2026 PROJECTION ASSUMPTION GUIDELINES

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

LIFE TAKES PLANNING AND IT STARTS WITH REALISTIC PROJECTIONS

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.

To make these projections, financial planners must estimate future inflation and borrowing rates, investment returns, how long the need will exist... In short, they must make assumptions.

This is why the Institute of Financial Planning (the Institute), and FP Canada Standards Council™ jointly publish the Projection Assumption Guidelines: to help financial planners make realistic financial projections. Use of these assumptions can protect both the client and the financial planner.

HOW TO USE THE GUIDELINES

These Guidelines are intended as a guide and are appropriate for making realistic and defensible long-term (10+ years) financial projections. Predicting economic and financial market changes is a difficult exercise, requiring the integration of a large number of variables and highly sophisticated valuation models.

Choosing an appropriate time frame for the projections is an important component of these Guidelines. We have selected 10 years as our projection period, while recognizing that financial planning horizons, and thus financial plans, may vary in the period over which projections are made. A projection period of 10 years is intended to provide a balance between ensuring that projections are valid over relatively shorter periods, while also ensuring assumptions are updated as the economy and financial markets evolve. While a financial plan may have a long planning horizon, such as 20 or 30 years, the assumptions which underlie that plan should be reviewed and adjusted where client life events impact the plan assumptions and/or at more regular intervals to ensure currency over time. The Projection Assumption Guidelines can support those reviews and any subsequent adjustments. Our selection of a 10-year projection window can help support professional financial planners in ensuring that financial plans are not unduly focused on either the short-term or the very long term. Financial planners should also develop sensitivity analyses to illustrate and assess the impact of changes in assumptions on the client's financial position. This is particularly important when achieving client goals may be at risk.

GUIDING PRINCIPLES FOR ESTABLISHING THE GUIDELINES

These Guidelines were established using a variety of reliable and publicly available sources, including the triennial actuarial reports for the Quebec Pension Plan (QPP) and Canada Pension Plan (CPP), 50 years of historical data for inflation and benchmark fixed income and equity indices, and the Shiller earnings to price average for relevant equity market indices. Using numerous sources of data mitigates the potential bias that may be created by relying on any single source. The QPP and CPP actuarial reports are updated every three years which helps to

ensure a level of consistency and relevance for the Guidelines. In addition, the use of market-based expected returns, updated annually, further ensures relevance.

These Guidelines do not represent the individual opinion of the members of the Projection Assumption Guidelines Committee, the Standards Panel, the Institute of Financial Planning, or FP Canada Standards Council.

GUIDELINES FOR 2026

FINANCIAL ASSUMPTIONS (before any adjustments for administrative and investment management fees)

a)	**Inflation**	2.1%
b)	Inflation Linked Assumptions	
	a. **YMPE, MPE growth rate or salary**	3.1% (inflation + 1%)
	b. Shelter Projection Considerations	3.1% (inflation + 1%)
c)	**Return rates (nominal)**	
	Short term	2.4%
	Fixed income	3.2%
	Canadian equities	6.3%
	U.S. equities	6.4%
	International developed-market equities	6.6%
	Emerging market equities	7.5%
d)	**Borrowing rate**	4.40%

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

PROBABILITY OF SURVIVAL TABLE

	10%					25%					35%					50%				
Age	M	F	M/F	M/M	F/F	M	F	M/F	M/M	F/F	M	F	M/F	M/M	F/F	M	F	M/F	M/M	F/F
20	99	101	102	101	103	95	98	99	98	100	93	96	98	96	99	90	93	96	94	97
25	99	101	102	101	103	95	97	99	98	100	93	96	98	96	99	90	93	96	94	97
30	99	101	102	101	103	95	97	99	98	100	93	95	97	96	98	90	93	95	94	96
35	98	101	102	100	103	95	97	99	97	100	93	95	97	96	98	90	92	95	94	96
40	98	101	102	100	103	95	97	99	97	100	93	95	97	96	98	90	92	95	94	96
45	98	100	101	100	102	94	97	98	97	99	92	95	97	96	98	89	92	95	94	96
50	98	100	101	100	102	94	97	98	97	99	92	95	97	95	98	89	92	95	93	96
55	98	100	101	100	102	94	96	98	97	99	92	94	97	95	98	89	92	95	93	96
60	98	100	101	100	102	94	96	98	97	99	92	94	96	95	97	89	91	94	93	95
65	98	100	101	100	102	94	96	98	97	99	92	94	96	95	97	89	91	94	93	95
70	98	100	101	99	102	94	96	98	97	99	92	94	96	95	97	89	91	94	93	95
75	98	100	101	99	102	94	96	98	97	99	92	94	96	95	97	90	92	94	93	95
80	98	100	101	100	102	94	96	98	97	99	93	95	97	95	98	90	92	95	94	96
85	98	100	101	100	102	95	97	98	97	99	94	95	97	96	98	92	93	95	94	96
90	99	101	102	101	103	97	98	99	98	100	95	97	98	97	99	94	95	97	96	98
95	101	103	103	103	104	99	100	101	101	102	98	99	100	100	101	97	98	99	99	100
100	105	105	106	106	107	103	103	104	104	105	102	103	104	103	104	102	102	103	103	103

The table used to calculate the probability of survival is the CPM2014 Mortality Table, based on data from both public and private sector pension plans for 1999-2008, taken forward to 2026 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 the improvement scale were published by the Canadian Institute of Actuaries in February 2014.

Final Report: Canadian Pensioners' Mortality

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 and investment assumptions to use in the preparation of these projections.

The Guidelines are appropriate for making realistic long-term (10+ years) financial projections that are free from the potential biases of individual financial planners. Predicting economic and financial market changes is a difficult exercise, requiring the integration of a large number of variables and highly sophisticated valuation models. To protect themselves and their clients by providing defensible projections, 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. A sensitivity analysis might take the form of a Monte Carlo analysis, scenario testing using an adjusted rate of return, or determining a client's minimum required rate of return. This is particularly important when achieving client goals may be at risk.

a) Updates and the 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. While the projections are considered valid at the time of preparation, planners are encouraged to use the current Guidelines.

b) Use of the Guidelines

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

That said, a financial planner is in the best position to understand the client's unique circumstances. Since every client situation is different, assumptions that vary from the Guidelines may be used, and should be documented. Material assumptions used as well as the rationale must be documented, and clearly communicated to clients.

Assumptions may also differ from the Guidelines based on local market conditions. 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 also justify an inflation rate that differs from the Guidelines, when clients provide their personal income details to support the use of a different rate.

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 Institute of Financial Planning and FP Canada Standards Council™ *Projection Assumption Guidelines*.
- Analysis prepared using the Institute of Financial Planning and FP Canada Standards Council™ *Projection Assumption Guidelines*.
- Study prepared using the Institute of Financial Planning and FP Canada Standards Council™ *Projection Assumption Guidelines*.
- Calculation made using the Institute of Financial Planning 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 comply 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.[1]
- 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.[2]

Any deviation in excess of 0.5% in either direction of the guidelines should be reasonable, supportable, and documented 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 on a year-over-year basis and then a rate of 6.3% in December 2022 year-over-year. As of December 2025, CPI has averaged 3.9% over the last five years and 2.5% over the last 10 years.

When the current economic conditions and rates vary significantly from the projected rates in the Guidelines, financial planners may be tempted to drastically change just one assumption in isolation. For projections with a timeframe of 10+ years, it is recommended that the rates calculated and

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[1] Ptak, J., Arnott, A., Chidurala, N., & Manetta, M. (2025). Mind the Gap US 2025. Morningstar, Inc. https://www.morningstar.com/business/insights/research/mind-the-gap

[2] Masters, S. J. (2003). Rebalancing. *The Journal of Portfolio Management*,*29*(3), 52-57.

provided in the Projection Assumption Guidelines be used in their entirety. Altering any of the Guideline rates to reflect the current economic data is not advised primarily for two reasons. First, if the current planning environment is experiencing a rapidly rising or declining rate, it is important to realize that this level of fluctuation is unlikely to continue over a longer-term time frame of 10-plus years. Second, increasing just one data point, such as inflation, ignores the correlation and corresponding movements that would likely occur with interest rates, fixed income and equity-based assets. 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 significant adjustment to a single variable. A better approach may be to present alternate scenarios and projections to the client rather than altering Guideline rates.

3. CONSIDERATIONS FOR ESTABLISHING THE GUIDELINES

a) Use of external sources

The Guidelines have been established using a variety of reliable and publicly available data sources. Using numerous sources of data eliminates the potential bias that may be created by relying on any single source.

The Guidelines do not represent the individual opinions of the members of the Projection Assumption Guideline Committee, the Standards Panel, the Institute of Financial Planning, or FP Canada Standards Council.

Prior to the 2025 Guidelines, the historical data for emerging markets included data for the MSCI EAFE Index until 2000, an estimate from 2001 to 2006, and the MSCI Emerging Markets Index (net div., CAD) thereafter. This practice was due to a lack of available historical data for emerging markets. As of 2025, the Guidelines use the DMS Emerging Markets Index[3] in CAD net of an estimate for foreign withholding tax until 1987, the MSCI Emerging Markets Index (gross div., CAD) net of an estimate for foreign withholding tax until 1998, and the MSCI Emerging Markets Index (net div., CAD) from 1999 through 2024. Our updated approach to emerging markets historical data provides a more accurate representation of historical emerging markets returns. We are appreciative of professors Dimson, Marsh, and Staunton for allowing FP Canada to use their index data prior to 1988.

The **Addendum to the *2026 Projection Assumption Guidelines*** provides links to sources, data, and calculations used in the development of the Guidelines. The Addendum is provided for transparency and replicability of the Guidelines by financial planners and firms.

Note that FP Canada Standards Council and the Institute of Financial Planning distributed a long-term expectations survey to source data used in the Guidelines. In the fall of 2025, the survey was sent to select industry firms. The source data points from the industry survey are detailed in the Addendum. FP Canada and the Institute of Financial Planning thank all participants, including Edward Jones, Harvest ETFs, , IG Wealth Management, Louisbourg Investments, Normandin Beaudry, Ortec Finance, PWL

[3] E Dimson, PR Marsh and M Staunton, Global Investment Returns Database 2024, indices as described in the UBS Global Investment Returns Yearbook 2024.

Capital Inc., RBC Global Asset Management, as well as all other contributors.

b) Use of Geometric Means Assumptions

The Guidelines were prepared using geometric mean (GM) assumptions. For the purposes of Monte Carlo analysis, a conversion needs to be done from geometric to arithmetic mean (AM) assumptions. With this conversion of the GM assumptions from the Guidelines, the financial planner will need to identify an expected standard deviation. The "Correlation & Standard Dev." tab in the Addendum, includes the standard deviation (volatility) for each asset class over the historical period used in the Addendum. This conversion is applicable when the volatility is higher, as often seen with equity holdings. Since the Guidelines have adjusted the equity assumptions by 0.5 %, this adjustment needs to be added back to calculate the AM. Once the financial planner has identified a realistic standard deviation (σ), the following formulas could be applied to arrive at the AM estimate:

$$For\ equities: AM\ (est) = GM\ (from\ the\ Guidelines) + 0.5\% + \frac{\sigma^2}{2}$$

$$For\ other\ assets: AM\ (est) = GM\ (from\ the\ Guidelines) + \frac{\sigma^2}{2}$$

c) Aim of consistency

As noted earlier, the Guidelines are established using a variety of reliable and publicly available sources, including the triennial actuarial reports for the Quebec Pension Plan (QPP) and Canada Pension Plan (CPP). The Guidelines are designed to remain consistent with the long-term actuarial assumptions underlying Canada's public pension plans, which are updated on a regular cycle.

In addition, in order to maintain year-over-year consistency and more closely reflect the underlying data, the Guidelines apply rounding to the nearest 0.1%[4] following the methodological change implemented in 2015 from rounding to the nearest 0.25% .Rounding to 0.1% allows the published assumptions to track actual actuarial and market inputs more accurately, striking a balance between practical usability (simple, stable numbers), and technical integrity (numbers that still reflect real data trends).

d) Incorporation of market-based expected returns

While consistency is an important consideration in setting the Guidelines, expected returns may significantly change from year to year. To account for this possibility, as of 2024, the market-based expected returns reflected in asset prices are included in the Guidelines.

Asset class yields have historically varied in their ability to predict future asset-class returns. Fixed income yields have historically been strongly predictive of 10+ year fixed income returns; Shiller earnings yields, which present the ratio of 10-year smoothed real earnings to market prices, have been

[4] By rounding to the nearest .25%, a 3.10% result would generate a guideline of 3.00%, while a result of 3.15% would generate a result of 3.25%. By rounding to the nearest .1%, a 3.10% result would maintain the guideline of 3.10%, while a result of 3.15% would generate a guideline of 3.20%.

moderately predictive of 10+ year future equity returns; and short-term/cash yields have had low predictive power over future short-term/cash returns.

These findings are reflected in the Guidelines with the inclusion of a market-based expected return in the calculation of expected returns for the fixed income and equity asset classes.

Due to the stronger observed predictive power in fixed income, a 40% weight has been assigned to the market-based expected return for the fixed income asset class. A market-based expected return has not been included in the calculation for short-term/cash.

e) Limitations

The Guidelines cover the main asset classes—short-term/cash assets, fixed income, Canadian equities, U.S. equities, international developed-market equities (including Europe, Australia and Far East equities) and emerging market equities.

Guidelines are not provided for other asset classes, including global bonds, small-capitalization equities, and value and growth equities, because these asset classes are not addressed in the CPP and QPP actuarial valuation reports.

While guidelines are not provided for commercial real estate or investment properties, guidelines are provided, as of 2026, for personal residential real estate and future primary residence rental costs, supported by data from the Canada Mortgage and Housing Corporation (CMHC) and global research. When making assumptions with respect to real estate growth, it is important to consider an appropriate starting valuation for the asset and to use an inflation-based assumption that is suitable based on the local market context.

Guidelines are not provided for exchange rates, since the net long-term effect of changes in exchange rates is generally nil. Financial planners should develop sensitivity analyses to illustrate and assess the potential ramifications of changes in exchange rates. Clients who may require income in a foreign currency may wish to maintain assets in that foreign currency to avoid foreign exchange-rate risk.

It is also important to note that the Guidelines do not contemplate personal risk profiles. Sound personal risk assessments are critical since an individual's risk profile or change in risk profile may have consequences at least as significant as, or more significant than, the rate of return guidelines used in developing financial projections.

f) Standard deviation

The Addendum provides historical data on standard deviation for information purposes. No guideline is provided on standard deviation for each asset class. For future standard deviation expectations, the CPP actuarial report provides tables for different portfolios with expected rates of return and standard deviation. Financial planners who run Monte Carlo analyses may add back the 0.50%[5] on the equity portion of the portfolio and make the conversion from geometric to arithmetic means using the expected standard deviation (see equations noted above).

[5] Dupras, M. (2004, November). Retraite et Monte Carlo. *La Cible, 12*(4), 6-8.

4. ASSUMPTIONS SUBJECT TO THE GUIDELINES

These Guidelines contemplate two kinds of assumptions, financial and demographic:

- financial assumptions (inflation, changes in the year's maximum pensionable earnings [YMPE or MPE]; long-term expected returns on short-term/cash investments, fixed income, Canadian equities, U.S. equities, international developed-market equities, and emerging market equities; and borrowing rates), and
- demographic assumptions (life expectancy/survival probabilities).

a) Inflation

The inflation assumption is central to the preparation of medium- and long-term projections. The inflation assumption is made by combining the inflation assumptions from the following sources (each weighted at 20%):

- the average of the inflation assumptions for 2028 and onward used in the most recent QPP actuarial report[6],
- the average of the inflation assumptions for 2027 and onward used in the most recent CPP actuarial report[7],
- the results of the 2025 FP Canada/Institute of Financial Planning survey and public website survey. The reduced average was used where the highest and lowest value were removed,
- the current Bank of Canada target inflation rate, and
- the historical CPI inflation from 1991 through December 2025

The result of this calculation is rounded to the nearest 0.10%.

A discussion was held about the use of separate inflation rates for older individuals and high earners. Two studies by Radu Chiru of Statistics Canada[8] demonstrate that there are small differences in inflation for these two groups of Canadians as compared to the Canadian population as a whole, but these differences are not deemed to be material.

Commencing in 2026, the committee has added a historical component to the inflation guideline. This figure will receive an equal weight with the existing components. The historical component will be the historical CPI inflation from 1991, when Canada's inflation targeting regime began, through the end of the year end preceding the guidelines update. This decision was made to increase the robustness of the estimate. The figure for the 1991-2025 period is 2.09. This figure is, by chance, identical to the guideline figure calculated without the historical component. As such, it will have no impact on the 2026 guidelines.

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[6] December 31, 2024 QPP actuarial report, published November 2025.

[7] December 31, 2024 CPP actuarial report, published December 2025.

[8] Is Inflation Higher for Seniors? (2005) Catalogue no. 11-621-MWE2005027 and Does Inflation Vary with Income? (2005) Catalogue no. 11-621- MWE2005030.

Short-Term Inflation Conditions

The following guidance is provided to support planners in interpreting short-term inflation conditions when developing financial planning scenarios. Short-term inflation, which is influenced by cyclical shocks, geopolitical events, supply disruptions, and other transitory factors, differs fundamentally from long-term (structural) inflation driven by macroeconomic fundamentals, and the two are not interchangeable across planning horizons.

As short-term deviations can meaningfully affect fixed-horizon planning scenarios, such as budgeting, saving for a home purchase, debt repayment, major purchases or near-term objectives where the time horizon is significantly less than 10 years; planners may need to consider the near-term inflation environment when providing financial planning advice to their client or preparing a fixed-horizon plan. Structural inflation reflects persistent macroeconomic fundamentals and therefore remains the appropriate anchor (or measure) for long-term planning horizons, typically those exceeding 10 years or involving indefinite timeframes such as retirement; whereas short-term inflation is impacted by cyclical shocks, geopolitical events and/or supply disruptions, among other factors, all of which can cause meaningful deviations from long-run trends. Empirical evidence shows that households and businesses systematically underreact to inflation shock in the near term, and tend to misestimate through overreaction to inflation beyond one year.

Given this evidence, planners may need to account for these predictable biases by incorporating current inflation conditions into short-term or fixed- horizon analyses, while maintaining long-term assumptions for retirement and other indefinite timeframes (Gust et al., 2026).

Wage increases

The inflation assumption can be used to project wage increases by adding 1.00% to reflect productivity gains, merit, and advancement.[9]

It may be appropriate to deviate from the Guidelines where a client realistically expects higher or lower wage increases for the foreseeable future. As an example, when a client is reaching the end of his or her career or is in a position with no real chance of advancement, the financial planner may consider a wage increase equal to or less than inflation.

i. Year's maximum pensionable earnings (YMPE or MPE growth rate or salary)

The year's maximum pensionable earnings (YMPE) is based on growth in average industrial wages. Therefore, the inflation assumption plus 1.00% should be used.

b) Nominal returns (before fees)

Rate of return assumptions have been established for short-term investments (e.g. 91-day T-bills), fixed income, Canadian equities, U.S. equities, international developed-market equities, and emerging market equities. These assumptions represent gross nominal returns (including inflation).

[9] In the most recent CPP and QPP actuarial reports, a final margin of 0.8% between wage increases and inflation was applied in the CPP report and 0.6% was used in the QPP report

The guidelines for short-term investments were set by combining assumptions from the following sources (with equal weighting of each):

- the average of the assumptions for 47 years (2028 to 2074) used in the most recent QPP actuarial report,
- the average of the assumptions for years 2028 to 2042 and forward used in the most recent CPP actuarial report, and
- the results of the 2025 FP Canada industry survey and public website survey. The reduced average was used where the highest and lowest value were removed.

Note that for both the short-term and fixed income assumptions, the 50-year historical average rate was removed in 2020 as a data source in determining these assumptions. The decision was made to review the validity of this portion of the assumption calculation given its position as a significant outlier for both the short-term and fixed income calculation inputs. It is viewed that these historical variables may so significantly depart from future expectations that they should not be used in the current environment.

The guidelines for fixed income investments were set by combining assumptions from the following sources (using a 20% weighting for each of the QPP, CPP and FP Canada industry survey sources and a 40% weighting for the yield to maturity (YTM) of the Canada Total Market Bond Index):

- the average of the assumptions for 47 years (2028 to 2074) used in the most recent QPP actuarial report,
- the average of the assumptions for years 2029 to 2042 and forward used in the most recent CPP actuarial report,
- the results of the 2025 FP Canada/ Institute of Financial Planning survey and public website survey. The reduced average was used where the highest and lowest value were removed, and
- the YTM of the Canada Total Market Bond Index

The guidelines for equity assets were set by combining assumptions from the following sources (with equal weighting of each):

- the average of the assumptions for 47 years (2028 to 2074) used in the most recent QPP actuarial report,
- the average of the assumptions for years 2026 to 2042 and forward used in the most recent CPP actuarial report,
- the results of the 2025 FP Canada industry survey and public website survey. The reduced average was used where the highest and lowest value were removed,
- the historic returns over the 50 years ending the previous December 31st (adjusted for inflation), and
- the Shiller earnings yield.

The historical component used is based on the S&P/TSX (Canadian equities) Index, the S&P 500 Composite Index (U.S. equities), the MSCI EAFE (Europe, Australia, Far East) Index (International developed-market equities), the MSCI Emerging Markets Index, and the MSCI Emerging Markets Index (net div., CAD) (Emerging market equities).

For the sake of consistency, the afore-mentioned indices, expressed in real returns (returns reduced by the total CPI inflation index as published by Statistics Canada), are increased by the future inflation assumption (before rounding).

The following considerations are also of note:

i. Short-term

The guideline of 2.4% for short-term investments represents a long-term assumption for short-term returns. As an example, consider an individual who is holding cash for the long term. Over the long term, these assets would be expected to generate an annual return equal to 2.4%.

For shorter-term financial projections (less than 10 years), financial planners may use actual rates of return on fixed-term investments held to maturity.

ii. Fixed income

The fixed income assumptions used in the most recent QPP and CPP actuarial reports have been adjusted to account for the opportunity of the QPP and CPP to buy and hold fixed income for significantly longer than the typical holding period of individuals. A margin of 0.75% is therefore deducted from the QPP and CPP actuarial assumptions to convert the long-term fixed income assumptions into a more relevant fixed income assumption for individual financial planning. The projected fixed income rate of return can also be applied to preferred share holdings. (Please note that this is not an opinion regarding the volatility of preferred shares versus fixed income and that preferred shares can have different characteristics that can impact their pricing.)

iii. Canadian equities

For investments in Canadian equities, a safety margin of 0.50%.[10] is deducted from the result obtained by weighting the different data sources to compensate for the variability of the long-term returns. The adjustment aligns with the outcome of a Monte Carlo analysis that approximates the probability of future Canadian equity returns by running 300,000 trial runs, called simulations.

iv. U.S. equities

The CPP and QPP actuarial reports do not provide specific calculations for U.S. equities. As a result, the Canadian equity assumptions from the CPP and QPP reports are used as a proxy for the calculation of the projected return for U.S. equities from these sources. Similar to the projected return for Canadian equities, a safety margin of 0.50% is deducted from the result obtained by weighting the different data sources to compensate for the variability of the long-term returns. The historical return used to develop the guideline for U.S equities is based on the S&P 500 Composite Index.

v. International developed-market equities and Emerging market equities

As with the projected return for Canadian equities, a safety margin of 0.50% is deducted from the result obtained by weighting the different data sources to compensate for the variability of the long-term returns. The Canadian equity assumptions from the CPP and QPP reports are used as a proxy for the calculation of the projected returns for international developed market and emerging market equities.

The historical return used to develop the guideline for International developed-market equities is based on the MSCI EAFE Index Foreign Equities (Developed) and the DMS emerging market index.

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[10] Dupras, M. (2004, November). Retraite et Monte Carlo. *La Cible, 12*(4), 6-8.

To establish the 50-year historical average return for emerging markets, three data series were combined: DMS Emerging Markets Index [1975-1987], MSCI Emerging Markets Index (gross div., CAD) [1988-1998], and MSCI Emerging Markets Index (net div., CAD) [1999-present]. The DMS index and the MSCI gross dividend index were adjusted for estimated withholding tax.

vi. Type of equity return

In a non-registered investment account, projections must take account of income taxes. For significant sums, it might be appropriate to divide the return into two categories: dividends and capital gains. Historically, 25% to 50% of overall equity returns have been made up of dividends. It therefore seems reasonable to assume that 33% of the overall equity return will be made up of dividends and that the rest will be capital gains.[11]

vii. 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 similar for Canadian, U.S. and international developed markets at 3.10%, 3.20% and 3.40% respectively. The equity risk premium for emerging market equities is expected to be higher than for international developed-market equities, reflecting the additional risk inherent with investments in countries with emerging financial markets. 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 projected return 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.

viii. Blend of forecasting and backcasting

The Guidelines consider both expected future economic behaviour based on assumptions provided in the QPP and CPP actuarial analyses, the 2025 FP Canada industry survey and public website survey, and the current earnings yield, 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, which is not always a reasonable expectation. Stock and bond returns can be decomposed into expected and unexpected components. The expected component reflects the discount rate, or the price for holding risky assets, and the unexpected component materializes as valuations change over time. Looking only at historical returns, which reflect both expected and unexpected returns, may lead to biased estimates of expected returns. For example, a run-up in stock prices caused by increasing valuations will push historical returns up and expected returns down, making the historical return an upwardly biased estimate of the expected return. A similar effect will be observed in the opposite

[11] Projection Assumption Guidelines Committee analysis completed using the S&P/TSX total return index.

direction after a falling market. For these reasons, a combination of forward-looking and backward-looking expected return estimates is likely to produce a more useful result.[12],[13],[14]

ix. Shelter Projection Considerations

Primary Residence Appreciation

When making assumptions around real estate growth, it is important to consider an appropriate starting valuation for the property and to use an inflation-based assumption that is suitable based on the local market context.

When making assumptions about primary residence real estate appreciation, it is important to consider long-term historical price returns. Spaenjers (2016)[15] finds that U.S. houses appreciated at an annualized real rate of 0.3% from 1900-2014, while UK houses appreciated at 1.3% over the same period. Jordà at al. (2017a)[16] find that across 16 developed countries from 1870-2015 the annualized real price return is 1.46%. However, Eichholtz et al. (2021)[17] use hand-collected archival observations of prices and rents in Paris and Amsterdam to show that Jordà et al. (2017a) may overstate capital gains by 0.8% and 1.4% respectively. For Canada, Knoll et al. (2017)[18] find that house prices appreciated at an annualized real rate of 1.67% from 1921-2012.

Based on historical data from Canada and around the world, an expected long-term annual appreciation rate of 1% above the rate of inflation is generally reasonable for the primary residence. Importantly, year-to-year price returns may be far above or below this long-term expected return figure, making owned homes potentially risky assets over short holding periods. Additional consideration may be given for local market conditions. For example, Campbell et al. (2009)[19] document that when rents are higher relative to prices, expected price returns may be higher.

The carrying costs of owning the home including maintenance, insurance, and property taxes, must also be captured. As a baseline assumption, it is generally reasonable to estimate that at least 1% of the property value per year will be spent, on average, on maintenance and insurance. Additionally, property taxes should be considered based on the local market context.

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[12] Dimson, E., Marsh, P., & Staunton, M. (2006). The worldwide equity premium: A smaller puzzle. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.891620

[13] Fama, E. F., & French, K. R. (2002). The equity premium. *The Journal of Finance*, *57*(2), 637–659. https://doi.org/10.1111/1540-6261.00437

[14] Ilmanen, A. (2022). *Investing amid low expected returns: Making the most when markets offer the least*. John Wiley & Sons.

[15] Financial Market History: Reflections on the Past for Investors Today by David Chambers, Elroy Dimson:: SSRN

[16] Rate of Return on Everything, 1870–2015* | The Quarterly Journal of Economics | Oxford Academic

[17] Total Return and Risk to Residential Real Estate | The Review of Financial Studies | Oxford Academic

[18] No Price Like Home: Global House Prices, 1870-2012 - American Economic Association

[19] https://linkinghub.elsevier.com/retrieve/pii/S0094119009000400

Primary Residence Rents

When the client is renting their primary residence, financial planners must make assumptions about the long-term growth rate of rents. Using the data in Jordà et al. (2017b)[20], which extends back as far as 1870 and through 2020, the real rent growth across 16 countries is 0.78%. Canadian rents are not included in the Jordà et al. (2017b) sample. Using CMHC Rental Market Survey data from October 1990 through October 2025, the real annualized rent increase is 1.01%. Like the primary residence appreciation rate, an expected annual rent increase of 1% above inflation is reasonable based on long-term data for Canada and around the world. An important point for planners to explain is that while 1% above inflation is a reasonable long-term estimate, rents can increase quickly over short periods of time, potentially making the cost of living in a specific home unaffordable. As Barras and Betermier (2020)[21] explain, an owned home hedges the cost of living in that specific home.

c) Considerations concerning fees[22]

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, whether paid directly or indirectly, that impact potential returns must be considered in the calculation.[23] 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 or investment advisor brings to the planning engagement.

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.
- The bank rate is set by adding 0.25% to the target overnight rate.
- The prime rate is set by adding 1.95% to the bank rate.

For an individual with an average credit rating, the borrowing rate assumption is equal to the return assumption for 91-day T-bills (the short-term rate) plus 2.00%. The Guidelines are forward-looking and reflect expectations over the longer term. Using current yields as the assumption for borrowing rates makes the assumption forward-looking. Primarily, the borrowing rate assumption was provided to help illustrate the potential impact of a borrowing to invest strategy over the long term. Borrowing rates can change and this change needs to be appropriately accounted for in projections. It is prudent

[20] https://www.macrohistory.net/database/ https://www.macrohistory.net/database

[21] Why Do Homeowners Invest the Bulk of their Wealth in their Home? by Laurent Barras, Sebastien Betermier :: SSRN

[22] Lussier, J. (2013). *Successful Investing Is a Process: Structuring Efficient Portfolios for Outperformance*. New Jersey: John Wiley & Sons.

[23] Examples of these fees may include, but are not limited to, management expense ratio, advisory fees, custodian fees, trailing fees, commissions and transaction costs

professional practice to consider the potential for borrowing rates to increase for purposes of assessing the relative benefits and risks associated with leveraging. It is also sensible to use a long-term borrowing rate assumption when projecting the impact of debt on a client's financial position over the longer term. Actual borrowing costs may be more logically used for short-term projections. Borrowing to invest in fixed income could be at a loss if a lower interest rate is earned on the capital and a higher interest rate is paid on the loan, resulting in a negative return.

e) Life expectancy

There are several different mortality tables, each based on a specific target group. The following factors are examples of target group characteristics:

- gender
- smoker or non-smoker status
- place of residence (e.g., province, country)
- evidence of good health (for life insurance pricing)
- wealth[24]
- being retired

The 2014 Canadian Pensioners' Mortality Table[25], projected to 2026, may be used as the basis for assuming an individual's life expectancy. While the table reflects the average probability of survival for a subset of the Canadian population (i.e., members of Canadian pension plans), it can be appropriately used to represent the life expectancy of the full Canadian population, given that its bias toward longer life expectancies provides a more conservative approach to developing projections.

[24] https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-x/2021004/98-200-x2021004-eng.cfm

[25] 2014 Canadian Institute of Actuaries Canadian Pensioners' Mortality Report.

Projection Period

It is recommended to assume a projection period for clients where the probability of outliving their capital is no more than 25%. Forecasting a longer projection period offers protection from future improvements in mortality and accounts for the greatest financial risk to an individual: longevity risk. It is also recommended that the greatest mortality age be used that corresponds to the client's circumstances, unless there is substantial information suggesting an adjustment should be made. This recommendation aligns with the expected growth in the number of centenarians in Canada.[26] Financial planners are encouraged to develop sensitivity analyses related to mortality (e.g., +/- 5 years), given the dramatic effects that may result when the projection period is changed by a relatively small number of years.

Probability of Survival

	10%					25%					35%					50%				
Age	M	F	M/F	M/M	F/F	M	F	M/F	M/M	F/F	M	F	M/F	M/M	F/F	M	F	M/F	M/M	F/F
20	99	101	102	101	103	95	98	99	98	100	93	96	98	96	99	90	93	96	94	97
25	99	101	102	101	103	95	97	99	98	100	93	96	98	96	99	90	93	96	94	97
30	99	101	102	101	103	95	97	99	98	100	93	95	97	96	98	90	93	95	94	96
35	98	101	102	100	103	95	97	99	97	100	93	95	97	96	98	90	92	95	94	96
40	98	101	102	100	103	95	97	99	97	100	93	95	97	96	98	90	92	95	94	96
45	98	100	101	100	102	94	97	98	97	99	92	95	97	96	98	89	92	95	94	96
50	98	100	101	100	102	94	97	98	97	99	92	95	97	95	98	89	92	95	93	96
55	98	100	101	100	102	94	96	98	97	99	92	94	97	95	98	89	92	95	93	96
60	98	100	101	100	102	94	96	98	97	99	92	94	96	95	97	89	91	94	93	95
65	98	100	101	100	102	94	96	98	97	99	92	94	96	95	97	89	91	94	93	95
70	98	100	101	99	102	94	96	98	97	99	92	94	96	95	97	89	91	94	93	95
75	98	100	101	99	102	94	96	98	97	99	92	94	96	95	97	90	92	94	93	95
80	98	100	101	100	102	94	96	98	97	99	93	95	97	95	98	90	92	95	94	96
85	98	100	101	100	102	95	97	98	97	99	94	95	97	96	98	92	93	95	94	96
90	99	101	102	101	103	97	98	99	98	100	95	97	98	97	99	94	95	97	96	98
95	101	103	103	103	104	99	100	101	101	102	98	99	100	100	101	97	98	99	99	100
100	105	105	106	106	107	103	103	104	104	105	102	103	104	103	104	102	102	103	103	103

[26] Statistics Canada. A portrait of Canada's growing population aged 85 and older from the 2021 Census. Retrieved from: https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-x/2021004/98-200-x2021004-eng.cfm

The table used to calculate the probability of survival is the CPM2014 Mortality Table, based on data from both public and private sector pension plans for 1999-2008, taken forward to 2026 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 Actuaries in February 2014.[27]

Based on the table, a 70-year-old Canadian 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 Canadian would have a 10% chance of living to at least age 98 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 age 98 and a 10% chance that one of the members of the couple will live to age 101. 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 regarding their individual life expectancy before a long-term planning horizon is selected. Also, if these probabilities of survival are used to make different analyses than retirement income projections, such as to undertake scenario analysis for claiming public pensions at different ages, the financial planner will be able to use these probabilities of survival to make varying life expectancy assumptions to model different outcomes.

It is interesting to note that hereditary factors are not significant in predicting life expectancy,[28] while a client's income, education, and lifestyle choices such as the use of tobacco, can have a significant impact. Statistics Canada research published in 2012[29] found that non-smokers can expect to gain about three years of life expectancy, while the heaviest smokers stand to lose about nine years of life expectancy. In other words, average life expectancy for Canadians is reduced from 82 years to 73 years for adults who smoke.

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.

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[27] https://www.cia-ica.ca/app/themes/wicket/custom/dl_file.php?p=34827&fid=13818

[28] 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.

[29] https://www150.statcan.gc.ca/n1/pub/82-624-x/2012001/article/11676-eng.htm

5. GUIDELINES FOR 2026 – UPDATED

The Projection Assumption Guidelines for 2026 are the following:

a) Inflation 2.1%

b) Inflation Linked Assumptions

a. **YMPE, MPE growth rate or salary** 3.1% (inflation + 1%)

b. Shelter Projection Considerations 3.1% (inflation + 1%)

c) Return rates[30]

Short-term:	2.4%
Fixed income:	3.2%
Canadian equities:	6.3%
U.S. equities:	6.4%
International developed-market equities:	6.6%
Emerging market equities:	7.5%

d) Borrowing rate 4.40%

e) Probability of Survival *See table in 4 e)*

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

A history of the rates provided by Projection Assumption Guidelines from 2009 to present can be found in the Addendum Historical PAG tab.

[30] These are nominal rates.

6. ILLUSTRATIVE APPLICATION

By way of example only, for a projection prepared this year 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 (Illustrative Example Only)

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:	2.4%	5%	2.4% times 0.05 = 0.1%
Fixed income:	3.2%	45%	3.2% times 0.45 = 1.4%
Canadian equities:	6.3%	20%	6.3% times 0.20 = 1.3%
U.S. equities	6.4%	20%	6.4% times 0.20 = 1.3%
International developed-market equities	6.6%	10%	6.6% times 0.10 = 0.7%
Emerging market equities	7.5%	0%	0.0%
Totals	n/a	100%	4.8%
Less Assumed fees	n/a	n/a	-1.3 %
Net return after fees	n/a	n/a	3.5%

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 Addendum, under the Historical PAG tab, includes the financial guidelines for previous years, from 2009 to present, along with their effective date.