

2021 CCA Annual Meeting



Session Summaries

Session 101

Late Breaking Developments

Speakers:

- Steve Eisenstein – KPMG, LLP
- Jeremy Olszewski – Fidelity Investments
- Margaret Berger - Mercer
- Christopher M. Denning – IRS

Session Assistant: Kevin V. Osinski – OneAmerica

ARPA in the News

The session opened with a review of the American Rescue Plan Act of 2021 (“ARPA” or “ARP”) and led with a summary of additional guidance on that legislation in the form of IRS Notice 2021-48 & PBGC Technical Update 21-1. The speakers reviewed ARPA’s impact on the IRS funding segment interest rates, the interest rate corridor, and the new “floor,” as well as the “fresh start” of the unfunded amortization over the new 15-year period and various elective/default application dates. They noted differences in how Plan Sponsors’ elect to apply the ARPA provisions: an “Opt-In” election is made to apply the 15-year fresh-start amortization earlier than its default application date of the 2022 Plan Year; while an “Opt-Out” election is made to apply interest rate relief later than its default application date of the 2020 Plan Year.

The biggest takeaways from **IRS Notice 2021-48** were the requirements of what was needed to make the ARPA funding elections and that in some cases deemed elections could be made by filing the SB reflecting the election without revising the prior year SB (even though amounts may not line up with the prior SB). The deadline to make those elections is the later of December 31, 2021, and the end of the 2021 Plan Year.

IRS Notice 2021-48 also explains that Plan Sponsors can retroactively make credit balance elections and redesignate contributions due to ARPA changes if those changes are allowable within contribution timing rules and would not cause Section 436 benefit restrictions. In addition, any AFTAP changes due to ARPA are “deemed immaterial,” but if applied retroactively, Plan operations would need to conform to the new AFTAP.

The speakers then covered the three key provisions of **PBGC Technical Update 21-1** surrounding 4010 filings resulting from ARPA:

1. 4010 filings for an information year ending before December 31, 2021 are waived if the 4010 filing would not have been required without ARPA and an election by the Plan Sponsor to increase the prefunding balance.
2. It is not necessary to amend previous 4010 filings for changes in actuarial information due to ARPA.

3. Plan Sponsors can submit the pre-ARPA actuarial valuation report if ARPA elections have not been decided or the report is not available.

The last bit of ARPA related news is that the Infrastructure Investment and Jobs Act bill would extend the 5% segment rate corridor from 2025 to 2030. As of the time of this summary, the Act had passed into law.

More Proposed Legislation

The “**Secure Act 2.0**” (the name given the collection proposed bills that build on the SECURE Act of 2019) included an alphabet soup of provisions effecting institutional retirement plans. The highlights were increasing the required minimum distribution age to 75 by 2032, freezing the PBGC variable rate premium at the 2018 level, limiting mortality improvement rates, modifying minimum participation rules so they apply separately by company division, increasing the defined contribution and IRA catch-up contributions and allowing student loan payments to be treated as elective deferrals.

The American Families Act (proposed legislation) seeks to limit Mega IRA limitations and end “backdoor” Roth IRA conversions as well as imposing a tiered corporate tax rate and raising the capital gains tax.

Some of the other legislative proposals were focused on trying to create better access to defined contribution plans, making them more portable and adding the requirements for spousal sign-off.

Other IRS News

Next the speakers described updates to the EPCRS rules outlined in Rev. Proc. 2021-30. The most significant changes for defined benefit plans provide more options for Plan Sponsors to correct overpayments due to administrative errors and to grant an extra year for self-correction of significant operational failures. The Rev. Proc. also increases the de minimis overpayment amount from \$100 to \$250 and eliminates anonymous VCP submissions.

The two new methods for correction of defined benefit plan overpayments require that future benefit payments be reduced to the correct amount. *The Funding Exception correction method* can be used if the AFTAP is at least 100%. This method does not permit repayment to the plan by the participant nor require repayment by the sponsor.

The Contribution Credit Method reduces the required plan repayment by increases in the minimum required contribution attributable to reflecting the incorrect benefit in the valuation. Credit is also granted for any other excess contributions not used to increase the credit balance or for another funding purpose. Any remaining shortfall in the plan must be restored by the participant or plan sponsor. This method provides certain participant protections if the sponsor requests repayment, including a notice detailing the error and the repayment options and limitations on the amount of the benefit reduction.

In the next topic the speakers outlined the partial plan termination (PPT) relief provided in the Consolidated Appropriations Act (Dec. 2020) as part of pandemic relief. It provides that no PPT occurs for any plan year that includes a portion of the period from March 13, 2020, through March 31, 2021, if

the number of active participants at the end of the period is at least 80% of the number at the beginning of the period. The relief is apparently available for the entire plan year if any part of it was in the relief period. IRS has clarified that participant reductions do not have to be related to COVID-19 and rehiring laid-off participants is not required. However, the relief does NOT apply to the PBGC reportable events requirement.

Other miscellaneous guidance from the IRS included the ability to use audio-visual conferencing for spousal consent and other retirement plan elections until June 30, 2022 and tips for requesting a private letter ruling on actuarial issues.

The Joint Board of Enrolled Actuaries announced that physical presence (of three EAs in a room) for formal programs is not required for the entire 2020-2022 enrollment cycle.

Mortality News Flash

In other news, the MP-2021 mortality improvement scale was released and generally will generate a liability increase of 0.2% to 0.4% over its MP-2020 counterpart. The new scale does not anticipate the impact of COVID-19, but the new release of the SOA's Mortality Improvement Model (MIM-2021) application tool can be used to adjust the rates to model COVID-19 impact.

What's New at the DOL

The speakers noted that the DOL hasn't yet issued the final rule regarding lifetime income disclosures required under the SECURE Act. The interim final rule still is in effect. These disclosures require defined contribution plans to communicate the account balance and the equivalent straight life annuity and QJSA amounts to plan participants once per year.

Separately, the DOL issued three pieces of informal guidance regarding missing participants, including Field Assistance Bulletin 2021-01, stating the agency would treat the PBGC's missing participant program as a safe harbor for terminated or abandoned defined contribution plans. The DOL also issued a best practices document for defined benefit and defined contribution plan sponsors and a compliance assistance release with audit tips for defined benefit plans with missing terminated vested participants.

The DOL put out three pieces of informal guidance regarding cybersecurity in response to a request from the General Accountability Office. Those documents included a tip sheet for plan sponsors and fiduciaries, best practices for recordkeepers, and tips to participants for keeping their accounts secure.

Other News

Accounting changes under ASU 2018-14 are in effect for all entities for fiscal years ending after December 15, 2021, it removes certain disclosures required under ASC 715-20 and adds disclosures regarding Cash Balance interest credit rates and an explanation of significant gains and losses related to changes in the benefit obligation for the period. The speakers noted that plan auditors are asking for documentation of the Plan Sponsor intent to contribute more than the minimum so they can include

that in the plan audit. The question relates to what is and what is not considered an accrued contribution for purposes of the pension plan financial statements.

In the courts, actuarial equivalence lawsuits are continuing to be heard. The main argument by the Plaintiff's is that the use of outdated mortality tables produces unreasonable conversion factors which results in participants illegally forfeiting vested benefits (in violation of ERISA's non-forfeitability rules).

Finally, the speakers discussed proposed updates to ASOP 4 (measuring pension plan obligations), as well as the new ASOPs 27 and 35 (economic and non-economic assumptions) and 38 (catastrophe modeling) along with proposed changes to the US qualification standards.

Session 103

Annuity Purchase Revolution

Speakers:

- Michael Clark – River and Mercantile
- Russ Proctor – Pacific Life Insurance Company
- Alexandra Hyten – Prudential Retirement
- Lori Bostrom – Newport Trust Company

Session Assistant: Adam White – River and Mercantile

You tell me that it's evolution; Well, you know; We all want to change the world. (The Beatles, 'Revolution')

Summary

A lot has evolved in the pension annuity purchase market over the last few years. Speakers address some of that evolution including the increasing market size, the use of independent fiduciaries and fiduciary responsibilities, insurer innovations, assets-in-kind transactions, the use of reinsurance, and other issues affecting the marketplace. We also briefly touch on plan termination issues, but those will be more fully covered in "Lessons Learned from Plan Terminations" (Session 401).

Annuity Purchase Market

The annuity purchase market has grown significantly since 2012 following the Verizon and General Motors transactions and has turned a \$1-\$2B annual industry to \$25B-\$30B a year, with 2021 expected to total \$40B.

The pension risk transfer (PRT) market has expanded to 19 insurers, but Great American will stop writing new PRT business in 2022 following the acquisition by MassMutual. Each insurer has different preferences for cases, including various size ranges and tolerances for deferred lives. A handful of insurers also offer buy-in solutions. The \$50M-\$100M range is the most competitive and attracts the most insurer attention. Insurers can also be picky when deciding on which cases to bid and will weigh plan complexities in addition to plan size.

As buy-out size grows, changes to the process can come into play, including the use of an independent fiduciary and independent experts, as well as more meetings, potentially even with the plan sponsor. In addition, jumbo plans (>\$500M) typically have more complicated provisions, as older plans may have been combined and contain numerous benefit structures. Insurers may even request mortality experience or the use of assets-in-kind for very large plans. These are all discussed in more detail later in the session.

Fiduciary Responsibility and Options

Plan sponsors have fiduciary obligations when selecting an insurer in a pension buyout following the Department of Labor's Interpretive Bulletin 95-1 (DOL IB 95-1). The fiduciary responsibilities can fall on the plan's fiduciary committee, or the committee can appoint an independent fiduciary to take responsibility and liability of selecting insurer and group annuity.

DOL IB 95-1 states that the fiduciary must evaluate insurers based on a variety of factors, including the size and quality of investment portfolio, capital structure, and other lines of business. In addition, fiduciaries can analyze insurers based on factors such as administration, name recognition, website capabilities, or disaster recovery procedures. A fiduciary may decide to go with a more expensive provider based on these other criteria. The guidance also states that more than one insurer can satisfy the safest available annuity criteria. The fiduciary also must weigh how the purchase can impact participants remaining in the plan and should consider the funded status both before and after the purchase.

An independent fiduciary is often chosen by a plan committee to mitigate risk for the plan sponsor and to avoid a potential conflict of interest resulting from the committee failing to act exclusively on behalf of the plan participants.

The main fiduciary takeaway is that documentation is extremely important and can come in handy if the insurer selection is ever called into question. The Plan fiduciary should maintain documentation of the annuity purchase process (timeline, communications, responsible parties), comprehensive financial analysis of insurers, review of products (reinsurance, contract structure, administration), and protections for plan participants.

Insurer Innovations

Following the fiduciary discussion, the speakers turn to various insurer innovations, starting with an annuity buy-in transaction. Buy-in contracts remove investment and longevity risk from the plan sponsor, but the plan sponsor maintains the administrative responsibility. A buy-in is not considered a settlement because the buy-in contract can be revoked. However, there is usually a surrender charge for terminating the contract. In addition, a buy-in can typically be converted to a buy-out at no additional cost. One main benefit of a buy-in is that it locks in the plan termination cost early on for plans that have not yet started the termination process. In this scenario, a buy-in contract assumes a lump sum take rate and an adjustment can be made to true-up the premium following the actual lump sum elections. Alternatively, the insurer can choose to fund the lump sum window, so the plan sponsor is economically done with a plan termination at the purchase of buy-in contract.

Another innovation is the use of assets-in-kind (AIK) to pay an annuity buyout premium. AIK consist of US Treasuries and Corporate Bonds, which the insurance company is prepared to hold or sell. AIK can result in a slightly discounted premium for the Plan due to potential transaction cost savings and less 'out of market' risk for the insurer. Typically, the minimum size of a buyout using AIK is \$50M-\$200M depending on the insurer. Plan sponsor should talk to insurers well in advance if assets-in-kind will be used in transaction.

Some insurers are now re-insuring part of a transaction to other insurance companies who are not actively involved in transacting directly with Plans. The bidding insurer still faces the participants and is responsible for payment, even if the re-insurer fails. This helps insurers spread exposure and increase capacity in the buyout market, while also reducing the end price for Plans.

New York state regulators are stricter than regulators of other states. As a result, annuity providers must be licensed in NY to offer a full administrative solution. A non-licensed insurer can only communicate to NY participants via mail or email. Unfortunately, obtaining a NY license is difficult compared to most other states. As a result, some insurers not licensed in NY prefer to avoid NY participants completely. Other insurers write NY participants out of a subsidiary that is licensed in NY, which results in two group annuity contracts.

Plan sponsors and consultants should consider all these factors before beginning an annuity placement process to avoid any unexpected complications.

Session 104

PBGC Discussion of Regulatory Guidance on the American Rescue Plan Act (ARPA)

Speakers:

- Mariah Becker - NCCMP
- Erika B. Bode – PBGC
- James J Donofrio – PBGC

Session Assistant: Eli Greenblum – Segal

ARPA was enacted in March 2021, containing an historic provision intended to stave off the insolvency of over 100 “Critical and Declining” multiemployer pension plans that would have, by extension, resulted in the inability of the Pension Benefit Guaranty Corporation (PBGC) multiemployer insurance program to pay guaranteed benefits to participants. It had been estimated that in the absence of ARPA, over 1.5 million participants in the system would have had their benefits severely reduced within 20 years. The Special Financial Assistance (SFA) program is intended to provide funds “required to pay all benefits due through 2051” under specified assumptions.

Scope of SFA

The SFA funds are essentially grants given to plans, unlike prior proposals made in recent years that called for loans or “partitions” that also would have involved PBGC administration. The specific ARPA provision calls for Treasury funds to be provided as needed to fulfill the mandate. PBGC representatives presented the approach that the agency will use to administer the program. PBGC issued regulatory guidance in the form of an Interim Final Rule (IFR) in July to clarify eligibility criteria, the application process, and its approach to approvals. PBGC will consider the 100+ comments submitted (more than received on any other regulatory action in the agency’s history). After carefully reviewing each of those comments, PBGC will issue a revised regulation if it concludes that any changes need to be made to the IFR.

PBGC, based on the IFR interpretation of ARPA, estimates that 250 plans will qualify for and receive \$97 billion in SFA funds that will benefit 3,000,000 participants. Plans may apply for SFA through 2025 (with revisions possible in 2026). PBGC stochastic modeling indicates a wide range of possible outcomes: their 1%-99% range is that 158 - 482 plans would receive \$66 - \$147B via SFA.

Administration of SFA Applications

There are four (4) options to qualify for SFA, involving actuarial valuation and projection metrics. The most common way to qualify is for a plan to be classified in Critical and Declining status (under the 2014 Multiemployer Plan Reform Act - MPRA) for a plan year beginning in 2020, 2021 or 2022. Other plans

may qualify based on becoming insolvent subsequent to MPRA without terminating, having taken advantage of the MPRA benefit “suspension” program, or metrics such as funded percentage and the ratio of inactive to active participants.

Due to the large number of eligible plans and limited resources, ARPA authorizes PBGC to define Priority Groups, to regulate the flow of applications prior to March 11, 2023. Priority Group 1 – the already insolvent plans and those that will become insolvent by March 11, 2022 - are already eligible to submit applications, and 20 have done so – requesting \$3.2 billion on behalf of 31,000 participants. Applications are being posted on the PBGC website.

Priority Group 2, consisting of those with MPRA suspensions in place, and plans that will encounter insolvency (as defined in ERISA, the beginning of the plan year in which the plan is expected be unable to pay benefits) within one (1) year, may begin to apply at the beginning of 2022. There is one (1) very large plan in Group 3 that will become eligible to apply in April 2022, and effectively no plans in Group 4. The remainder of SFA-eligible plans are in Groups 5 (insolvent by March 11, 2023), Group 6 (plans that require at least \$1B in SFA) and non-priority plans.

Under ARPA, PBGC has 120 days to rule on an application. Therefore, the PBGC Portal for applications may be temporarily put on “hold” by PBGC to further regulate the flow. Conversely, they may move up the application start date for a given Priority Group – updates and much more information are available at www.pbgc.gov/arp-sfa and parties are encouraged to sign up for email updates. If a plan needs to resubmit an application due to denial or withdrawal of the original application, the 120-day clock restarts but the plan must use the same base participant data, measurement date, and interest rate assumption for the new projections. Questions are encouraged, via email to multiemployerprogram@pbgc.gov

PBGC has established templates for the various portions of the application - a checklist and eight (8) more including projected cash flows, actuarial calculations, history and reconciliation of assumptions. It is very important for actuaries to focus on the assumptions to be used in the application.

Actuarial Assumptions

Under the IFR guidance, a plan is entitled to the excess of the present value of benefits and expenses through 2051 less current resources (plan assets) and the present value of contributions projected through 2051. There is an interest rate limit of about 5.5% (or the plan’s minimum funding interest rate, if lower) that must be used for these present value calculations. Non-binding but very helpful guidance on actuarial assumptions is available at the website mentioned above. Of special note is that other assumptions must be taken from the plan’s pre-2021 certification of status, unless the actuary considers them no longer to be reasonable. In that case, data and analysis is needed to support that a new assumption is reasonable. Documentation of and rationale for proposed changes to assumptions is the subject of Template 7. In particular, long-term contribution base unit projections need to be approached carefully, using the PBGC guidance.

Restrictions on Plans that Accept SFA

SFA grants must be placed in investment grade bonds or other assets with a similar risk level. PBGC has requested input on the types of other investments that might qualify.

Accepting SFA also results in important restrictions, as described in the IFR, on benefit improvements, mergers, diversion or reduction of contribution rates, and withdrawal liability. With respect to the latter item, plans holding SFA must use PBGC mass withdrawal interest rates (reflecting insurance company group annuity purchase rates) to determine withdrawal liability and must have certain large settlements with a withdrawing employer approved in advance.

To summarize the main points of the session: the monumental Special Financial Assistance (SFA) program under ARPA is to be administered by PBGC. For the SFA application process, adherence to the IFR and supporting material is key - especially as it relates to timelines, documentation and actuarial assumptions. It is imperative to follow the Template instructions, understand the associated plan restrictions and contact PBGC if there are nuanced issues.

Session 105

Practical Aspects of Setting the Expected Return

Speakers

- James J. Rizzo – Gabriel, Roeder, Smith & Company
- Paul Angelo – Segal
- Scott Whalen - Verus

Session Assistant: Christian Veenstra – Watkins Ross

All actuarial assumptions used when performing a retirement plan valuation are important. Of critical importance is the establishment of an appropriate investment return assumption. Session 105, “Practical Aspects of Setting the Expected Return” provides insights to three (3) challenges faced when setting the assumed rate of return assumption – performing the math behind setting the assumption, communicating the role and rationale of the assumption to the trustees and coordinating the actuary’s role in developing the assumption with the investment consultant’s role in developing the asset allocation on which the assumption is based.

A Brief Look at Return Assumption Math

The actuary in the room brings robust mathematical and modeling processes to the table for adopting a pension investment return assumption. The most important inputs for such processes are (a) forward-looking capital market assumptions from several reputable investment forecasters and (b) formulas from well-accepted probability distribution functions. The actuary in the room should employ a robust process for a recommended return assumption, much like actuaries do for developing recommended demographic assumptions in an experience study.

The results of such mathematical processes are what actuaries should be communicating to the decision-makers for setting investment return assumptions. It is notable that the guiding principles for the selection of economic assumptions used in measuring pension obligations found in Actuarial Standard of Practice (ASOP) No. 27 do not include reliance on historical returns, assumed returns set by other retirement boards, or “comfort” levels.

The detailed closed form (analytical) formulas for various portfolio statistics, based on the capital market assumption inputs and presented in this Session 105, are beyond the scope of this Session Summary. However, refer to the downloadable Session 105 Handout that include such formulas, expressed in Excel format, for the portfolio’s expected arithmetic return, the portfolio’s expected standard deviation, the lognormal parameters for the portfolio’s expected returns, and the portfolio’s expected geometric average return. Closed form (analytical) formulas for other portfolio statistics may be presented in an upcoming webcast in January sponsored by the Society of Actuaries.

With the lognormal parameters, an actuary can create a stochastic simulation to derive approximations for various portfolio statistics. However, the closed form (analytical) formulas are preferred as a direct method without the volatility of results under stochastic methods.

Anyone can present clients with a histogram of return assumptions adopted by other retirement systems or with historical rates of return. However, the actuary in the room has the position, the opportunity, the skill-set and the duty to advise decision-makers using robust analytical processes involving (a) research and inputs of forward-looking capital market assumptions from professional investment forecasters and (b) well-accepted mathematical formulas for various portfolio expectations.

Talking to Trustees about the Investment Return Assumption

Building on the theme of the importance of setting a proper investment return assumption for use as the discount rate is the critical step of communicating that analysis to the plan trustees in such a way that those trustees are able to make informed and appropriate assumption setting decisions. As part of those communications, it is useful to keep in mind the simple formula,

$$\text{Contributions (C) + Investment Income (I) = Benefit Payments (B) + Expenses (E)}$$

While the actuarial valuation will determine the “measured” cost for the plan, it will not change the ultimate cost – it only affects the timing of costs unless earnings or benefits are affected.

When focusing on investment return assumptions, recent trends in investment return assumptions, reasons why the investment consultant and actuary might come up with different expected returns, and understanding which comes first – asset allocation or expected return – are topics to explore with plan trustees.

The investment return assumption deserves the attention it receives as it is used to determine the discount rate for both contribution requirements, and for financial reporting under Government Accounting Standards Board (GASB) Statements 67 and 68. Recently, due to lower fixed income yields and lower price inflation components and high cyclically-adjusted price/earnings ratios and yields, assumed returns have been lower than their historical levels, resulting in increasing levels of accrued liabilities and recommended contributions.

Until about 10 years ago, the median Investment return assumption for public pension plans was 8.0%. In the last 10 years assumed returns have dropped significantly, so that for 2021, that median return is 7.0%. At the same time, in order to offset the lower expected returns from the traditional “60/40” portfolio, asset allocations have shifted to take on more risk. Looking at the last 20 years, the Risk Premium (gap between the assumed return and the 10-year treasury note yield) has grown from 2.8% to 5.4%.

Investment return assumptions can differ between investment consultants and actuaries. While current fixed income yields and inflation components are low and price/earnings ratios are high, over the longer term those components might be expected to normalize to historic levels thus justifying a higher expected return on the part of the plan actuary compared to what’s being presented by the investment consultant.

Finally, a key message for trustees is “don’t put the cart before the horse.” That is, the investment return assumption should be based on the target allocation and not the other way around. “Chasing” the current investment return assumption to keep contribution levels within current budget constraints can cause the plan to take on an inadvisable level of investment risk. This important concept is developed in a recent Issue Brief from the American Academy of Actuaries: *Asset Allocation and the Investment Return Assumption: Don’t Put the Cart Before the Horse*.

As discussed in that Issue Brief, appropriate factors to consider when evaluating risk/return trade-off include the size of the plan liability and asset pool relative to plan sponsor resources, expected net cash flow and time horizon on expected benefit payments (liquidity needs), financial strength of the plan sponsor and inflation sensitivity in the benefit promise.

Which comes first – risk or return? An investment consultant’s perspective

Following up on the “cart/horse” theme, historically, institutional investors have often developed strategic asset allocation to meet a pre-conceived return target with risk as a by-product. The alternative, preferred approach is to first establish an acceptable risk tolerance which then informs the development of the asset allocation. Analysis of various portfolio asset blends will be performed with an eye towards optimizing return given an acceptable level of risk.

Establishing and re-assessing risk tolerance is typically done in conjunction with asset-liability studies. In assessing willingness to take on risk, conduct (trustee) board education as necessary, reach consensus on active, illiquidity, drawdown, shortfall and peer/headline risk and codify such consensus in a formal statement of investment philosophy.

Risk is more than a measure of return variability as presented by standard deviation. To assess the ability of the Plan sponsor to meet its obligations by evaluating both the plan’s and plan sponsor’s fiscal health. Evaluation of the plan’s health entails identifying the plan’s funded status, cash flows and contributions as a percent of pay. For the plan sponsor’s health consider economic growth and diversity, debt and debt servicing levels, credit ratings and population growth of the tax paying community.

Once risk tolerance is identified and established, various investment strategies can be considered within those parameters leading to selection of a reasonable asset allocation and, ultimately, to the establishment of the plan’s expected investment return.

Resources

Actuarial Standard of Practice No. 27 *Selection of Economic Assumptions for Measuring Pension Obligations*

American Academy of Actuaries, Pension Practice Council [2019]; *Forecasting Investment Returns and Expected Return Assumptions for Pension Actuaries*

American Academy of Actuaries, Pension Practice Council [2010]; *Selecting Investment Return Assumption: Considerations when Using Arithmetic and Geometric Averages*

Mindlin, Dimitry [2011]; *On the Relationship between Arithmetic and Geometric Returns*

Capinsky, Marek, Zastawniak, Tomasz [2011]; *Mathematics for Finance, An Introduction to Financial Engineering*

American Academy of Actuaries July 2020 Issue Brief - *Asset Allocation and the Investment Return Assumption: Don't Put the Cart Before the Horse*

For more on this topic, the Society of Actuaries will be hosting a webcast by Kausch, David, Midlin, Dimitry in January 2022.

Session 201

Assumption Setting in a COVID-19 Environment

Speakers

- Scott Hittner – October Three
- Rick Reed – California State Teachers’ Retirement System (CalSTRS)
- Dave Stablein – Willis Towers Watson (WTW)

Session assistant – Casey Shork, KPMG

The session focuses on setting demographic and economic assumptions amidst the Covid-19 pandemic, presenting views of both private and public plan sponsors.

Private sponsors are facing uncertainty given the wide range of assumptions, differing views on the timing/pattern of the pandemic, and the impact on the economy. Some sponsors are considering select and ultimate assumptions, anticipating very unusual patterns during select periods. Private sponsors and actuaries are also actively engaging with their auditors regarding Covid-19 impact on assumptions. The auditors want companies to consider Covid even if the conclusion is “no impact”. They expect consistency across assumptions as it pertains to reflecting Covid impact. The auditors are also very open to temporary mortality assumption changes but agree that long-term changes to mortality assumption will require more support.

CalSTRS saw Covid-19 affect key assumptions such as mortality, inflation, payroll growth (payroll growth has been declining), investment return, and discount rate.

Polling question and response 1: Sponsor and stakeholder interaction with actuaries remained about the same in the Covid environment for 2/3 of the respondents increased for 1/3 of the respondents.

Mortality Assumption

The private plan sponsors split the mortality assumption decision framework into three separate stages – current experience, near-term, and long-term. CDC data indicates there are excess deaths from Covid in 2020 relative to the historical averages. But we need to be mindful that CDC data is based on the general population, which is different from the private pension plans population.

A WTW 2020 study of private pension plans indicated a smaller Covid impact, with private pension plans having experienced 28% to 67% of the increase in mortality rates reported by CDC (based on geographical location). Actual experience differs significantly by gender, collar, race, geography, and health factors. Based on the WTW 2020 survey data, a very small portion of private plan sponsors made the adjustments for Covid, and the adjustments were mostly near-term, resulting in the impact on benefit obligation of less than 1%.

CalSTRS experienced excess mortality of 15%-20% for 2020 and 2021 (for all causes), primarily at older active participants and retirees. The excess mortality rose in 2020 but declined in the 1st half of 2021 to

normal expectation. Similar statistics were observed at other retirement systems across the country. CalSTRS started tracking Covid deaths in April 2020. The observed experience lines up with overall US experience. CalSTRS recognizes that it will not know for certain the full impact on mortality for several years. CalSTRS is faced with deciding if COVID-19 will remain a pandemic, become an endemic, or mortality will return to the pre-COVID-19 environment. Until then, no final decisions on the effect of COVID-19 will be made.

Polling question and response 2: A majority of respondents' plan sponsors did NOT change mortality assumptions (45 out of 47 present).

Demographic Assumptions

Key questions are being asked for each demographic assumption as related to Covid's impact:

- Termination / Retirement – voluntary termination rates are up and there is no clear sense of direction for the long-term.
- Disability – plans may not have credible data on Covid-related disabilities.
- Form of payment – with the low interest rate environment, the expectation was that people would lean toward lump sums. But plans are currently seeing that Covid hasn't had much of an impact on the form of payment decision.

WTW 2020 survey shows that a very small minority of plan sponsors made Covid related adjustments to long-term demographic assumptions (excluding mortality). One of the reasons could be that with frozen plans and cash balance plans, the impact will be negligible.

Key questions are also being asked for each economic assumption as related to Covid's impact:

- Salary scale – varies widely by industry. Reductions to executive pay are offset by premium pay or stipends to critical staff. Executive plans often get lost in the shuffle so don't forget to ask the questions about these plans.
- Inflation – CPI has been volatile. Where do we go from here? Capital market assumption still hovers around 2.5%, so perhaps consider a select and ultimate approach.
- Interest crediting rate – huge drops in Treasury rate. Floors have been applied in some cases. Consider a rate that is a blend of current and long-term expectations or select & ultimate.

WTW 2020 survey shows that a very small minority of plan sponsors made Covid related adjustments to long-term economic assumptions. CalSTRS' main concern is inflation / payroll growth assumption. This is a very important assumption as the contributions are calculated as % of payroll (making progress towards full funding more challenging). Originally the assumption was 3.5% and they considered lowering to 2.5%, as payroll was flat. However, they recommended not to decrease payroll growth assumption. The teacher shortage also figures into the decision. The number of active teachers decreased 2 years in a row, coupled with the higher-than-expected retirements during the pandemic.

Polling question and response 3: What economics assumptions changed for plans? 38 none, 11 salary scale, 4 inflation, 7 long term rate of return.

Open microphone Q&As

Q: How was CalSTRS 3.5% inflation assumption originally established? What is the differential?

A: 0.75% over expected inflation. While CalSTRS saw a decline in the student population that was compensated by class size reduction, the number of teachers stayed the same. The pay has increased during Covid due to a shortage of teachers and the need to attract new teachers. This is expected to offset the decline in students, so the payroll growth assumption may not change.

CalSTRS also discuss the investment return / discount rate assumption. 2019-2020 investment performance was 3.9%, which was below the expected return of 7%. While they feared that 2020-21 would be worse, the actual return was 27.2%. But the risk that returns could be suppressed over a sustained period remains. Fed action may have a short-term effect. Currently they use a 7 % long term rate of return, which will reduce to 6.8%. CalSTRS also has not decided the effect of COVID-19 has had on the investment markets.

Q: What impact have you seen on the healthcare assumptions?

A: WTW has seen an impact on per capita claim costs, either excluding the period with Covid or ignoring the Covid impact.

Comment from floor: Non-profits were fearing the worst, and made short-term adjustments to the salary scale assumption, but the expected decrease didn't materialize.

Q: Is Covid seen as a precursor to future pandemics or shocks to the system? Should we be factoring in possible future pandemics in the assumptions?

A: CalSTRS are currently engaging experts (academia) for view on that for a 20-30 year horizon.

Comment from floor: For the multiemployer plans receiving government provided financial assistance, there is guidance on what assumptions to use in determining that amount. It's very important to estimate the plan population and you can use historical information but ignore the Covid period (2020 & 2021). Also, there are restrictions on how this assistance can be invested, so there might be additional changes to long term rate of return assumption.

Q: As it pertains to adjustments for excess mortality, do you change the base rates or projection scales?

A: WTW has seen adjustments in the projection scale (but very limited sample size). CalSTRS doesn't have opinions on this yet, and haven't decided whether Covid will impact assumption altogether.

Q: Where is CalSTRS finding experts to help assess the longer-term effect of Covid and possible future pandemics?

A: Universities and research companies.

Q: Are you seeing the changes to pay structure?

A: WTW has not yet, but this question will be brought up a lot in the coming months, since companies are rethinking how people work. CalSTRS is looking at how the future of teaching will look due to technology and cultural changes. With people working remotely, geographical differences might come in into play. As time progresses and teachers leave, the teacher population is shrinking.

Session 204

Assessing Pension Investment Strategies in Today's Environment

Speakers:

- Michael S Clark, FCA, FSA, EA – River and Mercantile
- Sumit Kundu, FCA, ASA, EA, CFA – Principal Financial Group
- Yubo Qui, FCA, FSA, EA, CFA – Principal Financial Group

Session Assistant: Brad Armstrong, FCA, ASA, EA – GRS

Due to the American Rescue Plan Act of 2021 (ARPA), plan sponsors now have more room to manage risk. ARPA lowered required cash funding, made it less likely to face benefit restrictions, extended amortization periods, and added more stability on year over year interest rate assumptions. This provides a great opportunity for plan sponsors to assess PBGC premiums, cash contributions, and investment strategies on return, volatility, and liquidity. In addition, some overlay strategies can support ongoing pension investment strategies in a variety of economic environments.

The history of equity growth is generally upward, but with a lot of short-term volatility and uncertainty. The correlation between a two-year rolling average return on the S&P 500 and 10-Year U.S. Treasuries was mostly negative from 1965 to 2008, but has been substantially positive since the Great Financial Crisis (GFC) in 2008. The panel suggests that when assessing dynamic correlation, Scenario Testing and Stress Testing can be more informative than Stochastic Testing. In addition, Federal funds rates are expected to go up three (3) times between now and 2023, and up to five (5) times more in 2024. Therefore, fixed income (FI) will be facing a tough return environment and if equity growth remains positively correlated, then the equity return environment will be tough too.

Historical risk management of a pension plan has ranged from continuing the current asset allocation and contribution strategy to accelerating contributions sufficient to adopt a Liability Driven Investment (LDI) strategy along with a lump sum window and termination of the plan. During the last 10 years, LDI was a near perfect hedge in seven (7) of those years with one (1) year rewarding risk and two (2) years punishing risk. Once a plan is closed or frozen, the need to take risk diminishes as the funded status improves and the investment focus can move from generating asset returns to hedging funded status against downside risk. This is true for open plans too. Typically, a strategy will match duration first to better control interest rate volatility. Another example is a glide path strategy that moves toward an LDI approach over a longer period. Allocations to equity are gradually reduced as funded status increases until nearly all investments are in fixed income when the funded status reaches 100%. The glide path strategy may allow for re-risking if the funded status declines along the way. Sometimes the re-risking can be undertaken through derivatives.

Equity market expected returns are the lowest they have been in the last 10 years. This leads to short-term and long-term investment strategies that seem to be in opposition. Traditional asset allocation strategies apply a trade-off between equity exposure and interest rate hedging. Alternatively, equity derivatives can allow you to make decisions on equity exposure and interest rate hedging independently. A case study was presented to show the utilization of call and put options to create

synthetic equity exposure using derivative contracts. This leverage allows for the sale of existing equity holdings to increase the plan allocation to fixed income holdings and maintain liquidity. The Treasury bonds in the plan usually serve as collateral for the derivative contracts. The strategy is designed to mitigate almost all equity exposure risk in the vast majority of market environments and the upfront cost can be designed to be nearly cost neutral. It is important to understand this does not mean every market environment, such as a market decline more severe than a sold put option or a market increase well above a sold call option which could force the sale of LDI/FI assets. For those who would prefer more downside protection, this can be purchased above the cost neutral design. And by using equity derivatives, you can expect higher total expected returns and higher interest rate hedge ratios with the same expected funded status and a significantly tighter range of potential outcomes. Interested? You will need to consider adding a Derivatives Manager to your Investment Policy Statement. Then, the initial setup is typically 2-3 months and ongoing changes/adaptations after that can be implemented very quickly. Using equity derivatives and LDI in your overall investment strategy can lead to more certainty in getting to 100% funded status and staying there.

The presenters concluded by discussing implementation challenges, necessary investment policy statement changes, and additional considerations depending on the specific circumstances of both the plan and the plan sponsor. Best of all, this type of pension investment strategy can be applied to all types of pension plans (Private, Public, Multiemployer, Church, and High Deferral). This topic is attracting the interest of an increasing number of sophisticated large plan sponsors with more to follow.

Session 205

Public Sector Data Resources

Speakers:

- Moderator: Todd Kanaster – S&P Global Ratings
- Keith Brainard – National Association of State Retirement Administrators
- Joshua Franzel – MissionSquare Research Institute
- Leonard Gilroy – Reason Foundation
- Richard Johnson – Urban Institute

Session Assistant: Andy Blough – Indiana Public Retirement System

What data resources are available to actuaries and how can they help? Presenters showcase their publicly available data surveys and visualization tools, as well as ongoing updates, that can help actuaries gather and communicate nationwide pension information.

Background

Although public pension plans throughout the United States publish publicly available information regarding their plan provisions, funding, and governance, much of this information is difficult to find and aggregate. The panelists at this session presented their respective organizations' services and target audiences, all of which aim to inform stakeholders on aspects of public pension plans.

MissionSquare Research Institute

Joshua Franzel presented an overview of MissionSquare Research Institute (formerly the Center for State and Local Government Excellence) and Public Plans Data (PPD). The PPD is accessible to the public, free to use, and maintained by a partnership between MissionSquare Research Institute, the National Association of State Retirement Administrators (NASRA), the Center for Retirement Research at Boston College, and the Government Finance Officers Association. The PPD is a compilation of approximately 100 financial variables across 210 public pension plans (119 state-run and 91 locally-run) from 2001 to present, with new updates released quarterly. In June 2021, the PPD added information on over 100 state-run defined contribution plans with annual information covering 2015 to present. Source documents are also retained so that the users of the data may see the reports from which the information is derived.

The organizations that manage Public Plans Data will be adding more features and expanding variables and the number of plans. The public pension community is encouraged to submit recommendations for adding additional plans and suggestions for new features that make the PPD as useful as possible. The PPD is available at <https://publicplansdata.org/>.

Urban Institute

Richard Johnson presented an overview of the Urban Institute's Public Pension Project. The Urban Institute is a nonprofit, nonpartisan research institute located in Washington, D.C. Its Public Pension Project focuses on the adequacy and distribution of benefits to workers. Its State and Local Employee Pension Plan Database (SLEPP) compiles information about the rules of pension plan benefits rather than the financial data. This data was last updated in 2018 and will be updated again in 2022. The

SLEPP maintains information on teacher, public safety, and general employee plans in all 50 states, the District of Columbia, and 10 large cities, with more cities to be added in 2022. The Public Pension Project also features a pension simulator, grading of state and local pension plans, and various research reports.

There are more than 780 tiers of benefits included in the SLEPP database. Data elements collected for the database include vesting period, retirement eligibility criteria, benefit and benefit element descriptions (e.g., the definition of final average earnings), early retirement conditions and reductions, employee contributions, COLAs, and other data.

The Public Pension Simulator tool allows users to compare retiree benefits and government costs, as well as simulate various pension reforms. The detailed benefit information in the SLEPP combined with the Public Pension Simulator allows for comparisons of how benefits have changed across time. Mr. Johnson detailed an example showing how Illinois Teacher benefits have changed since the 2008 recession. The Urban Institute's Public Pension Project is available at <https://www.urban.org/policy-centers/cross-center-initiatives/program-retirement-policy/projects/public-pension-project>.

NASRA

Keith Brainard presented an overview of NASRA. NASRA serves its members, who are the Executive Directors of approximately 90 public pension systems, and by extension their staff and trustees. NASRA also works with members of other stakeholder groups, including the media and policymakers, to facilitate understanding of public pension issues.

NASRA focuses on collecting objective, fact-based information. Some of this information is accessible only to NASRA members, but many reports can be accessed by the public from its website. Some of NASRA's data and survey results are in a members-only section of the website to allow NASRA members to respond with more candor to their questions.

NASRA currently does not have a database of its data but is in the process of creating one. The database is expected to debut along with an upgraded website in early 2022. The goal is to create a map of the public pension community; some data in NASRA's database and website will be gleaned through an Application Program Interface, or API. Examples expected to be included in the database include the annual NASRA Roll Call, contribution rates, actuarially determined contribution information, plan design features, actuarial assumptions, and amortization policies.

NASRA's website is <https://www.nasra.org/>.

Reason Foundation

Len Gilroy presented an overview of the Reason Foundation's Pension Integrity Project. The Pension Integrity Project provides pro-bono technical advice and consulting to public officials and other stakeholders as they design retirement policies or undertake reform efforts. Instead of developing policies in crisis that may turn out to be sub-optimal, the Pension Integrity Project encourages using data to help policymakers understand problems, tradeoffs, and potential solutions. Visualizations are a key tool in that process, allowing for a simpler communication of complex concepts with more retention. A picture is more memorable than a table, and a moving chart is more memorable still. Mr. Gilroy went over several examples of visualizations to demonstrate the Pension Integrity Project's work.

The Pension Integrity Project aims to be helpful to stakeholders working directly on the issues. They develop frameworks and present information in a way to take action. Rather than focusing on research, the purpose is to drive better decision-making and outcomes.

Reason Foundation is currently working on developing a valuation modeling tool to allow more interactive, visualized methods for stakeholders to model key metrics in valuation results, stress tests, and stochastic models.

The Reason Foundation's Pension Integrity Project can be found at <https://reason.org/pension-reform/>.

Session 208

Pricing and Trend Implications of COVID-19

Speakers:

- Jin Haag – Evernorth
- Trevis Parson – Willis Towers Watson
- Tim Stawicki – Willis Towers Watson
- Steve Guzski – Paychex

Session Assistant: Steve Guzski – Paychex

Overview

The COVID-19 pandemic and our response to it have sent shockwaves through the country. Economies, systems, governments, employers, and families have all felt the impact. Our health care system was not spared given its critical connection to those entities. The system reacted to massive demand reduction for many services and massive demand increase for others and the impact continues to evolve. Some of the consequences are reflected in claims experience health actuaries study every day. As such, the pandemic had a significant impact on health care claims experience in 2020 and may continue to impact plans in various ways in 2021 and 2022 (and beyond).

In this session, the speakers offer several illustrations of the pandemic's impact on things like total costs and service-specific utilization patterns. Additionally, they provide opinions on the persistence of the experience changes revealed by the data, and well as their perspectives on what actuaries should consider in their upcoming forecasting, budgeting, and pricing processes.

Review of COVID-19 Period (Calendar Year 2020 and First Half of 2021) Experience

To recap the general impact of the COVID-19 Pandemic on health program experience, a natural starting point is the effect of direct COVID-19 expenses on health costs. To do so, the speakers present COVID-19 Testing, Treatment, and Vaccination Cost Statistics from multiple public sources.

For instance, per the Peterson-KFF Health System Tracker¹, Medicare Reimbursement for A COVID-19 Test ranged from \$36 to \$143, and the Hospital List Price for COVID-19 Test ranged from \$20 to \$1,419, with a median of \$148. With respect to treatment costs, per a study published in the Annals of Internal Medicine², the mean Cost of a Medicare FFS Outpatient Visit was found to be \$164, while the Mean Cost of a Medicare FFS Hospitalization Cost was \$21,752 (with a mean length of stay of 9.2 Days). Finally,

¹ **Peterson-KFF Health System Tracker.** "COVID-19 test prices and payment policy" posted 28 April 2021, Accessed at <https://www.healthsystemtracker.org/brief/covid-19-test-prices-and-payment-policy/> on 19 Oct. 2021.

² **Annals of Internal Medicine.** "Patient Characteristics and Costs Associated With COVID-19–Related Medical Care Among Medicare Fee-for-Service Beneficiaries" epublished 1 June 2021, Accessed at <https://www.acpjournals.org/doi/10.7326/M21-1102#t3-M211102> on 19 Oct. 2021.

with respect to vaccination, based on a CMS Announcement³, the National Average Payment Rate for Administration of single-dose vaccines ranged from \$28 to \$40, while the National Average Payment Rate for Administration of 2-dose vaccines ranged from \$45 to \$80.

However, despite the fact that direct expenses for COVID-19 could be material for a health program depending on the spread of the disease in the covered population, based on a Willis Towers Watson employer survey, over 90% of employers say their medical and pharmacy plan costs were at or under budget in 2020. The primary driver of this was the cancellation and deferral of health care expenses in the second quarter of 2020. As a result, based on another Willis Towers Watson survey⁴, Calendar Year 2020 Medical and Rx paid claim costs were **7% lower** than projected (and **1% below** 2019 levels). In addition, Year-to-Date 2021 Medical and Rx paid claim costs (for January 2021 through June 2021) were **2% lower** than projected (**15% above** 2020 levels, **11% above** 2019). Though year-to-date 2021 plan costs have appeared increasingly normal with the approval and expansion of the COVID-19 vaccination programs in the United States, paid claim seasonality has been materially affected and continues to deviate from historical experience. Similar patterns can be seen in Dental paid claim experience data.

Given the experience of our healthcare system through the pandemic, the audience shared concerns that the activity of other seasonal illnesses, like the flu, may be elevated and severe in 2021 through 2022 given the impact of worldwide COVID-19 lockdown measures on vaccine development. In addition, there are factors that suggest future medical claims experience may elevate (e.g. provider billing and contracting pressures from lost revenue during the COVID-19 period). However, evidence from previous natural disasters affecting the healthcare system (e.g. hurricanes) suggest that the system's supply constraints will impede a surge in future aggregate claims experience. In many cases, depending on the type of service, avoided care is not likely to return. However, as we return to more normalized aggregate claims levels, service mix shift has been observed and should be considered in forward-looking projections.

Considerations for a 2021 Forecast

Given historical experience, how should we think about 2021's emerging experience and comparisons against prior years' budgets and experience? The speakers advise that actuaries must be clear on what they are communicating, as it depends on your audience (e.g. Human Resources (HR) vs. Finance), as they often have very different perspectives on plan cost and net employer costs. HR thinks in terms of "Projected to Projected" (in the context of the annual budget development), while Finance thinks in terms of "Actual to Actual" (in the context of the organization's Profit & Loss statement). In assessing plan performance, 2020 medical claims experience will be difficult to use as a base comparison, but it still provides value. It's imperative that the actuary revisits what contributes towards any experience fluctuation.

In most situations, normalization of data will be required (for instance, the impact of premium holiday on Net Employer Costs). 2021 forecasts will likely show a significant increase over 2020 actuals, which may raise red flags and scrutiny from Finance. Therefore, one should consider developing and discussing

³ **Rev Cycle Intelligence.** "CMS Boosts Medicare Reimbursement for COVID-19 Vaccinations" updated 16 March 2021, Accessed at <https://revcycleintelligence.com/news/cms-boosts-medicare-reimbursement-for-covid-19-vaccinations> on 19 Oct.2021.

⁴ **Willis Towers Watson 2021 Health Care Financial Benchmarks Survey** (N = 583, 1.9M EEs, \$2.0B monthly claims).

additional interim forecasts and comparing multiple scenarios against actuals. This may provide greater insights into drivers of performance and allows Finance to be more comfortable with the supporting used for projections

Considerations for 2022 Budget Development

As previously mentioned, though aggregate costs levels are returning to pre-COVID projections, service mix shifts have been observed. As an example, based on a sample client with a national footprint and average cost conforming to industry norms, surgery claims were low (likely due to delay/cancellation of services), Lab/Medical/Infectious disease/Parasitic disease claims were high (likely related to COVID-19 exposure), Mental Health/Substance Abuse claims were high, and Radiology/Maternity/Preventative/ER claims proportional to total care were similar to prior years.

Despite our historical observations, **significant uncertainty surrounds 2022 health costs**. Given the review of 2020 and 2021 year-to-date experience, how do we develop 2022 assumptions? It's recommended that explicit adjustments should be made for some factors, while margin to cover a wider range of possible outcomes are considered in other instances. For instance, when an assumption is easier to quantify (e.g. shifts in demographics and/or geography), it can be included as an explicit adjustment. However, other factors, such as provider reactions to lost revenue, should be discussed with management to understand the realm of possibilities to decide how this can be incorporated into the budget development. The actuary can apply the above approach to "Building Block" elements that lead to the aggregate budget, such as (1) Utilization, (2) Unit Cost, (3) Service Mix, (4) Demographics, and (5) Geography.

To implement the building block approach, actuary will need to consider the following data elements and sources from CV-19 Data such as the (1) The proportion of unvaccinated population (2) The cost of the vaccinated vs. unvaccinated population and (3) Any census updates due to turnovers in the population (e.g. resignations). The actuary should consider multiple years of claims data in reviewing the 2020 data.

Adjustments to the 2020 data and multiple methods will be needed to appropriately conduct analysis and develop the rates. Barring constraints in time and resources, it may be valuable to conduct various projections using multiple methods to assess the reasonableness of the ultimate projection. Additionally, it may be valuable to consider splitting any analyses between Medical claims and Prescription Drug (Rx) claims. Rx was less impacted by deferred utilization than Medical in the second quarter of 2020; however it has its own considerations when reviewing historical data (e.g. drug stockpiling in the second quarter of 2020 and then moving to the 90-Day mail order option (which impacted paid seasonality)). Finally, the actuary should consider a population's health engagement as a predictor of near-term claims behavior.

Case Study 1 - Consider Health Engagement as the Predictor of Near-Term Claims Behavior

In the first case study, the employer justified increases in expected claims due to a reduction in health engagement during the COVID period. This approach could be useful when having discussions and developing assumptions for factors that are challenging to quantify.

Case Study 2 - Range of 2022 Rating Scenarios

In the final case study, when developing 2022 rates, the employer used multiple experience periods/COVID-19 adjustments to calculate the 2022 rate increase. Displaying a range of options can

generate dialogue/buy-in on selected rate actions. For instance, the actuary may compare historical pricing methods to new “alternative” scenario(s) that adjusts existing claims data to account for the impact of COVID or even carving out the COVID-experience period entirely.

Session 301

Fiduciary Responsibility: I am a Fiduciary Now What?

Speakers:

- David Kaleda – Groom Law Group
- Dominic DeMatties – Thompson Hine LLP

Moderator: Scott Hittner – October Three

Session Assistant: Nicole Lambert – State Farm

David Kaleda and Dominic DeMatties are ERISA attorneys and provide in this session an overview of what it means to be a fiduciary under ERISA. Speakers engage the audience in discussion, through live polling, of numerous situational examples where an actuary, depending on their actions, could be considered a fiduciary.

Whether an individual is a fiduciary is a functional test. Therefore, when actuaries and other advisors work with a benefit plan covered by ERISA, diligence must be taken to understand the role they are being asked to play to avoid inadvertently functioning as a fiduciary and therefore becoming a fiduciary of the plan. A fiduciary is subject to the highest duties under the law and the penalties for not performing ones' fiduciary duties are steep. Fiduciaries can be sued for breach of fiduciary duty, be held personally liable for damages, and be subject to penalties under ERISA.

Due to the nature of their work, actuaries are viewed as trusted advisors whose opinions on a wide range of matters are highly valued and trusted and therefore actuaries are frequently asked or expected to make decisions that could be viewed as fiduciary in nature. When asked to perform work for a client, an actuary should reflect on whether the client is inadvertently outsourcing a decision to the actuary that should otherwise be made by a plan fiduciary. Further, the actuary should understand how his or her work product will be used by the client including whether the client will use it in his or her capacity as a fiduciary.

It is important to note the distinction between settlor and fiduciary functions as it relates to a plan subject to ERISA. Settlers are responsible for establishing the plan, determining the benefit structure and other plan provisions, amending the plan, and terminating the plan. Once these decisions have been made, fiduciaries are responsible for implementing design decisions and the overall operation of the plan to ensure it is operated according to its terms and the law and for the sole benefit of plan participants and beneficiaries. Fiduciaries are also responsible for making investment decisions such as selecting investment managers, determining the investment line-up, ensuring assets are diversified, and determining any default investment used by the plan.

The speakers discuss a 5-factor test in determining if fiduciary investment advice has been rendered but caution that the preamble to the Prohibited Transaction Exemption 2020-02 may broaden the scope of who is viewed as a fiduciary, particularly with respect to rollover recommendations.

Fiduciaries have responsibility to determine whether expenses related to the plan are permitted to be paid from plan assets. Only expenses related to the fiduciary's administration of the plan, not settlor decisions, can be paid from plan assets, and even those expenses may be so paid only if reasonable and permitted under the plan document. Because the actuary oftentimes serves both the settlor (plan sponsor) and fiduciary (plan administrator), the actuary must take care in understanding the role in which their client is serving and how their expenses are billed to and paid by the client. For their clients who pay fees from plan assets, the actuary should discuss with their clients what information they can provide to be helpful such as ensuring their invoices detail the nature of the specific services provided so that the client can appropriately determine the proper source of payment.

Several examples highlight areas where an actuary could inadvertently become an ERISA fiduciary when working with clients. Typical areas where an actuary should use caution:

- **Using discretionary authority in plan administration, particularly when plan documents are not clear or where there is not an established policy/procedure.** Examples include determining service under the plan, qualifying a domestic relations order, claims & appeals management, and handling benefit overpayments. In these situations, is the actuary determining how the plan should be administered (fiduciary) or providing an interpretation to the client but making it clear to the client that the decision needs to be made by an individual who has been delegated fiduciary authority under the plan?
- **Providing input on investment strategy and related investment decisions.** Examples include the actuary's role at investment committee meetings and in LDI and de-risking strategies. In these situations, it is important to understand the distinction between investment advice and investment education. While an actuary can speak to generalities, provide data, and use generic examples, the actuary should stay away from providing investment recommendations as such recommendations are more likely to be viewed as fiduciary investment advice under ERISA.

The speakers conclude the session by reiterating the need for actuaries to understand the nature of the services they are asked to perform so that their work is not inadvertently misused by their clients and inadvertently placing the actuary in a position of having discretionary authority or control or providing investment advice with respect to a plan. Sometimes the client doesn't realize or fully understand the distinction between settlor and fiduciary responsibilities and decisions. Actuaries should educate themselves on this distinction to avoid becoming a fiduciary. Additionally, an actuary will be in a better position to advise their clients properly if the actuary understands when the client acts as a fiduciary.

Session 305

Funding Public Pension Plans When There Isn't Enough Cash

Speakers:

- Mary Beth Redding – Bartel Associates, LLC
- Michael Imber – Riveron

Moderator: Michael de Leon – Deloitte Consulting

Session Assistant: Jason Fine – Buck

Overview

This session discussed methods to improve the financial condition of the Pension Fund through alternative funding by way of Pension Obligation Bonds (POBs) or In-Kind Asset Contributions.

POBs

Ms. Redding began the session with explaining what POBs are and why they have been steadily gaining recent popularity, particularly during the pandemic.

POBs are usually issued to try and take advantage of an arbitrage opportunity where money is borrowed at one rate but more is earned above the borrowing rate when invested in the pension fund. The clear advantage of the POB is to pay off debt sooner. Another key advantage is there is no need to restructure cash flow.

Some careful considerations should be considered with POBs. Whether the plan is fully-funded or plan assets do not perform well, the debt repayment remains the same and must be paid. Meaning total cost could increase if the fund does not earn more than the borrowing rate. Alternatively, the Plan could appear fully-funded, but the bond debt repayment still exists and must still be made.

There was mention that the Government Finance Officers Association (GFOA) is against POBs, primarily due to added risk, but Ms. Redding believes these are not reasons to not consider a POB. The five primary reasons the GFOA recommends not issuing POBs are listed in the session slides.

Actuary's Role

The session continued with the actuary's role, which is different depending on who their client is. If the actuary is working for the retirement plan or System, then the actuary needs to help advise the Board on what to do with the extra money and its impact on future contributions. If the actuary is working as an advisor for the Employer, then the actuary needs to make the Employer aware of risks of issuing the POB. How to evaluate the POB risk was discussed next.

Evaluating and Communicating POB Risk

Most risk related to POBs are investment risk; however, other than just assuming it is a good deal if borrowing cost is less than discount rate, the session discussed scenario testing and stochastic modeling.

When performing scenario testing to model specific investment scenarios, we typically select mix of good and bad years (above and below discount rate). Additionally, it was recommended by Ms. Redding to also look at scenarios which may overachieve and possibly overfund in case this can result in other changes that may be triggered such as COLAs if the Plan is above a funded level.

What is key is how likely the event is to happen. Stochastic modeling is recommended to determine how likely the POB is to be a “good deal.” With stochastic modeling, it is recommended to use at least 1,000 scenarios chosen at random based on capital market assumptions and to evaluate the scenarios by looking at cash flows.

OPEB Obligation Bonds

Bonds do not need to be limited to just pension. Although not as common, the session continued with Mr. de Leon discussing OPEB Obligation Bonds and some considerations of why an OPEB Obligation Bond would be advantageous. Several case studies were also provided, but it should be noted the case studies were between 2005-2009 when GASB 43/45 was introduced, showing OPEB Obligation Bonds are generally not as popular as POBs which are receiving a lot of attention in recent years.

IN-KIND ASSET

Our next speaker, Michael Imber, discussed In-Kind asset contributions as a new “currency” for funding pensions and OPEB via the Legacy Obligation Trust (LOT) construct.

Mr. Imber reviewed traditional methods of funding, increase taxes or cut services, but these methods are not politically popular. The public entity could issue POBs or cut benefits, but leaders may not want to simply transfer liability risk or negotiate benefit cuts with collective bargaining units.

An alternative to the above is to consider an in-kind asset contribution which recognizes the fair market value of contributed capital assets against the unfunded pension or OPEB liability. The actuarial recognition of this offset value contributed would have an immediate cashflow benefit as the “catch-up” payment amortization on the unfunded accrued liability (UAL) is reduced. The accounting treatment, however, that recognizes an improved funded ratio would be contingent upon the sponsoring government’s release of control on asset management and disposition.

Next, Mr. Imber identified the asset types - Real Estate, Infrastructure, Enterprise – that could be eligible for contribution to the LOT in exchange for Certificates of Trust (COTs) that are, in turn, contributed to the actual pension fund. He further added that the contributed assets are expected to grow in value under the ideally independent management of a professional firm (the LOT manager) which would be incentivized to maximize economic value. The LOT manager would seek to convert non-cashflowing assets into cashflowing assets and improve the cashflows of existing enterprises that may be contributed. For example, vacant land may be leased to facilitate new construction under a long-term

lease or even be contributed to a joint venture with a private sector partner in exchange for a share of equity.

Liquidity for in-kind assets (COTs) are generated in three ways: (a) dividends from positive cashflows, (b) a partial or complete liquidation of the COTs by the pension fund, or (c) the outright sale of assets. The overarching principle is that a government considering this approach should only contribute assets it is willing to part with permanently.

In closing, other reforms were mentioned and discussed that would be required to obtain a sustainable solution.

Q&As

The session was engaging between the panel and the audience and many questions were asked, as shown below.

Q1: What % of issued bonds by State are POB?

A: Panel believed percentage is very small

Q2: What rate should be used for IRR for testing?

A: 3% common. Or rate that can invest their internal funds at (e.g., inflation + 0.5%)

Q3: (More of comment to Panel) – Putting more assets in Trust makes assets more volatile, so change ROR to be more conservative, which increases liability

A: can build that into model

Q4: Sensitivity to capital market assumptions in Stochastic Model?

A: not currently, but may start to see that.

Q5: Do you always see the POB issued to fully fund the UAL?

A: No, sometimes targeted, such as 80-85%. Some States have rules and limits. Michigan, for example, states you cannot fund more than 95% and the Plan must be closed.

Q6: Why does the State/Local hire a LOT manager or just do it themselves?

A: To avoid bias. Elected leaders may prefer to maximize political utility over economic utility. Basically, leaving money on the table. Better to have an independent advisor.

Session 307

Client Concerns RE: Marijuana Legalization?

Speakers

- Margaret Tiller Sherwood – Tiller Consulting Group, Inc.
- Joshua Carden – Carden Livesay, Ltd.
- Annmarie Geddes Baribeau – Insurance Communicators, LLC

Session assistant – Casey Shork, KPMG

The session's focus was on how marijuana use conflicts with zero-tolerance workplace policies and its negative impact on workplace performance, safety, and workers' health. The session also covered how companies deal with these complicated issues that can result in discrimination suits and negatively impact employee morale.

The first portion of the presentation covered legal matters arising from the legalization.

Mr. Carden explained the difference between legalization and decriminalization. Legalization of cannabis is the process of removing all legal prohibitions against it. Decriminalization of cannabis means it would remain illegal, but the legal system would not prosecute a person for possession under a specified amount.

With legalization, there is a rise of unfair termination cases citing performance under influence. In most cases, the law sided with terminated employee if there was no evidence of impairment.

What does this mean for businesses? They need to educate themselves on the law and understand the differences between federal and local laws. Federal laws do apply because marijuana is not legal at the Federal level. However, some states have laws that a business may not discriminate against medical marijuana use (similar to the Americans with Disabilities Act for a visible or perceived disability). There also have been cases in which legislatures tried to undo what voters approved that have been disallowed in the courts.

Testing is a good idea, but not all tests are the same. Urine is the most popular test, but it detects only the inactive cannabis ingredient. The active cannabis ingredient can only be found in the bloodstream, so a blood test is the most appropriate (saliva test is the 2nd best). In addition, the businesses will need to have a detailed documentation of impairment, which is often best accomplished by field testing.

In summary, legalized marijuana can be a positive experience – if it is taken in a well-controlled environment. But since it is not regulated, people don't know how much they are taking or what exactly they are taking, which can lead to legal problems.

The second portion of presentation focused on the areas of concern for the actuaries.

Ms. Baribeau said that marijuana legalization is a growing risk exposure starving for quantification.

The insurance industry needs a lot of answers that actuaries can provide – if they can get the data. The country needs those answers to effect better public policy and prevent unnecessary harm. We won't

know the real implications of widespread marijuana use for a generation. We also do not know how much marijuana will impact insurance, whether on the life and health or P&C side.

Marijuana research varies greatly by areas of study, data, methodologies and conclusions, making it difficult to reach public policy consensus. Marijuana remains classified as a Schedule I drug by the United States Drug Enforcement Administration. Actuaries should play a role in looking at the risks and benefits of marijuana – since insurers are responsible for a large portion of the tab.

Legalization has some pros and cons. Pros: doesn't substantially affect violent crimes; creates new jobs (77,000 in 2020); good for state budgets; and does alleviate the pain. Cons: drag on environmental resources; social costs (for every \$1 gained in tax revenue, approximately \$4.50 is spent to mitigate effect of legalization); and costs to insurers and ultimately policyholders.

Legalization is leading to greater use - self-reports of past-month marijuana use doubling from 6 to 12 % of those surveyed between 2008 and 2019. As of 2020, almost one-in-ten young adults ages 19-30 is a daily or near daily marijuana user.

Being in the middle of a pandemic only increased the usage - 72% of respondents said COVID was the #1 cause of stress and burnout in their lives, and 39% of these participants said they used cannabis to cope.

Based on the recent research, there appears to be a relationship between marijuana use and smoking cigarettes (cigarette sales increased by an average of 7% in states that decriminalized recreational use of marijuana). This is not hard to believe. If you are already comfortable with smoking pot, smoking cigarettes is not a great leap. So pot use can lead to another comorbidity.

Another severity concern is that THC – which causes the painkilling high and euphoria – is a much more potent drug than it once was. Commercial growers are increasing potency to sell their products, and the higher the potency, the more severe the impairment.

Higher THC levels may explain the rise in emergency room visits involving marijuana use. The popularity of edibles also increases the chance of harmful reactions. Edibles take longer to digest and produce a high, boosting consumption to get high faster, leading to dangerous results. In addition, edibles can be a risk to children who see gummies and think they are just candy. Higher THC levels may also mean a greater risk for addiction if people are regularly exposing themselves to high doses.

Long-term use of marijuana can lead to substance use disorder, aka addiction. Research suggests that between 9% and 30% of marijuana users may develop some degree of marijuana use disorder. People who begin using marijuana before age 18 are four to seven times more likely than adults to develop marijuana use disorder.

There are also risks related to pot primarily in the P&C domain. The first one is auto insurance, whether personal or commercial. Pot affects the central nervous system by affecting judgement similarly to alcohol. However, some research came out that driving while high also meant motorists drove more slowly, avoided lane changes and avoided being around other cars. Finally, the Insurance Institute for Highway Safety concluded in July that marijuana use increases the odds of driver crash involvement between 18% and 32% (a meta-analysis of 26 published studies).

The speaker suggested that insurers must pay closer attention to this and start coding claims for marijuana use as much as possible.

Marijuana use by the U.S. workforce increased 3.8% in 2020 and was 12.2% higher than in 2016. (Most other drug categories declined or remained flat over the past five years.) There are lower positivity rates in states with only medical marijuana use or where marijuana is illegal vs. states with legalized recreational use.

The implications on how safe and productive marijuana users are at work requires more study. The presumption was always that people should work while sober. However, some advocates say that smoking pot can help the user and it should therefore be allowed.

Recreational legalization led to a 20% drop in probability a person would receive workers' compensation benefits. Medical legalization led to a 7% drop in the probability of getting workers' comp benefits. Why fewer claims? Perhaps because people were treating their pain with pot. Or it could be that most states will not accept workers' compensation claims if a person was using marijuana while on the job.

The opioid crisis is still fresh in our minds but remember that it took 15 to 20 years before the opioid crisis was taken seriously. Marijuana is not yet on people's radar screens but it should be. How do we know the growth in marijuana use and its higher potency will not be the next opioid crisis?

Actuaries need to recognize when marijuana is becoming too big a problem to ignore so as to not miss "the turn" in trends that force insurers to have to charge more for premiums to make up for emerging losses. Actuaries can help improve the public policy narrative by following claims in which marijuana is involved.

Comment from floor: What's lacking is presumptive level of impairment. Presence of Rx for pot seems to be a clear line of guilty/not guilty. If industry is regulated, then the next question is "Is pot taken according to Rx?"

Question from floor: Canada legalized pot, but changed the law to make driving under influence of pot a criminal offence – any thoughts? Speakers position – if you are impaired on the road, I don't care what are you impaired from, you should not be on the road.

Session 401

Lessons Learned from Plan Terminations

Speakers:

- Michael Clark – River and Mercantile
- Sara Eagle – Pension Benefit Guaranty Company
- Russ Proctor – Pacific Life Insurance Company
- Brian Thibeault – Prudential Retirement

Session Assistant: Adam White – River and Mercantile

Consultants and other providers have learned numerous lessons from the increased activity around plan terminations. Speakers discuss what works and what doesn't, along with what's on the horizon as plan termination work continues to grow.

Summary

In this session, speakers provide guidance on how to run a successful plan termination by focusing on items that are often overlooked.

Preparation

The first steps in the plan termination process include assessing the impact on the company, including all financial and risk considerations, and determining the termination timeline, considering the termination process usually takes about 12-18 months. In addition, the plan sponsor should be ready to take advantage of favorable market conditions (i.e., timing of lump sum window and/or annuity buy-in), as the savings could be significant.

Participant Data

Another key aspect of a successful termination is having clean data. Comprehensive death and address searches should be run as an early step in the plan termination process. The PBGC and IRS filings require accurate participant census and address information. Data questions must be cleaned up to process benefit payments. This can be difficult for plans that transitioned record keepers, as historical information can be tough to find. If any participants are still lost after a diligent search, then they must be sent to the PBGC as missing, which is usually more expensive than a lump sum payout. Annuity providers also require clean and accurate participant data. If data discrepancies arise following the annuity placement, a refund or additional premium may be needed, which is an added complication in a plan termination when trying to close out a plan trust. Some common data issues that need to be cleaned up include collecting contingent annuitant dates of birth as well as resolving participants with uncashed checks and reviewing participants that have passed their normal retirement date and/or required distribution date but have not yet commenced their benefits.

Plan Administration Impact

Plan administration is a key component of the termination process, as there are many responsibilities for the administrator in conjunction with their actuary and consultants, including creating the termination amendment, calculating benefits and participant notices (NOPB, election forms), completing regulatory filings, drafting the bid specifications for the annuity placement, and handling any audit requests. The annuity placement bid specifications are particularly important because the chosen insurer will rely on that document, rather than the plan document, to price and administer remaining benefits. Therefore, it is important that all optional forms of payment are included in the bid specifications and that actuarial equivalence, early/late retirement, and required minimum distribution procedures are carefully explained.

Investment Decisions

It is important for the plan sponsor to know where the plan currently stands and where the plan could end up in various market scenarios to minimize negative impact on the overall business or on plan participants. An over-funded plan creates a risk of a trapped surplus that is heavily taxed or must be put into a subsequent plan for impacted participants. Meanwhile, an underfunded plan will require contributions to fully fund prior to paying the lump sums and annuity purchase premium. Therefore, it is recommended plan sponsors estimate the lump sum take rate and re-invest the portfolio accordingly to reduce this funded status risk. The expected lump sum payments should be backed by cash, while the estimated annuity purchase premium should be backed with liability matched assets, which will help eliminate interest rate risk. Any remaining shortfall can then be contributed as cash once the final lump sum amount and annuity purchase premium are known to avoid any trapped assets.

There are a couple insurer innovations that can help plan sponsors mitigate these risks. Buy-in contracts remove investment and longevity risk from the plan sponsor, but the plan sponsor maintains the administrative responsibility. The main benefit of a buy-in is that it locks in the plan termination cost early on for plans that have not yet started the termination process and then can be converted to a buy-out when the plan is ready to pay out benefits and close the plan trust. In this scenario, a buy-in contract assumes a lump sum take rate and an adjustment can be made to true-up the premium following the actual lump sum elections. Alternatively, the insurer can choose to fund the lump sum window, so the plan sponsor is economically done with a plan termination at the purchase of buy-in contract.

Another innovation is the use of assets-in-kind (AIK) to pay an annuity buyout premium. AIK consist of US Treasuries and Corporate Bonds, which the insurance company is prepared to hold or sell. AIK can result in a slightly discounted premium for the Plan due to potential transaction cost savings and less 'out of market' risk for the insurer. Typically, the minimum size of a buyout using AIK is \$50M-\$200M depending on the insurer. Plan sponsor should talk to insurers well in advance if assets-in-kind will be used in transaction.

Touch Points

Multiple communications (Notice of Intent to Terminate, Notice of Plan Benefits, election packets) are sent to participants throughout the termination process, so it is important that all mailings are clear and understandable. It is recommended that contact information and/or a call center is provided to help answer any participant questions throughout the process. The Notice of Plan Benefits should also ask

the participant to confirm contact information, so the lump sum election packet is sent to the correct address. This will also help clean up data ahead of the annuity placement.

Common Filing Issues

The speakers continue by addressing common plan termination filing issues, particularly with the Form 501. The Form 501 should be submitted timely, even if there are residual assets in the plan trust or if the annuity contract is not yet available, as some insurers can take 4-6 months to finalize the annuity contract. In addition, an explanation should be provided to the PBGC if the participant count differs from the Form 500, if the value of distributions is less than estimated on the Form 500, or if no distribution is reported for any participant. In general, a plan sponsor or consultant should always read the instructions carefully, and then if still unsure how to proceed, the best course of action is to call the PBGC to discuss and add a note/cover letter explaining the issue with the corresponding filing.

Things to Avoid & General Tips

The session concludes with some advice on things to avoid and some general tips. Benefits should only be distributed after filing the Form 500 and after the 60-day review period to prevent an automatic premature distribution audit and any associated penalties. Lump sum distributions to active participants should be paid out after the annuity purchase to avoid any in-service distribution problem if the termination is nullified or withdrawn. To help ease the audit process, plan sponsors and consultants should provide requested information promptly, provide calculations in Excel format, and maintain census data and benefit calculations for at least six years.

Session 402

Accounting Challenges: What Could Possibly Go Wrong?

Speakers

- Stephen Eisenstein – KPMG
- Stephen Breeding – Ernst & Young (EY)
- Regina Croucher – KPMG
- Philip Bonanno – Grant Thornton

Session assistant – Casey Shork, KPMG

The session's focus is on the challenges that defined benefit pension plans can face during the accounting valuation whether due to differences in accounting standards, changes in audit procedures/standards, or client activities that occur during the year.

The session opens with the introduction of the auditor's point of view. The purpose of the audit is to provide an opinion on the soundness of financial statements (i.e., are the financial statements fairly stated). Risk assessment is essential to the audit and items identified as risk of material misstatements (RMMs) will undergo the most scrutiny. Under the concept of materiality, the consensus is that there are different views of materiality depending on role (e.g., client, actuary, auditor). Materiality differs by the type of audit being performed. For example, a corporate audit (ASC 715) may have higher materiality thresholds compared to a plan audit (ASC 960).

The discussion then moves to accounting for a settlement. Settlement accounting is occurring more frequently in recent years due to an increase in plan de-risking activities. The potential challenges as it pertains to settlement accounting are different views on the service cost plus interest cost threshold, annuity buy-ins vs annuity buy-outs, and settlement recognition timing (when the settlement threshold is exceeded, per reporting period or at year-end).

Open microphone Q&As

Q: Once the settlement threshold is crossed, is the expectation that you remeasure every month?

A: The speakers typically see year-end recognition even if threshold was crossed mid-year for non-public companies. If found necessary, auditors may estimate the impact of periodically remeasuring to assess materiality. The suggested approach is to talk with auditors first before making decisions to delay recognition to year-end, especially if you file quarterly (publicly traded companies subject to interim reporting rules).

Q: So far, we have been recognizing settlement losses. Would the treatment be different if we end up in the settlement gain position?

A: The treatment is the same regardless of gain or loss position.

Q: If you are estimating that accounting for a settlement will happen during the year, what will happen if your estimate is a gain?

A: The treatment of gains or losses due to settlements should be applied consistently. If the entity is recording estimates during the fiscal year and notices that accounting for a settlement is not likely to occur, the entity does not reverse recognition from its prior quarters. The outlook is prospective only. An entity can have shortcuts on how it recognizes accounting for a settlement (accounting practice), but can't create an accounting policy that is contrary to the applicable financial accounting standard (technically settlement recognized when it's occurred or nearest month-end).

Polling Questions

Polling question and response 1: If anticipated plan expenses are included in the service cost, should those expenses be included in the service cost plus interest cost threshold to determine whether settlement occurs? A majority of attendees responding answered "No."

A lump sum case study sets the stage for the next two (2) polling questions: Lump sum window in Q4, some LS are paid in Q4 and some are paid in Q1 of next fiscal year, in a way that LS paid in each quarter is below the respective settlement threshold.

Polling question and response 2: What are possible accounting considerations? Choices are: none, cumulative lump sums over the two (2) quarters are considered when determining accounting for a settlement threshold, or management intent may be considered. A majority of attendees responding answered "management intent may be considered" (16 out of 21).

Polling question and response 3: What are possible design considerations? Choices are: have multiple windows instead of a single window; multiple participant election deadlines linked to payment; include a cumulative payment threshold for closing lump sum window, or other. A majority of attendees responding answered "having multiple windows instead of single window".

Polling question and response 4: To gauge relevance, this polling question indicated that a majority of the attendees have clients who report under IFRS. Differences between the two (2) standards include when accounting for settlements (routine vs. ad-hoc lump sums) is done, OCI (specifically as it pertains to past/prior service cost and gain/loss recognition), and interim remeasurements (significant event for US GAAP vs. significant market fluctuations for IFRS).

The conversation moves to ASOPs 27, 35 and 41, focusing on the assumptions not selected by actuary, since most of the ASOP 27 and 35 content is covered in another session. How much leeway exists for describing the reasonableness of assumption? Actuaries can no longer be silent on assumptions.

Mortality updates are considered a Type I subsequent event - an event that occurs after a reporting period but before the financial statements for that period have been issued based on conditions that existed on or before the balance sheet date. Financial statements may be adjusted to reflect Type I subsequent events depending on the materiality of the event.

Risk assessment may result in the expected return on plan assets assumption not being considered an RMM for the entity's audit under ASC 715, would be considered an RMM for the pension plan audit under ASC 960. This could become frustrating for actuaries.

Polling question and response 5: "Question to signing actuary: Since no rationale was provided, how was the 8% EROA assumption determined? Which of the following responses would you consider acceptable rationales?" The choices are: "based on long-term expected return on plan assets, reflects

current/target asset allocation, forward looking capital market assumptions; management told us to use 8%, it's their assumption and developing and reviewing this rate is outside the scope of our engagement; similar to other plans with a similar asset allocation; all of the above; and none of the above." A majority of respondents chose "based on long-term expected return on plan assets, reflects current/target asset allocation, forward looking capital market assumptions" (17 out of 21).

Final message from our presenters: "we can't stress enough that each year assumptions should stand on its own, regardless of what transpired the prior year."

Session 408

Let's Talk Retiree Medical!

Speakers:

- Dale Yamamoto – Red Quill Consulting
- Adam Reese – PRM Consulting Group
- Steven Draper – Ernst & Young, LLP

Session Assistant: Rebecca O'Loughlin – Buck

There are many trending topics in retiree medical right now, including healthcare cost trends (particularly for Medicare Advantage plans) and HRA spending. Additionally, the last year of life methodology first published in 2000 is still considered a preferable approach for valuing healthcare costs if there is enough data available to utilize it.

Last Year of Life Methodology

An alternative to the traditional averaging of retiree healthcare costs was first proposed by Adam Reese in his actuarial paper published in 2000, arguing that the last year of someone's life is significantly more expensive and should be looked at separately from their other healthcare costs. Most employer populations are not large enough to do this kind of analysis, but CMS has been looking into it for everyone enrolled in Medicare. A 2000 Technical Panel recommended this model, and while it was not mentioned in the next two panelist's reports, it was recommended again in 2017. Additionally, a recent study went beyond the last year of life to study the healthcare costs in the last five years prior to death. The impact based on a recent Medicare trustees report showed that using the last year of life methodology would be most significant for Part A costs (reducing the actuarial imbalance by 26%), but much less so for Parts B and D (decreasing expenditures by only 3-5%), since regular medical and drug costs tend to be more consistent year over year versus hospital costs that increase more drastically in someone's last year of life.

Instead of applying the average cost of all care to everyone, the last year of life methodology can be used. In such an instance, the actuary would actually assume that the high costs associated with the last year of someone's life (i.e. "last year of life" costs) would decrease slightly for older ages because fewer life saving measures would be used, and then value a separate benefit for the regular (non-last year) costs (i.e., "maintenance" costs). This also changes how mortality improvement can impact costs. The liability would not increase as significantly under the last year of life methodology vs. the traditional average cost methodology since living longer just means you're pushing out the last year of life costs and adding lower cost maintenance years. This impact is muted for most employer-sponsored plans because they are the secondary payor, but is significant for Medicare. It is hard to reflect this approach in age morbidity factors, since most data sources don't include a date of death, so the maintenance years can't be differentiated from the last year of life costs.

Trend/Getzen Model

The original EBRI model published assumed that healthcare costs would increase by 10% each year, while overall GDP would only increase by 5% each year, essentially assuming that healthcare costs would eventually make up more than 100% of the total GDP. Since this is impossible, Adam Reese created his own model in which healthcare costs would still increase by 10% each year. Instead of comparing this to the total GDP, he set only the non-healthcare costs to increase by 5% each year. This corrected the issue and projected that healthcare costs would continue to grow as a percentage of total GDP but would never exceed it.

The SOA's Getzen Model projects healthcare cost trends by incorporating standard growth factors such as inflation, real GDP, and taste/technology, and then constrains it by the estimated maximum portion healthcare could make up of the total GDP before it's assumed to meet resistance and be limited to the overall rate of growth for GDP. The model structure was updated in 2014, and default parameters are updated annually. The current default inputs now predict healthcare costs will be a lower percentage of GDP than was projected 5-10 years ago.

Medicare Advantage

Medicare Advantage (MA) plans are accounting for some of the decline in healthcare costs, as they have found more cost-efficient ways to deliver coverage to Medicare-eligible retirees, with some plans even offering \$0 premiums. However, this presents a dilemma for actuaries valuing employer-sponsored Medicare Advantage plans, since it may not be reasonable to expect that these plans will have \$0 premiums in the future. In addition, one cannot apply trend to \$0. Therefore, it's recommended that the actuary projects the claims and administrative expenses separately from the expected CMS funding to see if the costs will eventually outpace this funding.

HRA Costs

Health Reimbursement Accounts (HRAs) became very popular about ten years ago as a way for employers to cap plans without requiring higher retiree contributions every year to cover the total cost of coverage. The most common design allocates a fixed monthly or annual amount to a notional account which retirees can use to reimburse the cost of premiums for health insurance and out of pocket medical expenses. Some plans allow the rollover of unused funds (sometimes up to a maximum account value), whereas others employ an annual "use it or lose it" approach.

These accounts were often initially valued as a single life annuity of the benefit amount with 100% of retirees electing to use the "free money." However, auditors began to see that this was overly conservative as there were gains every year from participants passing away and forfeiting their remaining balances. Therefore, there was a need to develop assumptions for expected participation in these accounts, utilization of the account money and forfeiture of the funds, etc. Ideally, these would be based on plan experience, but if the HRA is too new or the experience isn't credible, publicly available data can be used. Ongoing experience should continue to be monitored in testing the reasonability of these assumptions once they are set. It's recommended that the actuary look at what percentage of available funds are used each year instead of the percentage of people using any amount, since the former will result in a more accurate representation of the liability. The rate at which rollover balances

are being spent down should also be considered (as well as the fact that the total rollover balance is growing each year). A question was posed that if accounting for future spending of the rollover balances was double counting the funds since they were already accrued for and expensed when they were allocated to the HRA; however, this is not the case because it was taken back out as an actuarial gain when it wasn't spent the year it was allocated.

As these plans became more popular and employers started seeing that participants weren't using all of the funds available to them, some decided to reduce the benefit amount. In this scenario, the actuary should value not only the plan change, but consider the implications on the chosen assumptions (i.e. would a lower amount cause an increase in utilization?). Retirees may see this takeaway as a sign of more things to come and try to use up more of their funds so as not to lose them in the future, resulting in an increase in utilization. However, it's possible that the funds weren't all being used because there are so many low premium Medicare Advantage plans available to retirees. Therefore, participants would be able to cover the cost of their health insurance premiums with less than their HRA stipend, and the change wouldn't result in more funds being spent. Given the current MA landscape, it now may benefit employers to go back to offering coverage through an MA plan and paying the full costs instead of giving a subsidy that's potentially higher than the cost of coverage.

Session 502

ARPA and Single Employer Pension Plans

Speakers:

- Jeremy Olszewski – Session Facilitator, Fidelity Investments
- Joseph Anzalone – River and Mercantile
- Brian Donahue – October Three
- Larry Scherer – Findley, a Division of USI

Session Assistant: Steve Pribis – SR Retirement Consulting

ARPA, the American Rescue Plan Act, passed earlier in 2021 and makes sweeping changes to the basis by which sponsors of single employer pension plans are required to fund their plans. The two primary areas of change are to the period of time over which unfunded liabilities are to be amortized and the interest rate basis by which those liabilities are to be determined.

Overview of Provisions

ARPA *permanently* increases the amortization period from 7 years to 15 years. In addition, in the first year that the 15-year amortization schedule is adopted, all prior bases are ignored and one new 15-year amortization base is established. Each subsequent year, new bases are established as previously required under PPA with each new base being amortized for 15 years. Interest rates also play a key role, in that they become a bit more stabilized.

The longer amortization period is required to be put into effect for plan years beginning with the 2022 plan year. However, plan sponsors may elect to take advantage of this extended period as early as ANY plan year beginning after December 31, 2018.

Regarding the interest rate(s), the 5% corridor remains in effect until 2025, which helps to maintain stability in the interest rates used for determining funding and AFTAP calculations. In addition, there is now a 5% floor on any and all segment rates, so the 5% corridor ensures that no segment rate will be lower than 4.75%. This change in interest rate is “defaulted” to plan years beginning in 2020, but plan sponsors have the ability to waive the change in interest rate until 2022 – for either benefit restriction purposes and/or funding purposes.

Questions Raised, Questions Answered – Review of Guidance

Plan sponsors and plan practitioners have many questions regarding some of the ARPA provisions. Fortunately, the IRS issued Notice 2021-48 in July 2021, which answers the vast majority of questions. In general these answers tend to be plan sponsor “friendly.”

Generally, plan sponsors have until no earlier than December 31, 2021 to take full advantage of the interest and amortization relief – even if the 2020 Form 5500 has already been filed.

It is extremely important that plan sponsors and plan practitioners, especially the Enrolled Actuary (EA), communicate clearly and often regarding the plan sponsor's intent on how and when to apply ARPA. For example, to apply the ARPA amortization (IRC §430(c)(8)) for years prior to 2022 or to ignore ARPA §9706 (interest rate stabilization) for a plan year prior to 2022, either written notification to the EA and Plan Administrator (a "Formal Election"), or a Deemed Election on Schedule SB must take place. If a Formal Election option is chosen, then it is critical to make sure that the election form include the plan name and number, the plan sponsor name (including address and EIN), and the sponsor's dated signature. It is also necessary to specify the year to which when the amortization is to be first applied and for which purposes §9706 is to be ignored. Under certain (and very specific) circumstances a deemed election can be made by filing the Schedule SB reflecting the election – without a formal written/signed election from the plan sponsor. These deemed elections have a wide range of application, including adopting §430(c)(8) early and/or ignoring §9706 for ALL purposes in 2020; however, a Formal Election *IS* required if the plan sponsor wants to ignore ARPA in 2021 or solely for AFTAP purposes in 2020. The deadline for formal elections is the last day of the 2021 plan year (or December 31, 2021, if later).

Clarity and guidance are also provided in the IRS Notice regarding retroactive application of ARPA. Plan sponsors can revoke "now-unnecessary" funding balance elections (by December 31, 2021), add excess contributions to Pre-Funding Balances (PFBs) – for 2019, 2020 and 2021, and revoke election to use funding balance for 2019 and/or 2020 – all dependent on the notion that ARPA "created" the "opportunities" for such elections or revocations. Caution should be used when applying ARPA retroactively so as not to have an adverse effect on PBGC premiums.

Contributions can be redesignated from 2019 to 2020 and/or 2020 to 2021, provided if the redesignation would have been allowed originally, plus the original designation must have been made on a Schedule SB on or before October 15, 2021. As noted below, the process for redesignation is more complex than the process for adding to the PFB.

AFTAPs could change as the direct result of ARPA. For example, if either a 2020 or 2021 AFTAP was certified without reflecting ARPA, but the AFTAP changes because of ARPA, the change is "deemed immaterial" if the revised AFTAP certification reflecting ARPA is issued by December 31, 2021 AND the change applies prospectively (from the date of recertification) or the sponsor elects to apply the changes retroactively to the date of the original certification.

Generally if a CARES Act §3608(b) election is in place, elections will likely still apply. It is also possible that the plan sponsor may want to revoke the §3608(b) election. There is relief available for plan sponsors who want to revoke their election to reflect a higher post-ARPA AFTAP.

436 contributions (those that were used to make, avoid, or terminate benefit restrictions) can be redesignated as "normal" (430) contributions. (No refunds of such contributions are available.) If self-correction applies, then generally the methods that apply to EPCRS are to be followed.

For efforts to apply a new and better AFTAP retroactively, there are ways to accomplish this but the rules are very detailed and complicated. It is suggested that those who wish to do so read the details of the IRS guidance.

With respect to limitations, nothing in the Notice provides the plan sponsor with the ability to impose new 436 benefit restrictions.

Guidance is also provided in terms of reporting requirements. In general, re-filing the 2019 Form 5500 with a revised Schedule SB is NOT required. This also tends to apply with respect to any 2020 Form 5500s that were filed prior to the IRS guidance. However, if the plan sponsor is redesignating a 2019 contribution to 2020, then an amended 2019 Schedule SB is required. Form 5330 (and any related excise tax as the result of what had been an unpaid minimum required contribution) may be refiled to recoup the payment of the excise tax.

Several “tricky situations” are addressed. Some of these include delayed contributions (both annual and quarterly) as the result of the CARES Act, especially as it applies to the EIR for discounting plan contributions. Cash balance plans that use an interest rate credit linked to the segment rates that do NOT elect to delay recognition of ARPA §9706 may need to rely on their own “reasonable interpretation” of how interest credits should take place. Another tricky situation is where newly created PFBs could cover quarterly contributions requirements. The plan sponsor needs to be aware of whether they had elected to create a funding balance as the result of the reduced contribution requirement. Lastly, there is the issue of redesignating a 2019 contribution to 2021. Timing of the filing of the Schedule SB will dictate whether or not this could occur.

PBGC Technical Update 21-1

This PBGC Technical Update provides relief in two areas – waiver of filing (of Form 4010) triggered by ARPA-induced increase in PFB, and clarification on how to treat actuarial information required by a 4010 filing that has been updated due to ARPA. Included in the update is a note that a plan’s FTAP could retroactively decrease below 80% from an increase in PFB. PBGC provides a waiver for a filing for any information year ending before December 31, 2021 – if the filing would NOT have been required without the occurrence of ARPA and a related election to increase PFB. An amended 4010 is NOT required if ARPA created incorrect actuarial information. Guidance is also provided as to what actuarial report should be submitted when re-filing a Form 4010.

Examples

ARPA provides many plans relief in terms of the inability to make minimum required contributions – both as the result of a longer “fresh” amortization and the interest rate relief. Additionally, plans that had 436 restrictions can make lump sum payments, etc., as the result of an improved AFTAP. Some plan sponsors that were required to file Form 200 with the PBGC (\$1 million missed contributions), as well as pay an excise tax are relieved of those “penalties” as the result of ARPA’s funding relief.

Strategies for adopting either the amortization change and/or interest rate change will depend on PBGC (variable) premiums – whether the premium is unaffected as the result of already imposed premium caps, available credit balances, (sponsor) cash flow restrictions, plan termination on the short-term horizon, etc.

What does ARPA Mean?

Plan sponsors need to be in touch with their actuaries to identify both the short and long-term implications of funding requirements, PBGC premiums, investment policies and strategies. The plan sponsor also needs to be aware that ARPA does NOT mean any change in balance sheet issues, no changes in PBGC liabilities and no changes in plan termination cost.

Plan sponsors may be encouraged by the several-year contribution requirement relaxing/reducing. They also may be encouraged to give serious consideration to de-risking action. Plan sponsors should evaluate projections of at least 10 years – to identify contribution, PBGC premium and benefit restriction implications, as well as any other plan-related costs. ARPA isn't a one-size fits all for plan sponsors.

Session 604

What's Happening in the Annuity Market

Speakers:

- Evan Inglis – Session Facilitator, PBGC
- Kerry Pechter – Retirement Income Journal
- Jay Dinunzio, F&G Annuities & Life

Session Assistant – Steve Pribis, SR Retirement Consulting

The life insurance industry is generally in a solid state while experiencing somewhat unique changes. These changes include the potential impact on the annuity market and pension risk transfer (PRT) in the pension plan universe, private equity investments in the insurance companies and the over-arching nature of reinsurance. Issues include the changing landscape of the life insurance industry, and both the advantages and concerns raised by these changes. A reference for additional background and details is “Capturing the Illiquidity Premium” – a thorough paper published by the Federal Reserve System.

Current Life Insurance Landscape

There are roughly 750 life insurance companies (LI cos.) in the U.S. today, 75% of them are stock based, while about 15% of them are mutual companies. 67% of the liabilities of the LI cos. are attributable to annuities, with about 30% of the liabilities attributable to life insurance. Of the annuities, 2/3rds are in the retail space, whereas 1/3rd are institutional. The assets backing the LI cos. are 67% in long-term bonds, with 50% of that 67% owned by corporations. The ratio of assets to liabilities is about 110%, putting the industry in strong financial shape.

Three “pillars” of life insurance investing are capital, the liability profile, and yield. Capital provides a needed cushion against any unexpected losses. Liabilities vary by liquidity, the variation depending on the product. Very liquid liabilities include policies with little to no surrender charge. Very illiquid products include annuities. Yield is necessary for market competition, with investment “spread” driving insurer profit and product competitiveness.

The Fixed Indexed Annuity (FIA) is an example of a product that has become quite popular with insurance companies. 6-month year-to-date sales in 2021 were \$30 billion, with over \$500 billion in force today. FIAs with income riders can be capital-intensive for the issuers. Asset managers can match “sticky” FIA assets with illiquid liabilities, such as private credit or collateralized loan obligations (CLOs). These illiquid liabilities create opportunities for potential investors.

Changes to the Life Insurance Landscape

Prior to the financial crisis of 2008, investment in insurance companies by private equity (PE) firms was almost nonexistent. Since 2010, there has been a tremendous rise in the investment by PE firms, currently about \$500 billion. Total LI cos.' assets are about \$8 trillion. While the share of PE firms' investment in the life insurance industry remains relatively small, there are some concerns. Part of the concern is the ownership structure of reinsurance companies (which are largely domiciled in Bermuda), the asset managers/PE firms, and life insurers. In many of these cases, there is an "umbrella" ownership, where the asset manager, life insurer and reinsurer may have common ownership. The offshore nature of the reinsurer also creates some concern. Counter to that concern is the notion the relative share of investment by PE firms remains small and the solid financial position of the life insurance industry.

Numerous examples of asset managers participating in this new structure include Blackstone, The Carlyle Group, Apollo, Goldman Sachs, KKR and Brookfield Asset Management. Life insurance companies participating include F&G Life, Athene, Global Atlantic and Security Benefit Life.

A compelling illustration of the "Bermuda Triangle" strategy shows the relationships among the life insurance companies, the reinsurer (in Bermuda) and the asset manager. This illustration assumed that the life insurance company, the Bermuda reinsurer and the asset manager are in ONE holding company. An example of a recent transaction was that of American Equity Insurance Company, selling off \$4 billion to Brookfield Asset Management, which is reinsured by North End Re, a wholly owned subsidiary of Brookfield Asset Management.

Both benefits of and concerns for the PE influence are cited. Benefits include:

- PE firms bring new capital to annuity insurers stressed by a low interest rate environment,
- Close "affiliation" creates certain efficiencies,
- PE firms have expertise in finding attractive yield in alternative assets, and
- Purchasers of FIAs issued by PE-affiliated life insurers will realize higher crediting rates and PE firms obtain "permanent" capital.

Concerns include:

- The fact that liabilities will be passed to owners whose clients will receive poor service,
- There are conflicts of interest involved,
- Low quality assets may be backing assets in blocks that are reinsured, and
- There may be a weakening of the life insurance/annuity/retirement industry culture.

Sources of Information

Because of the quantity of vital statistics given, numerous sources of information are cited, including:

Conning - a leading global investment management firm with a long history of serving the insurance industry

ALIRT Insurance Research – a firm that models and analyzes the relative financial performance trends of insurance companies across three industry sectors: life/annuity, property & casualty, and health/employee benefits

NAIC – National Association of Insurance Commissioners

Tom Gober –forensic accountant

Annual Report on the Insurance Industry – U.S. Treasury Department, September 2021

Society of Actuaries Life and Reinsurance Seminar – August 29, 2018

Session 605

Evolution of Public Plans

Speakers

- Todd Tauzer, Segal
- Bill Hallmark, Cheiron
- Leigh Snell, National Council on Teacher Retirement

Session Assistant: Jody Carreiro – Osborn, Carreiro & Associates

Overview

The past twenty years have seen a lot of outside attention given to public pensions and the issues, both real and perceived, that have occurred. A lot of attention has been given to the issues, but often context and background have been largely ignored. The presenters will review the evolution of public pension plans and how the context of that history lends understanding to the issues that public pension plans have faced in the past twenty years.

Early History

Military pensions have existed in some form all the way back to the Roman Empire. The earliest public pensions in the US were started as military pensions after the Revolutionary War. The Army had a pay-as-you-go fund and the Navy funded theirs with captured prizes (new funding policy, Matey!). The pensions paid to Civil War veterans was a bit more organized and benefits were paid until the last beneficiary died in 2020.

The first public pension plan was established by New York City in 1857 and was established to pay lump sum benefits to disabled police officers. This was a trend of several early plans. The plan was changed to provide pensions in 1878 at age 55 with 21 years of service. There was an early trend to have mandatory retirements in some of these early plans.

The progressive era (1896-1932) saw the first plans for state employees and several began for educators. There was wide adoption of police pensions during this time. All cities with population over 400,000, except St. Louis, had police pensions by 1928. The federal government entered the trend with the establishment of the Federal Civil Service Retirement System which was formed in 1920.

A significant historical marker in the evolution of public pension is 1935 when Social Security was established. At that time, all local and state governments were excluded from participation in Social Security. It was not until some amendments to the system in the 1950s that state and local governments were allowed to join. During this same period, about half of the major state and local government plans that exist were formed. The basis of their formation was to be in competition with Social Security. Pension plans were an important tool in recruitment and retention of workers during this period.

The eligibility for retirement in the early plans was often just years of service for public safety and age only for general employees. Teachers often had the most restrictive age and service requirements. During this period there were a lot of public safety and general employee plans with a 50% of final

average salary benefit. The general employee plans also saw the first multiplier times service times salary benefits. The teachers had a mixture of flat dollar and multiplier times service times salary formulas.

The funding policies of the early plans took on a variety of structures. Many of the plans of all employee types were pay-as-you-go. The employee contributions varied from no contribution to some percentage of pay. Some plans would have a dollar amount per month or year. For employer contributions, public safety began to use proceeds from specified taxes or a portion of various fines and fees collected. Some general employee and teacher plans began to adopt an actuarially determined contribution. A few teacher plans would have a dedicated tax as part of their funding. It is also of note that a significant portion of the prefunding of plans during this period were invested in securities of the state or municipality.

Rise of Public Pensions

After World War II there was significant growth in the employment numbers in state and local governments. A shift to prefunding of plans caused the retirement system to grow very quickly from 1950-1974. In fact, assets grew from about \$6 billion to nearly \$100 billion during this period. The support ratio, ratio of inactives to actives, remained level and low during this time (roughly 1 inactive per 6 or 7 actives). The 1970's saw increased pressure to improve benefits, not only adjustments for inflation, but also for higher multipliers and earlier retirement eligibility.

Before the 1980s many public pension plans had limited investment options due to state regulations. These were eased in most places during that decade and the average portion of plan assets invested in equities went from 20% to about 50%. The pressures to improve benefits in the 1970s resulted in increased plan costs but those were offset during the 1980s and 1990s due to improved investment returns. The costs were not only offset but on average decreased which led to another time of pressure to increase benefits in the late 1990s through higher multipliers and earlier retirement eligibility.

There were also political and demographic forces at work during the 1990s. A combination of political and demographics meant that, beginning during this decade and continuing through the present, the increase in level of employment for public employers has slowed or stopped. There was an expectation within government and with the public that investment returns would always be as good as the late 1990s. This fact, together with the politics of that time, led to several years of serious discussion of privatizing Social Security. This discussion and expectation led to pressure to share investment gains from the members of public pensions.

This Century

The turn of the century seemed to show that public pensions were well-positioned. The recent investment returns drove costs down and they seemed to cover the cost of the last round of benefit increases. The funded position (ratio of market value of assets to actuarial accrued liability) of almost all but six statewide plans was 90% or higher. Instead, the beginning of the 21st century was the beginning of a challenging period for public pensions. The investment returns fell short of the expectations created in the 1990s. The recent benefit increases proved to be more costly than anticipated. As noted above, the growth in public sector employment slowed or stalled. The mortality improvement of the recent decades was more than expected. As the years progressed, interest rates have declined reducing future expected investment returns.

The reader should take time to review detailed information about the effects on public plans in the past twenty years. A rich source reviewed in this session is available to the public through PublicPlansData.org. This cooperative project is one of the positive results during this century. There is now a rich and growing source of data from which to base these discussions.

Funded Position. The average funded position was almost 100% at the turn of the century. There was upward movement in 2007 but it has not recovered. The current estimate of the median funded position as of 2021 is 84%. Many changes in assumptions have happened during this period.

Contribution Rates. Employer contribution rates have generally increased during the period. It is also interesting that the spread of employer contribution rates has grown. When looking at contributions as a percentage of the ADC (Actuarially Determined Contributions) the weighted average has improved but is only 88.2%. There are several larger states that are still contributing below 80% of the ADC. The definition of ADC has changed over the period, but the definition is standard now and most states are working to meet this standard. This can be seen by looking at the percentage of ADC received in 2019-2020, it had a median of 100% and a weighted average of 94.5%.

There has been an arguably outsized focus on the amount of the UAL (Unfunded Actuarial Accrued Liability) during the past twenty years. Since public plans are large, they have large amounts of UAL. One of the newer contribution measurements suggested by outside groups that are concerned with this is that of a static or tread water contribution. This is a measurement comparing the employer contribution with the normal cost plus interest on the UAL. The median of this rate was over 100% in 2007 but did not reach that level again until 2019 and 2020.

There has been a lot of increased focus on pension plan funding policy during this period. There are many papers available from actuarial, accounting, and public interest organizations discussing the need for sound funding policies.

Maturity Measurements. The support ratios of under 0.2 from the 1970s (about 5 actives per inactive) was only about 0.4 by 2000 (2 actives to 1 inactive) and is quickly approaching one (1) on average. Slow or stalled employment growth, earlier retirement, and increased lifespans have quickly changed the maturity of these plans.

Discount Rates and Asset Allocations. There has been downward pressure on discount rates especially since 2008-2009. A review of discount rates compared with the ten year treasury bond as a measurement of risk free interest shows a growing expected risk premium compared to the expected return. Therefore, downward pressure will continue. This also is demonstrated in the change in plan asset allocation over the period. Fixed income allocations have decreased, some going to hedge funds. Equity allocations have decreased as well as return is sought in commodities, alternatives, and private equity allocation increases.

Plan Design. There have been multiple waves of pension reform legislation over the past twenty years. About 80% of states have plans that have increased employee contributions. There have been various benefit reductions in the plans of about 80% of the states. One significant area of reduction has been in the COLAs imbedded in the pension plans. Several states instituted some type of combination or hybrid plan structure while two (2) states have started cash balance plans. Many states have added other risk sharing features to the existing plans. Those features primarily concern the employee contribution or the calculation of the COLA.

Communications. Another positive change in the most recent twenty years is an increase in the communications that actuaries use to explain the effects of changes on the plans and the risks involved

in the plans. There is an increase in plans that are using layered amortization which shows the when and why for changes in UAL over time. We can better communicate the projected payments of the outstanding balance of UAL. This allows employers to be better prepared for what will happen with and without market disruptions.

Conclusion

Public pension plans have had a rich history and have provided retirement security to millions of people. The balance between benefit security, contribution levels and investment risks has varied by geographic region and over time. The current trends will continue to lead toward improved transparency and sustainability. We will likely see continued development in projections and risk assessments.

Session 609

Transparency and Surprise Billing Legislation

Speakers:

- Aaron Brunson – Willis Towers Watson
- Robert Davis – Davis & Harman LLP
- Dan Dotzert – Conner Strong & Buckelew

Overview

The No Surprises Act, signed at the end of 2020, contains projections that hold consumers harmless from the cost of unanticipated out-of-network medical bills. Speakers address this and other potential legislation that may be in development. The speakers first address the No Surprises Act (Title I) and then Transparency (Title II).

Consolidated Appropriations Act, 2021 (CAA) – No Surprises Act (Title I)

Within the No Surprises Act, the first topic was the surprise billing reforms. The purpose of these reforms is to prevent individuals from having to pay unexpected medical bills because they unknowingly or unintentionally received care from an out-of-network provider and/or facility, or from an out-of-network air ambulance service provider. The rules address what prior authorization and cost-sharing requirements the plan can impose on participants, the amount providers and facilities can recover from plans, and the participant's responsibility to the provider for any difference between the provider's charges and what the plan pays. The surprise billing rules apply to group health plans and issuers of group health coverage that provides coverage for services in a hospital emergency room or independent freestanding emergency room, including grandfathered health plans under the Affordable Care Act (ACA). However, the surprise billing rules do not apply to health reimbursement arrangements, plans providing only "excepted benefits" (e.g., standalone dental-only and vision-only plans), or retiree-only plans.

The implications of the surprise billing rules for employers are significant. There is substantial new benefit protection provided to members in some (but not all) involuntary out-of-network circumstances. Many self-insured employer plans, however, already provide some level of balance billing protection for these "involuntary" out-of-network services. Employers should work with their vendors to understand any existing surprise billing protections compared to the new requirements to determine changes required, if any, for 2022. Benefit communications and governance materials (e.g., Summary Plan Descriptions) may require updating. Employers should also review third party services that negotiate out-of-network charges on a contingency fee basis (often under contract with health plans).

CAA – Transparency (Title II)

The Transparency (Title II) section of the session focused on the new requirements related to the ban on “gag clauses”, disclosure of broker and consultant compensation, Mental Health Parity reporting, and pharmacy benefit and prescription drug reporting. The ban on gag clauses indicates group health plans may not enter into an agreement with a provider, network of providers, or third party administrator that directly or indirectly restricts a group health plan from certain actions. One such action applies is providing provider-specific cost or quality of care information to referring providers, the plan sponsor, enrollees, or others eligible to enroll. Another is electronically accessing de-identified claims and encounter data for each enrollee in the plan, including financial information, provider information, service codes, or other relevant data elements. Providers or networks can still place “reasonable restrictions” on publicly disclosing any of this information. This is effective as of the date of enactment of the CAA (i.e., December 27, 2021), but good faith compliance standard applies until guidance is issued.

The new required disclosure of broker and consultant compensation amends ERISA to provide that if a group health plan and a “covered service provider” enter into a contract, then the contract is not “reasonable” unless the covered service provider gives advance written notice to the responsible plan fiduciary of certain information. This includes a description of services to be provided, whether the service provider will be acting as a fiduciary, and a description of all direct and indirect compensation (including specific additional information in the case of indirect compensation). This disclosure is required when the contract or arrangement is first entered into and it is extended or renewed. Changes must be disclosed as soon as practicable, but no more than 60 days after the covered service provider is informed of the change. A responsible plan fiduciary can request more information. This will be effective as of the date of enactment of the CAA.

Mental Health Parity reporting requirements to produce comparative analyses to the Departments of Health and Human Services, Labor, and/or Treasury *on demand* took effect on February 10, 2021. The agencies have already started making requests, with a focus on self-insured plans. The agencies encourage plan sponsors to use Department of Labor’s Self-Compliance Tool as a starting point for comparative analyses.

Pharmacy benefit and prescription drug reporting requires group health plans must annually report to the Departments of Labor/Treasury certain data. This includes the fifty brand prescription drugs most frequently dispensed by pharmacists for claims paid, and total number of paid claims for each drug. It also includes the fifty most costly prescription drugs by total annual spending, and annual spending for each drug. Additionally, it includes fifty prescription drugs with the greatest year-over-year increase in plan expenditures, with specific year-over-year increase for each. Employers must report the average monthly premium, including employer and employee share. Employers must also report the impact of manufacturer rebates, fees, and other payments on premiums and out-of-pocket costs.

Immediate Next Steps for Employers and Consultants

The session closed with next steps for employers and consultants. Consultants should identify client contacts responsible for supporting compliance with CAA and Transparency final rule requirements.

Employers and consultants should determine final decisions related to surprise medical billing, including member communications (i.e., model notice). Employers will work with health plans and pharmacy benefit managers on various aspects to ensure compliance. Finally, as always there will be the need to continue to monitor emerging regulatory activity and take appropriate action.

Session 701

DC Plans/Lifetime Income/Financial Wellness

Speakers:

- Felix Okwaning – Prudential Financial
- Steve Eadie – Robertson Eadie & Associates Ltd.
- Riddhi Patel – The Walt Disney Company
- Dan Cassidy – ProManage LLC

Session Assistant: Ruth Schau – Pacific Life Insurance Company

Felix starts the session by introducing the speakers and the topics to be discussed.

The discussion begins with Steve sharing a Canadian perspective. Canada allows for a multiple employer, collective defined contribution (DC) pension plan arrangement. Like U.S. Multiple Employer Plans (MEPs), which are a newer and growing plan option, the Canadian collective DC plan has multiple employers who decide to participate. Participation in the collective DC plan allows the employer to pass plan governance and administration to a not for profit board.

Each employer joins through a participation agreement, and generally these are smaller to mid-size employers who gain economies of scale that wouldn't otherwise be available. The Plan uses 4 pooled investment funds, including a long-term accumulation fund (for long term needs) and three payout funds. As members approach payout, they are transferred to an appropriate payout fund by the Plan Actuary and Investment Manager giving the members a "target-date fund" experience.

The goal and purpose of the Canadian collective DC plan is to provide retirement income security to members. Target benefits are managed for each member, similar to individual target benefit plans, with the goal of the member not outliving their assets. There are 4 sets of target benefits. The Ideal Benefit provides basic needs for all members. This default payout provides inflation protection by employing a pooled approach. When the plan has enough pensioners, longevity protection will also be provided using the pooled approach. Another option offers no longevity sharing, but provides inflation protection through shared investments.

Insured extra benefits are available for high income individuals. Collective DC plans can provide an early retirement option, but benefits can only be paid through member benefits, not outside assets. For lower paid working class members, generally all benefits are paid through the first ideal option. Higher earners move to add levels 2 and 3.

Members receive management and communication provided without any of their own time and effort. Key messages differ at various states of their membership:

1. Early in career the focus is on knowledge of the target benefits, and the expected retirement date
2. Mid-career the focus moves to projected targets, and actual funding of such target

3. Payout stage or retirement focuses on managing benefit risk and sharing information on how secure they are in the plan

The Plan Actuary communicates how the funded status of benefits is expected to grow over years. Changes are seen more towards end of career in funds/projections. When members are getting ready to retire, the numbers are more meaningful showing whether or not the member met their target and whether the member is financially ready to retire. Generally, in retirement, they desire greater than 95% certainty of meeting goals.

Dan Cassidy who leads the SOA DC Initiative shifts the discussion to the 10 key design principles of MIT's Professor Merton. The slide lists all 10 principles which we suggest you review. The principals are grouped into the following 3 main objectives:

1. Set the right goals
2. Use all resources for the participant's benefit
3. Make retirement effortless

The SOA DC Initiative reviews participants by looking backwards. In order to be successful in retirement, a participant needs to be successful in accumulation stage. There are broader financial needs that may exist for younger employees. If you don't solve barriers, such as student loan debt, and other high debt, these employees will be unable to reach a healthy financial retirement.

Groups of employees are reviewed to determine financial wellness and roadblocks in the way of achieving financial wellness. Dan's firm offers a custom solution for employers. If the employer provides all retirement and benefit program details, they can target information for areas of individual needs such as debt, student loans, etc. The offer is behavioral finance driven, with badges earned for success. There are no referral fees to get help (e.g. consolidating debt).

Finally, Riddhi shares her newest projects from a plan sponsor perspective. She is new in her role leading the retirement program team coming from the healthcare side of benefits and provides a fresh perspective in her role.

There are challenges for large employers – including the diversity of their employee populations, and daily financial challenges for employees. Employee needs differ, so there isn't a one-size-fits-all solution. Another common challenge is increasing employee engagement. Riddhi admits that she didn't know about advantages of Health Savings Accounts (HSAs) until she started designing one. Let's face it, there are many others who don't know about the advantages of saving this money for retirement if possible.

Identification of areas that need more support, as well as potential culture change may be critical for employee engagement and minimizing impact to productivity. Consider writers and directors. A plan sponsor may not want these employees to focus too much on financial needs. Super creative content is desired from this group, so a concierge or white glove solution might work best. Hourly employees may have different needs requiring a focus on tasks such as opening bank accounts and gaining financial basic knowledge. Other groups will have needs specific to their circumstances, supporting the concept that a single approach may not work well for a large organization.

Finances impact overall wellbeing. This was shown in Maslow's hierarchy of needs – an individual can't save for retirement if they can't afford rent. Be mindful of your employee base, diversity and their needs. Riddhi's advice is to put the employee in the center of strategies. There are a lot of solutions and programs that can be offered to employees. She suggests that we learn more from employee data and then leverage technology to support employees and their needs. Use this data, including employee surveys, to personalize member experience since it can help highlight opportunities and gaps. Results showed that emergency savings and debt management are key concerns and immediate employee needs

In summary there is more to be done with a large challenge of building a more robust platform, including payroll, etc. to be able to access necessary data. Employees have differing needs and if organizations want productive, successful employees, we need to create and deploy options that support and alleviate financial concerns. DC plan innovation is moving in the right direction by refocusing on guaranteed retirement income, but we cannot forget about the broader financial needs that may exist for employees as they move through their working years as retirement can be easily derailed.

Session 708

Value Based Care Performance Measurement and Contracting

Speakers:

- Aaron Jurgaitis – Optum
- James Lucas – Oliver Wyman
- Kevin Dotson – Signify Health

Session Assistant: Jennifer Leming – Mercer

Overview

In this session the speakers will present case scenarios surrounding value based care arrangements. The speakers will present considerations, challenges and goals from different stakeholders (i.e. payer, providers, etc).

Case Study 1: Employer & ACO

A county creates a partnership with a health insurer (XYZ) and a health system ACO (ABC) to offer coverage to their employees. XYZ will retain all TPA functions for the ABC covered population. The County, XYZ, and ABC will include a value-based care (VBC) arrangement as part of that offering. The offering will be offered as an EPO and be the lowest cost option offered to employees alongside a PPO. The VBC arrangement will be measured using a one-year benchmark based on the entire county population trended to the performance period. Actuaries are not involved in the creation of this arrangement.

After the first year it is determined that ABC owes XYZ \$1M under the terms of the VBC arrangement. At this point, ABC consults with actuaries to validate the VBC calculation, perform an analysis of performance drivers, and offer insights on the appropriateness of terms of the agreement.

The county's goal around creating the arrangement is to reduce cost and help employees by utilizing the ACO's care management programs and ensuring better access to care.

The ACO's goal is to deliver better clinical outcomes to employees by having a more holistic management of care. In addition, some of the key benefits of the ACO include less reliance on traditional carrier relationships and expansion in market share. As commercial payers are focused on profitability, the ability to improve profitability through value based care arrangements is desirable.

Managing financial risk can prove challenging for ACOs subject to VBC agreements. Employing actuarial assistance *prior* to the development of the agreement can improve the success of VBC arrangements. Potential ways actuaries can help in this stage include helping the ACO understand the impact of anti-selection, taking steps to fully understand and predict the risk of the population to be managed, and working with the county to apply proper benchmark vs measurement population risk adjustment. Ideally, these terms would be determined prior to year 1 to manage expectations. In addition, building in the ability to reassess the terms once the population is known would be ideal.

Case Study 2: Insurer & ACO

A state healthcare agency has multiple managed care organizations (MCOs) to participate in Medicaid. Part of its contract with the MCOs sets a target of 50% of medical spend to be accomplished through two-sided value based care (VBC) contracts by the MCO's 3rd year.

To meet this target, MCO XYZ Health Plan works with the health system-sponsored ACO (ABC). XYZ and ABC's offering includes a VBC arrangement. Under this partnership, ABC will be in a quality incentive contract similar to other payers in the region in year 1. In year 2, ABC will be responsible for reducing potentially preventable metrics including admissions, readmissions, and ER visits. The targets for ABC are developed at the state level. In year 3, ABC will move to a two-sided risk deal based on 82% of capitated revenue from the state. In return, the plan will be co-branded with the health system to drive potential membership growth.

XYZ and ABC's CFOs handle the terms of the VBC contract without explicit consideration of ABC's past experience. Furthermore, ABC does not have any coding accuracy processes in place.

ABC performs well in year 1 for both quality incentives and membership growth. However, new ACO leadership is nervous about the future terms of the contract due to a higher-than-expected medical loss ratio.

ABC's goal of this arrangement is to move away from pay-for-service arrangements and increase the proportion of patients in VBC. The challenge of Medicaid is that it is often unprofitable. Risk scores of the population are high and engagement of the population with a Primary Care Physician (PCP) is low. Moving members into VBC provides more wrap-around coverage for those members. If the ACO can successfully engage a greater proportion of the population, the ability to move members into a lower-cost setting of care may improve, resulting in better health outcomes and profitability.

XYZ's goal is to increase membership, thereby improving margins. There is little room to negotiate terms with the state healthcare agency, so co-branding with an engaged partner such as ABC may achieve membership growth.

A challenge of this agreement is the aggressive timeline to move to two-sided risk. By the time there is data available to do a retrospective study on quality metrics, the agreement is well into year 2. There is limited time to react to the data in order to understand areas of opportunity for improvement.

As the agreement is already in place, steps can be taken to ensure as successful of an outcome as feasible under the current terms. Ensuring coding accuracy is key as it is integral for revenue and care management. In addition, forming an operating committee to review key metrics facilitates evaluation performance and steering of solutions. Careful consideration should go into how many and which subject matter experts should be included and when during the operating committee meetings.

Case Study 3: Physician Incentives & Any/All Payers

Health system-sponsored ACO (ABC) has a Direct Contracting Entity (DCE) and wants to incentivize physicians in the network. ABC already has various VBC arrangements across its Medicare, Medicaid,

and Commercial businesses. The CFO of ABC wants to provide a flat incentive to every physician in the network regardless of individual practice performance.

When incentivizing physicians, ABC needs to consider items such as their targets across their entire landscape of value based contracts, the performance and incentives of physicians under their current agreements, physician ACO involvement, and regulation of current physician incentive plans.

Both high-performing physicians and the Chief Medical Officer CMO are not happy with the proposed program, believing the ACO is rewarding low-performing physicians while not incentivizing high-performing physicians who improve performance of the network. At this point ABC consults with actuaries to build out an appropriate physician incentive model, with quarterly reporting and areas of opportunity for physicians to improve the overall performance of the network.

The physicians' goal of VBC arrangements is to ensure efficient care and deliver quality to their patients. Physicians want support to help them succeed. Coding assistance, improved reporting tools, and consistency in VBC contracts may help alleviate some of the administrative burden, and, in turn, prevent physician burnout. Ideally, physicians should have access to timely data to address areas of opportunity within their practice to improve outcomes.

The ACO's challenge is to incent physicians in an equitable way. Physicians need access to robust, consistent, and timely data in order to build their trust. It is critical to work with a partner that can provide analytical support, help fill holes in electronic medical record (EMR) data, and make actionable recommendations on the data. It is critical to include key physicians at ACO meetings which helps with collaboration and eventually leads to the buy-in of the program.

Key Take-Aways

VBC arrangements can take many forms. Regardless of structure, an intense primary care focus is critical to increase the odds of success. High PCP engagement can lead to less churn, provide better wrap-around care for patients, and result in better health outcomes and lower costs. An agreement that is actionable and more equitable in nature can improve PCP engagement in these programs. Actuaries can improve the success of these programs by helping clients think through data metrics before contract implementation, and by assisting in the interpretation of the data to make appropriate adjustments along the way.

Session 709

Current Topics in Medicare Advantage and Part D

Speakers:

- Dave Tuomala – Optum (Moderator)
- Martin Hill – PwC
- Dan Hoffman – Optum
- Jennifer Carioto – Milliman

Session Assistant: Rich Bailey – Mercer

Overview

The speakers cover the current landscape with particular emphasis on the emerging reasons for heightened employer appeal of group Medicare Advantage-Part D plans; statistics on the plans, characteristics, competitiveness, growth, and value added benefits; and a focus on Part D and Pharmaceutical benefits including proposed legislation that could change Part D financial mechanics significantly, and a deeper dive into the nature of biosimilar drugs and their impact on Part B of Medicare.

Employer Appeal

While MA-PD has grown substantially since 2017, more of that growth has been in the individual market, which has more than kept pace with the growth in Medicare-eligibles at large. While the group version has grown more slowly, even reflecting a decline in overall percentage share, absolute membership numbers have risen from 3.8 million to 4.9 million from 2017 to 2021. Indications are strong that the group plans provide plenty of appeal to employers.

Key characteristics of prospective employers who can benefit from exploring Group MA-PD include those who use traditional Medicare and an integrated supplemental approach today, those where they won't (or can't) reduce benefits, and those covering at least 500 Medicare-eligible lives.

A primary employer concern in making any sort of change is that of disruption, and whether it be participating doctors, benefit design matching, or a comparison of Rx formularies, Group MA-PD is well-positioned to address each. A convenient comparison chart between Group and Individual MA is provided that helps articulate the differences for those more familiar with the individual products.

2022 Medicare Advantage Landscape Statistics

Medicare Advantage growth has been 6-12% annually 2015–2022 (2022 estimated), reflecting the continuing market appeal and support from legislative actions. Newsworthy headlines indicate that many, and likely most, MA-PD carriers are increasing their county footprints, indicating a sense of opportunity and success potential for carriers in these expanded new markets. Plan designs continue to evolve and put pressure on traditional Medicare approaches (with or without supplemental or other integrated coverage). Other added benefits have been of special interest including benefits geared

towards the chronically ill, meals and transportation, fitness benefits, and the traditional “value-adds” of various forms of dental, vision and/or hearing benefits.

Part D

Data shows an increasing number of Part D beneficiaries exceeding their Part D Catastrophic threshold or True out-of-pocket (TrOOP) limit. Major contributors to this phenomenon are autoimmune therapies, oral oncology drugs, and hepatitis regimens.

Congressional response to this includes proposals from both the House and the Senate, which each provide better member protection in the form of a maximum out-of-pocket (MOOP). Therefore, members will no longer pay 5% in the catastrophic phase. The major proposals additionally eliminate the coverage gap, but neither the House nor the Senate bills entirely absolve the pharmaceutical manufacturers from the percentage share they currently cover in the gap for non low-income subsidy (LIS) members. Instead, with the gap itself eliminated, Pharma will pay a percentage of costs in the Initial Coverage Limit (ICL) and the Catastrophic phases for all (non-LIS and LIS) beneficiaries. Then, they will cover an even higher percentage of costs when beneficiaries are into the Catastrophic Phase. On a nationwide basis, the House and Senate bills generally provide cost reductions to Medicare beneficiaries and shift costs to the pharmaceutical manufacturers. The result is a more neutral impact on the benefit plans themselves. Additional competing variations of the proposals are also under discussion.

A final point on the regulation was that the point-of-sale rebate requirements have been deferred to 2023.

In the final segment, biosimilar drugs are discussed, noting that in the US we have 31 such drugs approved, with 21 of those being launched. They are not considered generics, even though their intent is to mimic the efficacy and use of existing *reference biologic* drugs at a more affordable price. Biologics, and related biosimilars, are all covered under Medicare Part B (rather than Part D).