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TREND FOLLOWING

Philosophy
Psychology
Practice

the technical analyst AWARDS 2011
WINNER BEST EQUITY RESEARCH & STRATEGY

the technical analyst AWARDS 2012
RUNNER-UP BEST EQUITY RESEARCH & STRATEGY

the technical analyst AWARDS 2012
TECHNICAL ANALYST OF THE YEAR

Riccardo Ronco +44 20 7233 3245 rronco@aviateglobal.com

Riccardo Ronco

Biography

Riccardo Ronco is the head of technical analysis at Aviate Global in London.

Mr. Ronco follows large- and mid-cap European and U.S. equities, paying attention to domestic and foreign equity indices, currencies, commodities, and interest rates. As a medium-term trend follower, his approach is strongly quantitative in nature; particular attention, however, is devoted to identifying reversal patterns characterized by excessive consensus among investors.

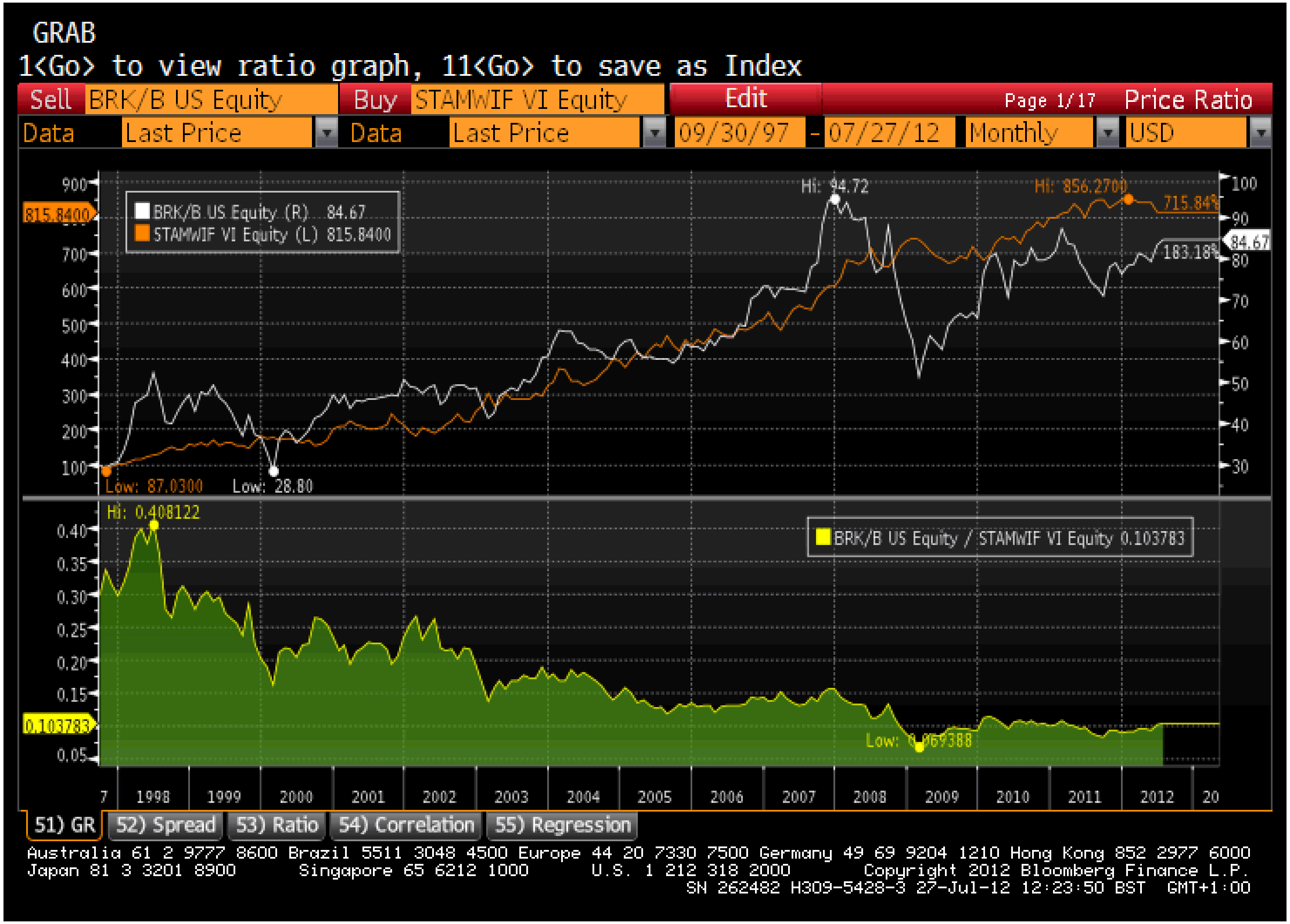
Mr. Ronco brings more than 15 years of experience in trading, quantitative analysis, and teaching technical analysis in the United Kingdom and Italy. Prior to joining Aviate Global in April 2010, Mr. Ronco worked for Credit Agricole Indosuez, Banca Intesa Group, and Banca AntonVeneta (MontePaschi Group) and FBR Capital Markets.

He is a frequent guest on CNBC Europe and other European media outlets. A member of the Society of Technical Analysts (STA) and the Market Technicians Association (MTA), Mr. Ronco was a speaker at the International Federation of Technical Analysts (IFTA) 1998 conference in Rome and Beijing (2011).

His work is mentioned in the book Capital Market Revolution: The Future of Markets in an Online World by Patrick Young. Mr. Ronco received his degree (with honors) in economics from the University of Turin.

He currently holds Chartered Market Technician (CMT) Level 1 and 2 diplomas.

Buffett or Harding?



In the beginning there was KAGI

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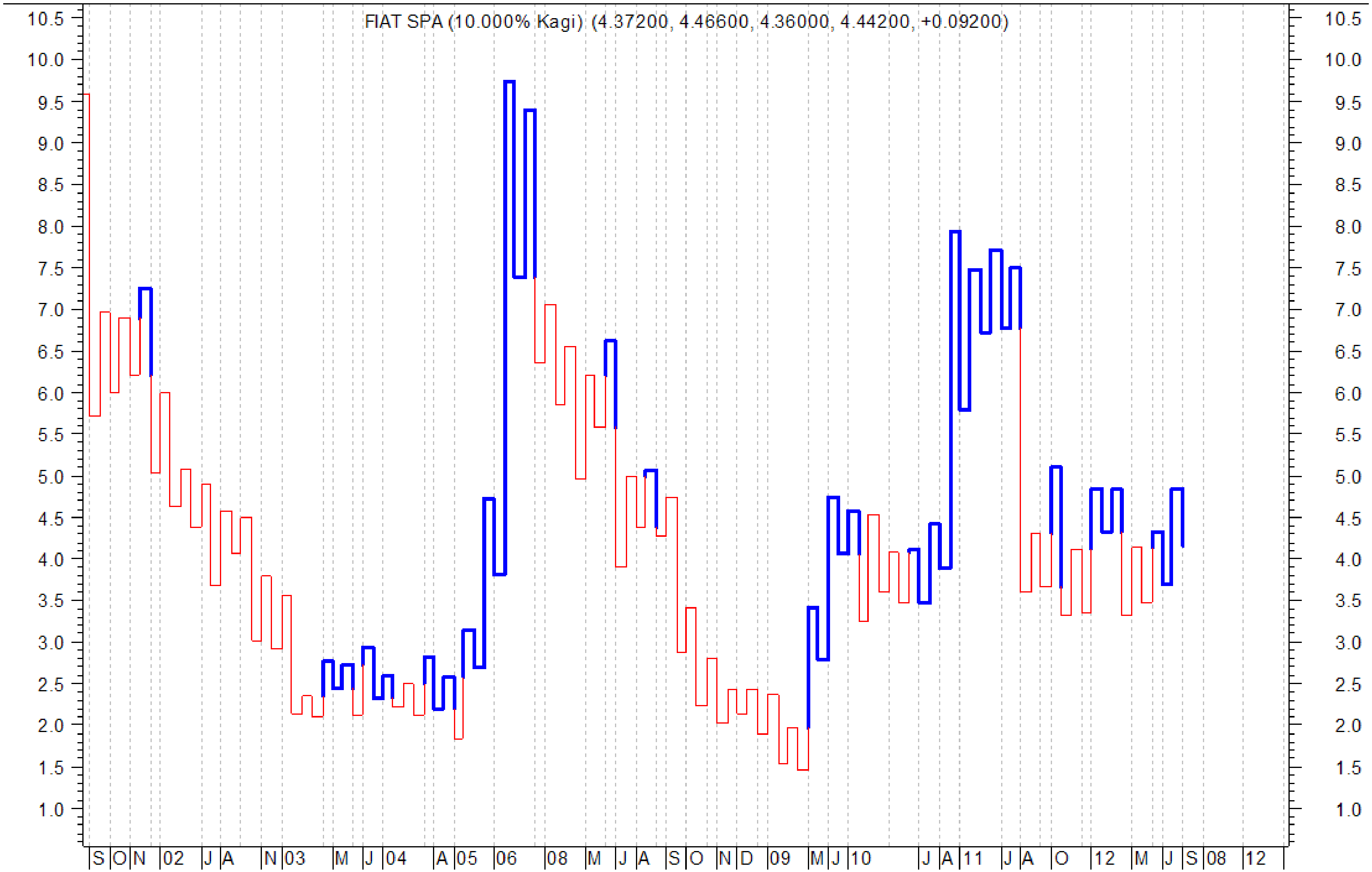

History

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KAGI – 1870s Japan

Time independent
Nison, Steve, *Beyond Candlesticks: New Japanese Charting Techniques Revealed*

W.D.GANN (1878 – 1955)

Swing charts
Principles of TF
52w breakouts

DARVAS (1920-1977)

a dancer travelling across the world
How I Made 2,000,000 in the Stock Market

R. DONCHIAN (1905-1993)

worked at Shearson Lehman Bros
launched the first managed futures fund in 1948
Ideas 50s – published 70s
4WR (four week rule) or as trend filter
5-20 day MA (20 entry – 5 exit)

Richard Dennis (1949 -)

Turtle Experiment
With

W. Eckhardt

(1983 – 1988)
2 rounds with
2 week training each

Ed Seykota (1946 -)

Market Wizard
Inspired by a letter published by Donchian on "purely mechanical TF systems"

History

1st Generation Turtle

Michael Cavallo
Michael Carr
Liz Cheval
Jim DiMaria
Curtis Faith
Erle Keefer
Philip Lu
Jeff Gordon
Jerry Parker (Chesapeake)
Paul Rabar
Tom Shanks
Michael Shannon
Jiri Svoboda

2nd Generation Turtle

Mark J.Walsh
J. Craven
J.D. Fornengo
Salem Abraham
R.Marcellus
Scot Henry (worked for Jerry Parker)

21st century TF

AHL (now MAN)
David Harding (Winton)
Bill Dunn
John W. Henry
Bernard Drury
Christian Baha (Superfund)
Michael Clarke
Keith Campbell
David Druz

Overall long term success proves process can be replicated...
but more is needed than just rules
Self-confidence, discipline, practice, independent spirit, research, education

Philosophy – Why TF?

•Trend Following is **a way** to make money in the markets but not the only one

•Investors are everything but rational: **Hope, Greed, Fear, Despair → "investing" cycle**

•**Cognitive Biases:** Loss Aversion, **Recency Bias**, Anchoring, Herd Effect, etc.

•Result: market movements are the result of investors' irrationality that is repeated systematically over and over

•Information perceived in a different way by different actors → this creates trends (evident ex post, obviously)

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Philosophy – What is TF?

•**TREND**: sustained changes in prices in the same direction out of congestion phases

•**FOLLOWING**: detect these changes, jump on board and hold as long there is a change in the opposite direction

•**REACTION** no PREDICTION (hardest part to accept): we do not deal with certainties on the result but on its probabilities.

•MAIN VARIABLE: **PRICE** (other variables can be used to filter price info but price is THE objective point of reference)

•Markets do not trend a lot of time but when they do, they move a lot hence...

do NOT miss those trends!

Philosophy – How?

•Trade with an **EDGE**: use a model/s with **POSITIVE Mathematical Expectation** over long term.

•**RISK Management**: portfolio/sector risk, initial stop loss, trailing stop, position sizing f(volatility, correlation with other markets), target specific level of volatility that you are comfortable with

•**CONSISTENT**: *discipline* built on confidence, confidence built on robust approach and understanding of the process (most important factor), take responsibility in following the rules

•KISS: **SIMPLE** algorithms (not simpler)

•**TARGET**: detect - follow as many trends as possible (systematic and a generalist is a plus/must)

•Focus on **LONG TERM**, **avoid Outcome Bias** (being right rather than follow the process) , get the right Risk/Reward Ratios...

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Expectation (aka “the edge”) > 0

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Expectation = (%W x AW) – (%L x AL)

Where:

%W = Winning Percent
AW = Average Winner
%L = Losing Percent or (1 - %W)
AL = Average Loser

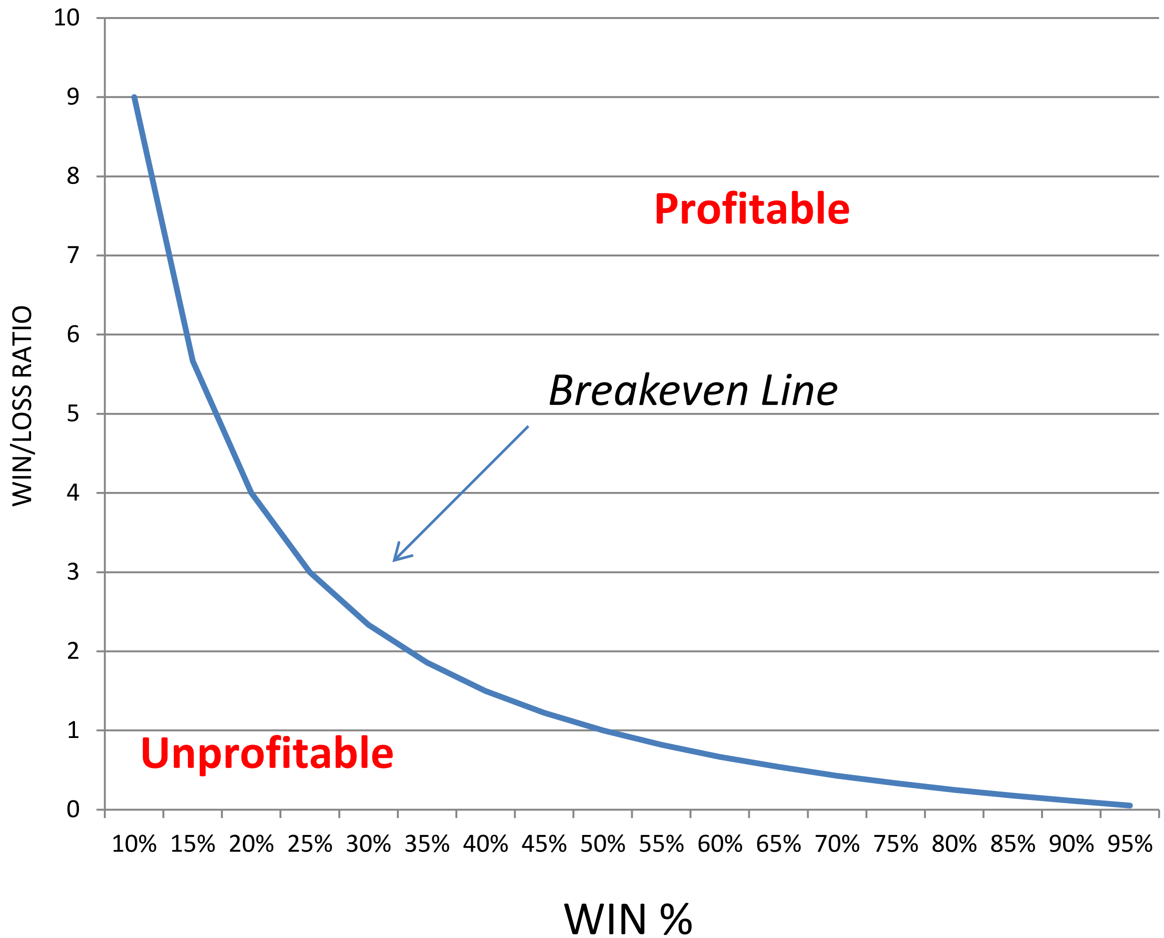
For Expectation = 0 we have the “Breakeven Line” curve

Y = (1 – X) / X

Where:

Y = AW / AL or WIN/LOSS ratio
X = %W

Expectancy Curve – Nick Radge



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Psychology: Length of a Losing Streak

Length of a LOSING streak affect you psychologically and emotionally

=ROUND(LN(Nr. Trades) / -LN((1 – (% WIN / 100))),0)

Example: 40% WIN and 10,000 trades → 18

There is a chance that we can have 18 consecutive losers in a ROW.

Psychology: Length of a Losing Streak

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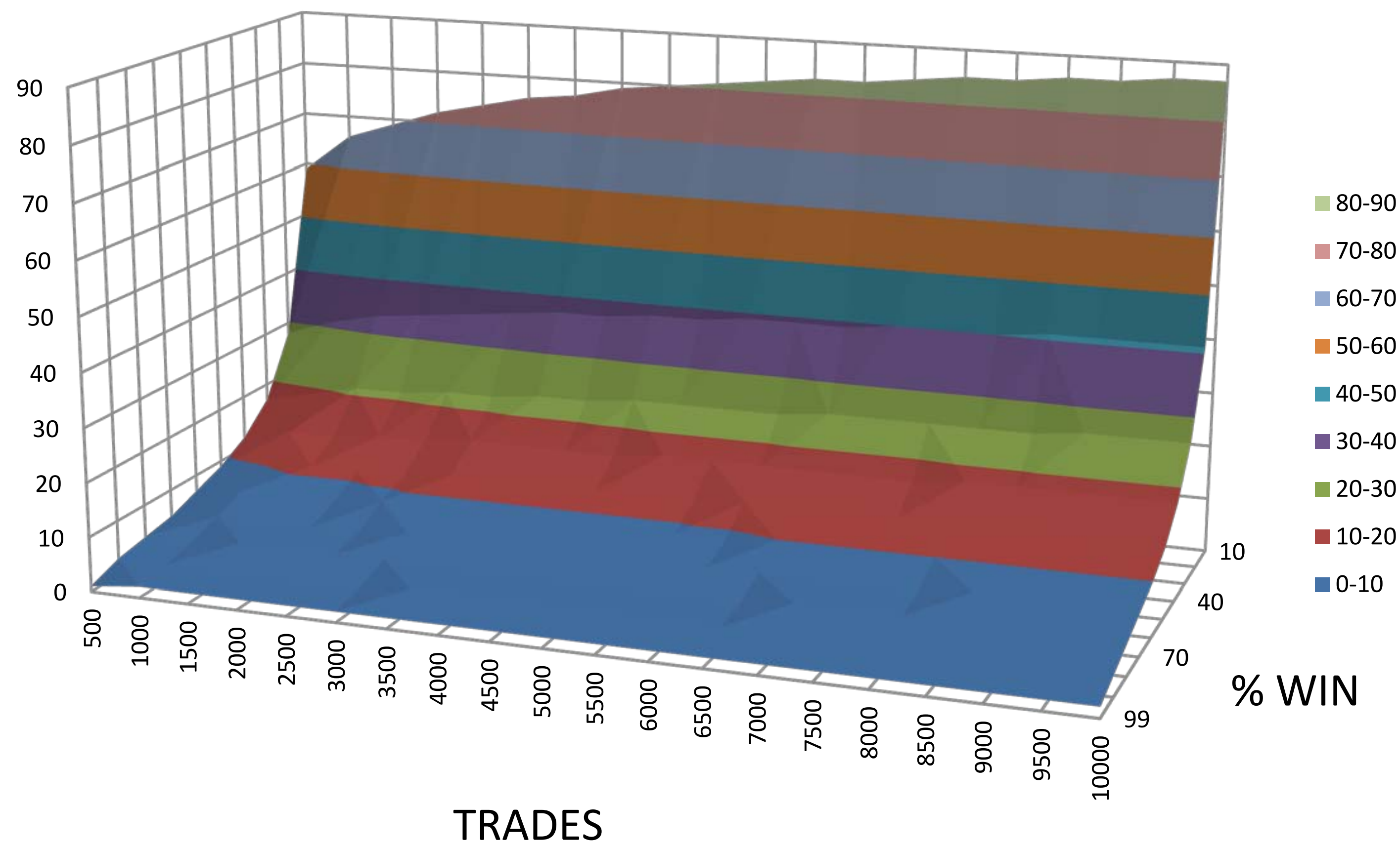

Psychology: Fixed Fractional

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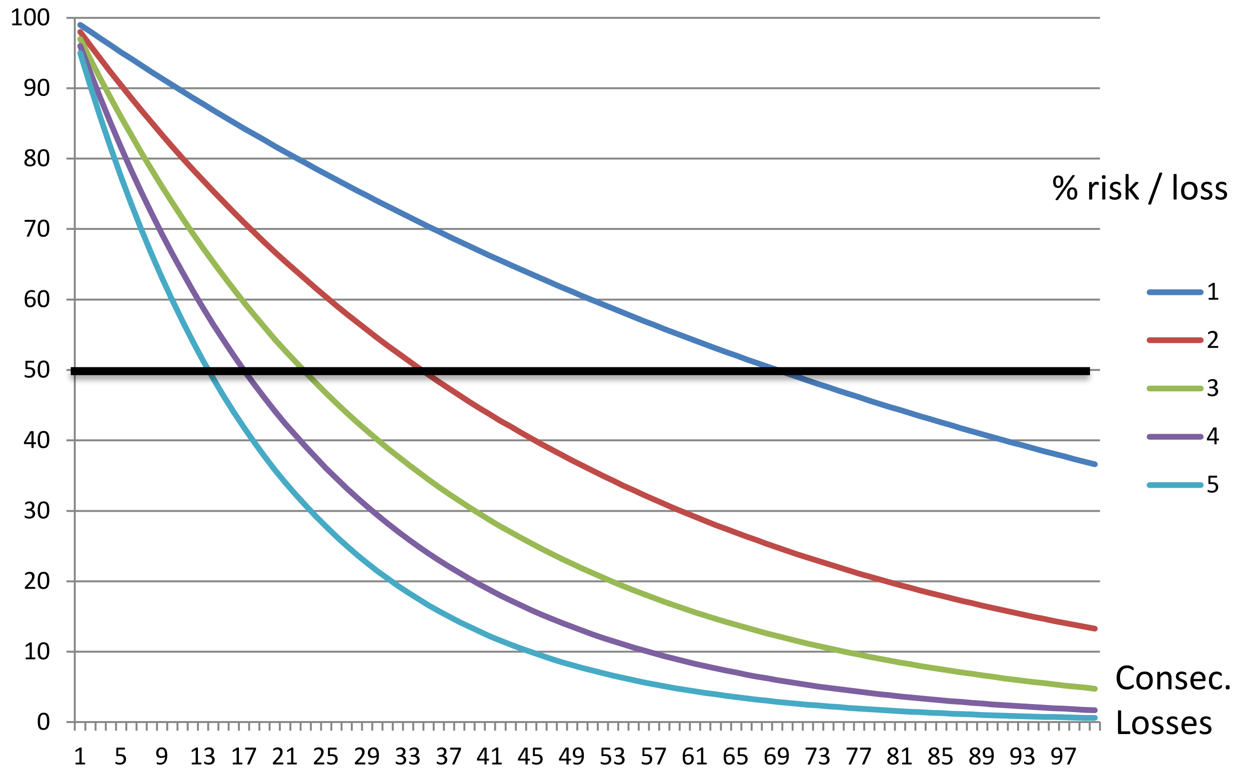
- **RISK on EACH TRADE can impact how we trade and think (100 starting capital)**



- **If our %WIN is 40% then, in the long run, we will get 18 losses in a row**
- **If we risk 4% on each trade that will be enough to lose 50% of our equity with FF**

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Putting all together

•We need a system with a POSITIVE expectancy for the LONG RUN

•The more we trade, the higher the probability of a long sequence of losses: the biggest drawdown is always AHEAD of us

•Knowing your % WIN will help choosing with Fixed Fractional, how much you want to RISK on each trade

•The higher the %WIN, the better we feel psychologically and the higher we can choose the risk-per-trade

Practice: Trend Following Models

- Channel Breakouts (highest highs and lowest lows)
- Moving average crossover (better on asset classes monthly)
- 2 moving averages (better on stocks daily / weekly)
- 3 moving averages (better on daily to reduce risk)
- Volatility Breakouts
- Bollinger Band Breakouts
- % Swing ("Flipper" model from Nick Radge – KAGI like)

- We cannot control the outcome of the trade but we can control its SIZE before and during the trade → consider filters on volatility and market trends to target better levels of risk

Moving Averages vs CBOs

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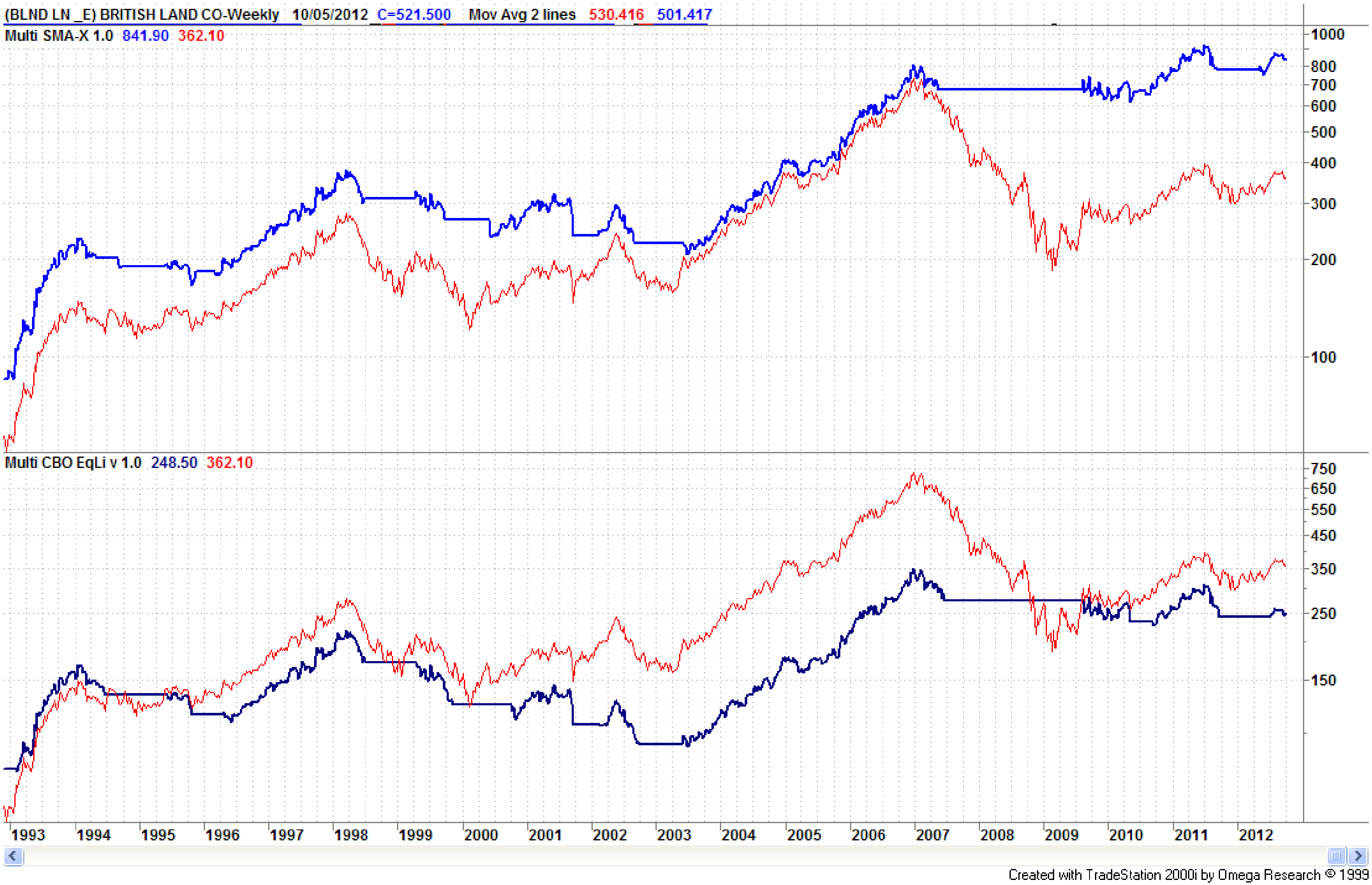
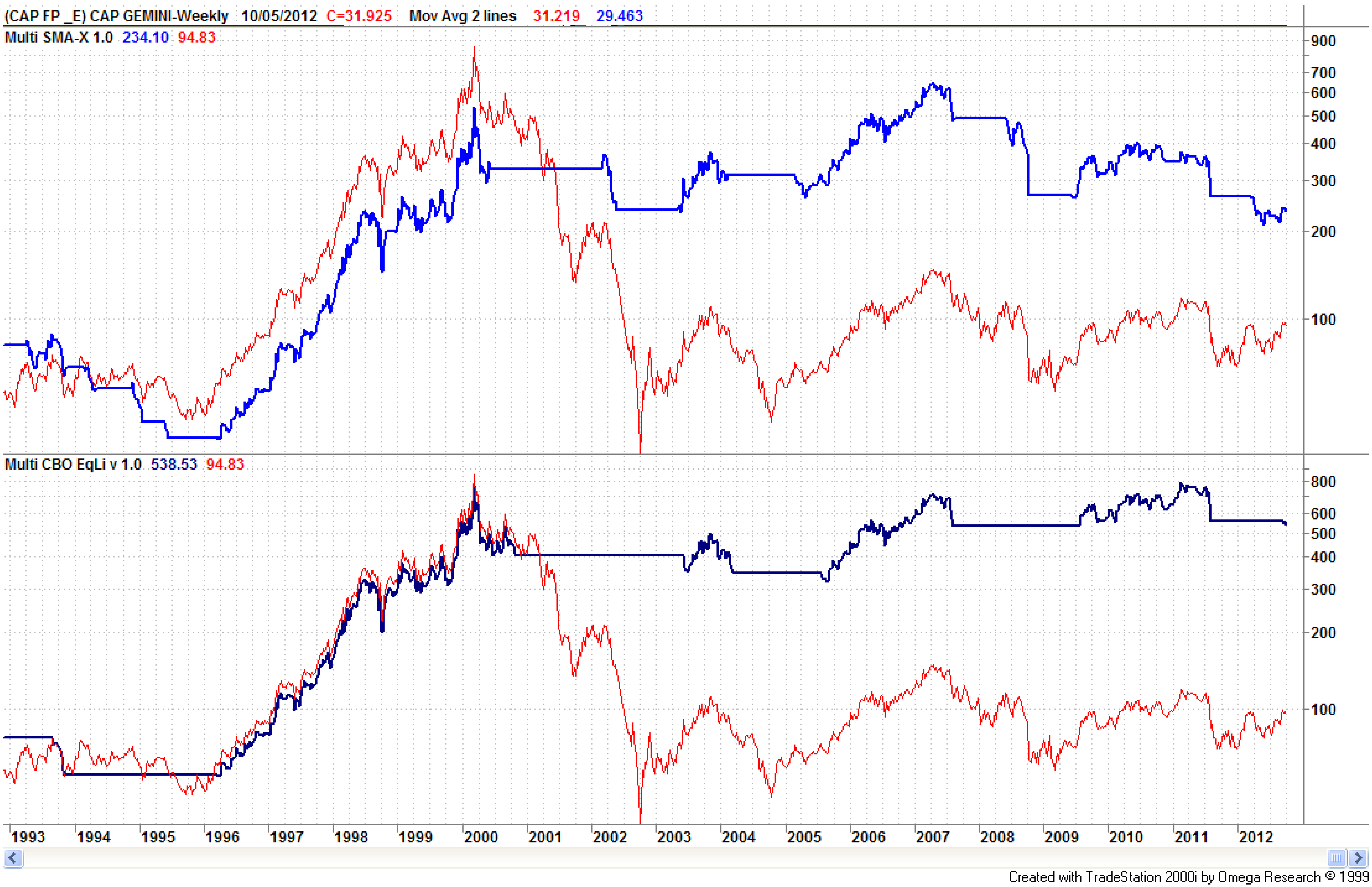
- LONG ONLY
- Initial capital 100
- Profits and Losses are reinvested
- No commissions, slippage, taxes (low trading anyway)
- Red line is BUY & HOLD
- Blue line is the strategy
- TOP HALF is a 10-40 week moving average crossover
- BOTTOM HALF is a 40 week Channel Breakout on Close

- Using SIMILAR lengths in these models the SHAPE of equity lines is SIMILAR so there is no real advantage in using 2 TF models
- No need to over fit on a SPECIFIC stock/sector: some models work great on certain stocks and poorly on others.
- Focus at PORTFOLIO LEVEL

Moving Averages vs CBOs: BLND



Moving Averages vs CBOs: CAP FP



S&P 500 vs 10-month SMA Long only

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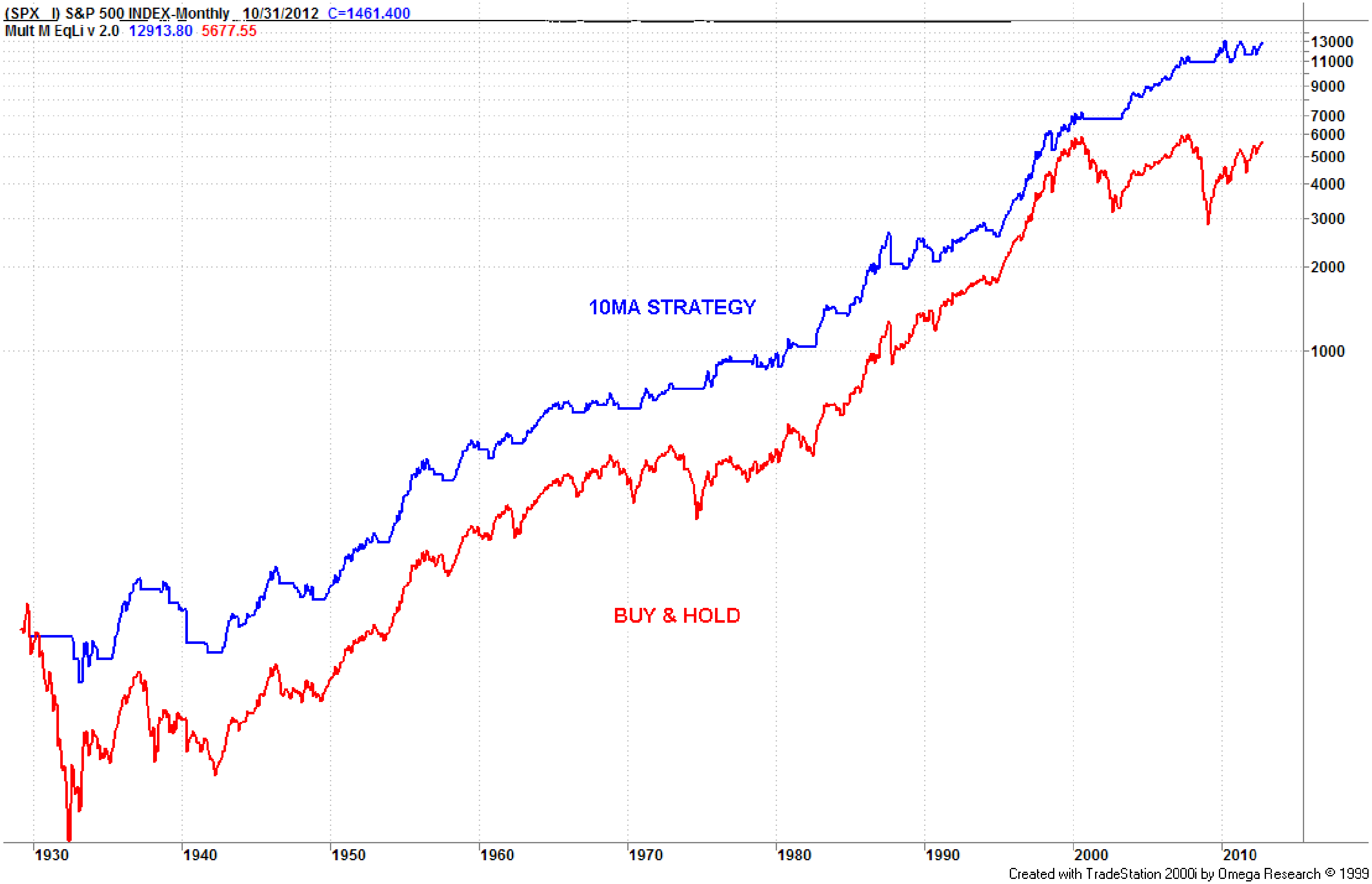

S&P 500 vs different SMAs - Long only

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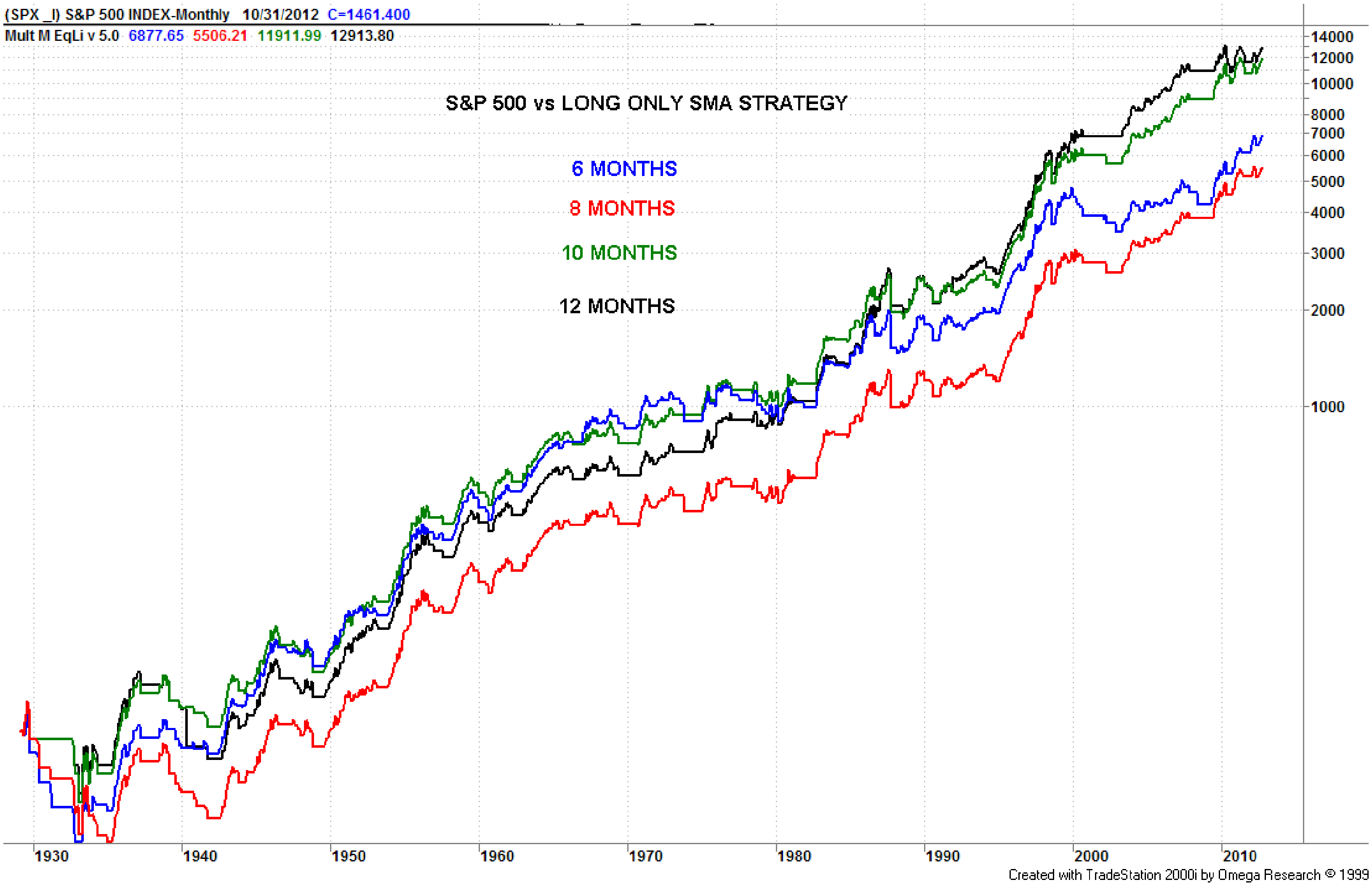

Eurostoxx 50 vs 10-month MA - Long only

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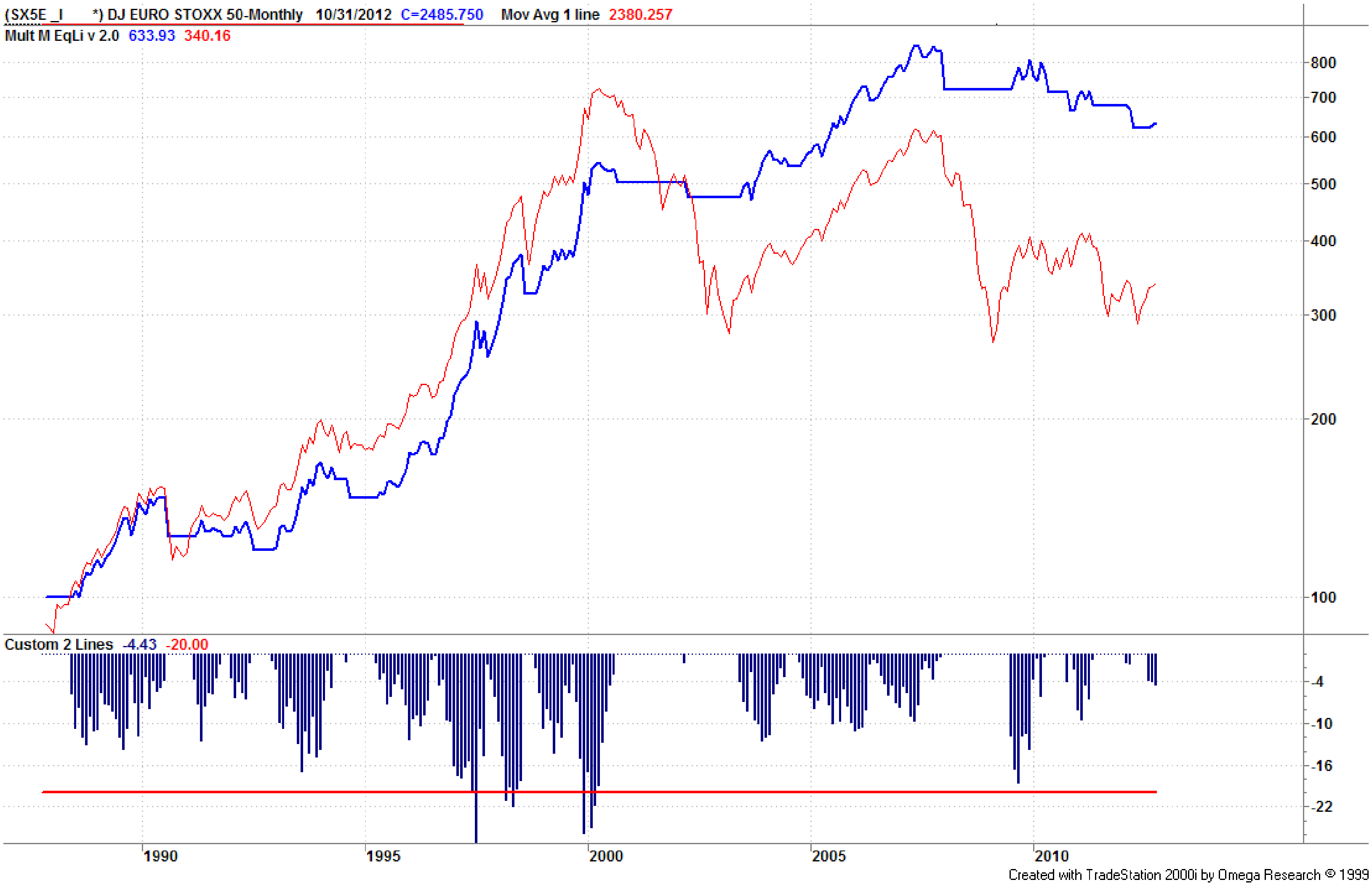
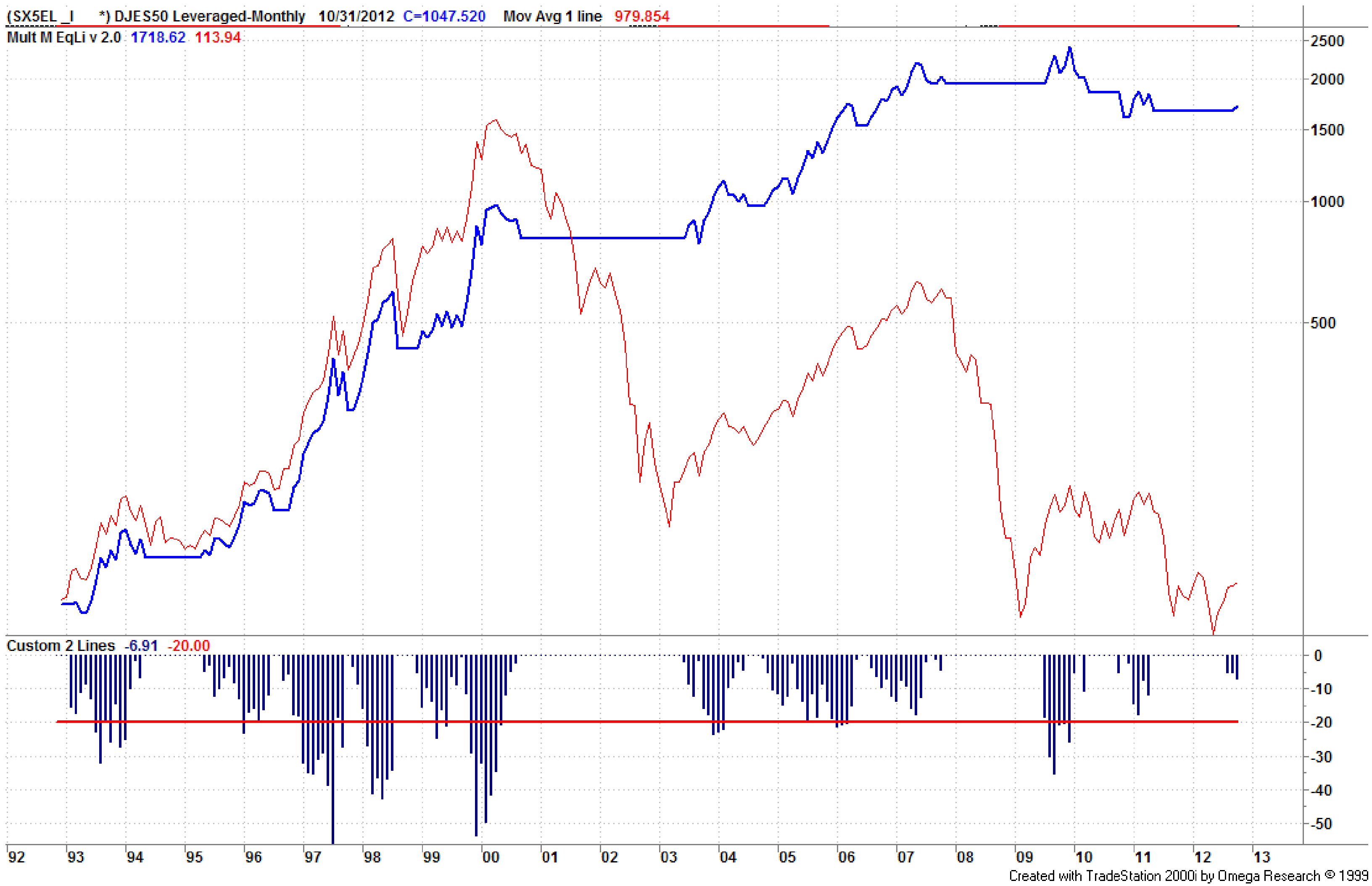
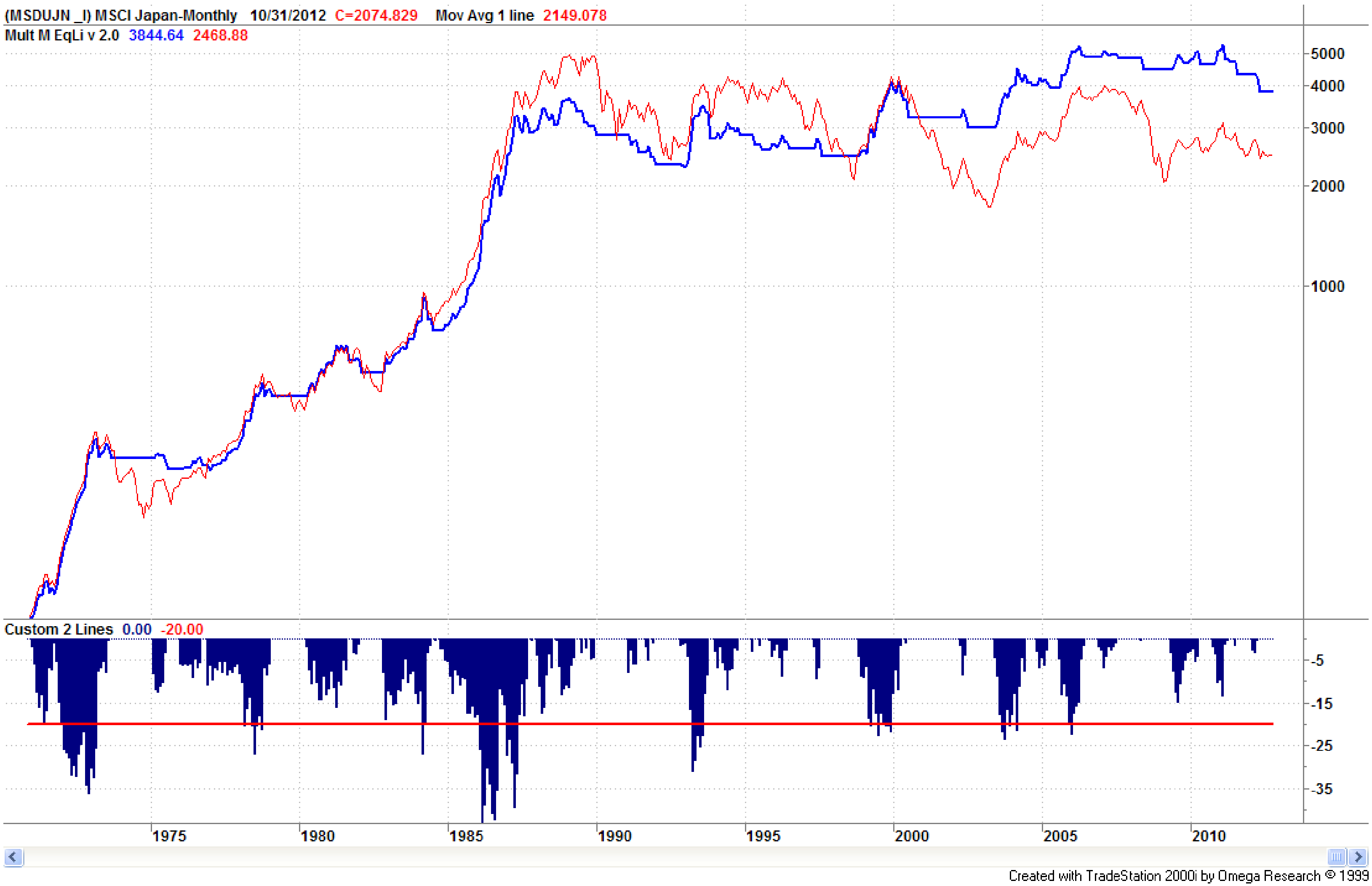


2x Eurostoxx 50 vs 10-month MA - Long only

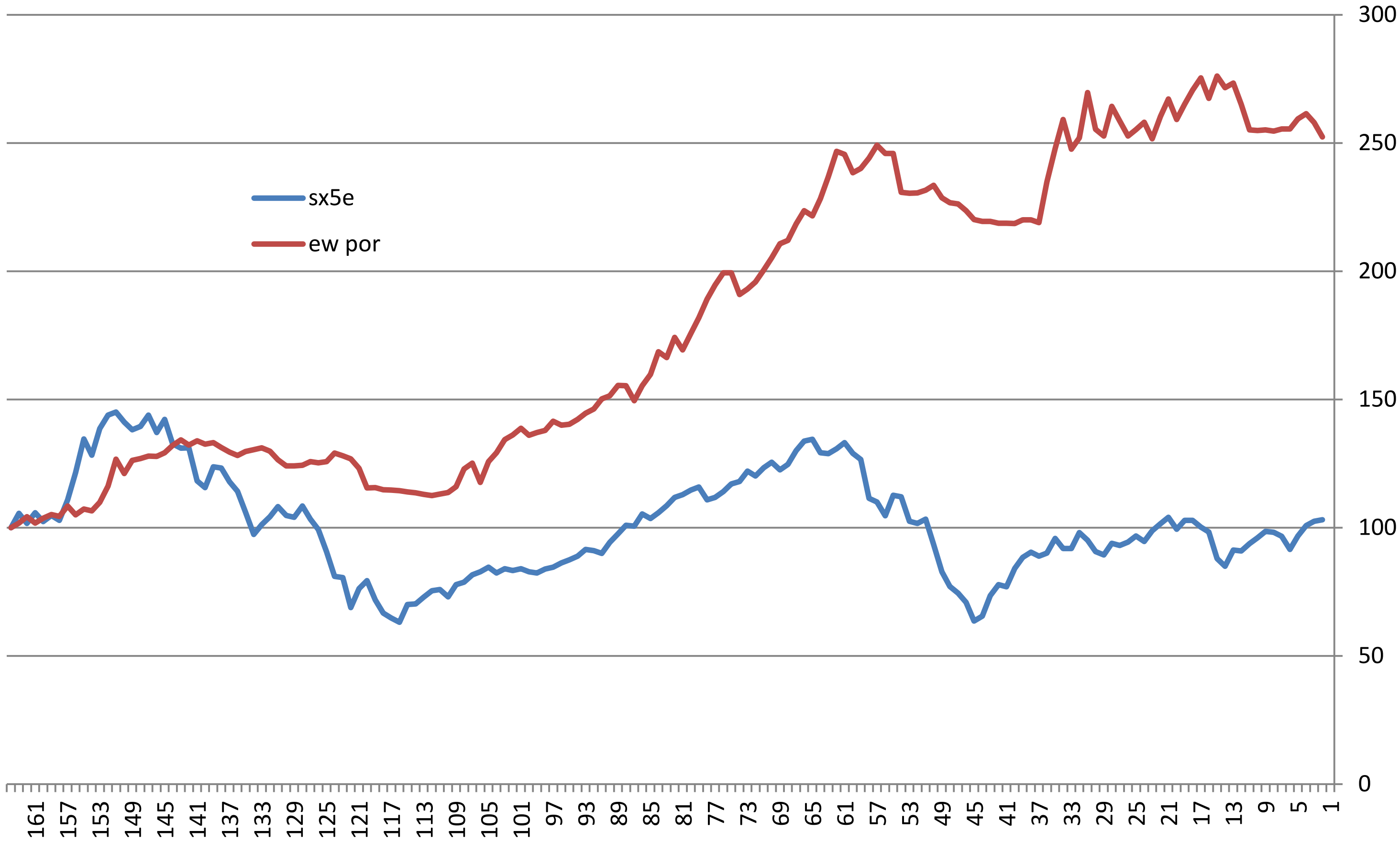


MSCI Japan vs 10-month MA - Long only



50 stocks EW vs 10-month MA - Long only

Just to give an idea, **not the best approach** at all given changes in the index



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Ivy Portfolio – Mebane Faber

•Testing TF on DIFFERENT ASSET CLASSES

•Buy when monthly price > 10-month SMA
•Sell when monthly price < 10-month SMA
•No interest when in cash (in this test)
•Trade once a month, at the end of the month
•No commissions, taxes, slippage
•Using total return series for S&P 500, EAFE, U.S. 7-10 Year Gov, US REITs and Commodities, **equal weight**

Ivy Portfolio in numbers

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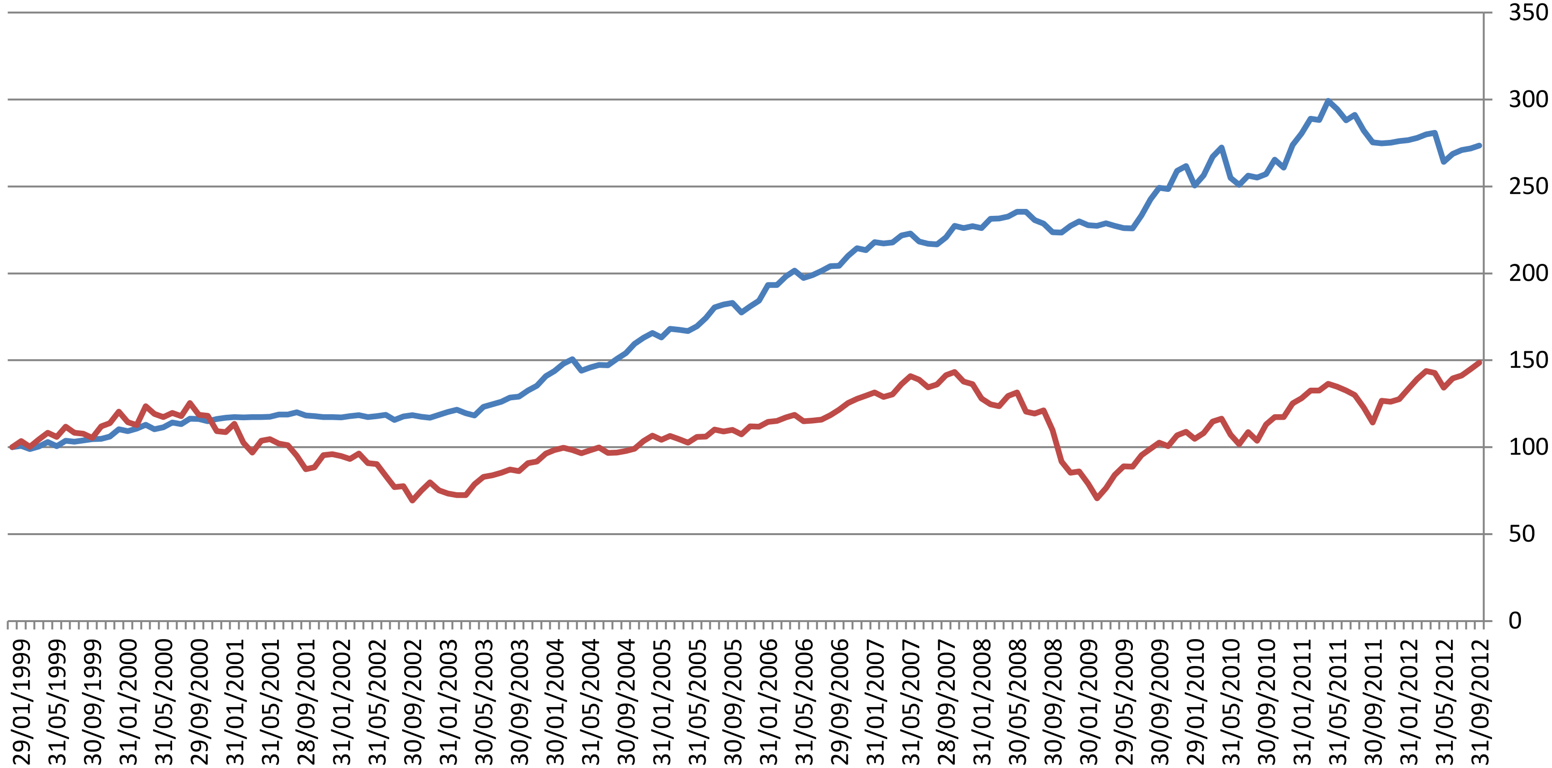

Strategy	CAGR	Ann. St.dev	Mod Sharpe
IVY (blue)	7.59%	6.60%	1.15
SPY (red)	2.29%	15.82%	0.18

Investors Fear and Greed always at work

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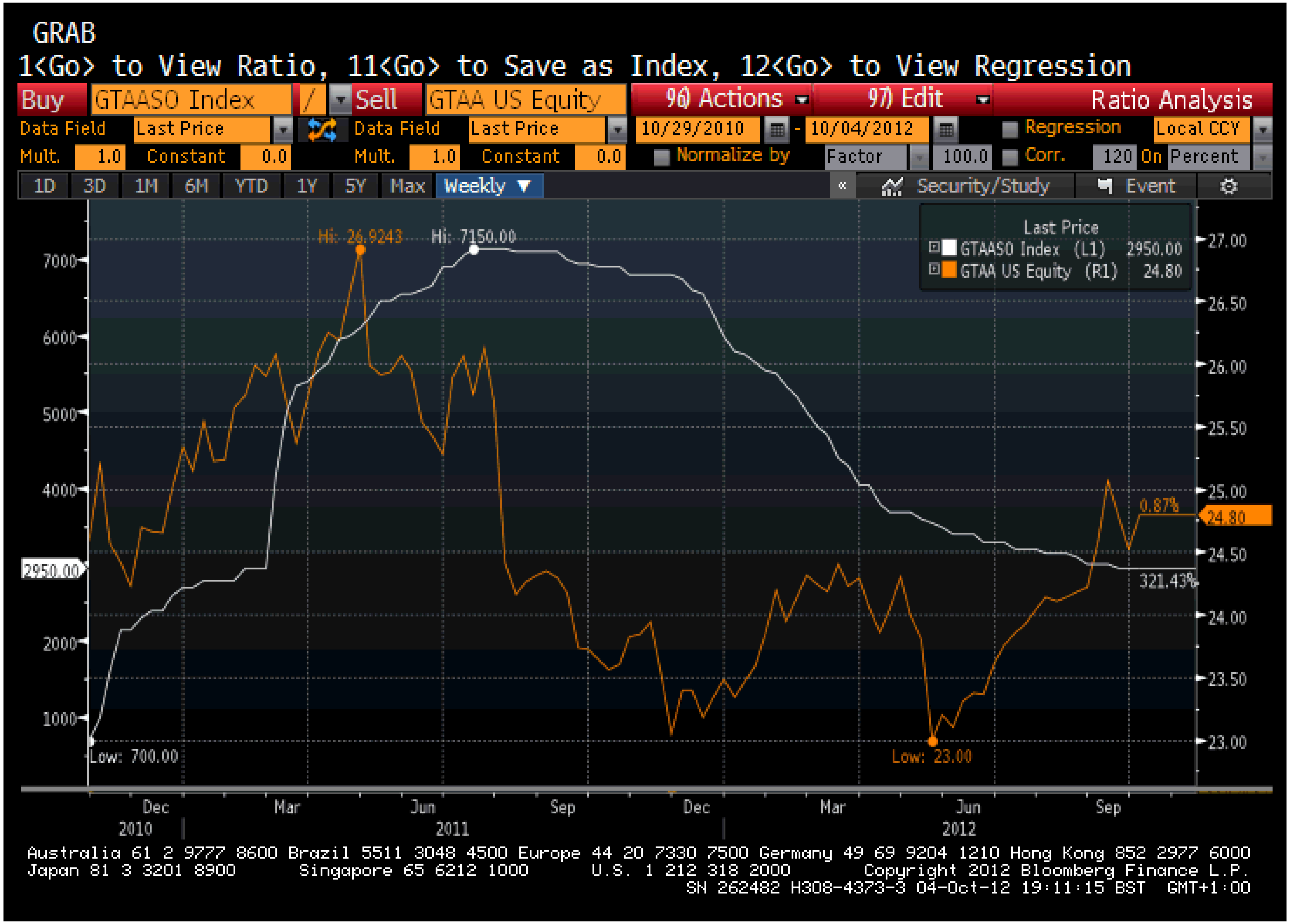

TF applied to Risk On - Off

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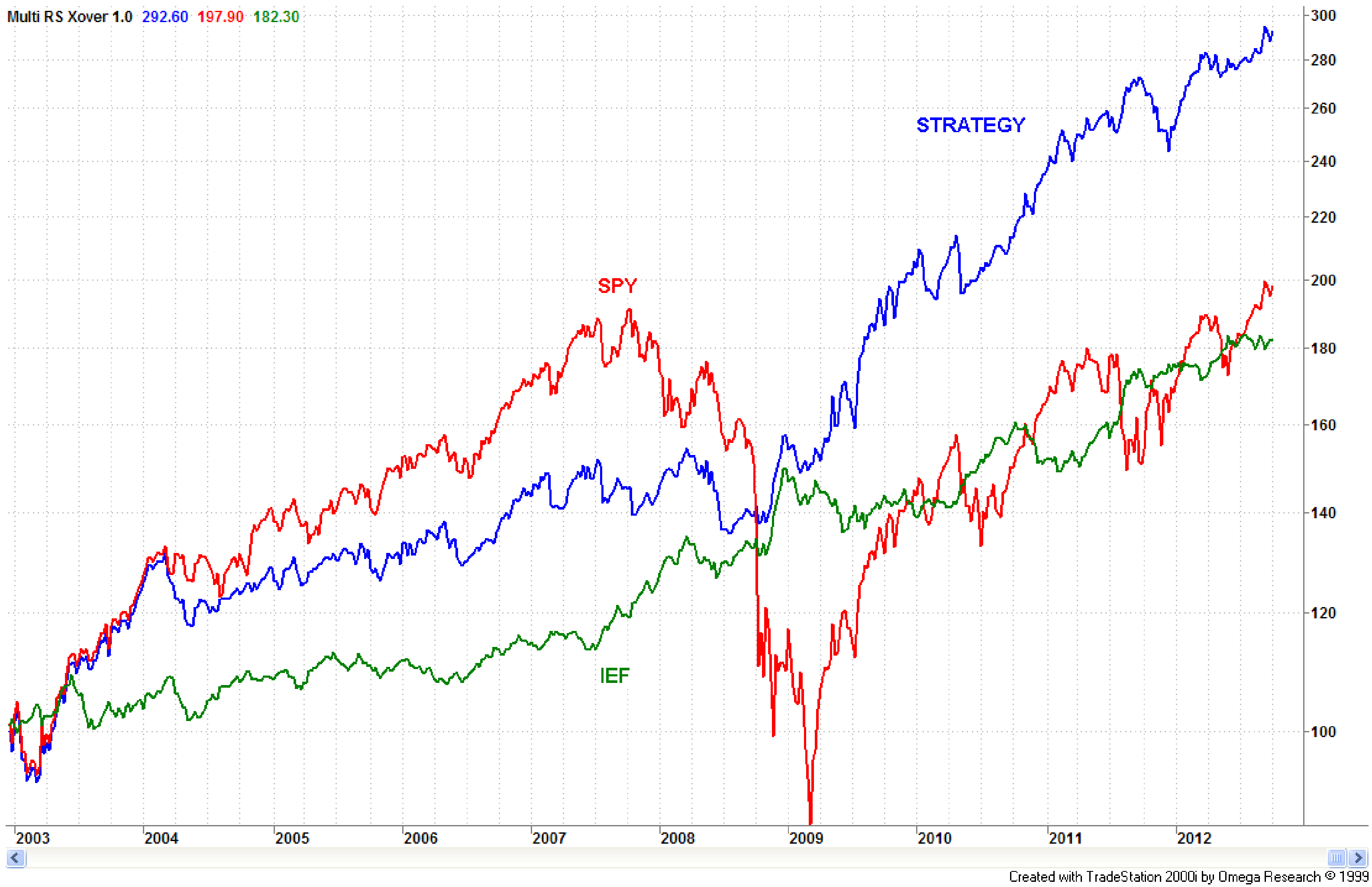

TF applied to Risk On - Off

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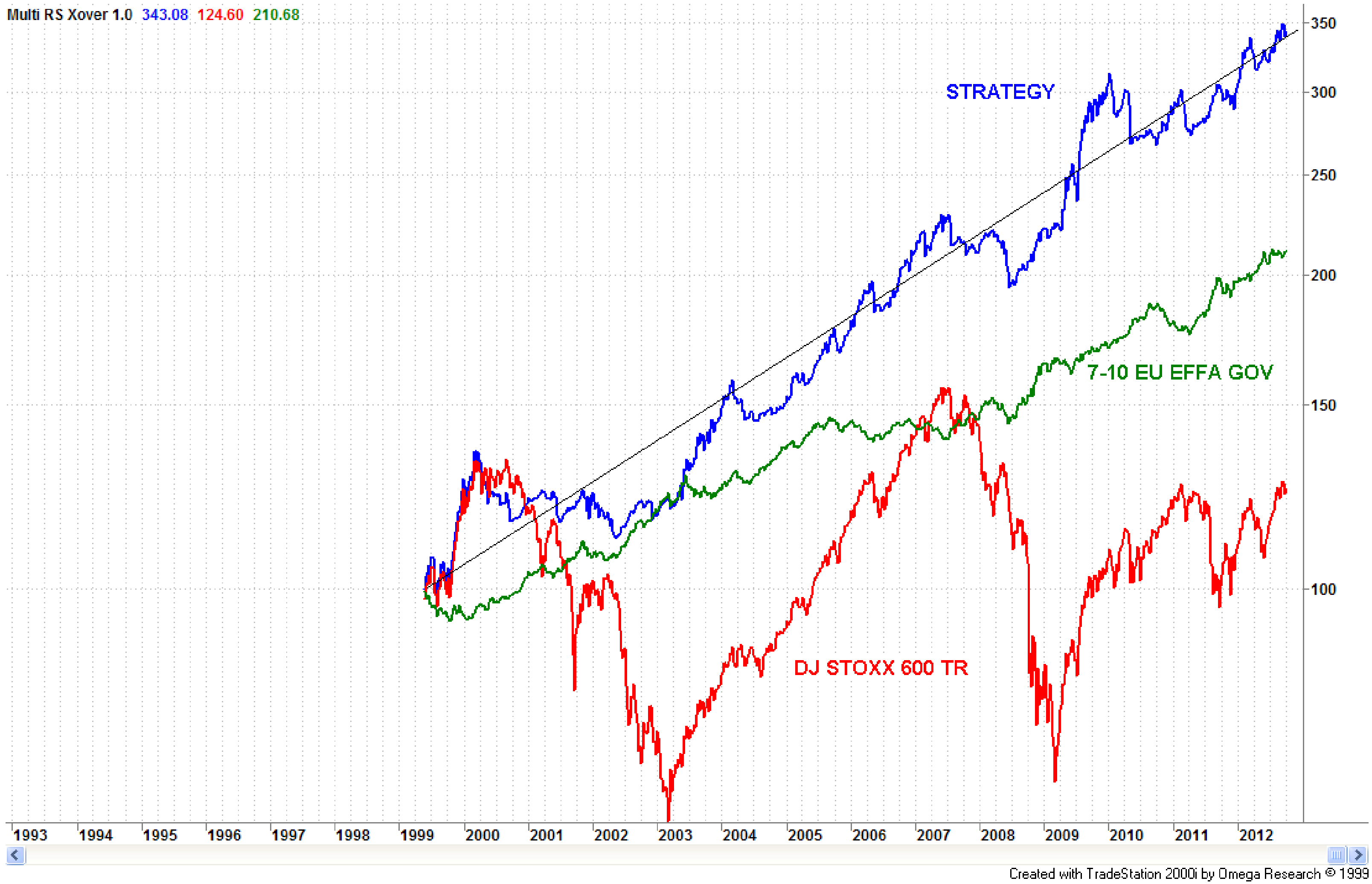

TF applied to Risk On - Off

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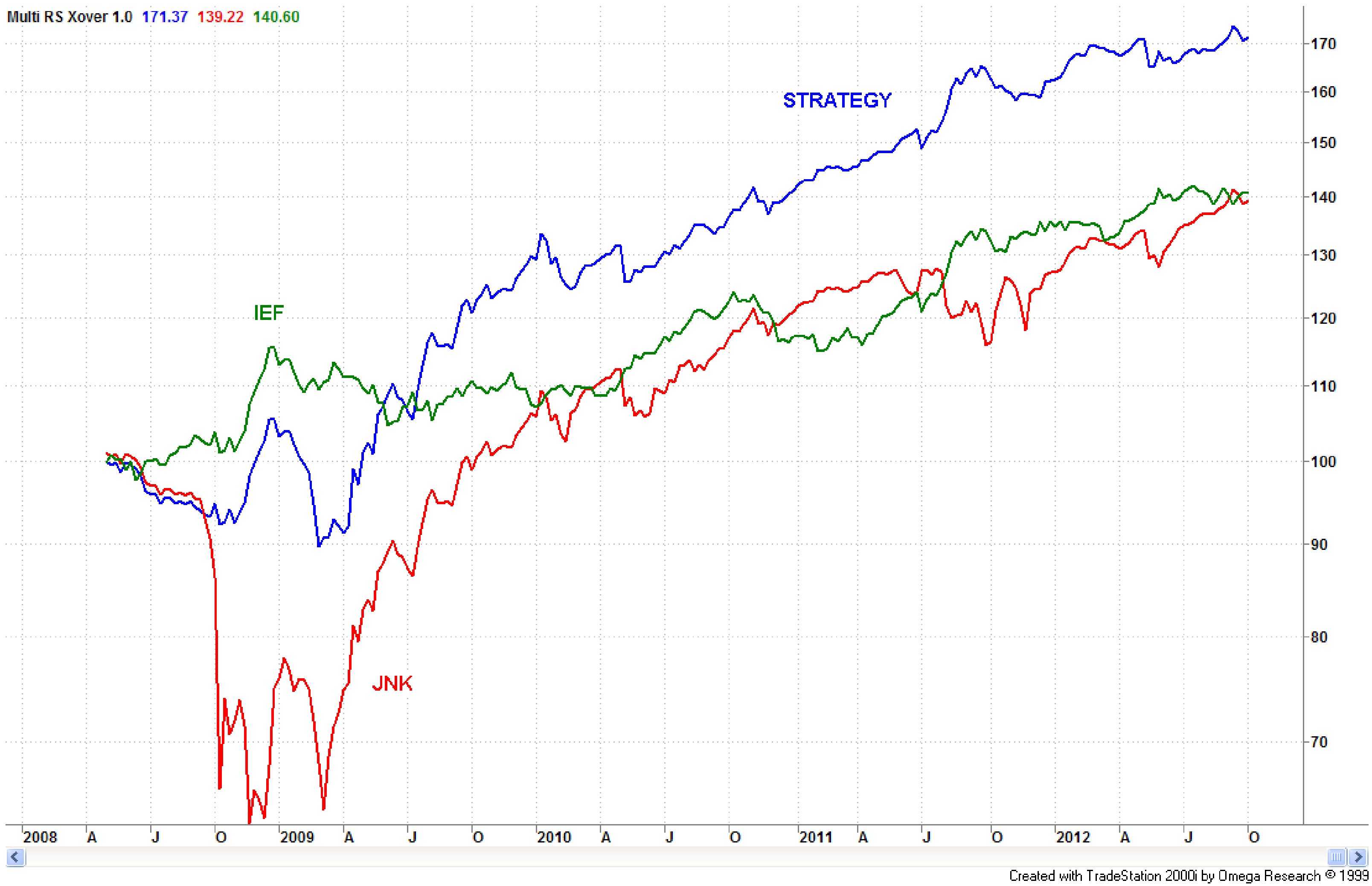

Best books on TF

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- *Michael W. Covel* - Trend Following: Learn to Make Millions in Up or Down Markets
- *Michael W. Covel* - The Complete Turtle trader: The Legend, the Lessons, the Results
- *Nick Radge* - Unholy Grails - A New Road to Wealth
- *Curtis Faith* - Way of the Turtle: The Secret Methods that Turned Ordinary People into Legendary Traders
- *Mebane T. Faber* - The Ivy Portfolio: How to Invest Like the Top Endowments and Avoid Bear Markets
- *Anthony Garner* - A Practical Guide to ETF Trading Systems: A Systematic Approach to Trading Exchange Traded Funds
- *Van K. Tharp* - Trade Your Way to Financial Freedom

Information

Aviate Global's technical ratings use specific return targets; returns are not guaranteed and are used for illustrative purposes only.

Chart sources: Bloomberg and Aviate Global LLP.