that must be considered for retirement security. ■

ENDNOTES

- ¹ "How Americans Manage Their Finances," Working Paper Number 2015-020, CESR-Schaeffer Working Paper Series, University of Southern California, authored by Leandro Carvalho, Arie Kapteyn, and Htay-Way Saw. <https://static.usc.edu/sites/default/files/2015-020%20FINAL%20DRAFT.pdf>
- ² People who are "unbanked" have no bank account, either checking or savings and they often end up paying a high price for check cashing, loans and other financial transactions. My view is that getting them into the mainstream financial system is a first step to longer term security.
- ³ The [Alternative Financial System](#) offers financial services outside of insured banks and thrift organizations.



Anna M. Rappaport, FSA, MAAA, is an actuary, consultant, author, and speaker, and is a nationally and internationally recognized expert on the impact of change on retirement systems and workforce issues. She can be reached at anna@annarappaport.com.

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The advertisement features a map of the Upper Mississippi River National Wildlife Refuge area. Two location pins are visible: one in the north (Dubuque, IA) with a portrait of a woman, and one in the south (Cedar Rapids, IA) with a portrait of a man. The map shows major highways (52, 18, 20, 380, 151, 30, 61, 218) and cities (Dubuque, Cedar Rapids, Marshalltown, Boone, Ames, Waterloo, Mason City).

Fundamental Investment Principles of DC Option Selection Prove Optimality of Stable Value

By Paul Donahue

INTRODUCTION

The performance of ERISA fiduciaries operating DC plans has been slow to get the attention it deserves,¹ but that appears at long last to be changing. In the unanimous United States Supreme Court decision *Tibble v. Edison*, the court stated: “Under trust law, a trustee has a continuing duty to monitor trust investments and remove imprudent ones. This continuing duty exists separate and apart from the trustee’s duty to exercise prudence in selecting investments at the outset.”² The court also stated: “We express no view on the scope of respondents’ fiduciary duty in this case. We remand for the Ninth Circuit to consider petitioners’ claims that respondents breached their duties within the relevant 6-year period under §1113, recognizing the importance of analogous trust law.”³

Investment actuaries and other investment professionals have an enormous opportunity for public service by educating plan sponsors and the courts on what “the care, skill, prudence, and diligence’ that a prudent person ‘acting in a like capacity and familiar with such matters’ would use”⁴ means in the context of the selection and monitoring of investment options for a defined contribution pension plan. A clear understanding of what is required will increase the retirement income security of tens of millions of Americans and contribute to increased financial stability for the nation as a whole.

WHAT IS DC OPTION SELECTION AS AN INVESTMENT PROBLEM?

Proper framing of a problem is nearly always essential to getting the right answer. It is important to recognize that a plan sponsor managing a DC lineup is: “responsible for directing and monitoring a diversified, multiple-asset class, multiple-manager portfolio.”⁵ Choosing a lineup is a portfolio optimization exercise: “like the portfolio manager of a stock or bond portfolio, it’s the overall strategy that’s important, not just the individual names in the portfolio. Holdings within a portfolio have different risk, return, and diversification characteristics that contribute to the success of the overall portfolio and strategy. One must understand and acknowledge the implications of these characteristics when evaluating whether or not one component of the overall portfolio is doing what is expected of it.”⁶ This is a far more

challenging exercise in the context of a DC plan that it is in the context of a corporate portfolio or even for a DB plan, since the range of participant preferences is far broader.

ASSET CLASS SELECTION

Asset allocation overwhelmingly drives returns.⁷ The asset category selection objective is clear: “When developing a portfolio to meet an identified objective, it’s critical to enable participants to select a combination of assets that offers the best chance for meeting their objective, subject to the investor’s circumstances. This “topdown” asset allocation decision largely determines the success or failure of meeting the objective.”⁸ This is a challenging topic, on which there is a wide range of views.⁹ However, the point I make is that the ability to construct an efficient frontier portfolio depends on risk/return/correlation characteristics of the investment option or options chosen for each asset category selected.

WHAT ERISA REQUIRES

Although *Tibble* showed conclusively that the 404(c) safe harbor¹⁰ does not protect plan sponsors against imprudent selection of options, many plan sponsors design their plans so as to be able to take advantage of the safe harbor. The safe harbor requires that there be at least three alternatives, which in the aggregate enable a participant to achieve any risk and return objectives within a “normally appropriate” range.¹¹ In particular, the safe harbor requires “an income-producing, low risk, liquid” option.¹² Plan sponsors have almost universally chosen either money market or stable value to meet this requirement,¹³ though a relatively short bond fund would almost certainly qualify as well.¹⁴

INVESTMENT ANALYSIS OF THE SAFE OPTION

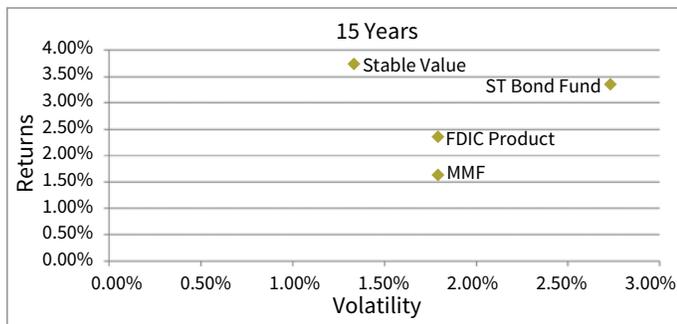
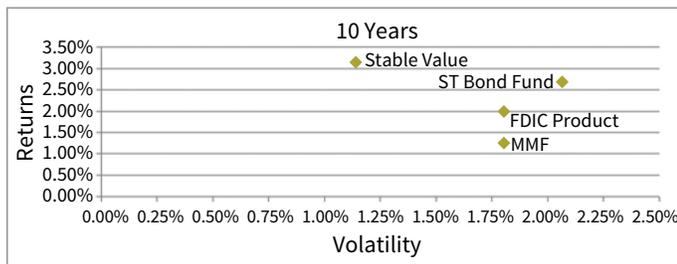
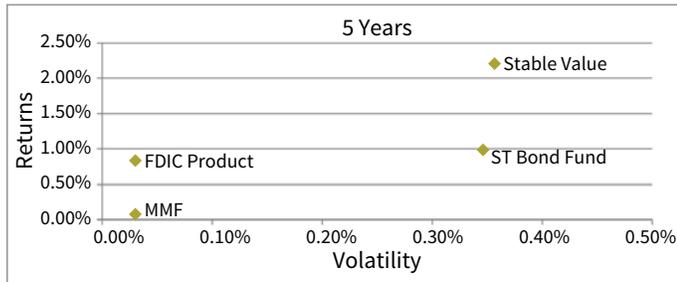
What is Stable Value?

Stable Value is an asset class available only in defined contribution plans created by an accounting rule, an inversion of what might seem the natural order of things.¹⁵ Modern stable value is the creation of SOP 94-4, and stable value must conform to its rules, as it has been amended. The rules basically require that participants be able to transact at a stable (non-decreasing) net asset value for all transactions permitted by the plan.¹⁶ Stable value, bank deposits and money market funds are the only defined contribution options that can be reported at a stable net asset value, and existing defined contribution plans almost universally use either stable value or money market (or both) as a plan’s safe option.¹⁷

QUANTITATIVE SAFE OPTION RETURNS¹⁸

The tables and charts present data on four possible alternatives for a safe option: stable value, money market, an FDIC-insured account and a short bond fund. The stable value returns are from Stable Value Investment Association data. I have used

three-month Treasury bill yields to approximate money market returns. I have chosen a simple approximation to an FDIC product of money market plus 75 bps. I have used the Barclay's U.S. Government 1-3 Index returns less 20 bps to approximate the return of a short bond fund.



Correlations

Correlation (2000-2015)	Stable Value	Money Market	S&P Total Return	World Equity ex US	Barclays US Agg.
Stable Value	1				
Money Market	0.795081442	1			
S&P Total Return	-0.522248438	-0.309966429	1		
World Equity ex US	-0.239144156	-0.101446219	0.874733709	1	
Barclays US Aggregate	0.643634307	0.420308629	-0.535919118	-0.43055794	1

Stable value returns meaningfully exceed those of all safe option alternatives for each historical period, and overwhelm money market returns, averaging more than 2 percent in absolute return higher, with returns double those of money market funds. Obviously, five years of flat line zero money market returns have reduced volatility for money market (and the FDIC model based on it), but low volatility because of constant zero returns, with returns artificially flat because of fees waived to the extent needed to maintain a stable net asset value, cannot be considered a plus. Over the longer periods, even with the reduced volatility of the last five years, stable value volatility is lower than that of all safe option alternatives. Finally, the correlations to other asset classes are lower for stable value than for the proposed alternatives.

There is no plausible quantitative defense for choice of a safe option other than stable value.

ONCE STABLE VALUE CHOSEN, WHAT ANALYSIS REMAINS?

Deciding on stable value as the safe option is the easy part. Plan sponsors consider the needs of their participant populations to make a prudent choice among stable value funding vehicles. Despite the differences in plan populations, I suggest that the vast preponderance of plan participants would want the following two features: 1) full liquidity of their stable value balances for withdrawals, and 2) all withdrawals at contract value.

POOLED FUNDS

Stable value as defined in this article is available in two form forms, stable value collective investment funds, (“pooled funds”) and individually managed accounts. Different pooled funds make available an array of contract terms, underlying investment strategies, and stable value contract issuers. Pooled funds are generally aimed at smaller plans, while large plans generally use individual accounts. However, closer attention to design features may lead larger plans to pooled funds as well, should they conclude that design features they value are available in pooled funds but not in individual accounts.

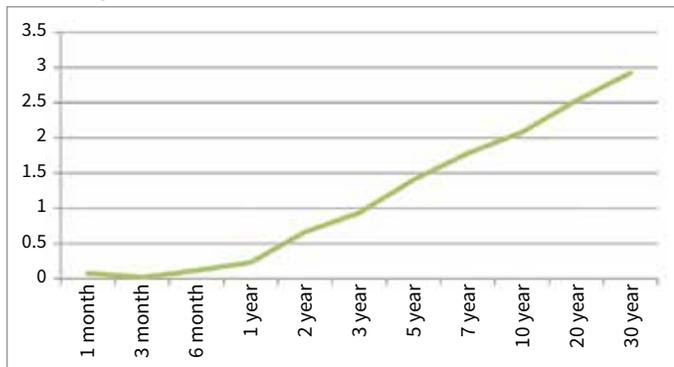
So called “employer event” carve-outs are the best example. Most pooled fund contracts do not restrict contract value payments to participants in the case of employer layoffs or “employer-initiated events.” A terminated vested plan participant who had lost his or her job would be entitled to withdraw funds from his or her account balance at contract value, subject to payment of tax and any applicable penalty. The availability of such a provision in a pooled fund, but not in an individual account, would be a perfectly legitimate reason for a plan sponsor to choose a pooled fund (or pooled funds, if the size of the option was too big for a single pooled fund to accept) over an individual account.

POOLED FUND EXIT PROVISIONS

The most readily apparent differences in pooled funds relate to exit provisions. Most common is the right for a plan to exit at contract value with 12 months' notice, regardless of the market value of the underlying assets. Some pooled funds have two-year put provisions, and some plans require that plans exit at the lower of contract value or market value. The "lower of book or market" exit has encountered market resistance among sponsors.

However, it is clear that the lower of book or market exit is best for plan participants wherever a relatively short-term exit is not foreseen at purchase of pooled fund units. A twelve-month put provision will frequently be in the money. The possibility of a "death spiral" where lower crediting rates spurred additional puts which led to still lower credit rates and still more puts is a legitimate issuer fear, and stable value contract issuers nearly universally manage this risk by limiting the duration of the pooled fund asset portfolio. There is no risk of a death spiral in pooled funds with a lower of book or market exit provision, and so issuers can permit much longer durations, with correspondingly greater expected yields.

Treasury Yield Curve as of 10/20/2015



In the context of a retirement savings program, the difference between a duration of 2.5 years and 4.5 years is significant, and can easily make the difference between returns that exceed inflation and returns that don't keep pace with inflation.

INDIVIDUAL ACCOUNTS

Economies of scale, and avoidance of the additional layer of trust level expenses, mean crediting rates for individually-managed accounts generally exceed those for pooled funds. Based on SVIA stable value return data, the difference averaged 45 basis points over 15 years. However, cost-effective management of an individual stable value option is best left to a stable value manager. Developing the required internal resources would not be a good use of resources for most plans.



Among the most important considerations are contract termination provisions and contract exceptions to contract value payment for all participant-directed transactions. A contract that can be terminated on short notice, or for a reason not related to the stable value risk, at market value, is worth very little. If a plan sponsor believes full coverage at contract value for all participant withdrawals is important, and cannot obtain it in individual contracts, that could be a legitimate reason to prefer a pooled fund.

DIVERSIFICATION CONSIDERATIONS

In stable value contracts, various forms of diversification can compete with each other and with the sponsor's plan design preferences for priority. A pooled fund or plan sponsor could rationally prefer choice of investment managers for the fixed income assets underlying a stable value contract as more important than wrap diversification. In particular, a plan sponsor could rationally prefer full coverage for all participant transactions at contract value as more important than stable value contract issuer diversification, even if that coverage came with a yield sacrifice.

CONCLUSION

Plan sponsors have a fiduciary duty to select plan options, including the safe option. Investment professionals have a public service opportunity to enhance the retirement security of tens of millions of Americans by providing plan sponsors with the reasoned analysis they need to do their fiduciary duties responsibly. This article is my contribution to trying to meet that need. ■

ENDNOTES

- ¹ See my article, "Plan Sponsor Fiduciary Duty for the Selection of Options in Participant-Directed Defined Contribution Plans and the Choice Between Stable Value and Money Market," 39 AKRON L. REV. 9 (2006), P. 11 [hereinafter "Sponsor Fiduciary Duty"].
- ² *Tibble v. Edison*, 575 U.S. ____ (2015). In November, 2015, cases against Boeing and Novant Health were settled for \$62 million and \$32 million respectively.
- ³ *Ibid.*, at 7.
- ⁴ *Ibid.*, at 5.
- ⁵ JOHN P. MEIER, *Investment Performance Appraisal*, CFA Institute (2008), p. 799.
- ⁶ *Ibid.*, p. 800.
- ⁷ See *Constructing a defined contribution investment lineup: Vanguard's five best practices* (Vanguard, September, 2012), pp. 2-3. My brother, now comfortably retired while I labor on, has shown uncannily good judgment on when to sell stocks and buy houses, and when to sell houses and buy stocks.
- ⁸ *Ibid.*, p. 2.
- ⁹ At one extreme, see *Rethinking Diversification in Defined Contribution Plans*, Northern Trust, 2013, which lists commodities generally, and gold in particular, as possible DC diversifiers. Vanguard, see above note 8, p. 10, suggests two stocks funds, one bond fund and a safe option are enough. I incline more to the Vanguard view. The responsible plan sponsor will take into account the need to educate plan participants, and their ability to evaluate the soundness of nontraditional asset offerings.
- ¹⁰ See, e.g., <http://www.fiduciaryawareness.com/404c-safe-harbor/>.

- ¹¹ Sponsor Fiduciary Duty, p. 18.
- ¹² *Ibid.* I will in the future refer to an "income-producing, low risk, liquid" option as the "safe option."
- ¹³ *Ibid.*, p. 19.
- ¹⁴ *Ibid.*, p. 19, n. 49.
- ¹⁵ See my article *What AICPA SOP 94-4 Hath Wrought: The Demand Characteristics, Accounting Foundation and Management of Stable Value Funds*, 16:1 BENEFITS QUARTERLY 44 (First Quarter, 2000) [hereinafter "Stable Value Funds"].
- ¹⁶ See Reporting of Fully Benefit-Responsive Investment Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans, FASB Staff Position Nos. AAG INV-1, SOP 94-4-1, Posted December 29, 2005 [hereinafter AAG INV-1/SOP 94-4-1]. AAG INV-1 allows some significant qualifications to this one sentence summary, some of which I will discuss below.
- ¹⁷ See MetLife Stable Value Study.
- ¹⁸ I am grateful to my colleagues Alan Chia and Besim Demiri for the quantitative analysis.



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Behavioral Finance and the Decision Making Process of Defined Benefit Plan Sponsors

By David R. Cantor and Thomas Toale

“We have met the enemy and he is us.”

- Pogo¹

“The first principle is that you must not fool yourself and you are the easiest person to fool.”

- Richard Feynman²

INTRODUCTION

Behavioral Finance³ proposes that psychological and social factors influence financial and economic decisions, causing people to make decisions other than those predicted by conventional economics⁴ and which may not be optimal for them. This article strives to help defined benefit (DB) plan actuaries understand how concepts from behavioral finance may provide insight into the actions of the sponsors of defined benefit plans. We specifically explore how behavioral finance concepts may affect sponsors’ decisions regarding their plan’s preferred funding level and risk profile. Our hope is that actuaries can assist their clients in becoming aware of how these concepts may be affecting the quality of the sponsors’ decision-making process.⁵

As of October 2015, the estimated funded status of the average DB plan on an accounting basis is close to 84 percent.⁶ DB plan underfunding is recognized both theoretically (by academics and advisors)⁷, and practically (by analysts and rating agencies)⁸ as a form of debt that—just like other forms of debt—can have adverse implications for the sponsor’s Beta and cost of capital.⁹

Dramatic increases in the PBGC variable premium assessed on underfunding provide an additional incentive to improve funding. Flat-rate premiums increased from \$35 per participant in 2012 to \$69 in 2017, an increase of almost 100 percent, in addition to large increases in variable rate premiums (3.3 percent charge on pension underfunding). This may encourage sponsors to settle liabilities, either through payment of lump sums or purchase of annuities for portions of the plan’s liabilities. This approach may be particularly attractive to sponsors of well-funded plans, who view themselves as paying for insurance they will never need.

The cost of borrowing in order to increase (decrease) pension funding (debt) is near all-time lows for some companies.¹⁰ Corporate cash remains at high levels and might be used to improve funding, but seldom is. Why?

A frequently heard argument against taking action to more fully fund plans now is that interest rates used to fair value defined benefit plans are near historical lows, and that the value of liabilities are therefore near historical highs. While this is true, low interest rates also mean that the cost of refinancing pension debt is at historical lows. Numerous articles also discuss the advantages of funding and then “de-risking” the plan.¹¹ However, despite a few recent multibillion-dollar moves by some large companies, relatively few other companies have taken these steps. Why?

We think the answers to these example questions may be better understood by referring to concepts set forth in the behavioral finance literature. Behavioral finance tries to explain why people, with the best intentions, make decisions that appear irrational when viewed through the lens of traditional economics—and why, in some cases, those decisions may nonetheless be best for them and others.

Our purpose here is not to argue that sponsors should reduce plan risk, which is a decision highly dependent on facts and circumstances.¹² Instead, our purpose is to provide a “checklist” of a few of the most widely recognized behavioral finance concepts, and how they might inadvertently influence decisions. Our hope is that this will allow actuaries to help their clients make decisions that are truly in the best interests of all “stakeholders,” including the plan participants. The factors discussed below are not a comprehensive list of behavioral finance issues, but appear frequently and have potential applicability to the issue we are addressing.

HERD BEHAVIOR

Most animals—including humans—tend to do what those around them are doing. This is logical if you are a gazelle on the Serengeti. It is not as logical for plan fiduciaries and sponsors, who are expected to bring expert knowledge and a familiarity with their unique situation to the table, and to operate in the best interests of plan participants and other stakeholders. Yet it is commonly accepted that being wrong and alone—like the self-actualizing gazelle when the cheetah arrives—is bad news for fiduciaries or sponsors.¹³ It takes a courageous plan sponsor—and board—to contribute to a poorly funded plan and take a risk reducing (LDI) investment posture given today’s low level of interest rates. One may appear rash if interest rates rise significantly soon after the actions are taken—another human bias, related to herding, called “regret risk” (one can reduce their regret if they follow the herd!). Recognizing, let alone overcoming, this inclination to go along with the herd is surprisingly difficult.

Actuaries should caution fiduciaries/sponsors not to get caught up in the hot-trends of the day without first studying the issues carefully and determining the suitability of any concept or strategy for the specific client.

MENTAL ACCOUNTING

This concept refers to the segregation of person's (or a corporation's) assets into categories that may have different investment goals or constraints. A fund to finance the purchase of a house may be invested differently than a fund designed to finance retirement.

In the corporate context, some sponsors seem to have different risk tolerance levels for corporate assets and liabilities than for pension assets and liabilities. Chief financial officers who could not sleep knowing that the fire insurance on their home office had lapsed often take on the large and unquantified risks.¹⁴

This tendency to treat pension debt as distinct from general corporate debt was historically aided by very forgiving accounting treatments¹⁵ and persistent bull markets. There's even a less offensive term for pension underfunding—"soft debt" (we doubt anyone using this term has dealt with the PBGC when they wanted to collect that debt).

Viewing pension underfunding as simply another form of debt—and one with a variable principal, variable interest rate and a rather short repayment term—involves a shift in thinking.

At the same time, many sponsors may have been lulled into a false sense of security precisely because interest rates are so low—the idea that "things can only get better from here." This actually relates to another type of bias referred to as "wishful thinking bias" which is the tendency for people to prefer a future outcome even in the face of evidence that may contradict that preference.

To guard against mental accounting, actuaries should consider providing sponsors an analysis of the effect on funding of a 5th percentile one year decline in the stock market and interest rates, for example. This would allow plan sponsors to better understand the risk they may be taking in their pension program and to potentially take action to manage the risk.

LOSS AVERSION

One of the basic ideas of Behavioral Finance is contained in "Prospect Theory: An Analysis of Decision under Risk"¹⁶ written by Daniel Kahneman and Amos Tversky in 1979. Among other things, this theory holds that gains and losses are valued differently, with the loss of \$100 outweighing a gain of \$100.¹⁷ Neurological studies on the effects of identical gains and losses on metrics such as skin conductance, heart rate and pupil dilation are higher for losses, supporting this contention.¹⁸

We would expect, therefore, that loss aversion would argue for risk reduction. However, offsetting loss aversion is the tendency to seek risks when the alternative is realizing a loss. The classic example to illustrate these principles asks investors to choose between two bets: A) losing \$1,000 with a probability of .5 or B) losing \$500 for sure. People overwhelmingly choose option A even though the expected value of the two bets is exactly the same.

Given the alternative—accepting the loss by contributing money to get the pension plan back to fully funded status—sponsors may keep their risky portfolios in place, hoping that favorable markets will make them whole again.

Instead, plan sponsors should look at losses as sunk costs—money gone forever that should not affect current decisions. They could therefore regret having incurred the costs, or the loss in funded status, while recognizing the need to cease pursuing the strategy that has failed to perform as expected.

However, the tendency to loss aversion is quite strong. It's known in game theory as "The Concorde Fallacy," which refers to the continued development and production of the supersonic transport after it was certain that there was not an economic case for doing so.

ANCHORING

When dealing with variables, we tend to use benchmark values (known in behavioral finance as "anchors") that are familiar to us—even if they are irrelevant to the decision at hand. For example, a plan sponsor's anchor for bond rates may have been set decades ago when interest rates were much higher, or it may be the plan's Expected Return on Assets (EROA), a best estimate of the long term expected return anticipated given the plan's asset allocation. Actuaries can discuss the limitations of using the EROA as a benchmark, and the evolution of interest rates over the past several years, to try to overcome this issue and enable sponsors to view their positions with as much objectivity as possible.

A similar anchor seems to exist with respect to the estimates of sponsors and advisors of the cost of terminating a plan. Many think that cost is in the range of 125 percent or more of the accounting liability, which was in the ballpark a decade or more ago. Now that lump sum payments are essentially equivalent to the accounting liability (post the phase-in of the Pension Protection Act's higher discount rates), and with the cost of annuities for retirees now in the range of 110 percent–115 percent of accounting liability based on recent activity, using an obsolete anchor will lead to poor decisions. Sponsors that would be happy to terminate at 105–110 percent of the accounting liability (depending on the mix of annuities and lump sums) may not know that this is attainable and may even continue a risky in-

vestment posture in an attempt to reach an unnecessarily high funded level.

Actuaries can work with insurers to get a quick—yet relatively accurate—assessment of the total cost of termination based on information already presented in the funding and accounting actuarial valuations.

Actuaries can also help plan sponsors set the appropriate “anchor” in terms of what to measure a termination strategy (or any strategy for that matter) against. While viewing the absolute cost of a termination strategy is obviously useful, the strategy should also be compared on a relative basis to the alternative of continuing to retain the plan. Having the right anchor when evaluating alternatives can lead to better informed decisions.

CONFIRMATION BIAS

We seem to look for information that supports, rather than contradicts, our opinion. It may be particularly easy to fall victim to this with investments; for every pundit who opines that interest rates will rise and the S&P 500 will trade at 2250—and buys and sells based on that opinion—there is generally an equally cogent pundit on the other side of their trade.

To help clients overcome this bias, actuaries should encourage feedback from those taking an opposing view to senior management’s. An experienced actuary or investment consultant should be able to accurately present the positives and negatives for both sides of the argument. Actuaries in particular have the ability to quantify the extent of the gains (or losses) that occur if the hoped for outcome does (or does not) occur.

DEFAULT “ELECTIONS”

The default option—what Professor Robert Shiller¹⁹ of Yale has succinctly defined as “...what happens when people do nothing...” is tremendously important in any decision. The concept is also closely related to the issue of “framing”—how information is presented and “framed” can have a significant impact on ultimate decisions.

The decision of whether to be an organ donor is frequently part of the process of renewing a driver’s license or voter registration. If organ donation is the “default” option, over 90 percent are donors; if not, less than 15 percent are donors. This often happens because, 1) doing nothing is easier than doing something; 2) approvals are required to do something different; 3) the perception that the default option was arrived at prudently; and 4) the assumption that no changes have occurred that might cause one to rethink the default.

We see default “elections” show up a lot with respect to pension investments. Most DB sponsors seem to view the most important variable in managing a plan’s risk as the plan’s existing asset allocation (e.g. 60 percent equities, 40 percent intermediate



bonds) rather than funded status (in which case it’s not asset allocation so much that matters but asset allocation *relative* to liability behavior). If so, a simple liability driven investment strategy (e.g., 100 percent long bonds) or settling retiree benefits with an insurer is a huge change from that asset-only position, and similar to the organ donor example, requires action which is not always easy for a plan sponsor to do relative to the default which is already established.

However, advisors can help sponsors understand that this is not an either (60/40) or (liability driven investing or settlement) situation, and that they can adopt transition strategies that gradually move to the desired asset allocation over time or as funded status changes. One method, sometimes called a “glide path” model, ties changes in a plan’s asset allocation to increases in its funded status. As funding improves, the steps included in this model may be:

- Lengthen the duration of the existing fixed income portfolio
- Double the size of the fixed income commitment
- Move entirely to a duration matched portfolio
- Offer lump sums to terminated vested
- Settle retirees by purchasing annuities
- Terminate the plan, buying annuities for remaining retirees and offering lump sums or annuities to non-retired lives.

If these steps occur at agreed upon funding statuses—e.g., at 10 percent increments starting at 75 percent funding—and particularly if they are written into the Plan’s Investment Policy—they, in a sense, become the default allocations.²⁰ Actuaries and investment advisors can work with plan sponsors to effectuate such changes.

CONCLUSION

Our purpose here is simply to encourage actuaries to think accurately and objectively about the situation they are in and the solutions available. One approach to re-thinking a plan's situation may be to use the following process, adapted from Cognitive Behavior Therapy²¹

1) Identify troubling situations	The plan's funded status is a large problem, given the size of the plan relative to the company's market cap
2) Identify your beliefs about these situations	But everyone is in the same situation, we just have to wait until the markets rebound...as we have been doing for years
3) Identify inaccurate thinking and	Besides, interest rates are too low to fund the plan and move to a more immunized asset allocation, let alone terminate the plan
4) Challenge the inaccurate thinking	But borrowing rates are low, too, and we have a lot of "excess" cash, and it can't hurt to have our actuary perform some analysis so we can better understand the situation

We think this is a good "to do" list for plan sponsors, fiduciaries and their advisors. We hope that our review of some of the barriers to accurate thinking assists their actuaries in helping them address the troubling conditions they face.

Clearly, we have only scratched the surface in discussing Behavioral Finance and introducing some of the bias the literature covers. Actuaries wishing to discuss these issues with their clients will want a more robust knowledge of the issues involved. The SOA website contains a wealth of information. A good starting point may be the Pension Finance Resource page <http://www.soa.org/professional-interests/pension/research-thinking-ahead/pen-finance-resources.aspx>. Another resource is the Committee on Post-Retirement Needs and Risks page <http://www.soa.org/research/research-projects/pension/research-post-retirement-needs-and-risks.aspx>. There are also many great books on the subject of Behavioral Finance. One of our favorites is by James Montier called *Behavioral Finance: Insights into Irrational Minds and Markets*. ■



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ENDNOTES

- 1 Comic strip by cartoonist Walk Kelly
- 2 Richard Feynman and Ralph Leighton. *Surely You're Joking, Mr. Feynman!* New York: W.W. Norton & Company, 1985.
- 3 Daniel Kahneman (who won the Nobel Prize in 2002 for his work combining psychology and economics) and Amos Tversky (who died before the Nobel Prize was awarded) are generally considered the fathers of behavioral finance. Richard Thaler also played an important role in the development of the theory.
- 4 By conventional economics here we are referring to theories that like Capital Asset Pricing Model and the Efficient Markets Hypothesis that assume economic agents are rational and make decision to maximize expected utility.
- 5 Actuaries are also subject to the same biases as those of the plan sponsors/fiduciaries they are working with. These biases may be reflected in the underlying models actuaries use and manifest themselves in other areas as well
- 6 <http://www.plansponsor.com/Pension-Funded-Status-Sees-October-Gain/>
- 7 Li Jin, Robert Merton and Zvi Bodie, "Do a Firm's Equity Returns Reflect the Risk of its Pension Plan?" *Journal of Financial Economics*, 81 (2006): 1-26.
- 8 Deutsche Bank Markets Research. "S&P 500 Pensions: End of cycles?" *US Equity Insights*. July 31, 2013.
- 9 "Pensions in Practice: When Is It Optimal to De-Risk a Pension Plan?" Morgan Stanley, May 2013.
- 10 As of August 1, 2014 Moody's Aaa corporate bond yield was 4.08 percent compared to a historical average back to 1919 of 5.84 percent; <https://www.quandl.com/MOODY/AAAYLD-Aaa-Corporate-Bond-Yield>. Interest rates similar to these are also used to approximate the fair value of pension liabilities.
- 11 Fischer Black first laid out this argument in "The Tax Consequences of Long-Run Pension Policy," *Financial Analysts Journal*, July-August, 1980.
- 12 See for example, "A Framework for Pension Risk Management," *Risk Management*, March 2014, 6-8. <http://www.soa.org/library/newsletters/risk-management-newsletter/2014/march/jrm-2014-iss29-cantor.aspx>. We argue pension sponsors should manage risk (after properly defining the term) not necessarily mitigate risk.
- 13 John Maynard Keynes has a famous quote which is applicable here "Wordly wisdom teaches us it is better for reputation to fail conventionally than to succeed unconventionally"; *The General Theory of Employment, Interest and Money*, 1936.
- 14 This introduces a whole other set of issues related to principal-agent conflicts which is outside the scope of this article but is a very important topic in the proper management of companies and pension programs.
- 15 Under US GAAP the use of expected rate of return on plan assets in the calculation of pension expense is often cited as encouraging plan sponsors to allocate to riskier assets than they may otherwise do. The allowance of smoothing techniques also may encourage plan sponsors to engage in riskier behavior than they might otherwise be expected to do.
- 16 This paper is widely regarded as a landmark paper for behavioral finance. http://www.princeton.edu/~kahneman/docs/Publications/prospect_theory.pdf.
- 17 In conventional economics, a \$100 gain or loss are valued identically when making risk based decisions.
- 18 Hochman G., Yechiam E. (2011). "Loss aversion in the eye and in the heart: The autonomic nervous system's responses to losses," *Journal of Behavioral Decision Making*, 24 (2) (2011): 140-156. doi:10.1002/bdm.692.
- 19 Shiller won the Nobel Prize in 2014 in large part for his work in behavioral finance.
- 20 Back though to the "herding" concepts, these glidepath strategies have become all the rage in the past few years. We caution actuaries and plan sponsors to not adopt a glidepath simply because it's "trendy" but rather to analyze the issue critically and decide if it's suitable for the actual situation. We also have seen clients, where even with a glidepath in place, the decision rules are ignored based on how the markets might currently be performing.
- 21 <http://www.mayoclinic.org/tests-procedures/cognitive-behavioral-therapy/basics/what-you-can-expect/PRC-20013594>

Financial Wellness: An Interview with Greg Ward

During the past few years, the Society of Actuaries Committee on Post-Retirement Needs and Risks has come to realize that employees are called on to make many decisions about their benefits, and increasingly, as more benefits are provided by DC retirement security depends on the decisions they make. During the last two years, the committee has moved into a new area—with two projects on the topic of Retirement Financial Advice. The first is a research paper focused on employer approaches to retirement financial advice, and the second is a guide for employers. Greg Ward, CFP®, Think Tank Director at Financial Finesse, served on the Project Oversight Group for the employer guide and the research paper. Greg works with employers and employees to promote financial wellness. This article offers some perspectives on the SOA reports.

What is financial wellness?

Financial Wellness is a state of financial wellbeing whereby an individual is experiencing minimal financial stress, has developed a strong financial foundation consisting of little or no debt, a fully-funded emergency savings fund, and is living below their means, and has an ongoing plan that puts them on track to reach future financial goals, including a comfortable retirement.

In your experience, what are the questions that employees ask most often? Have the most trouble with?

By far the most often asked question by employees is “Am I doing enough to prepare for retirement?” This is no surprise. Our most recent research on retirement preparedness found that only 19 percent of employees feel confident they are on track to replace enough income to enjoy a comfortable retirement. That means more than 4 out of 5 employees are NOT prepared for retirement. Even worse, of the employees that are not prepared for retirement, more than three-quarters (76 percent) have not even taken the first step, which is to use a financial calculator to run a retirement projection.

The second most often asked question is “Am I investing appropriately for retirement?” When asked if they felt confident in how their investments were allocated, only 40 percent of employees that completed a financial wellness assessment said yes.

Less than half (45 percent) indicated having taken a risk tolerance assessment, and only one-third (33 percent) said they rebalance their investment accounts. Given the importance investing has on an employee’s ability to achieve long-term financial goals, this lack of investment confidence coupled with poor investment behavior is contributing to the overall lack of retirement preparedness.

In your experience, how can the Society of Actuaries Employer Guide help employers sponsoring retirement plans?

The guide provides a comprehensive overview of the various ways employers can use retirement and investment advice to help employees prepare for retirement. It offers clarity between different levels of advice, and answers some of the most important questions plan sponsors may have when it comes to selecting an appropriate method of delivery.

What are the key methods, as outlined in the guide, that employers can use to help employees make better decisions?

The guide outlines nine key methods for helping employees make better decisions.

The first three methods are education, automation, and offering a default investment option. Education is designed to inform employees about plan benefits and features, but may also include education in other areas such as budgeting and investing. Plan design enhancements such as automatically enrolling participants in their retirement plan and automatically increasing employee contributions are an easy and effective way to help employees save more for retirement. Offering a default investment option ensures that contributions are invested even in the absence of the employee making an investment election. Collectively, these three methods make up the foundation of advice.

The next three methods include offering target-date funds as investment options, providing financial calculators for running retirement projections, and offering financial guidance from a financial professional. Target-date funds help employees invest appropriately based on when funds will be needed, retirement calculators are typically offered by plan sponsors and providers, and 8 in 10 plan sponsors believe providing access to one-on-one guidance from a financial professional can have a positive impact on the amount of money employees save for retirement.

The last three methods are managed accounts, automated advice services, and personalized one-on-one advice. With a managed account, employees work with a licensed professional to build a personalized investment strategy. Automated advice services offer investment recommendations to tech-savvy investors. And finally, 68 percent of employees who tapped in-person retirement advice chose to either save more, change their future allocations, or rebalance their portfolios.

Do you have insights about which are likely to be most accepted?

When asked what they would have done differently to better prepare for retirement, most pre-retirees said they wish they had started saving earlier. The problem is most young employees face competing financial priorities like paying rent and repaying student loans. That's why foundational education programs that focus on cash flow and debt management are generally well received.

Financial wellness programs that offer holistic financial coaching through unbiased financial professionals average 25-50 percent utilization, but utilization is much higher when communicated as part of a total physical and financial wellness program. Because employees respond so well to these programs, the Personal Finance Employee Education Foundation (PFEEF) estimates that employers that invest in financial wellness programs experience a 3:1 return on investment.

A high percentage of employees are using target-date funds as their primary investment election, and financial calculators are offered by most plan providers, but highly personalized services like managed accounts and automated advice services tend to have the lowest levels of utilization.

Do you have tips for overcoming barriers or selecting solutions with fewer barriers?

Some methods such as online financial calculators and automated advice services require computer access, so it is critical to provide access to computers at work when using these types of methods. Methods that include plan design enhancement through automation are relatively simple and do not require the employee to take any action unless they prefer to opt out.

Employers that face limited budgets may be relieved to find out that some employers have used funds from the ERISA budget to help offset the cost of implementing investment and retirement advice programs. Employers should check with their ERISA attorney before using this strategy to help cover expenses.

Employers that are looking to get the most value for the money may want to have employees complete an online Financial Wellness Assessment in order to identify the most common financial vulnerabilities of their workforce. Employers could then use this information to select advice delivery methods specific to those areas of vulnerability.

How important is it to help employees make decisions? Will helping employees increase the value spent for benefit dollars?

Roughly 70 percent of the population has less than \$50,000 saved for retirement, and concerns over retirement finances continue to grow. Since employees are more likely to trust financial information from their employers than other sources, we believe employers are best suited to help their employees address these issues.

The cost for NOT helping employees is astronomical. Employees that would like to retire but cannot for financial reasons have been estimated to cost their employers between \$10,000 and \$50,000 for every year they delay retirement. That means if 16 out of 20 pre-retirees had to delay retirement for an average of three years because of a lack of savings, it could cost the employer upwards of \$480,000.

Studies have shown that offering a comprehensive financial wellness program that offers investment and retirement guidance and education as a level benefit to all employees have effectively increased plan participation and retirement preparedness. The study found that employees that engaged five or more times in their employer's financial wellness program increased retirement plan contributions roughly 50 percent, from just over 6 percent to just over 9 percent. Employees that repeatedly utilized the service saw a 77 percent increase in the percentage that reported being on track for retirement.

What might benefit consultants do to help their clients think about this topic?

The best thing for benefit consultants to do is to be aware of the significance of the problem, and to be informed of all of the various methods available for employers to use to address the problem. Start by identifying the number of employees that may be at risk of not being prepared for retirement. This can be done through a financial wellness or similar type of assessment. Next, ask the employer how important it is to help employees get on track. Share data on the cost of delayed retirement, and discuss how each advice method can help address the problem. Develop a plan for implementing one or more of the advice methods listed in the employers guide. Be sure to also establish success metrics for each method. ■



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Diverse Retirement Risks Call for Essays

The SOA Committee on Post-Retirement Needs and Risks has spent almost 20 years researching the challenges faced by people as they reach retirement age. The issues retirees and future retirees face are complex and varied, and with the change in the role of employers in providing retirement benefits, the solutions are not readily available. The committee has found that it is much easier to understand the problems than to identify solutions. The committee has also found that often there is disagreement about which solution is most suitable for a specific situation.

To better understand some of the current thinking among our practitioners, and to seek innovative ideas, the

committee decided to run a contest and issue the call for essays concerning potential solutions. They extended an open invitation for thoughts, but asked that one or more of three major topics be addressed:

1. Defined Contribution Plan Risk Management Strategies
2. Decumulation in Retirement
3. Long-Term Care

The committee received 20 well thought-out submissions on a wide variety of topics and is currently in the review and grading process. The winners will be awarded a share of the \$10,000 prize money, as decided by the committee. The collection of submissions will be published in 2016, and may be the topics of several webcasts. In addition, we will publish selected essays in the next several issues of *Pension Section News*, highlighting the winning submissions as well as additional essays that may be good discussion starters. ■



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