

Sharing this prestigious award with Brigitte for our article, as well as with John and Luis for their book is truly an honor. The continuation of the emphasis by TIAA-CREF and the distinguished panel of judges in rewarding work that has significant practical lifelong implications for individual employee financial security make this award doubly meaningful to a practitioner like myself. In addition, it reinforces the fortuitous decision Brigitte and I made to form the strong partnership between academia and the private sector, with our respective institutions, that resulted in our article.

For those not familiar with our paper, Brigitte and I explored three specific employee behaviors related to lifelong financial security. In this case the financial security was robust participation by employees in a company's 401(k) program. From the employee's viewpoint these behaviors can be summarized as follows:

First, plan participation - or as one state lottery's slogan attests "you have to be in it to win it". Before a new employee can participate in a typical company 401(k) plan, they must elect to affirmatively enroll in the program. But first they must wait until they are eligible for plan participation. Typical plan design mandates that this occur only after a waiting period is met, (from initial employment of 3 months to one year).

Next, once the decision to participate or enroll in the plan is made, the employee is faced with the key decision of how much of salary to contribute. Here the typical choices include picking a whole percentage of salary ranging from 1% up to 15%, or more.

Once these two decisions are made the employee must then choose an investment allocation or more simply, where will the employee invest their contributions in the program? Choices in typical current plan designs may involve selecting both specific investments and percentage allocations from a menu of 7,8,10,15 or more alternatives, including equities, fixed income and money market investments. Choices could also involve large, mid and small stock capitalization; growth, value or blend investment styles; company stock as well as international investments. As Brigitte suggested earlier, a daunting task at best.

Let's take these behaviors one at a time and summarize the results of our paper and the implications for future research. In our case study, implementing a plan design of automatic enrollment combined with immediate plan eligibility dramatically increases our first employee behavior: 401(k) participation. For employees hired under automatic enrollment approximately 86% of employees participate in the 401(k) plan versus a preprogram participation rate of 49%. Thus automatic enrollment has quite a substantial impact in changing employee 401(k) savings behavior relating to participation. In addition, we found particularly large effects among groups who would otherwise tend to have the lowest participation rates (Blacks and Hispanics, the young and those with lower compensation). We found that the demographic groups most at risk for insufficient retirement savings benefit the most from automatic enrollment.

However, automatic enrollment appears to be a win-lose approach to changing 401(k) savings behavior relating to our second and third employee behaviors, contribution rate

and investment allocation, respectively. The lose aspect of automatic enrollment is that it generates a tremendous amount of participant inertia, The vast majority of plan participants stick with both the default contribution rate and investment allocation, even though only a tiny fraction of participants not subject to automatic enrollment voluntarily choose that particular allocation. To turn automatic enrollment from a win-lose proposition to a win-win proposition, employers must find ways to move employees into higher contribution rates and more aggressive investment strategies.

Lets turn now to a discussion of future research opportunities to address these issues. (The second employee behavior, contribution rate is more complex than investment allocation so we'll come back to that in a moment).

Investment allocation can be impacted by the strong inertia that the default election generates. This is the power of suggestion-employees appear to view the company's selection of the default as implicit advice. To convert this win-lose to a win-win, the plan design can be altered to choose a default investment that represents a portfolio of asset classes rather than a single non-diversified investment. Today, financial institutions have created whole classes of investments called lifecycle or life strategy funds. Also known as fund-of-funds, these investments have a pre-mixed allocation of all asset classes-equities, bonds, cash, and multiple capitalizations as well as domestic and international selections-all in one investment. Potentially favoring this type of investment for lifelong financial security is the automatic portfolio rebalancing that the investment advisor performs, which is implicit in the product design. Future research on employing these products as the default investment allocation for automatic enrollment will be instrumental in helping to determine if these products enable employees to commence and maintain appropriate lifelong asset allocations and the potential security it may provide.

Now, let's come back to the contribution rate and explore plan designs to create win-win employee behavior that future research can validate. Of the many potential designs possible, two are worth exploring today. The first design is a double trigger default option that the 8% to 10% of companies currently using automatic enrollment could quickly adopt. The essence of the double trigger is an initial lower default contribution of 3% (2-4%) followed by an automatic increase to 6% on the first anniversary of employment. The choice of a second default contribution at a 6% rate would work best with companies having a one-year waiting period before eligibility for company matching contributions (prevailing practice). In addition, a 6% employee contribution would capture the efficient match decision by employees, assuming the most common 50c: \$1 company match design. Accordingly, employees would start lifelong savings at an initial 3% rate for the first year escalating automatically to 9% (6% contribution plus 3% co. match). Clearly a win-win.

A second design to impact employee contribution behavior is the "Save More Tomorrow" (SmaRT) program. Richard H. Thaler (University of Chicago) and Shlomo Benartzi (UCLA) have devised this program to increase contribution rates by 401(k) participants by allowing employees to commit themselves in advance to automatically

increase their deferrals by a couple of percentage points every time they get a pay raise. In essence participants agree up front to increase their deferral rate later. These automatic increases continue annually until participants reach the plan deferral maximum or opt out from the program. The first company to adopt the Save More Tomorrow program increased the average savings rate from 3.5% to 11.6% within two and half years. More research is needed on both of these behavioral economic approaches as well as other alternative designs or combinations that future researches will discover.

Additional future impacts of our case study extend beyond private sector 401(k) programs to include all defined contribution programs. Prospectively, the current public policy debate regarding privatization of social security raises interesting implications for plan designs that incorporate the power of suggestion and the role of inertia in financial decision- making that include a voluntary contribution component. The behavioral economic impacts on lifelong financial security for all American's may be profoundly influenced. We hope that others, both in industry and academia, will expand upon the ideas, which Brigitte and I have commenced.

Thank you again for the honor of sharing this distinguished award.