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**AGENCY:** Employee Benefits Security Administration,  
Department of Labor,  
200 Constitution Avenue, NW  
Washington, DC 20210

**FROM:** Dmitry Mindlin, President, CDI Advisors LLC

**SUBJECT:** Pension Benefit Statements, RIN 1210-AB20

I would like to commend the Agency for its ongoing efforts to help Americans achieve higher standard of living in retirement. The advance notice of proposed rulemaking (ANPRM) regarding pension benefit statements for defined contribution plans contains several good ideas as well as certain areas that may be problematic. My comments focus on the areas that are open to discussion. I will also sketch a better approach to the methodology of pension benefit statements.

For the most part, the proposed regulations are well-intended and should be helpful to retirement plan participants. The primary goal of the proposed regulations is to inform and compel plan participants to make better decisions. Many (including this author) believe that providing plan participants with information regarding their projected account balances and the lifetime income these account balances can generate would promote prudent behavior.

However, the methodologies to generate these projected account and lifetime income figures presented in this ANPRM are inadequate, potentially counterproductive, and may be in conflict with the stated public policy goals.

The biggest problem is the conflict between the proposed deterministic projections and the real-life volatility of asset prices. This ANPRM supports deterministic lifetime income illustrations in pension benefit statements. In particular, this ANPRM endorses the deterministic assumptions for investment returns of 7% (nominal) and wage increases of 3%. As stated,

*"... the Department is considering whole number percentages (7% and 3%) in order to avoid giving participants and beneficiaries the false impression that account balance projections are exact."<sup>1</sup>*

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<sup>1</sup> See p. 19-20.



Obviously, the Department would like to make clear that these projections are uncertain. But the connection between the whole number assumptions and the exactness of account balance projections is tenuous at best. I do not believe that the vast majority of plan participants would draw the following conclusion: "The economic assumptions are whole numbers, therefore these projections are not guaranteed."

This conflict also manifests itself in the concerns of potential lawsuits that may stem from "unmet expectations." While the Department believes that these concerns "may be overstated," it offers two ways that might address this issue.

First, benefit statements would include a "clear and definitive" disclosure that the lifetime income illustrations are not guaranteed. The Department believes this disclosure would "minimize the likelihood" that plan participants would believe the illustration is a promise.

Second, the Department is considering establishing a regulatory safe harbor for the providers of pension benefit statements. The Department is also requesting comments on the specifics of the potential safe harbor and how it would help address the concerns about potential lawsuits.

The Department might succeed in alleviating these concerns, but this approach misidentifies the problem. The problem is the confusion the conflict between seemingly certain projections and real-life uncertainties may create. I hypothesize that more than a few plan participants would look at the deterministic lifetime income illustrations, overlook the disclosure, and (mistakenly) believe that these projections are guaranteed.

Furthermore, the proposed methodology may overstate a participant's accrued benefits. The "certain" 7% return assumption may be overly optimistic, especially if the participant is close to retirement. Assuming that the makeup of the participant's portfolio is reasonable (e.g. a well-designed target date fund is used), the 7% "expected" return assumption appears unreasonable.

Moreover, this ANPRM recognizes two approaches to convert an account balance to an income stream in retirement: the "systematic withdrawal" approach and the annuitization approach. The former is summarily dismissed in this ANPRM, even though it is and likely to remain the dominant income-generating strategy for most plan participants. The latter is fully embraced, even though it is not a popular choice among plan participants.

The proposed methodology assumes that all plan participants would purchase annuities. Everybody would get the benefits of longevity risk-sharing. People that live longer would be subsidized by the less fortunate. As a result, the annuitization assumption implies higher payouts (*ceteris paribus*).



Thus, the proposed methodology would produce overly optimistic projections that would not take into account the volatilities of the key economic variables. Would rosy ostensibly "riskless" projections encourage higher saving rates and/or prudent asset allocation decisions? I do not believe that the proposed methodology would serve plan participants well. While the idea of regular reports that contain lifetime income illustrations makes sense, its proposed implementation is deeply flawed.

A better solution would require two steps.

The first step would be to restore the "systematic withdrawal" approach as an acceptable option for generating lifetime income illustrations. As stated, the primary reason for the dismissal of this approach is the following.

*"The [annuitization approach] reflects one of the Department's primary goals in encouraging meaningful benefit statements—that plan participants and beneficiaries are informed of their financial readiness for the entirety of their retired lives, not just a portion of it."*

Assuming away the longevity risk does not improve the "meaningfulness" of the proposed benefit statements. A better approach would be to utilize a conservative life expectancy assumption (e.g. the life expectancy at the assumed retirement age plus five years). This assumption would result in lower projected lifetime income, which may not necessarily be an undesirable feature.

If the Department wishes to encourage meaningful benefit statements, then it should discourage unrealistic assumptions. The "systematic withdrawal" approach is likely to remain the dominant income strategy for most plan participants. This approach should be restored as a viable alternative to the annuitization approach.

The second step would be to strongly encourage stochastic lifetime income illustrations that demonstrate the volatility of retirement income explicitly and unambiguously. This ANPRM in fact recognizes the value of stochastic modeling.<sup>2</sup> While a stochastic model is defined properly, there are two notable deficiencies in the description of the model. First, it is incorrect to claim that the model's inputs are "usually based on observed historical data." While historical data is used for some aspects of stochastic modeling, most capital market assumptions are based on forward-looking considerations.

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<sup>2</sup>Only in a footnote, unfortunately, see p. 18.



The second deficiency is especially consequential. It is claimed that "*probability distributions of potential outcomes are derived from a large number of simulations.*" While this claim may have been true a few years ago, there are *simulation-free* stochastic modeling tools available today due to the latest advances in simulation-free stochastic forecasting. Simulation-free stochastic models can generate reliable estimates of retirement outcomes without Monte-Carlo simulations. These models, therefore, do not require the extensive (and expensive) computational infrastructure that is necessary for Monte-Carlo simulations. I believe that simulation-free stochastic forecasting is the most promising direction for the development of lifetime income illustrations.

Finally, it should be mentioned that we have developed a concept of the valuation of DC plans that is similar to the valuations of DB plans actuaries have performed for decades. This concept was presented at the annual meeting of the Society of Actuaries in 2012. An introductory paper will be published in the *Contingencies*, the flagship publication of the American Academy of Actuaries, in the fall of 2013.

## **Conclusion**

I believe that the proposed methodology for lifetime income illustrations has significant room for improvement. I would like to encourage the Agency to take a closer look into the area of simulation-free stochastic forecasting. The Appendix contains more information about this area.

Thank you for your attention to these comments. I would be happy to further assist the Agency in the development of better reporting standards and related issues.

Sincerely,

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## APPENDIX: Retirement Risk Calculators

The challenge of evaluating the sufficiency of retirement savings is as important as it is long-standing. There is no shortage of advice in this area. Numerous research reports and countless marketing materials present recommendations for retirement plan participants and sponsors. The websites of major financial institutions offer retirement calculators that estimate the outcomes of saving and investment programs.

Yet, most of these calculators contain considerable flaws. The biggest problem for most retirement calculators is these calculators are inherently deterministic. By design, deterministic calculators utilize riskless "expected" economic variables (e.g. investment returns, inflation) and generate riskless "expected" outcome estimates.

Deterministic calculators essentially ignore the fact that those "expected" returns come with substantial risks. After all, the overwhelming majority of retirement investors endeavor to fund their retirements via investing in risky assets. Yet, deterministic calculators pay no attention to the volatilities of risky assets and inflation. As a result, both the upside and downside of retirement investing are invisible to the user. In particular, aggressive portfolios that have higher expected returns may look much more attractive than conservative portfolios.

With few exceptions, the calculators that do pay attention to the risks of retirement investing (we call them *retirement risk calculators*) employ Monte-Carlo simulations, even though simulation-based calculators have significant shortcomings. Few, if any, simulation-based calculators perform the number of simulations required to produce statistically credible results. Even fewer ones analyze tail events or perform stress tests. Although the results of inadequate simulation models are intrinsically unreliable, many practitioners utilize them to recommend various spending and investment strategies.

The primary goal here is to evaluate the outcome measurements of retirement investing (e.g. account values at retirement, replacement ratios, sustainable spending in retirement). Since these values are uncertain, the challenge is to estimate the distributions of these measurements. Monte-Carlo simulations is a relatively straightforward way to generate estimates, but there are other estimation methodologies.

It is becoming increasingly clear that robust simulation-free estimates of the distributions of retirement outcomes have several important advantages over their simulation-based counterparts. Among other things, simulation-free estimates are replicable, do not depend on a particular computation or software platform, do not require a multitude of calculations, and provide theoretical insight into the relationships between the key components of the retirement funding problem. In particular, simulation-free risk calculators are very fast and do not require the



extensive (and expensive) computational infrastructure that is necessary for simulation-based calculators.

These features of simulation-free risk calculators may become especially important in light of the abovementioned ANPRM. Many believe that retirement plan participants should explicitly see the anticipated outcomes under different market conditions. If this belief is ultimately reflected in the final form of the regulations, then the ability to generate reliable estimates of retirement outcomes in a cost-efficient manner may become essential.

