M Financial Group™

April 2017

M Intelligence

Enhancing understanding of sophisticated planning strategies and their applications.

What is Internal Rate of Return?

Internal rate of return (IRR) is defined as the compound rate of return that results in a net present value equal to zero. In other words, the IRR is the rate at which an investment breaks even in today's dollars. IRR is an important metric for evaluating life insurance policy designs, and can be useful in comparing life insurance to other asset classes. IRR is dependent on two inputs: (1) time and (2) cash flow, and provides an indicator of the efficiency, quality, or yield of an investment. Much like the illustration in which it is included, an IRR calculated today is purely hypothetical and its output is only as accurate as its inputs.

How is IRR Used to Evaluate Life Insurance?

There are two different IRR measurements that are useful when comparing permanent life insurance product performance: Cash Value (CV) IRR and Death Benefit (DB) IRR.

- CV IRR is the cumulative internal rate of return on the cash surrender value (factoring in policy surrender charges). Early years will generally have a negative return due to surrender charges, and a cross-over point where CV IRR becomes positive. This metric is most useful for evaluating long-term cash value performance in comparison to other policy designs or alternative investment options.
- DB IRR is the policy's rate of return displayed annually, comparing the cumulative premiums against the death benefit obtained in a hypothetical future year. Depending on the funding strategy, DB IRR usually declines throughout the life of the policy. This metric is most useful in evaluating the ultimate performance of the death benefit in comparison to other policy designs or alternative liquidity strategies.

There is a natural tradeoff between these measurements, and policies generally designed with a focus on one of these values at the expense of the other. Furthermore, a policy is frequently designed with a certain time horizon in mind, where the CV IRR or DB IRR is projected to be of most importance for the client's needs and goals. For example, a product might be designed to have high CV IRRs in the early years, or a focus on DB IRR at the client's projected life expectancy.

M Intelligence

What is Internal Rate of Return?

Comparing Funding Patterns

Both the CV IRR and DB IRR figures can be valuable when comparing different life insurance funding strategies. As IRR evaluates the performance of the product design in today's dollars, it allows a direct comparison across flexible funding options. For example, IRR can be used to help determine if a product should be funded with a single-pay, 10-pay, 20-pay, or lifetime pay design.

Comparing Asset Classes

Evaluating the relative performance of different financial product options can be extremely difficult. IRR provides a measurement that equalizes time and cash flows, and when compared on a tax-equivalent basis, can help to enable a fair comparison across asset classes.

Life insurance cash values can be accessed and death benefits are able to be received without income tax recognition. This tax treatment is unique; therefore, it is important to compare life insurance IRR values to IRRs of alternative investment opportunities on a tax-equivalent basis. This is done simply by taking the corresponding IRR and dividing by one minus the client's marginal tax rate. For example, if a life insurance DB IRR is projected to be 6% at a given duration, and the client's marginal tax rate is 40%, an alternative financial product would need to achieve a tax-equivalent IRR of 10% in order to offer equal performance.

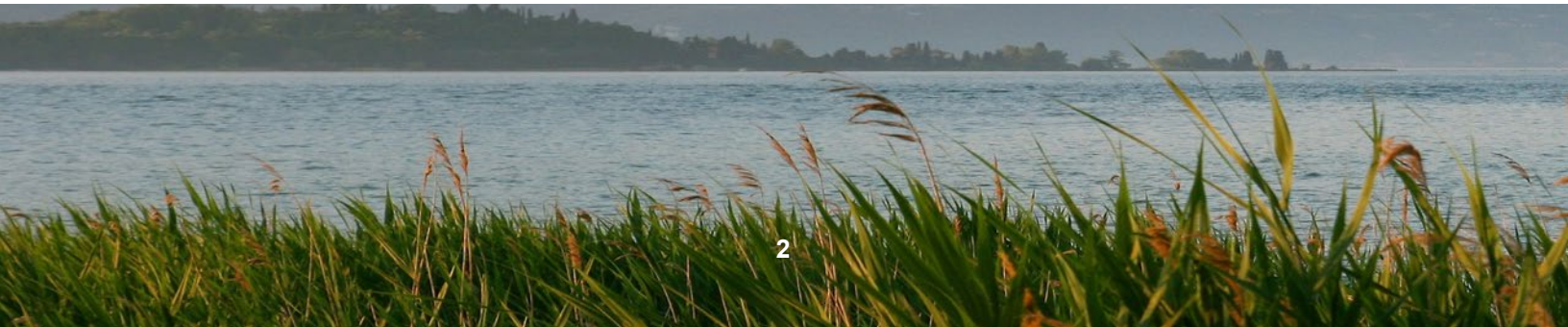
$$6\% \div (1-40\%) = 10\%$$

When comparing life insurance to other financial alternatives, IRR can be useful to consider as a 'hurdle rate,' where the return of the comparable alternative must exceed the IRR rate to be considered more favorable.

When making any comparison between financial alternatives, it is important to evaluate the relative risk of obtaining projected performance from each asset. IRR assumes a constant reinvestment rate, and therefore does not take risk into account.

Evaluating Policy Duration

As flexible permanent life insurance products can be designed to perform differently at different policy durations, it is important to match the policy design to the client's needs and goals. An insurance advisor should consider the importance of achieving a projected IRR benchmark at different policy waypoints in light of client needs. This can be applied by projecting the client's life expectancy (based upon age and underwriting at policy issue), and using this duration as the point at which DB IRR should be maximized through the product design and selection process. M's Life Expectancy Tool can be useful to determine a projected life expectancy for a client, which can then be used as a reasonable basis for targeting DB IRR performance.



M Intelligence

What is Internal Rate of Return?

Conclusion

The complexity of permanent life insurance products requires a skilled analysis of policy performance and thorough comparison to other investment alternatives to determine the approach best suited to address the client's needs and goals. IRR is a useful performance measure when evaluating life insurance policy design options and comparing to other assets, and requires an understanding of the internal mechanics of life insurance products, premium timing, coverage structure, product features, and time value of money concepts.

Contact Information

To learn more, please contact:

M Sales Support
T: 800.656.6960
msales.support@mfin.com