

An Easily Implemented Momentum Strategy to Increase Return, Reduce Risk

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AAII Silicon Valley Chapter

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The presentation will argue that

- The Simply Great! strategy represents more return for risk adverse investors.
- Momentum strategies tied to the Simply Great! portfolio are easy to implement.
- It is not prudent to rely exclusively on a single algorithm.
- Relative strength is a critical tool for understanding long term performance.

It's Worth Repeating ...

- "Trust, but verify!"
- The examples have not been optimized.
- The examples may not be appropriate investments for you. It depends on your circumstances.
- There are no guarantees - other than that future results will be different.

“Increase Return, Reduce Risk”

- Dividend investing “Almost perfect strategy” - AAIIS&P 500[®] Dividend Aristocrats[®]
- Stocks and bonds
 - BNY-Mellon benchmark (50% US stocks, 10% foreign stocks, 40% bonds)
 - Wellesley Income Fund (65% bonds)
- Level3 portfolio
 - AAII Shadow Stock Portfolio

Momentum Strategies Usually Involve Two Steps

- Timing: Decide between stocks or bonds
 - Absolute Momentum (Antonacci p. 98)
 - StormGuard[®] Standard
 - Silicon Valley CIMI Group's FundX
- Allocation: Decide which stocks
 - Relative Momentum
 - DEMA type analogous to SectorSurfer[®]
 - FundX

Signals are Generally Calculated from Dividend Adjusted Prices

- Yahoo data, downloaded 1/15/2017
- Dividend adjusted prices change after each dividend is posted but the ratios of prices (interval returns) do not change

Absolute Momentum Timing Signal, August 2015

	VFINX	BIL
Aug 2014	176.45	45.73
Aug 2015	177.07	45.68
12-month return	0.004	-0.001

Absolute Momentum compares the 12-month returns of US stocks and T-bills.

12-month return equals the price ratio - 1.

The return of stocks is greater than the return of T-bills. The recommendation is to hold stocks during the following month.

FundX Timing Signal, August 2015

	VFINX
Aug 2014	176.45
Feb 2015	187.12
May 2015	188.26
Jul 2015	188.46
Aug 2015	177.07

The FundX timer tests the average of the 1-, 3-, 6- and 12-month returns of US stocks.

$$\text{Sum} = 177.07/188.46 + 177.07/188.26 + 177.07/187.12 + 177.07/176.45 - 4 = -0.17$$

The sum, and average, are less than zero.
The recommendation is to hold bonds.

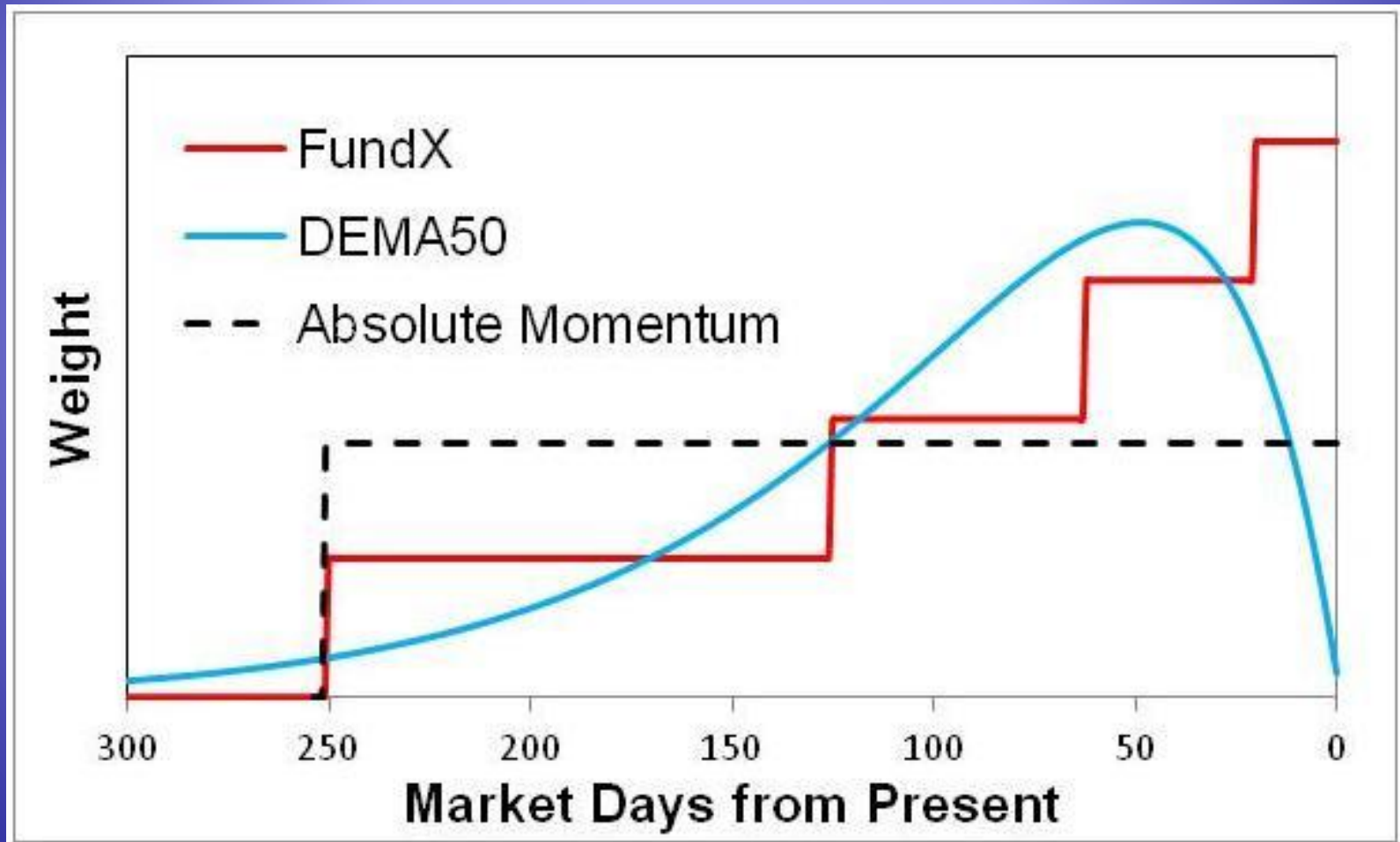
StormGuard[®] Standard Timing, August 2015

The signal is the double exponential moving average of the daily returns of the S&P 500[®] without dividends plus a “shift.”

The daily signal is available, for free.

The signal is positive on August 31, 2015.
The recommendation is to hold stocks during September.

Each Timing Algorithm Emphasizes a Different Time Horizon



Allocating Between Bonds and US Large Caps, 1952-2016

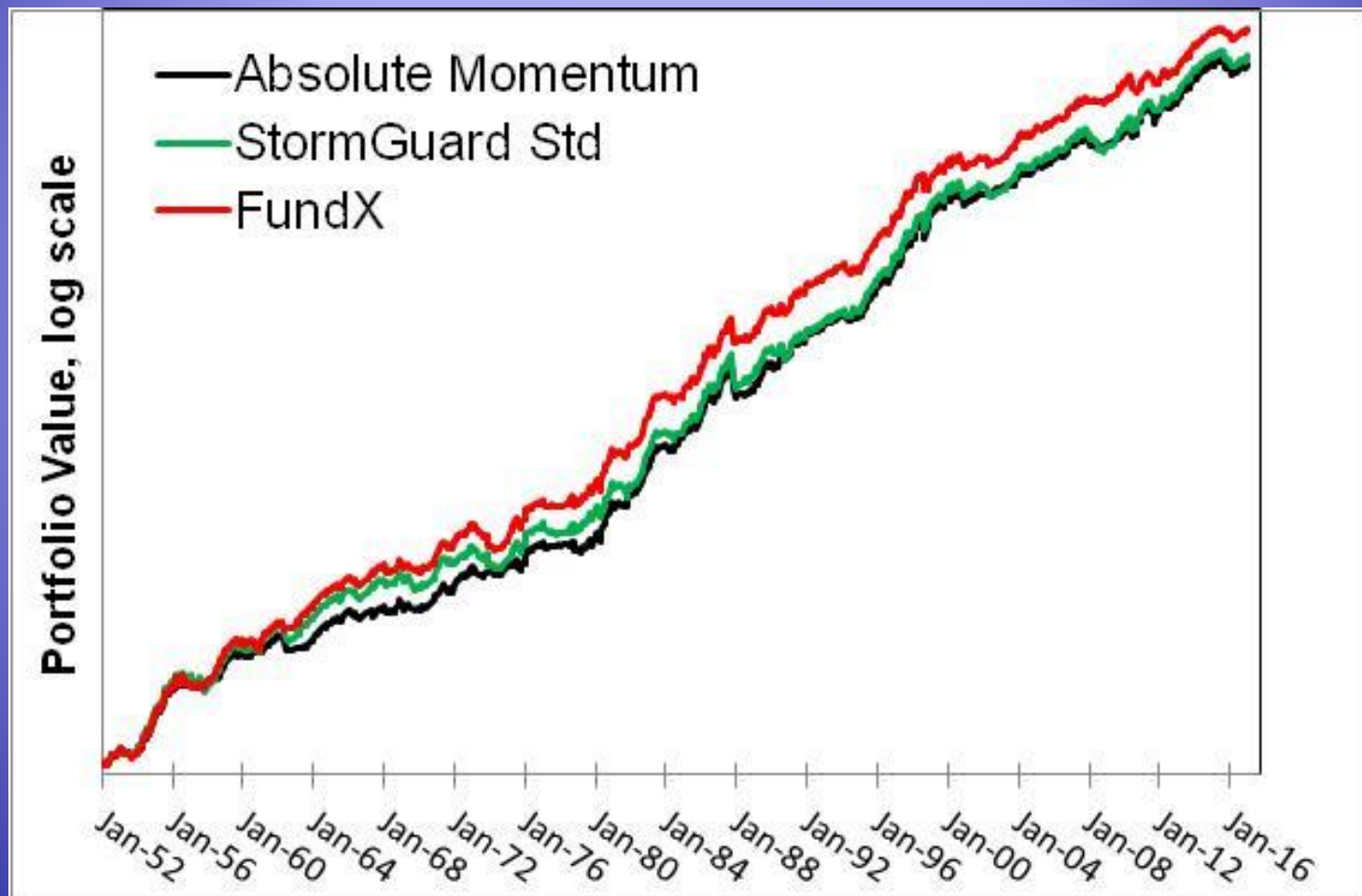
Source: Monthly Allocations.xlsb

65 years	CAGR	Sharpe	MaxDD
Unmanaged Large Caps	10.7	48	51
Absolute Momentum	11.5	65	30
StormGuard [®] Standard	11.6	63	30
FundX	12.1	68	23

A Few Words on Risk

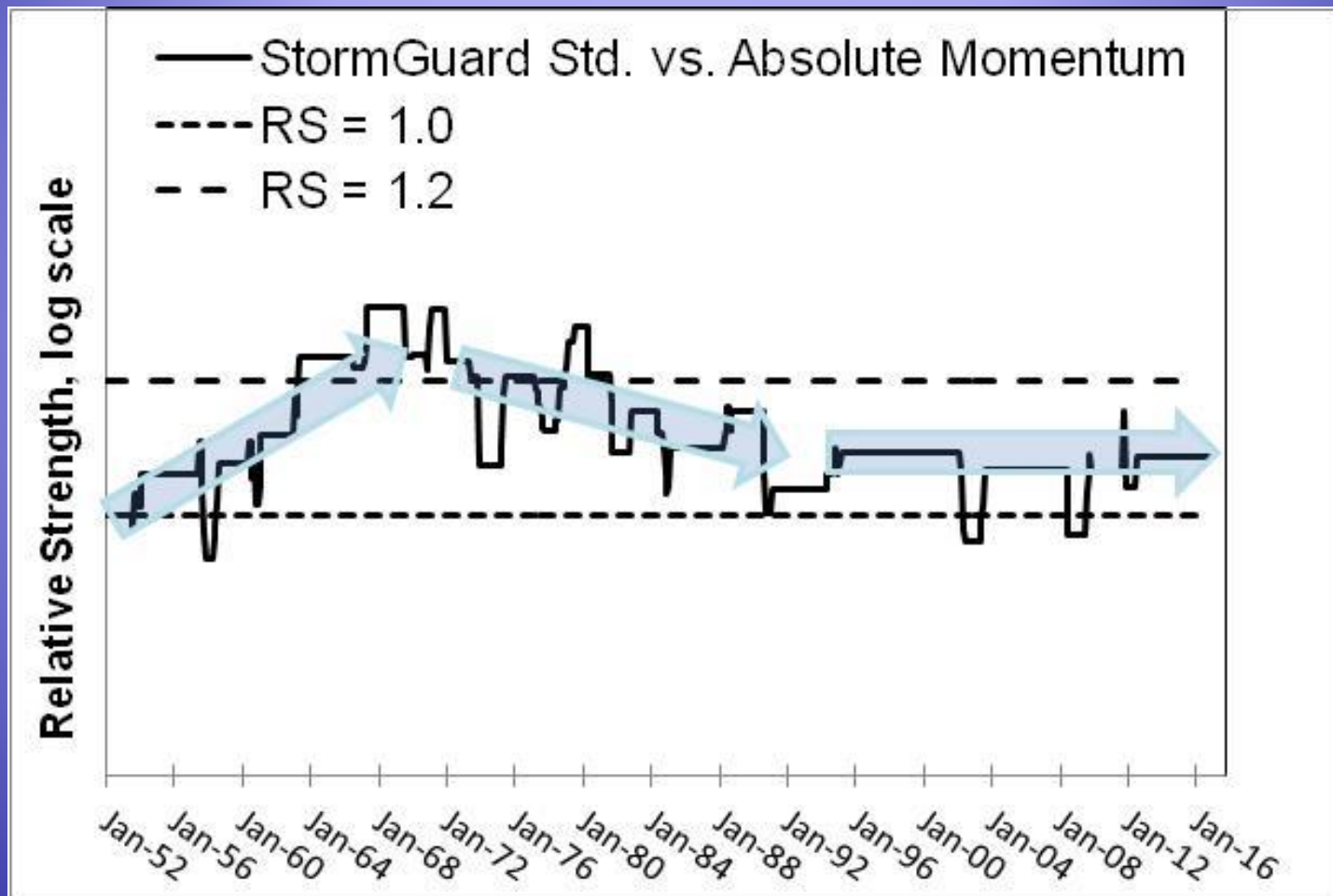
- “Risk” is commonly equated with volatility.
- Volatility is unsettling and frightening.
However, true pain occurs only when the portfolio sheds a large portion of its value.
- Downside risk is measured as the maximum decline from peak to trough.
Maximum drawdown is called “MaxPain” in subsequent slides.

The algorithms behave differently. The black and green lines draw apart in the 1960s, are back together by the 1990s.

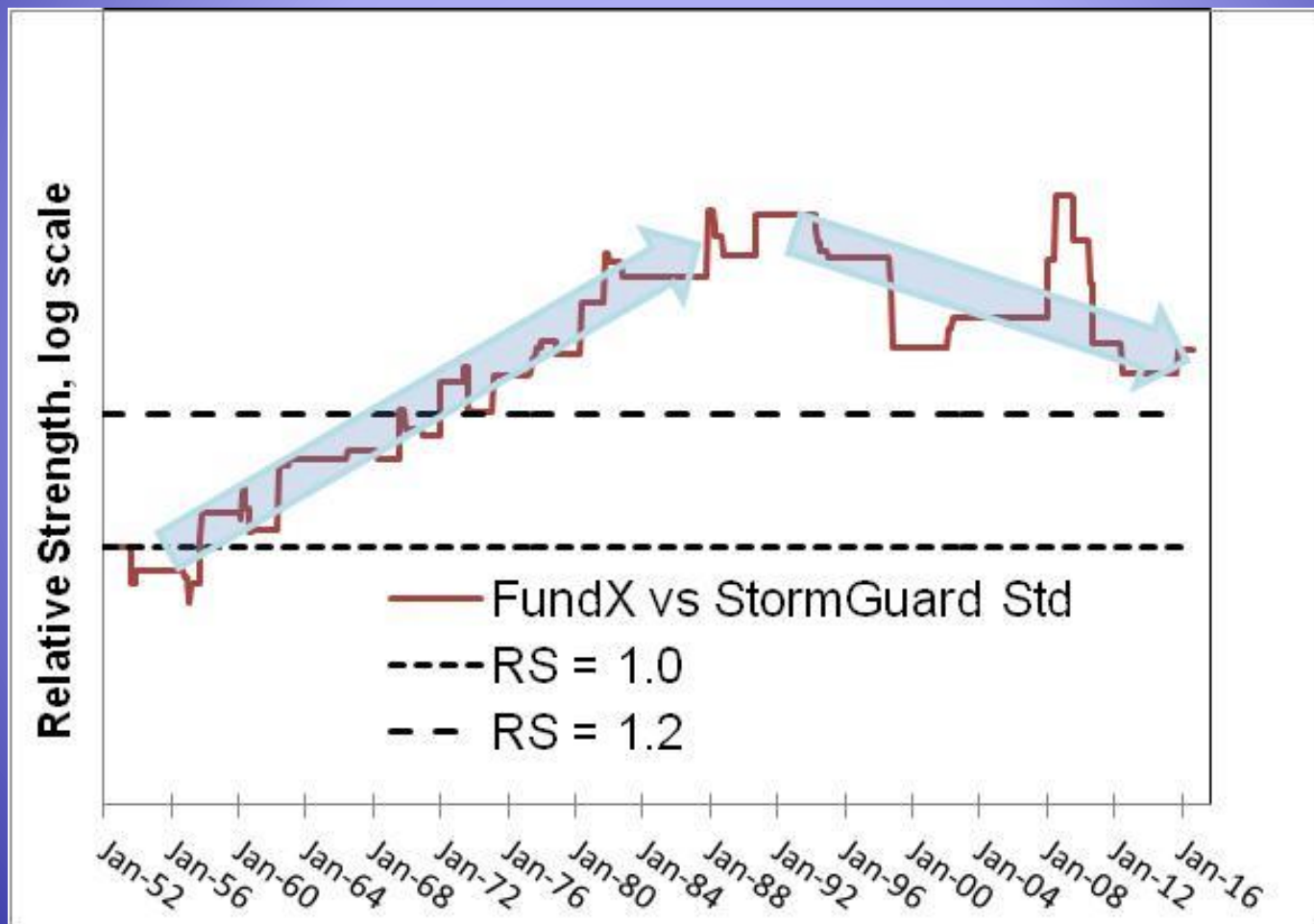


Relative Strength is a ratio. It is the value of a portfolio managed by an investment strategy divided by the value of the same portfolio managed by another strategy.

Absolute Momentum Underperforms, Outperforms



FundX Outperforms and then Underperforms StormGuard®



Absolute Momentum, FundX and StormGuard® standard are not equally effective timing algorithms in all market conditions.

A composite timer reduces the risk of managing with an algorithm which is poorly suited to the current market conditions.

Composite Timing Signal, August, 2015

- Average the individual signals.
- Absolute Momentum - stocks
FundX - bonds
StormGuard® standard – stocks
- Composite signal - two thirds stocks
and one third bonds.

Level3 Portfolios

High return, high risk

*CAGR was reduced by 0.4% to reflect expenses

**1993-2016

1990-2016	CAGR	Sharpe	MaxPain
BNY-Mellon Benchmark	8.2	62	33
Russell Mid Cap Value*	11.2	61	57
Equal Weight Wilshire 5000*	14.4	64	59
Real Estate (FRESX)	11.1	50	71
AAll Shadow Stocks**	16.0	76	63

Level3 Portfolios

Bonds reduce the risk, and the return

*CAGR was reduced by 0.4% to reflect expenses

**1993-2016

1990-2016	CAGR	Sharpe	MaxPain
Russell Mid Cap Value*	11.2	61	57
40% bonds	9.2	72	37
Equal Weight Wilshire 5000*	14.4	64	59
40% bonds	11.8	74	39
Real Estate (FRESX)	11.1	50	71
40% bonds	9.5	59	48
AAll Shadow Stocks**	16.0	76	63
40% bonds	12.2	86	42

Level3 Portfolios. Composite timing reduces the risk while preserving the return

*CAGR was reduced by 0.4% to reflect expenses

**1993-2016

1990-2016	CAGR	Sharpe	MaxPain
Russell Mid Cap Value*	11.2	61	57
40% bonds	9.2	72	37
Composite timing	12.3	87	21
Equal Weight Wilshire 5000*	14.4	64	59
40% bonds	11.8	74	39
Composite timing	14.5	80	29
Real Estate (FRESX)	11.1	50	71
40% bonds	9.5	59	48
Composite timing	12.1	73	32
AAll Shadow Stocks**	16.0	76	63
40% bonds	12.2	86	42
Composite timing	16.5	96	26

Allocation Signals, August 2015

	VFINX	HAINX
Aug 2014	176.45	65.82
Aug 2015	177.07	59.87
Price Ratio	1.004	0.910

Relative Momentum compares the 12-month returns of US and foreign stocks.

Since the price ratio for US stocks is greater than the price ratio of foreign stocks, the recommendation is to hold US stocks during September 2015.

Allocation Signals, August 2015

	VFINX	HAINX
Aug 2014	176.45	65.82
Feb 2015	187.12	64.66
May 2015	188.26	67.25
July 2015	188.46	65.09
Aug 2015	177.07	59.87

FundX tests the sum of the 1-, 3-, 6- and 12 month returns of US and foreign stocks.

US stocks: -0.17, as shown previously.

Foreign stocks: $59.87/65.09 + 59.87/67.25 + 59.87/64.66 + 59.87/65.82 - 4 = -0.35$

The FundX indicator favors US stocks.

SectorSurfer® Allocation Signals

The hard way: measure the trend of each fund as the double exponential moving average of that fund's daily returns. Determine the "trend constant" which optimizes the return.

The easy way to access DEMA trends: purchase a SectorSurfer® license.

The frugal way: Omit DEMA allocation. This does not compromise performance.

US Stocks or Foreign Stocks or Bonds. Composite timing.

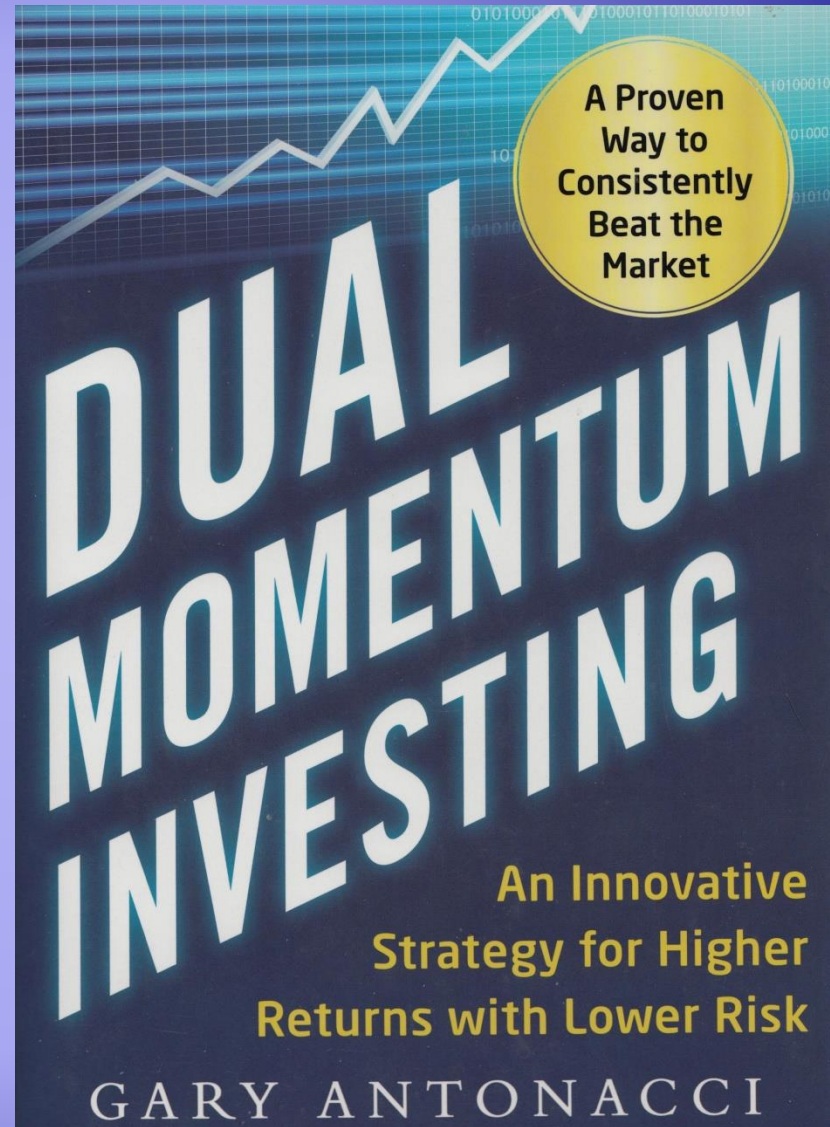
1974 – 2016, 43 years	CAGR	Sharpe	MaxPain
BNY-Mellon Benchmark	10.0	56	33
Relative Momentum	16.6	91	17
Monthly DEMA6	16.8	91	18
FundX	16.0	88	18

- Huge increase in the annualized return
- Larger Sharpe ratio, smaller drawdown
- Weak influence of the allocation algorithm

It is the portfolio which is innovative.

This portfolio gives good results with three algorithms. It is Simply Great!

Lower the risk of using the wrong algorithm with composite allocation.

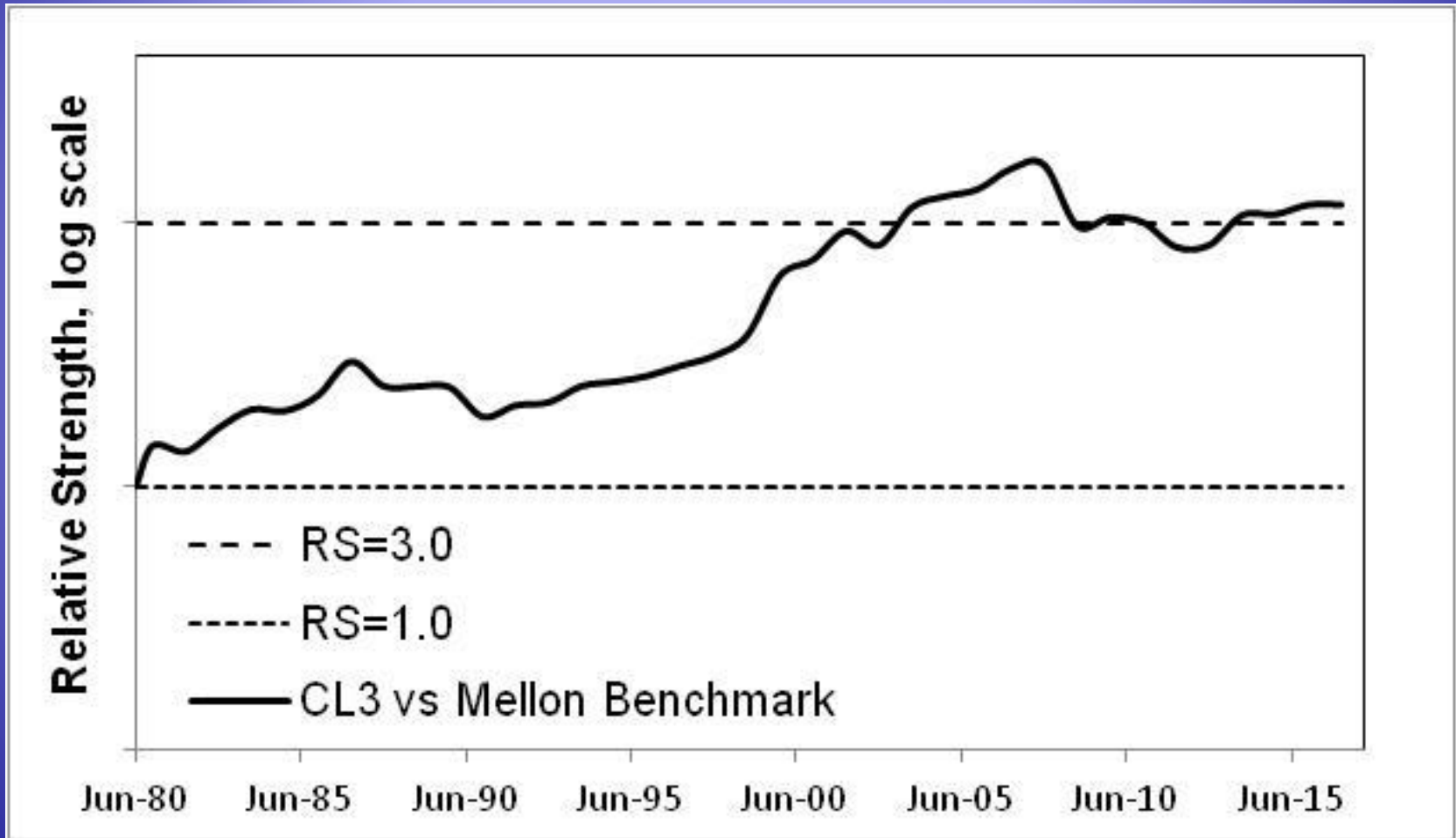


Composite Allocation

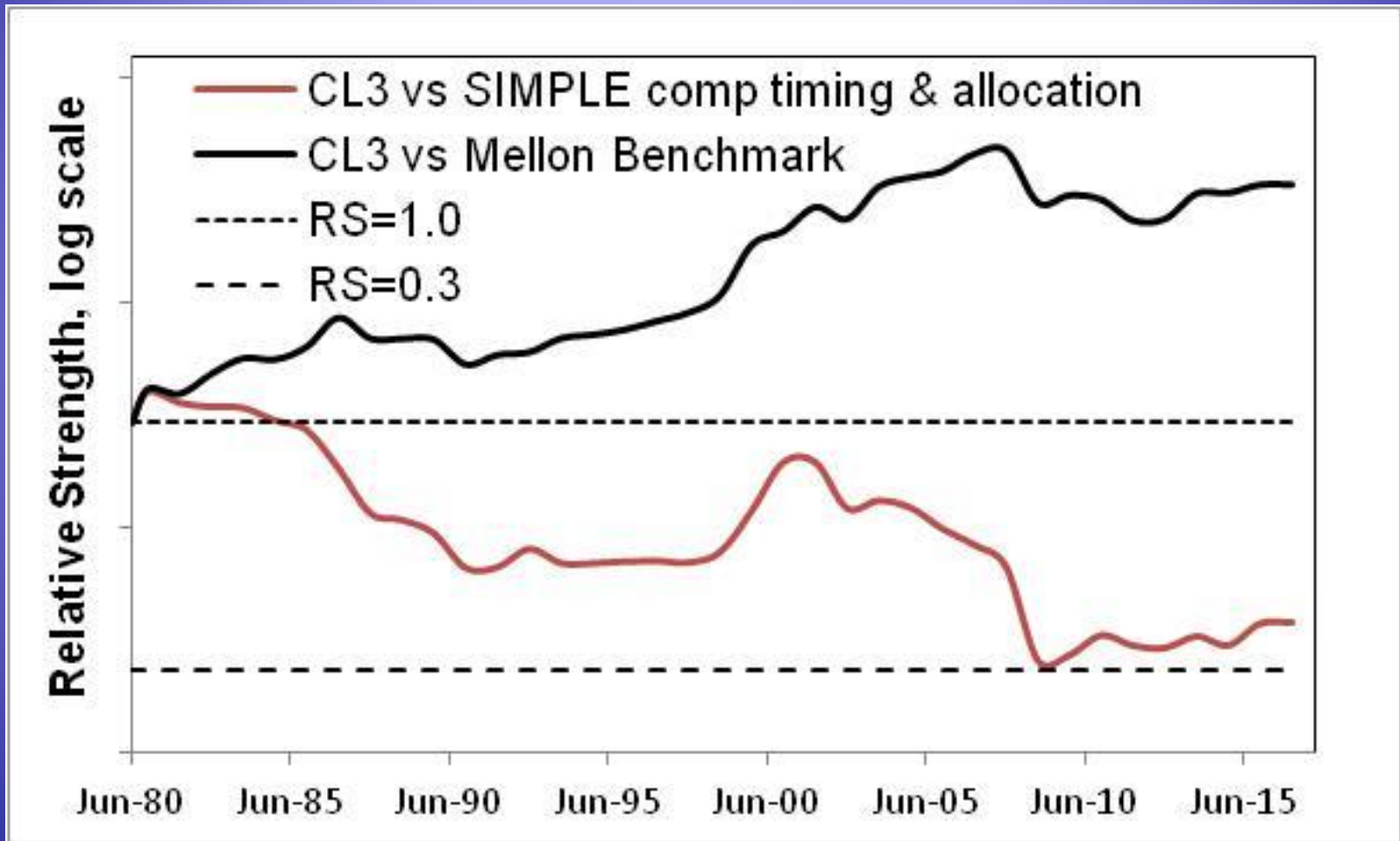
Each algorithm recommends an allocation over the following month.

- If using three allocation algorithms, invest one third of the portfolio per each algorithm.
- If using only the Relative Momentum and FundX allocation algorithms, invest one half of the portfolio per each algorithm.

Relative Strength. NoLoad FundX "Core" versus BNY-Mellon Benchmark



Relative Strength. NoLoad FundX "Core" vs. the Simply Great! Portfolio.



Be Realistic in Your Expectations

Accuracy is better than random but it is a long way from perfect. 1990 – 2016.

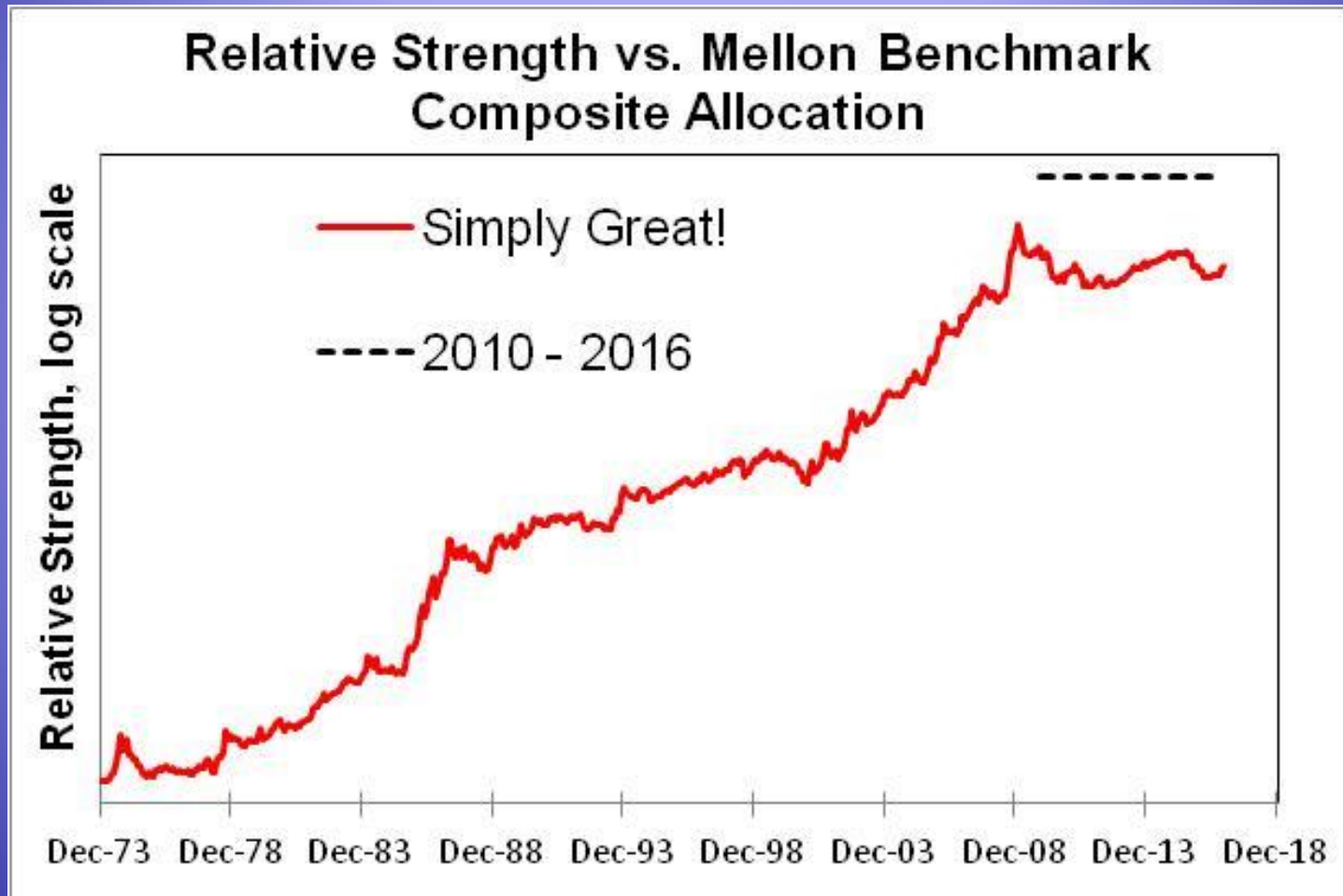
Source: Accuracy of SIMPLE Predictions.xlsb

- Timing

Absolute Momentum	FundX Timing	StormGuard® Standard
71	71	74

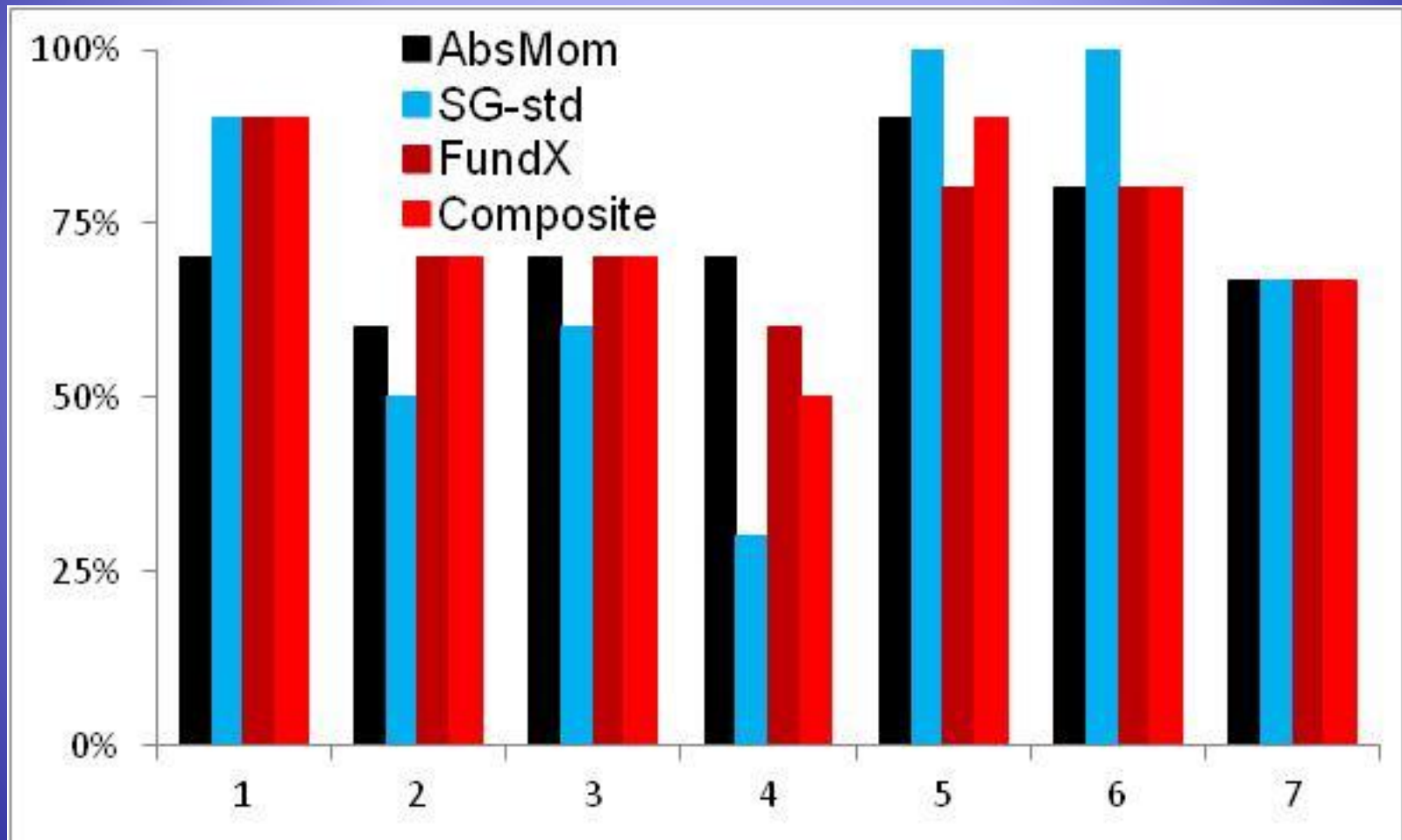
Market declined during summer of 2015.
Timers went to cash on September 30.
The market rose during October.

Poor Timing Has Stalled Recent Growth Relative to Benchmark

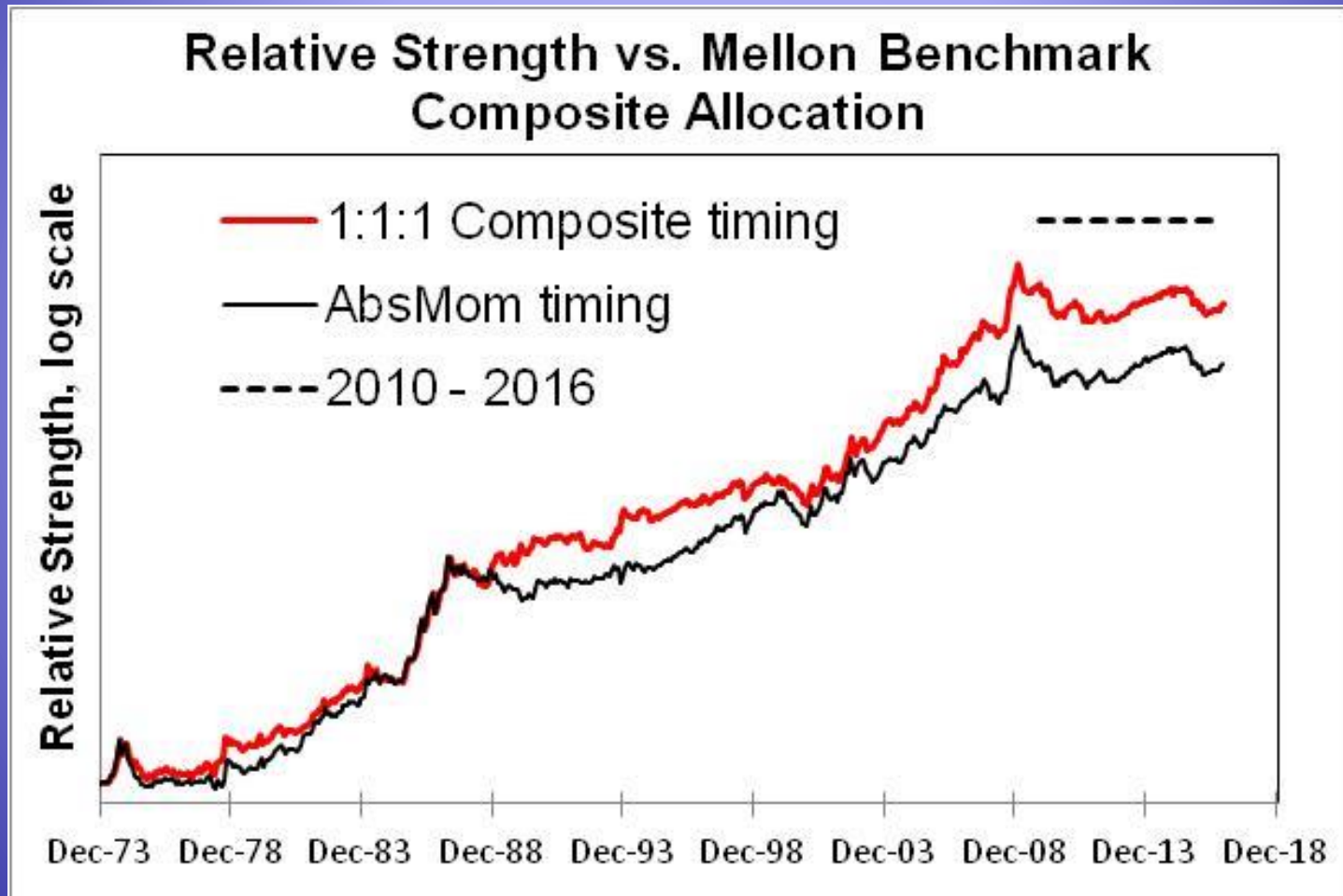


Timer Performance is Variable!

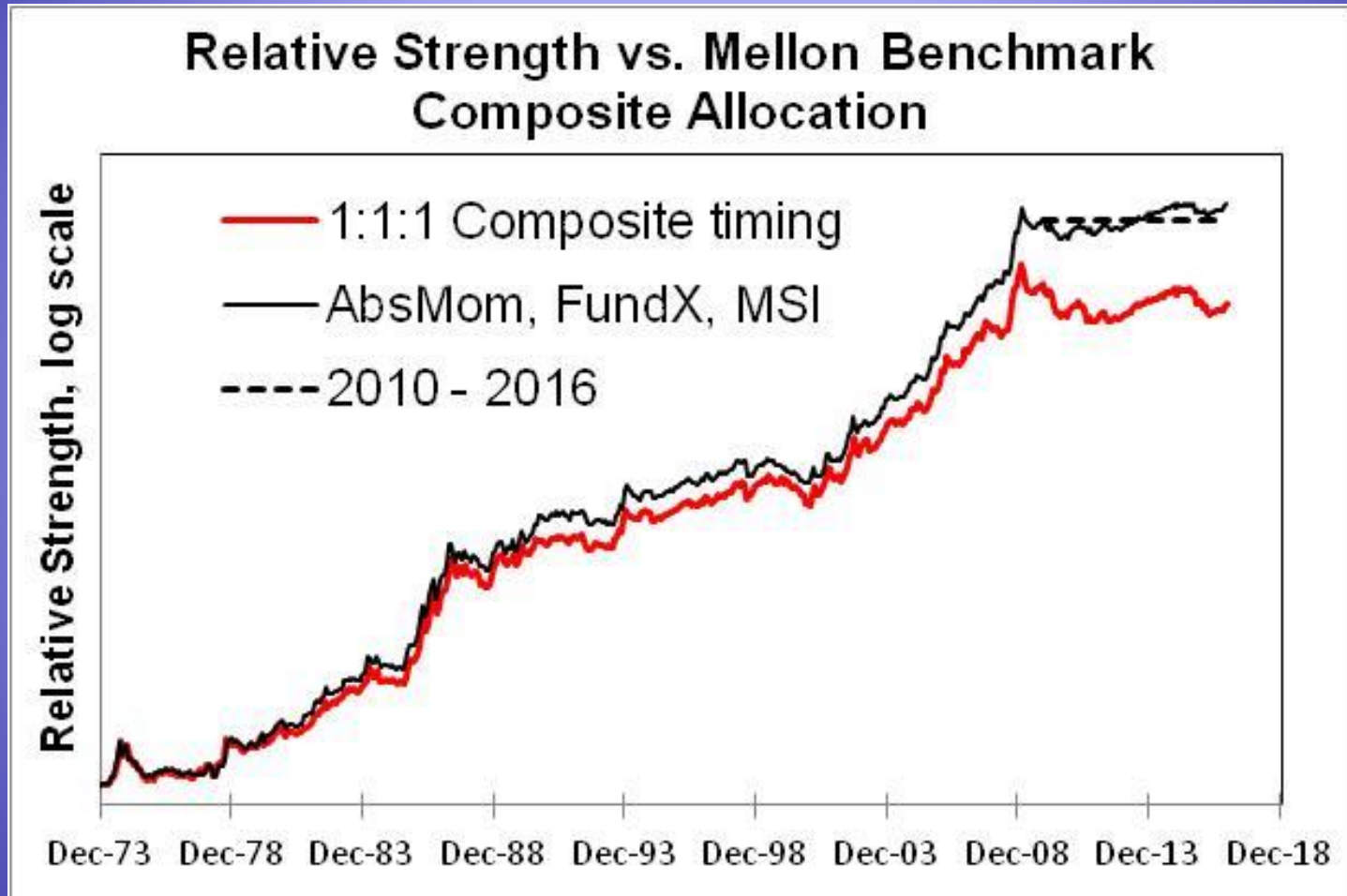
Fraction of 3-year returns besting the 60:40 benchmark.



Absolute Momentum Only



Remove StormGuard® Standard, Add Delta Investment's MSI



1974-2016	CAGR	Sharpe	MaxPain	Wins	Post 2008
Composite Allocation and Timing	16.5	92	16	88%	6.7
AbsMom, FundX and MSI Timing	17.9	106	15	91%	9.5

“Increase Return, Reduce Risk”

Source: Monthly Allocations.xlsb CAGR for Dividend Aristocrats index reduced by 0.4% for expenses; Wellesley Income: VWINX

1990-2016	CAGR	Sharpe	MaxPain
Simply Great! portfolio	13.4	89	16
Return is lower because the backtest interval is different			

“Increase Return, Reduce Risk”

Source: Monthly Allocations.xlsb CAGR for Dividend Aristocrats index reduced by 0.4% for expenses; Wellesley Income: VWINX

1990-2016	CAGR	Sharpe	MaxDD
Simply Great! portfolio	13.4	89	16
S&P 500 [®]	9.3	49	51

"Increase Return, Reduce Risk"

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1990-2016	CAGR	Sharpe	MaxPain
Simply Great! portfolio	13.4	89	16
S&P 500 [®]	9.3	49	51
BNY-Mellon Benchmark	8.2	62	33

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BNY-Mellon Benchmark	8.2	62	33
Wellington, 33% bonds	9.4	70	33

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Simply Great! portfolio	13.4	89	16
BNY-Mellon Benchmark	8.2	62	33
Wellington	9.4	70	33
Wellesley Income	8.6	90	19

Sharpe ratios similar; Simply Great! 50% more volatile.

“Increase Return, Reduce Risk”

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Simply Great! portfolio	13.4	89	16
BNY-Mellon Benchmark	8.2	62	33
Wellington	9.4	70	33
Wellesley Income	8.6	90	19
S&P 500 [®] Div. Aristocrats [®]	11.4	68	44

"Increase Return, Reduce Risk"

Source: Monthly Allocations.xlsb CAGR for Dividend Aristocrats index reduced by 0.4% for expenses; Wellesley Income: VWINX

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Simply Great! portfolio	13.4	89	16
BNY-Mellon Benchmark	8.2	62	33
Wellington	9.4	70	33
Wellesley Income	8.6	90	19
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Shadow Stocks, 1993-16 with composite timing	16.5	96	26

“Increase Return, Reduce Risk”

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S&P 500 [®] Div. Aristocrats [®]	11.4	68	44
Shadow Stocks, 1993-16 with composite timing	16.5	96	26
28 US funds, composite timing and allocation, top6	18.8	103	18

Summary and Recommendations

- Timing algorithms underperform for decade long intervals.
Employ a composite of several timing algorithms.
- The performance of the Simply Great! portfolio is not strongly influenced by the allocation algorithm.
Employ a composite of several allocation algorithms; SectorSurfer[®] is not essential.

- The Simply Great! portfolio is easily managed, has had a low drawdown, and should provide performance gains for risk-adverse investors.
- Recent performance of the Simply Great! portfolio suggests a need for an improved composite timer.
- Multi-fund strategies provide higher returns than the Simply Great! portfolio but with equally low drawdowns.

Thank You for Your Attention!

- www.lingane.com/sectorsurfer for the report which formed the basis for this presentation
- www.sumgrowth.com/InfoPages/Market-Sentiment.aspx for StormGuard® standard
- www.portfoliovisualizer.com for a free Dual Momentum simulator