

Employees who have built up assets during their working years and are planning for retirement now face additional difficulties reliably replacing their incomes. The author examines factors that make this stage of an employee's financial life cycle particularly challenging, the importance of plan sponsors assisting members achieve their retirement security and the variety of alternatives for addressing it.



# WHY DECUMULATION NEEDS YOUR ATTENTION NOW

by | **Mark S. Yamada**

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The pension process is often treated as two distinct activities: maximizing capital accumulation by retirement date and disbursing funds in retirement. Because defined contribution (DC) plan obligations to employees generally end with retirement, accumulation gets the most attention. By contrast, disbursement (or decumulation) gets almost none. Three central problems result.

1. An accumulation-only focus ignores what members really want from a pension: income replacement like a defined benefit (DB) plan.
2. Investment returns earned during retirement, the largest source of capital for retired members, are largely overlooked.
3. During accumulation and decumulation, fixed mixed investments (like 60% stock and 40% bond portfolios) and rigid ladders (like target date funds (TDFs)) lock members into returns that depend on their retirement date and period invested, not the income replacement they need and want. Resulting pensions can be inadequate and inequitable.

While a pension plan's real work starts when contributions stop at retirement, making income replacement the goal could improve outcomes, address what members want and make pensions fairer.

### Problem #1: Plan Members Don't Get What They Really Want

Reliable income replacement is what most workers expect, need and want from a pension—even better if it is managed by someone else and guaranteed. Such is the legacy of DB plans and government-sponsored programs like the Canada Pension Plan (CPP).

How likely are popular DC strategies to deliver what members want, like 70% replacement income for a minimum of 20 years after retirement at age 65 (assuming an annual contribution rate of 9% of salary for 40 years using historical returns)? A strategy of 60% stock in the S&P 500 with a 40% bond portfolio in the Bloomberg aggregate bond index (and its predecessors) achieved adequate income replacement 47% of the time, while TDFs (using a composite glide path) achieved it 57% of the time.<sup>1</sup> Current DC strategies typically fall short of what members want, but outcomes-based approaches can address the problem.

DC plans have worked to improve the four primary ways to increase the capital available to fund a pension at retirement.

- Starting earlier: Automatic enrollment gets more members signed up sooner, so compounding works longer.
- Saving more: Auto-escalation programs systematically increase deposits, usually when compensation is increased.
- Taking more risk: Popular TDFs start with more aggressive asset mixes than members would select on their own, like 92% stocks.<sup>2</sup>
- Controlling costs: Although returns are unpredictable, costs are largely known in advance. Plan sponsors are moving to lower costs by increasing use of passive investments on plan shelves and in TDFs.

Improving capital accumulation during working years, however, does little to replace income. Encouragingly, outcomes have become the top priority for DC plan sponsors recently surveyed by AON.<sup>3</sup>

TDF fees in the United States have fallen from 0.67% in 2009 to 0.34% in 2021. Driving this change is the recognition that “beating the market” (active management) is difficult to do consistently and impossible to predict in advance. Canadian active fund managers have underperformed indices (such as the S&P Dow Jones Indices (SPDJI) and S&P indices versus active (SPIVA)) over medium and long time periods with stunning consistency. For example, 97.3% of Canadian managers of U.S. equity funds underperformed the S&P 500, 96.0% underperformed global equity and 82.3% underperformed Canadian equity over the ten years ending June 30, 2022.

### Takeaways

- While defined benefit (DB) plans continue to be available, defined contribution (DC) plans, target benefit plans (TBPs) and other options are now playing an increased role in the retirement security of Canadian workers.
- While DB plans promise a guaranteed retirement income for life, DC plan members are faced with choices that can significantly affect their retirement security.
- To reach a comfortable retirement, employees with DC plans must determine how much they must save and, if the plan is self-directed, how they will invest their funds. The sorts of accounts they utilize to save for retirement frequently have an impact on the decumulation options available to them.

As a result, passive fund assets have grown from 20% of all U.S. funds in 2011 to 43% in 2022, according to the Investment Company Institute.

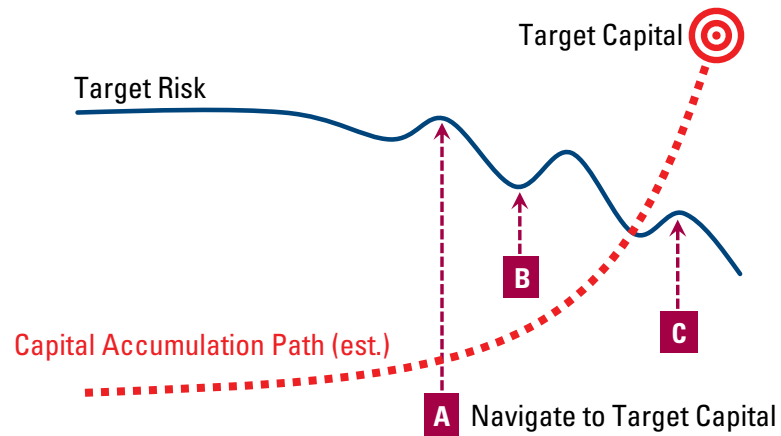
### Problem #2: Postwork Investment Ignored

DC plans likely spend 90% of their time on contributions and investments (accumulation) that account for just 30% of the funds that members will spend over their retirement years. Around 70% of capital will come from investment returns earned during decumulation (2.5% inflation during and 8% annualized returns of a 60:40 portfolio per year, derived from Ezra/Collier/Smith).<sup>4</sup>

According to Statistics Canada, since the introduction of the Canada Pension Plan in 1965, life expectancy at age 65 has improved by 50% for men and 38% for women, which suggests increasing pressure on decumulation investing.

Because decumulation represents replacing income in retirement, DB plans cannot ignore it. DC plans, on the other hand, use the transition around the retirement date (shifting from a registered savings plan to a registered income fund and the accompanying investment and administration handoff to recordkeepers or third-party funds and advisors) to reduce responsibility. Decumulation options may not get the attention they need or deserve. Conservative (40% stock, 60% bond) balanced funds or “through-retirement” TDFs that continuously reduce stock exposure dominate what plans offer retirees but still exhaust capital before death at a disturbingly high 26% of the time, with a 4% withdrawal rate in a low-to-rising rate environment (Rotman Interna-

**FIGURE 1**  
**Manage Actual Risk, Not Fixed Allocations**



Source: Rotman International Journal of Pension Management

tional Journal of Pension Management).<sup>5</sup>

Some options that sound like annuities but offer no guarantee of life income have come to market but require careful user scrutiny. They are designed to appeal to the 63% at or approaching retirement age who are more afraid of running out of money than they are of dying.<sup>6</sup> Moderately balanced funds would have accomplished the same thing for the past 40 years without preying on this fear and, as a bonus, offered the possibility of a legacy. Structures like the variable payment life annuity (VPLA) and the advanced life deferred annuity are welcome tools to address the complexities that can arise in decumulation.

### Problem #3: Fixed Mix Investing Can Be Unfair

Two people with identical years of service, compensation, contribution rates and investments who retire on different dates can have very different outcomes

because they are subject to different capital market conditions with fixed asset allocations.

Take Martha and Bob as an example. Both had 40 years of service, identical compensation and 9% contribution rates invested in a balanced 60% stock and 40% bond portfolio, but Martha retires in 1980, and Bob in 2021. Martha's portfolio accumulated about one-third of Bob's. If Bob retired with \$250,000 and a \$10,000 per year (4%) pension, Martha retired with \$91,258 and a \$3,650 per year pension.

Over Martha's 40 years, stocks in the S&P 500 advanced 12.7 times while Bob experienced a 34-times increase—274% of Martha's experience. Martha's 40% bonds suffered terribly as interest rates rose from 2.2% to 12.6%. A 40-year bond would have declined from \$1,000 to about \$182. Martha was 1.8%, theoretically a 460% increase for a 40-year bond. Important is the performance in the last third of their respective time horizons when

accumulated capital was the highest and the impact of compounding was the greatest. The resulting outcomes were very different.

### What Can Plan Sponsors Do?

When evaluating products and strategies in decumulation, consider priorities between income adequacy and investment sustainability as well as whether risk is increasing or decreasing over time.

Replacing income in retirement means targeting an adequate sum (also called target capital) that will fund an acceptable payment for at least 20 years by the date that decumulation begins. This requires managing risk rather than asset allocation. Because of market volatility, the amount of risk in a fixed mix of assets frequently changes. Replicating a DB plan in a DC plan structure is possible by periodically rebalancing to a predetermined level of risk (the volatility of an index) rather than to a fixed asset allocation, as all funds now do.

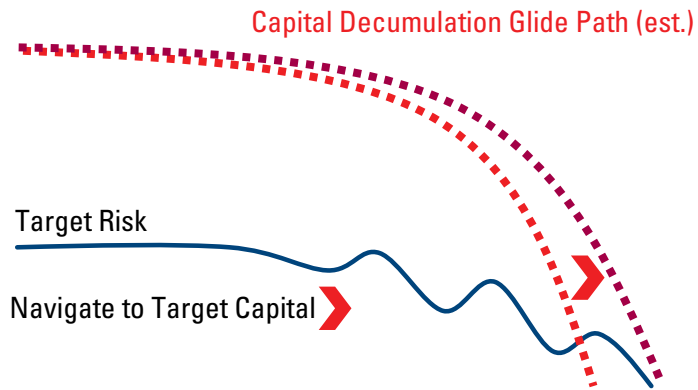
If the portfolio falls behind the targeted level, modestly taking more risk will keep it on course. Alternatively, if return experience is above the targeted level, the participant can take less risk. This has the effect of smoothing the variability of results and, like a GPS device, keeping the portfolio tracking toward its goal, just as DB plans monitor and react to their funded ratio.

Controlling risk and automatically guiding portfolios to their destinations is a way to harness market changes dynamically while working toward the goal.

This is an investment approach implemented by the recordkeeper based upon the one-time direction (that may

**FIGURE II**

### Decumulation



Source: Rotman International Journal of Pension Management

be altered if a member's circumstances change) by the plan sponsor to adjust risk based upon an income replacement target. The target can be different as agreed upon by each member based upon their personal circumstances. The variables are age, salary, contribution rate, expected retirement date and starting capital. A formula estimates the replacement income that is achievable with the highest acceptable level of certainty by both employer and employee. For some employees just starting out, it may be 70% replacement income; for others joining the plan later without much capital, the target may be 40% or 50%. The instruction to the recordkeeper for member A may be "target 70% income replacement." The recordkeeper uses software to track member A's capital accumulation path. If they get too far ahead or too far behind, the software directs adding to a safety or risk portfolio accordingly. The software uses stochastic control theory to direct each member's portfolio to their individual goal. Investment managers maintain two

portfolios, safety and risk, at a consistent level of volatility.

### Decumulation

During this phase, portfolio risk is adjusted based on progress toward the goal of extending capital. A maximum 60% equity ceiling could be stipulated so that if higher risk is indicated (i.e., 66% stocks), purchasing an immediate annuity becomes an option.

This has three benefits:

- Access to capital to deal with emergencies gives members liquidity for years after retiring
- Deferring an annuity purchase until after age 65 lowers its cost so members save money
- Purchasing an annuity solves member longevity risk. Theoretically, no members run out of money.

The 60% equity limit is a suggested limit based strictly on behavioural psychology and the idea that more than 60% equities is considered risky in North America (70% in Australia).

Because the member would likely make these choices after retirement

in consultation with an investment advisor, plan sponsors could have a role by providing plan members with education about their decumulation options, including annuities.

Canadian DC plan sponsors can also improve member outcomes by keeping costs low. They can maintain pressure on management fees and insist that more passive strategies be available to members both directly and through TDF components. Sponsors should also be vigilant when considering environment, social and governance investing and alternative asset classes. Social responsibility, which is nice to have, is difficult to measure and comes at a cost. Alternative asset classes may claim to add diversification, but be sure there is a commensurate return. 🌐

### Endnotes

1. *Rotman International Journal of Pension Management*, "What DC Plan Members Really Want."
2. Morningstar 2022.
3. *Better Outcomes by Design*, AON 2022.
4. *The Retirement Plan Solution: the Reinvention of Defined Contribution*.
5. *Rotman International Journal of Pension Management*.
6. [www.allianzlife.com/about/newsroom/2022-press-releases/younger-americans-feeling-financially-at-risk-while-retirees-emerge-resilient](http://www.allianzlife.com/about/newsroom/2022-press-releases/younger-americans-feeling-financially-at-risk-while-retirees-emerge-resilient).

### BIO

**Mark S. Yamada** is the president and chief executive officer for PÜR Investing Inc. PÜR uses quantitative strategies to replace income in retirement for pension plan members and to extend its life postwork. Yamada's experience with institutional, pension, foundation, high net worth and mutual fund investing comes from a career as an analyst, portfolio manager and leader of investment teams. He headed U.S. equities for Manulife, was president of Sun Life's investment management company and founded the private client division of Guardian Capital. Yamada was a member of the Investment Fund Products Advisory Committee of the Ontario Securities Commission. He is a champion for individual investors and a challenger of the status quo.

