

## **Important Information and Disclosures about Otar Retirement Calculator and its Methodology:**

Important Information and Disclosures are integral part of the client handout.

### **IMPORTANT:**

The projections or other information generated by Otar Retirement Calculator (referred to as “ORC” throughout this document) regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. ORC uses the actual historical market and economic data. It does not use any Monte Carlo or any other type of simulations. For the same identical input, the software's results will remain the same with each use during a calendar year. However, each year new historical data is added to its database, and therefore the results may change from year to year to reflect the inclusion of the most recent data. For a more complete description of the methodology used to generate this report, please refer to the Design Philosophy, Limitations, Methodology, and Criteria for Describing the Outcome and Key Assumptions in this report.

While ORC runs a snapshot of historic outcomes based on your current financial data, it cannot foresee or account for all possible situations that could impact your financial situation, -negatively or positively. Financial and retirement objectives do change over time. It is critical that you and/or your advisor review your retirement, investment, and income plans at least once a year.

The following is the summary of how ORC works. For additional details, refer to the “User’s Guide” that is built into the program. You can access this guide by clicking on the “User’s Guide” button on the main page of ORC.

### **DESIGN PHILOSOPHY:**

ORC calculates your retirement asset values based on actual market history. It does not require an assumed average portfolio growth rate or average inflation. It is not a Monte Carlo simulator.

The program calculates the value of portfolio assets as if you were to retire in each one of the years starting with year 1900, or for some foreign markets, since the earliest available year. Each line on the asset chart represents the asset value of the portfolio as if you retired in that year, i.e. in 1900, 1901, 1902,..., 1999. This asset line is calculated using historical market fluctuations, inflation and interest rates for each year. Each line representing a particular year of retirement is then plotted on the same chart to give a “bird’s eye” view of all outcomes.

The results are not a "forecast" of your future financial picture. Rather, it presents an “aftcast” of potential outcomes based on actual market history. Observing the history, you might have a more realistic “picture” of your retirement planning compared to other calculators that are assumption-based and/or simulation-based.

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### **LIMITATIONS:**

The information generated by ORC regarding the likelihood of various investment outcomes is hypothetical in nature. It does not reflect actual investment results, and is not a guarantee of future results.

Past performance is no guarantee of future results. The data and information provided does not reflect all taxes applicable to your specific situation.

ORC illustrates how a mix of asset classes (stocks, bonds, cash or inflation indexed bonds), or income classes (investment portfolio, immediate life annuity, variable annuity with or without guaranteed income/withdrawals), would have fared under historical market conditions, given your stated financial goals and your cash flow. It does not provide a prediction of your ability to meet your goals; rather, it merely reports the hypothetical outcomes that would have occurred in the past.

ORC should not be used as the primary basis for any investment or tax-planning decisions. Results will vary in the future. ORC is not intended to predict the future value of actual investments or actual holdings in your portfolio. It is also not intended to predict the current and future value of actual lifetime income.

ORC displays a 40-year time horizon. If your time horizon between your current age and the age of death is larger than 40 years, then the program calculates the asset value required in 40 years that will provide lifelong withdrawals that are sustainable. If your time horizon is longer than that, ORC is unable to display historical outcomes beyond the first 40 years.

ORC is an educational program developed by Retirementoptimizer.com Inc. Its primary objective is to help you identify a strategy for retirement income planning. It is designed to be a retirement calculator. It is not designed to create a comprehensive financial plan.

This material is provided for general and educational purposes only and is not intended to provide legal, tax or investment advice, or for use to avoid penalties that may be imposed under U.S. federal tax laws. Contact your attorney or other advisors regarding your specific legal, investment or tax situation.

ORC may not always operate or deliver results as intended, and Retirementoptimizer.com Inc. cannot be responsible for errors in functionality or operability, either caused by hardware or software issues, or any other reason.

The estimated income requirement for the retiree, as well as the fees, costs and other cash flow assumptions may be materially different over the course of the related planning time horizon than in real life. Any user of the ORC has the ability to control assumptions utilized in the analysis presented in this report. It is important that you clearly understand that small changes in the input can change the outcome significantly. None of the results

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in this report have been endorsed, validated, or examined by Retirementoptimizer.com Inc.

### **METHODOLOGY:**

The objective of ORC is to give you the background information that you might need to make important decisions for your retirement.

You need to enter the following basic information:

- Personal information such as current age, retirement age
- Financial assets, the asset allocation strategy (strategic, age-based, tactical etc), and the asset mix
- If still earning income, how much of that is saved annually
- Income required after retirement

Entering this basic information is sufficient to analyze your retirement plan. However, you can enter any other financial information or consideration such as income from other sources (rental, pension, annuity, part-time work), increasing/decreasing expenses, lump-sum additions/withdrawals to and from the portfolio for any age. These details are entered in the Cash Flow page.

After entering your financial data, ORC can help you:

- See how a portfolio similar to yours may grow or shrink over time.
- Determine the optimum asset mix of equities and fixed income.
- Identify probabilities of success and failure.
- Calculate how much life annuity might be required, if the investment portfolio is inadequate to generate a lifelong income.
- See if variable annuities may be part of the solution for retirement income planning.
- Analyze numerous other scenarios.

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### CRITERIA FOR DESCRIBING THE OUTCOME:

If you are already retired or just a few years away from retirement, the following two criteria must be met for a successful retirement plan:

- Depletion of Assets: The probability of portfolio depletion must not exceed 10% at the age of death entered.
- Depletion of Purchasing Power: The probability of receiving full income in real terms (adjusted for inflation) must exceed 90% at any age.

The outcome is indicated as “excellent” if the probability of depletion is 0% and the probability of receiving full income is 100% at all ages during the retirement.

The outcome is indicated as “inadequate” if the probability of depletion exceeds 10% or the probability of receiving full income –indexed to inflation, is less than 90% at any age during the retirement.

In between the “excellent” and “inadequate” outcomes, there are two additional descriptions, “good” and “adequate”. They depend on the level of these two probabilities.

The impact of recovery from a potential market downturn becomes less severe if there is sufficient time horizon for further accumulation and recovery. If you are not retiring within the next five years, then this 10% threshold for the adequacy criteria is relaxed. For example, if you are planning to retire in 30 years, then the outcome will be indicated as “inadequate” only if the portfolio value required in 40 years for sustainable withdrawals is larger than the bottom 35% of all historic outcomes.

### KEY ASSUMPTIONS:

#### Asset Classes:

**Equity:** ORC includes market history for US, Canadian, Japanese, British, and Australian stock markets. The report's analysis applies only to these indexes.

The historical data since 1900 is used for all markets except the for the Canadian equity market where data starts in 1919, and for the Japanese equity market where data starts in 1914.

Historical dividends are only available for the US markets. You can choose to use the historical dividends (“look-back” mode) or your own assumed dividend rate going-forward (“plan-ahead” mode). The program default is “plan-ahead” mode.

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**Cash:** ORC uses the historical interest rate. The historical interest rate used is the interest rate on the 6-month term deposits invested in January and then reinvested for another six months reinvested in July, for all years until and including 1996. Starting with years 1997 and later, 90-day AA Financial Commercial paper year-end interest rate is used.

**Fixed Income:** ORC takes the historical interest rate on the 6-month term deposit and adds a premium (the default is 1.5% less 0.5% for management fees) to arrive at an approximate long-term fixed-income yield. This reflects approximately a fixed income portfolio with an average duration of 6 years, held to maturity. ORC disregards any capital gains or losses for fixed income securities that might occur during the holding period.

U.S.A.: CD's are FDIC insured, subject to certain limitations and conditions, and offer a fixed rate of return if held to maturity.

Canada: GIC's are CDIC insured, subject to certain limitations and conditions, and offer a fixed rate of return if held to maturity.

**Inflation Indexed Bonds:** The model uses historic inflation plus the imputed real yield (the default imputed real yield is 1.5% less 0.5% for management fees) to arrive at an approximate long-term yield. ORC disregards any capital gains or losses for inflation indexed bonds that might occur during the holding period.

All historical data of interest rates and inflation are based on the historical US market data, regardless of which country's equity index is selected.

Bonds are subject to market and interest rate risk. Selling bonds prior to maturity may make the actual yield differ from their advertised yield and may involve a loss or gain. Bond values will decline as interest rates rises and are subject to availability and change in price.

### **Cash Flow:**

All dollar amounts are in current dollars, unless specifically indicated as future dollars. Generally, lump sum amounts of deposits and withdrawals that occur at a specific age, are in future dollars.

ORC does not consider any income tax consideration in any part of the program. Therefore, when entering the income required during retirement, you must treat income taxes just like any other expense. The total income required must always include the estimated income taxes during retirement.

The Main page is designed to enter the basic information for a simple retirement plan.

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The Cash Flow page is designed to enable you to enter any other cash flow details such as income from other sources, one-time deposits/withdrawals, any changes to withdrawals at different life stages.

In the Cash Flow page, you can choose to reduce your withdrawals in bad years or when your withdrawals become excessive relative to the portfolio value. You can also choose to limit withdrawals to a certain percentage of the portfolio value or to a certain percentage of the portfolio growth. Beware that, if the account type that you selected is a tax-advantaged account (i.e. not an “open” account), then the minimum required distribution (RMD) rules override any withdrawal limitations and reductions where applicable.

ORC enables the user to calculate the dollar amount of emergency funds that might be required. These calculations are based on mainly what you enter as your own risk factors. There is no expressed or implied suggestion that the suggested emergency funds are sufficient to cover your risk factors accurately and fully.

### **Annuity:**

Three of the most important financial risks during retirement are: 1. Longevity risk (living too long), 2. Market risk (depleting investments), and 3. Inflation Risk (unable to maintain the purchasing power. Properly selected life annuities might minimize some of these risks.

ORC calculates how much of a single premium immediate annuity (SPIA) that you might need to provide you an uninterrupted lifelong income. You can ask the program to calculate an annuity ladder that minimizes these financial risks based on market history. In such an annuity ladder, you can request up to 4 years of SPIA ladder. For example, if you are retiring at age 65 and request a 4-year annuity ladder, the program will calculate the amounts of SPIA to be purchased at ages 65, 66, 67 and 68.

If ORC calculates that retirement savings are inadequate to provide your required income by means of a SPIA, then it will warn you.

If you specify an annuity ladder that stretches over too many years to provide an adequate lifelong income safely, the program will first warn you and then automatically reduce the number of laddering years and recalculate until a satisfactory annuity ladder can be found.

If you have abundant savings for retirement and don't need a SPIA for a lifelong income, the program will display a message to that effect. However, you can still enter manually the amount of SPIA you want and ORC will show the outcome.

U.S.A.: Fixed annuities are long-term, tax deferred investment vehicles designed for retirement purposes. Gains from tax-deferred investments are taxable as ordinary income upon withdrawal. Withdrawals made prior to age 59 ½ are subject to 10% IRS

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penalty tax and surrender charges may apply. Guarantees are based on claims paying ability of the issuing insurance company.

**WARNING:** Annuities have with many options and choices. Annuity payment rates vary from carrier to carrier. The payout amount that an insurance company is willing to pay for the same premium can change daily, depending on economic conditions. The default annuity payout rates in the ORC are only approximate. Consult your financial advisor for the proper advice and get a proper annuity quote before making any decisions.

### **Variable Annuity:**

Variable annuities (VA) with lifetime guaranteed withdrawals or income are another income class that can minimize or shift some of the financial risks of retirement.

**U.S.A.: Variable annuities are long-term, tax-deferred investment vehicles designed for retirement purposes and contain both an investment and and insurance component. They are sold only by prospectus. Guarantees are based on claims paying ability of the issuer. Withdrawals made prior to age 59 ½ are subject to 10% IRS penalty tax and surrender charges may apply. Gains from tax-deferred investments are taxable as ordinary income upon withdrawal. The investment returns and principal value of the available subaccount portfolios will fluctuate so that the value of an investor's unit, when redeemed, may be more or less than their original value.**

**Riders are additional guarantee options that are available to an annuity or life insurance contract holder. While some riders are part of an existing contract, many others may carry additional fees, charges and restrictions, and the policyholder should review their contract carefully before purchasing.**

**Investors should consider the investment objectives, risks, charges, and expenses of the variable annuity contract and sub-accounts carefully before investing. The prospectus contains this and other information about the variable annuity contract and sub-accounts. You can obtain contract and underlying sub-account prospectuses from your financial representative. Read the prospectuses carefully before investing.**

ORC calculates historic outcomes for VA's, if you choose to do so on the VA page. You can then observe the impact of holding VA's with Guaranteed Minimum Withdrawal Benefit (GMWB) or Guaranteed Minimum Income Benefit (GMIB) for a more informed decision-making process.

**WARNING:** Numerous insurance companies offer VA's with various features. Each one offers different protection, riders, options, conditions, and rules. Furthermore, new plans

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are created on a regular basis. ORC includes over numerous different options and choices on the VA page. However, there is no guarantee that you can exactly create the same model with ORC that is described in a prospectus. ORC includes some of the most popular plans as presets, which might help you load these options using a single click of a button. These presets are provided to you on a “best-efforts” basis and only as a convenience. However Retirementoptimizer.com Inc. does not assume any liability for its accuracy. Read the prospectus and consult your financial advisor for proper advice before making any decisions about VA’s.

### **Risk Management: Life, Disability and Long Term Care**

ORC provides methods of calculating life insurance needs. It also depicts effects of morbidity risks (disability and long term care) on retirement savings. These calculations are based on mainly what you enter as your own liabilities and risk factors. There is no expressed or implied suggestion that these calculations are sufficient to cover these risk factors accurately and fully. There may be other risk factors that ORC does not cover or calculate. Discuss with your qualified advisor all risk factors.

#### **ADDITIONAL INFORMATION:**

For additional details, refer to the “User Guide” that is built into the program. You can access this guide by clicking on the “User Guide” button on the main page of ORC. Additional information such as frequently asked questions, troubleshooting, program update notices are available at: [www.retirementoptimizer.com](http://www.retirementoptimizer.com)

Retirementoptimizer.com Inc. does not endorse or evaluate any advisor. Investors should understand that financial advisors must be registered in certain states and/or registered with various regulatory agencies (and/or Self Regulatory Organizations) or may be exempt from registration (as may be applicable) and must provide certain disclosures to their clients and prospective clients based on applicable regulations.

If you are not completely confident in your understanding of the complexity of these points, you should seek the advice of a financial advisor who thoroughly understands the implications of the analysis and any assumptions used. Retirementoptimizer.com Inc. has not endorsed, tested or validated any of the assumptions and input that you or your advisor might have entered.