The Elfenbein Theory to Explain THE ENTIRE STOCK MARKET

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I had a little extra time this morning, so I'd thought I'd do a quick post that explains the entire stock market for you.

Before I begin, let me stress that I'm discussing generalities about how the stock market behaves. As you read this, I urge you to focus on the larger themes I'm discussing instead of getting bogged down in nitpicky details or in excessive demands for precision. Out of necessity, my explanation is over-generalized.

The first thing to understand is that the stock market is overwhelmingly influenced by interest rates. It's difficult to overstate this key fact. More specifically, the stock market is ruled by long-term and short-term interest rates. Of the two, long-term rates are more influential.

A few years ago, I ran some through some historical data. I isolated all the days in which the 10-year Treasury yield closed lower. On those days, the stock market averaged an annualized gain of more than 42%.

The bond market leads the stock market. Whatever the bond market is doing, the stock market will likely do a few weeks or months later. The two assets are in constant battle for investors' love. Their perpetual tug-of-war is at the heart of financial markets. Short-term rates are also important, and that's why the Federal Reserve is so closely watched.

The movement of short-term and long-term rates also determines which types of stocks do well. When long-term interest rates rise, cyclical stocks tend to outperform the overall market. When long-term rates fall, defensive stocks tend to lead the market. Importantly, this is a short-term relationship that grows weaker as time wears on.

With short-term rates, we see a similar but slightly different effect. When short-term rates fall, value stocks outperform. When short-term rates rise, growth stocks tend to lead.

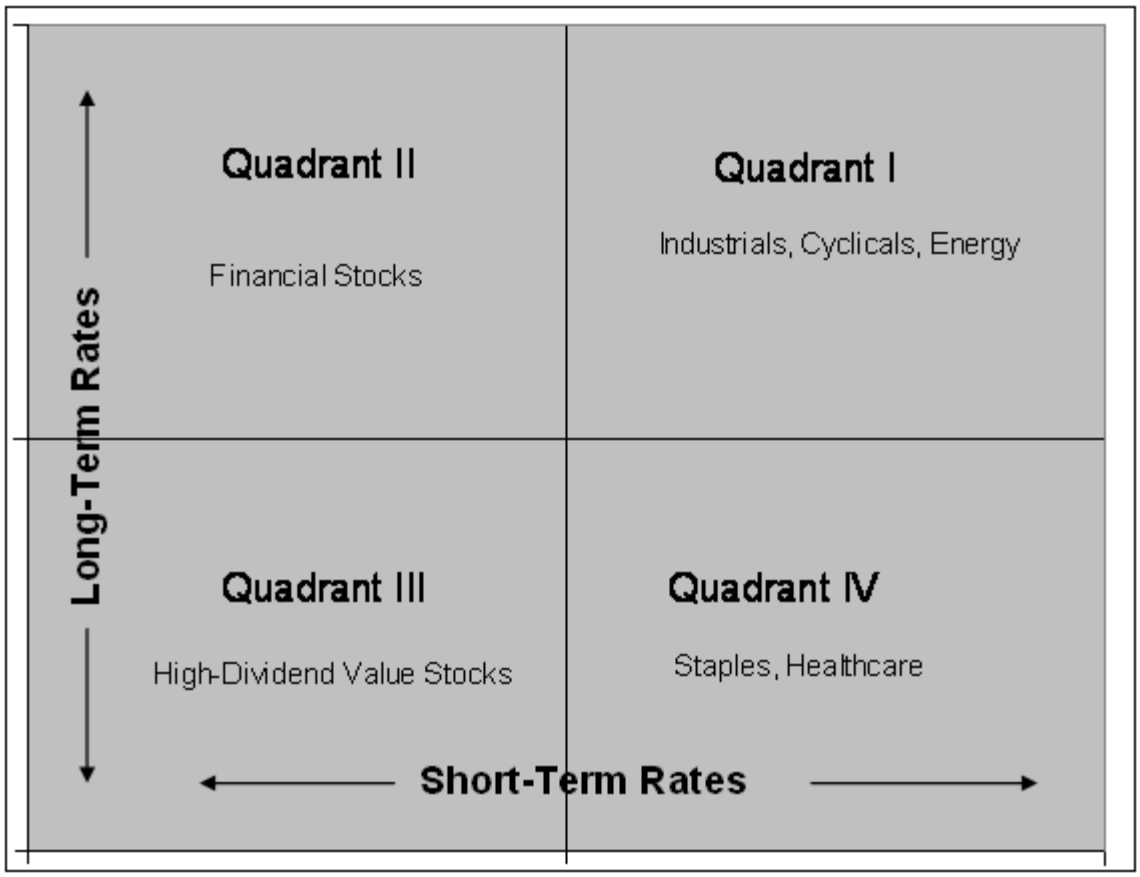
These are the two primary "dimensions" of the stock market (Cyclical/Defense, Value/Growth). These categories have some similarities, and they're easily confused, but I want to highlight their differences. The Cyclical/Defense divide is fought over the future of the production part of the economy.

Are we producing more than we're consuming, or consuming more than we produce? The Value/Growth divide is about the financial part of the economy. How much inflation will there be, and what are real rates doing?

By Cyclical stocks, I mean stocks in sectors like Energy and Materials which are closely tied to the economic cycle. The Defensive sectors are areas such as Consumer Staples and Healthcare, which are areas that aren't so hurt in downturns.

Value stocks are generally in high-dividend areas like REITs and Utilities. As short-term rates drop, investors naturally crave those dividends. Growth stocks tend to be in low-dividend areas like Tech and more inflation-sensitive sectors like Commodities and Gold Mining.

As I said, these two dimensions are related. They're cousins in much the same way that short-term and long-term yields are cousins. Now with this background, let's envision the market as a matrix with short-term rates on the horizontal axis and long-term rates on the vertical.



You can probably see where I'm going with this. We now have four quadrants. The upper right is when both long-term and short-term rates are rising. The lower left is when both ends are falling. The lower right is when short-term rates are rising and long-term rates are falling. In other words, the yield curve is getting narrower. The upper left is the opposite: the yield curve is getting wider.

When long- and short-term rates both rise, industrial stocks do well. When both rates fall, dividend stocks do well (more probably, they're falling the least). When the yield curve widens, financial stocks do well. Bear in mind that a bank is basically the yield curve with incorporation papers. As the yield curve narrows, defensive stocks do well. Importantly, we'll also see that when a particular quadrant behaves one way, one of its opposing quadrants will do the exact opposite.

Let me add a clarification. It may be the case that industrial stocks lead the market, not when short-term and long-term rates are literally moving in opposite directions, but when the spread is increasing. What the market is concerned with is the relative standing of short and long rates against each other.

With the four quadrants, the general stock market moves clockwise around the matrix. Quadrant I is the sweet spot of the rally. These stocks have a double-whammy effect: they outperform while the market itself is rallying. Hence the name cyclicals. Conversely, they underperform when the market is tanking (Quadrant III).

I should add that few stocks are pure breeds belonging solely to one quadrant. Typically, they have mixed DNA. For example, a stock like Chevron is a classic energy stock, but it also pays a generous dividend. You'll also see healthcare stocks, which are classic defensive stocks, that are partly related to tech stocks.

As I mentioned before, these classifications are most important in the short term. As time goes on, the part of any stock which reflects its individual nature will become more prominent. Each day, two biotech stocks may track each other closely, but after five years, they can be miles apart. The more times that passes, the stronger this effect is.

The idea that different sectors do better or worse at different points in the economic cycle is nothing new (see here and here). It's been pointed out many times before. The Elfenbein Theory, however, is a way for investors to see an overriding framework for what drives this behavior.

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What if the Stock Market Were a Bond?

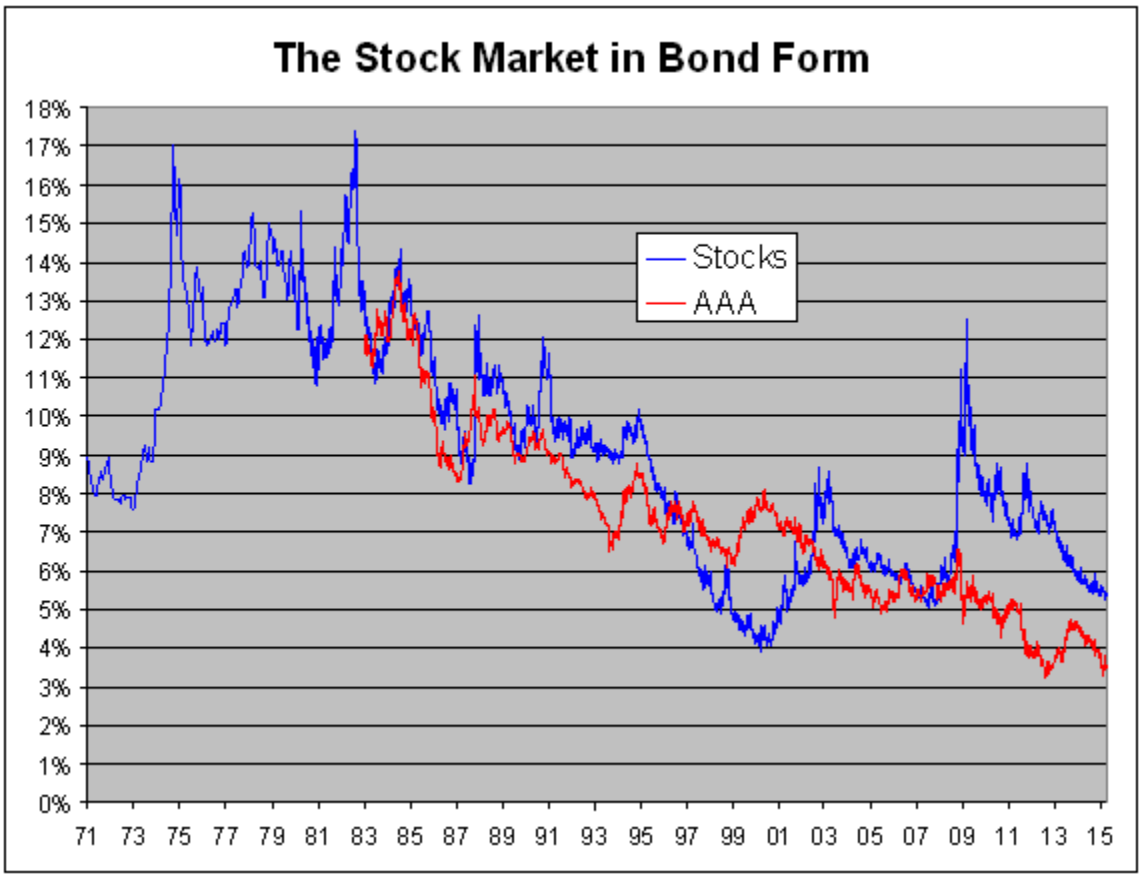
Here's an update to one of my more off-the-wall ideas. I was curious to see what the historical performance of the stock market looks like, but in the form of a bond.

Crazy? Let me explain.

I took all of the historical market performance of the Wilshire 5000 (including dividends) and invented a hypothetical long-term bond that matched the market's daily gains step-for-step.

I assumed that it's a bond of infinite maturity and pays a fixed coupon.

There's one hitch, though. I have to choose a starting yield-to-maturity for the beginning of the data series in December 1970. So this isn't a completely kosher experiment because the starting point is based on my guess.



If I choose a number that's too high, the historical performance won't be able to keep up, and the yield-to-maturity would grow higher and higher and soon leave orbit. Conversely, if my starting YTM is too low, the yield would gradually get pushed down to microscopic levels.

Fortunately, the data makes my job easy. After four decades, the window I have to work with is pretty narrow. Starting with 10% is too high, and 8% is too low. After playing with the numbers, I finally settled on 8.93%.

Even though this "bond" is completely make-believe, it reflects what the actual stock market really did for the past 44 years. It's the same old stock market but it's expressed in the form of a bond. Through yesterday, the "bond's" yield stood at 5.35%.

Here's what the actual stock market looks like, expressed in the form of a bond. For comparison, I added Moody's AAA Bond Index (in red). That series starts in 1983.

It's been more than seven years since the red line was higher than the blue. This is why I often say that the math still favors stocks. When you hear people say that the stock market is expensive, you have to wonder "compared to what?" Lower bond yields are tough competition for stocks and that ought to raise valuations.

Your Handy Guide to Stock Orders

Here's a post that's geared toward new investors, but experienced investors may find it helpful as well. I want to discuss the different types of orders you can make when buying or selling a stock. Investors have lots of options at their disposal, and each decision has an upside and a downside. Let's start with your basic market order.

Market Orders

This is the most common type of stock order. In essence, it's a request to buy or sell a stock at the current market price—hence the name.

A market order does not guarantee a particular price; it merely picks up, or dumps, the stock at the current going rate.

What does this mean in concrete terms? Well, for large-cap stocks with heavy volume, you can expect that because market orders are executed more or less instantaneously, there *shouldn't* be much of a gap between the price at the moment you execute the trade and the actual price you pay. If you see on your computer screen that the current price is $30 and you execute a market buy order, you might pay $30.10, or you might pay $29.50, but the price will generally be close to the one you saw when you pulled the trigger.

The danger, however, lies in trades executed after hours. If you place a market order after the 4 p.m. closing bell, you may find the stock has moved significantly by the time the market opens the next morning. You can easily end up paying a price you didn't bargain for. A $30 stock may have gapped up to $35 due to an earnings report or a merger announcement. News stories can cause prices to soar, or tank, so be wary: you don't want to be on the receiving end of one of the market's irrational spikes.

Another tip: don't be distracted by irrelevant information. The last-trade price is no guarantee of anything. Ignore it. Instead, if you're buying, keep your eye on the ask price. If you're selling, look at the bid price. Also important is the spread between the bid and the ask, which can be very wide indeed on thinly-traded stocks.

With these less-popular securities, you may find the following conditional orders more helpful:

Limit Orders

A limit order is an order to buy or sell a stock at a price that you yourself stipulate. Basically, it tells your broker to execute the trade once the stock goes above or below a specified threshold. You can use it to sell a stock once it climbs to a certain peak (thus guaranteeing you a profit) or to buy a stock once it dips to a certain low (thus guaranteeing you a good purchase price).

For example, you're interested in security XYZ, but you think it's currently overvalued at $40. You can place a limit order to pick it up at $38. If the stock falls below that threshold, the order will automatically execute and the stock is yours. Later, having acquired the stock, you can execute a limit order to sell it at $45. This order, too, will execute automatically if the stock gaps up, thus ensuring you a tidy profit.

Limit orders have advantages and disadvantages. On the plus side, you can keep them open for a set period of time, and they're useful for investors who don't have the ability to monitor their portfolios 24 hours a day. On the downside, if the limit price you set is way off the mark, it's possible the stock may never reach the threshold and the order will never execute. For that reason, many brokers charge more for limit orders: failed execution means no commission for them.

Also, remember that orders are filled on a first-come, first-serve basis. If you set that limit order at $45, you have to wait till the other orders at that price are executed. Some traders like to snip at the edges and place limits at, say, $44.99, thinking they're getting an edge on the competition. You can never be guaranteed that your order will be filled.

Stop-Market Orders

Stop-market orders are very, very similar to limit orders—so similar, in fact, that many investors have trouble telling them apart. The difference is that they're used to cut losses, as opposed to maximizing profits.

Like limit orders, stop-market orders (sometimes called stop-loss orders) cause a stock to be bought or sold automatically upon reaching a given threshold. When this happens, they turn into standard market orders and execute at the going market rate. The goal: damage control, pure and simple.

Suppose you buy a stock at $35 and it starts to tank. You can execute a stop-market order at $30 to cut your losses. This means that if the stock falls past that threshold, it's as though you suddenly placed a sell market order. The final sell price may be $29.50, or it may be $31, but in either case, you'll have reduced the effects of the sudden dip.

Conversely, if you're interested in another stock trading at, say, $40 and are waiting for it to drop, but you don't want it to get away from you, you can execute a stop-market order at $42. If the price shoots up, you might end up paying $42.50, or perhaps $39, but you'll have achieved your end of minimizing your losses in purchasing a security that you're especially hot to get hold of.

Stop-loss orders are useful, but be careful. A sudden rumor, or a rapid but temporary drop in the stock price, can cause you to get frozen out of a stock against your will.

Stop-Limit Orders

Stop-limit orders are stop-market orders' identical twins—with one difference: when the threshold price is reached, the order changes into a limit order, not a market order.

Why does this matter? Because in theory, the stop-limit order gives you much more control over the actual price at which the stock is bought or sold. When you place the order, you have to specify both a sell price and a limit price, and the combination helps to eliminate the wild-card factor that creeps in with stop-market orders. The drawback, of course, is that as with all limit orders, the trade may not get executed at all.

Consider the following situation. You've got your eyes on a stock currently trading at $25. It starts to show some upward momentum, so you place an order with stop and limit prices of $22 and $23, respectively. Once the stock rises above $22, the limit order kicks in. However, if the stop gaps above $23 due to a fast-moving market, the order will remain unfilled.

Trailing-Stop Orders

Trailing-stop orders are yet another variation on the stop-market theme. Here the difference lies in the fact that instead of setting an absolute threshold, you set an order to buy or sell if the stock rises by a certain percentage (or, in some cases, a specified dollar amount). Other than that, all the same rules apply as with other stop orders.

Trailing-stop orders seem to provide some folks with a sense of security. There are traders who set 20% trailing stops on every order they place. Remember, though, that like all stop orders, the brokerage fees are higher than with market orders, so you need to ask yourself if that psychological advantage is worth it.

Order Options: Day vs. GTC

When you execute a limit or stop order, you can specify one of two options: Day or GTC (good till cancelled). A day order is only valid for the rest of that trading day, while GTC indicates that the order can be carried over into the next trading day and may remain in effect until one of two things occurs: (a) the stock reaches the specified threshold; (b) the investor decides to cancel the order. Be sure to check with your broker about these options: some of them limit the number of days that the GTC option can be in effect.

Order Options: All or None

Another condition you can set on a buy or sell order is AON: the command to fill the order completely or not at all. In other words, the broker must buy all the shares at the price you specify, or cancel the order altogether.

Let's say you place an AON order for 100 shares of stock XYZ at $9 apiece. If the broker can find 100 shares that fit the bill, well and good. If not, the order is canceled at the close of trading, and the investor must re-submit it the next day. With an AON order, the investor never receives an order that is half-filled—hence the name. In a standard limit order, by contrast, the broker might buy 60 shares at $9, watch the stock gap up, and then have to wait till it dips back down to $9 to fill the rest of the order.

Order Options: Fill or Kill

This option instructs a broker to fill an order entirely and immediately or not at all. Its purpose is to guarantee that the investor picks up a stock at the desired price, and it is usually used when buying a large quantity of stock. In practice, this type of trade doesn't happen very often. Much more common is the good-till-canceled option discussed above.

One piece of closing advice: if you're a long-term investor, don't worry too much about paying a price that's a little bit off target. There are day traders who fight over every last penny, but this is madness. The market is too fast-moving to allow for that kind of precision. Consider that a stock like Bank of America can average 10,000 shares traded every second over the course the entire 6.5-hour trading day. It's much better, if you're in it for the long haul, to do your homework, set your orders, and then sit back and watch your portfolio grow.

Let's Make Our Own Hypothetical Stock Market

One of the points I stress to investors is just how much noise there is in everyday trading. Simply put, the stock market moves around a heckuva lot compared with what value is actually being created.

I ran the numbers going back to 1957 and found that the S&P 500's average daily gain works out to 0.0255%. Roughly speaking, that means for every $39 you have in the stock market, you make an average of one penny in capital gains each trading day. Snoozeville, right?

Yet the average daily swing is about 40 cents. This means that you're seeing 40 times the volatility of the value that's actually being created, each day. That's more than 97% noise.

We can use some basic math and a random number function to create our own hypothetical stock market. I've attached a spreadsheet which contains our phony market.

I've used the calendar for the 2013 trading year as our template. It contains 252 trading days. I've set our index to 100 at the start of the year. Each day, the index gains an average of 0.0255%. The random number generator gives us a standard deviation of 1%.

(This is not quite accurate due to the nature of fat tails. I ask the more numerate among us to leave that issue aside for now, since it doesn't detract from my point. In fact, it supports it.)

Once you've downloaded the spreadsheet (and assuming I've done this correctly), you can simply point your cursor to an empty cell and keep hitting "delete," and the chart I've made should refresh. Here's the point: You can just see how many wildly different stock markets we can make solely on the basis of random numbers.

There's no trend or QE or anything going on. It's just random, but it's based on the market's same stats of the last 56 years.

The Single-Best Metric: EV/EBITDA

Here's a post for new investors—and perhaps a refresher for more experienced ones.

I often tell readers not to rely on one metric or ratio. There's simply no magic formula for stock success. Instead, investors should consult a broad spectrum of numbers to get a clear view of a company's worth. Having said that, one of the best ratios out there is **EV/EBITDA**. In fact, some academic research has shown that it's the single-best valuation measure there is.

So what do all these letters mean? I'll break it down for you in plain English. EV/EBITDA stands for Enterprise Value divided by Earnings Before Interest, Taxes, Depreciation and Amortization.

Let's start with the numerator, Enterprise Value (sometimes called total enterprise value), which is basically a fancier version of a company's market value.

To calculate EV, you start with a company's market value (the number of shares times the market price). You then add the amount of debt they hold, both short-term and long-term, and at current market value. Then you subtract the amount of cash they have.

This makes sense, because if you're going to buy out a company, you're acquiring their debt too, and you can pocket the cash.

Those are the most important differences between EV and market cap, but Enterprise Value also includes things like minority ownership in other companies. There are lots of public companies that own small stakes in other public companies. These may be spin-offs in which they've held onto some shares. Perhaps they were considering a merger. The problem is that when an asset you own soars in price, it inflates your equity and therefore tends to lower your ROE, even though you didn't do anything.

Now let's turn to the denominator, EBITDA, which stands for Earnings Before Interest, Taxes, Depreciation and Amortization. When we look at a business, we want to know about the dollars coming in compared with the dollars going out. Ideally, we want to isolate the numbers that are closest to showing us the firm's pure business efficiency. In that regard, EBITDA is beneficial because it tries to be neutral about the company's capital structure (that's why we don't include interest).

Think of it as taking all the revenue and subtracting the costs that solely go into running the business. It's the business end of the business separated from the financing end of the business. When you look at net income, you're also factoring in what the CFO has been up to, and of course, Uncle Sam's cut. While those are important, these variables are a step removed from business operations. The downside of EBITDA is that it can be abused by companies declaring as "one-off" costs things that should really be considered normal costs.

Let me add another important generalization. Strong companies aren't normally done in by too much debt. It's certainly possible, and has happened many times. But the more common path is that weak companies acquire too much debt because they're weak, in an attempt to cure their weakness.

You can find the EV/EBITDA for a stock on Yahoo Finance. Click on the Key Stats page, and it's the ninth one down. As a rule of thumb, any EV/EBITDA below 10 is the sign of a good value.

Tips on Spotting Financial Fraud

For those of you who never got around to taking ancient Greek in college, the word of the day is *hubris*.

Webster's dictionary, 8th ed.: "Excessive pride or self-confidence, often entailing a loss of contact with reality and an overestimation of one's own capabilities, especially on the part of those in positions of power."

That pretty much sums up the psychology behind the ongoing debacle that is Peregrine Financial, whose founder and CEO, Russell Wasendorf, Sr., was indicted in Cedar Rapids, Iowa, on Monday on 31 counts of lying to U.S. financial regulators.

By his own admission, Wasendorf bilked investors out of nearly $100 million over the course of nearly two decades (just days before his arrest, the National Futures Association reported a deficit of more than $200 million in funds that Peregrine Financial had claimed to be on deposit at U.S. Bank). To hide the theft, he cooked up fake bank statements using Photoshop, Microsoft Excel, and high-quality printers. These he then handed over to Peregrine's CFO, who appears to have adopted an "OK, you're the boss" attitude after Wasendorf used what he called "blunt authority" to cow him into submission. Wasendorf seems to have taken special pride in his forger's art, bragging of how adept he eventually became at falsifying not just hard copies, but online statements as well, none of which the financial regulators appear to have questioned.

Then, this summer, Peregrine hit the wall. Wasendorf couldn't keep all the balls bouncing. On July 9, he tried to kill himself by inhaling fumes from a hose hooked up to his car's tailpipe. Needless to say, the firm had been run into the ground. Wasendorf's son was devastated at finding the company he was supposed to inherit was now a mound of useless paper—and that his father was a crook. Peregrine's workers were out of a job. And of course, thousands of investors were left holding the bag.

Excessive self-confidence? Check. Grotesque overestimation of one's abilities? Check. Loss of contact with reality? Check. (Sooner or later *someone* had to notice that there was no actual money in those U.S. Bank accounts.)

But the hubris didn't stop there. It was also abundantly on display in Wasendorf's suicide note, in which, far from showing any remorse, he actually seemed to thumb his nose at financial regulators. Evidently even his would-be last moments were ego-driven:

> *Where executives [like Wasendorf] have committed crimes, "it is not remorse that motivates" them to kill themselves, said Dr. Alan Berman, executive director of the American Association of Suicidology, a suicide education and prevention group. "Rather it's a refusal to accept a changed public persona."*
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> *As he prepared to take his life, Wasendorf confessed to massive fraud in a document whose tone often sounded more boastful than ashamed. He explained in detail how he had used "careful concealment and blunt authority" to steal hundreds of millions of dollars over two decades from clients of his brokerage firm. His scheme to falsify bank statements and balance sheets started 20 years ago, he wrote, because "my ego was too big to admit failure."*
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> *In the cases of executive criminals, Berman said that "the suicide dies having preserved in his mind that the world's view of him will remain that of before his death. Death is preferred to losing face, suffering media coverage of the felonious behavior, prison and other consequences."*

Incredible, an ego that massive. But seeing as how egotistical delusions are the enemies of realistic risk assessment pretty much 100% of the time, investors would do well to take a cold shower before forking over money to any proposal that appears too good to be true. Specifically, they should learn to recognize Ponzi schemes, of both the Waserdorf and the Bernie Madoff variety. These schemes have several tell-tale traits:

- They promise minimum or steady returns;
- They claim their opportunities are exclusive, available only to a select few;
- Their means of making money is too complicated or secret to explain;

- They make it difficult to withdraw your money, saying that funds have been frozen;
- They issue statements that lack detail, or that frequently show discrepancies that cannot be explained;
- They are frequently run by a single individual whose charm and charisma allow him maximum leverage over investors' fears—and greed.

Con artists like Wasendorf prey upon the egotistical hopes and equally egotistical anxieties that come out in just about all of us whenever money is involved. Knowledge and financial realism are their enemies. That's why, whenever you're about to embark on a new financial venture, it pays to check your ego at the door.