



# PROJECTION ASSUMPTION GUIDELINES

Nathalie Bachand, A.S.A., Pl. Fin.

Jeff Cormier, CFP<sup>MD</sup>, CFA<sup>MD</sup>

Derek Dedman, CFP<sup>MD</sup>, CFA<sup>MD</sup>

Martin Dupras, A.S.A., Pl. Fin., M. Fisc., ASC

Nick Hearne, CFP<sup>MD</sup>, CFA<sup>MD</sup>

Daniel Laverdière, A.S.A., Pl. Fin.

Effective April 30, 2022

# TABLE OF CONTENTS

<b>PROJECTION ASSUMPTION GUIDELINES</b> .....	1
Table of contents.....	1
1. Executive Summary .....	2
2. Background.....	5
3. Considerations for Establishing the Guidelines.....	8
4. Assumption subject to the Guidelines.....	10
5. Guidelines for 2022 .....	17
6. Illustrative Application.....	18
7. Financial Guidelines for Previous Years.....	19







## 2. Background

An important facet of the financial planner's work is to make a variety of projections: retirement income needs, insurance needs, children's education funding needs, etc.. In making projections, financial planners are bound by method, rather than results. The purpose of this document is to map out the economic assumptions to use in the preparation of these projections.

The Guidelines are intended as a guide and are appropriate for making realistic long-term (10+ years) financial projections that are free from the potential biases of financial planners. Predicting the direction the economy will take and how financial markets will evolve is a difficult exercise requiring the integration of a large number of variables and highly sophisticated valuation models. To protect themselves and their clients, financial planners are encouraged to rely on these Guidelines.

Financial planners should also develop sensitivity analyses to illustrate and assess the impact of changes in assumptions on clients' financial position. This is particularly important when client goals may be at risk.

### a) Updating and useful life of the Guidelines

The Guidelines are updated annually. Although some of the assumptions set out in these Guidelines may change from time to time, this does not mean that projections based on previously published assumptions are no longer valid. In fact, projections are considered valid at the time of preparation.

### b) Use of the Guidelines

The use of the Guidelines is strongly encouraged to promote trust and confidence in the financial planner's projections, given their objectivity and basis in reliable sources.

That said, a financial planner is in the best position to understand their clients' unique circumstances. Because every client situation is different, assumptions that vary from the Guidelines may be used.

Assumptions may also differ from the Guidelines based on local market peculiarities. As an example, projections of education costs, which tend to be impacted by local market differences, may justify using an inflation rate that differs from the Guidelines. Projections of salary increases may justify an inflation rate that differs from the Guidelines, where clients give good reason for the change.

### c) Compliance with the Guidelines

In all cases, assumptions used should be documented, with sound rationale, and clearly communicated to clients together with a written explanation. The use of the Guidelines can be disclosed using a statement such as the following:

- Projection prepared using the IQPF and FP Canada Standards Council *Projection Assumption Guidelines*.
- Analysis prepared using the IQPF and FP Canada Standards Council *Projection Assumption Guidelines*.
- Study prepared using the IQPF and FP Canada Standards Council *Projection Assumption Guidelines*.
- Calculation made using the IQPF and FP Canada Standards Council *Projection Assumption Guidelines*.

#### d) Deviation margins

Where appropriate, financial planners may deviate within plus or minus 0.5% from the rate of return assumptions and continue to be in compliance with the Guidelines.

In making a judgement call around whether to deviate 0.5% up or down, financial planners may consider the following factors:

- The impact of a variation in return on the expected lifestyle of clients. As an example, it would not be prudent to increase return assumptions to “force” a projection that secures a client’s goal.
- The propensity of clients to buy high and sell low, thereby reducing their long-term rates of return. Where the propensity is high, one may consider reducing the expected rate of return on their portfolio.<sup>1</sup>
- The degree to which clients rely on professional financial advice in managing their investment portfolio, including regular rebalancing of their portfolio, which may increase their long-term rates of return.<sup>2</sup>

Any deviation in excess of 0.5% in either direction of the guidelines should be reasonable and supportable together with a written explanation.

It is not unusual for significant fluctuations to occur in the market over a short period of time. For example, a financial planner may be preparing a financial plan at a point in time following a marked increase in the stock market, or planning may occur following a major decline in the stock market. Movements and fluctuations can also be seen in the release of Consumer Price Index results, such as a negative rate in May 2020 and then a rate near 5% in December 2021. These historic fluctuations are shown in the CPI Results chart provided in the Addendum. In looking at a 2-year rolling average, 94% of the time the inflation rate was between 1%-3%, compared to 73% on a one year time frame. As of December 2021, CPI has averaged 2.32% over the last five years and 1.82% over the last 10 years.

Based on the current economic conditions, financial planners may be tempted to drastically change just one assumption, like increasing inflation to 4% for the entire retirement planning projection. By revising only the rate for inflation, the financial planner ignores the correlation that exists between inflation and interest rates and the cited asset classes. If inflation remains high, interest rates would typically go up, as well as the return on equities over the long-term. We recommend that financial planners use the projected economic assumptions as a whole and avoid attempting to personalize a forecast for the client by making a drastic adjustment to a single variable. Presenting alternate scenarios and projections to the client may be a better approach.

In summary, for projections with a time frame of 10 years+, it is recommended that the inflation rate calculated and provided in the Projection Assumption Guidelines be used. Adjusting or increasing the inflation rate to reflect the current economic data is not advised primarily for two reasons. The current experience of rapidly rising inflation is unlikely to continue over a longer-term time frame of 10 years+. This is supported by the CPI Rates chart provided in the Addendum. Second, increasing just the one

---

<sup>1</sup> Dalbar. (2021). Reprinted from 2017. DALBAR QAIB: Investors are Still Their Own Worst Enemies [Press release]. Retrieved from [https://www.ifa.com/articles/dalbar\\_2016\\_qaib\\_investors\\_still\\_their\\_worst\\_enemy/](https://www.ifa.com/articles/dalbar_2016_qaib_investors_still_their_worst_enemy/).

<sup>2</sup> Masters, S. J. (2003). Rebalancing. *The Journal of Portfolio Management*, 29(3), 52-57.















## vi. Equity risk premiums

Since risk taking must be rewarded, equity returns are developed by adding an equity risk premium to the long-term bond returns. Historical equity risk premiums have decreased over time due to several non-repeatable factors (mainly diversification and globalization) and are almost identical for Canadian and foreign-developed markets at 3.5% and 3.8% respectively. The equity risk premium for emerging-market equities is expected to be higher than developed-market equities, reflecting the additional risk inherent with investments in emerging countries. It is important to note that the world economy has become increasingly financially integrated. Countries, financial institutions and businesses have become increasingly large, with a more sophisticated and interconnected range of activities. When one country experiences a financial crisis, it quickly propagates among others.

The removal of the 50-year historical average rate of the fixed-income index, which was adopted in the 2020 Projection Assumption Guidelines, resulted in a visual drop of 1% in this asset class. The primary reason for this adjustment and resulting lower rate was to avoid using too high of an expectation for clients who are fundamentally conservative investors. In doing so, with no similar adjustment to equities, the risk premium (Canadian equities minus fixed-income) has jumped from an average of 2.4% (2009-2019) to 3.4% (2020-2021).

## vii. Blend of forecasting and backcasting

The Guidelines consider both expected future economic behaviour based on assumptions provided in the QPP and CPP actuarial analyses and the 2021 FP Canada/IQPF survey, as well as historical market performance. Projecting the future by relying solely on historical returns would suggest an expectation that the future will mirror the past. This is not the expectation. In addition to increasingly greater globalization, demographic changes, including labour participation rates and dependency ratios, are predicted to have a significant impact on the economy going forward. Therefore, a sole reliance on historical returns to project the future would have major limitations.<sup>11, 12</sup>

### c) Considerations concerning fees<sup>13</sup>

The investment management fees paid by clients must be subtracted to obtain the net return. Depending on the type of asset management clients use (mutual funds, pooled funds, advisor managed account, etc.), these fees typically range from 0.5% to 2.5%. When a client's portfolio is made up of a wide variety of mutual funds with different management expense ratios, an average fee ratio per asset class may be used. All fees, paid directly or indirectly, that impact potential return, must be considered in the calculation.<sup>14</sup> Transparency around fees is important, in terms of the amount of fees charged (direct or indirect), the impact of fees on investment performance and the value the financial planner provides in exchange.

### d) Borrowing rate

A great number of factors influence a client's borrowing rate, such as the type of loan and the client's credit history. However, consider the following relationships:

- There is a very strong correlation between the target overnight rate and the 91-day T-bill rate.

---

<sup>11</sup> Foot, D. K. & Stoffman, D. (1996). *Boom, Bust & Echo: How to profit from the coming demographic shift*. Toronto: Macfarlane, Walter & Ross.

<sup>12</sup> Vettese, F. (2015). *The Road to Retirement. The Essential Retirement Guide: A Contrarian's Perspective*. New Jersey: John Wiley & Sons.

<sup>13</sup> Lussier, J. (2013). *Successful Investing Is a Process: Structuring Efficient Portfolios for Outperformance*. New Jersey: John Wiley & Sons.

<sup>14</sup> Examples of these fees may include, but are not limited to, management expense ratio, advisory fees, custodian fees, trailing fees, commissions and transaction costs







The table used to calculate the probability of survival is the CPM2014 Mortality Table, based on data from both public and private sector plans for 1999-2008, taken forward to 2014 using the CPM Improvement Scale B. For years beyond 2014, the same improvement scale was used to establish generational mortality rates. This mortality table and improvement scale were published by the Canadian Institute of Actuary on February 2014.<sup>18</sup>

Based on the table, a 70-year old would have a 25% chance of living to at least age 94 for a man and at least age 96 for a woman (25% column); by comparison, a 70-year old would have a 10% chance of living to at least age 97 for a man and age 100 for a woman (10% column). A 70 year-old couple would have a 25% chance that one of the members of the couple will live to at least age 98 and a 10% chance that one of the members of the couple will live to at least age 101. Again, to be prudent, it is recommended that financial planners select a projection period where the probability of survival is no more than 25% (25% column).

With the example of the 70 year-old male/female couple, a projection period of 28 years (to age 98) could be used with the 25% probability that one of them may outlive their capital. It is important to remember that this table is intended to represent the average probability of survival for the entire population. People who are more financially comfortable and who have shown evidence of good health may find their life expectancy more toward the left end of the chart (the 10% survival group).

We are aware that the use of this mortality table will tend to overestimate life expectancy for people with fragile health or for smokers, for example. The financial planner should have a fulsome discussion with clients before a life expectancy time frame is decided for long-term projection purposes. Also, if these probabilities of survival are used to make different analyses than retirement income projections, for example to estimate the best age for claiming public pensions, the financial planner will be able to adjust the assumptions to best fit the client's situation.

It is interesting to note that hereditary factors are not significant in predicting life expectancy.<sup>19</sup> In contrast, the use of tobacco has a significant impact on life expectancy. A Statistics Canada publication from 2001<sup>20</sup> concludes that a 45-year-old smoker will survive 20% to 25% fewer years, depending on sex, than a non-smoker of the same age. This could be taken into consideration by using the 30% column in the above table for smokers and the 10% to 25% columns for non-smokers. It is expected that while the COVID virus had an impact on life expectancy during 2020 and 2021, it is too early to know if it will have a real impact on the future.

It is also interesting to observe that as advancements in medical science occur, those who are younger today may have the opportunity to benefit from these advancements for a longer period than those who are older today. These effects can be seen in the 50% column in Probability of Survival table above by the initial decline in life expectancy as current age increases (e.g. a 30-year-old today has a higher life expectancy than their 60-year-old parent). This decline in life expectancy reverses at around age 80 because those who have already reached an older age today are more likely to continue to benefit from increased longevity.

---

<sup>18</sup> <https://www.cia-ica/docs/default-source/2014/214013e.pdf>

<sup>19</sup> Wilhelmsen, L., Svärdsudd, K., Eriksson, H., Rosengren, A., Hansson, P. O., Welin, C., ... & Welin, L. (2011). Factors associated with reaching 90 years of age: a study of men born in 1913 in Gothenburg, Sweden. *Journal of internal medicine*, 269(4), 441-451.

<sup>20</sup> <http://www.statcan.gc.ca/daily-quotidien/010622/dq010622a-eng.htm>

## 5. Guidelines for 2022

The Projection Assumption Guidelines for 2022 are the following:

<b>a) Inflation</b>	2.1%
<b>b) Return rates<sup>21</sup></b>	
Short term:	2.3%
Fixed-income:	2.8%
Canadian equities:	6.3%
Foreign developed-market equities:	6.6%
Emerging-market equities:	7.7%
<b>c) Borrowing rate</b>	4.3%
<b>d) YMPE, MPE growth rate or salary</b>	3.1% (inflation + 1%)
<b>e) Probability of Survival</b>	<i>See table in 4 e)</i>

Note that the administrative and investment management fees paid by clients both for products and advice must be subtracted to obtain the net return.

---

<sup>21</sup> These are nominal rates.

## 6. Illustrative Application

By way of example only, for a projection prepared in 2022 for a portfolio holding investments in various asset classes, where the fees are 1.3% annually, we could use the following return assumptions:

**Portfolio return assumptions based on a varied asset allocation**

Asset Classes Allocation	Projected annual gross return for each asset class	% of portfolio holdings in each asset class	Projected annual portfolio return (before inflation and income taxes)
Short-term:	2.3%	5%	2.3% times 0.05 = 0.1%
Fixed-income:	2.8%	45%	2.8% times 0.45 = 1.3%
Canadian equities:	6.3%	40%	6.3% times 0.40 = 2.5%
Foreign developed-market equities	6.6%	10%	6.6% times 0.10 = 0.7%
Emerging-market equities	7.7%	0%	0.0%
<b>Totals</b>	n/a	100%	4.6%
<b>Less Assumed fees</b>	n/a	n/a	-1.3%
<b>Net return after fees</b>	n/a	n/a	3.3%

This illustrative application is presented to provide guidance around calculating the projected net return after fees. **It is not intended in any way to offer a suggestion or recommendation by itself concerning asset allocation weightings.**

As well, these assumptions also depend on the investor's profile not changing over the years. If a client's investor profile is likely to change, it might be preferable to consider using an "average target allocation".

It is important to note that actual net portfolio returns will depend on actual product and portfolio-related fees and any other investment-related fees.

## 7. Financial Guidelines for Previous Years

The following table lists the financial guidelines for previous years along with their effective dates (the current guidelines are shown for comparison purposes):

Year	Effective date	Inflation	Growth of the YMPE or MPE	Short-term Return	Fixed-term Return	Canadian equities Return	Foreign Developed-market equities*	Foreign Emerging-market equities*	Borrowing rate
2009	Feb. 17	2.25%	n/a	3.75%	4.75%	7.25%	n/a	n/a	5.75%
2010	April 12	2.25%	n/a	3.75%	5.00%	7.25%	n/a	n/a	5.75%
2011	April 8	2.25%	n/a	3.50%	4.75%	7.00%	n/a	n/a	5.50%
2012	April 12	2.25%	n/a	3.25%	4.50%	7.00%	n/a	n/a	5.25%
2013	April 30	2.25%	n/a	3.25%	4.25%	7.00%	n/a	n/a	5.25%
2014	April 25	2.00%	n/a	3.00%	4.00%	6.50%	n/a	n/a	5.00%
2015	April 30	2.00%	3.00%	2.90%	3.90%	6.30%	n/a	n/a	4.90%
2016	June 30	2.10%	3.10%	3.00%	4.00%	6.40%	6.80%	7.70%	5.00%
2017	July 31	2.00%	3.00%	2.90%	3.90%	6.50%	6.70%	7.50%	4.90%
2018	April 30	2.00%	3.00%	2.90%	3.90%	6.40%	6.70%	7.40%	4.90%
2019	April 30	2.10%	3.10%	3.00%	3.90%	6.10%	6.40%	7.20%	5.00%
2020	April 30	2.00%	3.00%	2.40%	2.90%	6.10%	6.40%	7.10%	4.40%
2021	April 30	2.00%	3.00%	2.30%	2.70%	6.20%	6.60%	7.80%	4.30%
2022	April 30	2.10%	3.10%	2.30%	2.80%	6.30%	6.60%	7.70%	4.30%

\*2009-2015 reports suggested a maximum 1% increase to Canadian equities for foreign developed-market and emerging-market equities as a guideline.

Note that the administrative and investment management fees paid by clients for products and advice must be subtracted to obtain the net return. .



CFP®, CERTIFIED FINANCIAL PLANNER® and  are trademarks owned by Financial Planning Standards Board Ltd. (FPSB) and used under license. QAFP™, QUALIFIED ASSOCIATE FINANCIAL PLANNER™, QAFP and all other trademarks are those of FP Canada™.  
© 2022 FP Canada™. All rights reserved.

