

Note 247: CONCORDANCE TO GUMMY-STUFF SPREADSHEETS (ABRIDGED) Don Gimpel – March 2017

BACKGROUND

Peter Ponzo, a professor of statistics at Canada's Waterloo University, retired after decades of service. Upon retirement, he quickly discovered that his pension was not sufficient enough for him to maintain his standard of living. He decided to become an active investor and to learn more, he joined an internet chat room. After reading presentations from other chat room participants, he decided to correct the presenters and teach them in the process. The result was great confusion and argument and he was nicknamed "Gummy" because his offerings tended to gum up the works. He was eventually told that he might be happier and more effective elsewhere. He decided to start his own web site called "Gummy-stuff" where he could teach and derive to his hearts content. Gummy-stuff quickly became one of the largest sites on the internet with over 2000 pages from contributors from all over the world included many other statistics professors.

His site was popular for Gummy's contributions. He included discussions of wide ranging topics in which he derived all the necessary math and created problem solving downloadable Excel spreadsheets. These spreadsheets were unique in that they included active macros that would automatically download any needed data, perform whatever calculations that were required and presented the results in attractive graphs and charts. He did this by the dozen then by the hundreds until he listed close to 500. This is the source of the problem in that the site did not provide a concordance that allowed a potential user to describe what he was interested in doing and then going straight to a file that filled his needs. With a choice of nearly 500 files, finding what you wanted became an enormous chore.

The purpose of this note is to provide a concordance to Gummy-stuff files. Given a few words about the topic of interest, the Note gives you the address of the corresponding file(s) and a brief description as to what they do. The Concordance Table is found below.

Another problem is that the files are not equal in value to potential users. Gummy's interests were wide and he included a number of off investing topics. These have not been included in the list. Some files are really explorations of little general interest. Then there are others that perform a really useful function and should be part of a student's library. The rows describing these gems are shaded for easy identification and this is where a user should start his Gummy-stuff exploration.

WHERE TO FIND GUMMY-STUFF'S STUFF:

http://www.financialwisdomforum.org/Gummy-stuff/gummy_stuff.htm

You can also Google 'Gummy-stuff' and look for and click on the link to Financial Wisdom Forum . It is in the second or third spot in their listing.

The individual files address is of the form:

<http://www.financialwisdomforum.org/Gummy-stuff/file> name.htm

TO USE THE SPREADSHEET

Left click on the spreadsheet and select save. You find the spreadsheet in your computers "Download" file.

If you open the Excel file, you must click on the "Enable Editing" block in the yellow band near the top of the screen. This makes the macros active so that the spreadsheet can be used. Be sure to enter whatever information is required into the red bordered cells. Click on the Grey "Download Data" cell to start the macro.

MAJOR FILES

Even in this highly abridged form, the table includes:

35 Investment strategies fully described.
18 Indicators
9 Calculator files
7 Retirement (Portfolios) calculators
6 Anomaly explorations including Calendar anomalies
6 Option calculators

SUPPLEMENTARY MATERIAL

Appendix A: Instructions on how to solve problems if the macros do not work on your computer.
Appendix B: Glossary

CONCORDANCE TO GUMMY-STUFF FILES TABLE – (ABRIDGED)

The shaded rows are the recommended files.

DESCRIPTOR	ADDRESS	NOTES
Anomaly, calendar	http://www.financialwisdomforum.org/gummy-stuff/calendar.htm	This allows you to identify calendar anomalies for week, days and months.
Berkshire-Hathaway, holdings cross-correlation	http://www.financialwisdomforum.org/gummy-stuff/R-squared.htm	Examination of the cross-correlation matrix of Berkshire-Hathaway teaches a very important investing lesson. The cross-correlations are systematically very low so Berkshire-Hathaway is highly diversified and that means that the unsystematic risk is almost zero. This is an amazing observation and provides a deep insight into why Warren Buffet has been so successful.
Bonds 5 - convexity	http://www.financialwisdomforum.org/gummy-stuff/Bonds-5.htm	Calculators are provided that compute the Macauley Bond Duration given its Current Yield, Years to Maturity and Coupon Rate. Another is provided for Convexity
Bonds, Part 1 - face or Par value	http://www.financialwisdomforum.org/gummy-stuff/Bonds.htm	Calculators are provided. The formulas are developed for this calculation and calculators are available along with sample graphs.
Bonds, Part 2 - duration	http://www.financialwisdomforum.org/gummy-stuff/Bonds-2.htm	This file develops the bond duration with available calculators. A spreadsheet calculates the Bond Sensitivity.
Bonds, Part 3 - yields	http://www.financialwisdomforum.org/gummy-stuff/Bonds-3.htm	The file includes a spreadsheet that calculates the Bond Yield given its Price at Maturity, Coupon Rate, Today's Purchase Value, Sell Date and Sell Value.
Bonds, Part 4 - bond ladders	http://www.financialwisdomforum.org/gummy-stuff/Bonds-4.htm	A spreadsheet is included that given the Years to Maturity, Annual Coupon Rate, Coupons per Year, Maturity Value, Mean and Standard Deviation calculates the ladder return.
Calculate, annual return	http://www.financialwisdomforum.org/gummy-stuff/YTD.htm	Given the starting portfolio and current value, deposits and withdrawals with dates, This calculation can be made at any number of times in the year. It yields the Annualized and YTD returns. This is a demonstration of Excel's XIRR function.
Calculate, Black-Scholes price	http://www.financialwisdomforum.org/gummy-stuff/Ito-options.htm	This file provides the distribution of prices P at time T using a formulation from Ito. The file also provides the Excel formula for the Black-Scholes equation. The tutorial does not include a spreadsheet but the spreadsheet can be found at Ito-options-2`.htm . This file is useful for the options researcher who wants to develop their own ideas. The whole thing is easier if you use WolframAlpha.com and use one of their 32 option calculators. Its even easier if you use my Notes 65 and 67 which provides the questions that allow you to select the best option type for your estimate of the market future and the link to WolframAlpha's calculators.
Calculate, Net Present Value	http://www.financialwisdomforum.org/gummy-stuff/NPV.htm	This file contains an erudite discussion of Net Present Value with a calculator for unevenly distributed entries.
Calculate, P/E Ratio and PEG Ratio and Price/Book Ratio	http://www.financialwisdomforum.org/gummy-stuff/meltdown.htm	This calculator computes a number of key valuation ratios for a set of stocks.
Calculate, user defined	http://www.financialwisdomforum.org/gummy-stuff/spreadsheet.htm	This spreadsheet allows you to download data for a set of stocks and perform whatever calculations you like (as long as you can write their formulas properly).
Correlations, 30-securities	http://www.financialwisdomforum.org/gummy-stuff/30-correlations.htm	This gem calculates the cross-correlation matrix for up to 30 securities and color codes the results.
Download data, simple	http://www.financialwisdomforum.org/gummy-stuff/30-correlations.htm	The spreadsheet downloads price and volume data to a spreadsheet and displays a

spreadsheet	mmy-stuff/Simple-download.htm	graph. This is a very useful file.
Download, stock prices	http://www.financialwisdomforum.org/gummy-stuff/download-stock-prices.htm	This spreadsheet downloads Open, High, Low and Close prices for a set of stocks.
Download, weekly data	http://www.financialwisdomforum.org/gummy-stuff/weekly-data.htm	The Excel spreadsheet downloads a weeks data for up to four investments and provides two charts. The first chart is the daily closing price for the period specified. The second is the candlestick version for the last 10 weeks. You also get a cross-correlation table for all plus the Mean and Volatility of each investment based on a 3-year measurement. They are given annualized .
Download, Yahoo tags	http://www.financialwisdomforum.org/gummy-stuff/Yahoo-data.htm	This is a large number of tags used to direct downloads from Yahoo. A spreadsheet is provided where you can specify what is needed in order to download data. This is a do-it-yourselfers winner. Other spreadsheets download option and other data.
Excel spreadsheet, macro, how to change	http://www.financialwisdomforum.org/gummy-stuff/MC-stuff.htm	This file provides a sample macro with instructions on user access with changes.
Excel, pasting a URL	http://www.financialwisdomforum.org/gummy-stuff/Excel-Download-Webpage.htm	This discussion is about how to get a URL pasted onto an Excel spreadsheet so that pushing will download material.
Exchange rate	http://www.financialwisdomforum.org/gummy-stuff/FX.htm	Provides spreadsheet that displays an exchange rate graph for various indexes.
Futures, price predictions	http://www.financialwisdomforum.org/gummy-stuff/price-probability.htm	Gummy provides a formula that predicts future prices. Given a stock, the spreadsheet obtains its history and given a range of prices and a time specification, the spreadsheet will give the probability that the future price will fall within the range.
Graph, portfolio and up to 15 components and an index	http://www.financialwisdomforum.org/gummy-stuff/portfolio-vs-index.htm	This spreadsheet allows you to display a portfolio and up to 15 components along with an index.. The display is for the last year. Some people just like to see it all at one spot and this does it.
Indicator, MA or EMA or MACD or RSI or RSC or Stochastics	http://www.financialwisdomforum.org/gummy-stuff/stock-TA.htm	All the Technical Analysis indicators can be downloaded and displayed.
Indicator, Moving Average, Zero-lag or Wilder or Least Squares, Triangular, Adaptive, Jurik, Hull and Hodrick-Prescott technique	http://www.financialwisdomforum.org/gummy-stuff/MA-stuff.htm	The spreadsheet calculates a number of moving averages. The graph displays the Buy/Sell signals based upon the Hull procedure where the moving average tracks the price curve better than traditional moving averages. The Hodrick-Prescott filtering technique is worth a close look as a way of generating Buy/Sell signals
Indicator, moving averages	http://www.financialwisdomforum.org/gummy-stuff/MA.htm	This Excel spreadsheet downloads 10-years worth of a stocks closing price and then calculates 3 moving averages. The averages are displayed along with Volume data.
Indicator, Sharpes Ratio or MACD or RSI or Sortino Ratio.	http://www.financialwisdomforum.org/gummy-stuff/buy-sell-calculations.htm	The spreadsheet downloads data then calculates and displays a Bollinger Band chart for Price, SMA, EMA, CAGR, Volatility, Another spreadsheet displays Buy/Sell signals for SMA, MACD, EMA, ...
Indicator, tutorial	http://www.financialwisdomforum.org/gummy-stuff/stock-charts.htm	This is a set of links to tutorials of indicators and includes the following: Bollinger Bands, Moving Averages (Arithmetic), Moving Averages Exponential, DMI, Williams %r, Zweig 4% Rule, Parabolic Fit, Elliott Waves, Monte Carlo, Utility Stuff, Efficient Frontier for 3 investments, Value at Risk, Spearman Correlation, ADX, Omega, Liquidity Ratio, Seasonality ... dozens more. Click on any of the charts to obtain a tutorial.

Indicators, EMA	http://www.financialwisdomforum.org/gummy-stuff/ema-formula.htm http://www.financialwisdomforum.org/gummy-stuff/ema-formula2.htm	The file includes an interesting discussion of EMA's and particularly why $EMA(N) = a * P_N + (1-a) * P_{N-1}$ and $a = 2/(1+N)$. Understanding this is worthwhile.
Indicators, moving averages	http://www.financialwisdomforum.org/gummy-stuff/moving-averages.htm	A spreadsheet is provided that allows to download a selected stocks closing price, select days, weeks or months and the display the (a)ithmetic moving averages for two period selections. Another spreadsheet calculates the best number of intervals Use the Exponential Moving Average spreadsheet at the very end of the presentation.
Indicators, tutorial	http://www.financialwisdomforum.org/gummy-stuff/stock-charts.htm	This is a set of links to tutorials of indicators and includes the following: Bollinger Bands, Moving Averages (Arithmetic), Moving Averages Exponential, DMI, Williams %R, Zweig 4% Rule, Parabolic Fit, Elliott Waves, Monte Carlo, Utility Stuff, Efficient Frontier for 3 investments, Value at Risk, Spearman Correlation, ADX, Omega, Liquidity Ratio, Seasonality ... dozens more. Click on any of the charts to obtain a tutorial.
Internet, simple data downloader	http://www.financialwisdomforum.org/gummy-stuff/simple-download.htm http://www.financialwisdomforum.org/gummy-stuff/distributions-3.htm	Enter the CUSIP for the stock, fund or ETF and this spreadsheet will download and display price data and compute a user set moving average, a user set EMA, a 100 day moving average and its EMA.
Market, probability of an "N" day increase	http://www.financialwisdomforum.org/gummy-stuff/Dow-up.htm	A second spreadsheet downloads the data and calculates the returns distribution. This is a deceptively simple short discussion of the likelihood of the market going up tomorrow after going up for the last "N" days. This discussion is important because it throws cold water on a long held emotional belief.
Option, future, probabilities	http://www.financialwisdomforum.org/gummy-stuff/price-probabilities.htm	You can set the Strike Price, Risk Free Return and Option Expiry (in weeks) plus the # weeks to show Probabilities with Low and High limits. The spreadsheet computes the Black-Scholes Option Premium, the probability distribution and the summation.
Portfolio, allocation, best	http://www.financialwisdomforum.org/gummy-stuff/best-allocation.htm	The spreadsheet allows you to find the best allocation to a portfolio consisting of the four corners of the Morningstar Style Box, i.e. LargeCap Growth, ... You can soicfy the allocation increment and the Risk Free Rate (RFR). The spreadsheet calculates the allocations for "Maximum Success," Sharpe's Ratio and .Minimum Volatility.
Portfolio, Contest tracker	http://www.financialwisdomforum.org/gummy-stuff/contest.htm	The Excel spreadsheet explained in this file is the one used by Gummy to track his contest portfolio..
Portfolio, download data and display return	http://www.financialwisdomforum.org/gummy-stuff/30-stocks.htm	Given the initial allocations to 30 stocks, the spreadsheet downloads price data and computes the portfolio values and displays a chart.
Portfolio, return	http://www.financialwisdomforum.org/gummy-stuff/return-on-investments.htm	This is an erudite discussion of the calculation of IRR and XIRR with a spreadsheet. It includes links to other interesting comments and techniques.
Portfolio, return calculations	http://www.financialwisdomforum.org/gummy-stuff/misc-stuff.htm	The file discusses the calculation of various types of return. It also includes Excel tips for performing return calculation. It also includes return calculators. Other practical investor return topics are included.
Portfolio, stock-bond allocation	http://www.financialwisdomforum.org/gummy-stuff/stocks-bonds-again.htm http://www.financialwisdomforum.org/gummy-stuff/1-stock.htm	Gummy analyzes a 2 investment portfolio consisting of stocks and bonds to determine: the stock allocation for maximum return and for minimum volatility. All you have to know is stock and bond returns and their Pearson coefficient. Two calculators are provided for the calculations. The case of simultaneous maximum return and minimum volatility occurs when the returns are equal and cross-correlation is 0. The assets need not be stocks or bonds; they can be any two assets.

Portfolio, stock-bond ratio	http://www.financialwisdomforum.org/gummy-stuff/stock-bond-ratio.htm	This tutorial file examines a portfolios stock and bond allocations computing the probability of survival for 40-years and calculating the maximum withdrawal rates. A spreadsheet is provided that calculates the allocations, average return, annualized return and volatility.
Portfolio, tracker	http://www.financialwisdomforum.org/gummy-stuff/myPortfolio.htm	The portfolio tracker file includes an Excel spreadsheet portfolio tracker that is exceptionally useful. It obtains its own data and provides a ledger portfolio style tracking which can easily accommodate distributions and splits. The portfolio tracker is very versatile and is highly recommended.
Price, data	http://www.financialwisdomforum.org/gummy-stuff/multi-download.htm	This spreadsheet downloads and displays price data for a large set of stocks.
Retirement, Expenses and portfolio duration	http://www.financialwisdomforum.org/gummy-stuff/retirement-expenses.htm	Given your current age, the annual inflation rate, withdrawal taxes, tax on other income, and return on investments, then this spreadsheet calculates your expected portfolio value as a function of your age.
Retirement, portfolio survival	http://www.financialwisdomforum.org/gummy-stuff/Sam-retires.htm	You can create a portfolio Large Cap Growth, Large Cap Value, Small Cap growth and Small Cap Value investments with allocations. Give the withdrawal rate. Enter the years from which the data is calculated. Enter the number of Monte Carlo iterations. The spreadsheet computes the survival rate percentage. Annual rebalancing is assumed. The spreadsheet displays the portfolio value with an assumed starting value of \$1.00.
Retirement, portfolio survival rate	http://www.financialwisdomforum.org/gummy-stuff/risk1.htm	The Excel spreadsheet calculates the survival rate of a portfolio mix consisting of LargeCap-Growth, SmallCap-Growth, SmallCap-Value and Government Long Bonds. The user controls the number of years and the calculation interval, the Inflation Rate, Withdrawal Rate and the # Iterations. You obtain a graph of survival rate as a function of withdrawal rate. You learn that a 4% withdrawal rate (this case produces very high survival rates. The file starts with a serious discussion of the meaning of risk.
Retirement, safe withdrawal rate	http://www.financialwisdomforum.org/gummy-stuff/safe-withdrawals.htm	A spreadsheet is provided that allows you to list your actual expenses in a number of different categories, the initial Portfolio Value, Current Age, Inflation Rate Tax on Withdrawals, Tax on Other Income, Investment Return. The stress is on computing how long the portfolio lasts.
Retirement, survival rate given 12 investments average return and allocations.	http://www.financialwisdomforum.org/gummy-stuff/MC-X.htm	This is method of computing survival rates and uses the Monte-Carlo calculation method. Assume a portfolio of a dozen stocks with known allocations and Average Returns. Specify the Inflation and withdrawal rates and the #-years. Assume a minimum portfolio size. The spreadsheet will calculate the survival rate and Average Annual Return and Average Final Portfolio. You can also enter the name of the investment. The survival rate is the % of portfolios exceeding the specified minimum after the specified number of years.
Retirement, withdrawal, fixed % of portfolio	http://www.financialwisdomforum.org/gummy-stuff/withdrawal strategies.htm	Gummy compares two withdrawal strategies. The first is a constant percentage of the original portfolio increased by inflation. The second is a constant percentage of your current portfolio. Gummy argues than the second plan is better than the first because the portfolio never goes to zero. A spreadsheet is provided.
Retirement, withdrawals	http://www.financialwisdomforum.org/gummy-stuff/withdrawals.htm	This spreadsheet and spreadsheet computes life expectancy and the probability that your portfolio will survive you given your age and male or female.
Stock, CAGR	http://www.financialwisdomforum.org/gummy-stuff/stock-bond-ratio.htm	This is a discussion of the relationship between the Mean Return, Variance and the

	mmy-stuff/CAGR.htm	annualized term with the important conclusion that the annualized return equals the Mean Return minus half the Volatility (of return).
Stock, distributions, price	http://www.financialwisdomforum.org/gu/mmy-stuff/stock-price-distribution.htm	Given a hypothetical stock with its Annual Return, Volatility and Current Price, a supplied spreadsheet calculates and displays a stock price and distribution given its Annual Return, Volatility and Current Price with the probability that the stock is greater or less than some amounts or between two values. A time span can also be selected. This is a little academic but very neat.
Stock, downloading, analysis data	http://www.financialwisdomforum.org/gu/mmy-stuff/Stock-analysis.htm	The spreadsheet downloads stock analysis data. The monthly numbers include the Mean, Volatility, Expected Return for an Index (SPX) or a specified stock. Other numbers include: Expected Annual Return, beta, alpha, Mean Return, volatility, P/E, PEG, M/E, gNUM, gRank, and Option Premium.
Stock, forecast, 20-days	http://www.financialwisdomforum.org/gu/mmy-stuff/forecasting.htm	A spreadsheet is provided that downloads 40 days of stock data and predicts the stock price movement for 20-days into the future. The forecast return is laid against Bollinger bands.
Stock, increase, likelihood	http://www.financialwisdomforum.org/gu/mmy-stuff/making-money.htm	Refer to “Stock-decrease” for a reference to an Ito formula for calculating the likelihood of a stock increase in T-years. This method of calculating the probability that a stock will be greater than some set value in “N” years is based upon the stock’s performance in the recent past and uses the Monte-Carlo iteration method.
Stock, portfolio data	http://www.financialwisdomforum.org/gu/mmy-stuff/stock_compare.htm	The Excel spreadsheet calculator computes the value of a 4-asset portfolio given the allocations. It also calculates the cross-correlation matrix, the annualized Mean Return, Volatility and Annual Return. Using Monte Carlo methods, it calculates Gain, CAGR and Volatility for the next “N” years. It displays a graph of the portfolio and its components, a distribution curve and a summation curve. This is an attempt to peek into the future.
Stock, ranking, what’s hot	http://www.financialwisdomforum.org/gu/mmy-stuff/hot.htm	This file and spreadsheet tries to identify which investments are not by calculating the EMA for each with the ones with the highest normalized spreads above a specified level identified as hot and others below another specified level as being cold.
Stocks, download price data for up to 30 stocks	http://www.financialwisdomforum.org/gu/mmy-stuff/download-stocks.htm	The spreadsheet downloads prices for up to 30 stocks and displays them with their “N” day Moving Average. The spreadsheet displays the Mean, SD, Current Price and Moving Average.
Stocks, Liquidity Ratio	http://www.financialwisdomforum.org/gu/mmy-stuff/liquidity-ratio.htm	The Liquidity Ratio expresses the ability to trade an investment. Naturally, you would want to be trapped in an illiquid situation where you wanted to sell but couldn’t. The Liquidity Ratio attempts the dollar volume of shares which would result in a 1% change in price. A spreadsheet is included that obtains the necessary data from the internet and performs the ratio calculation.
Strategy, “Riding the Fastest Horse” Sector Rotation	http://www.financialwisdomforum.org/gu/mmy-stuff/sector-rotation.htm	The included spreadsheet shows the effect of switching from a sector to sector strategy. The spreadsheet offers a selection of 6 out of 12 sectors including cash.
Strategy, “Value at Risk”	http://www.financialwisdomforum.org/gu/mmy-stuff/VaR.htm	The included spreadsheet calculates the probability that a portfolio changes by less than a specified % in N months. Monte-Carlo methods are compared to theoretical calculations. You can specify two portfolios Mean Annual Returns and Standard Deviations and Allocations, the Portfolio Size, The number of months into the future a number of iterations. Two graphs of the results are displayed. A second

<p>Strategy, John Nash</p>	<p>http://www.financialwisdomforum.org/gummy-stuff/Nash.htm http://www.financialwisdomforum.org/gummy-stuff/Nash-2.htm http://www.financialwisdomforum.org/gummy-stuff/Nash-3.htm</p>	<p>spreadsheet calculates the “Value at Risk.” This 3-part file discusses the Nobel Prize winning contribution of John Nash which takes into account the strategies of others. A spreadsheet is provided that takes into account other participants response to your strategy. This is a very important topic in clarifying why the market does what it does. It is all about the “Nash Equilibrium.”</p>
<p>Strategy, Selling calls</p>	<p>http://www.financialwisdomforum.org/gummy-stuff/gerry-options.htm</p>	<p>This is a discussion of the theory underlying purchase of Covered Call options. It includes a useful calculator.</p>

APPENDIX 1: IF THERE IS A PROBLEM DOWNLOADING DATA OR USING A SPREADSHEET:

Many of the spreadsheets have macros (to download data from Yahoo or perform a bunch of calculations or whatever) If your Excel security level is set too high, you may not be able to run them. Then try: Tools / Macros / Security and lower the security level ... then try ag'in!

From time to time Yahoo changes the URL which the spreadsheet uses to download. For this (and any other reason) you may want to modify the macro(s). Here's how to do it.

1. RIGHT-click on the button that calls the macro into service. Example
2. In the menu that pops up you should see **Assign Macro** ... Click it.
3. Then click on the **Edit** button which appears.
4. Then the macro code appears in a window. (You may want to enlarge the window.) Modify to you heart's vcontent.
5. When you're finished, click: **File / Close and Return to Microsoft Excel**

Now try the modified macro by clicking on the button that calls the macro. If it worked as you hoped (!), you can save it (perhaps under a different name so the original file is retained). For example, recently (June/July, 2004) Yahoo changed the link from which stock prices are downloaded from:

<http://chart.yahoo.com/table.csv?s=GE> etc. etc.

to

<http://ichart.yahoo.com/table.csv?s=GE> etc. etc.

Note that "chart" was changed to "ichart".
In the DOWNLOAD macro there's the code:

```
'construct the URL for the query  
qurl = http://chart.yahoo.com/table.csv?s= & Symbol
```

And that (latter) line must be changed to read:

```
Qurl = http://ichart.yahoo.com/table.csv?s=
```

APPENDIX 2: ABBREVIATIONS

CAGR	Cumulative Annual Growth Rate
CAR	Compound Annual Return
CER	Closed End Mutual Fund
DCA	Dollar Cost Averaging
DWR	Dollar weighted return
EMA	Exponential Moving Average
GDP	Gross Domestic Product
IRR	Internal Rate of Return with fixed intervals
LCG	Large Cap Growth
LCV	Large Cap Value
MPT	Modern Portfolio Theory
NAV	Net Asset Value
NPV	Net Present Value
RFR	Risk Free Rate
RS	Relative Strength Indicator
SCG	Small Cap Growth
SCV	Small Cap Value
SD	Standard Deviation
SWR	Safe Withdrawal Rate also Sensible Withdrawal Rate
TWR	Time weighted return
VA	Edelson's Value Averaging
XIRR	Internal Rate of Return with arbitrary intervals
YTD	Year to date