

# Impressions

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When men are most sure and arrogant they are commonly most mistaken, giving views to passion without that proper deliberation which alone can secure them from the grossest absurdities.

**David Hume**

It seems to me what is called for is an exquisite balance between two conflicting needs: the most skeptical scrutiny of all hypotheses that are served up to us and at the same time a great openness to new ideas. If you are only skeptical, then no new ideas make it through to you. On the other hand, if you are open to the point of gullibility and have not an ounce of skeptical sense in you, then you cannot distinguish useful ideas from the worthless ones.

**Carl Sagan (1987 lecture "The Burden of Skepticism")**

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Not Again!

The Tail Wagging the Dog

Wall Street bankers have done it again. In their effort to disperse risk and hedge default exposure they have created a speculative monster that is forcing them to often mark

down their own assets further than current market fundamentals may dictate.

Credit Default Swaps, (CDS), were created twelve years ago by U.S. money center banks to protect against the risk of a company defaulting. Sellers of the contract receive an annual premium, usually over a five year term, and in return are obligated to pay the buyer face value in exchange for the underlying security should the company fail to meet its debt obligation. The contract is a no cash upfront, over the counter derivative.

Now, twelve years later the notional value of the CDS market is 62.2T, (that's 12 zeros or 62,200,000,000,000). In the second half of 2007 CDS outstanding increased 37% versus the first half of 2007, according to the New York based 'International Swaps and Derivatives Association'. The explanation offered for this dramatic growth spurt is the need to protect against losses triggered by the collapse of the US sub-prime market.

The question is, how much of this is legitimate hedging and how much is short term speculative trading? After all, a no cash upfront, derivative would be very attractive to a short term speculator.

**How Are Credit Default Swaps Valued?**

Markit Group LTD is a London based index provider partially owned by 16 banks, banks with names like Citigroup,

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UBS, and JPM. Markit creates indexes based on a sampling of large benchmark deals. For example the ABX indexes that track subprime asset backed securities, may have only 20 bonds, out of thousands outstanding, representing the current value of the index. If the index falls in value, then theoretically its yield increases widening its spread to benchmarks, indicating increased risk. This increased risk then demands a larger premium to be paid for a CDS.

As demand magnifies for credit protection, spreads widen further, driving the index even lower, again increasing larger premiums to be paid for CDS. It becomes a vicious downward cycle.

Here's where the tail begins to wag the dog for the banks. GAAP (generally accepted accounting procedures) require the banks to value assets and to record any change as unrealized gain or loss. Some of these assets are rarely traded, so obtaining a quote from an independent source may not be possible. If the bank cannot get a quote then they are required to use another measure. That measure may be the indexes using ABX credit default swap indexes.

Recently Citigroup was forced to take an 18.1B write down on its subprime ABS portfolio using the ABX CDS index as a benchmark. So the irony is that a device designed to help the banks price a theoretical risk is now causing them to take real losses.

Jacques Aigrain, the CEO of Swiss Reinsurance said at a recent insurance conference in Dubai, "the indices are just trading on their own account with no relationship whatsoever to an underlying cash market that's ceased to exist." Today, twelve years after its creation investors, who often are short term speculators, use the derivative market as an alternative to the cash market.

After all, receiving a credit premium for a 10M notional contract with no cash upfront is going to attract attention.

Today, the contracts that were created to hedge against default risk are often being used to bet on the ability of companies to repay debt, or in the case of the ABX indexes, the ability of sub-prime borrowers to avoid default and foreclosure.

Just as shorting a stock can drive its market price lower, overwhelming demand to sell CDS's can widen out spreads and drive the theoretical values of the index lower. It becomes a self-fulfilling prophecy. Speculators, who are betting on deteriorating credit quality, are in the end forcing that to be a reality, as the banks are directed to mark real assets to an OTC derivative.

When you have a no cash up front derivative market, driving prices in the real world cash market, than you truly have, 'the tail wagging the dog.'

Mike Baker- Managing Director Fixed Income

## The Gaussian Sophistry

The metaphor of current choice in the financial community is "black swan" or a "black swan event." It has even spawned a book by Nassim Nicolas Taleb titled The Black Swan.

For those who are not following the latest iteration of financial language the story goes like this. For about 1,500 years, it was an un-challengeable scientific fact that all swans were white. This was borne out by empirical studies as well as simple observation. So all swans were white until a group of folks stepped off a ship in a distant land, and saw a large, long necked graceful bird that was a swan and was ---black. In an in-

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stant, all the scientific proof of white swans was destroyed.

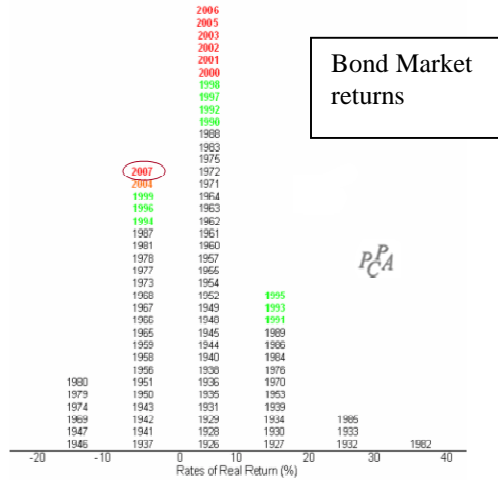
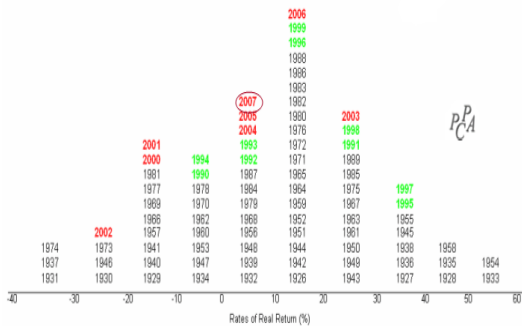
The parable became a metaphor for unpredictable events that cause great changes. Unpredictable is not really the right word they are events which are truly random.

The Black Swan probably most universally endorsed is the 9/11 attacks. As you might be able to tell I have been doing a lot of arcane reading lately and not because I am bored. I am becoming concerned that the current work in the financial planning and investment consulting industry regarding retirement and investment planning is going to be subject to, if not a black swan, then a rather badly spotted fowl.

Almost all the work done in asset allocation, portfolio construction and financial planning is based on three concepts: linearity, probability curves and correlation. All of these concepts are rooted in the mathematical work of Carl Friedrich Gauss (1777 -1855). Gauss developed the famous bell shaped curve and the concept of variance around the mean, which we call Standard Deviation (SD)

You see bell shaped curves everywhere. Here are two that are important.

Stock Market returns



These charts are the basis for a statement considered a mathematical fact. It is that 66% of the time the performance of the Standard and Poors 500 will be plus or minus 16% of the mean return. If you add up all the occurrences in the 5 columns in the center of the top chart, it is pretty close to 66%.

Using the S & P 500 as a proxy for the market, each investment class has its own historic variance for the “market”

This fact leads to the concept that if you measured the variance of an investment (based on past actions) from the mean, this deviation is a measure of risk. It is, but of only volatility. There are other kinds of risk and each person has their own risk and fear demons.

The risk that is quickly being cognized by a large number of people is economic risk. The permanent loss of capital. As a person stops working, they have less and less capacity to generate new capital. This fact changes the risk priority from concern about the up and down movements of the markets to the issue of “will my money be there”?

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Thanks to Microsoft, Dell and the internet we can find the historic performance of any investment or asset class. Using these historic facts, we can predict asset values and expenses into the distant future. We can actually do that- we are wrong, but we can produce a number. Using the concept of historic returns and volatility, we select a mix of investments that supposedly accomplish our client's goals all projected in glorious linear fashion<sup>4</sup>. However, I wonder if it is not all sophistry.

Sophistry is the concept that if the hypothesis is incorrect then all conclusions reached from that hypothesis must be incorrect. Politicians, social reformers and climate scientists live in a universe of sophistry.

What might create the sophistry and generate a black swan is the tails of the bell curve. Deviation from the mean is represented by the Greek symbol  $\Sigma$  (sigma). When an event occurs far away from the mean, it is referred to as a high sigma event. The Gaussian concept is that most events will occur close to the mean. Therefore high sigma events are by definition rare. The two charts of the stock and bond markets give at least observational credence to that notion.

The Gaussian certainty of the preponderance and reversion of events around the mean and the rarity of high sigma events is currently the modus operandi of investment management and financial planners. The Gaussian sophistry says focus on the high probability events and you can safely ignore the low probability ones. What could make this hypothesis incorrect?

The last 20 years has witnessed the rise and current dominance of investors whose philosophy is to seek out high sigma events and returns. As more people and money seek high sigma, they actually create those events. Thus, high sigma events become the rule rather than the exception. This of

course destroys the comfortable normal distribution concepts of Gaussian math, as well as all the models

The market crash of 1987 should never have occurred but having occurred it should never have occurred in the proximity of the LTCM failure in 1998 and the tech crash of 2000 and the events of 9/11. They should never have happened in proximity with the sub prime mess and so on. You get the picture.

Variance from a mean is based on historic returns. What if the rise of those seeking high sigma events is changing the historic trading patterns of asset classes?

As you can see from Chart 1 on the last pages, the correlations between different assets classes and the S & P 500 have changed dramatically in just the last five years. If enough money and people seek the same investments then correlations between the classes change in direct proportion. This then removes the safety of traditional forms of diversification.

The second aspect of this change is that the volatility of asset classes is increasing. This is caused by floods of money moving with unprecedented mobility and speed. You can see this in Chart two which shows the beta of various classes.

(The question arises in why we talk in Greek in expressing these concepts. The most heard answer is that they are all rooted in math, the real answer is that it makes us all sound mysterious and knowledgeable)

Charts one and two represent the tangible effects of the rise of technology, communication and globalization. As the historic relationships between assets and markets change investors will begin to look for other avenues to provide the same characteristics.

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This will accelerate the breakdown of certainty.

The other situation that will be a speckled fowl in the investment world is that those asset classes, which have previously afforded safety, may no longer be such havens.

Chart 3 shows the return on 10-year Treasury bonds. Bonds have preformed well for the last twenty years and returns are at historic lows. It will only take a small increase in inflation or interest rates to wipe out the returns currently available in bonds.

It seems to me that placing all of our faith that historic returns will carry forward in the same manner as the past is sophistry. What if those historic patterns offer little or declining predictability? What happens to all the carefully laid plans?

There are significant changes happening in the investment and financial world that could change outcomes.

It seems dangerous to me to rely totally on historic returns in determining the path forward. It is just too simple. Perhaps the requirement imposed on us by the regulators should also be mandatory on all those beautifully executed linear graphs of increasing net worth "past performance is not a guarantee of future returns".

Black Swans are by definition totally random but the decline in the usefulness of Gaussian probability could be a black swan to investment management, investment consulting and financial planning.

I am not sure if there is an alternative to Gaussian math and its probability based outcomes but given the dynamic nature of current markets it bears looking into.

The unfortunate victims of the current sophistry will be clients whose advisors did not think outside the box and develop different hypothesis and methods.

Dennis Gibb- President

## The Parable of the Penny

*"A penny saved is a penny earned."*  
- Ben Franklin

*"A penny invested has a chance of beating inflation."*  
- Kim Miller

Americans are great at speculating, mediocre at investing and terrible at saving. See which camp you fall into:

### Saving

Savings are funds you put away for a future purchase or obligation or for an unforeseen event such as unemployment. You expect your savings to grow, albeit modestly without capital risk. You expect your savings to be available when you want with a minimum of trouble and without any dickering over its value (a dollar saved is always worth a dollar upon withdrawal). Savings are never investments. The prudent saver is patient and rarely disappointed, except on occasion when the yield offered across the street is ¼ point higher. The Saver has a plan and while he may be motivated to save out of fear, he is logical in his approach and is able to defer gratification. EVERYONE should be a saver.

### Investing

Investments are funds you put into a venture in the hope of a future income or capital gains – i.e., that you will receive an income from the invested capital or be able to sell the investment for more than you paid in at the beginning (or both). You expect your investment to grow *commensurate with the risk*. Investments are never savings. The prudent investor is patient and is rarely disappointed – she knew what she was getting into at the beginning. The Investor has a plan and while she may be motivated to

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invest out of greed, she is logical in her approach and is able to defer gratification.

## **Speculating**

Speculations are funds you put into a venture with the certainty that it is going only in one direction: sharply up in value. Savings are frequently used for speculation (“I *know* this stock is going up – I’m going to put the household rainy day money in – it can’t miss!”). Speculators are never patient and are frequently – if not always – disappointed. They have unrealistic expectations going in. The Speculator doesn’t have a plan and is primarily motivated by greed – he is emotional in his approach and would have to look up “defer” and “gratification” in the dictionary. Think back to the late 1990’s when the US stock market did nothing but go up – do you recall reading a lot about “buyer’s regret” as the markets fell from their highs? Was that Investing or Speculating?

In my career I have met very few Investors but I’ve sure met a lot of Speculators. Most people think they are Investors, but they are really Speculators – “investing” on “hot tips” or buying “5 Star” mutual funds and then rending their garments when the reality doesn’t match their vision. Regret is such an ugly thing.

Investment entails the acceptance of risk – the dollar you put in today may not be worth a dollar upon withdrawal. If one expects an investment to appreciate by 10%, one has to accept the chance that it could decline by 10% (or more). The theoretical lowest value of a share of common stock is ZERO. The Speculator dismisses this absolute as “nay-saying” or “balloon piercing” or “boring”.

Let’s be clear: markets don’t care what we think! Stocks don’t care what we think! Mutual funds don’t care what we think! Bonds don’t care what we think! Invest all the emotion you like, it won’t make any difference. Think about your favorite sports team – if it mattered what you thought, wouldn’t they be champions every year?

The only way to win – with any consistency – is to have a plan. Use asset allocation to diversity your portfolio. Know the risks you are accepting

and be comfortable. If you’re not comfortable, reduce the risk. Don’t accept more risk than you need to reach your goal. A good advisor will have you complete a Risk Tolerance Questionnaire before investing your money.

So which camp do you fall into?

Kim Miller- Director of Financial Planning

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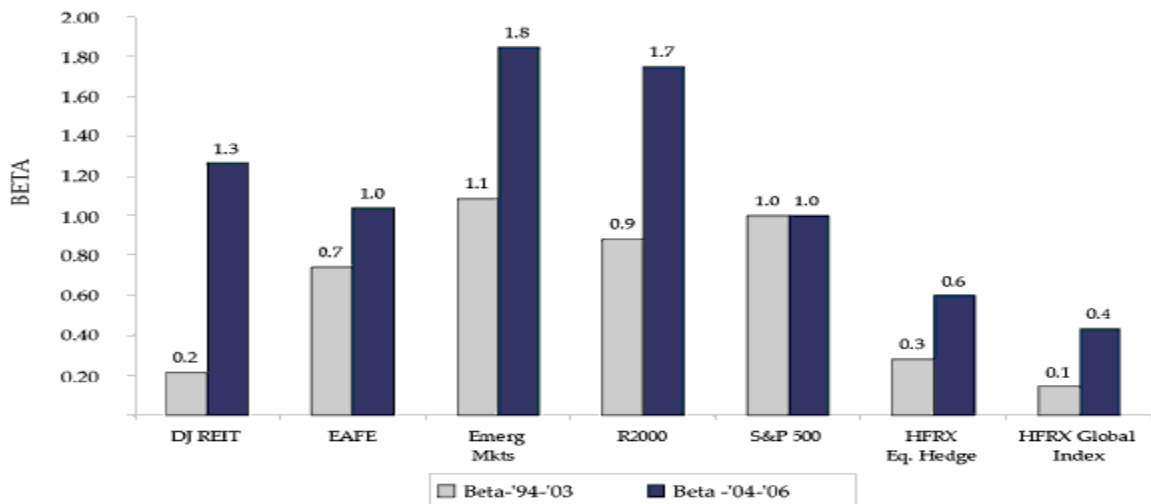
Chart One

**Table 2: 5-Year Correlations of Selected Asset Classes to the S&P 500**

5-Year Correlations	2/28/2000	1/31/2008	Change
MSCI EAFE	32%	93%	61%
Hedge Funds	35%	90%	55%
Art	-31%	12%	43%
Russell 2000	62%	91%	29%
Gold	-24%	-3%	21%
Real Estate	51%	63%	12%
Goldman Sachs Commodity Index	-14%	-26%	-12%
T-Bills	34%	-1%	-35%
High-Grade Corporate Bonds	47%	-38%	-85%
Long-term Treasuries	37%	-54%	-91%

Source: Merrill Lynch Investment Strategy

Chart Two-Beta is the measure of historic volatility



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Chart Three

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