ALPHADROID
S T R A T E G I E S

Conquering
The Seven Faces of Risk
By Scott M. Juds, October 2015

Abstract

At least since the advent of Modern Portfolio Theory[1] (MPT), developed by Harry Markowitz 65 years ago, academics and financial professionals primarily defined and measured risk as the standard deviation of returns from the expected (average) value. However, critics aptly pointed out that real investors experience confidence and euphoria for positive deviations, as opposed to fear and anxiety. In 1979 Kahneman and Tversky's paper[2] on "Prospect Theory" in the emerging field of Behavioral Economics showed (1) that investment risk is not so much about the wiggliness of the equity curve (i.e. its standard deviation) as it is about the probability of actually losing money, and (2) that losing another dollar is many times more important than earning another dollar. Consequently, the later development of Post-Modern Portfolio Theory[3] (PMPT) primarily redefined risk as the downside deviation of returns. Notably, MPT and its derivatives implicitly treat risk as a one-dimensional problem remedied by a single dose of diversification. Unfortunately, a simple measure of risk doesn't convey its root cause(s), without which one cannot be certain that optimum risk reduction solutions have been applied. This paper will show (a) risk is a multidimensional problem deriving from the character of companies, funds, strategies, markets, political events, natural disasters, and even personal behavior; (b) the advent of temporal algorithms makes "risk avoidance" an alternative to "risk dilution" (diversification); and (c) Holistic Risk Management principles lead to a layered Portfolio-of-Strategies architecture that measurably improves performance.

Note: Until this document is complete, we have attached the presentation slides from the AAII National Conference to this white paper abstract.

(Full document available in late 2016)
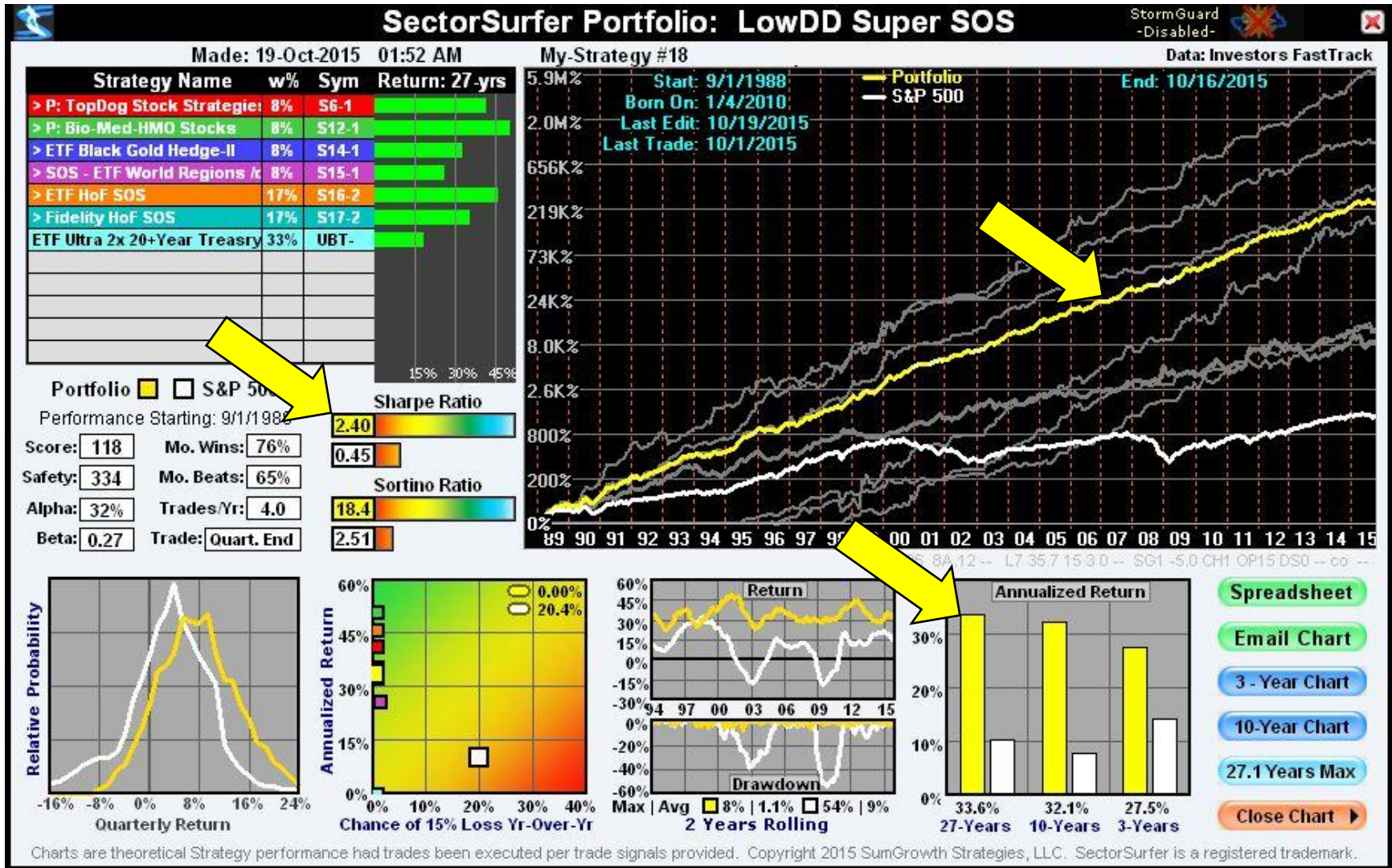
Conquering the Seven Faces of Risk

Originally Presented to:

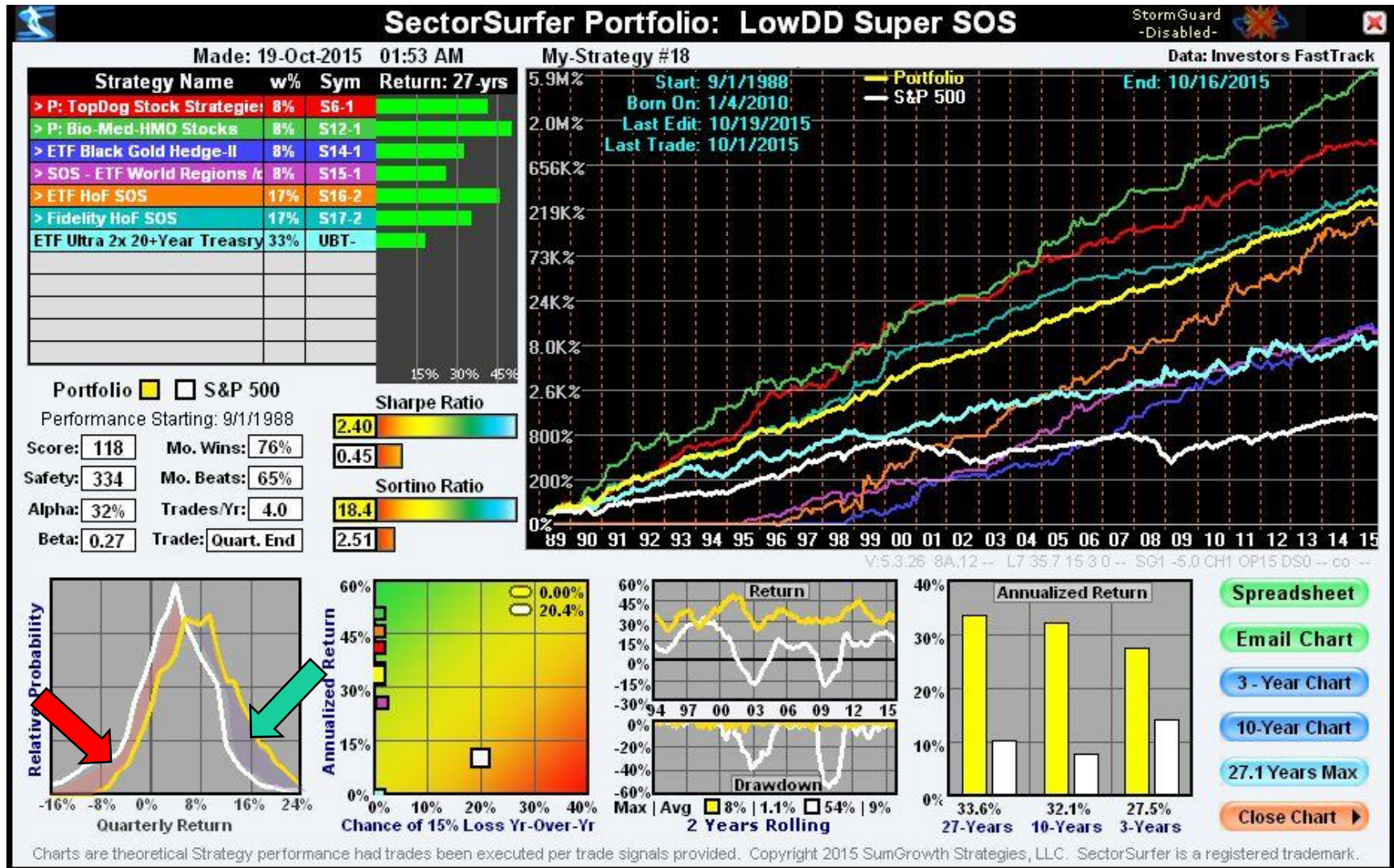## AAII National Conference
Las Vegas, Nov 2015

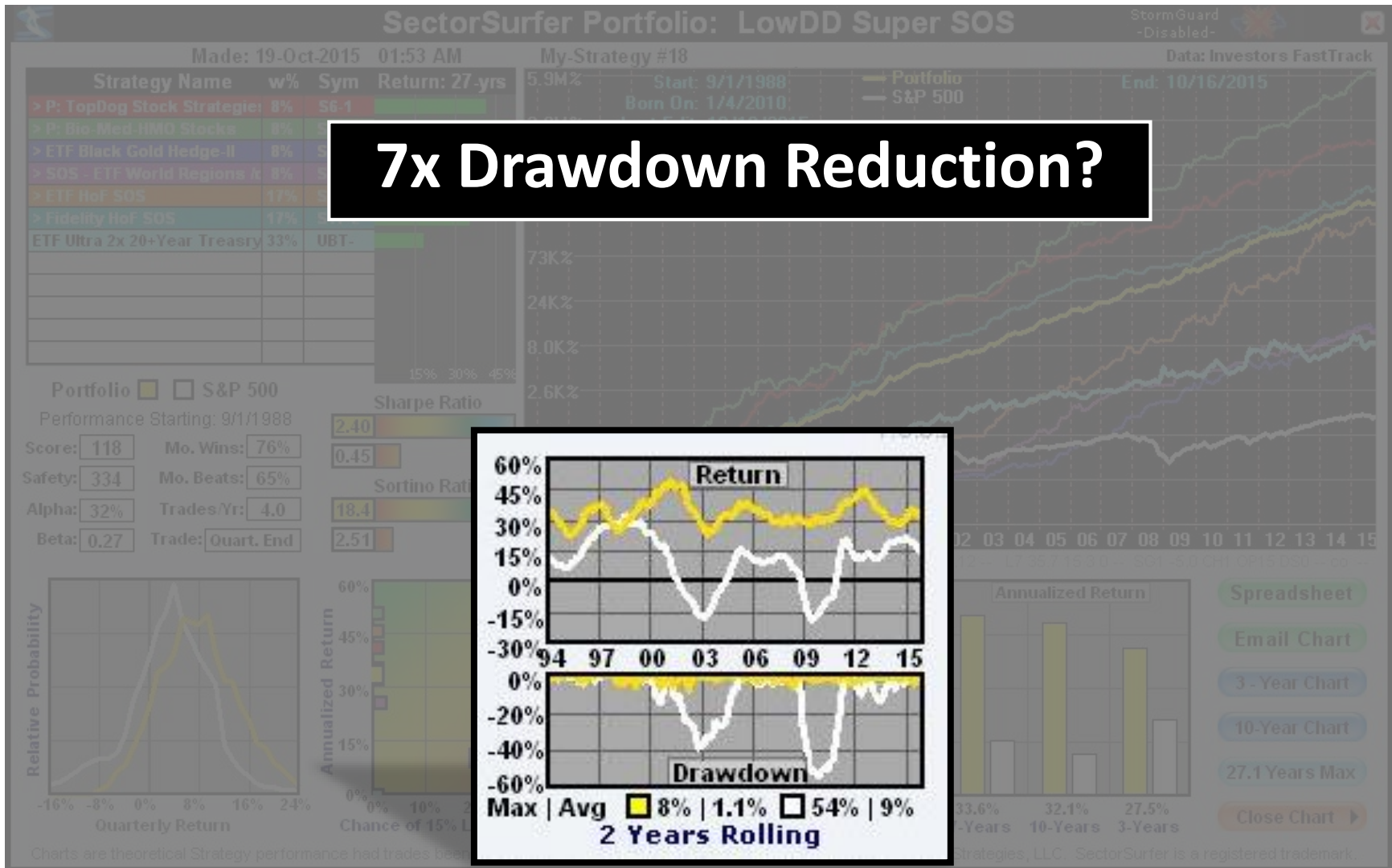**By Scott Juds, President & CEO, SumGrowth Strategies, Seattle, WA**

The Objective

The Objective

The Objective

7x Drawdown Reduction?

What is Risk?

Dictionary Definition:
Risk is the probability of portfolio value loss due to market factors.

From: The Seven Faces of Dr. Lao

The
Seven Faces
of Risk

Risk #1
Not Enough to Retire
Failure to Save, Insufficient Returns or Safety

Risk #1
Not Enough to Retire
Failure to Save, Insufficient Returns or Safety

Keep Working Until you Drop   Or   **Live in a Shack Eating Beans**

Risk #2
Market Shocks
Disasters, Bubbles, Defaults, Policy, Corrections

Fukushima - Minor

Market Crash - Major
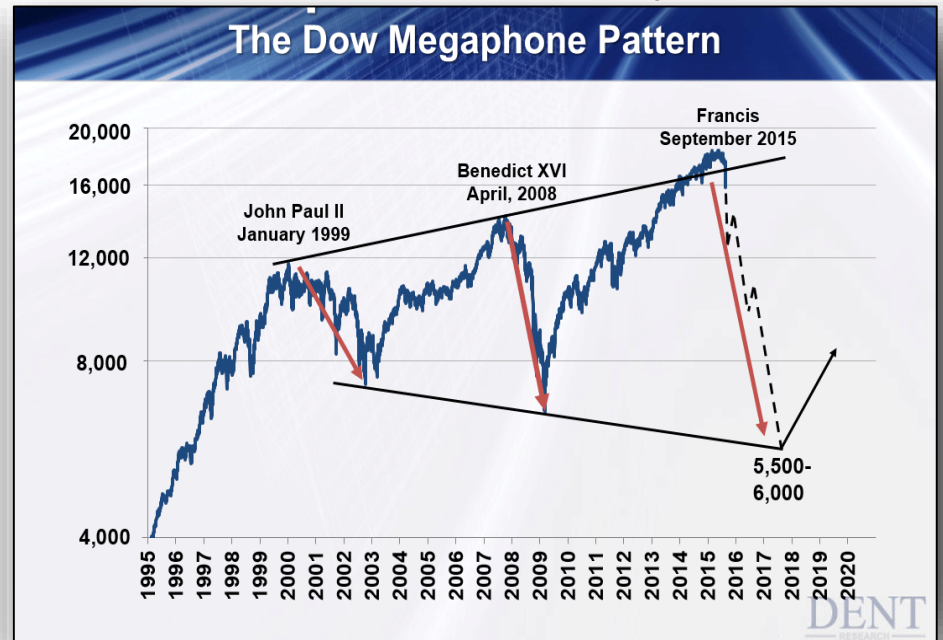
Risk #3
Company Collapse

Competition, Corruption, Incompetence, Patents
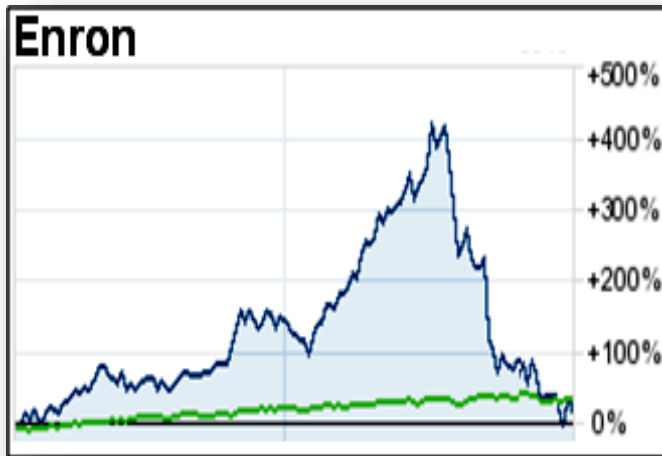
Risk #4
Fund Loses Favor
Technology Change, Political Winds, Overbought

Risk #5
Strategy Gets a Flat Tire
Hindsight Selection Bias, Lack of Strong Leadership

Risk #7
Strategy Remnant Volatility
Sectors, Countries, Commodities are Pretty Bumpy

The Seven Faces of Risk

SUMMARY

Risk Type	Underlying Causes
1. **Company Collapse**	Competition, Corruption, Incompetence, Patents
2. **Market Shocks**	Disasters, Bubbles, Defaults, Policy, Corrections
3. **My Fund Loses Favor**	Technology Change, Political Winds, Overbought
4. **Strategy Gets Flat Tire**	Hindsight Selection Bias, Lack of Strong Leadership
5. **Remnant Fund Volatility**	Sectors, Countries, Commodities are Pretty Bumpy
6. **Backtesting Deception**	Random Reversals that only Hindsight can Avoid
7. **Not Enough to Retire**	Failure to Save, Insufficient Returns or Safety

When Risk is Removed the Upside Dominates!

When Risk is Removed the Upside Dominates!
It's Been Said Before...
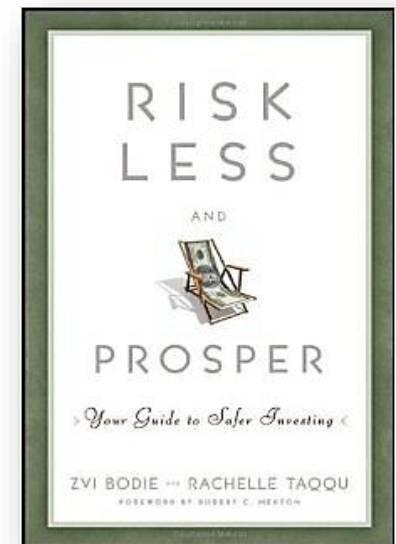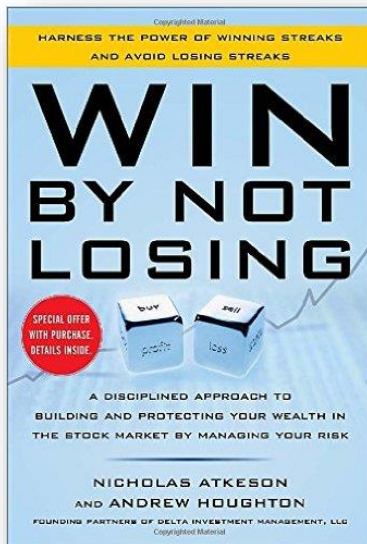
Warren Buffet's Rules
Rule #1 - Never lose money.
Rule #2 - Never forget Rule #1.

Risk #1 (Solution)
Not Enough to Retire

Retirement Age

$50K @ 50 years, Live 100 years, $6k/yr, 2.5% Inflation

- **No Cash Under a Mattress**
- **No Buy & Hold Index Funds**
- **No Buy & Hold Bond Funds**
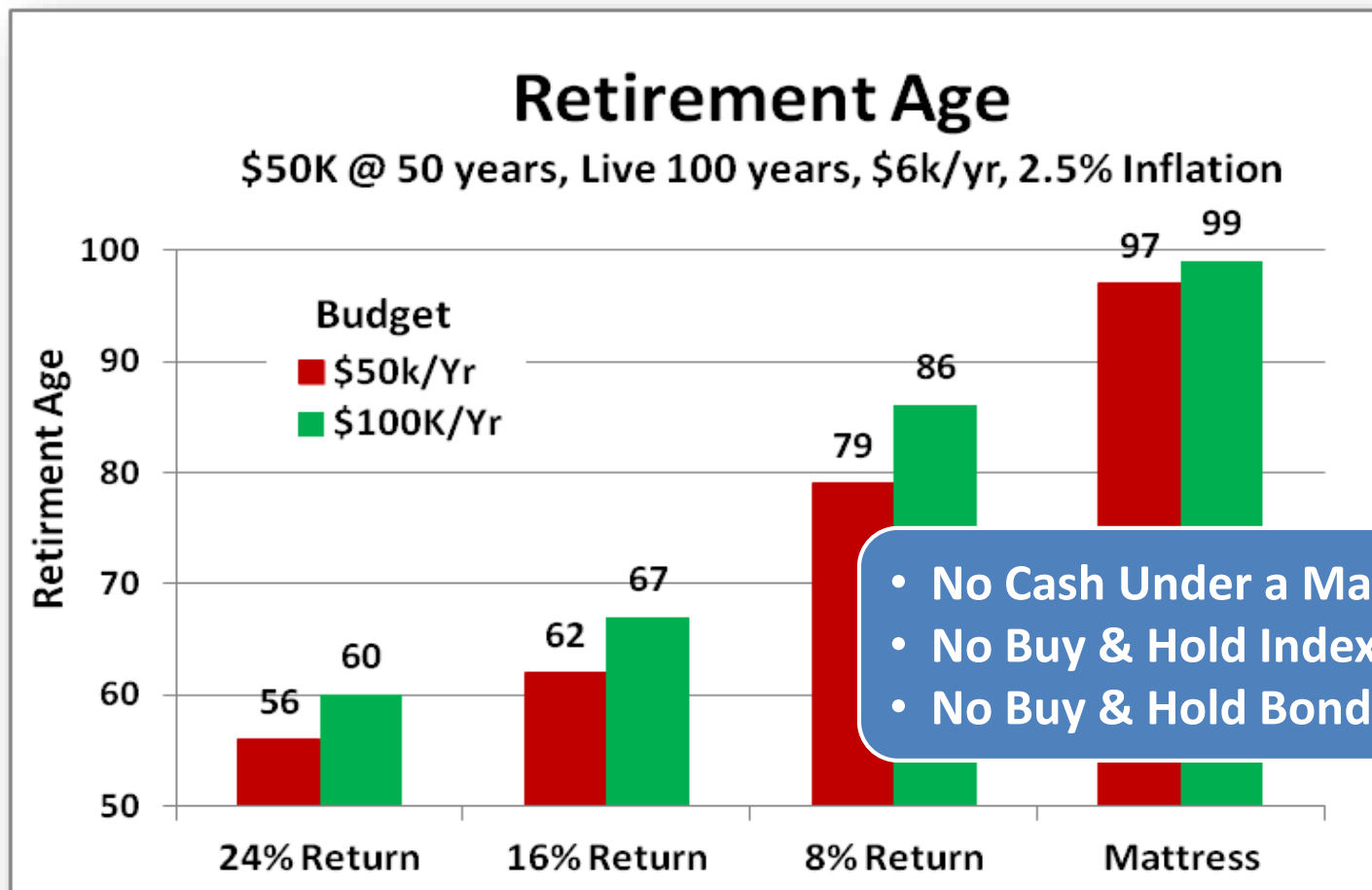
Risk #2 (Solution)
Market Shocks

Major Market Crash

The Dow Megaphone Pattern
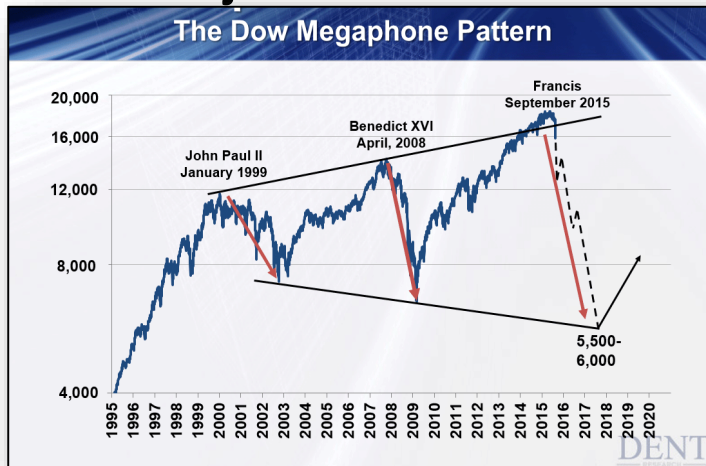
Minor Market Splash

Most Drops Snap Back
- **Avoid Locking in Whipsaw Losses - Wait a Bit.**
- **Optimize Design Using Matched Filter Theory.**

Risk #2 (Solution)
Market Shocks
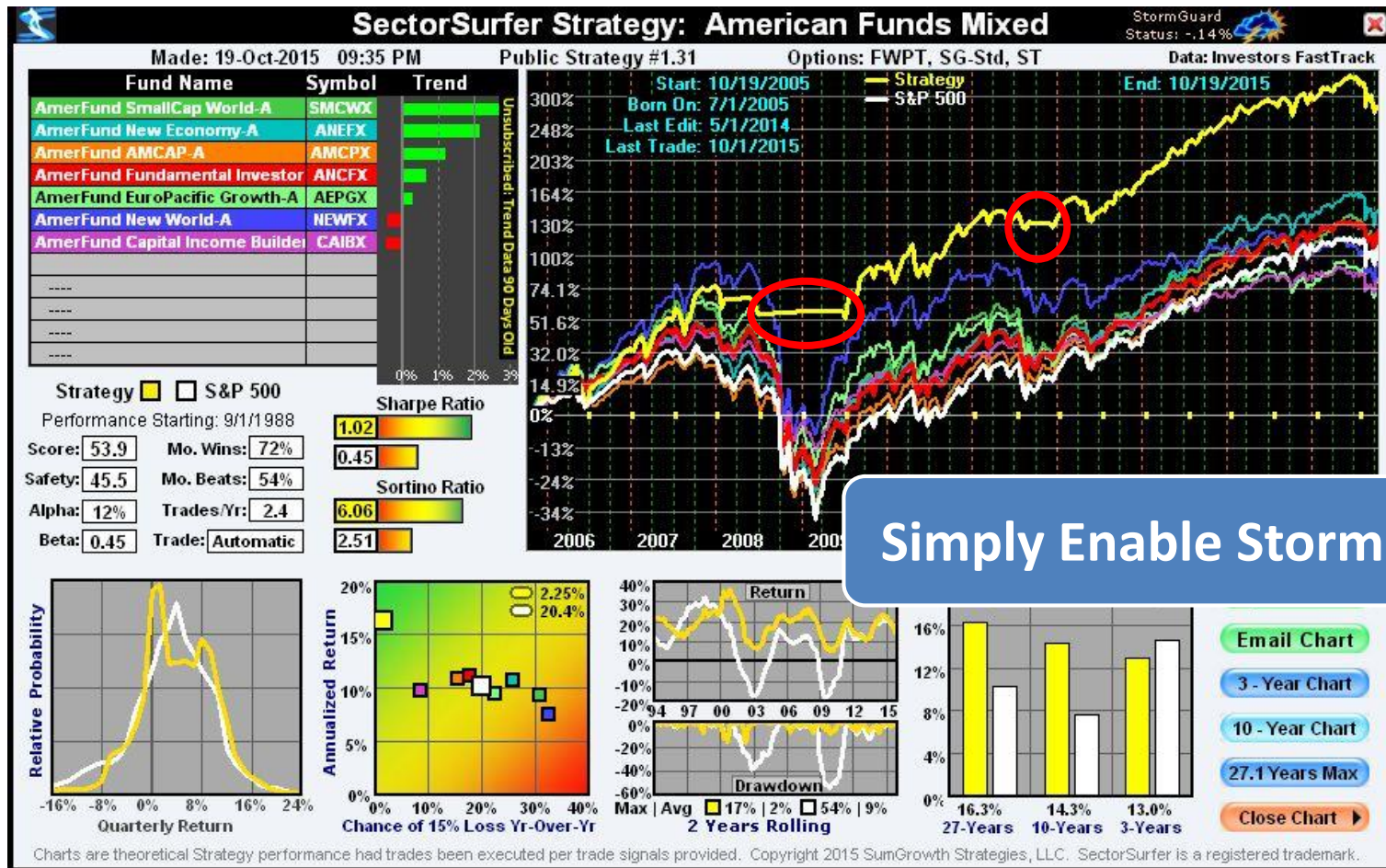
Risk #3 (Solution)
Company Collapse
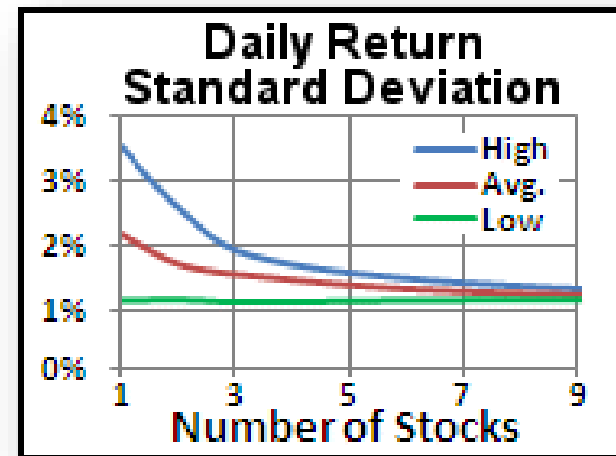
Random Punctuated Events
- **Cannot be Predicted & Avoided**
- **They Must be Diversified Away**

Risk #4 (Solution)
Fund Loses Favor
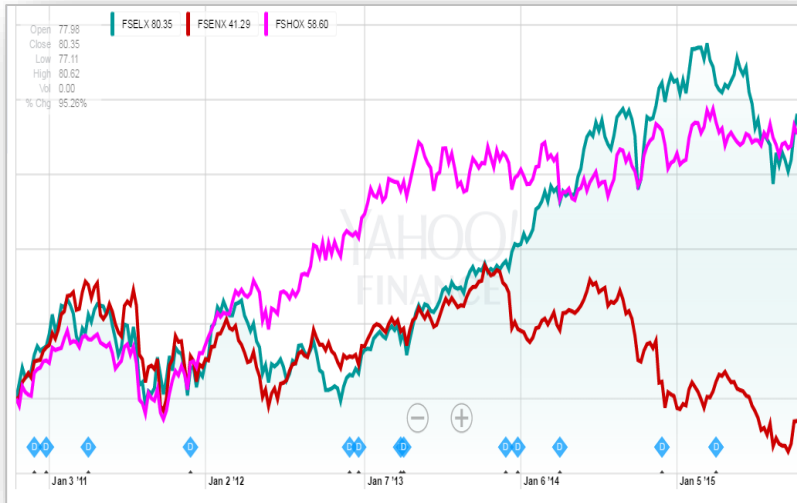
True Sector Rotation …
Own Only the Trend Leader

Risk #5 (Solution)
Strategy Gets a Flat Tire

S&P500

Sector Trends (Fidelity & SPDR Sectors)
<--- 10 Years --->

4.6%
1%
0.0%
-2.3%
-4.6%
-6.9%
-9.2%
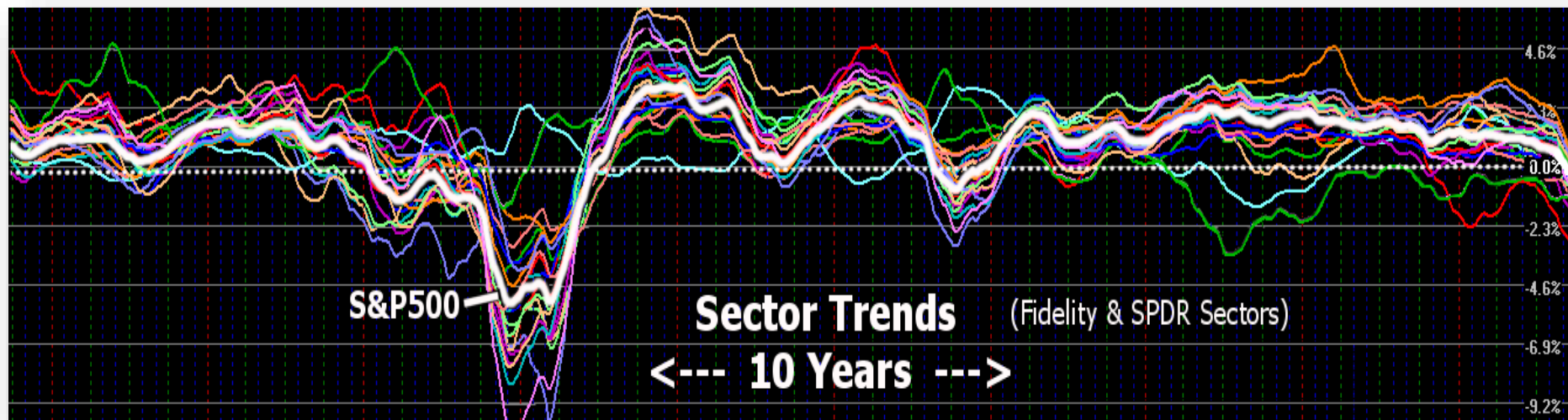
We Know How to Play to Win
- One Must Own Only the Trend Leader.

And Eliminate Selection Bias

Risk #5 (Solution)
Strategy Gets a Flat Tire

A Strategy-of-Strategies
Broadens the Funnel – Reduces Hindsight Bias

Risk #6 (Solution)
Back Testing Deception
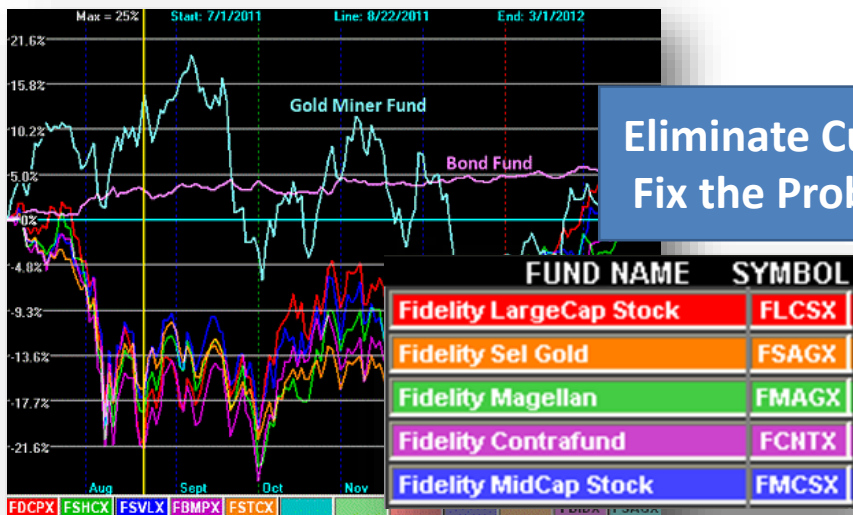
Eliminate Culprit, Fix the Problem.
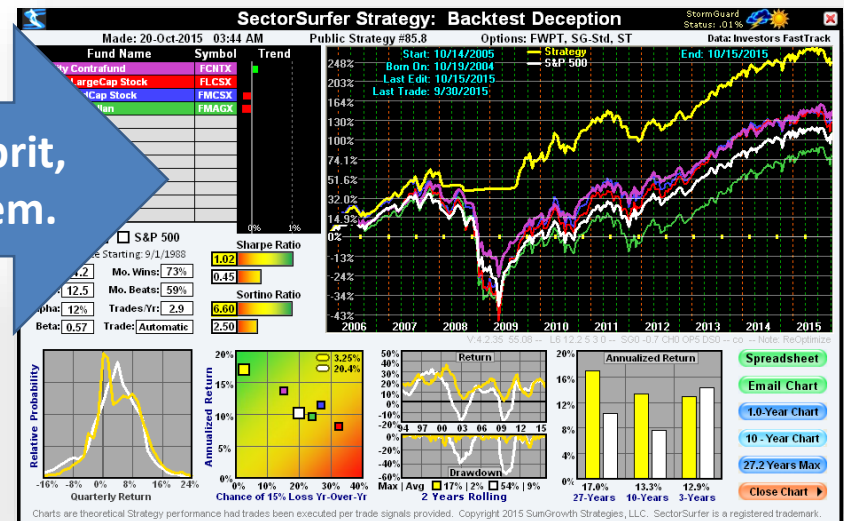
Forward-Walk Progressive-Tuning
Reveals Problems that Must be Fixed.

Risk #7 (Solution)
Strategy Remnant Volatility

Portfolio-of-Strategies
1. Surf First to Capture Returns
2. Diversify to Reduce Volatility
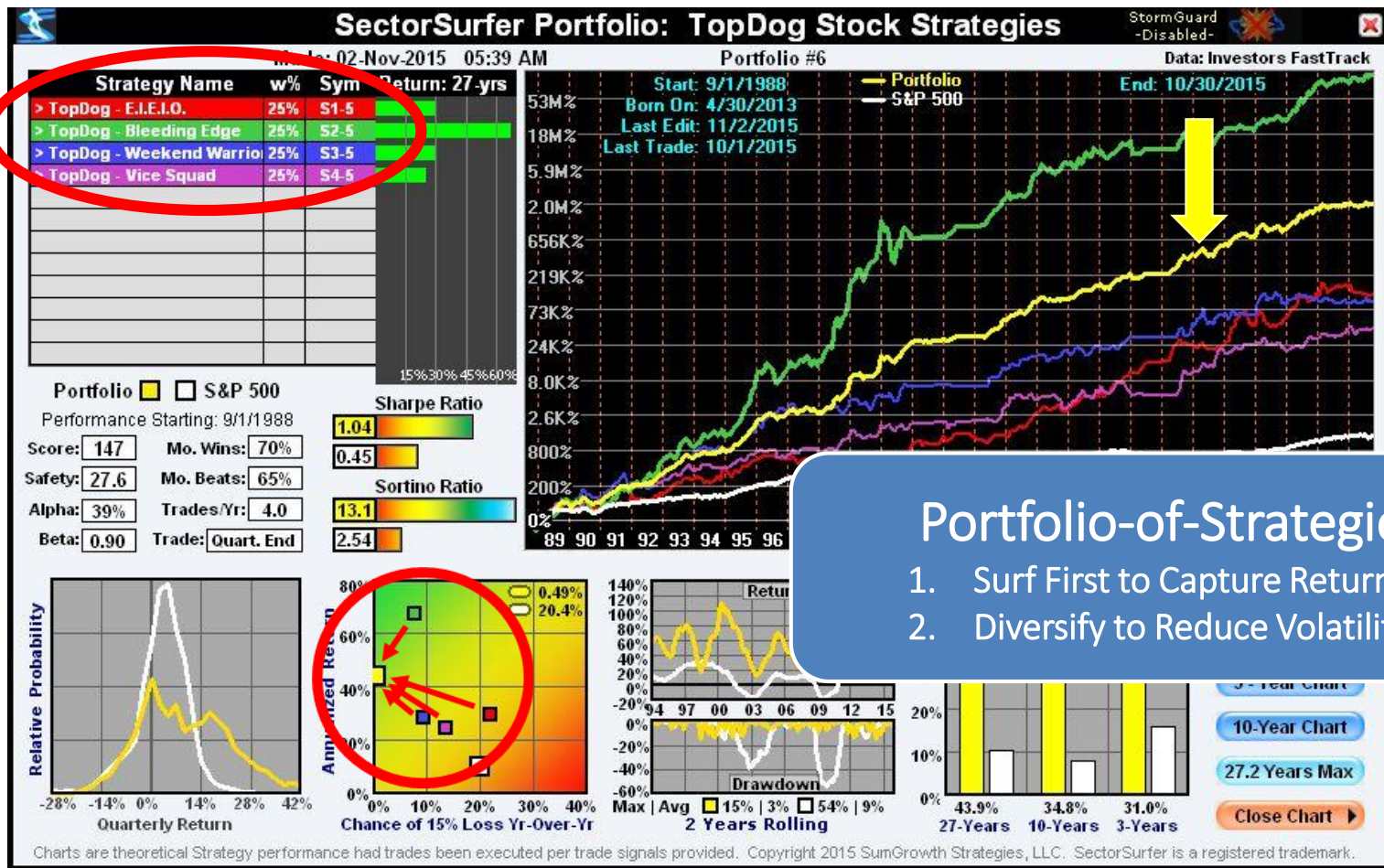
We Know:
L.T. Treasuries Are Negatively Correlated to the S&P 500

21-Day Trend DEMA
TLT   S&P 500
Seven-Year Span
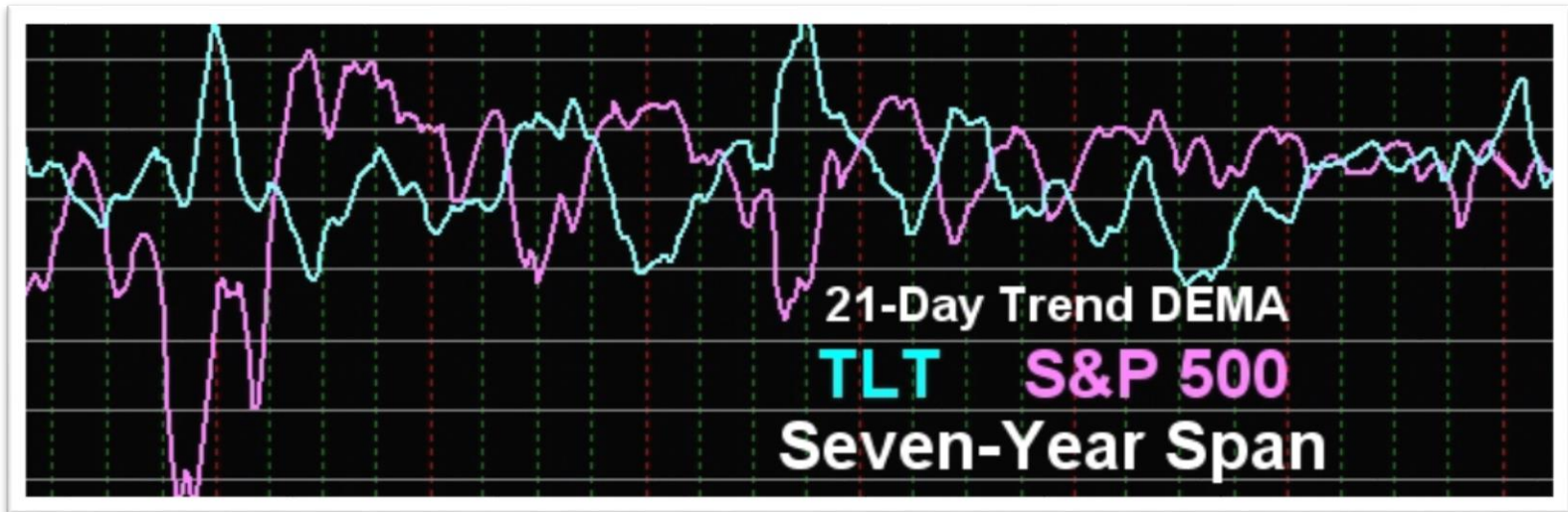
Can Improve Final Smoothing

Risk #7 (Solution)
Strategy Remnant Volatility

Long-Term Treasuries and the S&P 500 are Negatively Correlated
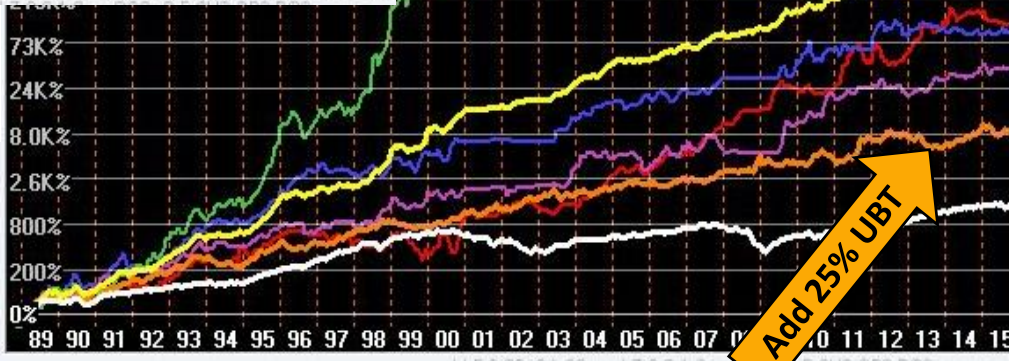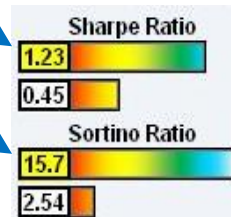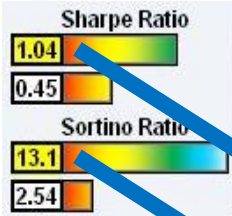
The Seven Faces of Risk
Summary

Risk Type	Solutions
1. **Not Enough to Retire**	Use active Strategies. No buy-and-hold.
2. **Market Shocks**	Activate StormGuard.
3. **Company Collapse**	Use diversified mutual funds, ETFs, stock portfolios.
4. **My Fund Loses Favor**	Use True Sector Rotation. Own only the trend leader.
5. **Strategy Gets Flat Tire**	Use a Strategy-of-Strategies to broaden the funnel.
6. **Backtesting Deception**	Enable Forward-Walk Progressive-Tuning.
7. **Strategy Remnant Volatility**	Portfolio of divergent Strategies plus L.T. treasuries.

High-Performance Low-Drawdown
Portfolios Made Easy

How Can This Be Easy?

1. We will <u>NOT</u> design any Strategies.

2. We will <u>NOT</u> tweak any parameters.

3. We <u>WILL</u> only assemble existing things.

High-Performance Low-Drawdown
Portfolios Made Easy

Here's All You Have To Do …

1. Make a Portfolio of Divergent Strategies

2. Use ETFs, Mutual Funds, or Stock Portfolios

3. Use True Sector Rotation and Strategy-of-Strategies

4. Enable StormGuard & Forward-Walk Prog.-Tuning

5. **Add a Long-Term Treasury to Smooth it Further**

High-Performance Low-Drawdown
Portfolios Made Easy
-- Let's Pick Some Good Stuff --

Overall Portfolio

| Stocks Portfolio General | Stocks Portfolio Health | Strat ETF Metals Energy | SOS ETF World Regions | SOS ETF General Hall of Fame | SOS Fid. General Hall of Fame | L.T. Treasury |

Strategy Name	w%	Sym	Return: 27-yrs
> P: TopDog Stock Strategies	8%	S6-1	
> P: Bio-Med-HMO Stocks	8%	S12-1	
> ETF Black Gold Hedge-II	8%	S14-1	
> SOS - ETF World Regions /c	8%	S15-1	
> ETF HoF SOS	17%	S16-2	
> Fidelity HoF SOS	17%	S17-2	
ETF Ultra 2x 20+Year Treasry	33%	UBT-	

High-Performance Low-Drawdown
Portfolios Made Easy

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The End

The Beginning
Of Investing Better Tomorrow

SectorSurfers Don't Walk on Water