



### SCA RISK/Volatility

“There are Lies, Damn Lies and worst of all statistics”, paraphrase Mark Twain.

50% of the movement of a stock is because of the market

25% of the movement of a stock is because of the industry

25% of the movement of a stock is because of it's own news.

Market risk/validity

Portfolio risk Volatility

Individual stock risk/Volatility

EFT/Mutual fund risk

#### 1. Market volatility

- a. Market (sp500) corrections (since 1948) 15% down or more, once every 3.5 years, average duration 275 days \*
- b. Market (sp500) corrections ( since 1948) 20% or more about every 6.3 years, average duration 425 days
- c. Average bear market return -33% average duration 14 months, average bull market +263% average duration 71 months
- d. VIX : It is effectively a gauge of future bets investors and traders are making on the direction of the markets or individual securities. A high reading on the VIX implies a risky market.
- e. Vix, tracks since 1990's. Historic norm is between 10-15, market down turns usually well over 30, closer to 40
- f. You can trade an ETN VIXY, or VXX or UVXY

## 2. Portfolio construction

### Asset correlation

When it comes to diversified portfolios, correlation **represents the degree of relationship between the price movements of different assets included in the portfolio**. A correlation of +1.0 means that prices move in tandem; a correlation of -1.0 means that prices move in opposite directions.

### 2a Stop loss at portfolio level

$$S=(100*R*N)/C$$

S= stop loss percent

R= percentage risk on any single position

N= # of positions

C= Percentage of capital employed

R= should equal 1%-2% loss of total portfolio

## 3. Stock volatility measurements

BETA : approximates the overall volatility of a security's returns against the returns of a relevant [benchmark](#)

(benchmark? Look at IBB with beta of .84 and SP 500 )

### OSCILLATORS:

- Oscillators are chart indicators that can assist a trader in determining overbought or oversold conditions in ranging (non-trending) markets.
- RSI is a popular oscillator that measures the extent of recent price changes to determine overbought or oversold conditions in an instruments price.

### Moving averages (MACD)

### RSI or channel breakout/breakdown

The RSI is displayed as an oscillator (a line graph that moves between two extremes) and can have a reading from 0 to 100

Traditional interpretation and usage of the RSI are that values of 70 or above indicate that a security is becoming overbought or overvalued and may be primed for a trend [reversal](#) or corrective [pullback](#) in price. An RSI reading of 30 or below indicates an oversold or [undervalued](#) condition.

The Stochastic RSI (StochRSI) is an indicator used in technical analysis that ranges between zero and one (or zero and 100 on some charting platforms) and is created by applying the Stochastic [oscillator](#) formula to a set of [relative strength index \(RSI\)](#) values rather than to standard price data. Using RSI values within the Stochastic formula gives traders an idea of whether the current RSI value is overbought or oversold.

**Option volatility** : [Implied volatility](#) (IV), also known as projected volatility, is one of the most important metrics for options traders. As the name suggests, it allows them to make a determination of just how volatile the market will be going forward. This concept also gives traders a way to calculate probability.

MACD Moving average convergence (lagging indicator

calculates the difference between an instrument's 26-day and 12-day [exponential moving averages](#) (EMA). Of the two [moving averages](#) that make up the MACD, the 12-day EMA is the faster one, while the 26-day is slower.

Divergence oscillators

Rate of change

$RoC = \frac{\text{Closing Price } x \text{ Days Ago} - \text{Today's Closing Price}}{\text{Today's Closing Price}}$

#### 4 ETF risk

How concentrated in a limited # of stocks is the ETF

ARKK top ten holdings are 60% of etf

ITA top ten are 75% ( but probably as it should be) (or do I just want to own RTN and LMT (38% combo)

How frequently doe sit change its portfolio allocation, and what is that based on?

