The Security of a Guarantee

by Dan Campbell and Ken Mungan

A recent convergence of new, analytical rigor and computational power allows sophisticated risk-management techniques to be applied even to relatively small accounts, such as those held by 401(k) participants. The result is a startling new option—the 401(k) guarantee—a guaranteed withdrawal balance that will alleviate the risk of retirement account losses due to market declines and ensure against the possibility of outliving one's retirement savings. This article examines the first generation of the 401(k) guarantee and describes how it will provide the "security net" lacked by 401(k)s and other retirement savings vehicles.

There's a good reason why so many people are talking about empowering employees through education. With 8,000 baby boomers turning 60 every day and pension plan coverage becoming less prevalent, tomorrow's retirees need to be more self-reliant than previous generations. Some members of the working public already realize the degree to which they are responsible for their financial future; some will take advantage of the education offered by their employer, making savvier investments and contributing fully to their 401(k)s or other investment vehicles, such as 457s, 403(b)s or individual retirement accounts (IRAs).

That said, no amount of employee education can overcome the specter of market uncertainty. In unfavorable times, a severe market decline can seriously deplete a healthy account, with potentially disastrous results. Nor can education universally turn naive investors into savvy ones. Given this potential for volatility, is it any wonder why 30% of the general population opts not to enter their companies' 401(k) plans?

But what if the risk of retirement account losses due to market declines could be alleviated? Employees and their sponsors will soon have a startling new option—*the 401(k) guarantee*—a guaranteed withdrawal balance that suggests a different way of empowering employees. Guarantees are already an invaluable tool in the variable annuity market, and some believe they will become an important plan feature for 401(k)s and other savings plans. The first generation of guarantees is emerging, and plan sponsors will have an opportunity to witness firsthand how guarantees can provide the "security net" that 401(k)s and other retirement savings vehicles now lack.

In a nutshell, the 401(k) guarantee protects a retirement account balance from the dangers of market declines and ensures against *longevity risk,* the possibility of outliving one's retirement savings. How? Read on.

THE NEW RETIREMENT LANDSCAPE

For our parents' generation, retirement was much different. People often worked for one company for decades. They had defined benefit (DB) pensions; upon retirement, they drew from those pensions every year until they died. In this simpler era, the plan sponsor bore the risk, and participants did not have to overly concern themselves with market shifts. They knew their retirement money would be there when they needed it.

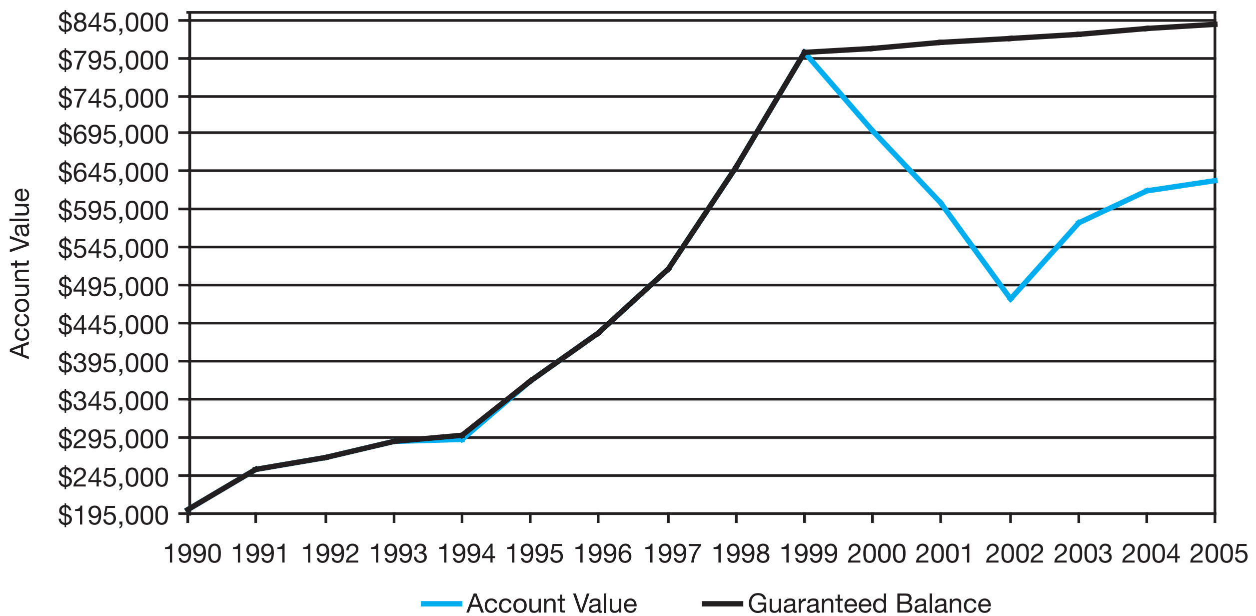
Today, we see motivated employees (called Joe or Jill Employee for the purpose of this article) primarily relying on 401(k) or 403(b) plans. They may look to their employers' retirement education package for direction or even pay a financial consultant for advice. But in their market-based investing, Joe and Jill will forever come up against the same two bothersome sources of anxiety.

▶ SIDEBAR

ESTABLISHED TERRITORY: VARIABLE ANNUITIES WITH GUARANTEES

Retirement guarantees are already prevalent in the $1.4 trillion variable-annuity (VA) market. VAs offer guarantees that protect account holders from severe, sustained market declines. Most popular is the guaranteed-minimum-withdrawal benefit (GMWB), which provides a guaranteed amount that can be withdrawn each year, regardless of market performance.

GMWBs and other types of VAs guarantee use *put options,* which provide a payout when the stock market declines, to create a floor of protection for the account holder. In the same way that Wall Street investment banks manage their options portfolios, life insurance companies have implemented programs to value and hedge their VA guarantees.



Fund Portfolio: S&P 500 50% NASDAQ 100 20% Corporate Bonds 15% Money Market 15%

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First, there's market risk. Hopefully, Joe and Jill Employee's investments are well-diversified. They may remain tuned in to the market and take advantage of opportunities to grow their account, including a strong mix of equities in their portfolio. But pursuing this kind of growth opens them up to increased risk in the event of a sustained market decline. They may instead try to play it safe; however, they would then stand to lose out on substantial gains should the market boom. It is the classic investment Catch-22.

The second problem is longevity risk. As Americans live longer in retirement, longevity (usually a blessing) can become a source of worry. How can this risk be reconciled with the fact that Joe and Jill's retirement accounts contain a finite quantity that is drawn down as they grow older?

The 401(k) guarantee was conceived as a protective shield against the considerable financial risks posed by market volatility and longevity.

INTRODUCING THE GUARANTEE

How did the 401(k) guarantee come to be? Consider the years 2000-2002. This three-year market decline ignited a near frenzy of activity in the financial planning world. Analysts knew they had to come up with something to manage significant risks for their clients.

Over the past several years, analysts and financial engineers have innovated thanks to two key developments. First, there have been significant developments in financial risk-management techniques, allowing for a more sophisticated understanding and

▶ **SIDEBAR**

ESTABLISHED TERRITORY: VARIABLE ANNUITIES WITH GUARANTEES (continued)

The table and figure show a 401(k) balance over the years 1990-2005 (with actual rate of returns) and adhere to the following scenario:

- The participant began with $200,000 (in 1990).
- He contributed $6,000 per year.
- He used a 70% equity/30% fixed-income portfolio.

As might be expected, his account grew through the 1990s then dropped significantly from 2000-2002. Please note, however, how the guarantee withdrawal balance maintains its value and continues to grow with ongoing contributions.

Year	Deposits	Investment Income	Account Value	Guaranteed Balance	Fund Return After Fees
1990			$200,000	$200,000	
1991	$6,000	$46,469	252,469	252,469	23.23%
1992	6,000	10,786	269,255	269,255	4.27%
1993	6,000	16,495	291,750	291,750	6.13%
1994	6,000	(4,685)	293,065	297,750	−1.61%
1995	6,000	69,262	368,327	368,327	23.63%
1996	6,000	59,531	433,858	433,858	16.16%
1997	6,000	77,880	517,738	517,738	17.95%
1998	6,000	127,965	651,703	651,703	24.72%
1999	6,000	144,461	802,164	802,164	22.17%
2000	6,000	(108,826)	699,338	808,164	−13.57%
2001	6,000	(100,676)	604,661	814,164	−14.40%
2002	6,000	(133,182)	477,479	820,164	−22.03%
2003	6,000	93,481	576,960	826,164	19.58%
2004	6,000	35,920	618,881	832,164	6.23%
2005	6,000	9,003	633,884	838,164	1.45%

management of risk. Second, there have been amazing advances in information technology and computing power—most notably, a technique known as *grid computing* in which incredibly large amounts of data can be farmed out from a single application over multiple, physically separated central processing units (CPUs). In short, a convergence of analytical rigor and computational power has opened up a new world of information.

The improved computational environment allows our financial management to be that much more deft; risk-management rigor can be applied even to smaller accounts. Joe and Jill Employee's accounts are bundled together with thousands (or millions) of other accounts. Analysts then create market hedges for all these employees' contracts, protecting them against possible market downturns and other vulnerabilities. It is a process similar to what was done in the mortgage securities market years ago. Formerly, such hedging tools were the provenance of only the largest Wall Street investor banks. Market monitoring previously reserved for huge financial institutions can now be brought to the retail level. Herein lies the capability that allows for the creation of 401(k) guarantees.

Keeping It Simple

Analysts and financial engineers mostly agree that much about our current retirement system works quite well, and that there is no need to "reinvent the wheel." In employer-sponsored 401(k) plans, employees can

defer income on a pretax basis, often receive a company match, choose from a wide range of investments, move their money freely between investment funds, keep the upside earnings when their funds grow with the market and retain these investments through their retirement years. The 401(k) guarantee retains those positive aspects of the system. There is no point to introducing new risks or doing a complete overhaul that would require more employee education.

So when Joe and Jill Employee sign up for a 401(k) guarantee, their accounts continue to have liquidity. Joe and Jill continue to retain control over how they invest their assets. The 401(k) guarantee does not intrude upon the well-functioning aspects of existing retirement savings plans.

How is the guarantee funded? Joe and Jill pay an annual fee for their guarantees, typically around 75 basis points. Due to the efficiency of the 401(k) guarantee's hedging technology, there are no additional fees such as commissions or start-up costs for the plan sponsor. The annual fee covers the cost of purchasing the protective hedges and all costs for administering the guarantee program. This is quite comparable to Joe and Jill purchasing insurance for their retirement savings investments, much as we buy insurance to protect our homes in the event of a fire.

GUARANTEES DURING THE ACCUMULATION PERIOD

Once Joe and Jill Employee elect a 401(k) guarantee, all of the money in their accounts is included in the guarantee, except for any assets they may have in their company's stock fund (since this is a single security, it cannot be included in the guarantee). The only further requirement for the remaining assets is that the employee cannot have more than 60-70% of his or her account invested in equity funds, since guarantees require a certain level of portfolio diversification.

That is the beginning. After that, the employee's guaranteed withdrawal balance grows alongside the account balance every time a contribution is made. And as the market boosts the account's value, a *ratchet* increases the guaranteed withdrawal balance once per year, thereby capturing and holding the market gain. On the other hand, if the account value drops below the guaranteed withdrawal balance due to market losses, the guaranteed withdrawal balance remains unchanged, thanks to the hedge, which automatically goes up in value as the stock market goes down.

In concrete terms, suppose Joe Retiree accumulates $400,000 in his guaranteed withdrawal balance over the course of 20 years. As he prepares to retire, a sharp downturn in the market drives his account balance down to $250,000. While he could choose to continue working, he also has security in knowing that, at a minimum, he will be able to withdraw the guaranteed $400,000 from his 401(k) over time.

It is important to note that after retirement, Joe or Jill Retiree cannot take a lump-sum distribution of the guaranteed balance. Instead, it must be taken over a period of years, for example, 10% a year or as a stream of lifetime payments. (If a participant does need to take a lump distribution, he or she can do so from the current account balance, not the guaranteed withdrawal balance.)

WITHDRAWAL PERIOD

Participants may opt to withdraw from their guaranteed withdrawal balance in one of two ways.

The first is a stream of withdrawals of up to 10% per year of the total guaranteed withdrawal balance. These withdrawals are guaranteed, regardless of the actual performance of the account. The guaranteed withdrawal balance is reduced, dollar-for-dollar, upon each withdrawal. Withdrawals continue until the guaranteed withdrawal balance is exhausted. And once that happens, retirees can take any remaining account value (due to positive earnings) that they please.

With the second method, Joe or Jill Retiree can decide to receive lifetime withdrawals or a certain percentage of the guaranteed balance for the rest of his or her life. The precise amount of this withdrawal is calculated based on a single-life or a joint and survivor calculation. The guarantee allows participants to withdraw money even during market downturns, and it protects them from running out of money before they die. Even if Joe and Jill live to be 105, their accounts will continue to dispense payments at the guaranteed amount.

Based on all available information and options, suppose Joe Retiree decides to receive a 6% lifetime guarantee out of his 401(k). He will be entitled to withdraw at least $24,000 per year for the rest of his life. And even in retirement he will still have the potential to gain, owing to the annual ratchet (usually designated on the employee's birthday). Again, if the market declines and takes Joe's account value with it, his guaranteed minimum balance will never go down, ensuring his prerogative to withdraw secured benefits.

Upon first glance, this process may appear similar to annuity payouts, yet it is quite different. With the guarantee, Joe's assets always stay in his 401(k) plan and in the funds he has chosen. They are never turned over to an insurance company as they would be with an annuity. Joe is the one who stands to benefit from market gains.

FIDUCIARY IMPLICATIONS

There are, naturally, fiduciary considerations surrounding the 401(k) guarantee. Plan sponsors will no doubt need to study the guarantee model carefully and determine if it is appropriate for their organization. Do sponsors feel the guarantee is a good fit for their company and employee culture? If so, do sponsors want to make the guarantee available as an option or as a default?

For now, offering a guarantee gives employees a way to help minimize their personal risk; it is in their best interest and in the sponsor's fiduciary implications. With fiduciary concerns swirling throughout the financial services landscape, it is advantageous to have a plan feature that embodies fiduciary responsibility.

In the future, if the 401(k) guarantee becomes pervasive, plan sponsors who do not offer a guarantee may feel a responsibility to do so. Such a feature would seem essential in the event of a market downturn that significantly depresses nonguaranteed accounts.

THE "E" WORD

A number of insurance companies have begun to tout guarantees, but the market is still in its infancy. Many of those insurers are looking to insert variable or fixed annuities into 401(k) plans. In reality, these tend to be complicated packages that are not easily understood or embraced by participants. The 401(k) guarantee is quite different. It's an easy-to-understand guarantee designed for employee participants saving for retirement. Participants do not have to transfer their assets to a new annuity fund. Instead, they can keep their current investments and retain the flexibility that they have always had within their plans. This "ease" component is key. While education is no cure-all, it has long been the watchword of plan sponsors. Education plays a role in preparing participants for their futures. But we also know that, over the years, many employees have not acted upon advice from their employers about retirement savings, responsibility, diversification and the like.

Many employees remain skeptical in the wake of market losses at the beginning of the decade. They might say, "Gee, I lost a bunch of money in my old 401(k). It doesn't make sense to save. I put money in, but I'm taking steps backward."

That mindset underscores the need for comprehensive features that are understandable and can empower employees to grow and secure their retirement. The 401(k) guarantee is a salve for old skepticism following a decade of sometimes turbulent market performance.

The 401(k) guarantee provides real results and real protection owing to the sophistication of the hedges. The guarantee provides Joe and Jill Employee with real security during their working years and beyond. This comfort is valuable and should encourage participants to become more engaged in planning for their retirement, helping turn 401(k)s into a stronger, more secure bedrock for their retirement future. ◀

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