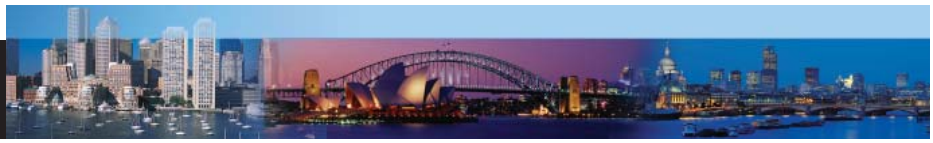
GMO

Quarterly Letter



January 2008

The Minsky Meltdown and the Trouble with Quantery

Jeremy Grantham

(Written January 12, 2008. Recent events seem determined to overtake this letter!)

"The periodic triggering of a financial crisis is well nigh certain." (Hyman Minsky, 1977)

"Too many bubbles have been going on too long." (Paul Volcker, January 2008)

I always enjoy the part in the horror movie when they raise your hopes. The last of the dragon scourge has been killed off, for example, and you get a moment's relief. Then the closing shot reveals a large clutch of dragon's eggs hatching. You always want to believe in the reprieves but you know you shouldn't. Similarly, if you believe that the credit crisis is over and the sovereign funds are great vulture investors, you haven't seen enough movies. The current crisis has more than enough dragons' eggs to keep this horror show going for quite a while.

Whatever happens to the rest of the year we can agree it was a remarkable first week. The stock market brontosaurus that had happily ignored the several stings on its tail last year from real estate and structured debt and the sharp bite on its tail in November from collapsing profit margins finally let out a loud 'ouch.' U.S. high quality stocks had fought a losing battle for the first 9 months last year despite the potentially huge help from fixed income spreads widening. They had only closed out a draw for the year against the S&P 500 because of a strong fourth quarter. But in the first week of the New Year, quality stocks leapt into battle. They opened up a 3.5% lead over the S&P (in our Quality Strategy) in the first 5½ days! And our corresponding long/short strategy – long 100% quality/short 100% junk – flashed to a 10% gain for a second or two, in the same tiny time period.

How can the market pull this stunt, where it persistently ignores the obvious and puts a positive spin on rapidly deteriorating fundamentals? "Hitler invades Poland: Huge positive for potato futures." And then suddenly, for no good additional reason they get the point. The easy answer is that we are a strange species. I spent Christmas on the Oaxaca coast of Mexico with my family reading while they surfed. My three books were The Origins of Virtue,[1] Before the Dawn,[2] and The Blind Watchmaker,[3] all of which underline the point that our evolutionary background has hardwired us to be convoluted, complex, and contradictory. What a remarkable idea to treat us like rational machines in a world of normal distributions and linear relationships! In fact we are strange, nonlinear, unpredictable critters.

But there have been few stranger behaviors than that moment in November when it was revealed that U.S. profit margins had collapsed and that 12-month year-over-year earnings that had been running at plus 6% in July were going to be -22% in October, after write-downs. I came excitedly into the office exclaiming that the main prop for the market's gravity-defying run had collapsed. The third of my three near certainties from last year – major weaknesses in U.S. real estate prices, major repricing of risk, and now a serious decline of at least 20% in profit margins – had finally materialized. We will only have perhaps a few hours or at most a day or two to do the last of our short selling and repositioning or so I went on. Yes,

1 Ridley, Matt. The Origins of Virtue: Human Instincts and the Evolution of Cooperation.
2 Wade, Nicholas. Before the Dawn: Recovering the Lost History of Our Ancestors.
3 Dawkins, Richard. The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design.

sure! A full month after the F.T. first estimated third quarter earnings, when I went off to Mexico for Christmas, the market was unchanged. As remarkable a Wyle E. Coyote month as I ever expect to see. Confronted with this kind of irrational behavior, only academics prepared to ignore the facts in defense of a theory could support the silly idea of market efficiency. And as for the Capital Asset Pricing Model (CAPM)! There must be as much wishful thinking and ignoring of facts in these two ideas as the U.S. market demonstrated in the second half of last year! Just think of this: even with the subprime meltdown, a fully-fledged credit crisis, and rapid deterioration of almost all fundamentals, the NASDAQ peaked in October, not in June, July, or earlier! It is really hard to see the market as an efficient discounting mechanism.

Now by the way, we can look back at the last year and marvel at all the egg on various important faces. I would like to award three prizes for odd prognostications that I will name in honor of Mr. Greenspan and all his odd prognostications (bubbles cannot be recognized until they pop, highly priced tech stocks in 2000 reflected strong potential profit growth, only a little froth in the real estate market, etc.). My first Greenspan prize goes to Chuck Prince for enthusiastically continuing to 'dance' the expanding credit polka into the summer; a most unfortunately timed demonstration of chutzpah. The second Greenspan prize – for "incomprehensible misreading of obvious data by an apparently well-informed source" – goes appropriately enough to Ben Bernanke for his late 2006 comment that, "U.S. housing prices merely reflect a strong U.S. economy." In humble third place I have to put Hank Paulson for his view in the Spring that the subprime troubles were "contained." My 'Clever Dick' retort in June's letter was, "We have to wonder if the container, in this case, will turn out to be Pandora's." Talk about unfortunately accurate images! Since then, an increasing number of shadowy, half-understood ills continue to fly out into the world!

The Minsky Meltdown

About 2 years ago I was introduced to Hyman Minsky's argument on the development of credit bubbles. Remarkably, 'stability is unstable' really captures his point. Investors, when confronted with an apparent reduction in risk, will seek to return to their normal or desired risk by leveraging up. This attitude becomes contagious and re-enforcing – risk is ignored and debt levels soar until at the peak capital gains are needed to merely pay the carrying costs. Then something, it doesn't really matter what, goes wrong; the risk in the environment is seen to return to more normal levels. Many players are caught with risk levels far above their desired level and are forced to cut back on leverage and risk in general, which puts pressures on the prices of what they own and so on. It has a simple and powerful logic. Well, the Minsky Meltdown has clearly arrived, and one shoe after another of the market centipede drops onto the floor, and we are waiting for many more. This is the most important U.S. financial crisis since World War II: it is of course far more global than previous crises, with tentacles reaching everywhere, and it coincides with broad overpricing of assets.

This crisis is likely to make the S&L crisis look 'contained.' In the end, total financial write-downs this time are likely to be two to three times the S&L crisis, as a share of GDP. (See Ben Inker's recent white paper, "Our Financial House of Cards" at www.gmo.com.) It seems likely to be the defining market event for many years (unless we're incredibly unlucky and something else truly horrible and unexpected occurs). Be particularly alert to potential problems beyond subprime mortgages. If U.S. house prices decline by over 20%, which we believe is likely, and if there is a recession, which we believe is very possible, then there will be painful defaults in regular mortgages. Commercial real estate debt is likely to have some write-downs as office estate prices decline and borrowing terms become more onerous. Write-downs and defaults in other debt will also be plentiful. Private equity deals in particular will probably turn out very badly indeed. In my opinion it is the most underappreciated risk of all and is likely to be the center of another phase of the crisis. The longer-term problem is that all debt standards fell so that losses will accumulate right across the entire credit system. In the end perhaps only government intervention and public funds will stabilize the system. Stocks meanwhile, relative bystanders last year, are overpriced, particularly at the risky end of the spectrum. And profit margins are spectacularly above average precisely for companies at the riskier end of the spectrum. Margins are declining now and the markets are finally getting the point that all risk is dangerous. Markets are well into a massive repricing of both risk and asset prices but it has far to go outside the original subprime area, where repricing may have already run its course. We had reached the lowest risk premium, by far, ever recorded and will no doubt end up at more normal levels, perhaps via above average risk premiums.

This of course will be a painful process and will be a considerable drag on economic activity. Unfortunately, it is likely to take several years. To house clean completely by the end of 2010 would be a reasonable target. (This would mean that 10 years would have elapsed between the highest overvaluation of U.S. equities ever recorded in early 2000 and a likely low of at least a modest discount to fair value in 2010. Ten years from high to low following a great bull market would be quite normal. For reference the highest overvaluation in the previous U.S. equity bubble was 1965 and the following low point of undervaluation was mid 1982, 17 years later. During these 17 years the S&P 500 index lost over one-third in real terms.) By the end of this credit crisis, perhaps better defined as a sloppy-debt-issuing crisis, we will be lucky if the amount of write-downs does not start with a "T."

Recent Predictions

My extreme prejudice has always been that only the relatively rare major events matter. The rest of the time you show up for work, worry about the details, and hold the clients' hands. Well, 2007 was a truly exceptional year. First, housing made its largest decline either ever or for a long time. We had been harping on the extreme overpricing of U.S. housing for some time. More recently the January letter last year started with a snide paragraph heading: "Safe as a House in 2007." It came with our familiar chart showing that U.S. house prices were in a genuine bubble, a 2-sigma 40-year event, that would need either a 30% price decline or 6 years of flat prices allowing for incomes to catch up or some other combination. (Now it is a 25% decline or 5 flat years.) The second giant problem was the bursting of the bubble of sloppy credit and sloppy risk-taking. On this issue we had already been urging clients to reduce risk for 2½ years (yes I know early once again, but at least with increasing fervor). In April we described the situation as the first truly global bubble and argued, as always, that "All bubbles break." At the end of June we described the unraveling that had started in subprime way back in October 2006 as "watching a slow motion train wreck."

In distant third place as a significant event of 2007, but still important, was the sustained fundamental and stock market strength of emerging markets. Unusually for us after an extreme move such as emerging had, we continued to recommend overweighting. Emerging, we argued, would bury the S&P in a neutral or strong U.S. equity market and might well match it or better in a drawn out decline.

So for once we nailed the three major issues in a year and you might well think, therefore, that we had a brilliant year. I regret to say that this was not the case. In general we had a poor year (analyzed later). The investment business is just not that simple, at least it isn't at GMO. At GMO we have distinct divisions, with considerable investment independence. Each has its own traditional investment disciplines or quantitative disciplines or both. Our big picture thinking usually nudges these disciplines and occasionally substantially tilts them, particularly in equity investing, which is the background of most of us. But plenty of our success or failure in any given year not surprisingly depends on the 'small picture,' the effectiveness of both the particular tools of that division and of their individual blocking and tackling. Good investing is ill-suited to committee decisions, but it does raise the issue of how much top-down judgment should intrude into daily investing principles. This thought naturally leads to the next topic...

The Limitations of Investment Discipline and The Trouble with Quantery

> *"Economics… has not truly come to grips with the main difficulty, which is the inordinate practical importance of a few extreme events."*
> (Benoit Mandelbrot)

This was not a good year for quants as a group and an even worse year for hard quants with inflexible models. Ten years ago the investment world was dominated by traditional stock pickers but that is certainly no longer the case. Now multiples of the quant assets and talent of those years (perhaps 20 or 30 times?) fight for an edge. And it has never been easy to find quantitative edges. There are simply not that many. And so quant investors get crowded into this handful of variables with predictable results: outperformance gets tougher. Many of the quants who are structured as hedge funds have responded to these increased difficulties in outperforming by increasing their level of leverage or risk. As long as the risk premiums were narrowing, which they did from September 2002 until July of last year, this was an easy way to make money, but it was not real alpha or real outperformance. It was simply a risk factor. And this painful truth was clearly revealed as risk premiums began to widen into the summer. Since quants measure risk more precisely and continuously than ordinary mortals, they become the

frontline troops in a Minsky Meltdown: volatility rises, their 'risk' – typically entirely (although inappropriately) based on volatility – is seen by them as rising above their target, and they immediately reduce it. Unfortunately all their leveraged competitors do the same. This summer reducing leverage meant that they were all selling some of their longs and covering some of their shorts or selling their heroes and buying their dogs. This had the predictable effect of making their performance awful and making their models appear to malfunction, which in turn caused some further increase in perceived risk. By the end of the summer quants were realizing that many others were playing with the rather small set of similar inputs. Many responded by scratching their heads and renewing their search for the Holy Grail – to be different.

Having started my career with 20 years' experience as a traditional stock picker, I have always felt a creative tension towards quantery. On one hand I feel that the 'very best' stock pickers/portfolio managers can beat the great majority of quant managers. On the other hand, I know the list of the very best stock pickers is extremely short. The great failing of typical hands-on analysis is pretty well understood and was reflected neatly by the fact that it was some large traditional investors who famously owned the great positions in Enron. Even if you believed Enron's own lying inputs for earnings and so on, their stock was still close to five times the average value of an already overpriced market on our particular value model (probably all quant models) and never made it into our value stream. Many traditional investors in contrast not only believed the imaginary data like most gullible quant models did, but also believed much of the hype for the future, none of which was believed by any quant model. Quant models never fall in love. They do not listen to brilliant charismatic company management. They do not have lunch with the CEO and, critically, do not have to protect their relationships with company insiders, which relationships are deemed by many to be so critical to the analyst doing a great job. Furthermore quant models get at least a measure of protection against the typical overconfidence that behavioralists tell us typifies our species, not least the investment branch of it. Quant models tend to have a graceful sliding scale of preferred companies, not a handful of favorites that the analysts or managers are so confident about that they own too few positions that are therefore too large and indigestible. Traditional stock pickers also tend to overtrade: what is a couple of percentage points of transaction costs when your stock is going to win by 20%? Because of these advantages, amongst others quants tend to have better diversification, more careful risk control, and lower transaction costs. Given similar talent, input, and energy, the quants should win as they usually have done for the last 30 years.

But now for the other side of the creative tension. Over the years I have also been impressed by the disadvantages of quant. First the computer output with all its parameters sits there in black and white. It is to the regular portfolio as the written word is to the spoken word: it is simply more confidence inspiring. As are the qualifications of your basic quant team – PhDs in particle physics compared to humble MBAs on the traditional buy side. How can they not win? Quants may not be overconfident in a single stock like a typical analyst; they are simply overconfident in their entire quant edifice. This boils down to an overconfidence in the power and elegance of mathematics. I have said for 20 years that in front of every quant's office there should be a sign that reads, "There are no points for elegance!" Quants share this "physics envy" with econometricians and the CAPM types. Even more dangerously, quant investment models tend to share with modern finance theory a leaning to normal distributions and normal optimizing. They need many data points to feel comfortable and this is the rub: the models cannot deal with rare outliers any more than CAPM can with its over reliance on volatility as a sole measure of risk, especially since its volatility is derived from a short historical series that can never effectively represent the future.

When something clearly new and original is happening there is little alternative to using your brains and more or less ignoring the regular quant rules. If your model has never seen a similar event, how on earth can you expect it to do the right thing? Optimal investing seems likely to be a mix of a few important judgmental overrides interspersed with long periods of cold, disciplined blocking and tackling. But who is to do this? Overriders like to 'use their brains' all the time, even on small issues, which can be a weakness. But quants like to shrug off outliers. The quants argue that overriding their models to deal with outliers sets a bad precedent and that in the long run they would be better off sticking with their disciplines. After all, they've been optimized over 40 years of data and surely something like this … say the current banking crisis … has occurred before? But sometimes it hasn't, and some of those times it's very, very important.

So how do you marry rare but important overrides with steady discipline? Obviously with extreme difficulty to say the least. It has been attempted quite often and almost always has proved to be totally or partly unsuccessful. Very often it has been a marketing veneer. In the old days it was a token quant in an 'active' shop more or less completely ignored by the portfolio managers, but with the 'product' presented as a polished hybrid to the clients. Now sometimes we even see the reverse, a token stock picker, theoretically designed to keep the quants in touch with the real world, but actually also aimed more at consultants and clients. To have a chance of success you must have complete buy-in to the principles of a hybrid approach from top to bottom. Simply stated, you have to aim to have the best data you can get at all times. Approximately right is much better than precisely wrong. Everyone must also believe that important outlier events can wash away disciplined models that may have worked like clockwork for years. And they must be prepared to act. Reluctance to act in this case is of course extreme because the timing can never be certain and the crisis may fizzle out with little problem. ("Yes, but you could have said that last year and it would have cost us.") What worse crime is there than overriding a perfectly good model that turns out to win in the end? Far better it may seem to stay with the good ship 'Discipline' and hope that the iceberg you bounced off only grazed you. The captain who slows down loses the chance for the speed record and irritates both his boss and his passengers. "But I didn't sink the ship," will seem like a pretty lame excuse for being late as avoided disaster is pretty hard to prove. (See N.N. Taleb's *Black Swans*.)

Some good news for potential overriders is that not all the madness of crowds or the grey and black swans arrive totally unannounced. The madness of the U.S. stock market in 1929 and 2000 and that of Japan in the late 1980s all had wonderfully suggestive exhibits with their Himalayan peaks. Even 1987, the quintessential black swan, was preceded by a well known vulnerability to badly implemented portfolio insurance that offered the potential for an accelerating self-reinforcing decline. Dick Mayo and I did comment on that possibility and considered the prospect of an "unprecedented 200-point decline in a day." (That would not actually have been unprecedented given 1929 and, of course, in the event it was over 500 points in the day. Not all our guesses were so prescient, but it was a good guess.) LTCM could have been seen as the classic case of picking up nickels in front of the steamroller and therefore just waiting for an unexpected acceleration of the steamroller. To partially prove this point, the risks LTCM was taking – particularly the risks of the totally unexpected kind – were pointed out well in advance by Seth Klarman of Baupost. The unexpected risk in that case was that when blood could be smelled in the water the sharks – both competitors and 'agents' – would position against LTCM's positions. LTCM had almost exclusively made arbitrage bets that were guaranteed to win but with huge leverage they could be squeezed into covering. Who would ever have thought that those leading investment banks that had done so much profitable business with LTCM and had indeed copied many of their sensible trades, would savagely turn on … just kidding of course.

Hybrid Quantery (Non GMO clients can skip to the next subheading)

GMO has always been a blend of quant and judgment. The firm was started with a single U.S. stock picking strategy run by Dick Mayo and me. It had many quant disciplines by the standards of those days, but we always tried to do what we thought was best and were never prisoners of any quant plans. There was always plenty of trial and error. (For the record, we won the first 9 years in a row against the S&P by an average of 8% a year.) Our international equity division started by Eyk Van Otterloo 28 years ago was then and still is a stock picking effort on a strong quantitative base. Our emerging equity strategy has had a judgmental component in its country picking weighting – the source of most of its outperformance – since the beginning, but the judgmental component has a numerical weighting in a quant system. It is basically "everything else that is not already in the quant model." In the last 5 years they have added first one then a second and third stock picker whose job is just to use their brains, look for opportunities, and critique the quant output.

But perhaps the most important demonstration of our difference from mechanistic quants was what we called our 'once-in-a-lifetime-override' in Japan. Even earlier than normal, three years before the peak in Japan, as it hit 45x earnings never having been above 25x before, we went to a zero weight. This zero weight was in EAFE accounts that had a 65% weighting in Japan at the peak. For a quantitative strategy that's what I call an override! (And for the record it also went to zero, independently, in our active international division.) In the end after 6

years of zero weight this bet both made our clients a lot of money and lowered their risk. But that's not the point. The point is that Japan was a gigantic unmissable bubble that in our opinion meant that owning any Japan was borderline fiduciary irresponsibility. In complete contrast, any quant optimizer focusing on benchmark deviations would have treated such an extreme bet as completely out of the question – as too 'risky' – even though in real life it of course reduced risk. As usual, the main risk to most professionals in an uncertain world was the career and business risk of going short a rapidly rising market too soon.

In second place, a much more recent override concerned our relatively new U.S. Quality Strategy. Any quant model I have heard of would have considered Citicorp on January 1st last year to be a high quality company. Quant models after all only look back 7 years or 10 or 12. What those models do not know and cannot know is that at long and unpredictable intervals, say between 15 and 25 years, banks have a good old fashioned crisis for the old Minsky reason: they respond to good and stable times by assuming risk has diminished and they begin to push debt and become sloppier on their standards. Similar occasional wipe-outs do not occur in, say, the drug and soft drinks industries. And humans know this. So we deemed that no bank could be considered admissible to the U.S. Quality Strategy. But for quant models this is the problem with dealing with the banking industry: if you extend the time period of the model to, say, 25 years you can pick up a lot more of the banking risk. In doing so, however, you risk swamping all the rest of the industries with old-fashioned data, which in a changing world will usually cost the total model more in the performance of all the rest of the universe than you gain in banking! A perfect example of the tension between more specificity versus more data mining. You see the dilemma. In the end, like any judgmental analyst, you must make a decision and take the risk of failure. But, unlike a traditional analyst, a hybrid quant of the type I recommend (and somewhat of the type we have become) has one enormous advantage. A traditional manager is making these one-off judgments all the time on a great variety of issues. Sometimes the issues are extreme but usually they are more modest month-to-month decisions. The hybrid quant would ideally be making these judgmental overrides only when extreme outliers are involved. With extreme outliers, like the Japan bubble, and the recent credit crisis, our experience has been that the success rate is likely to be very much higher than with more mundane decisions.

This concentration on the extreme outliers for the use of judgment combined with as much quantitative discipline as possible is precisely where we try to operate in our $40 billion asset allocation division where we have been gaining experience for 16 years. We have tried to focus our style in this area precisely at the intersection of routine quant discipline and very occasional human judgment at the extreme. It has not freed us, apparently, from extreme timing problems (an average of just over 2 years too early, although there are recent hints of improvement) but in general it has worked well and these products have delivered from 1½ to twice the Sharpe Ratio of their benchmarks.

Now the question is can we introduce more flexibility and judgment into the quant disciplines of U.S. and EAFE equities and perhaps other investment areas and improve them rather than upsetting the applecart? It is obvious to everyone involved that the process should be evolutionary: small changes, carefully and slowly integrated. But in the end, our target is clear: in 10 years, every bit of data should be believed in as absolutely the best input that we could possibly produce, not just reflecting rare generic overrides of the credit crisis variety, but also unique factors of a single company that cannot be known to a model based purely on historical data.

For example, the input of our model, and all other quant models I've heard of, sacrifices some accuracy on individual stock entries in the interest of a single, simple, less data mined model. That this quant virtue of simplicity is also a worthwhile objective, worth some compromises, is what makes this whole issue of quant vs. quality so complex and interesting. Consider the example of Philip Morris 10 years ago. You know it is a high quality company on the historical data, but you also know it has an unquantifiable off balance sheet potential cancer liability that could be very large indeed. And you know the model doesn't know. Only two things are certain. The first is that to debit the value of the firm by $1 is more accurate than making no adjustment. The second is that you will never know what the perfect debit is. It is irretrievably a matter of judgment.

Summary

These are the hybrid quant objectives: first, the unique features of individual firms and individual industries

should not be ignored in the interest of having a simple, uniform model, admirable as that objective is when other things are equal. This process must necessarily be a torturous judgmental struggle with data mining. The good old days of the domination of the first generation quant models, where you simply show up with three concepts – value, momentum, and discipline – are over. But, even more critically and, perhaps like career and business risk, out at the limits of arbitrage, is this need for judgmental overrides on rare macro events. Quants like to show off their discipline by marching off the cliff in rows (it is said, I hope apocryphally, that Shaka, the great Zulu Chief, marched an impi, or regiment, off a cliff to impress European observers and I hope it did). Well, in real life it would be nice to stop at the edge and say "I don't like the look of this, perhaps my model missed something." The extremely difficult objective is to maintain the advantages of quant discipline 95% or so of the time and hand over to a human being when you reach the edge of the cliff. You can imagine the problems in making this kind of phase change. But only by slowly overcoming this problem and integrating this hybrid approach into the DNA of the investment process can one aspire to being very effective investors in the long run.

GMO's Performance in 2007*

GMO's equity strategies hit several headwinds in 2007. First, we are predominantly value managers and 'value' by early 2007 had overrun its normal range, not surprisingly after 7 consecutive strong years. It did this on a global basis and 'growth' and high price/book stocks dually outperformed. Second, there were the difficult shivers that ran through many quant portfolios in the summer caused by the rise in volatility and the overcrowded quant turf already reported on. This affected us, albeit less than most. Third, 'momentum' – a perennial quant tool – worked at the stock price level a little in some variants and failed in others, but it remained far below its average effectiveness of the 30 years prior to the 2000 peak. Fourth, at GMO we measured both 'growth' and 'quality' as underpriced, indeed at the bottom of their long-term ranges, almost exactly as they had been in 1989. Back then we played the 'growth' angle and started our first growth strategy. In that event both growth and quality won by an almost identical 15% to 20% over the market. This time, despite their having the same underpricing, we were more familiar with quality and knew that in the long run, remarkably, quality did not underperform as did growth (by almost 2.5% a year). We also knew that quality really outperforms when the economy gets weak and economic weakness was what we feared. But this time Murphy decided that growth (and high volatility) would outperform handsomely and quality in contrast would barely scrape home by 0.5% with 4.5% of that dependent on avoiding all banks! (Although in recent weeks this quality vs. growth equation has changed powerfully in favor of quality.)

Our foreign and global equity strategies, both active and quant, struggled against these winds and almost held the benchmarks. Our Emerging Markets Strategy underperformed by 3% but at least delivered 37%. The performance of most of our international money was reasonably well placed against competitors, many of whom were experiencing similar problems. Almost all our strategies would have done better avoiding more financials than their disciplines, both traditional and quant, and their risk control mechanisms urged them to own. This was a pity, but still not bad overall.

The U.S. equity strategies, all quantitative, had a very tough year, with only the Quality Strategy surviving as described. Financial holdings in other U.S. quant strategies certainly increased the pain. Only in the fourth quarter did the U.S. strategies start to outperform, and this outperformance accelerated into January, so that as I write the 8th of January, the Quality Strategy is ahead of the S&P by a very encouraging 3.5% and our flagship U.S. Core Strategy by 1.5%. This is about half of last year's U.S. Core underperformance and, we hope, a down payment.

In GMO's fixed income division, Emerging Market Debt had yet another year of outperformance at about +3% against the benchmark. But apart from that we had a truly dreadful year. The models failed in various components and were unfortunately followed off the cliff with considerable discipline. It was a stinging setback from which we hope to learn a lot.

In our Asset Allocation portfolios, allocation itself had its eighth consecutive year of outperformance, but unfortunately the implementation of the underlying funds detracted. Allocation added 1.9% in our flagship Global Balanced strategy, for example, and implementation of the underlying funds subtracted 2.6%. In its 16-year history the underlying funds have added about 1% a year and

* The performance for our strategies is available at www.gmo.com or is contained in the accompanying Quarterly Update.

materially contributed to risk reduction as well. But not this year. The Asset Allocation group sidestepped some of the pain from the credit crisis, but in general we moved too slowly and initially too little. This reflected our lack of technical expertise in fixed income – a weakness we are determined to remedy quickly.

Collectively it was an odd and frustrating year. It might or even should have been an excellent year given some of our insights on impending problems. Yet it wasn't. We are focusing on this issue and expect to capitalize on our ideas better next time. In the meantime, thank you for your patience.

Recommendations for 2008

As for the last 2 years, we feel strongly that any unnecessary risk should be avoided like the plague. Therefore, be very slow to move back into financials. As was the case with Japan's problems in a very severe credit crisis, the issue of which bank survives and which doesn't is more about politics than economic solvency. Many financial companies will approach technical insolvency before this crisis plays out and before they desperately raise new capital. This is not another shot across the bow as March 2007 and April 2006 were; this is the real McCoy. Let the other guys be the heroes.

So what to buy? I'm afraid cash is the ugly answer that no one ever wants to hear. For the first time in many bear markets traditional value stocks are unlikely to help much and may even hurt as they entered the decline badly overpriced. And once again if you literally cannot resist buying some stocks, we recommend a mix of the highest quality U.S. blue chips and emerging markets. The bigger the fundamental problems the more quality stocks are likely to outperform. The more the economy manages to muddle through the better emerging is likely to do. If you can do it, hedging out 100% of these positions with, say, a short on the Russell 2000 or equivalent would be much, much safer and probably more profitable. (This hedge certainly worked extremely well last year and in recent weeks to January 12th.)

Forecasting 2008: Some Presidential and January Rule Teasers

For our first institutional client's portfolio 29 years ago we used the January Rule and the Presidential Cycle as two of its three inputs, in an attempt to predict the S&P on a year by year basis. These two rules had worked well for 50 years before we used them and they have certainly worked well since (although that original client and our simple model only lasted about 2 years). A down January and even just a down first 5 days both materially increase the probability of a down year. On our data, which starts in 1930, we just had the worst 5 days ever! As historians we love to see new records set and this one is both impressive and bearish.

On the presidential front, as members of the Dataminers Guild we have to report that a Year 4 (October 1 to October 1) that has a lame duck President has been followed by years that were on average 11% below normal. For next year, Year 1 of the cycle, returns have averaged 3.5% below normal. But the Guild reports that when the party in power changes the underperformance rises to 8%. For 2010, the next Year 2 and the year I have long believed is a likely low point for the market, the typical underperformance is 5%. However for each of the 3 years if you are in the worst half by the value of the total market, as we are now, then you knock off 4% a year. So to adjust for 2 or 3 years of overpricing (depending on how quickly the market declines) let's knock off another 8% in total. The total 3 years' decline if we did that would put the market close to its long run trend, which by then will be 1100 on the S&P. The 1100 trend number is arrived at by using a normal profit margin on a normal trailing P/E ratio. Since this obviously has nothing much to do with Presidential cycles, we like the coincidence. But as we said, just a teaser.