

## **CALCULATING YOUR RATE OF RETURN**

### **How To Do It, And How Not To Do It**

When one undertakes to write an investment book, the intricacies of annual rate of return calculations are a constant companion. University accounting and finance professors will tell you (as one did with me) that calculating and presenting the annual rate of return on a preferred stock investment really gets down to how precise you want or need to be. Put another way, how thin do you want to slice the baloney?

I wanted to provide some level of detail regarding how I approached making these calculations for *Preferred Stock Investing*, not only so that you can understand how I came up with my numbers but, more importantly, to help you calculate your annual rates of return as you build your own CDx3 Portfolio.

There are a variety of tools available – some easy to use and readily available. Others require the patience and tenacity of a gold miner just to get your hands on them, let alone understand how they work.

The complexity of calculating rates of return comes in when you start talking about the timing over which you earn your income on the investment, both the dividend income and the capital gain income. The simplest case is when you buy a stock and sell it down the road for a gain with no dividend payments in the mean time. All of the gain happens at the end of the investment period and in one lump sum.

But when all, or a portion of, your gain is realized in chunks every so often (such as quarterly), the calculation gets more complex very quickly. There are two aspects to this complexity:

1. a concept called the “time value of money”; and
2. the difference between the annual percentage rate (APR, also called “yield”) and the effective annual rate (EAR).

### ***Calculating The Effective Annual Rate Of Return For CDx3 Preferred Stocks***

In this section I will show you how to use the Excel IRR function to correctly calculate the effective annual rate of return for a CDx3 Preferred Stock. As you will see, though correct, the IRR function can get a bit cumbersome to use since you have to produce the “cash flows table” of quarterly data in order for the IRR function to work properly.

Fortunately, there is a short-cut using our old friend the RATE function that I will show you at the end of this CDx3 Special Report. When I show you how to calculate the effective annual rate of return using the Excel RATE function at the end of this CDx3 Special Report, you will not need to create the quarterly cash flows table as you do using the IRR function.

Let’s take a real example, using the IRR function first.



Dominion Resource, Inc. (NYSE: D) is a \$27 billion integrated gas and electric holding company engaged in a wide variety of energy production and distribution enterprises throughout the mid-western and eastern United States. Dominion was founded in 1909 and is headquartered in Richmond, Virginia.

On January 11, 2001 Dominion introduced its Series A CDx3 Preferred Stock, D-A. D-A pays an annual dividend rate of 8.40% or \$2.10 per year, which is a quarterly dividend amount of \$0.525 per share.

The first thing we need to do is get all of the parameters we are going to need in front of us. As with the examples used throughout *Preferred Stock Investing*, the dollar amounts seen in this table are “per share.”

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Parameter	Value	See Note #
Dividend Rate:	8.40%	
Annual Dividend Amount:	\$ 2.10	
Quarterly Dividend Amount:	\$ 0.525	
Daily Dividend Amount:	\$0.00583	1
Purchase Price:	\$ 25.00	
Purchase Date:	January 11, 2001	
First Payment Quarter Start-Date:	January 31, 2001	
First Payment Quarter End-Date:	April 30, 2001	
Extra Days Prior To 1st Quarter Start-Date:	20	2
Extra dividends earned prior to 1st qtr:	\$ 0.117	2
Sell Date:	January 24, 2003	
Sell Price:	\$ 27.21	

**Note #1:** The Prospectus of most dividend-paying investments, including CDx3 Preferred Stocks, will specify that the issuing company uses a 30 day month (90 day quarter, 360 day year) to calculate dividends. To calculate the daily dividend amount the quarterly dividend amount is therefore divided by 90.

**Note #2:** Preferred stocks can IPO at any time. Even though they pay a fixed quarterly dividend, if you purchase a preferred stock on its IPO Date and if the IPO Date does not happen to be the first day of a payment quarter (which it rarely is), there is an adjustment made to the first quarter's dividend payment. In the above example, the first payment quarter starts on January 31, 2001 and ends April 30, 2001. But, per this example, you purchased D-A on its IPO Date of January 11, 2001 - 20 days prior to the start of the first payment quarter. So the issuing company owes you 20 extra days of dividends. Since D-A pays \$.00583 per day, the first quarter's dividend on April 30, 2001 will include an extra \$0.117 per share (\$0.525 plus \$0.117 equals \$0.642 for the first quarter only). For all quarters after that, the payment will be the regular quarterly amount of \$0.525 per share.