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HOW TIAA-CREF FUNDED PLANS DIFFER FROM A TYPICAL 401(K) PLAN

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EXECUTIVE SUMMARY

The 401(k) model has become the dominant form of retirement plan in the private sector, but the typical 401(k) plan has fundamental flaws when evaluated as a vehicle for providing retirement income security. Even though both TIAA-CREF funded plans and typical 401(k) plans are based on defined contribution financing, there are profound differences between the two. Understanding these design differences will be valuable to policy makers looking to reform the 401(k) system and also to employers and 401(k) institutional providers in reshaping their plans. The emphasis in the design of plans funded with TIAA-CREF annuities since its inception in 1918 has been to generate and provide an adequate and secure retirement income for plan participants. Because of its basic design features, plans funded with TIAA-CREF annuities can be analogized to a pension plan in that it provides lifetime income at retirement rather than as a tax-favored wealth accumulation vehicle for employees to defer current income as a personal supplement to retirement income.

TIAA-CREF has a non-profit heritage which means the organization operates without profit to the corporation or its stockholders, and does not have to manage the short-term earnings expectations that confront publicly held insurance companies. A key for any retirement plan to provide an adequate retirement income is the level of funding. The focus for plans funded with TIAA-CREF annuities in deciding employer and employee contributions is the retirement income that will likely be provided by the plan. TIAA-CREF funded plans focus less emphasis on the dollar accumulation at retirement, per se, but rather focus is on the future annual income generated by plan accumulations. With a focus on

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income, the employer tends to pay a higher share of a higher total contribution relative to the 401(k) model. In addition, TIAA-CREF participants have access to unique account options that provide value to both individuals saving for retirement and retirees needing income from their plan. The components of the "endowment model" of investing have been incorporated in the TIAA-CREF investment menu, and all were created for financing retirement, not for general investment purposes of traditional investors as is typical of mutual fund menus underlying 401(k) plans. With its design focused on generating retirement income, the ability to annuitize assets in retirement is an inherent feature in plans funded with TIAA-CREF annuities and the entire focus as a participant approaches retirement is on lifetime annual income.

INTRODUCTION

This paper answers a question frequently posed by outsiders: How is the TIAA-CREF plan model different from a typical 401(k) plan?[1]

As the U.S. begins to recover from the deepest recession since the depression, and motivated by the losses American families have incurred under 401(k) plans, thoughtful business and institutional leaders, and retirement policy makers are wondering if the 401(k) is the right vehicle for financing American families' retirements. Some long for the reemergence of traditional employer sponsored defined benefit (DB) plans, or traditional pensions, which provide lifetime stable incomes funded entirely by the employer and guaranteed by the employer. The problem with this nostalgic view is that, having had the experience since the inception of the Employee Retirement Income Security Act (ERISA) in 1974 and the innovation generally started in 1981 of the 401(k), neither employers nor employees favor that option.

Employers have a number of legitimate concerns. First, they have suffered from the extreme volatility of the securities market which produced large changes from over-funded to seriously under-funded plans twice in the last decade. Second, they have had to cope with a growing body of regulations making DB plans expensive and complex to manage. And, third, they have had to pay growing premiums, with serious possibilities of much more, for the mandatory insurance of DB plans provided by the Pension Benefit Guaranty Corporation (PBGC). Furthermore, employees seem to prefer the defined contribution (DC) format. Since employees are barred effectively from contributing to a DB plan, employers must carry their full cost. Typical 401(k) plans, on the other hand, impose most of the cost on the employees, with modest sharing by the employer. The employer is obligated to provide required funding under its long term commitment to the DB plan, but it generally has discretion under a DC arrangement.

Employees like the 401(k) format because of its transparency, the control they have over the investments, the loan and hardship options, the portability and the perceived fairness compared to DB plans which strongly favor long term and older employees. Because of these advantages of the DC format, employees do not necessarily require compensation adjustments when an employer changes from DB to DC.

DB plans still remain popular with unions, with state and local governments, and in the multi-employer plan setting. The Social Security system is essentially a DB plan with mixed attributes; FICA taxes represent a statutorily mandated DC contribution but the benefits are DB-like and guaranteed to maintain purchasing power against inflation.

Plans funded with TIAA-CREF annuities and 401(k) plans are both based on the fundamental principle of defined contribution financing. There are other forms of DC plans, such as 403(b)'s and ESOP's, but in the for-profit sector, the 401(k) model is the dominant DC plan. Alicia Munnell, in "Coming Up Short: The Challenge of 401(k) plans," describes comprehensively the usual U.S. form and the inadequacies of such plans.[2] The reader is referred to that book for many references made here to a 401(k) plan.

1 This paper assumes the reader is familiar with the basic characteristics of 401(k) plans, employer and employee roles and the institutions that serve such plans.

2 Coming Up Short: The Challenge of 401(k) plans, Alicia Haydock Munnell and Annika Sunden, The Brookings Institution Press 2005.

Keith Ambachtsheer, analyst and critic of pension plan management, in a book calling for reform of pension plans, referred to TIAA-CREF in the following quotation:

> *TIAA-CREF ...in which Peter Drucker himself was a participant for many years, runs on TOPS principles (his acronym for "the optimal pension system"), through work life-long employer and employee contributions as high as 18 percent of pay, millions of TIAA-CREF participants have converted sufficient pension capital into life annuities to live comfortably the rest of their lives, decade after decade. Funded through a Carnegie grant in 1918, it may well be the most successful work place pension of all time.* [3]

There are profound differences between plans funded with TIAA-CREF annuities and 401(k) plans. Hopefully the ideas here will be helpful to policy makers in looking for changes in the 401(k) model and also to employers and 401(k) institutional providers in reshaping their plans to better meet their employees' retirement needs.

401(k) plans, from their relatively recent genesis with the issuance in 1981 of IRS regulations implementing portions of the Revenue Act of 1978, were designed to provide a wealth accumulation vehicle for employees with a tax incentive to defer income. Amounts of accumulation at retirement have been emphasized, showing dramatic lump sum amounts, with no expectation or requirement or convenient means to convert those sums into retirement income.

Before the change in the tax laws, employee contributions to a pension, whether DB or DC, were made after-tax. To correct this odd limitation, Congress created the 401(k) plan as an anomalous semi-pension but it turned out an awkward supplement to providing retirement income. Because of the abandonment by corporate America of DB retirement plans, this anomalous semi-pension supplement has become the core vehicle for private savings for retirement.

TIAA-CREF's 1918 design, ingeniously constructed to provide retirement pensions for a widely-distributed and varied academic constituency, has become what Ambachtsheer called "The Optimal Pension System".

Naïve observers see its underlying DC structure as just a 401(k) plan variant. It is not.

COMPARING PLANS FUNDED WITH TIAA-CREF ANNUITIES AND 401(K) PLANS

Fundamental differences between plans funded with TIAA-CREF annuities and 401(k) plans can be grouped under four broad dimensions—

- Not-for-profit structure, serving higher education and related non-profit institutions
- Funding
- Investments
- Payouts

The emphasis in the design of plans funded with TIAA-CREF annuities since its inception in 1918 is to function as a pension plan, i.e. to generate and provide an adequate and secure retirement income for plan participants, within a defined contribution structure. Many maintain that defined contribution plans can not function as effective retirement plans, but TIAA-CREF provides over 90 years of experience to the contrary. The critical factor in this ability is proper plan design. Because of its basic design features, TIAA-CREF can be framed as a pension plan providing lifetime income at retirement rather than as a tax-favored wealth accumulation vehicle for employees to defer current income as a personal supplement to retirement income.

3 Pension Revolution: A Solution to the Pensions Crisis, Keith P. Ambachtsheer, Wiley Finance, 2007.

NON-PROFIT HERITAGE

TIAA-CREF has a non-profit heritage which means the organization operates without profit to the corporation or its stockholders, and does not have to manage the short-term earnings expectations that confront publicly held insurance companies.[4] The result is that given the services provided to participants and sponsors, TIAA-CREF is among the lowest cost defined contribution plan providers in the U.S. TIAA-CREF's fees are generally half the industry standard.[5]

TIAA-CREF also focuses on a specific market—the academic, medical, cultural and research fields. It was founded by Andrew Carnegie to provide pensions for higher education faculty. The founders of TIAA-CREF used a DC arrangement; one reason being that each college or university had to adopt its own plan and level of financing. Institutions could not be coerced into a DB plan like Social Security, similar mixed attribute plans of many church denominations, or multi-employer Taft Hartley plans serving union trades.

In addition, faculty tend to be mobile. Therefore, TIAA-CREF has portability features which are much stronger than those in a 401(k) plan. In a 401(k) plan, when an employee moves to a new 401(k) plan he confronts a very different plan, and, as has been noted by many, a multiplicity of options is often a disincentive to even enroll.[6] When a professor moves from one school to another, if he is reenrolled in the new school's plan funded with TIAA-CREF annuities, he will likely experience many of the same investment options, web sites and access methods, as well as the same retirement options that he had with his former institution.

PLAN FUNDING

The focus for plans funded with TIAA-CREF annuities in deciding employer and employee contributions is the retirement income that will likely be provided by the plan. The key for any retirement plan to provide an adequate retirement income is the level of funding. TIAA-CREF funded plans focus less emphasis on the dollar accumulation at retirement, per se, but rather focus is on the future annual income generated by plan accumulations.

With a focus on income, there tends to be a fundamentally different design for the TIAA-CREF arrangement relative to the typical 401(k) plan. In the TIAA-CREF model, the employer tends to pay a higher share of a higher total contribution. I will generalize about patterns of plans funded with TIAA-CREF annuities and 401(k) plans, since the actual data are voluminous, complex and almost a separate subject in their own right. According to Munnell, the typical 401(k) plan is financed by a 3% employer contribution matching a 6% employee contribution, for a 9% total contribution. Note that the employer's contribution is a matching one and if the employee does not contribute, there will be no employer contribution. According to Munnell's analysis, such a 3%/6% plan can be expected to produce an annual retirement income of roughly a 1.5% of final salary per year of service, assuming the employee fully participates over 35 to 40 years and does not make withdrawals upon job changes (both unlikely).

Note that under the typical 401(k) plan, the employer pays one-third of the cost; the total 9% comes as 6% from the employee and a 3% match by the employer. This relatively cheap plan often replaces a DB plan with the full 9% contributed by the employer. This is doubtless a motive for the abandonment of the DB model. Ironically, the transparency of the DC plan appears to make the change acceptable to employees. But the result is hardly a "pension retirement plan."

In general, administrators and faculty committees believed that professors would be unwilling to retire after 35 to 40 years of teaching on a pension of 52 to 60 of their final pay. Such a plan could hardly be called a "pension" plan. Accordingly the outcome for many colleges and universities involved a double digit percentage from the school which usually involved a

4 That format is similar to the organization of Vanguard which has been promoted vigorously as a better model by it founder, Jack Bogle. I agree with Bogle's views on this aspect of the model. Both TIAA-CREF and Vanguard are "taxable non-profits"

5 Morningstar Direct (December 2009) based on Morningstar expense comparisons by category. This applies to TIAA-CREF variable annuity and mutual fund expense ratios.

6 See Iyengar, Sheena S. "The Effects of Choice Proliferation on Retirement Savings Behavior." TIAA-CREF Institute *Trends and Issues* (May 2008).

non-discretionary contribution along with a match, usually around 5%. Typical employer contributions range between 5% and 15% of salary. While some plans do not require any employee contributions, a 5% contribution rate would be expected from the participants in many plans. In addition, employees are encouraged to participate in supplemental tax-deferred savings plans to augment their retirement savings. The combination of the basic TIAA-CREF funded retirement plans plus these supplemental plans can produce something closer to two percent a year or 70-80% of final pay for a long service employee. That level seems like a true pension plan.

TIAA-CREF account statements provide participants with illustrations that project the annual income employees will receive upon retirement. Such an illustration would likely be sobering for a 401(k) participant who quickly realizes that his plan is hardly adequate for retirement. Such reports are rarely supplied by employers or institutions to 401(k) participants. In summary, the TIAA-CREF model is focused as a lifetime retirement income plan not as a simple accumulation vehicle.

RETIREMENT SAVINGS OPTIONS

TIAA-CREF participants have access to account options that 401(k) participants generally do not. Accounts available through TAA-CREF reflect its 90-years of experience focused on providing adequate and secure retirement income. TIAA-CREF accounts provide unique value to both individuals saving for retirement and individuals who have retired and now need income from their plan.

A retirement account unique to TIAA-CREF is the TIAA Traditional Annuity.[7] The TIAA Traditional Annuity has characteristics with particular value to both individuals saving for retirement and those drawing income in retirement.

- The TIAA Traditional Annuity is a guaranteed fixed annuity offered to participants in employer-sponsored retirement plans through a contract with TIAA. Participants who choose to allocate a portion of their retirement savings to TIAA Traditional make contributions that purchase a specific amount of lifetime income based on the contractual rate schedule in effect at the time the premium is paid. The participant's principal, plus a specified rate of interest, is guaranteed by TIAA's claims-paying ability regardless of market conditions.
- Guaranteed rates in TIAA Traditional vary to reflect prevailing interest rates at the time contributions are made. Guaranteed rates also vary with the status of a participant's annuity, i.e., whether it is in accumulation or payout (between 1% and 3% for most accumulating annuities, 2.5% for most payout annuities).
- TIAA Traditional also provides the opportunity for participants to receive additional amounts which the TIAA Board of Trustees may declare on a year-by-year basis. Additional amounts are not guaranteed for future years, but TIAA has credited additional amounts every year since 1948.
- Together, the guaranteed minimum and additional amounts make up the "crediting rate" in the accumulation phase of the account. Crediting rates applied to the TIAA Traditional Annuity have generally been among the highest in the life insurance industry.[8] In addition, all funds held back (contingency reserves) for the guarantees made by TIAA are maintained in each vintage group and later distributed as additional annuity income as the need for such reserves wears away, thus providing additional income for TIAA retirees. This practice derives from the non-profit status of TIAA.

7 Assets held in the TIAA Traditional Annuity across all retirement plans and accounts totaled $181.7 billion as of September 30, 2009.

8 Over the period 1980-2007, the crediting rate averaged 8.16% and ranged from a high of 10.8% in 1985 to a low of 5.12% in 2006. The declining rate in more recent years is reflective of general interest-rate trends. (See "TIAA Traditional Annuity: Adding Safety and Stability to Retirement Portfolios," TIAA-CREF whitepaper, Summer 2009.)

- The design of the TIAA Traditional Annuity makes it a unique product tailored for providing lifetime income commitments. Balances in TIAA Traditional always increase in value from year to year. For this unusual benefit, the participant sacrifices liquidity rights in certain contracts; funds in those contracts can only be transferred from the TIAA Traditional as an annuity or over a period of nine years and a day, or depending upon the contract, over an 84 month period.
- Under the protection of Insurance Statutory Accounting Principles, TIAA can, in its general account, invest in illiquid and higher earning assets. While participants do not directly participate in the assets of the TIAA general account, these assets back the guarantees and returns of the TIAA Traditional Annuity. The bulk of TIAA's general account portfolio backing the TIAA Traditional Annuity is in fixed income investments across a broad spectrum of asset classes—including private and public bonds, commercial mortgages, residential real estate through structured finance arrangements, and other fixed income classes.
- Insurance regulations limit the General Account's exposure to higher-risk asset types and limit the proportion of investments that can be allocated to certain asset classes. Specifically, regulations limit holdings of below-investment-grade bonds to 10% of the portfolio; emerging market debt to 4%; common stock to 20%; and U.S. real estate to 20%. But while government and investment-grade corporate bonds typically dominate insurance company portfolios, the majority of the TIAA General Account portfolio is composed of various alternatives, including structured securities, commercial mortgages, real estate and private equity. Such private instruments are impossible in mark-to-market funds and are not found in typical 401(k) plans. De facto, TIAA-CREF has brought, to the extent possible, the "endowment model" of investing to its participants.[9]
- TIAA Traditional also has the option of a graded benefit payout which gives a measure of inflation protection to a retiree receiving income payments using the same 4% assumed interest rate mechanism of the CREF Variable Annuities.

A former CEO of TIAA-CREF said he always kept in mind the admonition of an academic friend: "It's my retirement money, take good care of it". This remark has a nice ambiguity which the TIAA Traditional Annuity addresses. It has conservative investments that will not lead to volatility in income, but is also invested in a sophisticated manner for higher investment returns.

There are other investment options within TIAA-CREF that demonstrate innovation in providing better ways to invest retirement savings. TIAA-CREF pioneered the variable annuity in the 1950s which opened up stock-based pension accumulations and retirement annuities. A difficult actuarial problem at that time in determining initial payouts and later changes reflecting actual investment performance was solved elegantly and simply in the CREF Variable Annuity (and in the adaptation referred to above for TIAA Annuities). TIAA-CREF also offers unusual post-retirement investment flexibility in its variable annuity—subject to certain restrictions, annuitants can change the investment funds underlying their annuity. This option removes the fear that the annuitant will be locked into a once-and-forever allocation on retirement.

Two other retiree focused investment accounts warrant discussion. TIAA-CREF successfully lobbied in the late 1990s for the U.S. Department of Treasury to begin offering inflation indexed bonds, and TIAA-CREF was ahead of the curve in offering an account invested in those government bonds as an option for participants. Such an inflation-protected account makes particular sense for a person beginning retirement. The second is a daily priced, low leverage real estate account that can be used for diversification of equity-type risks by participants. Account values are based on actual portfolio holdings, unlike the public real estate investment trusts (REITs) offered by some 401(k) plans that fluctuate broadly with the stock market.

9 The endowment model is used by many college, university and foundation endowments as the means for preserving the endowment against inflation while providing a reasonable payout for the current generation. Specifically it usually includes a substantial exposure to highly diversified risky assets such as: global public company stocks, private equity, hedge funds, real estate, commodities, inflation indexed bonds, mortgages, private fixed income, timber and other comparable assets.

Accordingly, through the TIAA Traditional Annuity and other accounts available to TIAA-CREF participants, all the components of the successful "endowment model" of investing have been incorporated in the TIAA-CREF retirement menu: stocks and bonds (both domestic and international), inflation indexed bonds, real estate, private equity, and illiquid private fixed-income investments. These accounts were created for financing retirement, not for general investment purposes of traditional investors that is typical of mutual fund menus underlying 401(k) plans.

TIAA-CREF retirement investment options necessitate relatively little investment decision-making for participants as they enter retirement. For instance, there is no need to change the investment program used during accumulation—if a participant is content with 50% in stocks and 50% in fixed income investments, he or she can continue that allocation smoothly into a post-retirement variable annuity.

BENEFIT PAYOUTS

The standard 401(k) design confronts the employee at retirement with a lump sum of money that has accumulated in his or her account. The employee is then left to convert that lump-sum into income. So at a difficult decision point in lifetime-security planning, the employer appears to leave the retiree on his or her own.

While annuitization is the only means to guarantee a stream of income that will last the lifetime of a retiree (and his or her spouse in the case of a joint and survivor annuity), the typical 401(k) plan does not offer an annuitization payout option.[10] With its design focused on generating retirement income, the ability to annuitize assets in retirement is an inherent feature in plans funded with TIAA-CREF annuities. With TIAA-CREF, the focus as a participant approaches retirement is on lifetime annual income. Multiple options exist with TIAA-CREF payout annuities: joint life provisions and period certain payments from five to twenty years. Participants can choose to receive the minimum distribution required by the Internal Revenue Service. A lump-sum cash option may also be available for participant's funds if authorized by the employer and provided under the plan, and most colleges and universities now provide such an option. But clearly the expectation raised by TIAA-CREF is a participant will choose a retirement income stream even though he or she could opt for cash.

According to Hewitt Associates data, annuitization is chosen by 3% of participants in 401(k) plans that offer an annuity as a payout option. Even if the option is not offered through a 401(k) plan, an individual can always choose to buy an immediate annuity from an insurance company with his or her retirement savings. But data over time is clear—individuals in 401(k) plans generally do not annuitize despite the benefits of annuitization and the fact that partial annuitization of a fraction of assets is always an option. A majority of TIAA-CREF participants beginning their retirement in 2008 used a lifetime income type of option: an annuity, a minimum distribution option under U.S. law, or an interest only option.

CONCLUSION

TIAA-CREF was organized in 1918 as a retirement system for employees of colleges and universities. It was the first defined contribution plan adopted in the country and it has survived booms, recessions and the Great Depression, World Wars and all of the ups and downs of the U.S. economy. 401(k) plans are still relatively new, having been derived from The Revenue Act of 1978. The typical 401(k) plan is designed with a focus on wealth accumulation as opposed to the TIAA-CREF design which is focused on providing an adequate and secure retirement income.

The clarity and openness of the DC model, along with the sense of control employees have, are helping make it the dominant form for accumulating retirement wealth in the future. But we need to reshape such plans to encompass the purpose of providing lifetime incomes. Although on the surface, one can say that a plan funded with TIAA-CREF annuities is no different than a 401(k) plan, the design, purpose and decisions involving the typical plan funded with TIAA-CREF annuities make it very different. Employers, policy makers and 401(k) institutional providers might learn a great deal about reforming the present 401(k) model by examining the TIAA-CREF experience.

10 Twenty-one percent of plans offer annuities as a retirement distribution option according to The Profit Sharing/401(k) Council of America's *51st Annual Survey of Profit Sharing and 401(k) Plans (Reflecting 2007 Plan Year Experience)*.

ABOUT THE AUTHOR

John Biggs served for fourteen years at TIAA-CREF before retiring in 2002. He joined TIAA-CREF as President and Chief Operating Officer in 1989, and in 1993 he became Chairman, President and Chief Executive Officer. Biggs is currently an Executive-in-Residence at the New York University Stern School of Business where his teaching and academic interests include the financing of retirement, corporate governance and professional development courses. Biggs is currently a TIAA-CREF Institute Fellow. Dr. Biggs earned his B.A. at Harvard College and his Ph.D. in Economics at Washington University in St. Louis.

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