

#### Trend-following for Investors Seeking Lower Risk and Greater Returns





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### **Successful Portfolios LLC**

A SEC Registered Investment Advisor Firm, CRD #152429

### **Quick Facts**

Established:	February 2010
Staff:	Three Licensed Professionals
Years of Investment Experience:	Forty years combined
Compensation Model:	Non-commission (Fee-only)
Client Assets Under Management:	More than \$118,000,000
Number of Clients:	130
Client Choices for Brokerage and Asset Custody:	Interactive Brokers, Scottrade, Schwab











# The stock market can look and feel like roller coaster...



High returns in the stock market are fun but the steep declines harrowing. You might enjoy a smoother ride using a time-proven trend-following system.



## S&P 500 Index, 1995-2015, monthly bars with a 10-month Simple Moving average (SMA)...





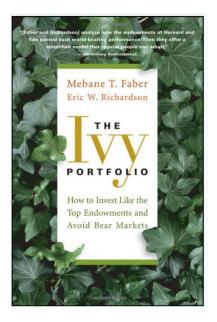
# Trend Following Using Exchange Traded Funds (ETFs) and Moving Averages

- Low-cost ETFs are available covering many different stock market indexes including the S&P 500, NASDAQ 100, S&P 400 Midcap, and the Euro Stoxx 50.
- > Index ETFs can be efficient investment vehicles for Trend Following Systems.
- Trend followers buy (and hold) ETFs in an uptrend. They sell (and hold cash) when an ETF is in a downtrend.
- An uptrend can be identified as when the closing price of an ETF is higher than its average price. An ETF is in a downtrend when its closing price is lower than its average price.
- A simple moving average (SMA) represents the average closing price of an ETF over a specified number of prior periods. Similarly, an exponential moving average (EMA) is a moving average that more heavily weights recent prices.





### Trend-following Rules Using a 10-Month Simple Moving Average (SMA)



### A simple trend-following system as published in *The Ivy Portfolio...*

The system is as follows:

**Buy Rule:** Buy when monthly price > 10-month SMA.

**Sell Rule:** Sell and move to cash when monthly price < 10-month SMA.





### S&P 500 Long-Term Performance vs. Timing the Market with a 10-month Simple Moving Average

Returns (1900-2008)		5 Y
	S&P 500	Timing
Annualized Return	9.21%	10.45%
Volatility	17.87%	12,02%

Source: The Ivy Portfolio





### The S&P 500's Ten Worst Calendar Year Returns

	S&P 500	Timing
1931	-43.86%	1.41%
2008	-36.77	1.33
1937	-35.26	-7.65
1907	-29.61	-0.09
1974	-26.47	8.16
1917	-25.26	-3.02
1930	-25.26	2.51
2002	-22.10	-4.62
1920	-19.69	-4.80
1973	-14.69	-15.36

Source: The Ivy Portfolio





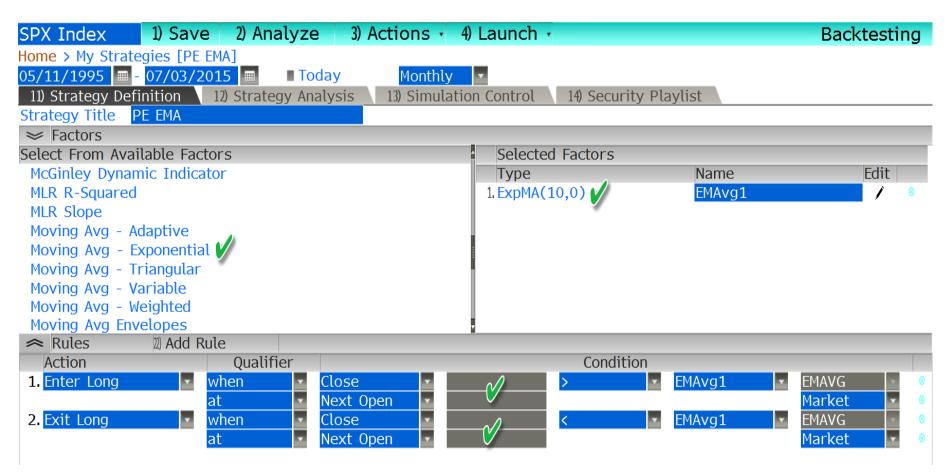
#### **Testing historical robustness**

- We sought to test the robustness of a simple trend-following strategy published in *The Ivy Portfolios*.
- Using the Bloomberg Professional Backtest Function we ran a 20-year simulation from May 1995 through July 2015 on four separate and readily investable broad based stock market indices.
- We used a 10-month Exponential Moving Average (EMA) rather than a 10-month Simple Moving Average (SMA) in our trend-following system.
- Risk and return appear historically favorable relative to "Buy and Hold".
- > Note that our simulation included 5 1/2 years of "out-of-sample" market data.
- > We present our algorithm and simulation results in the slides that follow.





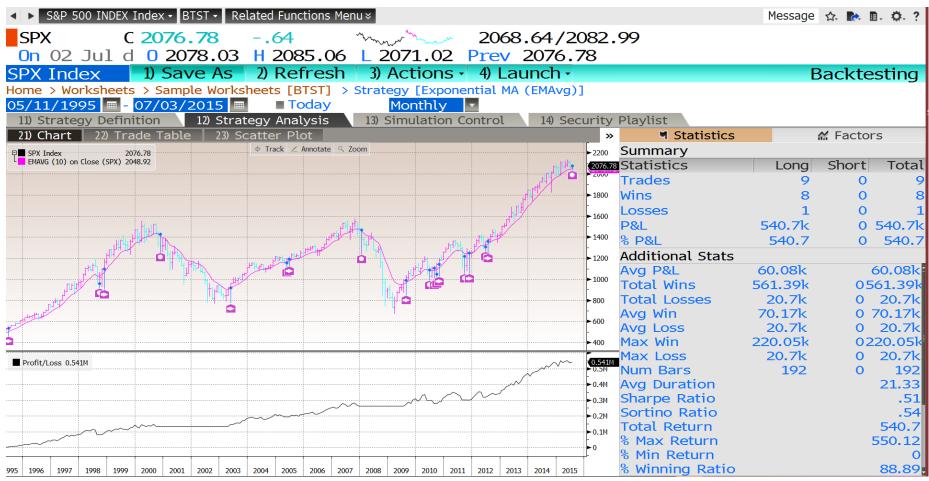
## Rules for Backtesting a Trend-following System using a 10-month Exponential Moving Average







### S&P 500 Backtest, 1995 through 2015, +540%



#### **Source: Bloomberg Professional**





### S&P 500 Backtest Trend Following System vs. "Buy & Hold"

SPX Index	PX Index 2) Add Strategy - 3) Actions -											Ba	Backtesting							
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11) Multi-Str	ategy ,	Ana	lys	is	M	12) Simul	atior	Cont	rol	13) Sec	curity	Playlis	t							
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Current Position							Profit (Loss)						Statistic							
Strateg	ј У					P&L	Age	Total	Total	%Total	Long	Avg )uration	Sharpe	Total Return	% Max Return	% Min Return	%Winning	%Losing %	s Max DD	Max DD Length
1.0																				
31) Buy & Hold		/		8	<b>A</b>	288.61k	242	1	288.61k	288.61	288,51k	242.00	0.37	288.61	294.34	0.00	100.00	0.00	52.51	16
32) Exponential 1	MA (EMA	1			<b>A</b>	220.05k	37	9	540.70k	540.70	5 <b>.</b> 70k	21.33	0.51	540.70	550.12	0.00	88.89	11.11	15.55	3

lr	nvestment and End Value	Dates
\$	(100,000.00)	May 11, 1995
\$	388,610.00	July 3, 2015
	6.97%	Annualized Return

I	Investment and End Value	Dates				
\$	(100,000.00)	May 11, 1995				
\$	640,700.00	July 3, 2015				
	9.65%	Annualized Return				





### S&P 500 Chart of Buy & Hold vs System







### S&P 500 Backtest Trade List

SPX Inc								Backtesting				
	Home > Worksheets > Sample Worksheets [BTST] > Strategy [Exponential MA (EMAvg)] 05/11/1995 🖩 - 07/03/2015 🔳 Today Monthly 🔽											
11) Strategy Definition 12) Strategy Analysis 13) Simulation Control 14) Security Playlist												
21) Char	21) Chart 22) Trade Table 23) Scatter Plot Statistics											
Trade #	Entry Date	Entry Price	Exit Date	Exit Price	Position	Shares	Trade P&L	Cumulative P&I				
	07/01/0010	1070.00	07/02/2015	2077.70		200	220.051	F 40, 701.				
9	07/31/2012					308		540.70k				
8	11/30/2011	1251	06/29/2012	1309.87	Long	321	18.90k	320.65k				
7	10/29/2010	1143.49	09/30/2011	1219.12	Long	329	24.88k	301 <b>.</b> 75k				
6	08/31/2010	1107.53	09/30/2010	1049.72	Long	358	-20.70k	276.87k				
5	08/31/2009	990.22	06/30/2010	1087.3	Long	365	35 <b>.</b> 43k	297.56k				
4	06/30/2005	1191.5	01/31/2008	1467.97	Long	246	68.01k	262.13k				
3	05/30/2003	916.92	05/31/2005	1156.85	Long	254	60.94k	194.12k				
2	11/30/1998	1098.67	11/30/2000	1429.4	Long	163	53 <b>.</b> 91k	133 <b>.</b> 17k				
1	06/30/1995	533.4	09/30/1998	957.28	Long	187	79.27k	79.27k				



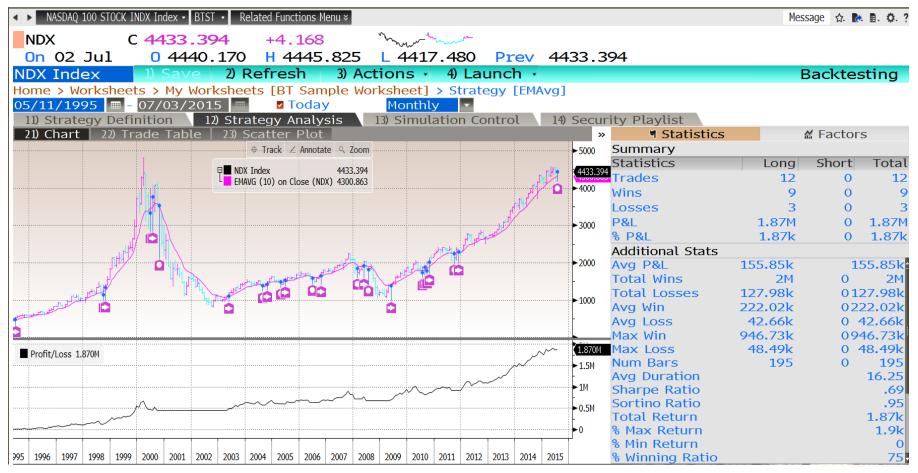
### Technical Buy/Sell Signals: Good, Bad, and Ugly







### NASDAQ 100 Index Backtest +1870%







### S&P Mid-Cap 400 Index Backtest +531%







### Euro Stoxx 50 Index Backtest +351%

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										Wins	9	0	9
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	1.44							μ <sub>1</sub>	3441.7	8 P&L	351.3	0	351.3
			<b>y</b> '							Additional Stats			
				<u> </u>	HULL WILL		الم ال		> 3000	Avg P&L	21.96k	2	21.96k
								P	-	Total Wins	477.86k	04	77.86k
	' ዞ ክ <sub>ሀ</sub> ፣ና			III III						Total Losses	126.56k	01	26.56k
- II				1			7		2000	Avg Win	53.1k	0	53.1k
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2									<b>1000</b>	Max Win	123.06k		23.06k
Profit/Loss 0.351M			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~					0.4M	Max Loss	52.91k		52.91k
					$\mathcal{M}_{\mathcal{A}}$			$\sim \sim \sim$	0.351	Num Bars	178	0	178
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$\sim$	1	^							-0.2M				.29
									0.15M				.33
									► 0.1M	Total Return			351.3
									-0	% Max Return % Min Return		2	412.18
005 1004 1007 1009 1000 2000	2001 2002 2007	2004 2005	2006 2007	2008 20	20 2010 2	011 20	010 2012	2014 2015	Ť	% Winning Ratio			-2.25 56.25
995 1996 1997 1998 1999 2000	2001 2002 2003	2004 2005	2006 2007	2008 20	09 2010 2	011 20	012 2013	2014 2015					50.25





- ✓ Investors should not construe backtest performance as predictive of future returns.
- ✓ Backtest results shown in this presentation exclude implementation costs.
- Trend-following strategies underperform during periods of nontrending, oscillating prices.
- Trend-following systems are not for everyone. "Buy and hold" or conventional rebalancing strategies may be more suitable depending on investor circumstances and risk tolerance.





Is trend-following the right strategy for you? Learn more today!

#### For more information call Successful Portfolios LLC at 727-744-3615 or visit us online at www.successfulportfoios.com.

We can help you create and manage a trend-following ETF portfolio.

