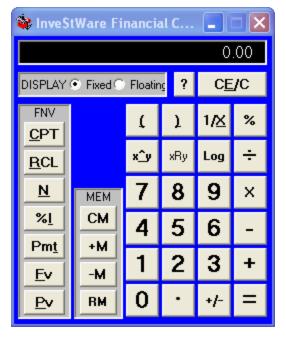
## Training Tips & Tricks

## Using the Investor's Toolkit Financial Calculator



Investor's Toolkit (All versions) provides the user with a useful Financial Calculator. It may be used both within and without the Toolkit program. To access the calculator:

- In the Toolkit menu click Options > Financial Calculator.
- To use with any application you may wish to create a shortcut. The calculator for TK5 will be found at C:\Program Files\NAIC Software\Toolkit5\IWcalc.exe.

The calculator functions as any normal algebraic calculator. Additionally it has financial functions that make it particularly useful for the investor in stock selection and

portfolio management. We will explore and example a few useful features to the investor.

First an explanation of the Financial Keys (FNV):

- N Total number of payment periods for the loan or investment.
- $\%\underline{I}$  Percent Interest rate per period of a loan or investment.
- Pmt Payment paid each period.
- Fv Future value, or cash balance after the last payment is made.
- Pv Present Value the total amount that a series of future payments is worth now.
- <u>CPT</u> Compute
- RCL Recall the 5 values

Example 1 A financial institution loans you \$100,000 as a mortgage for the purchase of a new home at an annual rate of interest of 6%. The term of the loan is for 15 years. What will be your periodic (monthly) payments?

- There will be 12 (months per year) times 15 (years) or 180 monthly payments. Press 12 then \* then 15 and press =. Next N.
- The monthly interest rate will be .06 divided by 12. Press .06, then /, then 12 and press =. Next %I.
- The Present Value to you will be \$100,000 so enter 100000 and press  $\underline{P}v$ .

• The Future Value will be zero when the mortgage is finally paid off, so make no entry for  $\underline{F}v$ .

• Finally press CPT then Pmt to find your monthly payments of \$843.86. The

calculator shows -843.86 as the amount leaves your account.

Press RCL to show all of the 5 values.

Example 2 Your Investment Club purchased 1000 shares of General Electric (GE) on 6 September 2002 at a net cost of \$28,804.23. Their value on 9 November 2004 was \$35.42 per share. What has been your annualized return.

(N)um periods = 180 (I)nterest Rate = 0.50% Paymen(t) = -843.86 (F)uture Value = 0.00 (P)resent Value = 100,000.00

🖣 Recall Financial ... 🔳 🔲 🗙

- The Pv is 28804.23. Think of Pv as the early price.
- The Fv is 1000 times 35.42 or 35420. Think of Fv as the later value.
- The number of years from purchase until the date valued is about 4 years and 2 months. N will be 4 plus 2/12 or 4.17.
- Press CPT then %I to show your annualized return of 5.09%.

(N)um periods = 4.16666 (I)nterest Rate = 6.42% Paymen(t) = 0.00 (F)uture Value = 35,420.00 (P)resent Value = 28,804.23

Not a super return but then again the period defined was not the best for the market in general. However, your club was wise enough to have the dividends paid reinvested in GE so in reality the club now owns

1053.786 shares.

(N)um periods = 4.16666

- The Fv value is 1053.786 times 35.42 or \$37,325.10.
- Press CPT then %I to show your annualized return of approximately 6.42%.

## (N)um periods = 4.16666 (I)nterest Rate = 6.42% Paymen(t) = 0.00 (F)uture Value = 37,325.10 (P)resent Value = 28,804.23

## Finding Annualized Return

In Part 5 of the SSG, Toolkit computes and displays the nominal\* 5-year compounded annual growth rate, or annualized return. That is, if I buy the stock and the present price and sell at the forecasted high price in 5 years, what will be my yearly return?

What if you wanted to find out what the annualized return would be for a period other than 5 years? Answer: use the Toolkit calculator.

Find the annualized return when the present price is 20, forecasted high price is 43, and the compounding period is only 4 years.

Rev A: Corrected 5 years old error in Example 1.