Creative

wealth maximization strategies*

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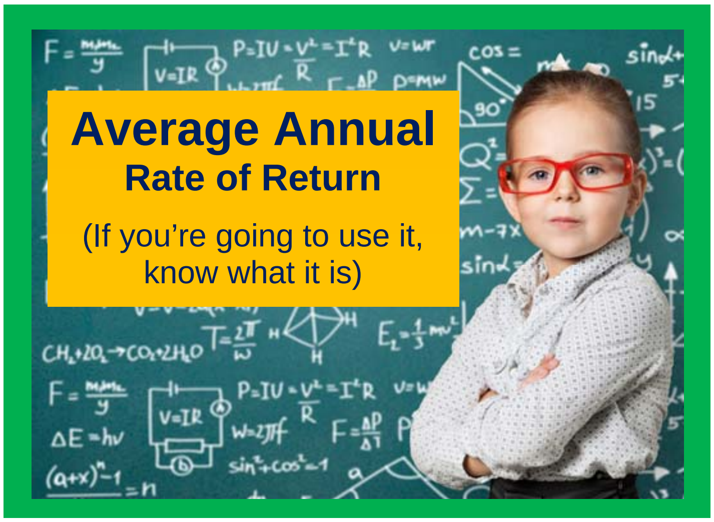

A common way to assess the performance of a financial product is to calculate its **average annual rate of return.** This calculation can be a valuable tool for consumers because it provides a consistent measurement of progress and may allow for apples-to-apples comparisons between different investments.

But there are several formulas, each with a slightly different name, commonly used to calculate average annual rate of return. And sometimes, using the same inputs, **these formulas can produce significantly different rates of return.** It is important to know which formula is being used, and in what context, especially because rate-of-return calculations are often featured prominently in the marketing materials from financial institutions. Here is brief explanation of two rate of return formulas.

When the Averages Aren't

Start with this example: $10,000 is invested for 5 years, and left to compound. Note that each year, the rate of return is different.

EXAMPLE 1

Starting with a deposit of $10,000…

YR	RATE OF RETURN	YEAR-END ACCUMULATION
1	6.0	$10,600
2	7.0	$11,342
3	8.0	$12,249
4	9.0	$13,352
5	10.0	$14,687

The simplest calculation, commonly referred to as the Average Annual Return (AAR), is the sum of the series of returns divided by the number of returns. In the example above, the calculation is as follows: **6+7+8+9+10 = 40 ÷ 5yrs. = 8 percent.**

This calculation of an 8% annual rate of return is simple, **but not exactly accurate**. If an investment returned a steady 8% for five years, instead of fluctuating, the Average Annual Return calculation would be the same (5 x 8 = 40 ÷ 5 = 8 percent), **but the accumulation results are slightly different**.

EXAMPLE 2

$$\text{CAGR}\,(t_0, t_n) = (V(t_n) / V(t_0))^{\frac{1}{t_n - t_0}} - 1$$

Starting with a deposit of $10,000…

YR	RATE OF RETURN	YEAR-END ACCUMULATION
1	8.0	$10,800
2	8.0	$11,664
3	8.0	$12,597
4	8.0	$13,605
5	8.0	$14,693

The $6 difference between the varying and steady rates is miniscule. But if the 5-year period has negative results and/or greater fluctuations, the differences become larger.

EXAMPLE 3

Starting with a deposit of $10,000…

YR	RATE OF RETURN	YEAR-END ACCUMULATION
1	10.0	$11,000
2	-5.0	$10,450
3	20.0	$12,540
4	7.0	$13,418
5	8.0	$14,491

The average annual return is still the same (10+(-5)+20+7+8 = 40 ÷ 5yrs. = 8 percent), but the actual results are almost $200 apart. Yet all three examples have an average annual return of 8 percent. What's going on?

Going Next Level

While an average annual return calculates an average using the yearly percentages, it does not consider the compounding that occurs when these gains are added to the original deposit. This requires a Compound Annual Growth Rate (CAGR) calculation.

This measurement starts with an account's beginning value and derives an annual rate of return necessary to match the end value. Because it factors the impact of compounding, CAGR is also referred to as a geometric return. In business, the Internal Rate of Return (IRR) is essentially the same thing. CAGR/IRR is a higher-level calculation; you can't do it in your head, and most people would have a tough time doing it on paper. Here's the formula:

It is possible to calculate CAGR in an Excel spreadsheet, using the "IRR" (internal rate of return) function. Some on-line CAGR calculators are also available. The CAGR results for the three examples listed above:

	Beginning Value	Ending Value	CAGR
EXAMPLE 1	$10,000	$14,686	7.99%
EXAMPLE 2	$10,000	$14,693	8.00%
EXAMPLE 3	$10,000	$14,491	7.70%

As you can see, these calculations correlate to actual results; lower ending values receive a corresponding lower rate of return. Financial institutions often post their products' average annual rates of return for 3-, 5- or 10-year periods, using the CAGR/IRR formula. But all CAGRs are not the same.

Financial institutions typically calculate their average annual rates of return based on a ***single deposit***, as in the examples above. But many savers often make ongoing deposits to an account. This further distorts the compounding effect – either positively or negatively.

Going back to Example 1, suppose that the same interest rate progression occurred, but with $10,000 deposited at the ***beginning of each year***.

EXAMPLE 4

Depositing $10,000 at beginning of each year…

YR	RATE OF RETURN	YEAR-END ACCUMULATION	
1	6.0	$10,600	
2	7.0	$22,042	
3	8.0	$34,605	
4	9.0	$48,620	
5	10.0	$64,482	CAGR: 8.60%

The CAGR for Example 1 was 7.99%. Yet the same five years of results (6-7-8-9-10) result in a CAGR of 8.60% in Example 4. Why? Ongoing deposits have a geometric, positive impact on the compounding. However, if the order of the results is reversed (i.e., 10-9-8-7-6), the CAGR drops.

EXAMPLE 5

Depositing $10,000 at beginning of each year …

YR	RATE OF RETURN	YEAR-END ACCUMULATION	
1	10.0	$11,000	
2	9.0	$22,890	
3	8.0	$35,521	
4	7.0	$48,707	
5	6.0	$62,230	CAGR: 7.39%

The same number of ongoing deposits, applied to a reversed order of returns, makes quite a difference. In general, bigger returns applied later in an evaluation produce a higher CAGR.

These two examples illustrate a key point: **If you are making ongoing deposits to an account, your actual annual rate of return is not going to match the rate of return reported by a financial institution.** Your true rate of return will be higher or lower, depending on when you made deposits and whether returns were trending up or down during the period in question. To be accurate about your financial performance, you have to do your own calculations.

Fortunately, many financial professionals have the knowledge and technology to help you. As part of your next review, why not inquire about the "true" average rate of return from your financial program, and see how it compares with the numbers reported by the financial institutions for those same products or plans? ❖

Creative
"Event Insurance"

Conceptually, whole life insurance can be thought of as a financial instrument designed to accumulate and deliver cash for one or more yet-to-be determined future events. The ultimate future event is an insurance payment at the death of the insured. But during one's lifetime, the combination of cash values and insurance in a whole life policy is uniquely suited to address other events as well.[1,2,3]

- **In the event of an accident or disability** to the insured, a waiver of premium rider can guarantee the benefits and accumulation of cash values.
- **In the event of an emergency or opportunity**, cash values are liquid, and may be distributed either as withdrawals or loans.
- **In the event of a temporary income disruption**, cash values may be used in lieu of premiums to keep the policy in force.
- **In the event of a long-term care situation**, contract provisions may authorize the distribution of a portion of the insurance benefit prior to death, sometimes as a monthly income.
- **In the event of steady financial progress**, cash values, because of their consistent, low-risk returns, can grow to constitute the conservative allocation in a diversified portfolio.
- **In the event of a long, healthy life**, cash values may be a source of retirement income, either as an annuity, or a flexible stream of payments. In addition, the guaranteed death benefit can be a "permission slip" to spend down other assets.
- **In the event of financial abundance**, a life insurance benefit can be used to facilitate estate plans, leave bequests to charity, or multiply wealth for future generations.

Best of all, owners of whole life insurance don't have to commit policy assets to any one of these events unless and until they occur. They don't have to wait until 59½ to avoid tax penalties, begin required distributions at 70, or limit contributions based on adjusted gross income. Once a whole life policy is funded, policy owners have the luxury of using it where it can be most effective.

A Creative Application: $71,000/yr for 10 yrs.

Financial professionals who understand whole life insurance as a guaranteed cash reserve for future events can develop some unique applications. Using an illustration from a highly-rated life insurance company, a veteran life insurance professional produced the following scenario:

A 34-yr-old male non-smoker obtains a $2 million whole life insurance policy at preferred rates. The proposed contract includes a disability waiver of premium, an accelerated benefit rider for terminal illness, and the option to purchase paid-up additions to the base policy with "extra" premium deposits.*

For 10 years, the policy owner makes annual premium payments of $71,000. This is about $45,000 *above* the base premium, and is intended to accelerate the growth of the cash values while staying within the guidelines for favorable tax treatment. Using a dividend rate in keeping with historical performance, here are some projected values:

At 10 years (age 44)…

TOTAL PREMIUMS	CASH VALUE	DEATH BENEFIT
$710,000	$797,154	$4,085,837

Keep in mind these numbers are projections, based on regulated assumption parameters; actual results will vary. But note that cash value exceeds premiums paid by $87,000 (which calculates to a compound annual growth rate of 2.09%), while the insurance benefit has doubled.

Squirrel it away…

From this point forward, the policy owner makes no additional premium payments. For the next 26 years, dividends and existing cash values maintain the insurance benefit and increase the accumulation. Without adding another dollar, the cash values quadruple, and the insurance benefit exceeds $5 million. The annualized CAGR for the cash values rises to 4.86%.

At 36 years (age 70)…

TOTAL PREMIUMS	CASH VALUE	DEATH BENEFIT
$710,000	$3,197,299	$5,257,872

At age 70, the policyowner initiates a stream of withdrawals and loans to provide additional retirement income. For the next 25 years, he withdraws $173,617 each year. Properly accessed under current tax law, this income is not taxable.

Should the insured die during this withdrawal phase, beneficiaries will receive a net death benefit (i.e., the amount remaining after satisfying any outstanding loans) of somewhere between $4 million and $1.3 million, depending on the insured's age at death. If the insured lives longer than 95, the policy will endow at 99, paying the remaining cash value as a death benefit.

If the insured lives to 95, this is a simplified lifetime summation of the transaction:

Total Outlay, Yrs. 1-10:	**$710,000**
Total Distributions, Yrs. 36-70:	**$4,514,042**

This summary requires some perspective. A total distribution more than six times premiums sounds impressive, but the multiplication is due in large part to the number of years involved: 36 years of accumulation, and 25 years of gradual distribution. Any financial instrument with a CAGR around 5% could produce similar projections.

The illustration primarily is a representation of how ten years of premiums paid at an early age can plausibly deliver 25 years of tax-free retirement income – with guarantees. If the insured becomes disabled, the plan can still complete. If the insured dies, an even larger amount will be given to beneficiaries. If the funds are needed before 70, they are available without penalty. What other financial instrument provides this type of "event insurance?"

"Okay, but who would (or could) do this at 34?"

This scenario might apply to anyone who receives a large sum of money, either as a one-time event or a brief period of high earnings. It could be a young entrepreneur who sells a business, an athlete or entertainer with a brief window of high income, a broker who occasionally collects a sizable commission.

The conventional wisdom of maximizing contributions to pre- or post-tax qualified retirement plans doesn't apply to these irregular chunks of money. Contribution limits won't allow $71,000 annual deposits in a 401(k). While other options may have greater growth potential, allocating ten years of premiums from a period of high earnings to a whole life policy ensures these temporary "bursts" of prosperity can become lifetime assets.

On a lesser scale, the same approach could be used to incrementally "insure" retirement. A 35-yr old female buys a $2 million term insurance policy with conversion privileges. As her savings grow, she systematically converts portions of the term policy to whole life, using 10-year payment schedules for each conversion. For the high earner or the just-getting-going, this strategy can…

– Lay a base of conservative, liquid assets under other retirement and accumulation plans
– Establish a source of tax-free retirement income
– Provide guarantees so that some retirement assets will be available even if a disability disrupts future earning potential.

Whether the annual premium is $71,000 or $7,100 it demonstrates the breadth of possibilities in whole life insurance for creative thinkers. ❖

In the event of whatever comes next, do you have a whole life insurance policy on standby?

[1] All whole life insurance policy guarantees are subject to the timely payment of all required premiums and the claims paying ability of the issuing insurance company.

[2] Dividends are not guaranteed. They are declared annually by the company's Board of Directors.

[3] Policy benefits are reduced by any outstanding loan or loan interest and/or withdrawals. Dividends, if any, are affected by policy loans and loan interest. Withdrawals above the cost basis may result in taxable ordinary income. If the policy lapses, or is surrendered, any outstanding loans considered gain in the policy may be subject to ordinary income taxes. If the policy is a Modified Endowment Contract (MEC), loans are treated like withdrawals, but as gain first, subject to ordinary income taxes. If the policy owner is under 59 ½, any taxable withdrawal may also be subject to a 10% federal tax penalty.

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