Strategies to Help Plan Members Prepare for the Power of Inflation

by Marc-André Vinson

Even when the inflation rate is modest, it can greatly reduce the purchasing power of retirement dollars over a 20-, 30- or 40-year period. The author illustrates the ramifications of inflation and provides strategies for helping plan members prepare for the inflation that will inevitably affect their retirement future.
Your plan members may not give it a second’s thought on an average day, but inflation is constantly chipping away at their purchasing power. This has a sneaky way of adding up over the years and, when it comes to a retirement that can stretch two to three decades or more, it can mean a lot of time for inflation to turn from a small problem into an 800-pound gorilla that wields its power against their retirement income.

This article will provide insights into inflation—what it is, how to measure it, its impact on different types of retirement plans and how to model for it—and offer strategies for plan sponsors looking to help their members better understand and deal with the effects of inflation.

A Question of Perspective

People are a lot better at looking back in time than they are at looking forward. We simply lack tangible points of reference when it comes to looking ahead. Remember the first time you rode the bus? For me, it was 1978, and the ride cost 25 cents. Today, it’s $3.50. That’s 14 times the price! This translates to a 6.5% increase per year. While this may not be a perfect representation of overall inflation over that 40-year period, it’s an easier way for people to wrap their heads around this concept than to think about what riding the bus will cost 40 years from now.

Measurement

Inflation in Canada is most often measured as the increase in the cost of a basket of goods and services—including food, shelter, household operations and furnishings—as well as health care, transportation, clothing, recreation and education. It even considers the price of tobacco and alcohol. This all gets rolled into the Consumer Price Index (CPI), which is published monthly by Statistics Canada. A $100 basket from 1978 cost $403 in 2019. That only works out to an average increase of 3.4% per year, but that’s still four times the price for all these goods and services.

Price movements of the goods and services represented in the CPI are weighted according to the relative importance of each item in the total expenditures of consumers. For example, Canadians as a whole spend a much larger share of their total expenditures on rent than on riding the bus. As a result, a 10% price increase in rental rates will have a greater impact on CPI than a 10% increase in the price of a bus ticket.

Also, CPI can vary substantially from one region to another, so consideration should be given to where members live while they are working and where they plan to live when they retire, especially if they expect to move to a different part of the country.

Compounding Goes Both Ways

If your plan members participate in a defined contribution pension plan or use a Registered Retirement Savings Plan (RRSP), the pot of money they accumulate as retirement savings will need to provide them with an income stream for decades—All the while, it will be subject to inflation, which will slowly chip away at its actual value.

An awful lot of attention is given to compounding in the context of investment returns. It’s true that earning interest on interest is a wonderful thing but, unfortunately, the same thing happens with inflation: Price increases stack on top of one another, accelerating the erosion of each dollar’s purchasing power exponentially. The longer the period of time, the worse this effect gets. And when it comes to retirement, the time involved can be very long indeed.

To make things worse, and though it may come as a surprise, there’s a tendency for people to underestimate their remaining life span. This matters because the longer a retirement lasts, the greater the impact of inflation. The table shows the median life span for 60-year-olds, along with the time horizon for a one-in-four chance and one-in-ten chance of survival. For those who are 60 years old, the median life span left is 31 years for women and 29 years for men. And for couples, the median for the number of years that at least one of the two spouses remains alive is even greater, at 34 years.
Financial planners typically recommend¹ that those who rely on accumulated retirement savings—as opposed to lifetime pensions—assume a life expectancy such that the probability of outliving your savings is no more than 25%. After all, who wants their financial fate to be left up to the flip of a coin? This means planning to have enough savings to last three decades or more, with the table showing about a one in ten chance of a 60-year-old surviving another 40 years.

**DB to the Rescue?**

Members with a defined benefit (DB) pension plan don’t need to worry quite as much about longevity since pensions from these plans are payable for life, however long that may be. However, unless these pensions are also fully indexed to inflation, DB plan members are not immune from having the purchasing power of their pensions erode over time. How rapidly this happens depends on the rate of inflation—and the effects of inflation can be hurtful even when the rate is relatively contained.

In 1992, the Bank of Canada adopted a policy that aimed to keep inflation between 1% and 3% per year. This policy has been maintained ever since, and it has been quite successful, exceeding the 3% mark only once and averaging 1.8% per year over this 27-year period (Figure 1).

With this in mind, it may be useful to illustrate what happens to the value of a dollar over time at various rates of inflation. Figure 2 shows how purchasing power declines at inflation rates of 1%, 2% and 3%.

### TABLE

<table>
<thead>
<tr>
<th>For a 60-Year-Old</th>
<th>Male</th>
<th>Female</th>
<th>Couple*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median life span left</td>
<td>29 years</td>
<td>31 years</td>
<td>34 years</td>
</tr>
<tr>
<td>One in four chance to survive</td>
<td>34 years</td>
<td>36 years</td>
<td>38 years</td>
</tr>
<tr>
<td>One in ten chance to survive</td>
<td>37 years</td>
<td>40 years</td>
<td>41 years</td>
</tr>
</tbody>
</table>

*The life span of a couple is defined as the number of years that at least one of the two spouses remains alive.

### FIGURE 1

1992: Bank of Canada Policy to Aim Between 1% and 3%
Assuming that a DB plan member’s pension starts off at $1,000 a month and isn’t indexed, its purchasing power after 20 years has fallen to the equivalent of $667 a month even with middle-of-the-road inflation of 2% per year. There is no doubt that this should be factored into retirement planning for members of any type of retirement plan.

**Back on the Bus**

Returning to our bus analogy but looking forward 40 years rather than backward, today’s price for a single ride more than doubles at 2% inflation and more than triples at 3% inflation. It’s no easy task to figure out the level of income that would make a $12 bus ride seem as trivial as it is today.

When it comes to retirement projections, are plan members likely to be able to correctly process this far-off financial information? If an annual pension statement or the retirement model provided to a 40-year-old member indicates that a pension will be approximately equal to the present-day salary if he or she retires 20 years from now, does that really help your plan member figure out whether that will be enough to maintain his or her lifestyle? It’s far more likely to provide a false sense of sufficiency.

It would be significantly easier for the member to understand the value of the pension that he or she will receive if the projected amount were also discounted for inflation and presented in today’s dollars. In this example, the same pension would only be equal to two-thirds of the member’s present-day salary. Depending on the member’s objectives and needs, this could very well influence his or her choice on when to retire. A proper retirement model should allow members to compare various alternatives in a relatable manner.

**Better Information Leads to Better Decisions**

All of this strongly suggests that the effects of inflation should not be ignored when it comes to retirement planning. If you are a pension plan trustee, you might be able to help plan members by revisiting how information is presented to them. In particular, keep in mind the following strategies.

- Supplement pension benefit projections with figures that are presented in today’s dollars (i.e., discounted for inflation). This does not have to replace the projections you already provide, but it can really help make the figures you show more relatable.
- If you offer a retirement savings model, provide statistical information on expected remaining life spans at various retirement ages, and allow users to visualize how long their accumulated savings might need to last.
- Allow and encourage members to explore various scenarios by making changes in underlying assumptions (not just retirement age, but also investment returns, inflation, expected remaining lifetime, etc.).
- Consider providing worksheets for members to estimate their expenses before and after retirement to support their budgeting needs, and encourage them to consult with a financial planner.

**Outlook**

Even if the Bank of Canada continues to be successful in keeping inflation within its targeted range of 1% to 3% per year, the fact remains that it can still significantly distort the financial

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**FIGURE 2**

Purchasing Power Over Time—Various Consumer Price Index (CPI) Inflation Rates

![Graph showing purchasing power over time with various inflation rates](image)
picture over time for your plan members. For those trying to figure out when to retire and whether or not they can afford to do so at a given point in time, inflation simply must be taken into account.

Though looking at the effects of inflation can paint a somewhat darker picture of where things stand from a retirement readiness standpoint, pension plan members will likely be far better off if they are properly informed about inflation earlier rather than later. Anyone who ignores inflation altogether in the planning process may be in for an unwelcome surprise. For plans that want to help members prepare for retirement, better planning—including a clear look at the real impact of inflation—can go a long way toward that goal.

Conclusion

Inflation poses a serious challenge when it comes to presenting future retirement income and the mostly inevitable erosion of its purchasing power. However, trustees have the ability to deliver relevant information that can help plan members see more clearly and potentially prepare for the power of the 800-pound gorilla that is inflation.

Endnote

1. IQPF and FP Canada Standards Council; Projection Assumption Guidelines, April 30, 2019.

Takeaways

- Inflation eats away at purchasing power each year, which can have a huge impact on retirement income. Even if the inflation rate averages a modest 2% a year, it would reduce the purchasing power of a $1,000 a month pension to $667 a month in just 20 years.
- Inflation is most often measured as the increase in the cost of a basket of goods and services—including food, shelter, household operations and furnishings—as well as health care, transportation, clothing, recreation and education. A $100 basket from 1978 would cost $403 today—four times the price from 40 years ago.
- Compounding the impact of inflation is the fact that people tend to underestimate their life span. For 60-year-olds, the median remaining life span is 31 years for women and 29 years for men. Plan sponsors that offer retirement models can help members by providing statistics on remaining life span and encouraging them to visualize how long savings might need to last.
- Plan sponsors looking to help their members prepare for inflation should supplement pension benefit projections with figures from today’s dollars—In other words, discount the amount for inflation to better prepare your members for the future reduction in purchasing power.
- Other strategies for plan sponsors include allowing plan members to explore various retirement scenarios by changing underlying assumptions in retirement age, investment returns, inflation, remaining life span, etc.; providing worksheets for estimating expenses before and after retirement to support their budgeting needs; and encouraging members to consult with a financial planner.

Marc-André Vinson, ASA, ACIA, is a senior consultant and director of SAI Actuarial Services’ Ottawa office. He has 27 years of experience in actuarial consulting for pension plans and has held various roles in other consulting firms over his career in Montreal, Vancouver and Ottawa. Vinson has served pension plans registered in every province across Canada. He distinguished himself by consulting in both official languages for multiple boards of trustees and joint pension advisory committees. Vinson’s primary clients have included several public service unions, an international airline and various professional associations. He has worked with clients in the private, municipal and university sectors, including multi-employer and target benefit pension plans. Vinson graduated from the University of Montreal. He is an associate of the Society of Actuaries and an associate of the Canadian Institute of Actuaries.