CONFERENCE REPORT FOR 2010
Call for Models Events

RETIREMENT 20/20: NEW DESIGNS FOR A NEW CENTURY
This report presents headlines from the Retirement 20/20 initiative’s Call for Models contest and related events. This phase of Retirement 20/20 was initiated in mid-2009 with a call for “models” or papers written on new retirement system designs. Papers were received in early 2010 and judged by a panel of retirement experts including both actuaries and other industry professionals. Four winning papers and other select papers were featured in a conference sponsored by the Society of Actuaries (SOA) and the American Academy of Actuaries on June 2–3, 2010, in Washington, D.C. A second conference held in Canada on Dec. 8, 2010, was hosted by the C.D. Howe Institute and included co-sponsorship with that organization, the SOA and the Canadian Institute of Actuaries.

The two events were somewhat different in their content, as the U.S. event was solely focused on Retirement 20/20 papers and key themes originating from the papers, while the Canadian event used papers from a number of sources, including Retirement 20/20. Rather than being a report of the specific events and proceedings of the two events, this report will highlight key themes and discussions that developed from the call for models papers and the related events and put them in the context of overall focus of the Retirement 20/20 initiative, the goal of creating better retirement systems for the 21st century.
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New Designs for a New Century

Overview

In 2010, the SOA’s Retirement 20/20 initiative focused on a call for models “contest.” The call for models asked individuals to submit their ideas for new “Tier II” retirement systems—i.e., what is typically thought of as employer-provided retirement benefits that fit between social insurance and private savings. The call for models was the culmination of the Retirement 20/20 work to date, including three conferences that explored needs and risks for stakeholders in the retirement system (individuals, society, employers and the markets). Submissions were judged based on how well they met the criteria of the Retirement 20/20 Measurement Framework (which considers needs and risks for the various stakeholders) and how well they handled issues of risk, governance, administration, transparency and transition. The SOA’s Pension Section Council, in conjunction with the SOA, provided a $100,000 cash prize pool to be split evenly among the prize-winning papers. The Pension Section Council’s stated goal was to find several papers—not just one—with very different, but equally worthy, ways of rethinking the retirement system.

As a result of the call for models, the SOA received 18 paper submissions from Canadian and American authors. Four papers were selected for the prize:

• “The SERIOUS System: A New Model for Retirement Income Success,” by Ken Beckman, ASA, MAAA

• “The Tracker Plan: A Controlled Risk Defined-Contribution Retirement Program,” by Rowland Davis, FSA

• “Affordable Retirement Income through Savings and Annuities,” Don Fuerst, FSA, FCA, EA

• “The Total Career Benchmark Model,” Tom Walker, FSA, FCIA.

The pension section council’s goal was to find several papers—not just one—with very different, but equally worthy, ways of rethinking the retirement system.

The prize-winning papers, and four other papers, formed the basis for the first conference event, Retirement 20/20: New Designs for a New Century, held June 2–3 in Washington, D.C. (See http://retirement2020.soa.org/new-designs-agenda-prex.aspx, for access to the event agenda and presentations.) A second conference, in cooperation with the C.D. Howe Institute and the Canadian Institute of Actuaries, Getting Pension Reform Done: Issues, Options and Next Steps, was held on Dec. 8, 2010, in Toronto. It featured two Retirement 20/20 papers as well as other papers written for the Canadian context. (That event was “off-the-record” to encourage dialogue and discussion; copies of the presentations are not publicly available.)
This report will highlight key themes and discussions that developed from the call for models papers and the related events.

**What we learned from the paper submissions**

The 18 papers submitted in the call for models considered a number of ways to reform the retirement system. Yet, common themes emerged. While no single paper embodies all themes, most submissions contain several similar ideas. This can be seen as a framework to begin discussions about building a stronger retirement system.

Most designs “look” like a defined-contribution plan, in that the individual and employer make a contribution into an account each year. But the similarities typically end there.

Common themes running through the papers include:

- **Focusing retirement accumulations on income provided.** Participants may never see an account balance, but instead see an income projection based on contributions made to date. Some designs directly invest in a deferred annuity. Others have a target benefit defined at retirement age. The plan may adjust the investment mix and sometimes require mid-course contribution adjustments to help assure the individual reaches the target by retirement.

- **Some designs require or default individuals to take a portion of their benefit as income.** In most designs, individuals can opt out of an income stream at retirement, but as a result they might face a penalty, or lose protection from downside investment risk. Note that in most designs, if the individual is required (or strongly incentivized) to take a portion of the benefit as income, that amount is typically limited. (This would represent the first layer in a two-layer system, as discussed below.)

- **Preselecting investment mixes.** While this could be a target date fund, these new mixes typically put more investment in fixed income (particularly TIPS—Treasury Inflation-Protected Securities) and much less investment in equity, particularly at retirement. The advantages of a preselected investment mix are that individuals participate in a large fund with lower administrative costs, the funds use professional investment advisors, and the funds are designed to meet target benefit goals at retirement (providing greater security to individuals).

- **Building some variability into retirement income.** For example, if the benefit is defined as a target, the base benefit at retirement may be higher or lower than the target. But more commonly, the income might vary based on investment performance in the fund or
changes in future longevity (how long we live). This variability of payment would be small, but building in variability of payment avoids absolute guarantees, which are expensive.

- **Changing the role of the employer.** Individuals may access benefits through their employers, but their employers might not be the plan sponsor. This allows more small employers to participate, and keeps the cost of running plans low (through economies of scale). It also helps with benefit portability—individuals may be able to stay with the same plan even when they switch employers. In some models, employers are able to offer their own plan, and in some models, employers may have wider choices on the form and level of benefits to be provided.

If employers are not the plan sponsor, this may also lead to **more standardization within the system.** Some models assume there would be several large retirement plans (for- or not-for-profit) from which individuals or their employers can choose. Other designs assume a uniform benefit structure; individuals and employers then contribute more (or less) to ratchet up (or down) future retirement income. Standardization could help with portability, reduced administration cost and retirement planning.

- There may be a **two-layer system.** In some models, the targeted benefits may only provide a small portion of income in retirement (e.g., 20 percent of final pay for individuals earning up to $60,000 per year at retirement). The goal would be to create ample income, in combination with social insurance, for most middle-income individuals. Individuals could elect to save more in account balance plans like 401(k) (U.S.) or Registered Retirement Savings Plans (RRSPs) (Canada), or employers could offer to provide benefits in addition to the basic layer provided by these new systems.

- **The cost of the plan would be borne by employers and employees.** The exact amount of the contributions, and the exact level of cost sharing, would be determined. Sometimes employer contributions would be encouraged through tax incentives and sometimes equal employer and employee contributions would be mandated, but generally not at a high level (e.g., mandated contributions would only be for the first layer in a two-layer system).

**The June conference (U.S.)**

Joseph Califano, a former U.S. Secretary of Health, Education and Welfare, wrote a book in 1986 about the U.S. health care debate titled *America’s Health Care Revolution: Who Lives, Who Dies, Who Pays.* Another version of the title is, “Who lives, who dies, who pays, and who decides.” The title, at least for health care, does get at the heart of how the system manages risk and how the system decides whether and how to mitigate that risk. At the June 2010 *Retirement 20/20* conference, equally perplexing questions were asked in the opening
session by one conference participant: “Do we provide guarantees? What guarantees do we provide? Who provides them? Who guarantees the guarantors?” While the conference itself was structured somewhat differently, those four questions were at the heart of the submissions, and much of the conference discussion.

**Do we provide guarantees?**

Guaranteed income streams are very expensive to provide, particularly in low-interest-rate environments. A key question to answer is: What is the utility of the guarantees to the recipient (the individual) and to society, relative to the additional marginal cost of securing the guarantee? Many of the *Retirement 20/20* papers acknowledge the high cost of guarantees, and seek to achieve reasonable certainty of income, without providing a guarantee. For example, several designs consider variable annuity options, or the purchase of a series of deferred life annuities. One design establishes a targeted account value at retirement (that could be converted to an annuity) by establishing plans that track investment performance over time (including making additional contributions after market downturns) and de-risk investment mix significantly as retirement approaches. Another adds a layer of protection with downside protection structured through a shadow account as a form of reinsurance (which is paid through a small charge to the real account).

Conference participants noted that most individuals are used to having some variability in their income, and small variations in income are generally easy to adjust to. Much of the conference discussion focused on how we could better use markets, and structure investments, to provide as much predictability of income as possible, primarily to protect against significant downside. As one conference participant noted (to paraphrase): “If you’re working in guarantees, you’re just packaging risk and moving it around. Almost always there will be an escape clause for the guarantor (including bankruptcy). And, guarantees become problematic once politicians become involved.”

**What guarantees do we provide?**

Conference participants and the authors of the papers felt there were a few things that were very important to guarantee. Longevity and inflation risk are key risks to be insured. As noted, most of the call for models submissions featured annuities, often variable annuities, or variable annuities designed around TIPS to provide inflation protection as well. Sometimes these protections are put in the first tier of a two-tier system, so the ultimate protection is provided on a reasonably small dollar annuity (e.g., no more than $10,000 to $15,000 in annual income).
One obstacle that quickly arose in the discussions was how to convince individuals that they should want (or need) annuities. Actuaries know that the cost of providing an annuity decreases if anti-selection is eliminated (or reduced). That is best done through mandates, but mandates are not popular. More philosophically, as one conference participant noted, “If you have to mandate something because otherwise no one would take it, maybe you should rethink the design.”

Many model designers and conference participants hoped that using the best lessons of behavioral finance would be sufficient to ensure individuals are protected against outliving their assets. This could include systems with strong defaults that discuss benefits as income, rather than as balances, and provide financial incentives that encourage annuitization (e.g., providing account guarantees if the income is taken as an annuity, or charging a small penalty to take the account as a lump sum).

**Who provides the guarantees?**

Many of the designs worked toward a model where independent institutions provide benefits. The plans become independent entities, designed to be self-supporting without the need for a plan sponsor to guarantee them. In most cases, the designs include a regulator to ensure these systems are well-maintained, make requirements for systems to hedge risks and, in some cases, institute a reinsurance platform as well. This model is very different than the retirement income system in the U.S. or Canada today, where, with few exceptions, plans have a single employer or group of employers as a plan sponsor. These plan sponsors effectively provide a guarantee on benefits, and are responsible, through IRS regulations, for ensuring the plans maintain a minimum funding level.

As such, these proposals assume the employer’s role will be limited. In some cases the employer is simply limited to collecting employee contributions and making elective contributions. Other models have some mandatory contributions for employers, or are designed assuming employer/employee cost sharing. Several conference participants noted that most employers would not like being required to make contributions for benefits.

In addition, several conference participants believed the employer’s ability to use retirement benefits to attract, retain and retire individuals was important, and that employers had done well in providing these benefits on a voluntary basis under the current system. They noted that today’s system was not designed to ensure adequacy of income or widespread coverage, so the fact that not all participants are covered by pension benefits should not be held as a mark of failure for the system. On the other hand, another conference participant noted...
that influential Washington policymakers were questioning the role of the employer in the system, beyond that of facilitator of payroll deductions.

**Who guarantees the guarantors?**

Most of the proposals did not assume guarantors backing up the guarantees. While a few proposals did have a role for a government-sponsored reinsurer, most assumed these new financial institutions would be self-sustaining.

What does this mean for the new financial institutions? If, as noted earlier, we are going to design retirement income such that an individual may see some variability in his or her payments, but that the payments would be highly predictable, we need strong market hedges. Participants discussed specifically the role of the markets in financial innovation, and noted in particular investment options which could reduce the risk (and particularly the cost) of hedging:

- One author discussed the G-fund, an investment fund available to federal government employees (and retirees) participating in the federal government’s Thrift Savings Plan. The G-fund holds nonmarketable U.S. Treasury securities whose rate of return is calculated based on the weighted average yield of all outstanding Treasury notes and bonds with four or more years to maturity. The fund bears no credit (default) risk and provides a rate of return higher than 90-day T-bills.

- Several model designers used TIPS in their designs, in both accumulation and payout phases. TIPS as an individual investment (beyond a buy-and-hold strategy) can be problematic because the market price for the TIP security doesn’t always move the same way as market prices for noninflation-linked securities. One participant noted that all you can tell from the price of TIPS is the demand for TIPS—there isn’t an economic link between the TIPS price, regular Treasury security price and inflation expectations. One participant noted that all you can tell from the price of TIPS is the demand for TIPS—there isn’t an economic link between the TIPS price, regular Treasury security price and inflation expectations. As such, conference participants felt that TIPS needed to be restructured to be usable—much the same way existing Treasury securities are stripped of their coupon payments to make them better financial building blocks. Finally, participants discussed whether TIPS are a good investment because real returns have not fallen on TIPS the same way they’ve fallen in other countries issuing inflation-linked securities (e.g., the United Kingdom, where real returns on TIPS have been less than 1 percent).

**The December conference (Canada)**

The second conference, held in Toronto, was sponsored and hosted by the C.D. Howe Institute with co-sponsorship by the SOA and the Canadian Institute of Actuaries. This event included more than just *Retirement 20/20* focused papers, which resulted in a somewhat broader discussion that included discussions of current issues in Canada as opposed to the
more forward-looking focus of the U.S. event. Nevertheless, there were many similar themes covered at the Canadian conference, which should not be surprising given the many similarities between the U.S. and Canadian environments and overall benefit structures.

The public discussion of retirement issues and general acknowledgement of a need to implement reform seems to be further developed in Canada than in the U.S. as government finance ministers have specific meetings on the topic of retirement reform. This aspect was reflected in some of the conference discussions. In Canada, two key areas of concern are access and adequacy—in particular the need to provide broader pension coverage to all Canadians as well as more adequate benefit levels for certain segments of the population—especially the middle-income segment. In addition, Canada faces aging population issues and the resulting challenge of providing retirement income with increasing dependency ratios. These aspects are not necessarily unique to Canada, but Canada is somewhat unique in its provincial regulatory structure that results in having to navigate multiple regulators when trying to implement reforms or new ideas. In addition, some suggest that the large levels of immigration into Canada result in different work patterns and generally later saving trends that impact retirement adequacy. And, certain investment products like TIPS that are readily available in a U.S. context do not have parallel products in Canada that are aligned with the Canadian economy.

There were several themes that emerged from the discussions throughout the event: providing retirement benefits through target-benefit plans, encouraging transparency and good governance structures, using the lessons of behavioral science to implement better solutions, and providing better framing and perhaps even using new terminology when describing solutions, all of which are consistent with discussions at other Retirement 20/20 events.

The idea of target-benefit plans is aligned with the previous discussions in this report of building variability into retirement income, lowering the ultimate level of guarantees and sharing risk among parties. Participants discussed the challenges with traditional defined-benefit plans that are maturing yet trying to provide “safe” benefits while using “risky” asset allocations to guarantee those benefits. This often results in a lack of transparency of who is bearing the risk, particularly in the case of many public-based plans. There was also discussion about whether target-benefit plans need to be jointly governed by employers and employees to be effective. Finally, there are still questions even in explicit risk-sharing plans whether the participants truly understand the risk-sharing aspects. As stated by one participant, “Risk sharing is conceptually good, but difficult to manage.”
The use of target-benefit-type plans also brought up discussions about the role of employers. One view was expressed by a participant, “To get the system to work, we need to get the employers out of it.” As Retirement 20/20 has matured, we have continually discussed the role of the employer. We have debated the role of the employer from that of paternalistic provider who uses the retirement plans to help attract, retain and provide orderly exit of their workforce to the more “hands-off” approach where they may simply function as a conduit. The role of the employer is a controversial subject depending on the audience, but nevertheless one that will continue to be debated as many employers have continued to shift retirement risk to employees through the provision of defined-contribution-based plans as the primary retirement vehicle.

Good governance generally leads to discussions of transparency, although given the complexity that can exist in retirement plans, many question what transparency actually means in this context. One speaker, Retirement 20/20 author Tom Walker, used the analogy of an iPod, which doesn’t require an understanding of the technology of how an iPod works to be able to use and enjoy it. In the same way, it may not be important (or even possible) for participants to fully understand effective risk-sharing mechanisms, but in general there was agreement that efforts should be made to communicate that risk sharing is being used.

A consistent discussion for this event was the importance of using the lessons of behavioral finance to design better plans—whether through better framing of decisions or better determination of defaults (i.e., what happens if an individual fails to make a decision). In this area, there was particular discussion about the topic of annuities and the challenges individuals face because of the “informational asymmetry” that exists between them and the sellers of these products. This topic has been discussed at past Retirement 20/20 conferences with suggestions made that this is one area where the government can help to level the playing field. However, the role of governments in promoting annuities or lifetime income is not without controversy, particularly in the U.S.

A final area that was discussed at various points during the day was the overall challenge of providing retirement income when the overall economy is weak. When real interest rates are low and an economy is stagnant, providing retirement income is very expensive. As one attendee said, “You can’t have viable well-functioning retirement systems in economics that aren’t functioning well.”
Going forward: Policy challenges to achieving Retirement 20/20’s promise

One theme of the U.S. conference was the difficulty in changing the retirement income system today beyond what some might view as the inevitable shift to a system based on individual defined-contribution plans, with little annuitization or risk protection. Many participants cited current U.S. federal budget woes (making it difficult to make any changes to retirement systems that don’t generate net savings, or at least no net cost). In addition, in the U.S., the 401(k), with a single sum balance, is very popular, and annuities are very unpopular. (A call for comments by the Department of Labor on potentially adding annuities to defined-contribution plans generated over 750 responses, many from individuals with responses like, “Keep your hands off my 401(k).”) Finally, individual distrust in institutions, particularly financial institutions, has increased with the recent financial crisis.

Other political difficulties in the U.S. facing any substantive retirement reform include an inability for the political parties to work toward compromise, particularly post-health care reform and a general perception within Washington that it’s more important to focus on savings credits for families (in general) rather than target secured retirement income. One participant cited a 2006 study by the Government Accountability Office (GAO), which noted that 3 percent of the baby boomers hold 50 percent of the baby boomer wealth (based on 2004 data from the Survey of Consumer Finances); this study result has made politicians focus on increasing savings rates in general. Several participants argued that, if it was politically effective, the most efficient way of improving retirement income for individuals in the bottom half of the income distribution would be to improve Social Security.

While financial institutions in Canada generally seemed to weather the financial crisis better than their U.S. counterparts, nevertheless challenges exist with making substantial retirement reforms, not the least of which is the challenge of getting agreement for reforms through the provinces.

How should we respond to these policy challenges?

*Retirement 20/20’s* goal has always been to find new ways to generate retirement income for the middle-income workers. The retirement income structures proposed in the *Retirement 20/20* call for models cannot address the needs of the poorest citizens, nor are they needed by the wealthiest citizens. Also, while the large proportion of assets are held by the wealthiest Americans, middle-tier households do hold wealth in retirement assets, including pensions.
The recent financial crisis has shown that we don’t always understand the risks we take or the implicit assumptions we’ve made until conditions change. We have much more to do to help build a common understanding of the importance of retirement income.

So what does this mean for Retirement 20/20? Clearly we have to work hard to take what we’ve learned from the models and the conferences and put that into context with data to show that the existing retirement savings system does add value, and changing the system could increase the value it provides. Many of today’s retirees still have defined-benefit pensions to supplement their Social Security, so the long-term risk of a system built on individual accounts has not yet been experienced. The recent financial crisis has shown that we don’t always understand the risks we take or the implicit assumptions we’ve made until conditions change. We have much more to do to help build a common understanding of the importance of retirement income.

To find out more about Retirement 20/20, the results of the call for models, and read a monograph with the prize-winning and other select papers, go to http://retirement2020.soa.org.
Appendix 1

Winning Papers: Summaries & Judges’ Evaluations

This appendix provides summaries of the four winning papers, as well as highlights from the evaluations completed by the judging panel. The judges used a template based on the Retirement 20/20 “Measurement Framework” to provide a consistent review of the papers submitted for the call for models contest. The Measurement Framework was developed through prior Retirement 20/20 events and workgroups and looks at the key needs of the different retirement system stakeholders in evaluating criteria that are important to each. In addition to the Measurement Framework criteria, we added criteria covering governance, risk, transparency, administration and transition. The template shown for each paper provides the key points for evaluation and representative comments from the judges regarding how the plans performed relative to the criteria.

Paper: The SERIOUS System: A New Model for Retirement Income Success

Author: Ken Beckman, ASA

Paper Summary

Beckman’s Successful Employee Retirement Income Outcomes in the U.S. (SERIOUS) is a plan where more workers should end up with Tier II benefits than do so today after participating in a less risky system that will also be less costly to employers. Beckman combines existing products and structures together to create a comprehensive system designed to meet the needs of all stakeholders.

The SERIOUS system is designed to be simple and easy for employees to understand. Investments will be managed by independent plan sponsors. Employers will be relieved of the burden of establishing and maintaining retirement plans. However, employers must automatically enroll all employees in the system (employees may elect to opt out but will be automatically reenrolled each year), and employers also transmit contributions (employee and employer, if provided) to a central clearinghouse that handles all administrative services (e.g., processing contributions, disbursing benefits). Beckman provides tax incentives for employers (described below), which the author hopes will lead employers without plans, especially small employers, to start contributing on behalf of their employees, and employers with plans to contribute more to the new system once they no longer face the same costs of sponsoring their own plans. (Existing plans could coexist with SERIOUS, so costs for the present system would not necessarily drop to zero.)
Tax-deductible contributions and a tiered bonus tax incentive are designed to encourage employer contributions. To qualify for the tiered bonus tax incentive, employers must make a minimum contribution of 1.5 percent of a capped salary for all employees, even those who do not contribute on their own. This ensures that all employees will end up with some SERIOUS benefits, and will encourage workers to augment benefits with their own contributions.

Contributions are used to purchase single premium deferred annuities, with postretirement inflation protection. Rates are set each year for the purchase of that slice of the deferred annuity, but once purchased the baseline annuity amount cannot change. The interest rate for the deferred annuity can never be less than the actual inflation rate during the preretirement period. Amounts in payment are increased with inflation, but can never fall below the base benefit. Employees will have a minimum of decisions to make—selecting a plan sponsor and a contribution percentage. Employees who wish more control over their own investments can do so with Tier III accounts.

Other SERIOUS features include the following:

- Employees may change plan sponsors for future contributions.
- Employer contributions will be payable in the form of an annuity (single or joint life), protecting against longevity risk. (All payments cease upon death; no refunds for death prior to annuitization.)
- Employee contributions will have a refund feature to encourage more workers to take the money in the form of an annuity. Partial annuitization and limited lump-sum distributions will also be allowed. Supplemental annuity payments will be available in the event that long-term care is needed.
- A system-wide insurance fund will reimburse affected investors up to certain limits if the plan sponsor cannot meet obligations.
- SERIOUS uses markets to minimize risk, but the model recognizes that risk cannot be eliminated.

Judges’ Overview

The paper creates a comprehensive Tier II system that uses deferred annuities to create secure retirement. The system’s strengths are in auto-enrollment, flexibility of contribution levels (for employers and employees), use of deferred annuities to provide longevity and inflation protection, and centralized plan sponsors. The employers’ role becomes making voluntary contributions and collecting and funnelling contributions to the sponsor of the employee’s choice. The proposal takes a different approach to portability, where
accumulations are not rolled over when a participant changes plan sponsors, but a central administrator aggregates benefit accumulations from all plan sponsors allowing employees to keep track of total retirement income. The system permits some lump-sum payments, while keeping the primary focus on annuity income at retirement, including novel ideas for supporting the costs of long-term care. Details about the oversight and governance would need to be determined (do these function as insurers or trusts?) and there could be a long ramp-up time (and high cost) to get plan sponsors established. The panel also had concerns that the cost of the system and feasibility of providing these guarantees could be greater than the author anticipated. However, the system is a comprehensive design that meets many stakeholder needs; market and governance issues would need to be addressed but are likely not insurmountable.

Summary of Judging Evaluations

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<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
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<tr>
<td></td>
<td>Adequate</td>
<td>Auto-enrollment; encourages labor force participation</td>
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<td>Affordable</td>
<td>No required contributions; relies on individuals to set levels</td>
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<td></td>
<td>Sustainable</td>
<td>Could be adequate; unsure that author’s example would produce a 40% replacement rate</td>
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<td></td>
<td>Robust</td>
<td>Allowing annuitization from age 60 could send a signal that this is an appropriate retirement age</td>
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<td></td>
<td>Does not promote economic risk</td>
<td>Robustness and sustainability should be helped by ability to change annuity rates for future contribution</td>
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<td></td>
<td>Does not promote political risk</td>
<td>Centralized oversight, but concerns about strength of governance</td>
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<td></td>
<td>Does not lead to system failure</td>
<td>Need some clarification on insurance market issues</td>
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<td></td>
<td>Addresses stakeholder imperfections</td>
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<td></td>
<td>Promotes social solidarity and integrity</td>
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<td>Adjusts to changing demographic and economic conditions</td>
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Appendix 1
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<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
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| **Individual** | • Guaranted income  
• Predictability of income  
• Retirement flexibility  
• Portability  
• Sensitive to employment conditions  
• Sensitive to family needs  
• Requirement for individual skills  
• Investment risk  
• Longevity risk  
• Inflation risk  
• Premature retirement risk | • Contributions voluntary from employers and employees; both prefer this, but pose a risk that sufficient income won’t be available  
• Limited lump sum available (though workers might prefer more lump sum)  
• Mandated annuity purchase and postretirement indexation protect against longevity risk  
• Guaranteed income once a contribution is made, with cost of guarantee based on conditions at time of purchase  
• Income level is reasonably predictable, with degree of predictability increasing throughout contribution period  
• Takes different approach to portability where centralized administration provides consolidated communication of all individual benefit accumulations  
• Investment decisions reside with sponsor; no need for member investment skills  
• Members choose sponsor (pros and cons)  
• Some disability & LTC protection |
| **Employer** | • Supports primary business purpose  
• Workforce management: attraction & retention  
• Workforce management: transition of employees  
• Supports new norms for work and retirement  
• Responsive to owners  
• Business risk  
• Regulatory risk  
• Fiduciary risk  
• Litigation risk | • Relieves employers of burden of sponsoring and administering plan  
• Model recognizes disincentives to sponsoring plans (especially among small employers) or for even larger ones to do less  
• No fiduciary, business or regulatory risk for employers  
• Voluntary employer contributions, but tax incentives encourage employer contributions  
• Employers can still attract and retain by setting more generous employer contributions  
• Employers would have to auto-enroll everyone  
• Accommodates some workforce management levers—notably ability for employer to contribute (with tax incentives) and related vesting of these employer contributions |
### Criteria Evaluation Points

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<th>Criteria</th>
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<th>Representative Judging Panel Comments</th>
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| Market   | • Maximizes use of markets  
           • Transparent (cost)  
           • Strong governance  
           • Efficiently priced  
           • Efficient risk bearing  
           • Allocation of risk | • With investment decisions centralized with sponsors, will likely lead to good use of markets  
                                • Designed to utilize markets efficiently and possibly create demand for new products; however, author assumes plan sponsors will primarily use fixed investments  
                                • Governance dependent on independent board; appears weaker than current insurance regulation  
                                • Costs will be transparent on relative basis (sponsor A vs. sponsor B)—but might not be transparent for system overall  
                                • Concern about robustness of adjustment mechanism  
                                • Concern about price efficiency (level of rate guarantees) |
| Other Criteria | Governance | • Does the system have strong governance?  
                            • Does it avoid or minimize moral hazard? | • Jumbo nature of resulting plans could assist in achieving strong governance practices, although could lead to concentration of decision-making authority  
                            • Third-party plan sponsors independent of any employer or employee group  
                            • Once system matures, quantity of assets under oversight of board will be massive—and could lead to politically oriented board appointments  
                            • Promotes economies of scale  
                            • No effective enforcement mechanism for capital/insurance requirements—unclear whether trust or insurance law governs  
                            • Should reduce moral hazard  
                            • System-wide insurance fund would reimburse up to certain limits if plan sponsor could not meet obligations |
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
</tr>
</thead>
</table>
| Risk         | • Is it clear who bears what risk?  
• Are there risk-sharing mechanisms? If so, are adjustments predefined?  
• Does the system handle extreme events?                                                                                                                  | Risk borne by individuals but designed to be hedged; should encourage markets to develop new hedging instruments  
• Presumably can handle extreme events; plans sponsors will have to have a system of risk management and establish a level of capital to deal with risks taken  
• Mandated annuitization and encouraged participation mitigate anti-selection risks  
• Concern re robustness of adjustment mechanism—as adjustment is limited to future contributions, where rates will be very visible and participants have full latitude to choose sponsor, can foresee situations where a sponsor spirals downward very quickly |
| Transparency | • Is the system understandable and relatively easy to communicate?  
• Is use of market mechanisms transparent?                                                                                                                   | • Understandable and easy to communicate (via centralized administration-communication)  
• Use of market mechanisms will be transparent  
• Not clear that costs will be transparent                                                                                                                                                                               |
| Administration| • Can the plan be administered without extreme complexity or cost?                                                                                                                                                | • Could potentially be low cost to administer  
• Will competition for participants drive up advertising/administration costs?  
• Funding of clearinghouse and plan sponsor market oversight unclear  
• Central clearinghouse seems like a good way to reduce administrative burden                                                                                                                                 |
| Transition   | • Is it possible to transition from the current environment?  
• Does it fit within a U.S. or Canadian cultural context?                                                                                                 | • Voluntary so fits within U.S. cultural context  
• Would seem to take a while to get the plan sponsors up and running. Maybe existing companies could spin these off fairly quickly, but it sounds as if a great deal of regulatory change is required.  
• Ensuring appropriate reserves from the outset may take some time  
• Requires very significant infrastructure before implementation—centralized administrator, oversight board, competitive market for long-deferred annuities, special statute                                                                 |
Paper: The Tracker Plan: A Controlled Risk Defined-Contribution Retirement Program

Author: Rowland M. Davis, FSA

Paper Summary

Davis proposes an auto-enrolled program that is defined-contribution in character where plans are standardized and assets are managed using a life-cycle approach. In retirement, benefits are annuitized (not necessarily immediately upon retirement, but perhaps through late-age annuities) with built-in increases and potentially a participation feature to provide an expectation of positive postretirement adjustments. It proposes that the arrangement be limited in scope; the plan would target benefits at retirement equal to 75 percent of pay (inclusive of Social Security) but only on limited pay, such as on pay up to 130 percent of average wages (the wage limit). Third-party organizations would be allowed to operate such plans on a consolidated basis.

The “tracker plan” manages contribution rates and investment policy during the preretirement period to achieve high confidence that the resulting accumulation will prove sufficient to deliver a specified retirement income target. For illustration purposes, the author uses a 90 percent confidence level and a retirement income target, inclusive of Social Security, equal to 75 percent of preretirement income (for earnings up to the wage limit). In addition, the plan should never produce less than a 5 percent to 6 percent shortfall, which is what the author estimates could be made up by an additional year of work. Emerging experience triggers go-forward change in contribution rates and/or in investment policy; these changes being implemented on a cohort-specific basis. For instance, unfavorable experience can trigger contribution increases going forward, whereas favorable experience can trigger a go-forward reduction in investment risk (thereby locking in the good results). The author estimates contributions (combined employer and employee) would start at 8 percent of wages up to the wage limit at age 25 and would increase to 16 percent of wages up to the wage limit from age 33 onward.

While the investment policy follows a life-cycle approach, the funds are more conservatively invested than typical life-cycle funds today. The risky asset allocation is 75 percent at age 25 (fixed income at 25 percent); by age 35 the portion of risky assets begins to grade down so only 15 percent of the portfolio is in risky assets by age 60. In addition, the fund starts to shift from a fixed income allocation to a stable fund allocation at age 50 to provide protection against unexpected inflation in the years immediately prior to retirement.

The paper also tests the effectiveness of the “tracker plan” approach—both by back-testing (including through the latest economic downturn) and by Monte Carlo simulations.
Appendix 1

Judges’ Overview
This is a robust, well-thought-out paper that identifies the real costs and risks of retirement and measures these factors with some empirical rigor. The outlined approach achieves many of the Retirement 20/20 objectives, such as coverage, portability, adequacy, protection from longevity risk and ease of understanding/communication. Employers would not bear pension fiduciary risk, and the confidence level orientation ensures that risk management considerations are always “front and center.” Standardized terms, centralized operations and use of risky assets (albeit in a controlled manner) should achieve cost efficiencies. In addition, it brings in several new concepts—de-risking after market gains, leveraging to TIPS over time, and tracking results by age cohorts to de-risk. The paper also provides a very complete analysis looking at specific economic scenarios and general Monte Carlo simulations.

Summary of Judging Evaluations

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Society</strong></td>
<td>Adequate</td>
<td>Based on targeted preretirement income (although 75% replacement income target may underestimate needs of lower wage workers)</td>
</tr>
<tr>
<td></td>
<td>Affordable</td>
<td>Sets a goal of universal coverage</td>
</tr>
<tr>
<td></td>
<td>Sustainable</td>
<td>Assumes employer and employee have equal funding responsibility</td>
</tr>
<tr>
<td></td>
<td>Robust</td>
<td>Anticipates automatic contribution adjustments as an investment risk cushion</td>
</tr>
<tr>
<td></td>
<td>Does not promote economic risk</td>
<td>Investment risk adjusts within tolerances</td>
</tr>
<tr>
<td></td>
<td>Does not promote political risk</td>
<td>Anticipates inflation protection</td>
</tr>
<tr>
<td></td>
<td>Does not lead to system failure</td>
<td>Attempts to mitigate agency costs through large nonprofit organizations</td>
</tr>
<tr>
<td></td>
<td>Addresses stakeholder imperfections</td>
<td>Does not cross-subsidize between different generations of participants</td>
</tr>
<tr>
<td></td>
<td>Promotes social solidarity and integrity</td>
<td>Ease of understanding</td>
</tr>
<tr>
<td></td>
<td>Adjusts to changing demographic and economic conditions</td>
<td>Relative to traditional defined benefit, will have higher cost per unit of initial benefit (because of indexation, portability)</td>
</tr>
</tbody>
</table>
### Appendix 1

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<th>Representative Judging Panel Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>• Guaranteed income</td>
<td>• Predicated on targeted income in retirement with high levels of predictability</td>
</tr>
<tr>
<td></td>
<td>• Predictability of income</td>
<td>• Arrangement has full portability</td>
</tr>
<tr>
<td></td>
<td>• Retirement flexibility</td>
<td>• Full retirement flexibility, albeit on unsubsidized basis</td>
</tr>
<tr>
<td></td>
<td>• Portability</td>
<td>• Investment decisions are not required or permitted of plan members, yet investments are tailored to cohort attributes</td>
</tr>
<tr>
<td></td>
<td>• Sensitive to employment conditions</td>
<td>• Longevity risk addressed by annuitization</td>
</tr>
<tr>
<td></td>
<td>• Sensitive to family needs</td>
<td>• Financial risks are borne by participants, but structured based on life-cycle theory</td>
</tr>
<tr>
<td></td>
<td>• Requirement for individual skills</td>
<td>• Easy to understand</td>
</tr>
<tr>
<td></td>
<td>• Investment risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Longevity risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inflation risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Premature retirement risk</td>
<td></td>
</tr>
<tr>
<td>Employer</td>
<td>• Supports primary business purpose</td>
<td>• Does not require employer administrative role</td>
</tr>
<tr>
<td></td>
<td>• Workforce management: attraction &amp; retention</td>
<td>• No unfunded obligation</td>
</tr>
<tr>
<td></td>
<td>• Workforce management: transition of employees</td>
<td>• Given defined-contribution nature of plan, minimizes regulatory/business risks</td>
</tr>
<tr>
<td></td>
<td>• Supports new norms for work and retirement</td>
<td>• Predictable budgetable costs; some cost volatility will exist, but relatively less than exists for traditional defined-benefit plan</td>
</tr>
<tr>
<td></td>
<td>• Responsive to owners</td>
<td>• Given no HR management levers, employers are unlikely to be the plans’ sponsors—hence, fiduciary risk will also be transferred to other parties (i.e., “plan consolidators”)</td>
</tr>
<tr>
<td></td>
<td>• Business risk</td>
<td>• Offers relative design flexibility between tracker and supplemental benefits, although base plan may be viewed as just another payroll tax</td>
</tr>
<tr>
<td></td>
<td>• Regulatory risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fiduciary risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Litigation risk</td>
<td></td>
</tr>
<tr>
<td>Other Criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governance</td>
<td>• Does the system have strong governance?</td>
<td>Jumbo nature of resulting plans should assist in achieving strong governance practices, although could lead to concentration of decision-making authority</td>
</tr>
<tr>
<td></td>
<td>• Does it avoid or minimize moral hazard?</td>
<td>• Promotes economies of scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Concentrated nature of the pension investment decisions could on occasion attract “political interference”</td>
</tr>
</tbody>
</table>
### Appendix 1

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
</tr>
</thead>
</table>
| **Risk** | • Is it clear who bears what risk?  
• Are there risk-sharing mechanisms? If so, are adjustments predefined?  
• Does the system handle extreme events? | Risk borne by individuals but designed to be hedged; should encourage markets to develop new hedging instruments  
• Presumably can handle extreme events; plans sponsors will have to have a system of risk management and establish a level of capital to deal with risks taken  
• Mandated annuitization and encouraged participation mitigate anti-selection risks  
• Concern re robustness of adjustment mechanism—as adjustment is limited to future contributions, where rates will be very visible and participants have full latitude to choose sponsor, can foresee situations where a sponsor spirals downward very quickly |
| **Transparency** | • Is the system understandable and relatively easy to communicate?  
• Is use of market mechanisms transparent? | Plan’s overall ease of understanding  
• Communication includes benchmarks set to achieve income replacement target, facilitates comparison and enables member to gauge progress |
| **Administration** | • Can the plan be administered without extreme complexity or cost? | Standardized benefit terms and jumbo nature of plans will lead to efficient administration  
• Complex, but feasible |
| **Transition** | • Is it possible to transition from the current environment?  
• Does it fit within a U.S. or Canadian cultural context? | Though not discussed in detail, one can imagine the potential for coordination and ease of conversion with existing employer-based plans  
• Fails to address transition issues for older workers |
Appendix 1

Paper: Affordable Retirement Income through Savings and Annuities
Author: Donald E. Fuerst, FSA

Paper Summary
Fuerst’s proposal outlines parameters for a new, universal employment savings program with a strong annuitization component post-retirement. The proposal restructures employer responsibilities, shifting risks from individual employers to the cohort of workers as a generation, using existing and proposed market mechanisms. In addition, it restructures individual risks and choices, requiring all workers to allocate at least 50 percent of their savings into a Treasury Inflation-Protected Securities (TIPS) account, which would get converted to a participating variable annuity at retirement.

Not all parameters are fully specified; for example, the author suggests contribution levels but does not provide modeling to support a particular level. In outline form, he calls for a new system of supplemental individual accounts with the following features:

• Universal coverage of workers—all workers would be required to contribute, or have contributed on their behalf, at least a minimum percent of pay.

• Minimum required level of contributions—parameters left open by author but anticipated to be set at a uniform level between 5 percent and 10 percent of pay. Employees are responsible for making contributions, but employers may offer to make some portion of the required contribution as part of their employee benefit package.

• Maximum contributions are limited to the required minimum percentage of pay multiplied by a pay cap set by statute. The author does not specify the pay cap but anticipates it will be between (a) twice the amount of wages taxable for Social Security purposes and (b) $1 million. Contributions by employers or individuals that exceed these limits are assumed to be governed by a Tier III regulatory structure (and not further addressed).

• Tax treatment of contributions and distributions follows the current 401(k) model (traditional 401(k), not Roth).

• Mandatory investment features—at least 50 percent of the account must be invested in TIPS; the rest is allocated at the worker option among TIPS and target-date funds.

• Limited employer role—employers would choose the default investment company to manage employee accounts and may choose to make contributions to worker accounts.

• Investment companies would operate much as mutual fund companies do today, but recognizing the limited range of mandated and permissible investments. Employees may
change investment companies. Types of expenses (but not amounts) charged by investment companies would be strictly limited.

- Retirement would be available between ages 60 and 70. Workers can phase in to retirement during those ages by distributing a portion of the account (primarily as an annuity). Accounts of workers dying prior to age 60 would be distributed to beneficiaries.

- At least half of the account must be taken in the form of a variable annuity at retirement. The variable annuities must be purchased from an annuity provider that is federally chartered (regulated). Pricing of annuities will be based on a common assumed investment rate of return (based on the real rate of return on TIPS) and (unisex) mortality table. Funds will be invested in TIPS and longevity gains or losses pooled, providing a participating indexed annuity (the annuity will generally rise with inflation, but then be adjusted to reflect longevity and investment gains or losses other than priced). Given standard pricing of annuities, insurers will participate in a pool that facilitates transfers of funds between insurers to account for differing experience.

- Annuities are generally assumed to provide a cash refund death benefit when annuitants die. Alternatively, annuities may provide spousal benefits.

- After half the account is annuitized, the remainder of the account may be distributed as a lump sum, an annuity or other form (subject to be the requirement that it be distributed at least as quickly as required by the current minimum distribution rules).

Judges’ Overview

This paper provides a comprehensive system of mandated individual accounts with specific mechanisms to balance the desire for protections within retirement and the desire for participant and employer choice. The design creates a new Tier II system constructed as an evolution on today’s defined-contribution system, with adjustments to improve outcomes, increase coverage and, most importantly, increase the ability of the system to pay retirement income. The system mandates that 50 percent of contributions be invested pre-retirement in TIPS, and (essentially) converts that account into an inflation-linked variable annuity post-retirement; this base layer provides a basic guaranteed life annuity for all individuals at a low cost. However, individuals still have options for the other 50 percent of their income, particularly in terms of preretirement investment and postretirement distribution. Employers are relieved from the fiduciary burdens of plan sponsorship, and are not required to make contributions under the system. The system design could be tweaked for political considerations, and the base level of benefits could be set quite low to gain initial system acceptance, easing transition.
## Summary of Judging Evaluations

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Framework Criteria</td>
<td></td>
</tr>
<tr>
<td>Society</td>
<td>• Adequate • Affordable • Sustainable • Robust • Does not promote economic risk • Does not promote political risk • Does not lead to system failure • Addresses stakeholder imperfections • Promotes social solidarity and integrity • Adjusts to changing demographic and economic conditions</td>
</tr>
<tr>
<td></td>
<td>• Compulsory savings • Aware of the politics and suggests 3% contribution might be reasonable; however if rate set too low without the increases author suggests, benefits could prove inadequate in retirement • Shares investment risk, mortality risk within retiree cohort • Should be minimal political risk as government role is purely oversight • 50% required TIPS investment provides security while allowing 50% to be choice driven may help political acceptance • Compulsory partial annuitization; however compulsory level may not be appropriate for all income levels • Adjusts to changing demographics by basing benefits on cohort life expectancy • May need tax refunds for low paid as minimum contributions may lead to more costly borrowing elsewhere • Political expediency may set maximum contributions at level lower than adequacy &amp; may permit risky/high-cost investments • Recognizes need for reasonable limits on tax-sheltered contributions without unduly limiting contributions</td>
</tr>
</tbody>
</table>
### Appendix 1

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
</tr>
</thead>
</table>
| **Individual** | • Guaranteed income  
   • Predictability of income  
   • Retirement flexibility  
   • Portability  
   • Sensitive to employment conditions  
   • Sensitive to family needs  
   • Requirement for individual skills  
   • Investment risk  
   • Longevity risk  
   • Inflation risk  
   • Premature retirement risk | • Employment-based coverage  
   • Guaranteed (but variable) income through partial annuitization; no guarantee variable annuities will keep pace with inflation  
   • Annuitization not required until age 70; restricted on taking lump sums until after annuitized (but can take periodic withdrawals)  
   • Mechanisms to cover disability, death  
   • Little requirement for individual skills  
   • May not be sufficient for those with insecure attachment to labor force  
   • Individual still responsible for retirement savings above minimum contribution rate, which may not be enough depending in minimum required  
   • Participants take investment risk; 50% in TIPS should minimize part of risk but other 50% could be lost in market downturns  
   • Pooled idiosyncratic longevity risk; cohort shares systematic longevity risk  
   • Portable & fully vested  
   • Mandatory coverage, but some workers might have a tough time contributing to a plan in addition to Social Security  
   • Retirement age flexibility  
   • A later initial distribution age might be preferable unless worker is unemployed or disabled |
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
</tr>
</thead>
</table>
| Employer         | • Supports primary business purpose  
• Workforce management: attraction & retention  
• Workforce management: transition of employees  
• Supports new norms for work and retirement  
• Responsive to owners  
• Business risk  
• Regulatory risk  
• Fiduciary risk  
• Litigation risk | • Employment-based coverage  
• Employer contribution voluntary  
• Does not require employer administrative role  
• No unfunded obligation  
• Given defined-contribution nature of plan, minimizes regulatory/business risks  
• Predictable budgetable costs; some cost volatility will exist, but relatively less than exists for traditional defined-benefit plan  
• Given no HR management levers, employers are unlikely to be the plans’ sponsors—hence, fiduciary risk will also be transferred to other parties (i.e., “plan consolidators”)  
• Offers relative design flexibility between tracker and supplemental benefits |
| Market           | • Maximizes use of markets  
• Transparent (cost)  
• Strong governance  
• Efficiently priced  
• Efficient risk bearing  
• Allocation of risk | • TIPS very effective retirement hedge; however system may be over-reliant on TIPS  
• Investing in TIPS pre- and a TIPS variable annuity post- should be an effective hedge pre- to post-retirement  
• Use of participating variable annuities  
• Risk minimized by the conservative nature of allowable investments, but it is still risk shouldered by workers |
| Other Criteria   |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                           |
| Governance       | • Does the system have strong governance?  
• Does it avoid or minimize moral hazard? | • Required reporting and federal oversight of annuity companies  
• Uses professional investment managers  
• Still allows lump sums but only 50% of account  
• Will reporting be enough to ensure adequate governance?  
• Compliance through the tax system |
### Appendix 1

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation Points</th>
<th>Representative Judging Panel Comments</th>
</tr>
</thead>
</table>
| Risk         | • Is it clear who bears what risk?  
• Are there risk-sharing mechanisms? If so, are adjustments predefined?  
• Does the system handle extreme events? | • Very clear who bears what risk  
• Mechanisms to share longevity risk with pool of annuity providers  
• Handles extreme events by ensuring half of wealth secured in TIPS but heavily reliant on TIPS  
• Provides options for handling disability risk |
| Transparency | • Is the system understandable and relatively easy to communicate?  
• Is use of market mechanisms transparent? | • Designed to be transparent  
• Market mechanisms transparent |
| Administration | • Can the plan be administered without extreme complexity or cost? | • Minimized cost due to size  
• Small accounts may still be quite costly; will competition and disclosure drive down fees for individual accounts?  
• Need additional definition around role of Federally Chartered Annuity Companies and who would oversee |
| Transition   | • Is it possible to transition from the current environment?  
• Does it fit within a U.S. or Canadian cultural context? | • Basically expands current defined-contribution system to the entire workforce, so transition would be possible  
• Fits within U.S. cultural context (as long as employer contributions are not required) |
Paper Summary
Walker’s Total Career Benchmark (TCB) Model is a plan which calls for centralizing and integrating the tracking of overall retirement savings in Tiers I and II. It ensures standardization of savings information with continuous benchmarking, and by creating mandatory contributions on income up to Average Industrial Wage it ensures minimum savings. In addition, the proposal anticipates enhanced communication with individuals, thereby enhancing understanding of retirement goals. While written for the Canadian context, the ideas are easily translatable to the U.S..

The plan allows individuals to have the ability to combine accumulation of lifetime guarantees with individual savings through two components. The Lifetime Account provides for a guaranteed income and includes all employer and “required” employee contributions to the sponsored plan. A second Personal Account funds all ancillary benefits covering personal risks like early retirement, spousal benefits, cost of living greater than Average Industrial Wage increases and part-time work. The proposal calls for full portability with the possibility to transfer funds between the two accounts and provides universal access across all types of employment.

The TCB Model provides for alignment of employers’ needs with risk tolerance because the employer is a contributor, not an insurer, and it eliminates postretirement risks. It can also be designed to align with employers’ goals and financial situation by allowing the employer to vary the level of contributions to create a desired level of benefits. The employer can also play a key education role.

The proposal uses the markets through Approved Annuitization Funds (AAFs) and Age-Specific Plans. This allows for pooling of longevity risk and ensures a minimum amount of annuitization prior to or upon retirement. It also provides for automatic tracking of pre- and postretirement inflation. The use of AAFs, which can include insurers, banks or large pension plans, capitalizes on the expertise of investment professionals rather than relying on individual expertise.

The paper also provides significant discussion of how to transition from the current system over the next 15 years.
Appendix 1

Judges’ Overview
This paper is comprehensive and well-thought-through, providing a mandatory retirement system that is fully integrated with the Tier I social insurance system. The design is complex, but it results in mandatory coverage that systemizes all participants into a “unit scale” based on average wages resulting in predictable and adequate benefits. The complexity may be mitigated somewhat by the universality of coverage and the communication aspects envisioned through the centralized administration. In addition, the design establishes targets and communicates how close people are to reaching targets. There is a good integration with social security, which helps people see the value of the social insurance and what they have to make up through their personal savings. In addition, the Personal Accounts give individuals some discretion to plan for more or less retirement savings. The plan removes the employer from being the primary “insurer” of investment or longevity risk and also provides some design flexibility that allows the employer to vary contribution levels. While written for a Canadian context, the ideas are easily translatable to the U.S..
### Summary of Judging Evaluations

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<td></td>
</tr>
<tr>
<td><strong>Society</strong></td>
<td>• Adequate • Affordable • Sustainable • Robust • Does not promote economic risk • Does not promote political risk • Does not lead to system failure • Addresses stakeholder imperfections • Promotes social solidarity and integrity • Adjusts to changing demographic and economic conditions</td>
<td>• Integration of all areas of retirement savings (3 pillars) facilitates communication and understanding of retirement savings objectives &amp; builds social solidarity by tying it to the social security system • Provides universal access to investment expertise and guaranteed income • Use of Lifetime and Personal accounts helps adjustments to changing conditions • Targets are built to ensure adequacy • Strong communications to keep individuals on track; employer not in the benefit guarantee business • Sustainability across generations not addressed and concern about system failure in event of market meltdown (depending on structure of “Age-Specific Plans”)</td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td>• Guaranteed income • Predictability of income • Retirement flexibility • Portability • Sensitive to employment conditions • Sensitive to family needs • Requirement for individual skills • Investment risk • Longevity risk • Inflation risk • Premature retirement risk</td>
<td>• Benefit design is predictable through tie to external indices • Fully portable • Can handle disability, etc. • Pooling of longevity risk • Indexing it to average wage includes preretirement inflation indexation • Guaranteed income through use of Lifetime Account • Individual flexibility through use of Personal Account • Access to investment expertise • Universal access tool to ease understanding of accumulated retirement savings versus objectives • Does not address different retirement savings needs depending on income level • Very complex system to set up and for individuals to understand initially • Individuals still need to make decisions to convert credits into Lifetime Account</td>
</tr>
<tr>
<td>Criteria</td>
<td>Evaluation Points</td>
<td>Representative Judging Panel Comments</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Employer        | • Supports primary business purpose  
• Workforce management: attraction & retention  
• Workforce management: transition of employees  
• Supports new norms for work and retirement  
• Responsive to owners  
• Business risk  
• Regulatory risk  
• Fiduciary risk  
• Litigation risk | • Plan provides design flexibility to align with employer workforce needs  
• Can tailor benefit levels and should be easier to “compete” because all plans are comparable  
• Can increase contributions (somewhat) to encourage early retirement  
• Responsive to owners—can decrease contributions  
• Gets employer out of the business of sponsoring plans  
• Responsive to small employers  
• May lead to less control over design and workforce management |
| Market          | • Maximizes use of markets  
• Transparent (cost)  
• Strong governance  
• Efficiently priced  
• Efficient risk bearing  
• Allocation of risk | • Extensive use of markets  
• Proper risk allocation  
• Transparent structure  
• Could be operated to efficiently use markets, be efficiently priced and incorporate efficient risk bearing  
• Age Specific Plans should lower the cost of annuitization, but some questions about how they handle risk and/or profit generation  
• Some questions of whether the markets can hedge the Yearly Maximum Pensionable Earnings (YMPE) indexation |
| Other Criteria  | Governance  
• Does the system have strong governance?  
• Does it avoid or minimize moral hazard? | • Can be designed to have strong governance  
• Similarity of plan structures will allow easy scrutiny  
• Roles are set to maximize individuals strengths  
• Question whether individuals will understand how to manage personal accounts |
<table>
<thead>
<tr>
<th>Criteria</th>
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<th>Representative Judging Panel Comments</th>
</tr>
</thead>
</table>
| **Risk** | • Is it clear who bears what risk?  
• Are there risk-sharing mechanisms? If so, are adjustments predefined?  
• Does the system handle extreme events? | • Risk bearing may not be obvious to individuals due to complexity of system  
• Can be structured to hedge risks  
• Not fully clear who bears investment risk. What happens if there are significant cohort longevity gains?  
• Unclear how the system handles extreme events |
| **Transparency** | • Is the system understandable and relatively easy to communicate?  
• Is use of market mechanisms transparent? | • Very complex but use of centralized system may simplify communication  
• Use of market mechanisms is not transparent |
| **Administration** | • Can the plan be administered without extreme complexity or cost? | • Minimized cost due to size  
• Having everyone in one system and linking it to social security/CPP does ease administration |
| **Transition** | • Is it possible to transition from the current environment?  
• Does it fit within a U.S. or Canadian cultural context? | • Not obvious how transition works for current defined-benefit plans  
• Proposal feels onerous (e.g., having to recalculate the available tax deductions)  
• Written to fit well in the Canadian context, but ideas also easily translatable to the U.S. context |
Appendix 2

Agendas from June and December Events


Opening Session—This session provided an overview of the Retirement 20/20 project and the Call for Models, and set that work within the current U.S. retirement policy discussions. In addition, we discussed key insights gained through the Call for Models process.

Moderator: Marcus Robertson, Robertson, Eadie & Associates; SOA Pension Section Council Chair

Panelists: Chris Bone, Edth Limited, LLC, Retirement 20/20 Call for Models Judging Panel Chair; Andrew Peterson, Society of Actuaries; Frank Todisco, American Academy of Actuaries


Moderator: Cindy Levering, Immediate Past Chair, SOA Pension Section Council

Authors: Thomas Walker, Consulting Actuary; Ken Beckman, New Era Life Insurance Company

Discussants: Pamela Perun, The Aspen Institute; Mary Nell Billings, FedEx

Keynote Speaker: J. Mark Iwry, Senior Advisor to the Secretary of Treasury and Deputy Assistant Secretary for Retirement and Health Policy, U.S. Department of the Treasury


Moderator: Gerry Schnurr

Authors: Rowland Davis, RMD Pension Consulting; Donald Fuerst, Mercer

Discussants: Brett Hammond, TIAA-CREF; Andrew Biggs, American Enterprise Institute

Theme I: New Design Ideas for the Build-Up Phase—This was the first of four theme sessions focusing on specific ideas from Call for Models papers and other sources. This first theme session considered the best ways to build retirement income. Specific topics this session covered included defaults versus the use of mandates, appropriate level of benefits and the use of targets, role of the employer and cost sharing, and the ability of systems to handle unexpected events (market or otherwise).
Moderator: Ron Gebhardtsbauer, Penn State University
Panelists: Martin Bauer, Hewitt Associates; Rowland Davis, RMD Pension Consulting; Peter Hardcastle, Cheiron; David John, The Heritage Foundation; Thomas Walker, Consulting Actuary

Theme II: New Design Ideas for the Payout Period—This second theme session looked at new ideas for managing the payout period of retirement. Specific topics this session covered included the methods for generating income in retirement, including the merits of annuitization versus lumps sums versus other means for dealing with longevity risk. Additional discussion about income solutions covered methods for sharing risk, making options mandatory versus voluntary, taxation treatment and dealing with indexation in retirement.

Moderator: Anna Rappaport, Anna Rappaport Consulting
Panelists: Robert Friedland, Georgetown University; Donald Fuerst, Mercer; Chris O’Flinn, ELM Income Group; Joe Tomlinson, Tomlinson Financial Planning

Theme III: Use of Markets with New Retirement Designs—The third theme session considered how to better use markets in managing retirement risk. This session covered topics like the treatment of risk, including pooling and hedging, the use of TIPS and other fixed income vehicles, ideas for better rebalancing to limit downside risk and ensuring proper governance.

Moderator: Anne Button, Deloitte
Panelists: Zvi Bodie, Boston University; Jeremy Gold, Jeremy Gold Pensions; Donald Fuerst, Mercer; Tom Lowman, Bolton Partners; John Woyke, Woyke & Company

Theme IV: The Role of Standardization & Centralization in Future Benefit Management—The last theme session considered the role of standardization and centralization in developing sustainable retirement programs. The session discussed the role standardization can play in benefit design, role of stakeholders and impact on administration. Other discussion topics included the role of centralization and how it may or may not impact sponsorship and coverage.

Moderator: Eric Keener, Hewitt Associates
Panelists: Elizabeth Bauer, Hewitt Associates; Rowland Davis, RMD Pension Consulting; Karen Friedman, Pension Rights Center; Mark Ugoretz, The ERISA Industry Committee; Thomas Walker, Consulting Actuary

Closing Session: Where Do We Go From Here?—This session wrapped up the discussions from the conference, taking a future-oriented focus as we thought about the lessons from Retirement 20/20 and next steps. Our panelists addressed questions such as:

• What are short-term fixes that are politically feasible for improving the system today?
• What needs to change to make big-picture changes?
Appendix 2

- How might we transition from here to there?
- Is there consensus regarding the role of guarantors?
- What is the role of tax policy in retirement policy (do we even have a national retirement policy)?

*Moderator:* Emily Kessler, Society of Actuaries

*Panelists:* Janice Gregory, National Academy of Social Insurance; Diane Oakley, Legislative Advisor to Representative Earl Pomeroy; Anna Rappaport, Anna Rappaport Consulting; Dallas Salisbury, Employee Benefit Research Institute

Overview of Dec. 8, 2010 conference agenda, *Getting Pension Reform Done: Issues, Options and Next Steps*, Toronto, Canada—sponsored by the C.D. Howe Institute, the Society of Actuaries and the Canadian Institute of Actuaries

*Welcome and Overview*

*Speakers:* William B.P. Robson, C.D. Howe Institute; Marcus Robertson, Eadie & Associates Ltd., Former Chair, Society of Actuaries Pension Council; Canadian Institute of Actuaries Pension Advisory Task Force

*Session I: Framing the Issues: Pension Plan Challenges, Their Causes and Principles for the Design of New Sustainable Plans*

*Part I: Canada’s Troubled Retirement Outlook: Who Will and Will Not Enjoy Stable Post-Work Living Standards?*—Are Canadians saving enough for retirement? This is the colossal unanswered question in Canada’s pension debate.

*Speakers:* Kevin Moore, Statistics Canada; Alex Laurin, C.D. Howe Institute

*Discussant:* Bob Baldwin

*Part II: What Are the Sources of Current Pension Plan Challenges?*—Key possible factors and commonalities/differences among the experiences of Canada, the U.S. and other countries with respect to pension failures and successes.

*Speaker:* Keith Horner, Keith Horner Consulting

*Discussant:* Malcolm Hamilton, Mercer

*Part III: What Principles Should Guide the Design of Occupational Pension Plans?*—How to ensure they bend, rather than break, when economic developments confound the expectations of the people that founded them. What are specific retirement topic areas where change is needed?

*Panel Session:* Emily Kessler, Society of Actuaries; Rob Brown, Pension Reform Innovation in Canada; Keith Ambachtsheer, KPA Advisory Services
Session II: How to Get There: Proposals and Areas for Change

Part I: Improving Retirement Plan Outcomes through Managing Risk—This session featured the Retirement 20/20 prize-winning paper, “Affordable Retirement Income through Savings and Annuities,” by Donald Fuerst.
Speaker: Don Fuerst, Mercer (retired)
Discussant: Charlene Moriarty, Morneau Sobeco

Speakers: James Pierlotz; Faisal Siddiqi, Buck Consultants
Discussant: Fred Vettese, Morneau Sobeco

Speaker: Thomas Walker
Discussant: Martine Sohier, Towers Watson

Session III: A Way Forward: Moving Ideas for Change into Public Policy
What changes to federal and provincial laws and regulations need to occur if ideas such as those outlined in the previous sessions are to take root and grow? Are there positive policy changes that can be made in the short term without major regulatory change?
Panel Session: Steve Orsini, Ministry of Finance; Bob Baldwin; Sue Reibel, Manulife Financial; Steve Bonnar
What is Retirement 20/20?

The Society of Actuaries’ Pension Section Council has been concerned about changes to the pension system over the past few years. In looking at the issue several years ago, they concluded that they needed, with assistance from others, to step back and look at the bigger picture. Retirement systems today are based on 20th century models, and there have been significant demographic and economic changes that may mean that yesterday’s models no longer fit today. Retirement 20/20 is a process to bring together experts on retirement issues to redesign a system from the ground up to meet 21st century retirement fundamentals. One goal the Pension Section has in this process is to develop new retirement risk sharing models that better utilize risk pooling and risk sharing.

Retirement 20/20 is a process of exploration and creation to envision new retirement systems to meet the needs of the 21st century. The 2006 Retirement 20/20 conference, “Building the Foundation for New Retirement Systems,” looked at the needs, risks and roles for the four major system stakeholders (individuals, society, markets and employers). The 2007 conference, “Resolving Stakeholder Tensions: Aligning Roles with Skills,” focused on determining and aligning the optimal roles for the various stakeholders. The 2008 conference, “Defining the Characteristics of the 21st Century Retirement System,” discussed the optimal characteristics for successful retirement systems, specifically the areas of changing the signals within retirement systems, self-adjusting mechanisms for retirement systems and optimal strategies for retirement income distribution. Based on the work of these three previous conferences, the SOA issued a “Call for Models” in the summer of 2009 to solicit ideas for new Tier II retirement systems that align with the principles of the Retirement 20/20 initiative. The best call for model papers were featured at a June 2010 conference in Washington, D.C., and a December 2010 conference in Toronto, Ontario, Canada.

To find out more, go to http://retirement2020.soa.org.
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