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The Three Proven Keys To Beating The Market

www.oddsprovenincome.com

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Chapter 1

A Layman's Introduction to the Efficient Market Hypothesis and Financial Market Anomalies

What is an anomaly? An anomaly is something that is odd, uncommon, out of the ordinary. Pure and simple, an anomaly is abnormal.

In this report, we're going to investigate two anomalies in the financial markets. More important, we're going to show you how we put these anomalies to work. We have created an investment strategy based on our own discoveries. What's interesting is that what we found has been confirmed by research from some of the most distinguished members of the financial academic community.

Before we get started, however, there is an important question I'd like to ask you: Do you want your trading strategy to be based on rock solid research that has been proven over time? I'm sure most people will say yes.

Well, be careful how you answer that question. Because if that's what you want, you then have to ask yourself a couple of follow-up questions: Do you want to have a full understanding of the methodology? Will you be able to get through the explanation of the research?

The reason I ask is because this booklet provides a massive amount of information on the anomalies that allow us to do what we do. It does so in a very short report that doesn't contain any fluff. Some might say it's too much information. But I have to tell you that I'd rather give you too much information than not enough. When I evaluate a trading strategy, I want to know everything.

The good news is, there is nothing in this report that goes over the head of anyone who has an interest in options. [As far as the cited articles? Well, that's another matter. You can get most of them off of the

internet or from a library. They are not for the faint of heart.]

Here's the thing. If you find that this report is too tedious or the subject matter too complicated, do not worry. You do not need the information contained in this report to use ODDS Proven Income. The service does all the work for you. We've developed systems that utilize the information in this booklet and automated them so that all you need to do is access a web page that provides a list of potential trades. All you have to do is log in and read the daily updates. It could not be easier.

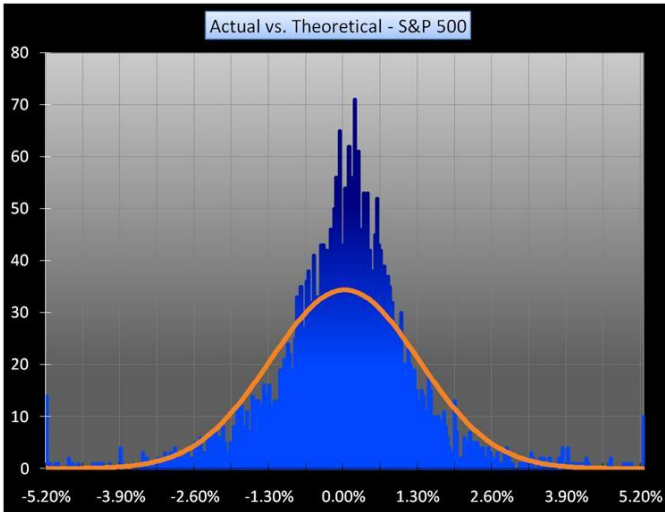
So enjoy the rest of the booklet, but don't fret if it gets too overwhelming the first time you read it. As stated, this report covers a vast amount of information that would be helpful if your goal is to understand what we're attempting to accomplish. But it's not necessary for the actual day-to-day operation and utilization of the service.

Profiting From the Abnormal

In investing, the accepted norm over the past half century has been based on the Efficient Market Hypothesis, or EMH.

At its core, the Efficient Market Hypothesis assumes that the current asset price--what ever it might be--is based on all known information by all parties.

Everyone has an opinion as to where an asset's price is likely to be headed in the future. Their buying and selling has caused the price to go to a certain level. Where the price goes from that level is random. And it follows a normal distribution. [Okay, it doesn't *perfectly* follow a normal distribution. But it's close enough that we can use the mathematics of a normal distribution to make derivative valuation estimates with models.] At the top of the next page is a graphic of the S&P 500 with a modeled distribution that looks like a bell curve and the actual distribution of daily returns.



Because an asset's price is based on the expectations of all parties, the only way for an asset's price to change is for a catalyst to come along and change those expectations.

In the case of a stock, it may be company specific news. In the case of the stock market, it may be political or economic news.

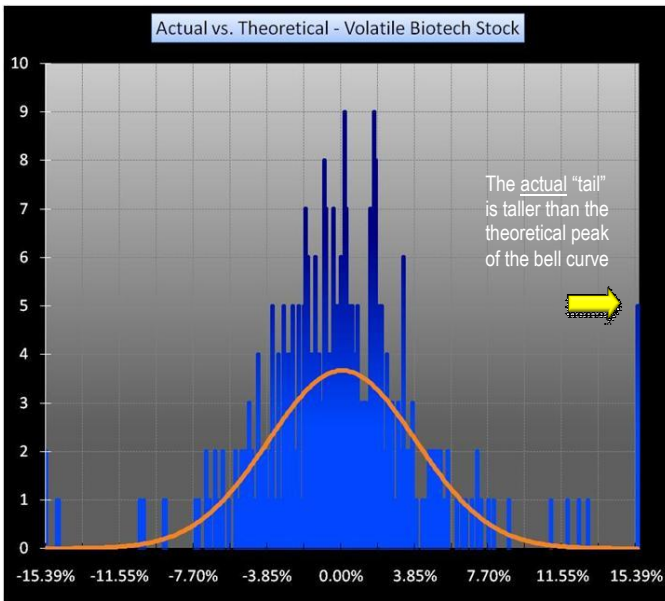
The key is, while some might be able to predict the news, no one can consistently predict how the news will impact investor expectations. That's why the direction a stock takes is considered random.

One of the other precepts that supposedly proves EMH is that very few investors have been able to consistently beat a market benchmark without taking undue risks. In other words, the only reason investors beat the market on a regular basis is due to luck, leverage or investing in riskier stuff.

Consistent profitability above and beyond a benchmark that is achievable via traditional investments like CDs, bonds or broad-based stock indexes—without taking undue risks—would be considered an anomaly.

We've seen this "rule" get enforced over and over again when you see a hot money manager or hot investment idea suddenly blow up.

Fortunately for us, however, our *Measure Don't Model*[®] approach that's based on data from our *massive and cutting edge database* has given us the opportunity to profit repeatedly and consistently. That's because it assumes that the normal distribution may be incorrect. Here's an example where a stock's distribution deviates wildly from the normal bell curve.



Because we take into account these deviations, our *Measure Don't Model*[®] approach may be an exception to the rule ... an anomaly.

This report is going to cover two other anomalies. They're two of the most widely researched anomalies in all of academia. Countless research papers have been published on these topics.

Although the report is only slightly more than 25 pages long, it is chock full of some of the most valuable investing information found anywhere. It's a summary of decades of research done by me and by hundreds of other research professionals in a succinct format.

Once you've completed this report, you'll have a full understanding as to why our *ODDS Proven Income* approach works the way it does. You'll understand why the profits from this method truly are abnormal.

The Efficient Market Hypothesis

First, a little background.

Like I said, EMH requires that the general investment community comes to a consensus about an asset's price. Let's say that you have countless investors trading a stock. Let's say the stock is Apple (AAPL). Let's also say that AAPL shares are trading at \$100. That means, based on the information that traders involved in AAPL currently possess, they have come to the conclusion that \$100 is the correct price for AAPL shares.

It's important to note that the \$100 price is not determined by earnings, sales or any fundamentals. Those factors would give you *value*, not price. Price is determined by an open, mostly online auction between buyers and sellers.

EMH says that the only way for the price to fluctuate from this level is for *new* information to come along. When that new information arrives, the change in the price is rapid and cannot be exploited.

We see this all the time when a stock gaps higher or lower after a news event, such as earnings. While the new information might be accurately predicted, one of the problems is that, very often, the new information was already expected and, therefore, was already reflected in the price. The future movement of the stock from that point cannot be exploited. So the direction the stock takes once the news comes out is random.

This happens in the real world quite frequently when a company provides an updated outlook when earnings are announced. One of the key factors influencing a stock's price after earnings are announced is not necessarily the earnings report itself. It's how the earnings compare to analysts' expectations. In fact, it's gotten to the point that not even current earnings will influence a stock's price. Instead, what drives the stock is the company's outlook for the future. In other words, how the stock behaves after earnings are announced depends on how expectations are adjusted based on new information from the company.

Another key fact about EMH is that it assumes investors are rational. This is not hard to understand. If investors find something that works, they flock to it. What happens is that potentially winning trading strategies get discovered by a few, then the strategy gets known by many. Rational investors flock to the winning strategy so that it becomes widespread. [As we'll learn later, rational investors should flee strategies that cost them money unnecessarily.]

With all those rational investors doing the same thing, their expectations become reflected in the stock immediately. So if you were an early adopter of the strategy who is now looking at the same information that everyone else is, any edge you might have had disappeared and the winning strategy stopped working.

You Can't Get Something For Nothing

A classic example of this occurred during the real estate bubble. During the buildup to the bubble, the Federal Reserve was earnestly striving to keep interest rates low so that the economy could recover from the popping of the tech bubble. Savers and investors were unhappy with the yields they could get on CDs and other fixed income securities. So many of these supposedly sophisticated professional institutional investors "reached for yield". Unhappy with 4.5% interest on

their money, these investors looked for relatively safe alternative investments that paid a slightly higher rate.

The investments many of these so-called pros bought were mortgage-backed derivative securities. The key is that many of these derivatives were AAA-rated by the national ratings agencies. Through the alchemy of financial engineering, risky junk was converted into interest-bearing securities that were supposedly safe.

When the securitization process of creating highly rated mortgage backed derivatives started, all was well and good. The investors that got in at the beginning did quite well. Other investors saw how well the early adopters were doing and they jumped in. More followed, and then more. Eventually, the trickle of money into the mortgage market turned into a tidal wave.

We all know how this turned out. The risky junk turned out to be just that--risky junk. And the purported safety was just an illusion.

Here's the point: These investors basically fell victim to the EMH. They did not get a return higher than the benchmark with the same level of safety. They got a higher return for a while, but the perceived safety was a fantasy. When the true riskiness was realized, the high returns turned into huge losses.

It's like the old adage says, You can't get something for nothing.

The More Popular a Profit-Making Strategy Becomes, the Worse It Performs

There are plenty of other examples where the EMH has taken its toll on investors who think they have an edge.

The fact that only a handful of investors can beat the market consistently is another key piece of evidence indicating that persistently finding situations that can be profitably exploited is extraordinarily difficult.

Let's look at another situation, this time by answering a question. If you flip a coin 9 times and it comes up heads all 9 times, what's the likelihood of it coming up heads on the next flip? The answer is 50/50. The coin has no idea what the result of the prior flip was. The result of the next flip is independent of the prior flips.

Let's say you're going to flip a coin 10,000 times. You know ahead of time that the number of heads and the number of tails is going to be pretty close to 5,000 each. But that does not mean if you flip a coin 10 times and they all come up heads that the next 10 flips will come up tails. That's because the probability of the result being heads or tails for each flip is independent of the result of the prior flip. So no matter what the streak, the probability of flipping heads or tails on the next flip is 50/50.

EMH says the same thing about a stock. If a stock goes up 1% every day for 9 straight days, what's the probability it goes up the next day? EMH says 50/50.

If it was anything else besides 50/50, that would have very powerful implications. For instance, let's say that we did some research and found that in past instances where, after a stock goes up for 9 straight trading days, there is a 90% chance that it will go down on day 10. Imagine that we did some statistical analysis and found that there have been 5,000 instances of a stock going up 9 straight days. Imagine that we also found that in 4,500 of those situations, the stock dropped on day 10. That tells us that 90% of the time, the stock moves lower. Also, imagine our study found that the size of the down move it takes 90% of the time is 3 times greater than the up move it takes 10% of the time.

So the stock goes down much more frequently than it goes up. When it does go up, it doesn't go up much. When it goes down, it goes down a lot.

Armed with that information, what would you do? Well, one very easy thing you could do is construct a trading system that screens for stocks that have gone up

9 consecutive days. Once you get the results of that screening process, you could put on a huge short position in the stock and make a very reliable, very large profit!

Here's the thing. If you started doing that, pretty soon others would notice and start doing the same thing.

Believe it or not, despite the mixed results many traders have, there is actually a lot of brain power on Wall Street. Pretty soon someone else would figure it out too. The effect would be that, as the stock's streak of gains started approaching 9 straight days, traders would start to take notice. As the end of the 9th day approached, people would start shorting the stock to take advantage of the near-certain drop on day 10. That short selling would push the price of the stock down so that the stock may actually finish that 9th day lower, thus breaking the streak before the 9th day is complete, which ruins the system, which means the action on day 10 is now uncertain ... random.

The net effect of all of this leads to the Efficient Market Hypothesis. As information becomes known, stock prices react immediately to the information. Therefore, future market movement is based purely on the market's reaction to fresh news. That reaction will be random and cannot be predicted.

A consequence to this is that anytime an investor does appear to beat a benchmark, it's because they're taking on excessive risk or just lucky.

If an investor *does* appear to have an edge that leads to consistently high performance and that high performance comes without taking on excess risk, that edge will disappear as rational investors start mimicking his or her methodology.

If, in the unlikely event, you can find an exception to those rules, it would be considered an anomaly ... abnormal.

The question then becomes, are there anomalies? The answer is, YES!

Ironically, one well-known anomaly, the momentum effect, has been thoroughly researched and supported by the man who developed the EMH -- Nobel-Prize winner, Professor Eugene Fama of the University of Chicago.

Chapter 2

A Discovery By An Amateur Investor

So what is the momentum effect? Let me begin with a true story about my dad, who was an inspiration to me. He loved the stock market. He wasn't a trader. He was a long-term investor. And when I mean long-term, I mean my mom still owns some stock they bought in the 1960s (Dad passed away many years ago).

Back in 1991, my dad noticed something. It had to do with the relatively new Fidelity Select Funds. These were sector-specific funds. It's funny to think about how revolutionary these mutual funds were back then considering the proliferation of ETFs today. But they were truly ground-breaking when they were introduced.

Anyway, my dad noticed that in late-1991 that the Fidelity Select Biotechnology fund had been the best performer that year. He also noticed that it was the best performer in 1990. That prompted him to investigate further.

He found that very often, the best performing sector one year had a market-beating performance the following year! The positive momentum from one year continued to the next.

The system could not have been easier. To beat the market, all you had to do was look at the one-year returns of the different Fidelity Select Funds at the end of the year, and buy the best performer for the following year. [Note that back then, there weren't as many Select Funds as there are now. So it's not nearly as simple today.]

My dad and I discussed it and tweaked it till we found that the positive momentum wasn't just isolated to the single best performing industry group. Positive momentum seemed to apply to the top 10%. That is, if you had 100 different industry groups, the top 10 performers from one year would outperform the overall

market the following year. [I also found that it would be helpful to apply some sentiment analysis, but that's a separate issue I cover in my *Profit Power™ Home Study Course*.]

The Academic Community Discovers the Momentum Effect

While all of this was going on between my dad and me, the academic community was beginning to investigate the momentum effect. The breakthrough research was published a couple of years after my dad spotted the industry-group momentum effect. In 1993, a *Journal of Finance* article titled *Returns to buying winners and selling losers: Implications for stock market efficiency*¹ contained this abstract:

This paper documents that strategies which buy stocks that have performed well in the past and sell stocks that have performed poorly in the past generate significant positive returns over 3- to 12-month holding periods. We find that the profitability of these strategies are not due to their systematic risk or to delayed stock price reactions to common factors. However, part of the abnormal returns generated in the first year after portfolio formation dissipates in the following two years. A similar pattern of returns around the earnings announcements of past winner and loser is also documented.

What these investigators found is that relative strength is a powerful predictor of future price behavior over 3- to 12-month time period. That is, if you were to create a market neutral portfolio where you buy the best

¹ Jegadeesh, N. and Titman, S. (1993), "Returns to buying winners and selling losers: Implications for stock market efficiency", *J. OF FINANCE*, Vol. 48, No. 1, pp. 65-91.

performers and sell short the worst performers, you would create a market-neutral portfolio that generates returns far higher than one would expect from a market-neutral investment strategy.

That research was extended in a ground-breaking article, also in the *Journal of Finance*, by EMH developer Fama and Professor Ken French of Dartmouth in 1996². Here's the abstract:

*Previous work shows that average returns on common stocks are related to firm characteristics like size, earnings/price, cash flow/price, book-to-market equity, past sales growth, long-term past return, and short-term past return. Because these patterns in average returns apparently are not explained by the capital asset pricing model, (CAPM), they are called anomalies. The authors find that, **except for the continuation of short-term returns, the anomalies largely disappear** in a three-factor model. Their results are consistent with rational intertemporal CAPM or arbitrage pricing theory asset pricing but the authors also consider irrational pricing and data problems as possible explanations.*

The key phrase is “the continuation of short-term returns”. That’s the momentum effect. In the article itself, the researchers found that using a model they developed that incorporated three factors, they could explain a portfolio’s performance. But no matter what they did, they could not explain the momentum effect. It was an anomaly that just wouldn’t “disappear”.

Since then, there has been an avalanche of research on the momentum effect. Not only has it been studied on stocks here, but it’s also been studied on the stocks of

² Fama, Eugene F. and French, Kenneth R. (1996), “Multifactor Explanations of Asset Pricing Anomalies”, *J. OF FINANCE*, Vol. 51, No. 1, pp. 55-84.

foreign markets³. It's even been studied on other *types* of financial markets, such as currencies⁴ and even commodities⁵.

Back to stocks. In 2007, Fama and French found that the momentum effect still exists and remains quite strong⁶.

Shortly after the discovery of the momentum effect, researchers began to try to figure out *why* it works. One reason people believe it works is what's called feedback. A very interesting Working Paper I came across looked at feedback and found that the momentum effect was most pronounced on stocks that had high volatility. The researchers eventually presented their findings at a conference in October 2010⁷. Another study published in the *Journal of Finance* suggested that momentum works because the market responds only gradually to new information⁸.

As you might imagine, this is a very small fraction of the research done on the subject. The momentum effect is one of the most well-known patterns in the

³ Asness, C.S., Liew, J.M. and R. L. Stevens (1997), "Parallels Between the Cross-Sectional Predictability of Stock and Country Returns", *Journal of Portfolio Management* Vol. 23, No. 3, pp. 79-87

⁴ Nitschka, Thomas (2010) "Momentum in Stock Market Returns, Implications for Risk Premia on Foreign Currencies", Swiss National Bank Working Papers

⁵ Erb, Claude B. and Harvey, Campbell R. (2006), "The Tactical and Strategic Value of Commodity Futures", Working Paper

⁶ Fama, Eugene F. and French, Kenneth R., *Dissecting Anomalies* (June 2007). CRSP Working Paper No. 610

⁷ Chiang, Thomas C, Liang, Xiaoli and Shi, Jian . "Positive Feedback Trading Activity and Momentum Profits" The 2010 Financial Management Association Annual Meetings: New York City, NY Oct 2010

⁸ Chan, Louis K. C., Jegadeesh, N. and Lakonishok, J. (1996), "Momentum Strategies", *J. OF FINANCE*, Vol. 51, No. 5, pp. 1681-1713.

stock market. Because its profit-generating performance is well known, and because investors are supposedly rational, so many people should be trying to implement the momentum effect that it shouldn't be providing abnormally high returns anymore.

Yet, even though nearly every professional investor knows about it, the momentum effect remains. That makes it a true anomaly.

One thing I want to make clear is that in the studies here and in the hundreds of studies not mentioned, the researchers didn't just look at the one-year returns like my dad and I did. They looked at all sorts of time horizons, from as little as one month to as long as four years. [For what it's worth, back in the 1980s, researchers found that when you looked back over very long time horizons such as four years, there exists what's known as the reversal effect. That is, the best performers do the worst and the worst performers do the best.]

In some studies, researchers included what's known as a skip period. Let's look at an example to show you what that means. Let's say you were looking at 11-month returns with a 1-month skip. On December 31, you'd look back a year ago at the price of a stock on December 31 the prior year. That would be your starting price. You'd then look at the total return of the stock between the start point and the next 11 months ending on November 30. You'd do that for every stock, then you'd select the top performers (generally the top 10%). Because you could perform this analysis immediately after November 30, you could determine what stocks to have in your portfolio at the close on December 31, which is when you'd make your portfolio adjustments.

Application to Industry Groups

Not only have researchers investigated the momentum effect on U.S. stocks, foreign stocks, foreign currencies and commodities, they've also checked to see

if there is a momentum effect for industry groups. That's the effect my dad noticed nearly two decades ago. Indeed, researchers have confirmed that there is a momentum effect for industry groups^{9,10}.

Putting The Momentum Effect To Work

Bottom line is that there is overwhelming evidence that the momentum effect is real and pervasive across the globe and across all markets, and effective from the stock level to the industry group level.

We're going to put this knowledge to work by focusing on the best performing stocks in the best performing industry groups.

Our actual methodology is a little complex because of the way industry groups are configured. For example, the diversified technology sector has about 50 companies in that group while the tobacco has just a handful. We take those differences into account, along with a couple of other steps, such as only looking at the performance of optionable stocks. We don't measure the performance of stocks that don't have listed options associated with them. Once that's complete, we then rank the industry groups according to performance.

From the rankings, we take the top performers. Then we select the best stocks in the best performing industry groups.

That is the final step of the first process. We now have our list of stocks that are likely to be anomalous. That is, they're very likely to outperform the stock market over the short-term. The next step is to find the proper option trade. And for that, we turn to another anomaly.

⁹ Moskowitz Tobias J. and Grinblatt, Mark (1999), "Do Industries Explain Momentum?", *J. OF FINANCE*, Vol. 54, No. 4, pp. 1249-1290.

¹⁰ Faber, Mebane T. (2010), "Relative Strength Strategies for Investing", Working Paper

Chapter 3

The Irrational Investor

This is a real puzzler. And it pokes a pretty big hole in the “rational” part of the Efficient Market Hypothesis. Remember, one of the key principles of the Efficient Market Hypothesis, as well as mainstream economics, is the concept of a rational participant, whether you’re talking about an investor in the market or a consumer in an economy. A rational participant should stop doing things that are not in their best interest. For example, someone driving down the street needs to buy gas. Gas stations have signs displaying price. A rational participant will factor in things like name brand, ease of access to the station, even things like environmental record of the oil company, and last but certainly not least (in fact, it’s probably the most important part) price, and then make a decision.

Here’s what will *not* happen: All things being equal except price, economic theory says that a rational consumer will not select to buy the gasoline at the higher price. For instance, let’s say you’re driving down the road and there are two Shell stations right next to each other (this controls for perceived gasoline quality and environmental record). The access to the stations is identical. The facilities are both the same age. Taxes are the same. There is absolutely no difference ... except that one station charges \$2 per gallon and the other charges \$4 per gallon. They will not buy the higher priced gasoline. They will avoid what’s not in their best interest. Economic theory states that the rational consumer will do what is in their best interest and buy the lower price gasoline.

It’s the same thing with investors and the financial markets. Investors drift to ideas that work (although, as noted, the momentum effect is an exception). They avoid things that don’t work. If an investment idea

doesn't work, then people tend to shun that investing idea.

We've seen this on display in the real world as investors have embraced passive index mutual funds and ETFs much more so than they have active mutual funds that depend on the stock-picking skills of the manager.

Evidence of this also showed up in the asset flows of bond funds in 2009 and 2010. With the S&P 500 in November 2010 right back where it was in July 1998, and dividends extraordinarily low during that time frame, the return on stocks has been abysmal over a 12-year period compared to bonds. So it's no surprise ... in fact, it's both rational and expected by EMH that investors would have fled the stock market and embraced the bond market.

Simply stated, a strategy that loses money over the long haul will not attract money!

Is Buying Insurance Rational?

Do you buy car insurance? If you're an adult living in the U.S., the answer is probably yes.

Do you think you make money or lose money by buying car insurance? Before you answer that, think of it this way. Would you be better served if you self-insured? That is, would you be better off putting the premiums in a savings account and collecting the interest. Later, if you don't have a wreck and the money starts piling up, you start investing in stocks and real estate and commodities and maybe even start loaning money to businesses. Heck, you'd be just like an insurance company now!

The answer to the question as to whether or not you would be better served financially by buying car insurance is a definite no for the vast majority of the population. Think of it. The proof is that insurance companies actually exist! The insurance companies have to make money somehow. They make money by

utilizing the investment proceeds from all that money you give them.

Buying insurance costs the pool of policyholders two things: loss of premium and loss of opportunity on those premiums. In return, an individual policyholder has the potential to recoup far more than he or she ever paid in case there is ever a need to file a claim. In aggregate, however, the pool of policyholders loses money.

In other words, buying car insurance is bad when measured as an “investment”. But the peace of mind that comes with insurance makes it worth it.

Options As Insurance

What this shows is that people are willing to spend money on things that aren't necessarily in their best financial interest. You could say the same thing about vacations or any other luxury or hobby. Sometimes, spending money on happiness is worth it. You could say the same thing about spending money on peace of mind, such as buying a fire extinguisher for the kitchen or making sure your car has airbags. It's unlikely you'll ever need either of them. Most likely, it's a waste of money. But you'll be very glad you spent the money if you ever need either of them.

For most people, spending money on something that protects them, even though it's unlikely they'll ever need the protection, is still worth it. In fact, they probably haven't even considered it as being irrational.

For many investors and traders, it's a very similar thing with respect to index puts.

A severe car wreck is similar to the bear market of 2008. The difference is, car wrecks occur every day. But they impact only a small fraction of the public at any moment.

Severe bear markets like those seen in 1929-1932, 1973-1975, 2000-2002, and 2007-2009 don't occur

every day. But when they do occur, nearly everyone, including non-investors, is affected.

The interesting thing is, the likelihood of these events, and the financial consequences, are conceptually similarly. That is, they are both: Low Probability, High Severity.

For some people, buying protection from a high-severity event is worth it, even though there is such a low probability of it ever happening that it's very likely to be a money-losing proposition.

Financial Consequences of Buying Protection

As noted, the consequences of buying protection for unlikely events are that you're likely to lose quite frequently. In fact, unless the totally unexpected happens--even when a catastrophe does happen and a claim is paid--at the end of the day, the insurance company is likely to make a profit. The pool of money paid to the claimants the insurance company collected premiums from is less than what the total pool of insureds would have had if they kept their money and invested it themselves. The insureds lost.

It's the same way with index puts. In an October 2004 study, Driessen and Maenhout found that buyers of index puts lost money¹¹. And it wasn't just a little bit of money. The study found that if an investor bought a one-month index put whose strike price was nearest to the level 4% below the price of the index at the time of purchase, that investor would lose -41% a month.

That is not a misprint. It is not a loss of -41% a year. It's -41% a month!

If an investor bought the put that was further out-of-the-money, say 8% below the index price ... IT GETS WORSE!! -48% a month.

¹¹ Driessen J. and Maenhout P. (2004), "An Empirical Portfolio Perspective on Option Pricing Anomalies", *Review of Finance*, Vol. 11, No. 4, pp. 561-603

There is no way a rational investor would persistently buy something that loses money so reliably, especially when you don't get any utility from it. You wouldn't buy a car that lost -41% of its value each and every month! At that rate, a new \$20,000 car would be worth just \$35 in a year. You wouldn't buy gold if you suffered that kind of compounded loss. If you bought gold at \$1,000 an ounce, a year later it would be worth \$1.78.

It is completely irrational for someone to pay that much money for something that loses that badly. Yet people still do it. This is completely contrary to EMH. It's an anomaly.

Another way of looking at this concerns the pricing of the options; it means index option puts are extremely expensive compared to the financial value they provide. Buyers of index puts get hammered. Sellers of puts make huge profits.

The reason index put buyers continue in their losing ways is because every now and then, the stock market suffers a catastrophe and the put buyers make big money. Unfortunately, even though there is eventually a big score, it's never enough to make up for all the money lost during those losing months. Kind of sounds like people going into a casino hoping to hit the jackpot, or someone playing the lottery, doesn't it?

The thing is, someone playing the lottery or gambling in a casino is not rational. They may be having fun, but it's only entertainment. It is not a very good way to make a living [I'll admit that card counting is rational. But someone who tries it will get kicked out if they're caught. And I'll also admit that a skilled poker player can earn a positive return. But a poker player isn't playing against the house.]

Because there is no entertainment value in buying puts and only economic value, EMH says that the persistent losses should cause rational investors to stop buying them ... at least at that price.

We can use a game of chance to illustrate what the last part of that sentence means. Let's say you have a game where, when you win you win 4, when you lose, you lose 1. The risk reward in this game sounds pretty good, doesn't it.

Now let's add one more crucial ingredient. Let's say your odds of winning are 10%. That means 1 time in 10 you win 4, and 9 times in 10, you lose 1. If you play the game 100 times, you'd have 10 wins of 4 for a total of 40. And you'd have 90 losses of 1 for a total of -90. Ugh! You can see that you'd lose a lot of money playing that game.

In a game with fair odds for both people playing the game, the probability has to change. With a win amount of 4 and a loss amount of 1, the win rate for you has to be 20% for the odds to be fair. [I urge you to do the math yourself to confirm this.]

What this tells us is that risk and reward can be used to determine the probability assessment of the game.

It's similar with insurance. As you age, the cost of health insurance goes up because you're more likely to have a bad back as a 50-year old than you were when you were 20. Of course, your car insurance premiums go down as you age because you're less likely to be reckless than you were when you were 20.

In options, the price of the option can be used to determine the probability assessments of the market participants. Overpriced puts tells us that the put buyers have a distorted sense of probability. They are overestimating the likelihood of a market decline.

That is the anomaly! They're behaving like the insurance buyer--only more so--and paying so much for protection that it allows the insurance seller--the put seller--to make an abnormally large profit.

This phenomenon has been confirmed in a wide variety of studies, including one by Constantinides G.,

Jackwerth and Perrakis S. (2009)¹² and another by Doran (2006)¹³.

Others have found that the overpricing of puts isn't just isolated to index options. It applies to selected equity puts and even to calls as well^{14, 15}.

The cumulative research shows that the persistent overpricing of options, and of puts in particular, allows abnormally large, risk-adjusted returns to option sellers.

¹² Constantinides G., Jackwerth J. and Perrakis S. (2009), "Mispricing of S&P 500 Index Options", *Review of Financial Studies*, Vol. 22, No. 3, pp. 1247-1277

¹³ Doran J. (2006), "Is There Money to be Made Investing in Options? A Historical Perspective", Working Paper

¹⁴ Goyal A. and Saretto A. (2007), "Option Returns and Volatility Mispricing", Working Paper

¹⁵ Doran J. and Fodor A. (2009), "Firm Specific Option Risk and Implications for Asset Pricing", *Journal of Risk*, Vol. 12, No. 1

Chapter 4

Putting Two Anomalies Together

So now what? We have two anomalies: the momentum effect and the overpricing of puts. What can we do with that information?

Actually, for you the reader, the next step is short and sweet.

Each night, our computers go through a step-by-step process of finding those industry groups with the highest momentum. Next, they look at the stocks in the industry groups and find those stocks with the highest momentum.

Next, our computers look for the most overpriced puts on the stocks when the options are compared to their normal volatility. We rank the options in order of return on margin. We take the top ten and highlight the trade that should be the most attractive to a short seller at the top of the list.

We post this list on our web site for you to see so all you need to do is log on and get the list of options that a qualified option trader should consider selling.

But What About The Risks?

Option selling does involve risks. But if done with a cash account, did you know that a naked put sale is less risky than actually buying shares of stock?

That's right. A naked put sale is equivalent to a covered call. If a stock is at 40 and you sell the 35 put, that has the same risk and reward characteristics as buying the stock and selling the 35 call.

The reason people think put selling is so risky is because the margin requirement on naked puts is much lower than on covered calls. So you can play with more borrowed money and use more leverage. Hey, isn't that the same thing that caused the housing crisis?

The point is, it's not the options that cause put selling to be any more risky than covered calls or stocks. It's the leverage that causes the problem.

The Chicago Board Options Exchange has a very interesting white paper on an index they created to show what would happen if an investor were to adopt a put-selling strategy. The index has a ticker symbol of PUT. In the white paper, the CBOE reiterates what we've noted in this publication: studies investigating the selling of at-the-money, next-month index options have shown that this strategy can "generate high risk-adjusted returns". They also report, as we do, that "reasons cited for the excess returns are the negative risk-premium garnered by volatility, and, in the case of puts, the high demand for portfolio protection."

Here is a graph of the S&P 500 Total Return Index (includes reinvested dividends) compared to the CBOE Put Index, which measures the performance of repeatedly selling a one-month, near-the-money naked put on the index, holding the position till expiration and reestablishing the position each month, no matter what the market conditions might be.



*The orange line is the CBOE PUT Index
The white line is the S&P 500 Total Return Index*

Note that the PUT (orange line) is at a new all-time high, while the S&P 500's total return (white line) is

lagging. Also note that this is a logarithmic scale, which means the outperformance is even more striking.

To learn more about put selling, be sure to read the other bonus book on this disk: *Options For Beginners*. Also read the book you get (or got) when you open an options account *Characteristics and Risks of Standardized Options*. Finally, check out some of the excellent educational material provided by The Options Industry Council.

Chapter 5

Enhancing Momentum with “Market State”

So let’s summarize what we have: two anomalies that provide unexplainable results. That is, the returns gained from momentum and put selling give investors profits that exceed the Capital Asset Pricing model.

Research by Devraj Basu and Chi-Hsiou Hung investigated whether there were sub-periods where the anomalies performed **even better** than the large overall periods that prior studies measured. What they found was very interesting. Best of all, the enhancement is very simple to implement.

In their paper titled, *Anomaly Timing*¹⁶, they found that the momentum anomaly performed exceedingly well when the market was in a “Bullish State”.

When the market was in a “Bearish State”, the momentum portfolio did not work as well.

When the market was in between the “Bullish State” and the “Bearish State”, the momentum anomaly was strong, but not as strong as when the market was in “Bullish State”.

To make things simple, *ODDS Proven Income* provides you with the market state every morning. That way you can make a rapid, easy assessment.

¹⁶ Basu, D. and Hung C. (2008), “Anomaly Timing”