

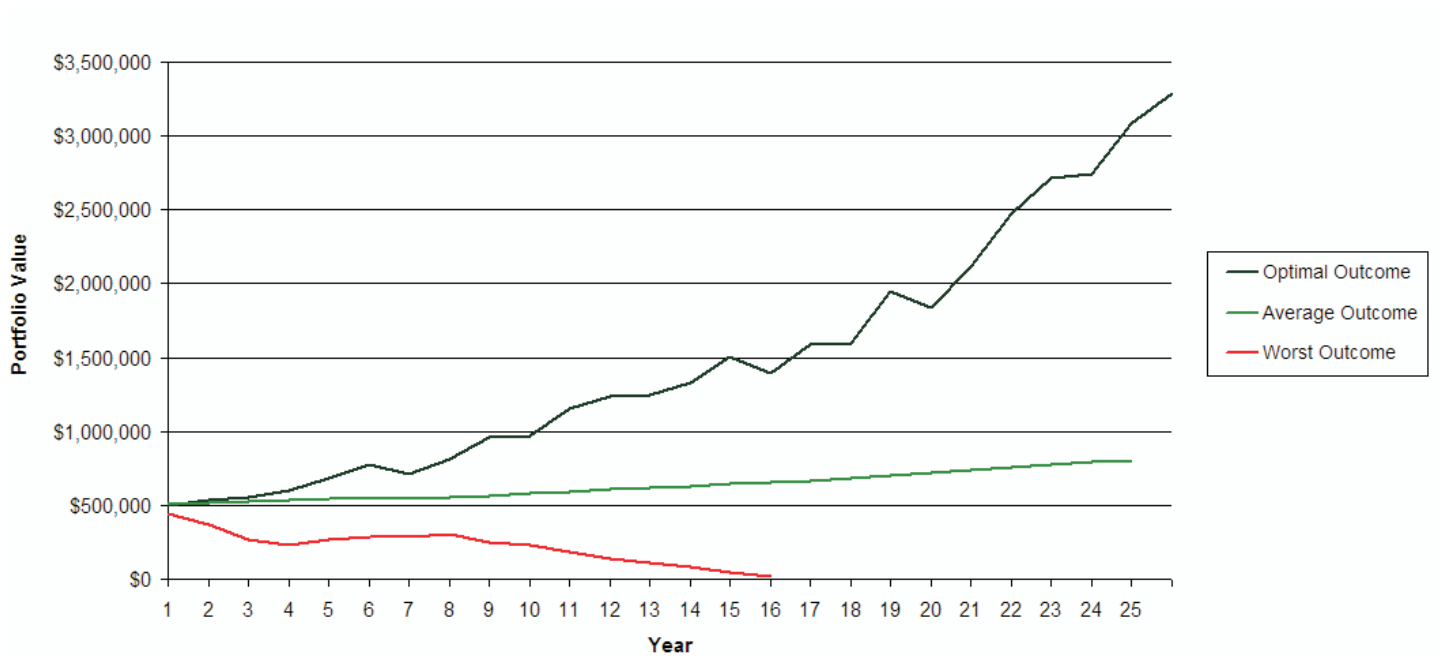
Retirement Income Planning – Sustainable Withdrawal Rates

What is a sustainable withdrawal rate?

A sustainable withdrawal rate is a projection, based on historical data, of the maximum annual amount that may be withdrawn from your current investment portfolio, such that there is no probability of the assets being depleted during your lifetime.

Using the performance data of the worst historical market returns for a 25 year period along with an annual withdrawal (e.g., \$28,000, adjusted for inflation of 2%) you may identify an overall portfolio withdrawal rate that may be considered “sustainable” over a period of time, such as retirement. Assuming that financial performance will never be worse than the worst historical period observed to-date, you can determine a minimum or “sustainable” withdrawal rate for a portfolio. A withdrawal rate higher than the sustainable withdrawal rate implies that the portfolio could become exhausted before reaching the end of the horizon if the worst market performance in history was repeated. Conversely, a sustainable withdrawal rate (or lower) implies that you may have sufficient assets to last until the end of the established time horizon (e.g. retirement).

Example:



For illustrative purposes only. Source: Report on Canadian Economic Statistics 1924-2011, produced by the Canadian Institute of Actuaries

Fixed Income:

SC IT Overall Bond Index only dates back to 1980, so transferred allocation to CANSIM B14013

CANSIM B14013 only dates back to 1937, so allocation then transferred to Bank of Canada (1979)

Method for CANSIM 14013: buy bond with 18 years maturity in December, and sell after one year

Equities:

S&P/TSX/TSE300 only dates back to 1957, so transferred allocation to CANSIM B4202 (TSE Corporates)

TSE Corporates only dates back to 1947, so transferred allocation to Urquhart & Buckley H641 (Corporate Composite)

S&P 500 Total Return Index (S&P 500) only dates back to 1961, but extrapolated back to 1924 using data supplied by Ibbotson Associates



The previous example illustrates the results using historical rate of return data to run withdrawal rate probability simulations. In this example, a retiree has a retirement savings plan with \$500,000 when entering retirement. The asset allocation is comprised of 50% fixed income/bonds and 50% equities/stocks with any dividends/coupons reinvested. Based on an annual withdrawal rate of \$28,000 (subject to 2% inflation assumption) made in the middle of each year and a 25 year retirement horizon, the graph illustrates the optimal, worst and average outcomes based on 63 different investment outcomes from 1924 to 2011. This analysis can allow for probability analysis of running out of money based on historical data and specified assumptions.

How may a sustainable withdrawal rate impact retirement?

While higher withdrawal rates may produce greater retirement income from a given investment portfolio and may provide a higher standard of living, the rate at which you are making withdrawals from your investment portfolio may only be sustainable for a short period of time, and as a result, you may run the risk of outliving your money. Alternatively, while lower withdrawal rates may reduce the risk of running out of money, it may provide less retirement income from your investment portfolio, which may impact your standard of living.

Factors which may impact the sustainable withdrawal rate:

- **Life Expectancy:** Most would agree that we cannot predict how long each of us will live, but to generate a retirement income projection, we must establish a life expectancy. Life expectancy may vary from person to person based on a number of factors.
- **Inflation:** While the Bank of Canada has a general policy of maintaining inflation between 1% and 3% with a target of 2%, this figure will vary from year to year. When running a retirement income planning analysis, inflation is an important assumption.
- **Future rates of return:** Future rates of return are variable and cannot be predicted.
- **Spending:** The amount you spend in retirement may directly impact the amount of income you need from your investment portfolio.
- **Taxation:** When calculating withdrawal rates, consider the potential impact of taxation on income(s).

Ways to potentially manage your withdrawals in retirement

- Review your fixed expenses (i.e., utility bills, rent, groceries) and discretionary expenses (i.e., travel) and consider the use of a budget.
- Consider alternate solutions such as guaranteed incomes (i.e., life annuities).
- Examine the order in which your investments are withdrawn (i.e., taxable accounts, tax-deferred accounts, and tax-free accounts).
- Assess the asset allocation of your investment portfolio on a regular basis.

Call your TD Waterhouse advisor today to find out more about how we may help with your retirement planning.



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