

# 7 Steps Toward Better CPP/QPP Claiming Decisions

Shifting the paradigm on how we help Canadians

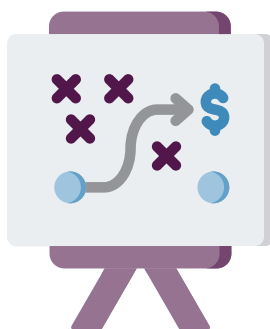
## Steps #5 & #6:

Improving Long-term Financial Decision-making by Bridging the Psychological Divide Between Today and Tomorrow

STEP  
5



STEP  
6



# National Institute on Ageing



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**Mailing Address:**

National Institute on Ageing  
Ted Rogers School of Management  
350 Victoria St.  
Toronto, Ontario  
M5B 2K3  
Canada

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## Authors

**Bonnie-Jeanne MacDonald, PhD, FCIA, FSA**

Director of Financial Security Research  
National Institute on Ageing (NIA),  
Toronto Metropolitan University (TMU)

## Key Contributors

**Doug Chandler, FCIA, FSA**

Associate Fellow, NIA, TMU

**Alyssa Hodder, MA, GBA**

Director of Education and Outreach —  
Canada, International Foundation of  
Employee Benefit Plans; Associate Fellow,  
NIA, TMU

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**Audrey Forbes, MPA**

Senior Fellow, NIA, TMU

**Bob Baldwin**

Pension Consultant, Baldwin Consulting

**Brnic Van Wyk, FIA, FIAA, CIMA**

Head, Asset Liability Management, Australian Retirement Trust

**Caroline Blouin, C. Dir., FCIA**

Founding Partner, Blue Sun Partners Consulting

**Richard J. Morrison, PhD**

Human Resources and Skills Development Canada (HRSDC) (Retired); Ruthen Team

**David Blake, PhD**

Professor, Faculty of Finance, Bayes Business School, City University London; Director, The Pensions Institute

**Gareth Gibbins**

Vice-President, Pension Policy, Learning & Research, Ontario Municipal Employees' Retirement System (OMERS)

**Jean-Claude Ménard, FSA, FCIA**

Chief Actuary of Canada (Retired), Office of the Chief Actuary, Office of the Superintendent of Financial Institutions

**John Stapleton, FSA, FCIA**

Principal, Open Policy Ontario; Social Policy, Ageing and Well-being Policy Fellow, NIA, TMU

**Serge Charbonneau, FSA, FCIA**

Association of Canadian Pension Management (ACPM)

# Paper Series Background: 7 Steps Toward Better CPP/QPP Claiming Decisions



## **Overview**

Shifting the paradigm on how we help Canadians.



## **Introduction**

Opportunities and obstacles to shifting the paradigm.



## **Step #1**

A New framework tailored to the retiree's perspective.



## **Step #2**

Making a case for secure pension income.



## **Step #3**

Retiring problematic narratives.



## **Step #4**

Providing the right information in the right way.



## **Step #5**

Strategies to strengthen the bond between the current and future self.



## **Step #6**

Framing the financial benefits for the short-term self.



## **Step #7**

Additional solutions for policymakers.

When to claim benefits from the Canada Pension Plan (CPP) — or its Quebec counterpart, the Quebec Pension Plan (QPP) — is one of the most important retirement financial decisions Canadians will make.

By waiting until age 70, Canadians can receive more than double the monthly pension amount than if they had claimed benefits at age 60. These higher payments last for life and are indexed to inflation. That's why for people who can afford to wait without hurting their lifestyle — either by drawing on personal savings or by working longer — choosing to wait to claim is a safe and inexpensive strategy that increases their lifelong income.

However, although most people can afford to wait, an overwhelming majority (9 in 10) choose to take their CPP/QPP benefits by age 65, reducing the lifetime income security they say they want and will most likely need.

This paper series aims to shift the paradigm toward more informed decision-making. Its purpose is simple: to propose new ways that those in positions of influence — such as financial advisors, pension plan sponsors, and policymakers — can help Canadians understand and benefit from the value of delaying CPP/QPP benefits.

The solutions are aimed at participants transitioning to retirement for whom delaying CPP/QPP benefits is in their best interests, but the solutions also support choosing to claim early where circumstances warrant this choice.

In either case, improving the clarity of the decision and helping people better understand their choices — and the consequences of those choices over the short and long term — leads to more informed and confident decisions, peace of mind and, ideally, better retirement outcomes for all.

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## Paper in Brief

**“OUR HUNTER-GATHERER ancestors were focused on surviving until tomorrow. We need to focus on retiring decades from now. Not surprisingly, this isn’t something that comes naturally.”**

– (HumbleDollar, n.d.)

When to claim Canada Pension Plan/Quebec Pension Plan (CPP/QPP) benefits is one of the most challenging and consequential financial decisions of our lifetime, and very few people take advantage of the financial benefits of starting to claim them after age 65. Research in psychology, behavioural economics and cognitive neuroscience suggests one of the biases at play is that **people tend to regard their “future selves” as completely different people**. As a result, there is a natural propensity to prioritize their current financial needs ahead of their future ones — known as the “present bias” — and that can lead to short-sighted decision-making.

This is particularly unfortunate when it comes to the CPP/QPP claiming decision, since a retiring Canadian’s “future self” is often a more vulnerable person who would greatly benefit from the additional amount of automated, secure, steady, inflation-indexed CPP/QPP income that their “current self” is choosing to forfeit by starting their pension earlier.

While financial incentives and generic financial education alone do little to change behaviour, a rich cross-disciplinary approach can help us develop more effective strategies to encourage

people to care for and financially help their older future selves when transitioning into retirement. Successful interventions guide people to favour larger, later rewards — such as deferred higher CPP/QPP pension income — over smaller amounts sooner.

This paper (Steps #5 and #6) builds upon and expands earlier findings from behavioural economics and psychology, offering strategies to help overcome this psychological barrier and facilitate long-term financial decision-making. It explains two distinct but complementary solutions that research and evidence have found to help overcome the “present” bias:

- Step #5: Strategies to strengthen the bond between the current and future self; and
- Step #6: Approaches to frame the financial benefits of delaying CPP/QPP benefits to reduce the current self’s subjective discomfort.

### **Key Findings for Step #5: Strategies to Strengthen the Bond Between the Current and Future Self**

Based on the premise that “our unique capacity to imagine the future sets up our unique capacity to sacrifice for it” (Borum, 2014, 1), these interventions help foster a more vivid understanding and sympathy for the financial needs and risks facing a person’s older self, generating a greater willingness to make decisions that consider long-term implications. Following are some recommendations.



### 1 **Stories, testimonials, statistics, vignettes and analogies:**

People tend to be overly (and unconsciously) optimistic about the future. While this “optimism bias” helps reduce everyday stress and anxiety, it can also lead people to neglect planning for future financial risks and forego risk-reducing strategies like delaying CPP/QPP benefits. Research has found exposure to the prior experience of others can help — including stories, relevant statistics, vignettes, stories about “people like me” case studies and testimonials from those who have already navigated the CPP/QPP decision. These kinds of interventions can help illuminate the positive and negative outcomes of taking CPP/QPP benefits early and ground prospective retirees by prompting them to imagine similar consequences for their own retirement.



### 2 **“What if” scenarios:**

“What if?” questions invite a pre-retiree to contemplate the financial consequences of contingencies like dying early or living longer than they expect. By identifying who would be financially affected — and by how much — the risk-mitigating benefits of lifetime pension income can become clearer. These questions can also help the pre-retiree understand the consequences of inaction. Instead of asking, “What happens if I delay CPP/QPP?”, another approach is to ask, “What if I don’t?”, which reinforces people’s natural propensity to avoid negative events.



### 3 **Gamification:**

Technology allows people to interact with computer-generated representations of themselves. It can help people bridge the gap between their current and future selves. Role-playing games let pre-retirees live out their retirement and experience the consequences of their choices in alternative futures.



### 4 **Goal visualization:**

Industry professionals and those in a position to guide directly can support deeper, more personalized visualizations of the future by leading pre-retirees through a series of goal visualization steps. This includes connecting their vision of their future selves with their financial resources, helping pre-retirees align their financial choices today with their long-term goals.



### 5 **The “future self” toolkit:**

The U.S. Consumer Financial Protection Bureau (CFPB) has published a toolkit to help financial planners motivate their “clients toward their longer-term financial goals through exercises that strengthen their connection to their future selves” (CFPB, 2021, p. 1). It does this “by helping clients imagine their futures vividly and realistically. Visions of the future that are overly optimistic or overly pessimistic don’t motivate people to take action” (ibid). The evidence-based exercises include writing a letter from their future self to their present-day self, drawing a picture of their desired future reality and scripting out a conversation with their future self.

## Key Findings for Step #6: Framing the Financial Benefits for the Short-term Self

Research suggests interventions focused on reducing the current self's discomfort have the potential to be highly successful. As international pension expert and leader Samuel Waterberg once said regarding financial planning for retirement, "It's about today, not about tomorrow, because tomorrow is a date that never comes" (Jones & Timlett, 2022).

In the case of CPP/QPP, this can be achieved by emphasizing the financial opportunities of delaying benefits for the short-term self. The challenge is, a future pension promise is not directly quantifiable. That is because the total value as of today depends on the outcomes tomorrow, and technical metrics used by pension analysts such as the "actuarial present value" are not well understood by the general public.

**By blending behavioural economics insights with mathematics, Step #6 presents a series of metrics to communicate the financial opportunity of the CPP/QPP claiming choice.** These metrics are designed to clearly frame and quantify the CPP/QPP claiming decision to convey it as a "good deal" with immediate value.

Careful framing that works within natural psychological biases can do more than reduce the pain of the financial sacrifices made by the current self. For example, positioning the delay of benefits as a valuable financial opportunity that shouldn't be missed stimulates our natural aversion to potential regret and our fear of loss, which have been

shown to motivate people to exert more decision-making effort. This is precisely what is needed to encourage retiring Canadians to shift away from making uninformed, hasty decisions and toward investing more time and energy into choosing an age to start CPP/QPP benefits that best suits their circumstances. Here are some examples of useful framing.



**1 Think one year ahead.** This approach draws on the advice of Jean-Claude Ménard who, after 20 years as Canada's chief actuary, suggests framing the CPP/QPP opportunity in a bite-sized "one-year-at-a-time" horizon. This approach concentrates on annual financial growth rather than attempting to make a broader appeal for long-term financial security. For example, for a 60-year-old, a one-year delay is equivalent to investing a single year of CPP benefits at age 60 and getting a lifetime pension income of 11.25% of that initial investment, indexed by inflation year after year. As Ménard explains, "By waiting a year, your retirement benefit increases by 11.25% above inflation and fees. Can you earn a guaranteed 11.25% growth elsewhere?"

Evidence suggests this approach aligns with pre-retirees' natural tendencies and biases, which are inclined toward a short-term investment mindset. A one-year time horizon enables people to more reliably judge their own mortality, and helps them overcome fears of death and lost income. Simply put, people generally don't expect to die in the coming year, so it's a bet they're willing to take.



**2 Reduce the short-term fear of lost income by dispelling worries about early death.**

Ménard suggests grounding a person's reality in longevity probabilities that

emphasize the low risk of death in earlier retirement and greater potential of living to an advanced age.



**3 Calculate how much retirees can “Spend More Today Safely” (or “SMarTS”) if they delay starting CPP/QPP benefits.**

Analytical and empirical evidence shows that more secure long-term income increases retirees’ total annual spending capacity today and reduces their downside financial risk tomorrow. This greater long-term retirement income security provides both a mental “licence to spend” and a financial case to do so. Pension plan designers globally emphasize this “confidence to spend more” when promoting retirement financial solutions for lifetime retirement income security.



**4 Explain the financial value in terms of “lifetime loss”.**

As proposed by MacDonald (2020), the lifetime loss calculation shows the expected financial loss of taking CPP/QPP earlier rather than later. People often value a lump sum more than a potential increase in income stream. Combined with the loss aversion principle, this approach can powerfully motivate them to understand the potential loss of not delaying benefits. In fact, the *lifetime loss* framing has been incorporated into CPP/QPP communications by Service Canada.



**5 Compare to purchasing additional defined benefit (DB) pension (or an annuity) at a low price.**

Delaying CPP/QPP benefits is like buying a higher inflation-indexed DB pension benefit at the cost of payments forfeited during the deferral period. It is also implicitly an

annuitization decision that comes at a very good price compared to retail market options. For a retiree who is contemplating purchasing a retail annuity, using that premium to delay CPP/QPP benefits is an arbitrage opportunity that could potentially even double their money.



**6 Frame the CPP/QPP benefit deferral as a portfolio decision.**

By classifying a person’s CPP/QPP income as “bond-equivalent” investment in terms of its safety, more savings can be rationally allocated to risky assets while maintaining the desired level of portfolio risk and yielding greater overall returns.



**7 Treat it like purchasing longevity insurance.**

Retirees are afraid of the long-term financial risks of retirement — namely inflation, running out of money and later-life health expenses (MacDonald, 2024). It can, therefore, be beneficial to promote the immediate value of delaying CPP/QPP benefits as purchasing insurance that mitigates longevity risk and other financial risks that retirees fear the most.

The interventions suggested throughout this paper are supported by evidence and practical experience, but future research should directly test them on the CPP/QPP claiming decision. Regardless of the approach, the option to delay CPP/QPP benefits should be presented as a good news story and a sound financial opportunity.

# Introduction

The CPP/QPP claiming decision is **one of the most challenging choices for individuals to handle on their own**, making them more susceptible to psychological biases and exploitation (Simon, 1955; Thaler & Sunstein, 2021). It is a once-in-a-lifetime, high-stakes financial decision requiring people to evaluate a wide range of uncertain future events, such as financial market returns, inflation and life expectancy. It requires an integrated understanding of government taxes and transfers, personal health, other finances and household circumstances while also accounting for people's risk tolerance, expectations, emotions and attitudes toward retirement and aging. These complexities make it hard for individuals to make choices that match what they want and need (Beshears et al., 2008), including financial security in later life (Bateman et al., 2016; Benartzi et al., 2011; Brown et al., 2017).

Previous steps in this series addressed the practical and financial complexities of the choice. This paper delves further into the emotional and psychological barriers and solutions. As discussed in the introductory paper (Macdonald, 2024), one of the mental challenges at play is known as “present bias”: the fact that people tend to be short-sighted when planning their retirement finances. They often act impulsively, prioritizing immediate self-interest over the long-term well-being of their future selves. The next section discusses why this is so.

The rest of this two-part paper then builds and expands on earlier findings from behavioural economics and psychology, offering strategies to help bridge this psychological gap and positively influence

long-term financial decision-making. It explains two distinct and complementary categories of solutions that research and evidence have found to help overcome the present bias:

- Step #5: Strategies to strengthen the bond between the current and future self; and
- Step #6: Approaches to frame the financial benefits of delaying CPP/QPP benefits to reduce the current self's subjective discomfort.

As with the rest of this paper series, these solutions are intended to support and empower experts in a position of influence who can help facilitate more informed retirement financial planning, including when to claim CPP/QPP benefits. In addition to one-on-one contact with pre-retirees, these expert “guides” can be content creators who build software, websites and communications designed to help pre-retirees with retirement-transition decisions. Their job is to help pre-retirees see into the future and make decisions that serve their future as well as their current selves — which, depending on individual circumstances, could mean claiming CPP/QPP benefits early or choosing to delay.

# The Challenge: Envisioning our Future Selves

The brain can struggle with rewards or risks that are too far in the future. “In short, new research in psychology, behavioral economics, and cognitive neuroscience implies that (1) we regard our future selves as other people, and (2) our connection to our future selves influences how we make the decisions that will ultimately affect their well-being.” (Borum, 2014, p. 4).<sup>1</sup>

Often, people lack a psychological connection to their future selves, and this connection declines even more as they look further into the future. As Joseph Butler explains, “This, I say, must follow: for if the self or person of today, and that of tomorrow, are not the same, but only like persons, the person of today is really no more interested in what will befall the person of tomorrow, than in what will befall any other person” (Butler, 1736, p. 307).

This is particularly unfortunate since a retiring Canadian’s future self is likely a more vulnerable person. For someone moving into retirement, the early retirement years are of less concern than the later ones, when the onset of a long-term health condition becomes increasingly likely and can bring major expenses that can’t be postponed. Cognitive decline and the frailty of advanced age take away the possibility of returning to the workforce to supplement any income shortfalls while also impairing people’s ability to make sound financial decisions and avoid financial exploitation. These vulnerabilities point to the importance and value of adequate, automated retirement income

[see Step #2 for discussion (MacDonald et al., 2024b)].

**Since people view their future selves as strangers, encouraging them to plan for their future often isn’t effective.** “The analogy of the future self as another person may seem like a strange one, but it is rather powerful when it comes to understanding long-term decision-making.” (Hershfield, 2019, p. 73).

Research shows financial incentives and generic financial education alone do little to change behaviour (Miller et al., 2015; Fernandez et al., 2014). However, a rich cross-disciplinary approach to financial well-being — one that draws on the principles of behavioural economics and psychology — can help us develop more effective strategies to encourage people to effectively prepare for retirement. Since pre-retirees see their future selves as different from their present selves, preparing for retirement “is like a choice between spending money today or giving it to a stranger years from now.” (Hershfield et al., 2011, p. 3). Known as “temporal discounting”, this phenomenon means we feel a greater connection with our current self than with our future self, resulting in a significant devaluation of the future self’s needs<sup>2</sup>.

How can guides help pre-retirees overcome the systemic cognitive biases and motivational barriers to financially support their future selves? Successful methods — such as automating a pre-commitment to save at a later date — are aimed at getting

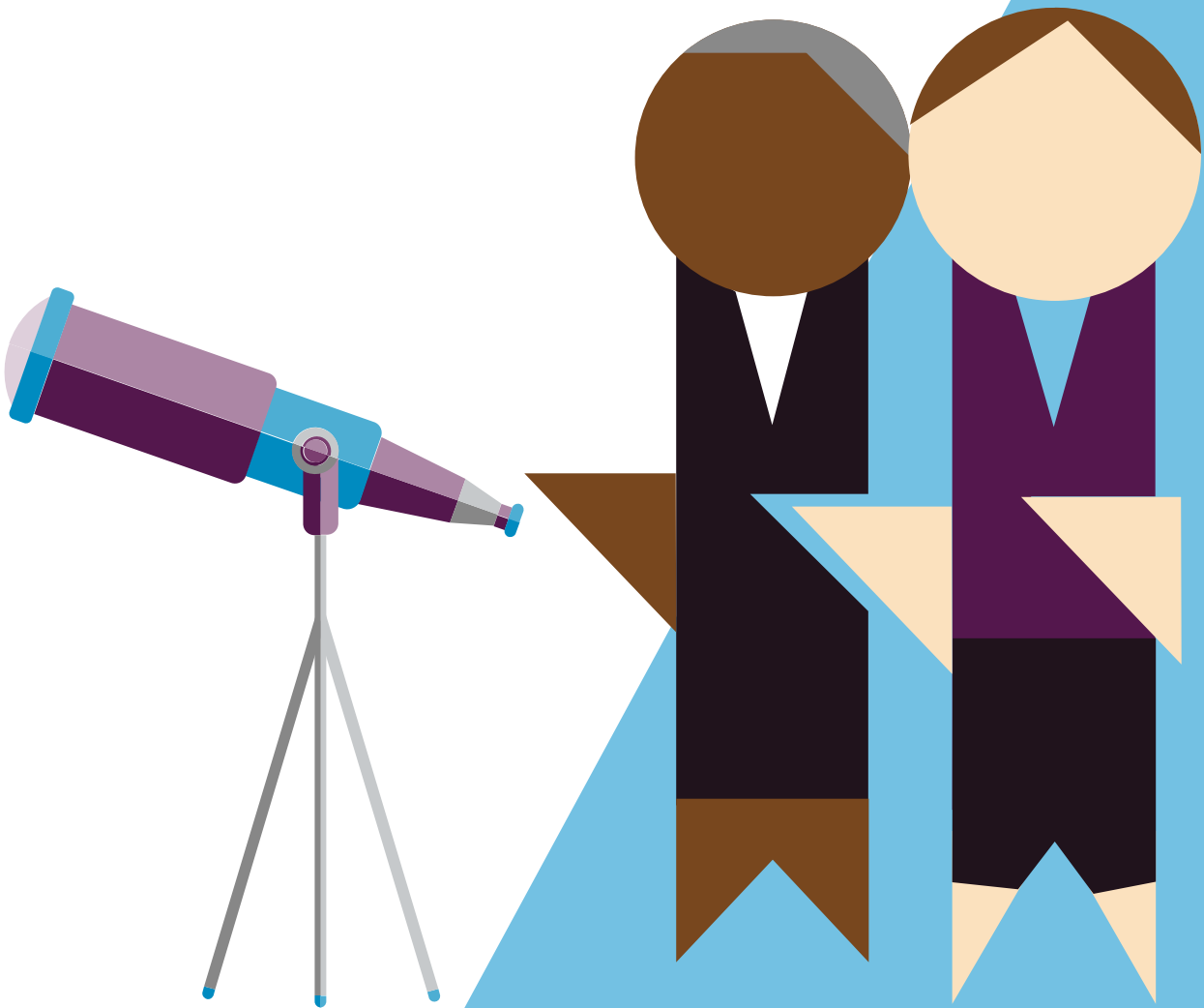
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1 For a review of the supporting literature, see Burum (2014) and Hershfield (2018).

2 Earlier literature on intertemporal choice and the devaluation of the future includes works by Thaler (1981), Akerlof (1991), and Ainslie & Haslam (1992).

people to favour larger later rewards over sooner but smaller amounts (e.g., Choi et al., 2006, Madrian & Shea, 2001, Thaler & Benartzi, 2004), making them directly applicable to the CPP/QPP claiming decision.

To improve long-term financial decision-making and help people bridge the mental disconnect between their present and future selves, Hershfield (2019) suggests that interventions focus on **“(1) strengthening the emotional bond between selves over time, or (2) reducing the subjective pain of sacrifices made by the current self”** (p.72). Steps #5 and #6 offer solutions that fall into these two categories.



# Step #5: Strategies to Strengthen the Bond Between the Current and Future Self

“(O)ur unique capacity to imagine the future sets up our unique capacity to sacrifice for it”

- (Burum, 2014, 1).

Hershfield et al. (2011, 2018) and Bryan & Hershfield (2013) are examples of studies that focus on the disconnect between the current and future self, specifically when it comes to retirement financial planning. “By understanding and accounting for the complicated relationship that people have with their future selves, we can produce effective interventions to modify behaviour in ways that improve people’s lives” (Bryan & Hershfield, 2013, p. 6).

Helping Canadians get the most out of the CPP/QPP may require encouraging them to better connect with their future selves so they can fully understand how they will live with the consequences of the decisions they’re making today in the years ahead. Creating a stronger connection can also encourage pre-retirees to more deeply appreciate the financial risks that their future self may face — such as poor financial returns, inflation and developing a chronic healthcare condition or disability that requires care — encouraging them to make decisions that better serve their long-term interests.

This section provides both general, high-level strategies and more personalized, one-on-one approaches in support of these goals.

## General Support

### Stories, testimonials, statistics, vignettes and analogies

People tend to be overly (and unconsciously) optimistic about the future, a phenomenon known as the “optimism bias”. Nobel Prize winner Daniel Kahneman noted that it is the **most significant cognitive bias** and difficult to moderate (Kahneman, 2011). While the optimism bias can reduce stress and anxiety, it can also lead people to neglect planning for future financial risks. As a result, they may not attempt to manage these risks effectively or appreciate the value of risk-reducing financial strategies like delaying CPP/QPP benefits.

Since people have a natural desire to avoid triggering negative emotions and tend to believe that bad things happen to others (Sharot, 2011), simply reminding them of what can go wrong can be ineffective. In the context of the CPP/QPP claiming decision, negative events include those that compromise lifestyle and well-being due to insufficient income at older ages (e.g., financial market downturns, savings not keeping up with inflation, fraud, frailty and being unable to afford paid care for oneself).

Research finds exposure to prior experience of others helps challenge the illusion of personal control, making it easier for individuals to imagine themselves at risk of negative outcomes (Helweg-Larsen & Sheppard, 2001). For example, exposure to the experiences of older Canadians can help pre-retirees consider the risks of their own future and more

rationality evaluate options to reduce that risk. Research is also increasingly demonstrating **the power of stories** in mirroring lived experiences. For example, Speer et al. (2009) found readers create vivid mental simulations that activate the brain region that processes sights, sounds, tastes and movement, similar to how they process real-life activities.

Kahneman (2013) proposed countering the optimism bias by grounding a person's reality in **relevant, existing statistics** to help them anchor their judgment — such as the probability of an event occurring, the average cost of financing that event or whatever figure best fits the situation. For example, according to the NIA 2023 Ageing in Canada Survey, nine out of 10 CPP/QPP recipients said the

CPP/QPP is an important source of retirement income, with six out of 10 saying it's essential and they can't live without it (MacDonald, 2024). Ageing Canadians most fear inflation, running out of money and being unable to cover their long-term care needs, while their biggest financial priority is financial security (MacDonald, 2024; MacDonald et al., 2024b). All these elements can be supported through greater CPP/QPP pension income. A healthy and vivid dose of realism — brought to life by relevant and impactful statistics — will help pre-retirees to imagine and thereby better understand the consequences of the CPP/QPP claiming choice and make a decision they won't later regret.

## Box A: A Tale of Two Retirements

Words from Jim Leech — former president and CEO of the Ontario Teachers' Pension Plan — obtained through personal correspondence on Jan. 4, 2022:

“Shortly after I assumed the position as President and CEO of Ontario Teachers' Pension Plan, I was brought into a discussion with the plan sponsors [the Government of Ontario and the Ontario Teachers' Federation (OTF)] about lowering the age before which a plan member could opt to receive a lump sum commuted value in lieu of their defined benefit pension.

The concern was that some plan members who were eligible for retirement in their mid- to late-50s might be encouraged by financial advisors to take their funds out of the plan and invest in the stock market, thus putting their entire retirement savings at risk at the very time when they should be reducing risk.

On the surface, any such change would have minimal impact on the Fund's operation or on its funded status, so I joined the discussion with no strong opinion one way or the other.

Then the OTF representative recounted the tragic story of two couples from southwestern Ontario who were close friends. Both husbands and both wives were teachers. They all lived in the same neighbourhood, taught at the same school and holidayed together. During their years of working and socializing together, they would muse about their mutual plans for “life in retirement”. They each reached their 85 factor<sup>3</sup> in the late 1990s, when they were in their

3 The “85 factor” is a pension plan term calculated by adding a member's age and years of pensionable service at retirement. If the total equals at least 85 points, they are entitled to an unreduced pension. For example, a 55-year-old who started working at age 25 would be eligible for an unreduced pension under these criteria (i.e., 55 years old + 30 years of service = 85).

mid-50s, and decided to retire and leave the classroom.

Couple A started to draw their pensions, which were approximately 2/3rds of their finishing salary, indexed to inflation. They purchased a small winter home in Florida to escape the Ontario winter.

Couple B, on the other hand, was convinced by a financial advisor that instead of receiving their monthly pension, they should withdraw a lump sum and invest it in the market — which, at the time, was enjoying outsized returns due to technology stocks. The theory was that their “retirement nest egg” could grow to be significantly larger and support a monthly cash flow greater than their pension.

Unfortunately, Couple B’s financial advisor invested them heavily into technology shares — including a sizeable exposure to Nortel — and their retirement savings were materially reduced. Both husband and wife had to take part-time jobs at Walmart to supplement the reduced cash flows from their savings.

By the mid-2000s, the couples’ friendship was strained. They rarely spent time together, as their lives had gone separate ways — all driven by financial circumstances.”

Using a representative online survey panel, Samek et al. (2022) examined the impact of using vignettes to illustrate and communicate the consequences of different claiming ages for U.S. Social Security. The study explained that vignettes were an intervention to communicate “consequence messaging”, which “describes the outcomes of multiple decisions under different states of the world. Hence, if individuals are asked to consider the consequences of an action, this should improve their understanding.” (p. 327).

In the vignettes, a 62-year-old man is talking to his financial advisor about his plans to budget for his retirement. The financial advisor encourages the man to consider the consequences of different decisions. “In the Social Security vignette, the financial advisor explains how monthly Social Security benefits change as a function of claiming age and clarifies that one does not need to claim in the same year as one retires from work: ‘Your retirement benefits depend on the age when

you begin claiming. It’s a trade-off — you can decide to claim earlier. In that case, you would have lower monthly benefits, but you’d also get to enjoy these benefits for a longer period.’ However, as before, the financial advisor does not actually advise delaying claiming.” (p. 327).

The study found exposure to a vignette improved understanding of the rules of Social Security claiming, based on the accuracy of responses to a financial literacy quiz, by 10% to 15%. Being exposed to a vignette also led respondents to give better advice. For example, the vignette used a hypothetical person in either relatively good or relatively poor health to test the spread of the advice by the participants. The advice of participants who saw the vignette was more appropriate (i.e., recommending a later claiming age to the healthy individual and an earlier one to the unhealthy individual). The study also found the vignettes significantly improved the accuracy of responses to a financial

literacy quiz, demonstrating an improved understanding of the Social Security claiming rules. Written and video vignettes were found to be equally effective.

Another increasingly common approach to pension communications is using **realistic, relevant personas of “people like me”**. For example, an advisor or a plan could review the demographics of their clientele/membership, create a series of personas that align with those demographics, and use them as a teaching tool to explain the significance and impact of the CPP/QPP uptake decision in a way that’s more relatable and easier to understand.

A similar method to overcome optimism bias is to use **case studies or testimonials from those who have already navigated the claiming process**. For example, connecting pre-retirees with Canadians in their late 80s, to hear their perspectives and financial concerns, could provide insight and motivation for longer-term financial planning. This may include the realities and uncertainties of longevity, long-term care, the difficulties of managing savings as we age, the vulnerability of older adults to scammers, the greater financial insecurity that comes after the death of a spouse, the effect of inflation and the panic that comes with a market downturn (such as described in Box A).

Real-life examples could make a stronger case for change — particularly when they are shared through media outlets or public forums. “Along these lines, retirement advisors, and even the SSA [Social Security Administration] (in Canada, Service Canada), may consider using testimonials or narratives, perhaps in the form of Web-based videos,

from individuals who have already retired. Hearing what unexpected events others have encountered during retirement may urge prospective retirees to consider the possibility that similar events could happen during their own retirement” (Knoll, 2011, p. 26).

As suggested by social assistance policy expert John Stapleton, another approach to help people overcome their mental propensity for short-term thinking is using **relatable analogies and mental shortcuts**. “After working with older adults for decades and giving over 100 presentations to groups of older adults, I can say that the easiest way to inform non-experts about complex issues in income security is to use pungent analogies. The appropriation of well-known analogues helps as the availability heuristic (mental shortcut) allows people to quickly overlay something they do know on top of something they don’t know.”<sup>4</sup>

As he explains, life is full of decisions that require long-term thinking to truly understand and appreciate the trade-offs. Using analogies of other major life decisions that may require upfront capital but have long-term benefits — including marriage, going to university or having children — may help align a person’s thinking to the long-term implications. “Perfect analogies are few in number, but those that can readily allow transference of key understandings can permit people to understand key concepts much faster” (ibid).

## What happens if I do? What happens if I don’t?

Chris Anderson, the long-time curator of TED talks (a leading platform for identifying

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4 Personal correspondence, Feb. 26, 2023

and disseminating new ideas), explains the key to changing beliefs and behaviour is to demonstrate a disconnect in someone's worldview (Anderson, 2016). When the disconnect is revealed, the person will feel the need to bridge that gap. And once that desire is sparked, it is much easier to present a new idea that will motivate new behaviour — in this case, fostering better long-term financial practices.

Helping a person see the disconnect between their desire for financial security and the generally early CPP/QPP claiming age can be supported in several ways, the simplest being through a series of **“What if?”** questions. As Baily & Harris (2019) wrote:

**“Teaching the arithmetic of compound interest may not be the best way to do this, rather it is better to help people visualize what their lives will be like at age 85 or 90, depending on how much money they have available. What will their housing situation look like if they are living just on Social Security? Will they have funds to pay for assistance with cleaning or preparing meals? Will they have enough to pay for a Medicare Advantage program and to pay for co-payments on drugs and doctor visits? No one likes to imagine being old and infirm but being in that situation is much better with a secure income.” (p. 17)**

*What happens if I die too soon? What happens if I live too long?* As discussed in Step #3 of this paper series (MacDonald & Chandler, 2024a), a specific “what if?” question prompts people to contemplate the financial consequences to their family of dying too soon versus living too long. Listing who would be financially affected — and, potentially, by how much — makes it easier to understand and appreciate the financial burdens and stresses of living too long, along with the benefits of lifetime pension income.

The goal is to go beyond more general “what if” scenarios and focus more on the risks. Greater attention to a particular risk leads to greater action — for example, people tend to buy more flood insurance after a flood (Zaleskiewicz et al., 2002). Like the “consequence messaging” already discussed, the purpose of vividly thinking through future risk scenarios is to take action *now* to avoid negative outcomes. As mathematician and philosopher Alfred North Whitehead is reported to have said, “The purpose of thinking is to let the ideas die instead of us dying.” Contemplating the financial consequences of the risks can heighten the value of products like insurance and pensions.

Instead of asking, “What happens if I delay CPP/QPP?” a stronger approach is to ask, “What if I don’t?” This approach is based on American entrepreneur and investor Tim Ferriss’s popular TED talk on stoicism, in which he focuses on the “cost of inaction” when making a hard decision (Ferriss, 2017). It reinforces our natural propensity to avoid negative events by making the consequences more salient. Here is some sample messaging inspired by that framework for the CPP/QPP claiming decision:

# Rather than asking, What happens if I delay CPP payments?, ask, What happens if I don't?



You might want the money now, but imagine being old and vulnerable. Imagine you're among the two-thirds of Canadians who live past age 85. Imagine your health has deteriorated, as is the case for more than two-thirds of Canadians at that age. Imagine the value of your savings drops by a quarter in a month, as it did for many retirees at the beginning of 2020. Going back to work to make up these losses is not an option, and you still need to cover your bills to stay living where you are.

Choosing to delay CPP benefits by just one year could mean 11% more in secure income each year. Income you can depend on — regardless of the ups and downs of the financial market, and no matter how long you live. Your pension also keeps up with inflation for the rest of your life. This reliable extra income can be essential for future “you” to cover the care you may need. Remember, government-funded home care can be very limited. As you age, the stress of managing savings can become more burdensome. Having accessible savings and not enough secure, automated income can put stress on your family and even expose you to fraud.

It's nice to think of only sunny days ahead, but retirement financial planning is about planning for the good and the bad. You need to carefully consider both to make the best retirement decisions for you and your family.

Waiting to take your CPP benefits means more worry-free income that lasts for life. Keep in mind, your retirement could be longer than you have worked. Making a riskier decision now by not making the most of your CPP means your 85-year-old future self is not as financially secure — and, at that time, you will not be able to make up for the unfavourable-outcomes decisions made by your current wealthier, healthier self.

This sample messaging uses some of the same ideas that Dr. Daniel Gilbert delivered in a series of Prudential television commercials, which used data visualization to demonstrate

that unrealistic optimism obstructs a person's motivation to save adequately for their retirement [“Daniel Gilbert (psychologist)”, 2024]. Box B also captures this concept.

## Box B: Which Is Worse?

“Maybe instead of asking ‘which is better’, we should ask ourselves ‘which is worse’.

As in, which is worse:

- a) Taking a small CPP early, and not having enough income at age 90 so that we must give up medicine we need, care we need or food we need, or
- b) Taking a large CPP late, and not having a second or third vacation every year in our 60s?

For me, of the two choices, a) seems worse by a long shot, so I choose path b). QED”

– Marco5810 from the comments section in Carrick (2020)

## Gamification

Technology can be leveraged to help people connect with their future selves. For example, Hershfield et al. (2011) conducted four studies where participants interacted with computer-generated representations of their future selves using immersive virtual reality hardware and interactive decision aids. Those who interacted with aged versions of themselves in virtual reality were more interested in saving for retirement than those who interacted with current versions of themselves or aged versions of someone else.

Another approach is to gamify the decision — for example, creating computer-based games that allow people to “play out” different versions of their retirement. As international pension expert Stefan Lundbergh said, regarding how to help people make better CPP/QPP claiming decisions, “I recalled a paper by an intern who studied this using an experiment. They had to run the experiment twice — so they got a ‘second life’. The second time around more students choose the annuity.”<sup>5</sup>

## One-on-one Strategies

Guides who are in a position to give advice directly are ideally suited to help pre-retirees overcome their “optimism bias” and encourage long-term thinking. They can apply the above interventions. And, with access to the decision-maker’s financial data, personal information and preferences, they are also in the perfect position to help the decision-maker brainstorm the personalized impacts of alternative choices.

For example, they can blend “what happens if?” storytelling with personalized analysis. A financial advisor can run various financial scenarios to illustrate the financial stresses, in terms of potential expenses and available cash flow for their family, in the event of dying earlier or living longer than anticipated. They can then pair these visualizations with the actual probability of those events.

Moreover, guides who have direct one-on-one contact with the pre-retiree can engage in conversations to support deeper visualizations and a clearer understanding of the impact of alternative futures. Following are some examples.

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5 S. Lundberg, personal correspondence, February 4, 2023

## Goal visualization

When it comes to retirement financial planning in general, Johnson (2021) recommends “futurecasting”, in which a person is led to imagine their future self in detail. He suggests advisors move away from the conventional question, “Are you ready for retirement?” to the more productive question, “What will your retirement look like?” Helping a person envision that future in vivid detail — including their home, food and activities — helps them to think more about their future in order to shape it and make it a reality. For example, Nenkov et al. (2008) found that helping people imagine future enjoyment and use for their money improves their self-regulation when making financial choices today.

After envisioning the future, the person is advised to plan and build that future. The planning phase includes the people and tools that can help them discuss and work toward that vision — such as family, friends, an app and/or a financial advisor. Johnson also suggests writing down the steps leading to this vision.

In the context of the CPP/QPP uptake decision, the final step is to connect the person’s vision of their future self with their capacity to safely finance it. This means encouraging them to review the role of each different financial resource using the NIA Retirement Income Framework (see Figure 1 below) provided in Step #1 (MacDonald et al., 2024a).

Practical strategies like goal visualization can help people align their choices with their long-term goals. As Aristotle once reportedly said on achieving success: “First, have a definite, clear practical ideal; a goal, an objective. Second, have the necessary means to achieve your ends; wisdom, money, materials and methods. Third, adjust all your means to that end.”

The Stanford Center of Longevity offers further insight and advice in a literature review on motivating retirement financial planning: “Though the effects of future-self priming among middle aged people and older adults are yet to be studied extensively, contemplating about one’s future self and envisioning future selves might motivate people to engage in retirement planning. This can be done, for example, by encouraging clients to vividly visualize a day in their retirement, making sure they use ‘I’ statements” (Shavit & Chen, 2022, p. 4).

## “Future self” toolkit

Other studies have examined strategies and narratives that help people to connect with their future selves. For example, Bryan & Hershfield (2013) found people who felt connected with their future selves would save more for retirement with a message that appealed to their sense of “social” responsibility to that future self. The messaging was as follows:

**“We urge you to consider the responsibility you have to yourself in retirement and to start saving more now. After all, your “future self” is completely dependent on you. Your decisions now will determine how much financial security your future self can count on” (p. 431).**

To the extent that people feel a strong social connection to their future selves, messaging that reinforces “you owe it to yourself” better motivates them to financially plan for their future, compared with more traditional messaging.

The U.S. Consumer Financial Protection Bureau (CFPB) has brought together much of this research and released a toolkit to help people better prepare for retirement (CFPB, 2021)<sup>6</sup>. This toolkit is designed to support financial planners in motivating their “clients toward their longer-term financial goals through exercises that strengthen their connection to their future selves” (p. 1).

The toolkit involves a series of evidence-based activities that people can do to help them bridge the temporal disconnect and focus on their future selves, thereby improving their financial future. The instructions indicate the toolkit should be completed with the planner and not taken away as “homework”.

It also includes interactive preparatory steps for the planner, a “take action” worksheet and interactive exercises to complete with the pre-retiree, including:

- Exercise A: Write a letter from their future self to their present-day self.
  - This is a structured and straightforward fill-in-the-blank exercise for the pre-retiree.
- Exercise B: Draw a picture of their desired future reality.
  - This is based on visual goal-setting<sup>7</sup>. It is a more unstructured exercise, which may resonate better with some pre-retirees.
- Exercise C: Have a conversation with their future self.

- This is also a more open-ended exercise in which the pre-retiree plays both sides of the conversation. It requires the most engagement and, as the toolkit notes, could be the most potent approach to connect a person with their future self<sup>8</sup>.

According to the toolkit instructions, the “exercises promote this connection by helping clients imagine their futures vividly and realistically. Visions of the future that are overly optimistic or overly pessimistic don’t motivate people to take action.” (p. 1). Guides can use this toolkit to help pre-retirees improve their long-term financial decision-making — even in a Canadian context.

What’s more, the interventions in this section could go beyond general financial decision-making and be adapted specifically for the CPP/QPP claiming decision. For example, a similar approach to the “you owe it to yourself” messaging from Bryan & Hershfield (2013) could be applied. The following paragraph uses that study’s suggested messaging and adapts it to the CPP/QPP discussion:

*Consider delaying your CPP/QPP benefit, so you can ensure you have enough worry-free retirement income when you need it most. After all, your future self is dependent on you. Your decisions now will determine how much financial security your future self can count on.*

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6 CFPB is a “U.S. government agency dedicated to making sure you are treated fairly by banks, lenders and other financial institutions” (CFPB, n.d.).

7 For further background, see Dobrowolski (2012).

8 For more information on this approach, the toolkit document directs readers to Howes (2010).

## Step #6: Framing the Financial Benefits for the Short-term Self

**“What I always do with people is start with the small, so it’s about today, not about tomorrow. Because tomorrow is a date that never comes.”**

– Samuel Waterberg, CEO and founder of Ghana’s People’s Pension Trust (PPT) — an innovative, award-winning pension fund — in Theo Kocken’s documentary “Your Hundred Year Life” (Jones & Timlett, 2022)

While Step #5 explores how to connect people with their future selves for better outcomes, Step #6 discusses an intervention that could be even more effective in motivating change: focusing on the short-term advantages of delaying CPP/QPP benefits.

Take health, for example. Even when it comes to the physical pain of poorly made decisions on an older self, it’s difficult for people to overcome their temporal disconnection and adopt healthier habits now to avoid problems later. For that reason, health expert Dr. Vonda Wright says people should focus more on immediate reward, emphasizing how exercise and better nutrition will make them feel and look today rather than 20 years from now (The Diary of a CEO, 2024).

Hershfield (2019) came to a similar conclusion after reviewing the literature related to saving for retirement: focusing on short-term benefits is potentially more effective in helping people financially prepare for retirement.

“The interventions discussed above directly tackle the relationship between current and future selves by either prompting a more vivid, realistic conception of the future self or by prompting a heightened sense of responsibility for that future self. However, it may often be difficult to actually change the somewhat impoverished relationship that many people have with their future selves. **Thus, the second insight from this body of work is that there may be circumstances when it is beneficial to not directly invoke the future self but to instead frame sacrifices felt by the present self as being less burdensome.**” (p. 74)

One of the most successful interventions in the retirement financial planning realm, discussed further in this section, falls into this category: encouraging retirement savings by automating a pre-commitment to save at a later date (e.g., Choi et al., 2006; Thaler & Benartzi, 2004; Madrian & Shea, 2001).

The decision to delay CPP/QPP benefits requires an immediate sacrifice: foregoing CPP/QPP retirement income in the near term to receive higher CPP/QPP retirement income later. However, there’s a key difference between deciding when to claim CPP/QPP benefits and choosing whether to save or spend money. Postponing CPP/QPP benefits may not impact a person’s current lifestyle, especially if they are still working or are retired and can use their retirement savings to bridge the gap. Looking through the lens of financial income adequacy and consumption, there may not be a short-term sacrifice. In fact, delaying CPP/QPP retirement benefits

can actually elevate a retiree's current living standards by generating a higher guaranteed income later, allowing them to spend more immediately.

The difficulty is, only by taking a holistic, long-term perspective can delaying CPP/QPP benefits be perceived as an advantageous financial strategy rather than as a sacrifice, and this goes against typical human behaviour. Instead of developing a comprehensive, long-term retirement consumption plan that includes all financial resources, people usually consider each financial source separately, following social norms and disjointed ideas with a short-term horizon.<sup>9</sup>

For example, in traditional retirement financial planning, only investable assets are listed. This means delaying CPP/QPP benefits will appear on balance sheets as a negative draw on savings to finance the delay period. Framed this way, delaying CPP/QPP claiming looks like a bad deal. This framing can trigger biases like the "endowment effect", where pre-retirees prioritize protecting what they have now (money in hand) over what they could have (a promised pension) (Thaler, 1980). The prospect of drawing down savings could also be unattractive due to the appeal of maintaining control over savings. Losing this control could result in feelings of less (rather than more) financial security. Referencing a large body of psychological research beginning with Langer (1975), Brown (2009) identified this behavioral bias as "the illusion of control" and explained that "individuals may well believe that they have more control over their financial future by holding wealth

rather than receiving income" (p. 196).

What is the solution? As Harvard psychologist Daniel Gilbert explained, "**If you want the human brain to respond, you really want to make sure that the threat is sudden rather than gradual**" (Gilbert in NPR News, 2006).

Step #6 explores a category of interventions that reduces the discomfort of the current self by making the short-term financial opportunity as salient as possible. These interventions have the potential to be very successful, provided they:

- 1 Effectively convey the short-term financial value, emphasizing the absence of short-term sacrifice; and
- 2 Are aligned with our natural psychological biases.

The challenge with #1 is that the value of a future pension promise is not directly quantifiable today. In other words, the value is different for someone who dies in two years versus 20 years. Quantifying the current value of uncertain future financial payments is the domain of actuaries, but more mainstream metrics such as the "actuarial present value" aren't well understood by the general public, nor are they particularly useful<sup>10</sup>.

This section presents several approaches that blend behavioural economics insights with financial mathematics to measure the short-term financial opportunity:

- **Think one year ahead;**
- **Dispel the short-term fear of lost income;**

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9 Step #3 reviews several of these flawed approaches, along with their underlying motivations and biases (Macdonald & Chandler, 2024a).

10 Conventional metrics that summarize average outcomes for a population are crucial to financial products like insurance and pensions that pool longevity risks but are largely irrelevant to individuals who only die once.

- **“Spend More Today Safely” (SMarTS);**
- **Explain the financial value in terms of “Lifetime Loss”;**
- **Get more DB pension (or an annuity) at a low price;**
- **Treat the CPP/QPP pension as a portfolio decision; and**
- **Treat it as purchasing longevity insurance.**

The goal is to communicate the CPP/QPP claiming choice in a way that reduces the pain of financial sacrifices made by the current self and positions delaying CPP/QPP benefits as a “good deal” — even in the short term.

As previously noted, the framing must also work within and not trigger natural human psychological biases. Done properly, framing the CPP/QPP claiming decision as an immediately valuable financial opportunity can do more than reduce the pain of the financial sacrifices made by the current self. It can also invoke biases that support more informed decision-making, such as the following:

- **“Regret aversion” and an irreversible decision:** Brown (2009) discussed the potential for “regret aversion” when explaining why retirees do not purchase annuities. People want to avoid the regret of purchasing an annuity altogether and parting with the purchase price — for example, if they were to be diagnosed shortly after purchase with a fatal disease.

With the right framing, fear of claiming CPP/QPP benefits too soon can potentially

invoke the power of regret aversion, but in the opposite direction. Claiming CPP/QPP benefits is, after 11 months, an irreversible decision. The decision to claim at age 60 is between a pension starting at 60 and a pension starting sometime in the following 10 years. Delaying keeps options open, since retirees can change their minds and start claiming at any time. However, once the pension has been in play for 11 months, the decision can’t be reversed. A person should be averse to the regret of losing control of their claiming age too soon.

- **“Loss aversion”:** Rather than highlighting the gain of greater CPP/QPP benefits, framing it as a financial opportunity that can’t be missed invokes the loss aversion principle: negative changes (i.e., losses) from a reference state loom larger than equally sized positive changes (i.e., gains) (Kahneman & Tversky, 1979; Tversky & Kahneman, 1991). The potential for loss is estimated to stand out in people’s minds twice as much as the potential for gains (Tversky & Kahneman, 1992). When a person feels the threat of losing something, that fear motivates them to exert “decision-making effort” (Massar et al., 2020). This is precisely what is needed to encourage retiring Canadians to shift away from uninformed, hastily made CPP/QPP claiming decisions<sup>11</sup> and invest more time and energy into choosing an age that best suits their circumstances.

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<sup>11</sup> Step #4 reviews the widespread and significant gaps in effort, knowledge and support for the CPP/QPP claiming decision (MacDonald & Chandler, 2024b).



## Think One Year Ahead

“Think one year ahead” is the advice of Canada’s former chief actuary<sup>12</sup>, Jean-Claude Ménard, who served for an impressive 20 years. With this background, he has a profound understanding of the complex quantitative analytics underlying the CPP system.

Ménard’s career was “marked by his devotion to the public interest, his passion for the work, and his insistence on providing the highest quality actuarial advice” (Superintendent of Financial Institutions, 2019). Having retired in 2019, Ménard shared his insights and experiences on explaining the value of delaying CPP benefits informally to friends and family. Box C details his advice, obtained through personal correspondence on Feb.

24, 2020. It uniquely combines the appeal to financial self-interest with insights from behavioural economics.

Ménard’s advice addresses our tendency to focus on short-term returns on each investment in isolation rather than on long-term, comprehensive financial security<sup>13</sup>. Instead of trying to persuade individuals to understand the risks of different stages of retirement and the importance of having a higher level of secure income in the long run, his advice aligns with our natural inclinations by emphasizing the **short-term financial opportunity**. He frames the CPP/QPP opportunity in a bite-sized, “one-year-at-a-time” horizon, concentrating on annual financial growth. This also overcomes the “how long will I live?” mental arithmetic that influences why some pre-retirees claim early, since the math is done using a one-year time horizon.

### Box C: The Wisdom of a CPP Leader (Part 1)

By Jean-Claude Ménard, personal correspondence, February

**“Trying to convince Canadians of the value of delaying CPP is much more complicated than any actuarial calculations.**

When I discuss the decision of asking for your CPP benefit at age 60 vs. 61, then at age 61 vs. 62, and so on, I have much more success. After all, once your CPP benefit is paid, your decision is irreversible. Thinking about this important decision one year at a time makes it relevant and digestible for average Canadians.

<sup>12</sup> The Office of the Chief Actuary of Canada is an autonomous arm of the Office of the Superintendent of Financial Institutions in the Department of Finance. It is responsible for monitoring CPP funding and the age-adjustment factors used to provide larger pensions to retirees who delay their pension.

<sup>13</sup> As discussed in Step #1 (MacDonald et al., 2024a), retirees view the prospect of using savings to purchase more pension income (such as through delaying CPP/QPP benefits or buying an annuity) as a risky and unattractive investment, since there is a positive probability of losing their foregone pension payments (i.e., by dying prematurely) — however small that risk may be in the short term. When making financial planning decisions, research has found that people tend to go into retirement conditioned to focus on investment risk and return rather than on lifetime consumption (Brown et al., 2008). In other words, retirees view their retirement savings as an investment to build and maintain rather than a source of income to sustain their retirement. Some mainstream approaches on how the CPP/QPP claiming age is determined — like the breakeven approach — completely isolates the CPP/QPP claiming decision from their overall financial circumstances, needs and expectations [see Step #3 for a review of the flaws in this approach (MacDonald & Chandler, 2024a)].

Too many people who do not need the CPP benefit are still asking for their benefit at age 60. Their motive seems to be investment. My calculation is simple and approximate because Canadians do not want a precise calculation, so I stick with two elements in trying to convince them to delay.

**Don't decide 60 versus 65 because 65 is too far into the future.** Take an annual decision instead. Can you wait a year or not? Do you need the money now? If not, is it for investment? In many cases, it seems to be for investments.

How much bigger is your benefit at age 61 versus 60? By waiting a year, your retirement benefit increases by 11.25%. Can you earn a guaranteed 11.25% growth elsewhere? The answer is a resounding "No". If you want to include inflation and real wage growth, your amount is now even higher.

There can be complications, of course. If the person has already "maximized" the low earnings drop-out, the increase will be lower. There is also the interaction with the child-rearing dropout that would also favour women to delay at least for a couple of years for those who have not used all the general low earnings drop-out room.<sup>14</sup>

Overall, however, for someone aged 60, a one-year delay is equivalent to investing a single year's CPP/QPP benefit at age 60 and getting a lifetime pension income of 11.25% guaranteed above inflation and fees of that initial investment. For those who think they could do better than waiting by investing their early CPP, you would have to earn better."

The wait-a-single-year-and-earn-an-11.25%-benefit-increase approach emphasizes the short-term advantages with an investment frame to which retirees are generally inclined — however misdirected this focus may be in the larger context of retirement financial planning, with its long-term implications. A one-year-at-a-time approach is also supported by the long-time experience of U.S. Social Security expert Steve Vernon: "While age 70 is the optimal age for most people, any delay will still increase your retirement income. So, if you can't defer until 70, try for 67, 68 or 69.

This just gives them some wiggle room so that they don't throw their hands up in despair if they can't defer to 70."<sup>15</sup>

The value proposition changes with the one-year time horizon, as the increase in benefits based on age-adjustment factors decreases with age. For example, a 60-year-old will receive a benefit increase of 11.25% by delaying to age 61, while a 69-year-old will receive a benefit increase of 6.29% by delaying to age 70. Table 2 shows the one-year increase in benefits by age.<sup>16</sup>

<sup>14</sup> See the introduction paper of this series for a discussion of the complicating factors (MacDonald, 2024).

<sup>15</sup> Personal correspondence, April 12, 2020.

<sup>16</sup> For example, the math behind these numbers is as follows:

- Delaying CPP/QPP from age 60 to age 61 increases the benefit to 111.25% of what it would be at age 60 [111.25% = (100%-28.8% four-year loss of claiming at age 61)/ (100%-36% five-year loss of claiming at age 60)].
- Delaying from age 69 to age 70 increases the benefit to 106.29% of what it would be at age 69 [106.29% = (100%+42.0% five-year gain of claiming at age 70)/(100%+33.6% four-year gain of claiming at age 69)].

**Table 2: Increase in monthly pension from a one-year delay, based on age adjustment factors alone (ages 60 to 69)**

Deferral Age	Benefit Increase (net of national wage growth)
60 to 61	11.25%
61 to 62	10.11%
62 to 63	9.18%
63 to 64	8.41%
64 to 65	7.76%
65 to 66	8.40%
66 to 67	7.75%
67 to 68	7.19%
68 to 69	6.71%
69 to 70	6.29%

For someone age 60, therefore, delaying benefits by even a single year delivers very high value. Based on the official age adjustment factors alone, a \$1,000 monthly benefit at age 60 increases to \$1,112.50 per month if the person waits until age 61, and to \$2,218.75 if the person waits until age 70 (indexed by inflation, for life).<sup>17</sup>

Intentionally adjusting the proposition away from “wait five years” to “one year at a time” is called “temporal reframing,” where the time and money sequencing is changed from a large chunk to more bite-size pieces. This type of reframing has been found to effectively influence a range of financial decisions. For example, people are more

inclined to make purchases when the cost is reframed from a single large cost to a series of small ongoing expenses — i.e., from the “sticker price” to “pennies a day” (Gourville, 1998).

Thorp et al. (2023) found people are comfortable with higher loans when the emphasis is on regular repayments rather than on the total loan amount. In retirement financial planning literature, Hershfield et al. (2018) similarly found people were more likely to participate in an automatic savings program when the contributions were presented in daily rather than monthly terms. That study proposed that framing the contributions in daily terms made the financial commitment feel less burdensome to the “current self” of the individuals involved.

In summary, explaining the advantages of delaying CPP/QPP benefits in terms of the short-term financial reward can help overcome the significant mental barriers of using savings to purchase secure retirement income. Evidence suggests this approach will work with the natural tendencies and biases of the human mind, for the following reasons:

- 1** People are more inclined to respond to short-term than long-term problems;
- 2** Retirees view their retirement savings as an investment rather than as a source of income to sustain their retirement; and
- 3** A one-year time horizon safely enables a reasonable level of reliable personal judgment on mortality, which helps people overcome their fears of death and lost

<sup>17</sup> Also, because this increase is based on age adjustments alone, it does not include the role of national wage growth that enters into the calculation at age 61. Between 2012 and 2019, for example, the one-year-delay benefit increase for a 60-year-old was on average 11.9% after inflation (13.8% in nominal dollars) (MacDonald, 2020). As reviewed in Step #4, however, computing the CPP/QPP benefit for alternative claiming ages depends on various personal and economic factors, as well as the detailed provisions of CPP/QPP legislation, all of which can produce conclusions about claiming age that differ from conclusions based on age adjustments alone (MacDonald & Chandler, 2024b).

income (i.e., people generally don't expect to die in the coming year, so it's a bet they're willing to take).

As a reviewer of this paper series, Audrey Forbes, longtime senior lead on a large Canadian public sector pension plan, wrote: "The 'One Year Ahead' decision model is simply genius. It is illustrative, and it brings the theoretical into relatable and clearer terms, with incentives to act."<sup>18</sup>



## Dispelling the Short-term Fear of Lost Income

**"I think we need more use of data-based examples of living longer — how much longer do people turning 65 in 2024 live than their counterparts 10, 20 and 30 years ago? Also, if possible, stats on dying young. Everyone has a story of someone they know who died at 66 or whatever. What are the statistical chances of this compared to living to 96?"**

– Globe & Mail longstanding finance journalist, Rob Carrick, who has reported extensively on the CPP/QPP claiming decision. Personal correspondences, Jan 24, 2024

As already discussed, workers transition into retirement with a tendency to look at retirement financial planning from an "investment" mindset rather than through the long-term framing of, "How well will I be able to finance my retirement?" (Brown et al.,

2008). This attitude makes delaying CPP/QPP benefits a risky and unattractive proposition since there is a certain probability of losing any benefit from foregone pension payments by dying early. Using U.S. focus groups, Rabinovich & Samek (2018) found the fear of not living long enough to collect sufficient benefits was one of the two most prevalent explanations for early Social Security claiming behaviour, along with immediate cash flow concerns.

Step #6 of this paper series focuses on reducing the subjective pain of financial sacrifices made by the current self, including the fear of dying early and losing income in the short term. Another solution is to simply address fears of early death head-on — the second piece of advice provided by Ménard.

When pre-retirees grapple with complex questions — such as, "Will I live long enough to make back my initial investment?" — behavioural economic research finds their biases and impressions can lead them astray. As discussed in Step #3, people suffer from "longevity pessimism" and tend to underestimate how long they will live (Perlman & Fauquier, 2020; Club Vita, 2022). From his experience, Ménard identifies one source of the problem: people determine their longevity by recalling readily available examples, such as someone in their family dying at a young age.

What he was noticing is a phenomenon behavioural economists call the "availability bias." When people aren't sure about something — like how long they will live — the brain takes a mental shortcut to immediate examples that readily come to mind (Morewedge et al., 2005). The bad news (like early death) tends to stick in the

<sup>18</sup> Personal correspondence, Oct 23, 2024.

mind and makes headlines, even when the occurrences are rare. People living to older ages in a “normal” way is less interesting and unlikely to affect people emotionally or mentally, making it less likely to be stored in memory so that it can be easily retrieved. Reliance on highly available memories of the past tends to bias an individual’s beliefs about their anticipated age of death — no matter how unrepresentative those memories may be.

In Box D, Ménard suggests providing a reality check to counteract longevity pessimism, starting with short-term mortality concerns and moving on to longer-term mortality expectations. This advice is aligned with research in behavioural economics: as previously discussed, grounding a person’s reality in relevant existing statistics can help them anchor their judgment to reality and be less swayed by unhelpful biases (Kahneman, 2013).

## Box D: The Wisdom of a CPP Leader (Part 2)

By Jean-Claude Ménard, personal correspondence, February 2020

**“The next step is to help people understand that retirement will probably last a long time.** Average life expectancy is of limited use — again, it is too far in the future to convince most Canadians. The truth is, most people are overestimating their risk of dying even in the short term, especially between 60 and 70, so that’s where I put my focus.

Suppose you have 100 people all aged 60 in a room. How many will still be alive five years later? Suppose they are all men? Suppose they are all women? You cannot imagine the answers I got because they know a relative who has died around age 60!

(By the way, I tried this with many actuaries. I kept the answers for myself because they were not all accurate.)

Can you guess a number?

Since many Canadians have difficulty with percentages, I use numbers instead. So, the answer to the trivia question is 97 men, and 98 women will still be alive by age 65.

Suppose we have 100 men all aged 65. How many will still be alive at age 70? 95 for men and 97 for women. The survival probability from 60 to 70 is 92% for men and 95% for women.

I found that very few people understand that the annual probability of dying is exponential between 60 and 100. (A very low rate at age 60 and a very high rate at age 100).

A rule of thumb: It doubles every seven years for men and women from ages 60 to 95.”<sup>19</sup>

<sup>19</sup> For women, it roughly doubles from 60 to 68 to 75 to 82 to 88 and to 93 (from 3.4 deaths per 1,000 to 112 deaths). For men, it doubles from 60 to 68 to 76 to 83 to 89 and to 94 (from 4.8 deaths per 1,000 to 159 deaths).



## “Spend More Today Safely” (SMarTS)

One of the early success stories of applying behavioural economics to retirement financial planning is in Thaler & Benartzi (2004), which proposed that people would save more if they worked with, rather against, their psychological biases — such as being overly optimistic about the future and devaluing their future financial needs — by committing ahead of time to save a portion of future pay raises automatically to their pension plan. Coined “Save More Tomorrow” (or SMarT), this approach carried the additional positive message that this approach was a “smart” thing to do (Thaler & Benartzi, 2004). The solution outlined in this section builds on this innovation.

While the original SMarT intervention was designed for the accumulation phase, the choice to delay CPP/QPP claiming applies to the decumulation stage. Between working years and retirement, the focus of financial planning shifts from saving to spending. The slogan, “Spend More Today Safely” (SMarTS), adapts this intervention for the decumulation stage.

With this strategy, a pre-retiree would be told by their advisor how much more they can spend today by choosing to secure higher

lifetime income through delaying CPP/QPP benefits.<sup>20</sup> It emphasizes that a retiree could have both a good life today and a better life tomorrow.

This intervention is empirically effective and will likely lead to more optimal decumulation behaviour, for the following reasons:

- 1 Greater secure pension income enables people to spend more and do so more safely.** Studies show delaying benefits increases annual spending capacity and reduces financial risk (BlackRock, 2024; MacDonald et al., 2020)<sup>21</sup>.
- 2 People will, in fact, actually spend more.** Evidence shows that a greater level of secure retirement income gives people the confidence to spend more of their savings (Retirement Income Institute, 2024), reducing the tendency to hold onto savings out of fear and live an unnecessarily reduced lifestyle.<sup>22</sup>
- 3 People say this is what they want.** This solution aligns with the expressed preferences of the current self for financial security in retirement. In the 2023 NIA Ageing in Canada Survey, when asked about their top financial priorities, respondents indicated that feeling financially secure for the remainder of their lives was by far the top priority (MacDonald et al., 2024b).

<sup>20</sup> Note that the slogan “Spend More Today Safely” was adopted from Blake & Boardman (2013), although it is applied here for a different problem and solution. Blake & Boardman (2013) used this title to represent an application of behavioural economics to the annuity puzzle, advising that annuity uptake would be improved if people were to: 1) make a financial plan; 2) automate the purchase of annuities, in incremental amounts; 3) have a “money-back” feature in the annuity product (that is, return of unpaid principal death benefit); 4) adhere to “the slogan ‘spend more today safely’ that utilizes hyperbolic discounting to satisfy the human trait of wanting jam today, and to reinforce the idea that ‘buying an annuity is a smart thing to do.’” (p. 108)

<sup>21</sup> BlackRock and the Bipartisan Policy Center (BlackRock, 2024) investigated the advantages of delaying Social Security benefits using a dynamic modelling tool that holistically combined a retiree’s various sources of income (e.g., savings, home equity, pension benefits, etc.). They found that delaying claiming from age 65 to 67 increased a person’s total annual spending capacity by 16% and reduced downside risk by an additional 15%. The same is true in Canada: CPP/QPP provides a solid baseline investment that reduces risk and is expected to yield greater spendable income over a person’s lifetime (MacDonald et al., 2020). Service Canada’s Retirement Hub illustrated the same conclusion for CPP (see example case “Bonnie”) (Service Canada, n.d.).

<sup>22</sup> See Step #2 for a discussion of supporting research on the tendency of retirees not to spend their savings, as well as a larger discussion on the advantages of secure income (MacDonald et al., 2024b).

**Expert guides can lean into the natural human desire for safety and security when discussing the benefits of delaying CPP/QPP by quantifying how much more their clients can safely spend today.** The slogan that delaying CPP/QPP claiming benefits gives retirees a licence to “Spend More Today Safely” has the advantage of being tied to the well-known “Save More Tomorrow” intervention,

signalling that the proposed solution is a “smart” and safe thing to do. And evidence suggests it will work: people will feel more at liberty to enjoy their retirement savings. With all this in mind, it’s no surprise that some of the most knowledgeable pension plan designers globally are emphasizing confidence when promoting financial solutions that deliver lifetime retirement income security (see Box E).

## Box E: Think “Confidence”, Not “Longevity Risk”

This is this advice provided by actuary Brnic van Wyk, the lead of Australia’s award-winning Lifetime Pension solution at the Australian Retirement Trust (one of the world’s largest DC pension funds):

“Our industry generally defines longevity risk as ‘the risk of outliving one’s savings’. But this implies someone has to live a long time for the risk to materialize. People do not think they will live a long time! But they do not know how long they will live. They’re ‘uncertain’. Healthy people, sick people. Young people, old people. Rich people, poor people. They’re all uncertain. The solution to uncertainty...? It’s confidence!

It is ‘confidence’ that we set out to solve in our solution. Confidence to spend more, irrespective of how long someone lives. That’s the value proposition of our product. It resonates strongly with participants. Yes, behind the scenes we had to solve for (idiosyncratic) longevity risk, but that’s not the basis on which we present our product. It’s confidence to spend in retirement.”



### Explain the Financial Value in Terms of “Lifetime Loss”

In addition to the fear of short-term sacrifice and the mental shortcuts that lead to early claiming, it’s important to consider an additional bias that impacts decision-making: the “Illusion of wealth”. This bias occurs when people place a higher value on a lump sum of money than an equivalent income stream (Goldstein et al., 2016), including public pension plans like CPP/QPP (Brown et al., 2021).

MacDonald (2020) proposed a new metric called the **Lifetime Loss**, which frames the CPP/QPP claiming choice by answering the question, how much are Canadians giving up when they take CPP/QPP benefits early? The motivation behind introducing this new metric is to move away from the prevailing “breakeven” approach (see Step #3, MacDonald & Chandler, 2024a) and toward a metric that communicates a fuller understanding and appreciation for the long-term implications of the CPP/QPP uptake decision (see Box F).

## Box F: Introducing the Lifetime Loss (MacDonald, 2020, p. 12)

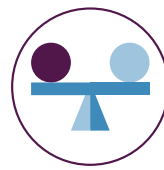
The Lifetime Loss is a framework that advisors can use to better understand — and help Canadians to better understand — the expected lifelong financial consequences of the CPP/QPP uptake decision.

Lifetime Loss is a straightforward calculation that captures the expected financial loss of taking CPP/ QPP at an earlier rather than a later age. The primary benefit of this metric is that it encourages people to look beyond the short term and consider their entire financial future by directing their attention to the larger context of retirement financial planning with its long-term implications.

For example, examining the statutory age adjustments alone with expected real national wage increases, an average female Canadian retiring in 2020 with the maximum CPP benefit can expect to lose \$155,000 in lifetime income by taking CPP at age 60 in 2020, rather than at age 70 in 2030 (in current dollars).

“Avoid a \$100,000 mistake” frames the financial value by emphasizing that retirees risk losing substantial money over their lifetime by early CPP/QPP claiming<sup>23</sup>. From a behavioural economics perspective, the emphasis on lump sum loss rather than on the potential increase in income can help motivate behaviour, combining the “illusion of wealth” and the loss aversion principle. This can be a potentially powerful approach to helping the decision-maker understand the full benefits of delaying and the potential loss of not carefully evaluating the decision.

The proposed framing from MacDonald (2020) has been adopted by Service Canada’s Retirement Hub educational web portal, using non-technical language: “Starting your pension at 60 might mean leaving public pension money on the table. In fact, based on average benefit amounts, that decision could cost \$100,000 by the end of one’s life” (Service Canada, n.d.).

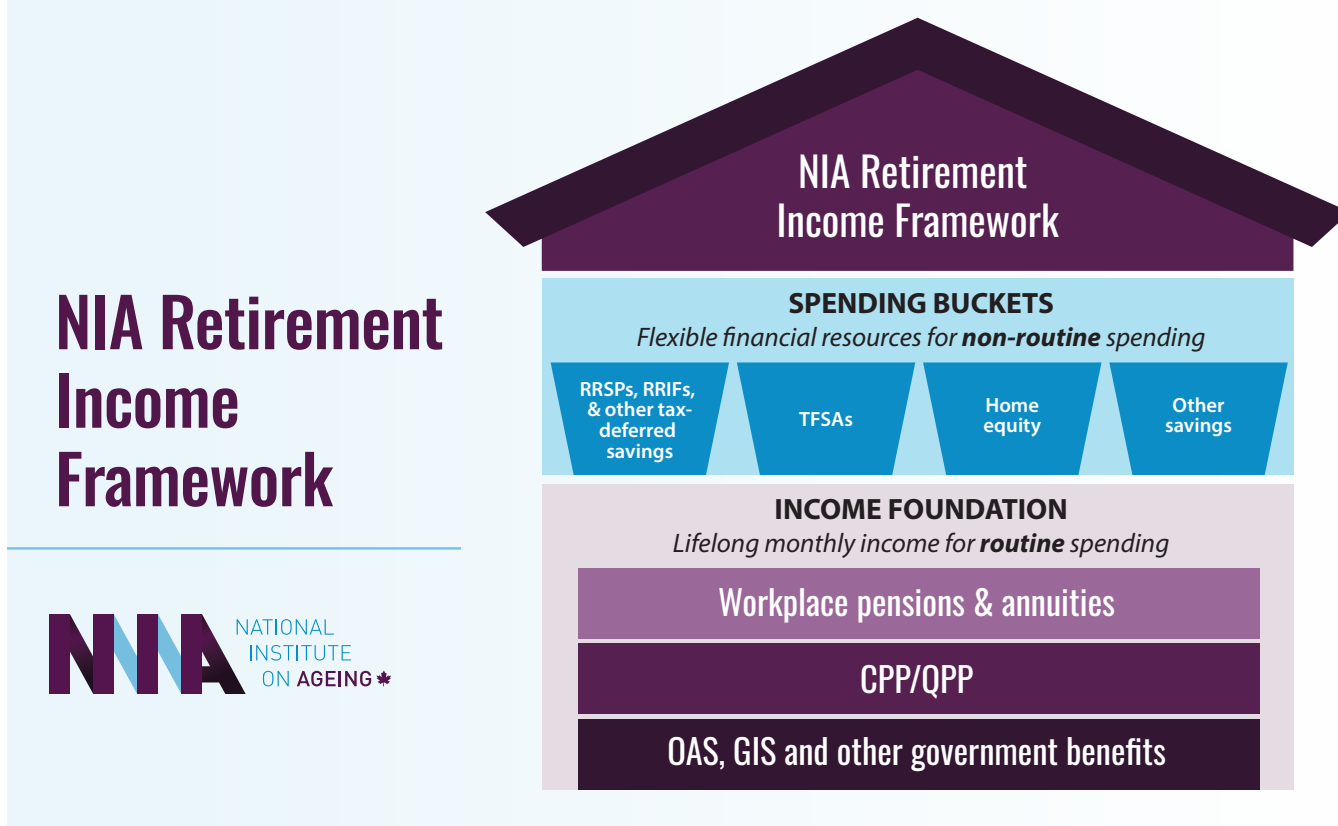


### Get More DB Pension (or an Annuity) at a Low Price

The NIA visualization of the Canadian Retirement Income Framework (Figure 1) stresses the importance of presenting the Canadian retirement income system in terms of sources of guaranteed lifelong monthly income to meet routine expenses (i.e., income foundation such as OAS/GIS, CPP/QPP, workplace pensions and annuities) and liquid assets (i.e., spending buckets such as RRSPs) to provide flexible, liquid funds to meet non-routine expenses.

<sup>23</sup> Like all the proposed strategies, this metric could also be paired with interventions in Step #5. For example, “Give an extra \$100,000 to your future self” could be effective once the bond between the current and future self is established.

**Figure 1: NIA’s Redefined Visual of the Canadian Retirement Income System**



Source: Figure 1 (MacDonald et al., 2024a).

Outside of CPP/QPP and GIS, many workers — especially in the private sector — have inadequate secure, lifelong monthly income in retirement. They will rely heavily on their RRSPs or other savings, making it more difficult to generate affordable, secure monthly income.

Recognizable statistics on the value of CPP/QPP benefits are necessary for people to recognize that their current self is losing a sound financial opportunity by forfeiting higher future pension. A potential powerful approximation is to frame it as purchasing a DB pension or an annuity at a low price, which will enhance their retirement income foundation.

When delaying CPP/QPP benefits, the person is effectively buying a higher DB pension benefit at the cost of the payments forfeited during the deferral period. Payments are inflation-indexed — a feature that only one in 10 Canadian private

sector workers can access (Statistics Canada, 2020).

It’s important to understand that, like purchasing a pension, delaying CPP/QPP benefits is implicitly an annuitization decision. The “cost” of purchasing higher CPP/QPP pension benefits is the forfeited CPP/QPP payments during the deferral period. In the U.S., Bronshtein et al. (2020) called the claiming choice an “arbitrage opportunity,” owing to the better pricing of Social Security delay incentives versus what is available in the retail annuity market. It identified that many Americans claim Social Security early while also drawing annuity income. These individuals are failing to take advantage of an arbitrage opportunity, where they would do better to use savings that would otherwise be used to buy an annuity to delay Social Security benefits.

The same is true in Canada. “If Canadians

were to use the equivalent of those forfeited CPP/QPP payments to buy such a pension in the retail marketplace, the resulting annuity payments would be 40% lower for a man and 50% lower for a woman (due to their generally greater longevity, which is incorporated into the purchase price). Put differently, buying the same level of secure pension income in the retail market costs nearly twice as much!" (MacDonald, 2020, p.10).

In addition to superior pricing, there are other advantages relative to the retail market. The most important one is that inflation-indexed annuities are not even available in the retail market, and inflation is reported to be the top financial concern among ageing Canadians (MacDonald, 2024). Planning to delay CPP/QPP is also safer from a financial planning perspective since the "cost" to delay CPP/QPP does not suffer from market timing risk, unlike annuity pricing. This is because the CPP/QPP actuarial adjustment factors are fixed; they are not dynamically linked to current market yields, like the retail pension or annuity market.<sup>24</sup>

Whether the challenge is inadequate spending buckets or income foundation, choosing the timing of CPP/QPP benefits can shift the balance. Emphasizing the immediate value of delaying benefits in terms of finding the right balance between having secure income to cover ongoing costs at a low price can be a successful inroad into a pre-retiree's rational mindset, helping them better understand the opportunity of early claiming.



## Treat it as a Portfolio Decision

The traditional investment advice is for people to invest more conservatively as they age, moving away from stocks toward a more secure asset mix in their later retirement years. The reasoning is that the necessary withdrawals in retirement will "lock in" any temporary drops in stock market prices, thereby denying the flexibility to recover from market shocks.<sup>25</sup> However, retirees who are relying on their savings to support them until death will still need to maintain a healthy allocation to stocks to ensure their resources for lifestyle spending keep up with inflation.

From a portfolio approach to determining a risk budget, retirees who defer CPP/QPP benefits can afford to take more risk in their remaining portfolio than those who don't. If the objective is to enhance lifetime income, then a larger CPP/QPP pension is essentially a risk-free investment: there is a secure real return on that investment for as long as the person is alive. By classifying a person's CPP/QPP income as "bond-equivalent," more savings can be rationally allocated to risky assets while maintaining the desired level of portfolio risk, potentially yielding greater overall returns.

From a personal financial planning and budgeting perspective, covering basic necessities by augmenting CPP/QPP's guaranteed, stable income stream puts

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<sup>24</sup> Market timing risk can be a major issue for retirees, since it is not just the price of the annuity but also the market value of the investments used to buy the annuity. For example, if annuity prices rise at the same time as the stock market declines, retirees might be forced to buy a relatively expensive annuity with the proceeds from a depleted investment fund.

<sup>25</sup> This philosophy is the foundation of target date funds (TDFs), in which the asset mix is initially more weighted in stocks and, as the target date (usually retirement) approaches, is increasingly more conservatively invested in bonds. Financial advisors generally assume a fixed return for the duration of retirement; therefore, those who advise older Canadians to take on less risk at older ages should account for the consequential decline in expected returns in later retirement — particularly at the time of retirement, when decisions are being made (like when to start claiming CPP/QPP).

individuals at greater liberty to invest more aggressively and earn returns expected to be higher than a more conservative investment. [See Step #2 for further discussion (MacDonald et al., 2024b)].<sup>26</sup>

**“We look at the ‘when to start CPP’ question as an investment decision. When a client defers CPP they are effectively making an investment... the fact that CPP is a known AAA rated cash flow compared to a fluctuating return on their portfolio.”**

– John Clark, President, Pacific Spirit Investment Management Inc., obtained through personal communication on Nov. 18, 2020



## **Treat it as Purchasing Longevity Insurance**

As already discussed, a significant barrier to retirement financial planning is the mental challenge associated with anticipating and budgeting for a far-off future. Retirement is expected to span decades, and changing factors such as family composition (e.g., divorce or widowhood), the corrosive effects of inflation and health deterioration can dramatically affect a person’s lifestyle and income needs. One key benefit of delaying CPP/QPP is its “longevity insurance,” since it delivers a secure source of purchasing power over a future of unknown length and risky financial markets.

Retirees are afraid of the long-term financial risks of retirement — namely inflation, running out of money and later-life health expenses (MacDonald, 2024). With this in mind, another way to emphasize the immediate value of delaying CPP/QPP benefits is to frame it like purchasing an insurance product designed to mitigate longevity and the related financial risks that retirees fear the most. The premium — in this case, the forfeited CPP/QPP benefits during the deferral period — is paid to ensure an additional stream of inflation-indexed income for life and eliminate some of the worries of “running out”.



<sup>26</sup> Baily & Harris (2019) similarly explain how making annuities part of the financial portfolio decision is one approach to improving annuity uptake.

# Conclusion and Next Steps

**“The only source of knowledge is experience... Everything else is just information.”**

– Albert Einstein

This paper (Steps #5 and #6) presents two distinct yet complementary categories of solutions to bridge the psychological gap between the current and future self to positively influence long-term financial decision-making:

- Step #5: Strategies for strengthening the felt bond between the current and future self; and
- Step #6: Approaches for framing the financial benefits of delaying CPP/QPP benefits in a way that reduces the current self’s subjective discomfort.

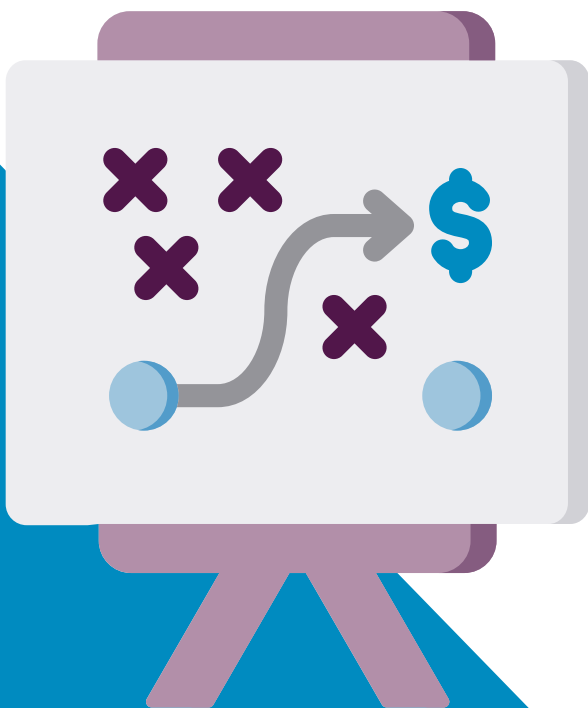
Although the interventions suggested throughout this paper are supported by evidence, future research is needed to test their impact directly on the CPP/QPP claiming decision before they are rolled out more broadly. For example, Ménard’s insights — gained through a profound understanding of risk/return properties combined with a lifetime of experience — address the challenge of explaining the value of delaying CPP benefits in a way that is simple, compelling and effective. However, further testing — including both clinical trials and practical application — is required to provide the necessary evidence to implement this advice with confidence (see Box I).

## Box I: The Need for Evidence and Testing

Excerpt from Sunstein (2014, p. 586)

“For all policies, including nudges, it is exceedingly important to rely on evidence rather than intuitions, anecdotes, wishful thinking, or dogmas. The most effective nudges tend to draw on the most valuable work in behavioral science (including behavioral economics) and hence reflect a realistic understanding of how people will respond to government initiatives. But some policies, including some nudges, seem promising in the abstract but turn out to fail in practice. Empirical tests, including randomized controlled trials, are indispensable. Bad surprises certainly are possible, including unintended adverse consequences, and sensible policymakers must try to anticipate such surprises in advance (and to fix them if they arise). Sometimes, empirical tests reveal that the planned reform will indeed work — but that some variation on it, or some alternative, will work even better.

Experimentation, with careful controls, is a primary goal of the nudge enterprise. Fortunately, many nudge-type experiments can be run rapidly and at low cost, and in a fashion that allows for continuous measurement and improvement. The reason is that such experiments sometimes involve small changes to existing programs, and those changes can be incorporated into current initiatives with relatively little expense or effort. If, for example, officials currently send out a letter to encourage people to pay delinquent taxes, they might send out variations on the current letter and test whether the variations are more effective.”



As Vernon (2019, p. 47) observed: “Much of the research in behavioral economics has been conducted in labs. Indeed, we’ve gained useful insights from this research about interventions that can improve retirement and health outcomes. The next phase in behavioral economics research, however, is to test behavioral interventions with workforces and customer bases, helping people who are making real-world decisions.”

Future testing should also include optimizing the combination of strategies. Pairing strategies from Steps #5 and #6 could create a persuasive motivation for retiring Canadians to take steps now to care for their future selves and support clearer, more informed retirement decisions.

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