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Thoughts Galore

It wasn't too long ago that I came across the story of a truly remarkable individual who possesses tremendous occult abilities – abilities that are usually the stuff of fictional writing. Among other seemingly, farfetched skills were the capacity to split cloud, to bend spoon, and most intriguing of all, to cure cancer. Employing the method of “chi” – the ancient Chinese word for energy, he mystified even the medical profession with this unorthodox therapy. Harvard Medical School found the efficacy of his therapy to be very, very encouraging. So encouraging in fact that they have shown growing interest in this field.

So why haven't you heard much about this chi method? It's probably the same reason why the medical “profession” has not endorsed herbs despite growing evidence of their efficacy, not to mention their entailment of fewer side effects. The black sheep in this case is vested interest. The medical profession has a vested interest in keeping Eastern medicine on the fringe while at the same time endorsing its modus operandi.

Why am I bringing up this rather obvious observation? And what does this have to do with finance? I bring this up because it uncannily parallels the underpinning of the negativity that

The basic belief is that in the long run active or even passive money management would outperform technical analysis. My studies, however, resoundingly show otherwise.

money management direct towards technical analysis.

To money management, technical analysis is the nagging cough that never goes away. The motive of this negativity is not just strictly academic. The vested interest of the money management profession resoundingly chimes in. The usage of simple technical analysis would logically cut into the demand for money management.

To some this notion of money management's vested interest would fall under “common sense.” I, however, contend that people do not realize the *extent* of this vested interest and how it plays out.

I venture to say that the public has been perversely imbrued into thinking that technical analysis has absolute no value in investing. Money management perpetually endorses the tenet that in the long run, active (or even passive) money management would outperform technical analysis. Yet there are no available studies that have remotely concluded that

money management outperforms technical analysis. Zippo. Then why is this tenet so widely accepted? The fact that it is widely accepted shows the extent to which the public has been “dupe” by this vested interest.

This brings me to focus of this article. I will show that in the long run employing a simple technical analysis rule will be *more* attractive than money management. This simple technical analysis rule is to long the DJIA index when the index is above its 50-day moving average. Go cash otherwise. It's really that simple and yet so effective. (We'll dub this the 50 TA strategy.)

How do we benchmark its profitability for comparison sake? Considering that active money management rarely beats the index on a consistent basis, we can choose an index as representative of money management. The benchmark to which we will compare the 50 TA strategy will be the Dow Jones Industrial Averages. (DJIA is used primarily

because it stretches back to the 1930s.)

If you glaze over the accompanying table, you'll see that over a span of 70 year (1930 to 2003), this simple strategy yielded 522.9870% cumulatively, while the strategy of longing the DJIA (earmarked Buy and Hold) yielded only 499.7681%. Good but not impressive. That is until you look closer.

Check out the count figure, which is the number of days the strategy is in play. Employing the 50 TA strategies, you would have been in the market only 58.95% of the time! Thus you would have earned higher cumulative return despite being in the market for roughly half the time. Pretty impressive, I would say.

Also note the Up %, which is the percentage of days that produce a positive return. The 50 TA's Up % is a full 1% greater than Buy and Hold. Although this discrepancy is minute, the cumulative effect of summing it up over the span of 70 years is astronomical.

More important, note that the average daily return of the 50 TA

is a full 20 basis point above Buy and Hold. Again, although minute, the cumulative effect is mind-boggling. Higher daily return plus the aforementioned higher Up % equate into an immense impact.

Note that higher daily return accompanies *less* risk – the standard deviation of Buy and Hold is almost twice that of 50 TA. In other words, the Buy and Hold is more volatile and less attractive on a return comparison.

Along the same line, observe that the Sharpe ratio of the 50 TA is at an unheard mark of 7.180 versus the benchmark, 3.307. I am hard press to find many money manager performances that have yielded that kind of Sharpe ratio. Succinctly stated: you getting return with considerably less risk employing this simple strategy.

To compare the two strategies so that the average investor can better relate, we'll look at the return on an annual basis. Annual basis is simply daily return multiplied by 252. The Buy and Hold yields an annual basis of 6.881%, unadjusted for inflation. (Remember how pundits would

declare that the stock market historically return 10%? Not true, the nominal return is 6.881% not double digits.) While over the same span of time, the 50 TA's annual basis is an eye-popping 12.096%. More than 5% above that of the Buy and Hold.

To take the analysis a step further, assume that we invested \$100 in January 1930 in both strategies. By the middle of August 2003, we would receive \$4,741.45 via Buy and Hold. Contrast that to \$11,965.22 for the 50 MA. The discrepancy is tremendous.

Again, note that we would collect \$11,956.22 while only being invested in the market half the time (58.95%). Again I am hard pressed to find any mutual fund that would be up to par with this simple strategy.

Perhaps you're wondering if this is simply the result of data mining. Not really, the 50 MA is one of the most widely used moving averages. I selected 50 as the length of the moving average not out of optimization but rather reality. Had the analysis been carried out with the 200 MA, the results would be the same. What I noticed is that the length of the moving average does not matter. Readers are encouraged to test this out (refer to Author's Note).

You might argue that the profitability of the 50 MA is no longer persistent today. Although this argument holds some water, the effect is small and does not detract from the merits of the 50 TA. The nominal profitability of strategies has diminish somewhat, but from a risk-adjusted point-of-view, no. Risk-adjusted return is vastly more important as I'll show shortly.

	Buy and Hold	50 TA
Sum	499.7681%	522.9870%
Up Day	9366	5687
Down Day	8612	5016
Up %	52.0970%	53.1346%
Average	0.0273%	0.0480%
Stdeva	1.1235%	0.6978%
Count	18483	10896
Stan. Error	0.0083%	0.0067%
Sharpe	3.3076	7.1798
Annual Basis	6.8881%	12.0955%
1930-2003	\$4,741.45	\$11,965.22

The following table (next page) shows the breakdown of the two strategies into three strata – with each strata corresponding to a decade. The cumulative return of the Buy and Hold easily outpaced that of 50 TA over the three strata. Thus overall on a nominal profitability comparison, the Buy and Hold outperforms.

But note the volatility of the Buy and Hold strategies during the three decades. The standard deviation of the Buy and Hold is vastly much larger than that of the 50 TA in each of the three strata. Higher risk in other words.

Furthermore, the Sharpe Ratio of the Buy and Hold is considerably much smaller for the first two strata. The Buy and Hold’s Sharpe barely beat out the 50 TA’s during the last decade, this is mainly due to higher daily average. But cumulatively, over that thirty-year span, the 50 TA Sharpe ratio is far superior to that of the Buy and Hold. This translates into the 50 TA being more attractive on a risk-adjusted return comparison.

As I noted above, risk-adjusted return is a far more important criterion. The following chart will show why this is the case. The

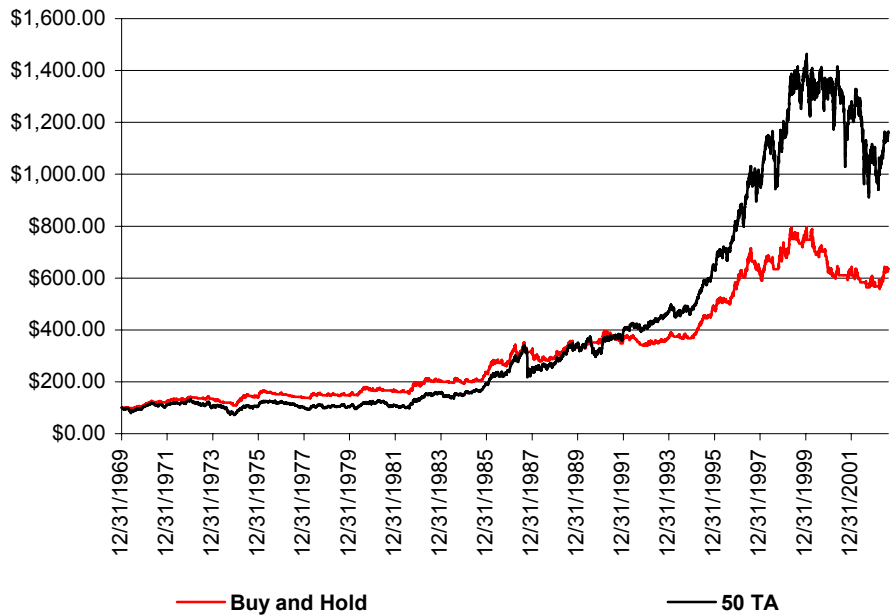


chart depicts what happens to \$100 invested in via Buy and Hold starting 1970 and contrast that to what happens to \$100 invested via 50 TA. The discrepancy at the end of 2003 is perverse. Over a span of only 30 years, the 50 TA outperform the Buy and Hold by a factor of two (\$1164.63 vs. \$637.13).

Note that the discrepancy is most pronounced during the 1990-2000. This is due to the volatility of the Buy and Hold negating some of its cumulative return. Despite the Buy and Hold nominal

profitability being higher, we see that overall the 50 TA is a better investment because on a risk-adjusted return it is far superior.

So the argument that the strategy’s profitability has diminish is mostly erroneous. Clearly on a risk-adjusted criterion, the 50 TA is more attractive.

Overall, what I have shown is that employing a simple technical analysis rule is more attractive to investors in the long run. The commonly held belief that technical analysis underperforms

Buy and Hold

	<i>Sum</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>	<i>Sharpe</i>
1970 - 1979	15.505%	0.006%	0.927%	0.018%	0.3327598
1980 - 1989	135.519%	0.054%	1.131%	0.022%	2.3825634
1990 - 2000	153.029%	0.061%	0.891%	0.018%	3.4142942

50 Technical Analysis

	<i>Sum</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Standard Error</i>	<i>Sharpe</i>
1970 - 1979	43.951%	0.035%	0.035%	0.001%	35.637059
1980 - 1989	89.759%	0.055%	0.773%	0.019%	2.8735658
1990 - 2000	88.757%	0.050%	0.644%	0.015%	3.2680442

in the long run is one of fiction and a byproduct of vested interest.

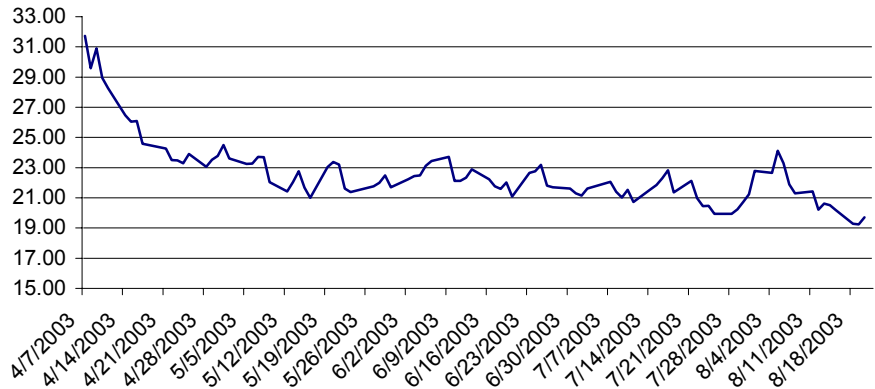
So what are the implications for investors and money management? Will money management fade away? Not likely. The markets are full of heterogeneous investors – some are dumb and some are just better equipped. The better-equipped investors would simply enjoy better performance via a simple moving average strategy (like the 50 TA).

● Weekly Harbor

How are stock prices determined? A rather naïve question, you might retort. The accepted answer is that a company's value is what determines stock prices. In other words, investors ascribe a dollar amount that they're willing to invest in a company based on the company's current value and future projected value. Stock prices goes up if investors perceive that the company's value has or will go up. (This is clearly an oversimplification, but will suffice for argument sake).

Although value is a valid answer to the question at hand, a more apropos answer is needed. Stock prices do *not* necessarily reflect value. Those who shorted Dell during the last Bull Market can attest first-handedly. The stock market is really a quasi-Ponzi Scheme – investors hope that the next buyer is willing to buy a piece of paper at a higher price. Like Keynes alluded to half a century ago, the stock market works on the premise of “a castle in the sky.” How does value fit in the grand scheme of things? In

VIX



the long run, value is king. But how long does overvaluation and undervaluation persist? Value might tell us where prices should be but it doesn't tell us the time – which after all is the heart of finance. Not to mention the fact that determining “true” value is as elusive as the time issue.

To look at it in another way, the value argument implies that holding stock is a means of ownership with the reward ultimately coming in the form of dividends. The dividend might come today or it might come twenty years from now. In any case, investment strategies are based one way or another on the dividend stream. Ask most investors if this is the reason why they invest. You'll be very disappointed.

Interestingly, note that the recent run up in equity is most pronounced in speculative companies, namely those listed on the Nasdaq. If investors are buying stock based on value, it doesn't make sense that the recent concentration has been on nonpaying dividend stocks rather than dividend paying stock. Why is this? Simple, investors are speculative-oriented and not value-oriented.

You might argue that nonpaying dividend stocks are selling at higher prices due to future projected dividend streams. Although there is a grain of truth in this argument, valuations are too high to warrant the current price level. A P/E ratio hovering over 70 (Nasdaq current P/E ratio) is asking companies to increase revenue at least in the 25% - 35% range. But revenue cannot exceed GDP growth over an extended period of time. This is common sense.

Overall, we see that investors are not very interested in value, at least in the near and intermediate future. When investors say a company is “attractive,” it usually means that in the future someone else will pay a higher price for it. The apropos answer to the original question is that stock prices are determined by speculative appetite and not necessarily value.

Why am I bringing up this rather innocuous observation? I bring this up because people are mystified why stocks are going up at this current pace. Cries of overvaluation are being strung together: P/E ratio of the Nasdaq is over 70, market too optimistic, VIX persistently around 20. None of this really matters as long as people are willing to invest and

push price higher. Value carries little weight as long as money inflow is strong. Supply and demand. Speculative appetite. The recent run up is due to strong money inflow, as appetite for US equity increases.

Are stock overvalued, the answer is a resounding yes. Will it go up or down? It depends on investors' appetite. As of this writing, it seems that money inflow in the equity market is slowing somewhat. As note above supply and demand dictate stock prices. Demand for equity looks to sag. Trim Tabs estimated that funds witnessed inflows of \$2.6 billion during last week. This is comparably less than \$4.1 billion last week. This in itself could be a signal of a possible market correction.

Last week, I anticipated that both the Dow and Nasdaq would nosedive. Dead wrong, as both pull impressive weekly gains. I think I am a tad early. I see both indices tumbling next week (with the Nasdaq falling much more than the Dow), as demand for equity looks stagnant. Moreover, in my opinion economic reports will not turn out to be very market pleasing. Consumer confidence, GDP, existing home sales, and

personal income and outlay are due. Market has already discounted all the positive anticipation only negativity remains. I don't see any positive surprises, but I could be dead wrong. Also Greenspan is scheduled to speak Friday; only bad new can come from this.

● Cash City

There are only two paths the housing market can take in the next five years: dismal and stable. The assessment on Wall Street is that interest rate is at the lowest possible threshold. Further lowering are unlikely as the Fed will pull every spell out of its bag to prevent deflation – including running the printing press. The ramification on the housing market is uncertain as whether it will stabilize or go south. But the one consensus conclusion we can draw is that the housing market is unlikely to re-witness recent run up or even come close.

This uncertainty has caused a mini-panic as investors, anticipating a slide or hedging some of the downside risks, unloaded housing sector stocks. Naturally some extremity ensued.

Fidelity National Financial (NYSE: FNF), Inc. is a provider of title insurance and real estate related services, mainly in the United States. It offers a broad array of services including property data and disclosure services, home owners insurance, and home warranty insurance. The most glaring financial aspect of the company is that its cash flow as a percentage of market valuation is at an unheard mark of 19.02%. If we assume for the moment that its cash flow is cut in half and its common stock price remains the same, the percentage will become 9.51%, still very impressive.

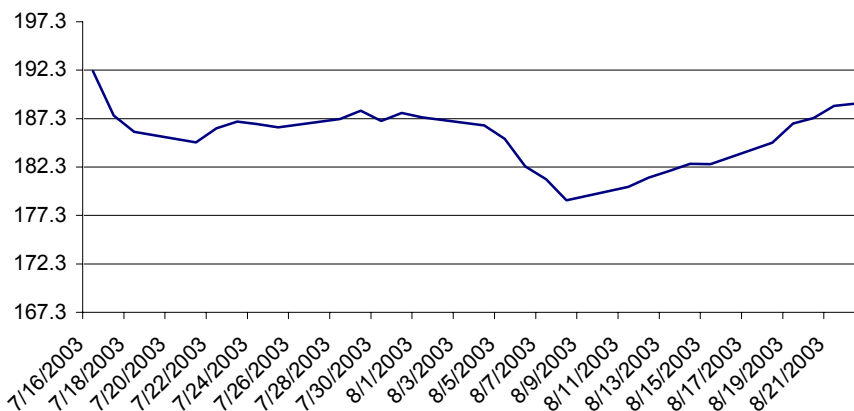
This massive undervaluation can only be explained by the extremity of recent concerns over the future of the housing market. The levelheaded investors can profit from this abnormality.

To further strengthen the case for FNF's undervaluation, we'll run a five-year cash flow analysis. For effect, we'll assume some gloomy assumptions.

Lets assume that revenue nosedives 30% in 2003. All subsequent revenue growth after 2003, however, is assumed to grow at the rate of GDP, 3%. The 30% is to ensure that the calculation factors in the possibility of a meltdown in the housing sector. Also assume for analysis, that profit margin will be 17% over the five-year span. Assume cash tax rate at 40%.

Assume fixed-capital rate as a percentage of total revenue to be 2%. Working capital as a percentage of total revenue will also be earmarked at 2%. Note that both percentages are percentages of revenue and *not* as additional revenue. Had we

(Nasdaq-Dow) Spread



assume the latter: a 30% drop in total revenue will *heavily increase* cash flow – which doesn't make much sense as we would expect cash flow to decrease or at best increase marginally. Moreover, using percentage of total revenue will ensure conservative estimate as capital expenditure and working capital is always positive – which is not always the case when revenue shrinks.

FNF's debt-to-equity ratio, which stands at 0.57, is not very appealing. But its beta is relative tame at 0.44. This ultimately translates into a cost of capital assumption of 9%. Again, conservative assumption to ensure margin of safety. Inflation rate is assumed to be at the forecasted consensus of 2%. And lastly we assume no nonoperating assets with nonoperating liabilities to be 5% of corporate value. This should be more than enough to cover employee stock options and other nonoperating liability.

Summing all the assumption up will yield a “fair value” of \$36.11. As of this writing, the stock is quoted at \$29.13 – an attractive 23.96% discount.

Author's Note

In the Download section, you'll find three Excel files. FNF.xls contains the Cash City cash flow analysis of Fidelity National Financial. 50MA.xls contains the relevant data for the 50 TA strategy and the Buy and Hold strategy during the span of 1970-2003. Note that the daily returns of both strategies are not “manually” computed. In other words, they're imported. This is so save space, as the non-imported file is enormous.

Template.xls serves as a template on *how* to calculate daily returns of both strategies. Note the template is used as an

illustration. The format is rather easy to follow. In this template, the 200 MA is used instead of the 50 MA. For readers wanting to thinker with the length of the moving average, simply download the data for Yahoo or other sources and follow the template.

If you have any question, feel free to email me at Satyrican@lycos.com.

	2002	2003	2004	2005	2006	2007
Revenue	\$5,082,	\$3,557,	\$3,664,	\$3,774,	\$3,887,	\$4,004,
Operating Profit	\$864,048.8	\$604,834.2	\$622,979.2	\$641,668.6	\$660,918.6	\$680,746.2
Less: Cash Taxes on Profit			\$249,191.7	\$256,667.4	\$264,367.4	\$272,298.5
Net Operating Profit After Tax		\$362,900.5	\$373,787.5	\$385,001.1	\$396,551.2	\$408,447.7
Fixed-capital investment		\$71,157.0	\$73,291.7	\$75,490.4	\$77,755.1	\$80,087.8
Working-capital investment		<u>\$71,157.0</u>	<u>\$73,291.7</u>	<u>\$75,490.4</u>	<u>\$77,755.1</u>	<u>\$80,087.8</u>
		\$142,313.9	\$146,583.3	\$150,980.8	\$155,510.3	\$160,175.6
Free Cash Flow		\$220,586.6	\$227,204.2	\$234,020.3	\$241,040.9	\$248,272.1
Present Value of Free Cash Flow		\$203,174.5	\$192,751.0	\$182,862.2	\$173,480.8	\$164,580.7
Cumulative Value of Residual Value		\$203,174.5	\$395,925.5	\$578,787.7	\$752,268.5	\$916,849.2
Present Value of Residual Value		\$5,189,344.8	\$4,923,114.2	\$4,670,542.2	\$4,430,927.9	\$4,203,606.7
Corporate Value		\$5,392,519.3	\$5,319,039.7	\$5,249,329.9	\$5,183,196.5	\$5,120,455.9
Add: Nonoperating Assets		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Less: Debt and other Liabilities		-\$269,6	-\$265,9	-\$262,4	-\$259,1	-\$256,0
Shareholder Value		\$5,122,893	\$5,053,088	\$4,986,863	\$4,924,037	\$4,864,433
Shareholder Value Per Share		\$38.03	\$37.51	\$37.02	\$36.56	\$36.11

Figures in thousand