

## **Market Timing, Momentum, and SectorSurfer®**

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[www.lingane.com/sectorsurfer](http://www.lingane.com/sectorsurfer)

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## **Peter Lingane**

- Fee-only financial planner and registered investment advisor. Peter does not manage other people's money.
- A penchant for bringing his considerable analytical skills to tax and investment issues.
- Recovering buy and hold, index investor.

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## **It's Worth Repeating ...**

- "Trust, but verify!"
- The examples are not investment recommendations.
- There are no guarantees - other than that future results will be different.

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## **What is Market Timing?**

- A strategy of moving from stocks to cash when markets are in turmoil and returning to stocks when market conditions improve.  
Changes can be gradual but rapid is better.  
Changes are infrequent, typically months apart.
- Market timing is independent of security selection.
- StormGuard® is free to nonsubscribers.

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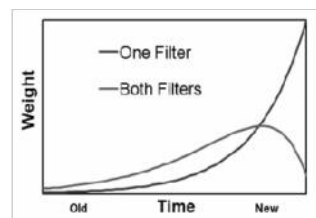
## Double Exponential Moving Average



$$\text{EMA} = \sum W * \text{DR}$$

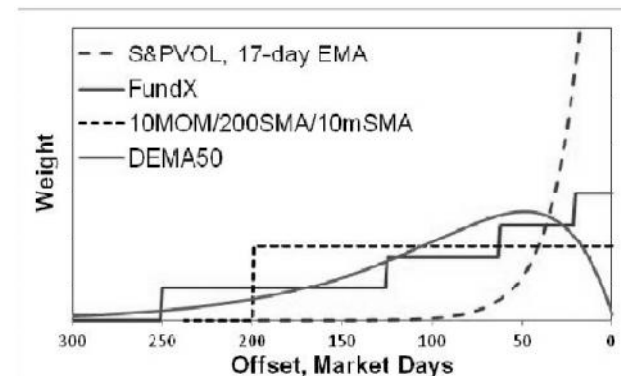


$$\text{DEMA} = \text{EMA2} = \sum W * \text{DR}$$



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## Market Timers Emphasize Different Time Horizons



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## Market Timing Strategies

40% VFINX, 40% HAINX, 20% FRESX  
Risk Index: SP-CP; month-end signals; trade next day  
Reference: MarketTimer 01022015.xls

1990-2014	Return	Sharpe	MaxDD	Switches
Buy & Hold	10.3%	0.5	58%	monthly
Benchmark	9.1%	0.6	37%	monthly
Timing Strategies				
200SMA	11.1%	0.8	17%	26 extra
DEMA50, 0.006	12.7%	0.9	17%	14 extra
Poor Strategy	7.8%	0.5	23%	102 extra

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## Jeremy Siegel's Position

The 200-day moving average strategy has, over time, allowed you to get out of major bear markets. There are other times, though, when you are whipsawed back and forth going in and out of the market, and this is very costly. ... Over the long run, you don't get as high of a return as buy-and-hold investors get, but you do get a reduction in volatility and do miss many bear markets, which many investors regard important enough to sacrifice some return for. - *AAll Journal*, August 2014. See also *Stocks for the Long Run*, 2013, Chapter 20.

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## Market Timing Strategies

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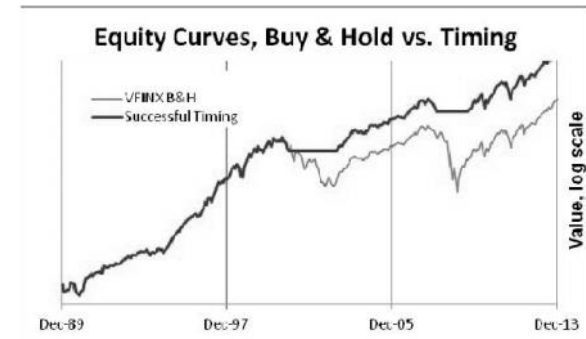
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Siegel daily 200SMA, DJ-30, 1% tolerance	7.8%	0.5	23%	102 extra

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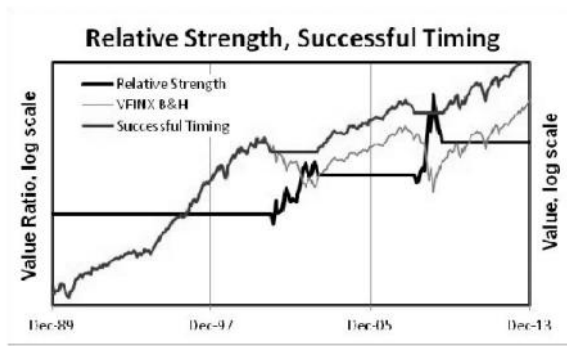
Timing Should Provide Equity Returns in Bull Markets and Cash Returns in Bear Markets.



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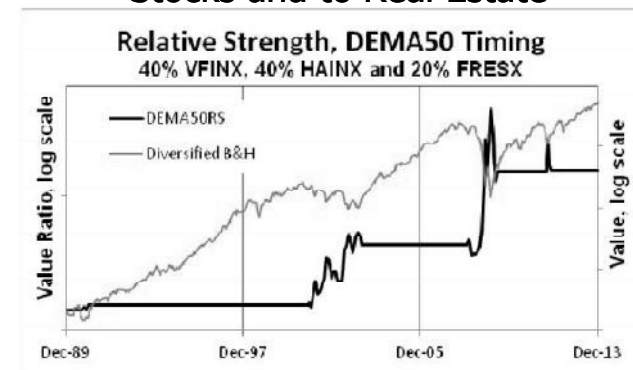
## Relative Strength

- Value of timed portfolio divided by buy & hold
- Constant in bull markets, rising in bear markets



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## Fixed Allocation to US and Foreign Stocks and to Real Estate



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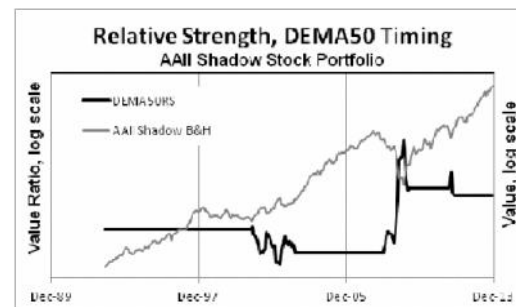
## Staying With the Trend Can Be Better than Market Timing

- Real estate had a higher trend than US or foreign stocks or cash during the December 2000 - April 2003 interval.
- Portfolio gained 30% with trend allocation only and without timing.
- StormGuard® went to cash for 25 of the 29 months. Portfolio gained only 17% with market timing.

Reference: MarketTimer 01022015

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## Staying with the Trend ...

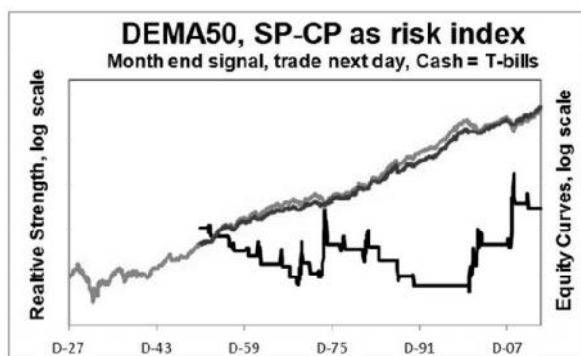


Timing signal should have been ignored during the dot-com bust because portfolio return was higher than the return on cash.

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## Timing is Less Successful Before 1990

Timed Portfolio is Fama/French Top 30% Cap US Stocks



This analysis was suggested by John Nicholas. Reference: MarketTimer\_French 12032014.xls

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## Conclusions re Market Timing

- A monthly signal, based on the DEMA50 of the S&P Composite, has been a superior timing strategy since 1990.
- Be cautious, the timer is a tool not a dictator. "Is the signal reasonable for my portfolio and consistent with other indications?"

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## Dynamic Allocation Plus Market Timing

Today's focus is on trend measuring algorithms with the portfolio being allocated at the beginning of each month to the fund with the highest trend.

**DEMA50.** The trend is the double exponential moving average of a fund, 50 day time constant.

**SectorSurfer®.** The trend is DEMA of the fund; the time constant for each portfolio is optimized as of the "born on date" and retuned at six month intervals thereafter.

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## Optimize Only Before the BOD

Results before the BOD are used to determine the best SectorSurfer® options and the best portfolio composition.

A BOD of December 2003 allows SectorSurfer® to be optimized to a full market cycle.

Results after the BOD are used to assess the persistence of performance – does SectorSurfer® continue to outperform?

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## Dynamic Allocation Plus Market Timing. VFINX or HAINX or FRESX or Cash.

2004-2014	Return	Sharpe	MaxDD	Switches
Benchmark	7.7%	0.6	37%	Monthly
DEMA50 Timing	12.5%	0.9	16%	6 extra
Different allocation algorithms produce different returns				
plus ALG1	12.6%	0.8	17%	91 less
plus ALG2	15.1%	1.0	17%	98 less
plus DEMA50	16.0%	1.0	17%	108 less

Each algorithm works best on certain portfolios. DEMA50 excels on this portfolio.

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plus DEMA50	16.0%	1.0	17%	108 less
SectorSurfer	18.8%	comparable	comparable	120 less

SectorSurfer provided a higher return than DEMA50 because it was able to increase the trend constant from 50 to 70 days.

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## Which Algorithm Provides the Best Statistics for the Most Portfolios?

- Project was conceived by John Nicholas, Don Maurer and Al Zmyslowski of the Silicon Valley CI-MI Investing Group.
- Addresses a wide variation in composition.
- Fifty thousand compositions of 10 funds chosen at random from 32 possibilities. Each of the 32 possibilities has a long history and is focused on a narrow sector.

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## None of the Trend Algorithms Tested is "Best" in All Time Intervals.

- If NO algorithm proves best in all time intervals, it would be necessary to base allocations on the recommendations of several algorithms.
- SectorSurfer® may be more effective than the algorithms tested since it can adapt to both composition and market conditions.

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## Choosing a SectorSurfer® Composition is Challenging

One option: adopt an existing portfolio with good but not extraordinary statistics.

December 31, 2003 BOD	CAGR, 2004-2014	Sharpe	MaxDD
US, Foreign & Real Estate	19%	1.0	17%
Bob Neumann's Grandson: US & foreign large cap, US small cap, EMM, long bonds	17%	1.0	18%
25Vanguard Mix by chemical_engineer, SG Off	23%	1.1	17%

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## Second Option: Let the Simulator Choose From Among 32 Funds

Momentum Allocation, DEMAS0 market timing, statistics before and after December 2003 BOD. Ranked with respect to the return distribution for random allocation to the 32 funds.

	CAGR	Rank		CAGR	Rank
ALG1	24.4	2%		22.3	1%
ALG2	19.3	12%		10.0	72%
ALG3	22.9	3%		15.0	24%
DEMAS0	22.6	3%		18.7	5%
SOS	32.0	<1%		12.7	45%

Some algorithms, including a 'Strategy of Strategies,' exhibit poor persistence over time.

A 'Strategy of Strategies' is pricey - \$95/month.

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### Third Option – Optimize Composition Empirically Based on Performance Before BOD

- Laborious.
- Risk of omitting important funds, especially with funds with short histories.

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### Use 32 Fund Simulator to Identify the 12 Funds with Higher Allocations

	CAGR	Rank	CAGR	Rank
SectorSurfer	Optimized		FWPTuning	
Over 25 Years	35.1	<1%	24.5	<1%
Before BOD	35.8	<1%	12.8	44%

- High rankings before and after BOD when fund selection is based on whole interval.
- Mediocre ranking after BOD when fund selection is based on before BOD only.

Ranked with respect to the return distribution for random allocation to the 32 funds.

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### Sectors Dormant Before BOD can Become Important After BOD.



Only five funds which were important before the BOD (top line) continued to be important after the BOD (second line).

A 32-fund simulator has a reduced risk of 'selection bias,' the failure to include seven funds important after the BOD.

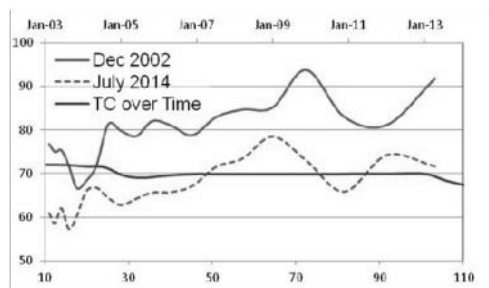
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### Conclusions re Trends

- Anecdotal evidence suggests that SectorSurfer® is very good at identifying trending funds.
- The 12-fund limitation risks selection bias.

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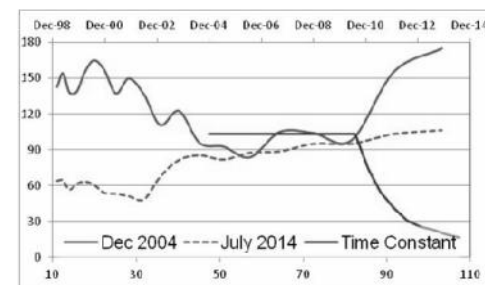
## SectorSurfer® Tuning Quality



This portfolio shows a well developed maximum in the reward vs. trend constant plots (blue lines) and a stable trend constant.

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## Poor Tuning Quality

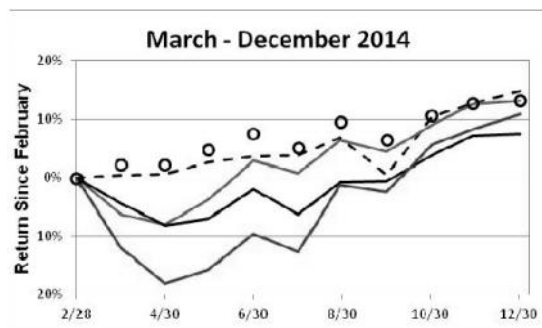


SectorSurfer® does not find the maximum in the reward vs. trend constant plot and the trend constant does not exhibit stationarity.

Reference: TradeLog.xls

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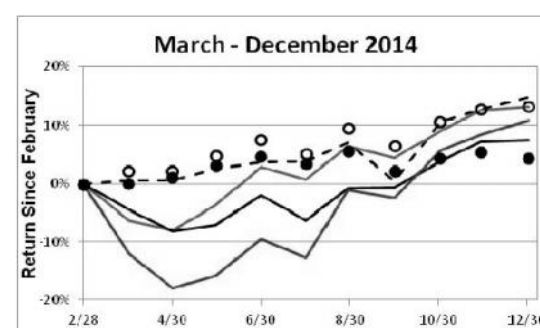
## Lessons from Ten Months



- High month-to-month variation in value.

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## Lessons from Ten Months



- Establish your personal benchmark.

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## Will You Have the Conviction to Buy When the Markets are Down?

... neither fundamental or technical analysis will work if someone lacks the time, interest or knowledge to follow the strategy. This is in no way a criticism of fundamental or technical analysis, but rather simply the belief that people should treat a buy-and-hold index strategy as their base option, and only use more complex strategies if they are going to be able to follow them. - Charles Rotblut to PJL, July 25, 2014.

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## Conclusions

- StormGuard® has been a successful timer since 1990. It would benefit from recalibration over a wider time horizon.
- Trend identification within SectorSurfer® performs well.
- Portfolio design is unnecessarily challenging, and selection bias is a risk, since SectorSurfer® allows only 12 funds.

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## Conclusions, Cont'd.

- Implementation
  - Maintain a personal benchmark
  - Be prepared for volatility
  - Great technical support
- Substantial time and effort are needed to build confidence. Without confidence, you will be routed at the first market upset.

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## Resources

- Kirkpatrick and Dahlquist, *Technical Analysis*, 2011
- StormGuard®, SumGrowth.com
- Investors FastTrack
- lingane.com/sectorsurfer
  - Copy of today's presentation
  - White papers and prior presentations
- Silicon Valley CI-MI Group, yahoo.com

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