INDICATORS

Weekly Trend-Following With EMAs

The Keys To Trend-Following

Successful trend-following requires time, patience, an unshakable belief in the power of statistics, and, above all, the willingness to fearlessly seize prime trading opportunities.

by Donald W. Pendergast Jr.

It can be a challenge to time the markets on a short-term basis, yet that seems to be the driving motive behind the marketing of most trading systems, charting packages, and stock/option newsletters. This article provides a simple framework around which technicians could build a simple and profitable trend-following method. Weekly trend-following takes a longer-term approach, allowing fundamental supply/demand forces to create opportune, low-risk technical entry points.

TREND-FOLLOWING ESSENTIALS

When a stock, fund, exchange traded fund (ETF), or commodity breaks out or develops other characteristics that imply a major trend confirmation, the smart money will initiate positions once the move is already under way, following the emerging trend. It is the opposite strategy of those traders who (sometimes unwisely) attempt to pick tops and bottoms or attempt to predict market reversal points. Trend-following will never get you in at the beginning of a market move, but it does ensure that the market will already be moving in the desired direction before you invest your trading capital.

The goal of the successful trend-follower is to profit from the primary thrust of every sustained long-term trend movement. If such traders can keep the losses on their losing trades small, they can still enjoy worthwhile profits over time.

COVER ALL BASES

The world we live in is an unpredictable place, where even top economists and financial analysts don't know what will happen next. Nor do they know the exact timing of supposedly seasonal events. Did anyone realize ahead of time that the NASDAQ would lose nearly 80% of its value in three years? Could they foretell all of the famines, natural disasters, and economic crisis events years before the events occurred? Not likely, which is why trend-followers are always prepared to take action when a significant market move indicates (via their chosen technical method) that an entry is warranted.

When a natural disaster or economic tremor suddenly propels grain, oil, interest rates, or the Standard & Poor's 500 up or down, the trend-followers engage the new trend until they get the signal that the move is over. Sometimes they get stopped out for a modest loss. Other times they make a few percentage points and get out when the trend fizzles. Eventually, they catch the start of a major move, riding it for all it is worth. And that's where they earn the cash that keeps them profitable over the long haul.

Since the future is unknowable, trend-followers ensure that they always follow a range of diversified, noncorrelated markets. If silver is simply consolidating without any trend, they shun that market. But perhaps the health-care sector is starting to break to the upside and the energy sector is breaking hard to the downside. Those two sectors are where trend-followers want to consider initiating a suitable trend-following entry point. They shun the nontrending (cycling, whipsawing, or low-volatility dead markets) and look for the emerging signs of trending moves.

In this article, I will focus on sector-based mutual funds. Diversifying across these funds ensures that we'll be able to latch onto the start of a trend in some sector or market when it occurs. I have included the five-year, backtested results of a simple trend-following framework on a diverse mix of Fidelity sector funds, which proves the strength of this framework (Figure 1).

A BASIC TECHNICAL FRAMEWORK

The framework, simply put, works like this:

- Enter after the 10-week exponential moving average (EMA) crosses the 40-week EMA to the upside. Enter the market at the close of the first trading day *after* the moving average crossover has been confirmed on the weekly chart.
- Exit after the 10-week EMA crosses the 40-week EMA to the downside. Exit the market at the close of the first trading day *after* the moving average crossover has been confirmed on the weekly chart.

FIDELITY SELECT SECTOR FUNDS FROM JANUARY 2002 THROUGH APRIL 6, 2007; LONG ENTRIES ONLY, INCLUDES OPEN TRADES

Sector	*Date in*	*MaxDD%*	*Date out*	*MaxProfit%*	*Gain/Loss%*
NatresourcesFNARX	Mar 2002	-9.76%	July 2002	+ 0.44%	- 8.73%
NatresourcesFNARX	May 2003	-0.43%	Sep 2006	+162.42%	+109.35%
NatresourcesFNARX	Nov 2006	-4.28%	Open	+15.05%	+15.05%
BiotechFBIOX	May 2003	-3.05%	Aug 2004	+42.69%	+ 7.86%
Biotech FBIOX	Oct 2004	-7.11%	Oct 2004	None	-3.91%
Biotech FBIOX	Nov 2004	-13.55%	Mar 2005	+4.25%	-12.20%
BiotechFBIOX	Jun 2005	-2.96%	Jun 2006	+25.22%	+ 5.18%
BiotechFBIOX	Oct 2006	-6.75%	Open	+5.58%	-4.00%
HomeConstrc FSHOX	May 2003	None	Jun 2006	+108.76%	+67.91%
HomeConstrc FSHOX	Nov 2006	- 7.66%	Jan 2007	+5.35%	-7.55%
HomeConstrc FSHOX	Feb 2007	-3.99%	Open	+4.95%	-1.27%
RetailingFSRPX	Mar 2002	-11.91%	Jul 2002	+ 4.51%	-11.91%
RetailingFSRPX	Jun 2003	None	May 2005	+ 39.53%	+ 29.95%
RetailingFSRPX	May 2005	-4.74%	Oct 2005	+ 10.96%	-2.69%
RetailingFSRPX	Nov 2005	- 8.14%	Dec 2005	+ 2.33%	- 8.14%
RetailingFSRPX	Mar 2006	- 5.67%	May 2006	+ 1.91%	- 5.67%
RetailingFSRPX	Oct 2006	None	Open	+ 10.79%	+ 9.92%
FinancialServicesFIDSX	Mar 2002	-3.67%	Jun 2002	+ 5.51%	- 2.99%
FinancialServicesFIDSX	May 2003	-1.69%	Aug 2004	+ 28.64%	+14.15%
FinancialServicesFIDSX	Aug 2004	-2.51%	Mar 2005	+ 8.11%	-2.51%
FinancialServicesFIDSX	Sep 2005	-2.17%	Sep 2005	None	-1.31%
FinancialServicesFIDSX	Nov 2005	-4.84%	Jun 2006	+ 6.46%	-3.83%
FinancialServicesFIDSX	Sep 2006	-4.09%	Mar 2007	+ 8.03%	-2.32%
Wireless FWRLX	Jun 2003	-0.13%	Jun 2006	+146.25%	+ 98.37%
Wireless FWRLX	Oct 2006	- 1.19%	Open	+ 9.35%	+ 9.05%
IndustrialsFCYIX	Jan 2002	- 8.60%	Jun 2002	+ 4.64%	- 6.25%
IndustrialsFCYIX	Jun 2003	- 0.08%	Jul 2006	+ 76.62%	+ 53.87%
IndustrialsFCYIX	Oct 2006	- 6.51%	Open	+ 1.95%	- 2.56%
GoldFSAGX	Jun2003	- 3.21%	May2004	+ 45.45%	-0 .72%
Gold FSAGX	Oct 2004	-17.75%	Apr 2005	+ 9.39%	-17.75%
GoldFSAGX	Sep2005	-1.07%	Oct2006	+ 63.84%	+27.37%
Gold FSAGX	Nov 2006	- 6.12%	Open	+ 7.97%	+4.21%
Leisure FDLSX	Mar 2002	-10.06%	May 2002	None	- 8.56%
Leisure FDLSX	May 2003	None	Aug 2004	+ 38.95%	+ 24.45%
Leisure FDLSX	Oct 2004	- 3.54%	Apr 2005	+ 10.04%	-1.65%
Leisure FDLSX	Jul 2005	- 3.70%	Jul 2006	+ 17.99%	+ 2.31%
Leisure FDLSX	Oct 2006	- 7.79%	Mar 2007	+ 6.21%	- 5.43%
UtilityFSUTX	May 2003	-0 .45%	Open	+114.34%	+114.34%
TransportationFSRFX	Jan 2002	- 5.70%	Jun 2002	+7.46%	- 5.60%
TransportationFSRFX	May 2003	- 4.29%	Aug 2006	+97.15%	+60.22%
TransportationFSRFX	Oct 2006	- 1.22%	Open	+12.40%	+7.18%
DefenseAerosp FSDAX	Jan 2002	- 7.44%	Aug 2002	+17.14%	+0.61%
DefenseAerosp FSDAX	Jun 2003	None	Jul 2006	+101.89%	+74.52%
DefenseAerosp FSDAX	Sep 2006	- 0.54%	Open	+13.44%	+11.44%
TechnologyFSPTX	May 2003	- 3.33%	Jul 2004	+48.04%	+15.72%
TechnologyFSPTX	Nov 2004	-11.39%	Apr 2005	+4.17%	-11.01%
TechnologyFSPTX	Jun 2005	- 1.37%	Jun 2006	+15.74%	+2.17%
TechnologyFSPTX	Oct 2006	- 2.01%	Open	+9.61%	+8.46%
MaterialsFSDPX	Jan 2003	- 4.03%	Feb 2003	+0.77%	- 2.64%
MaterialsFSDPX	Jun 2003	-1.71%	Jun 2005	+65.77%	+ 45.58%
MaterialsFSDPX	Jul 2005	None	Open	+41.21%	+ 38.37%

Please note: All hypothetical, backtested results are as of 4/6/07. The results for any OPEN trades show how much the trade has gained or lost through 4/6/07.

MaxDD = Worst intratrade drawdown

MaxProfit = Best intratrade profit

Avg. trade	*+ 14.05%*
Avg. winner	*+ 32.99%*
Avg. loser	*- 5.59%*
Win/loss%	*50.98%*
Test period	*63 months*
Avg. MaxPrft / Avg. MaxDD	*6.67 to 1*
Avg. MaxPrft / Avg. trade	*2.08 to 1*
Avg. trade / Avg. MaxDD	*3.21 to 1*

FIGURE 1: BACKTEST RESULTS. While it is difficult to know how profitable or unprofitable any given trade will be at entry, a glance at these statistics will give you the confidence to make that entry and stay with the trade as it progresses.

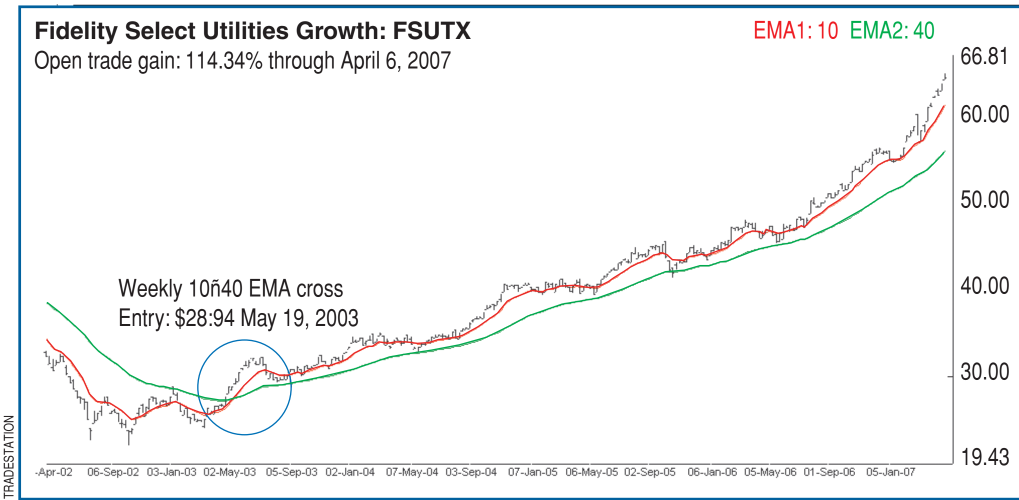

FIGURE 2: MOVING AVERAGE CROSSOVER. FSUTX demonstrates remarkable consistence as it powers higher after a May 2003 10–40 EMA crossover.

The method eliminates the need to determine if the market is overbought or oversold. More important, it ensures that you are entering a market that already has momentum pushing toward your anticipated trade entry area, thus relieving you of the frustrating task of attempting to pick reversal points.

The weekly 10–40 EMA method isn't magic, but it does seem to test out across many market sectors over a long period of time. I began to notice the effectiveness of this crossover pair beginning in 2001. You may find that other combinations will work better for your own trading goals; your own backtesting research may produce an even better combination of averages.

You can see the results of some backtested examples in Figure 1.

PATIENCE AND COMMITMENT

The hardest part of trading this method is waiting for the exit signal to be confirmed before closing out the trade. Many times this involves leaving money on the table, as the fund in question falls until the 10-week EMA pierces the 40-week EMA to the downside. If you find it hard to watch even paper profits disappear like this, then you may wish to exit a portion of a winning trade earlier and just use the basic 10–40 EMA crossover for the entry trigger only.

The MaxProfit tables in Figure 1 provide clues as to how profitable a given trade can become before it begins to give back open profits. For example, if an ETF or sector fund has gone up by 40%, and it's also near a major monthly resistance level while showing a weekly moving average convergence/divergence (MACD) price/momentum divergence, you may decide to book profits on at least half of your position, letting the balance run until the final stopout. Further, if the fund in question is highly correlated to other market indexes also confirming that a significant reversal is at hand, you might wish to book a partial profit, letting the balance ride.

STATISTICS CONFIRM

In Figure 1, note the Average MaxProfit/Average MaxDD ratio and the Average Trade/Average MaxDD ratio. Both ratios are favorable, indicating that *almost* every trade moves to profitability at some point between its entry and exit signal.

These key statistics should quickly confirm the basic strength of this system. While no one knows how profitable any given trade will be at entry (or not), a glance at these stats can help provide a trader with the confidence to pull the trigger or stay with the trade as it progresses.

Another set of statistics that confirm the potential power of the method: the best MaxProfit was 162%, the worst MaxDD was only -17.75%, and the average MaxProfit was 29.20%. The average winner was 32.99% and the average loser was only -5.59%. The average MaxDD was only -4.38%. Even more promising, the average trade returned more than 14%.

One of the most revealing stats for system tinkerers is the Average MaxProfit/Average Trade figure. At 2.08 to 1, it indicates that taking profits sooner might relieve traders of at least some paper profit losses.

For risk control purposes, the MaxDD tables can also provide a visual reference for trade sizing. Many successful traders keep the maximum portfolio risk per trade at 1% to 2%. Figure 2 shows remarkable consistency as it powers higher after a 10–40 EMA crossover.

The most likely pathway to maximum profits with this method is to simply let the trades run until the final 10–40 crossovers occur (Figure 3). It will take a significant amount of psychological fortitude and enough cash to weather the drawdown periods, but for those with sufficient quantities of both, it could prove to be very profitable over the longer term. A diversified, noncorrelated portfolio of sector funds or ETFs is a must if you choose to run the method as is. Heavily capitalized commodity traders might also be able to use this method, depending on their responsible use of margin.

BROAD MARKET CONFIRMATION

To increase the odds for success, it's wise to confirm that a major market index such as the S&P 500 or NYSE Composite is also giving (or has already had) a confirming 10–40 EMA crossover before placing any new sector fund or ETF trades. Many sector funds correlate fairly closely to movements in the S&P 500 and NYSE Composite, so you're giving yourself an added advantage if sector fund entries are taken only when the broad market indexes are already 10–40 EMA crossover-confirmed.

The energy (Figure 3), precious metals (Figure 4), and natural resource sectors tend to be noncorrelated to those

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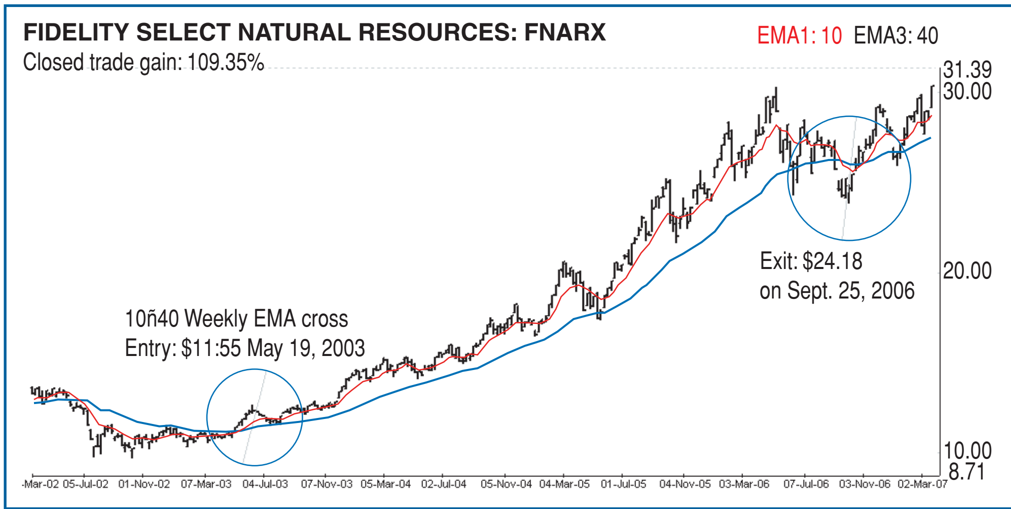

FIGURE 3: THE ENERGY SECTOR. FNARX components include many oil, gas, and energy services stocks. The 10–40 EMA crossover worked very well as the entire energy complex soared.

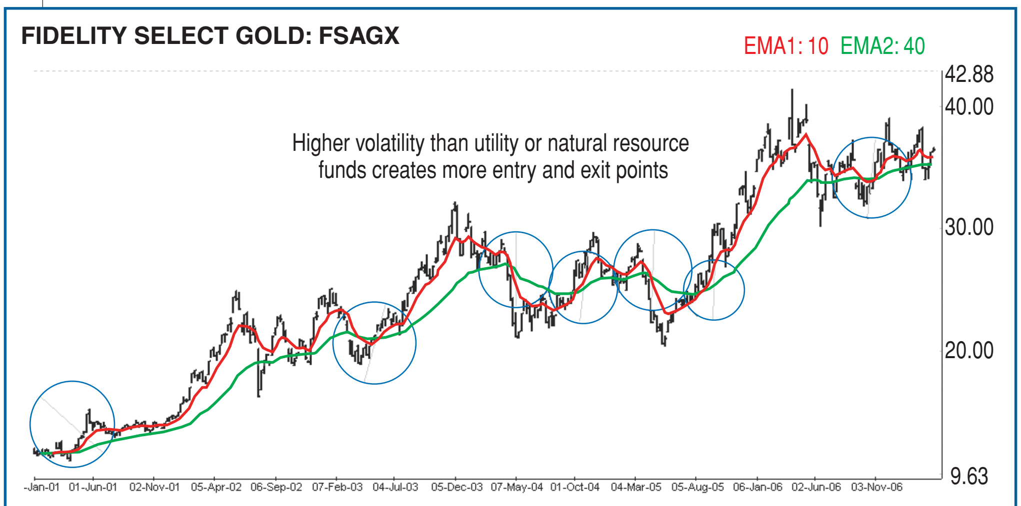

FIGURE 4: PRECIOUS METALS. FSAGX's trade signals reflect the higher volatility of gold mining stocks; an early exit prior to the May 2004 sell signal could have retained more of the maximum profits.

particular major market indexes; you may wish to determine the correlation of such sectors with the commodity futures markets most fundamentally related to the component stocks within the sector fund to confirm such trade entries.

SUMMARY

Trading systems don't necessarily have to be complex, research-intensive entities. For those who understand the power of long-term trends, a basic moving average crossover system could be a golden gateway leading to consistent long-term trading profits. Time, patience, diversification, risk control, an understanding of trade stats, and fearless execution are the keys to successful trend-following.

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