Retirement 20/20

HEADLINES FROM THE CONFERENCE



Defining the Characteristics of the 21st Century Retirement System

Nov. 17–18, 2008 (Crystal Gateway Marriott, Washington, D.C.)

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Retirement 20/20

ENVISIONING THE FUTURE

This report presents headlines from our third *Retirement 20/20* conference, "Defining the Characteristics of the 21st Century Retirement System." The focus of this conference was to drill down into some of the key objectives or features identified in 2006 as critical for the success of new, sustainable retirement systems. The key themes covered were: changing signals, default distribution options, self-adjusting mechanisms and market hedging opportunities. This headlines report summarizes the major themes that emerged from the presentations and discussions. A report including the online monograph of papers presented at the conference is available at *www.retirement2020.soa.org*.

Introduction

Retirement 20/20 seeks to find new retirement solutions that meet the economic and demographic needs for the 21st century in North America. The Society of Actuaries' Pension Section launched the initiative in late 2005 to find new retirement system designs that reached beyond traditional defined benefit (DB) plans and defined contribution (DC) plans. The goal is to design new systems that address the shortcomings in these plans, shortcomings that have been further accentuated during the 2008 financial crisis.

On Nov. 17–18, 2008, the Society of Actuaries held its third *Retirement 20/20* conference, "Defining the Characteristics of the 21st Century Retirement System." The focus of this conference was to drill down into some of the key objectives or features identified in 2006 as critical for the success of new, sustainable retirement systems. The format included invited experts from North America and Europe to present their ideas, research and experiences through papers and panel discussions.

The key themes covered were changing signals, default distribution options, self-adjusting mechanisms and market hedging opportunities, as well as the lessons of behavioral finance. The Measurement Framework, a *Retirement 20/20* benchmarking tool, was also featured.

The November 2008 conference followed themes introduced by participants at the 2006 and 2007 conferences. The 2006 conference focused on needs, risks and roles for stakeholders in the system, defined as society (taxpayers), individuals, employers and markets. Six themes were also uncovered in that conference that carried across stakeholders which were used to develop the 2007 and 2008 conferences. The 2007 conference focused on how best to align roles with skills for the three stakeholders that support individuals (society, employers and markets). An overview of the 2006 and 2007 conferences is found in the Appendix and more detail can be found in the conference reports available on the *Retirement 20/20* Web site.

Headlines

Executive Summary

The 2008 conference participants drilled into some of the key objectives or features identified in 2006 as important for a new retirement system, including:

- Changing signals,
- Default distribution options,
- Self-adjusting mechanisms, and
- Market hedging opportunities.

Conference participants also considered the findings of behavioral finance regarding how individuals' decision-making processes impact retirement planning, related choices and eventual outcomes. A number of the conference sessions included presentations of papers written by various authors in response to several calls for papers issued specifically for *Retirement 20/20*. (These papers are available as an online monograph on the *www.retirement2020.soa.org*). The conference also looked outside the United States and Canada for ideas, featuring presentations on the Swedish social insurance system, the Dutch collective industry-based plans and a behavioral finance experiment presented by Spanish academics.

Key Themes

The 2008 conference was held as the financial crisis was unfolding. One theme that emerged in discussions was how we can use these features to help individuals deal with the risk in retirement, and how we design the systems to handle individuals' uncertainty in the planning and execution of a secure retirement strategy. In addition, how well do these features handle extreme market events?

> *"The standard economic assumptions of rationality don't hold in the real world … from a facts point of view and an emotional content point of view, we're just not very well equipped to actually manage according to what [the lifecycle theory of personal finance] says we ought to be doing."*
>
> —CONFERENCE PARTICIPANT

Signaling and **default distributions** are both ways of handling risk and uncertainty. Participants noted that improvements in education are needed, but psychology and the lessons of behavioral finance have taught us that structured choices can create better outcomes. Participants look to signals sent by the retirement system—particularly signals sent by the social insurance system—to tell them when it's acceptable to retire, when they should be retired, and how they should take their retirement income (as a single sum or annuity). We may want to rethink our signals, particularly with regard to retirement age, to focus on the retirement period (and not the age by which you should be retired) or to focus on "ideal" retirement ages that stress a longer working lifetime (e.g., age 70).

Default distributions are both a means of minimizing risk for individuals and sending signals as to appropriate choices to make in face of uncertainty. Much of the discussion on default distributions focused on the difficulty in getting individuals to take an annuity distribution. There has been a shift in the last 20 years to state retirement benefits as present value single sum accumulations (in 401(k) plans, cash balance plans or lump sum distributions from DB plans) rather than as lifetime income streams. By focusing on accumulations, we may be sending a signal to participants that the accumulation, and the preservation thereof, is of prime importance, rather than the income that can be derived from it. Shifting the focus away from accumulations and toward income may be a necessary key in helping to shift default distributions back to lifetime income streams.

Self-adjusting mechanisms are design features that can share risk, but a lack of clarity in communication can increase participant uncertainty. One participant observed that a DC plan is possibly the ultimate self-adjusting system, but it puts all the risk back on individuals, and ignores the benefits of risk pooling. Self-adjusting mechanisms can have a role in preserving risk pooling within the system without placing all the risk on a single party (e.g., society, a plan sponsor or individual). One caution was noted: self-adjusting mechanisms are typically designed using Monte Carlo simulations, and generally ignore tail events; as such, the mechanisms themselves may not be able to handle extreme events, particularly if the governance structure is such that decision makers can "back down" from making tough decisions.

> *A lot comes down to governance … we know pension systems work really well when we have skilled people running them, but we want to make sure that the incentives are set up properly both for the people who are running the funds and the people who are sponsoring the funds.*
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> —CONFERENCE PARTICIPANT

Finally, our **use of the markets** to solve the retirement issues is where the twin issues of risk and uncertainty become clearest. Informational asymmetry—individuals' uncertainty around the risks they face and their inability to measure those risks effectively—may mean that if left on their own—even with strong signals and defaults—individuals might not make the best use of available market instruments. Without institutional demand, markets cannot create strong hedges. Do we, as a society, need to ensure institutional demand exists to create the right market instruments on behalf of individuals to produce the best risk protection at the lowest possible cost?

Changing Signals

"Signaling" within retirement plans refers to design elements or other factors that direct participants' behavior. These signals can be specific plan features or external factors such as policy statements or even cultural norms. For example, an early retirement age or an announcement about a new benefit provision can send signals (sometimes unintended) to participants that they should retire at a specific age or take a specific action. The discussion of signals focused on the signals that currently exist and how they might be changed to influence participant behavior in a manner that would make a new retirement system work effectively over the long term. There was also discussion of what new signals one might want to imbed, or avoid, in a future system. Much of the dialogue focused on the signals that impact retirement age and people's expectations with respect to what retirement is, or should be, like.

At earlier conferences, participants focused on the importance of removing signals from tier II retirement systems. Participants realized that signals in the system encouraged participants to retire, didn't account for changing work patterns and didn't address the social need to encourage more individuals to work longer as longevity improved (i.e., average life span increased).

The 2008 conference came back to the idea that signals exist, and even if you remove them from tier II retirement systems, you still have signals set by social insurance and cultural norms. Also, planning and executing a successful retirement is very difficult —one speaker noted that individuals "need to consider their health, life expectancy, family circumstances and desire for leisure in retirement, and they need to put it all together with the skill of an actuary, the rationality of an economist and the ingenuity of a lawyer. And the fact of the matter is, most of the time they get it wrong." Signals (including properly structured defaults) can play an important role in achieving a better outcome for the majority of individuals.

The 2008 conference participants spent time discussing signals within social insurance systems. In particular, the use of the terminology "early" and "normal" retirement sends signals to individuals that they have permission to retire at the early retirement age, and there is an expectation they ought to be fully retired by normal retirement age. This is particularly critical when one considers the demographic challenges faced by social insurance systems in the United States and Canada:

> "The early retirement incentive in the [Canadian Pension Plan] signals to contributors that age 60 or shortly thereafter is an acceptable retirement age. In the context of an aging population and economic uncertainty, is this a signal that should be changed so as to encourage individuals to remain in the labor force longer? If increasing life expectancies and financial turmoil increase the minimum contribution rate, restoring cost neutrality to the actuarial adjustment factors could create some maneuvering room that would absorb some of the unforeseen fluctuations without causing a contribution rate increase. In addition, incentives for early retirement would decrease, thus encouraging individuals to remain in the labor force longer and possibly reduce the impact of future labor shortages.

> "The example of the SSA is telling ... their institutional desire to be the friend of older workers and popular, led them to...find the first baby boomer who was retiring January 1 and get that person to sign up for benefits … if the very agency charged with retirement in America does that, we have a lot of work to do."

One speaker noted that when most people say they don't plan to retire, they just mean they'll work beyond the normal retirement age. They won't take the permission to retire that is given to them by the signals.

Participants discussed instead whether social insurance ought to be sending signals encouraging the prospect of working longer. In addition to the demographic issues surrounding the retirement of the baby boomers, social insurance benefits may be the only annuitized benefit many people receive, and for most the only benefit that includes inflation protection. Individuals can maximize the benefits of this longevity and inflation protection by delaying the receipt of benefits as long as possible. For example, in the United States, individuals can maximize Social Security benefits by retiring at age 70 (at age 70 they receive the maximum amount of actuarial increases for deferred retirement). One participant suggested that we call age 70 the "ideal retirement age" for U.S. Social Security, thereby signaling that retirement before age 70 is less than ideal. Another participant suggested closely tying retirement periods to remaining life expectancy or a fixed percentage of adulthood not spent working.

There are several strong barriers that will continue to encourage people to retire early. One is economic myopia, which was discussed at length in the 2006 conference report. Another is the availability heuristic, when individuals remember things that are vivid and immediate—such as a friend dying immediately after retiring—and not the more common event (most of your friends living well into their 80s), which biases individuals' judgments. And, finally, continued media discussions about the possible insolvency of Social Security in the United States may encourage individuals to take payments today while they believe they still can.

Beyond social insurance, one thing to consider when discussing signaling is not just what is said but also what is not said. Expectations about retirement as set by the media are often misleading. The focus in the media is often on leisure and relaxation (e.g., golf and cruises) rather than on income security or age-related risks (such as the death of a spouse or a long-term illness). These expectations send signals—retirement is a period of consumption and relaxation—which may make it harder for individuals to make decisions based on maximizing risk protection. Coupled with the inherent difficulties most individuals have in making decisions related to long-term and uncertain outcomes, this can result in suboptimal decision-making.

> *"People generally make financial decisions on an emotional basis … so we need to find a way to work within the system and within people's patterns…"*
>
> —CONFERENCE PARTICIPANT

Other points made during this discussion included:

- Cultural expectations need to change to promote lifelong learning and maximizing productivity in the workforce versus maximizing time spent in retirement leisure. This includes behavioral changes on the part of workers, the employers who need to employ older workers, and the governments that create policies and regulations.

- Options within a plan need to be framed well, with good defaults that facilitate the action that people want or know they need to take. Choices must be presented in a simple, straightforward manner so as not to overwhelm and create "decision paralysis."

- Much more needs to be done to improve the financial literacy and analytic skills of the general public, although even when they are financially literate, people often make decisions on an emotional basis.

Using Lump Sums to Change Retirement Signals: An Experimental Analysis

We invited Enrique Fatas, LINEEX Director of the University of Valencia, and his colleagues to present the results of an experimental analysis in the use of lump sum impact on retirement decisions. Fatas and his colleagues designed a 15-round experiment where participants had to decide in which "round" they would begin payments. Players had an equal chance of surviving from one round to the next. They would receive different, but actuarially fair, payments based on the round they elected to begin payments through the last round they survived. In the first design, the payments were made as an annuity (where the initial payment per round was actuarially increased if deferred to a later round). In the second design, the payment was an increasing lump sum (again depending on how long the commencement of payments was deferred). A third design blended the two—the annuity payment increased only through round 5; in round 6 or later you received the same annuity payment as round 5 plus a lump sum reflecting the benefits of survivorship. The researchers found that the presence of a lump sum payment in later rounds significantly influenced retirement decisions. In the annuity-only round, players tended to elect receipt or "retire" in early rounds (the average retirement was in round 5). In the lump-sum-only round, players tended to wait to retire later to receive a higher lump sum (the average retirement was in round 9). In the combined annuity and lump-sum-payment round, the lump sum payment in round 6 acted as a signal and players on average retired between rounds 6 and 7. While this experimental analysis cannot match the complexities of an actual retirement decision, it does show that individuals have a tendency, when faced with an annuity decision, to retire earlier, and that later retirement can be encouraged by offering higher single sum payments at later dates. Of course the payment of lump sums creates other possible issues relative to long-term retirement security income provisions. For more, see the paper by Enrique Fatas, Juan A. Lacomba and Francisco Lagos, "An Experimental Test on Retirement Decisions." *Economic Inquiry,* Vol. 45, No. 3, July 2007, pp. 602–614.

Default Distribution Options

The default distribution options are important signals imbedded in retirement plans. Much of the discussion around this topic centered on annuitizing retirement assets: why it should or shouldn't be done, why it doesn't happen more, and what can be done to encourage it. As at the 2007 conference, there was general consensus that at least a certain level of annuitization is valuable and should be encouraged or mandated (this latter point was a subject of significant debate) to help individuals avoid outliving

their retirement assets. Of course, whether or not people annuitize is often a function of the signals they get (both internal and external to the plan).

One key point raised was that we have shifted from a tier II system that focuses on income to one that focuses on wealth as:

- DC plans have replaced DB plans,
- DB plans have shifted to cash-balance-type designs that emphasize an account balance, and
- other DB plans have introduced lump sum options.

This has focused individuals to think of their retirement nest egg as personal wealth rather than protection against outliving their assets. As such, individuals (and the planners who work with them) often focus on bequest motives and investment strategies to maximize that nest egg rather than on strategies to ensure that maximum income can be derived. Several participants believed that changing back to a discussion of retirement income was critical. However, most participants believed the allure of the lump sum and the need for retirement income protection was strong enough that most participants felt some degree of annuitization ought to be mandated or strongly encouraged.

Several solutions were offered, including a possible combination of government incentives to annuitize (exempt a portion from tax or tax at a lower rate), incentives for employers (matching employer contributions go to annuity options), improved portability of benefits so that smaller annuities can be combined, annuitization in stages and deferred annuitization. Others believed improvements in framing are needed, including changing annuitization to be the default option and rewriting election forms. Employers may also need to be encouraged to take a stronger role in the annuity decision.

One paper presented an income allocations strategy that worked with advisors to get them to focus on annuities and other longevity insurance as an asset class to which they should allocate funds. While they found this was successful in getting planners to think about some level of annuitizaton, they found planners were reluctant to have clients fully annuitize. This discussion was interesting (particularly since it took place as the financial crisis was just enfolding), because many of the models that planners typically use rely on Monte Carlo simulations that ignore tail risk scenarios and look at the most likely 95 percent of outcomes. While these may be appropriate when modeling personal wealth for very wealthy consumers, they may not be the best when working with middle market consumers with smaller retirement nest eggs. Several participants were very concerned about the lack of focus on tail risk.

"What we have is a disjointed system; lots of parties involved. The alarm bell that goes off for me right now is I don't want to recreate a subprime mortgage market within the longevity community. That's why the issue about competing on price, looking at 5/95 percent returns, I'm a little concerned about that. You want to recognize that this is lifetime income. [As an insurer issuing annuities] I need margins and I don't want to be in a competitive market that sometimes somehow implies [to a consumer who expects] a 3 percent return off of this stream must be a better deal than the other deal. That's the other part of the communication process: framing what is real and what's a dream."

This lack of understanding by individuals of risk and the interaction between risk and uncertainty is highlighted in the discussion on markets, later in the report.

Self-Adjusting Mechanisms

Self-adjusting mechanisms in retirement plans are plan features that adjust "automatically" to correct for changes in economic and/or demographic conditions that cause financial imbalance. Examples of self-adjusting mechanisms are social insurance systems that adjust retirement benefits based on longevity for particular age cohorts (as is done in Sweden) or DB retirement plans that base cost of living improvements on plan funding ratios. A key aspect of these self-adjusting mechanisms is that they are based on predetermined rules, which generally eliminate the need for human intervention at the time when adjustment is needed. Self-adjusting mechanisms can allow a plan to remain viable as demographic and economic changes occur and ensure that problems are fixed before they develop into a crisis situation.

> *One thing we learned loud and clear was that the risk tolerance of virtually everybody was very different when the idea of a negative balance was an idea [versus] the point when it actually got negative and then nobody could sleep at night.*
>
> —CONFERENCE PARTICIPANT

Self-adjusting mechanisms have the advantage of allowing stakeholders to develop a set of rules that allow for risk-sharing and that take a long-term perspective, and to do so away from the emotion that may occur if changes are needed in the midst of a crisis. However, depending on the governance of the plan or system, there is also a "moral hazard" risk that the mechanism can be overturned (particularly in a financial downturn). The idea of self-adjusting systems can seem great conceptually, but how

they function in light of adversity is the true test of the system's design. For example, one participant told the story of how a decrease in benefits to participants was overridden the first time the self-adjusting mechanism actually prescribed such a decrease. The success of these systems is generally a function of good governance, good communication and the resolve to manage the system for the long term by allowing the adjustments built into the system to occur. One participant noted particularly that it's not just transparency but clarity (how well participants understand what happens when).

> *[We need to] get risk-sharing decisions made in a way that moral hazard issues are diminished … ultimately sustainability is going to rest on that.*
>
> —CONFERENCE PARTICIPANT

Two different retirement systems were highlighted to illustrate different self-adjusting mechanisms. The Dutch retirement system and in particular their industry-wide pension funds are often viewed as a model for other systems. These plans cover all employees who work in a particular industry (somewhat analogous to North American multi-employer pension plans) and in combination with employer-provided plans cover nearly 100 percent of the Dutch workforce. These plans typically provide a traditional career average pay benefit formula, but incorporate self-adjusting mechanisms that can change the contributions made by employees and employers, the pre- and post-retirement indexation of benefits, the asset allocation and even the retirement age. These different provisions are changed based on the funding ratios (assets to liabilities) and are viewed as a model because risk is shared between employees and employers and across generations. Also, the fact that these plans are industry-wide allows them to operate with significant economies of scale and very low transaction costs.

There are some criticisms leveled at the Dutch plans in terms of the true extent of the intergenerational equity and the sustainability of the self-adjusting mechanisms. These self-adjusting mechanisms are often designed based on modeling, which may ignore tail risk scenarios. Concerns have been raised about the risk associated with their concentration by industry (making them susceptible to industry downturn) and their sustainability in light of negative market events (such as the financial downturn currently being experienced). In addition, they are criticized for assuming that working employees and retirees can sustain the same level of risk (lifecycle theory would say that young employees can sustain more risk than older employees, who can sustain more risk than retirees). One presenter noted that "you can't serve the needs of the young and old on the same balance sheet," noting that the need for a claim on secure annuity increases with age.

However, overall, there are many lessons to be learned from the Dutch with respect to their system's design. First, we can learn from the particular system characteristics of the Dutch collective systems, which have been discussed above. But second, these Dutch collective systems achieve two other important goals that have eluded North American systems: universality, as there is essentially full pension coverage, and adaptability, as the Dutch are constantly looking to improve their system.

Another plan with some self-adjusting mechanisms is the Ontario Teachers' Pension Plan, which covers all teachers in the province of Ontario (278,000 members, $108.5 billion in assets at Dec. 31, 2007). This system is frequently praised for its strong governance features and recently implemented a self-adjusting mechanism where benefit indexing is conditional on certain financial criteria. This conditional indexing was implemented after extensive surveying of their membership that indicated a willingness to make concessions on indexing provisions but not on other features like their early retirement "rule of 85." The plan amendment was successfully negotiated in part because it incorporates a risk-sharing (or cost-sharing) mechanism. If the teachers fail to get the "normal" indexation, then the funding bodies must contribute more to the plan.

Common themes in both of these case studies are the importance of good governance, the sharing of risk among various stakeholders and a general understanding and clarity in communication of the risk and the details of the self-adjusting mechanism to participants. In discussions, the need for participants to fully understand the self-adjusting mechanism was questioned, but there was agreement that it is helpful for participants to at least understand that risk-sharing is occurring. There was also discussion and debate on whether self-adjusting mechanisms are appropriate in employer-sponsored plans where benefits are not negotiated or for plans that only provide a basic level of benefits. Self-adjusting mechanisms make decisions on behalf of future generations, without those future generations being at the table (so to speak) to express their wishes. Also, it was acknowledged that self-adjusting mechanisms are not the end-all solution and may require intervention in extreme financial situations. Thus, self-adjusting mechanisms don't guarantee financial sustainability. And, while they don't exempt a plan from the need for good governance and sound decision-making practices, they can nevertheless be an important feature in our future retirement system.

Market Hedging Opportunities

The final theme of the 2008 conference was the role of markets in providing product solutions that will be needed for new retirement systems. A key question is whether the appropriate "raw" tools exist within the markets to deal with the challenges of longevity and inflation risk. Much discussion focused on the fundamental characteristics and effectiveness of markets, particularly in light of the current financial crisis, in developing products that can hedge retirement-related risks.

The markets are generally the best place to create efficient prices for particular risks, but only to the extent that there is sufficient liquidity. So, for example, creating a product to trade mortality or longevity risk would only be effective if there is sufficient market demand from enough participants on both the "long" and "short" side of the trade. Questions were raised about whether government intervention is needed to create new products as happened with the TIPS market (inflation bonds) in the United States a decade ago. Ultimately it becomes a "chicken and the egg" argument about whether you generate supply or demand first, with discussion leaning toward institutions first creating products or systems that create demand, then second asking the markets to supply the products. However, we may not create sufficient demand until we deal with issues of uncertainty on the part of individuals.

> *"There are market failures, and things don't just happen … somebody had to step up and say "we gotta do this" … [T]here has to be an institutional component to this that says, yes, I ignore that markets [say] supply creates demand or demand creates supply, we're just going to do it, and then we're going to work to see if this makes sense. There's this institutional component that goes along with it which is discontinuous …"*
>
> —CONFERENCE PARTICIPANT

Markets can hedge risks if market participants can understand that risk, create hedging products and price appropriately. As noted above, there needs to be a demand for any hedging product as well. Markets can create a hedge, but markets best price instruments for which there is a sufficient demand. However, individuals won't create demand when they are uncertain.

Uncertainty can be seen through an individual who contemplates an annuity purchase. An annuity purchase is a complex decision to assume or hedge (in various degrees) longevity risk, market risk, interest rate risk, inflation risk and the creditworthiness of the annuity issuer. A lack of understanding of these risks—and an inability to analyze them coherently—creates uncertainty with the purchaser. While the market can

create hedges to help the annuity issuer hedge many of the risks it assumes when it issues the annuity at an effective price (thereby lowering the cost of the annuity to the individual), the individual's inherent uncertainty may still stop the annuity purchase. Without a volume of annuity sales, it's hard to create hedges at an efficient price to bring down the cost of annuitization.

Removing individual uncertainty becomes integral to making markets work more efficiently. This uncertainty on the part of the individual is partly due to informational asymmetry. In this case, informational asymmetry exists because the buyers of products (i.e., retail annuities) lack sufficient information or knowledge versus the seller. The role of education was seen as limited; one argument was made that if the information asymmetry is structural, it may require public choice to correct the problem (through defaults, mandates or strong framing). This implies that the best use of the markets may require that we frame decisions, standardize options and put individuals into groups with sophisticated purchasing agents. Participants at the 2007 *Retirement 20/20* conference discussed these options as a way of best aligning roles with skills for markets. These options may serve a larger purpose in helping capital markets work efficiently on behalf of the retirement system.

> *"Where the markets work, hallelujah, but we also need to think about the impact of where markets don't work very well and whether we need to respond to that … [Where the market] doesn't work in some demonstrable way, that is a legitimate situation for a public choice option. That's where we are, I think, in our retirement system. We need to think about what kind of public choice interventions we need to deal with the informational asymmetry."*
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> —CONFERENCE PARTICIPANT

The role of markets in hedging retirement risks and providing good product solutions will be an ongoing discussion area within the *Retirement 20/20* initiative, particularly as the markets potentially evolve in the aftermath of the financial crisis.

The Retirement 20/20 Measurement Framework

One of the key *Retirement 20/20* activities during 2008 was the development of a tool called the "Measurement Framework." As part of the initiative, the participants realized early on that it would be important to be able to benchmark any proposals that were developed for a new retirement system, as well as the proposals of others and existing systems. Only by benchmarking is it possible to determine the extent to which current systems meet the needs of stakeholders, and how various proposals compare to the status quo and to each other.

Development of the Measurement Framework was based on the principles developed in the *Retirement 20/20* process. It is anticipated that the framework will serve as a tool to help in communicating the findings of *Retirement 20/20* to actuaries and other retirement professionals, as well as other stakeholders (including the media) in order to build grassroots support for the work. The framework focuses on how well each proposed design addresses the needs, risks and roles across 34 dimensions for the four stakeholder groups: society, individuals, employers and the markets. These 34 dimensions are boiled into four summary ratings for each stakeholder which are shown together with ratings related to four of the key themes that cross stakeholders:

- Does the plan self-adjust to meet changing economic and demographic conditions?
- Does the plan align stakeholders' roles with their skills?
- Does the plan consider new and emerging norms for work and retirement?
- Does the plan align with markets (use market hedging and pooling mechanisms effectively)?

Ratings are done using a five-color scale based on the green-yellow-red spectrum. The perfect plan would be green (the highest rating) for each of the 34 dimensions; however, stakeholders have competing needs and risks, so it's not possible to design a plan that rates green for every dimension. The Measurement Framework also indicates where a plan violates (by not meeting) a particular stakeholder need or risk when it scores red (the lowest rating). Any plan that has too much red will not work because some basic needs for a stakeholder are being violated. The Measurement Framework helps determine how to balance needs and risks across stakeholders, and determines explicitly where trade-offs are being made.

The complexity of the framework has necessitated the development of an executive summary. A sample table from the summary is shown below, where the plan being evaluated is a traditional final pay corporate-sponsored DB plan.

Measurement Framework Executive Summary Table

Traditional Final Pay (Corporate-Sponsored) DB Plan

DRAFT[1]

Society  Plan protects longer service workers well (less so short-service workers), avoiding the need for more government-sponsored benefits.	**Individuals**  By transferring risks of retirement to the employer and its shareholders, the plan does a good job of handling the risk of individuals.
Employers  The long-term nature of the commitment does not work well for many corporate sponsors. Many younger employees do not value benefits.	**Markets**  In theory, plans can be hedged to remove risk, although it is not commonly done in practice. Plan often transfers risk to shareholders.

[1]The executive summary is under development at the time this report is going to press; this draft table may change, and ratings for a traditional final pay DB plan may change, in the final version of the framework.

Appendix

2006 Conference: Building the Foundation

The 2006 conference opened the *Retirement 20/20* process by focusing on the discussion of needs, risks and roles for stakeholders in the retirement system. The stakeholders were defined as:

- Society—This is society as a whole (all taxpayers and citizens) and includes both current and future generations since there are intergenerational costs and risk-bearing issues.
- Individuals—Individuals are the ultimate users of retirement income; they need to prepare for retirement and manage retirement income while negotiating various risks.
- Markets—Markets have the dual roles of retirement asset accumulation and de-accumulation and also provide hedging opportunities. Markets include both the capital markets and insurers and others who provide products and solutions for retirement needs.
- Employers—Employers hire individuals and need to attract, retain, motivate and retire individuals.

While the 2006 conference defined needs, risks and roles, there were six themes that participants kept coming back to throughout the conference:

1. Systems should align stakeholders' roles with their skills.
2. Systems should be designed to self-adjust.
3. Systems should consider new norms for work and retirement and the role of the normative retirement age.
4. Systems should be better aligned with markets.
5. Systems should clarify the role of the employer.
6. Retirement systems will not succeed without improvements in the health and long-term care systems. (Note that this last theme has purposefully been excluded from subsequent discussions due to its complexity and scope.)

2007 Conference: Aligning Roles with Skills

The 2007 conference continued the work of the 2006 conference by focusing on the optimal roles for the various stakeholders. Proper role definition is critical for the system's success. The correct role would be one that uses each stakeholder's knowledge and talents optimally. For example, market experts would work in the markets, and employers could focus on their core business. Defining the stakeholder roles is also necessary before beginning to design the features of the new retirement system.

For 2007, the focus was on role definition. Particularly:

- Which stakeholder is best suited to take on what role?
- How do you allocate roles based on stakeholder skills?
- How do these role assignments affect other stakeholders?

The stakeholders discussed in 2007 were society, markets and employers. The conference focused specifically on these stakeholders that supported individuals, to determine the optimal role they should play, in combination with individuals, to ensure the best outcomes.

From the 2007 conference, the key role for society was seen as providing structure. Part of that structure was the traditional role of governments in providing regulatory oversight. The other part was in providing a framework for social choices to ensure that most individuals make decisions that work the best for them, focusing on the accumulation of assets and provision of lifetime income. Conference participants believed this could be achieved partly by encouraging standardization among choices (e.g., standardizing simple annuity and longevity insurance products to facilitate consumer choice).

Markets, particularly capital markets, serve as the place where retirement assets are accumulated and from which retirement income is drawn. Much of the discussion of the role of markets became a discussion of how markets are used. For example, most individuals don't use markets well because they don't have the right knowledge; they are better served by markets if they are part of a group that uses an agent with better knowledge to make market decisions.

Finally, the role of the employer needs to change significantly. Participants agreed that employers can play a valuable role in educating and advising employees. But, many employers don't want to take the responsibility—both legal and financial—that comes with plan sponsorship. Employers should be able to participate within the system at various levels, including providing access to plans that they may not sponsor. University employers in the United States already can do this through participation in the TIAA-CREF system.

The full 2006 and 2007 conference reports can be found at *http://retirement2020.soa.org/background.aspx*.

To find a copy of this conference report including the online monograph of papers presented at the conference and to learn more about the *Retirement 20/20* project visit
http://retirement2020.soa.org

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