GMO

QUARTERLY LETTER

July 2006

Jeremy Grantham

Way to Go Ben! (In which Ben Bernanke shows his claws – well, long nails anyway – and appears ready to make off with the punch bowl.)

plus **Letters to the Investment Committee VIII**

Ben Bernanke Gets on the Program

For a while it looked as if Ben Bernanke had lost the plot and believed that the Presidential Cycle was a statistical artifact. By prior standards he was simply too friendly in words and deeds for a year two. The suggestion in my last quarterly letter was that if he really knew on which side his political bread was buttered, he would quickly toughen up his language and consider one or two more quarter point rate increases than the market really cared for. By scaring the market a bit he would have more room to lower rates and talk more sweetly next year in the critical third year of the Presidential Cycle (starting in October). That is when the administration needs all the help it can get in stimulating the economy, and usually gets it. Well, the laws of averages were obviously not paying attention and allowed my letter to go on the web in April, shortly before Bernanke began to positively snarl about controlling inflation at all costs. Expectations for the fed fund rates since then have also risen by some 32 basis points. And his tough love did work, serving to remind investors that, after all, risk does exist. With his help, the risk premium moved decisively off its remarkable low.

It was on or around May 8 that the average risk premium for things financial hit a low. Not just a local or provisional low, but a low that I think has a reasonable chance to outlive most readers! The Wile E. Coyote Market, along with almost all its participants, has finally noticed that all is not well, and that something less than solid underpins it. The Bank of England weighed in by noting in its mid year report that with global interest rates rising in the early months of the year, it was extremely unusual for the risk premium to have continued shrinking. Now, almost everywhere, concerns are rising that inflation may pose a danger, and in response interest rates are moving further up. Even the real rates, as revealed by U.S. TIPS (inflation protected bonds), have risen by ¾ of 1%. Simultaneously, concerns about a moderation in global economic growth are also rising, and a Merrill Lynch survey of money managers last week reported that a net 60% of managers expected the global economy to weaken in the next year – the survey's most pessimistic reading ever. This was up from only 5% back in April. Whoops! Global liquidity, although still very substantial, is reducing its rate of growth and seems likely to continue doing so. The carry trade in the hedge fund world has become less attractive and is being reduced. This set of circumstances is never well received by the market. The pain in the recent setback has not been perfectly correlated to risk – some risky assets have been picked on severely, while others have been given a temporary pass, but, in general, the riskiest assets were hammered from the market peak and the safest ones were not, as shown below in Exhibit 1. Inconveniently for us, the dollar in these short declines usually becomes a haven, regardless of its intrinsic value,

Exhibit 1
A Warning Shot on Risk

	May 9, 2006	June 13, 2006	% Change
U.S. Gov't. Bonds[1]	-1.97	-0.81	**+1.2%**
Emerging Debt[2]	+1.29	-0.49	**-1.8%**
Asset Allocation[3]	+6.05	-0.36	**-6.0%**
S&P 500	+6.85	-1.13	**-7.5%**
EAFE (local)	+10.75	-3.46	**-12.8%**
Russell 2000	+16.35	+0.37	**-13.7%**
High Volatility[4]	+9.40	-5.20	**-13.3%**
EAFE ($ terms)	+19.07	+1.55	**-14.7%**
Emerging Markets[5]	+27.53	-2.91	**-23.9%**

[1] *JPMorgan US Govt Bonds*
[2] *JPMorgan EMBI Global*
[3] *GMO Global Balanced Index*
[4] *Most Volatile 25% of stocks (by MCAP) among the largest 600 US stocks*
[5] *S&P/IFC Investable Composite*

deficits, or even its recent price trend. Dollar strength knocked an extra couple of points off EAFE and probably about 5 extra points off emerging equity.

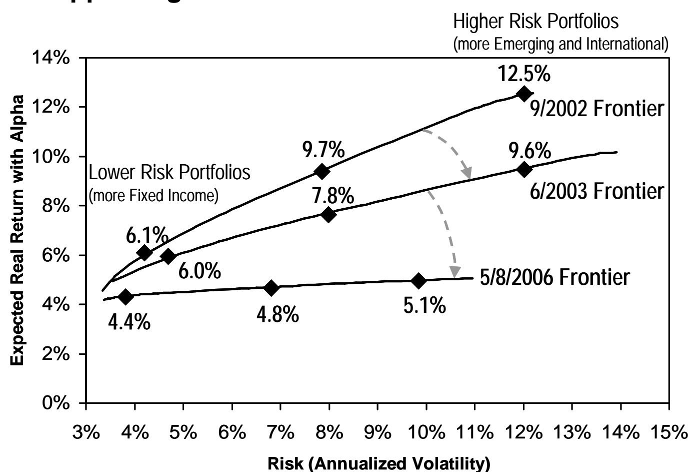
On the other hand, one had to admire the strength of the speculative bounce in the last few days of the quarter following the hammering. After 20 years of Greenspan, moral hazard speculators seem to think they are immortal, and that bullets will bounce off them. Breaking this positive attitude – probably the most profound in investment history – will not be quick or easy. This is why I believed back in the teeth of the 1998-99 bubble that the next bear market would go on for years. The great bear markets always take their time, and coming off the biggest bull market ever, this bear market is likely to be very long. 2010 has always seemed like a reasonable target date for a major bear market low. Such a 10-year bear market would be compatible with other great bear markets following the peaks of 1929 and 1965 in the U.S., and 1989 in Japan. In the end, the usual thing usually happens, but I seem to spend 90% of my life losing hair waiting for the inevitable to happen, and only 10% watching it happen.

The Lowest Risk Premium in History

Exhibit 2 shows the 'efficient frontier' for our long-only global balanced portfolios at three points. September 2002, at the top, followed three bear market years in which risky assets – led by a 78% decline in the NASDAQ – were treated very badly indeed. The middle line shows June 2003, approximately the mid point of this cycle. The bottom line was specially done for me last week by Ben Inker using the prices of May 8, the speculative high. The 2002 exhibit, which was shown at the time to our clients, shows that we felt we could produce a risky portfolio with a 7-year forecast return of 6.4 percentage points a year above our most efficient low risk portfolio. Now that's a risk premium! By June 2003, the risky portfolio was forecast to deliver an extra 3.6 percentage points, which seems like a reasonable risk premium. But by May 8 the risk premium was 0.7 percentage points! 0.7 percentage points is probably the lowest risk premium of modern times. I certainly can't think of another rival. March 2000 was not even close when all assets are considered. For starters, emerging markets and small caps were cheaper than the S&P. 0.7% is so dismally low – far lower than any conceivable long-term equilibrium – that obviously the right response was to be 100% in cash or cash equivalents. Except, that is, for the enormous pressure from traditional ideas of 'normal' investing and the career risk that drives us to invest in a way that other people think other people think is normal and acceptable. To repeat, for the record, our methodology uses our own 7-year forecasts, which typically look unusual because they mark everything to normal values over 7 years, that is to say, normal P/Es times normal profit margins. But other than that, we use pretty standard optimizing techniques to get our efficient portfolios, including standard volatility and standard correlations between asset classes.

Exhibit 2

Efficient Frontiers and the Disappearing Risk Premium



Note: *Based on GMO's 7-year asset class return forecasts.*

Source: GMO As of 5/8/06

Submerging Markets

Here we go again. Emerging country and small cap stocks had been the particular favorites of hedge funds and everyone else for that matter. They had enormous unrealized profits, were no longer absolutely cheap, and have always been considered some of the riskiest assets. That emerging equities have enormously improved in fundamental strength from earlier crises is typically not much help in this kind of knee-jerk, 5-week, risk-reducing decline, but, I believe it will be a great help in a more extended, less panicky decline in which fundamentals, eventually, always matter.

Starting late last year we finally sold some of our emerging equities, but we still carry a big weight for two reasons. First, they were absolutely cheap for several years in an overpriced world, and more recently, while expensive, have been the least expensive of the equity markets. Second, they were a great hedge against being wrong on the U.S. market, in the sense that **if** the S&P went up, we expected emerging to do better. Well, the U.S. did persistently better than we expected for 3 years, and emerging markets provided enough juice to keep our asset allocation products consistently ahead of benchmark, which is a pleasant change for us in an up market. For the last

2 years we had chipped away at our aggregate risk, buying more of our new quality strategy in U.S. equities, selling all of our U.S. small cap (that had been 9%), almost all of our foreign small cap, and, finally, in the last 12 months, overweighting fixed income, especially cash. And despite risky assets outperforming substantially, the heroic performance of emerging kept us in the ball game.

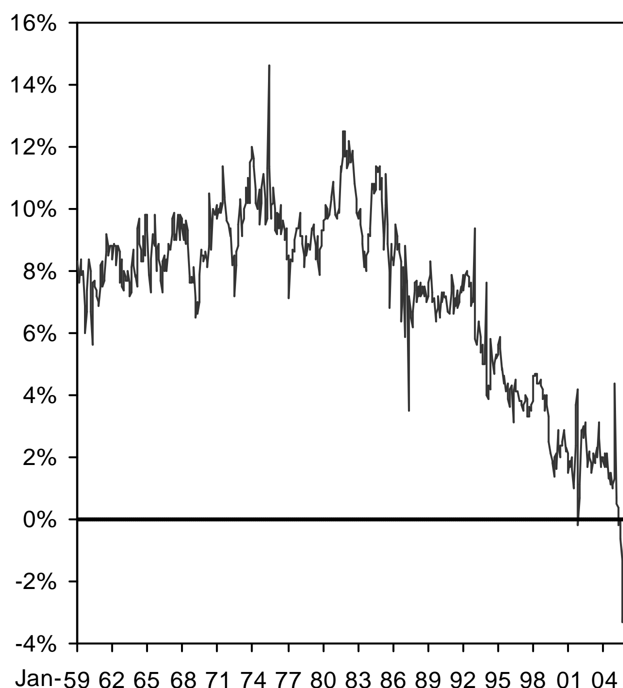
Well, there is no free lunch, but I must confess to being surprised at how expensive this lunch turned out to be for the 5-week decline. After all those shenanigans, most assets ended the quarter with very similar (and very flat) performance, with emerging markets in particular making up before, and after, what it lost in the amazing 24% drop in 5 weeks. I do not expect emerging to decline anything like this ratio to the S&P again (3:1), and I still expect that by the low, it may well decline the same or less.

The May through June shock to the low risk premium caused a rapid response, not surprisingly, from the newly gigantic hedge funds. They moved quickly to reduce their leverage and the carry trade in sensitive areas. Most emerging equity markets, and some of their more vulnerable high yield currencies, were the first targets, and these had been major beneficiaries of the carry trade. Particularly hurt were the highest yielding currencies like the Turkish lira and the Icelandic krona. I would hope that most of the fastest guns have shot by now, but since we have never lived in a $1.2 trillion hedge fund world before, we have to guess. A great majority of all hedge fund money has never known a world that was not dominated by Greenspan moral hazard – heads you win and tails I'll help you out – and this fact has two consequences: first, they should be very slow to entirely give up speculative confidence; and second, there is an awful lot of speculative confidence to finally give up!

Pension Fund Patsies

At first sight, there seems to have been little downside to the Greenspan policy of moral hazard: leave investment bubbles alone, but hurry to the rescue if a breaking bubble seems likely to cause economic problems. The economy in general did indeed do well. Taking a second look in January, we examined the potential downside of sustained moral hazard: that the system could get so used to the asymmetrical risks and so comfortable with long-term easy money and low rates, that it continuously expands its risk-taking until finally something breaks. But this is, admittedly, merely a possible downside. It is not at all certain. At third sight, however, there is a **definite** cost to Greenspan's and Bernanke's asymmetrical approach, and it is borne almost exclusively by **retirees** (see Exhibit 3). For a dozen years now, Americans have saved far less

Exhibit 3
The Series Formerly Known as the Personal Savings Rate



Source: Bureau of Economic Analysis, GMO   As of 5/31/06

than they used to. The personal savings rate fell from 8% to 3% of a year's income for a cumulative shortfall over 12 years of over 60% of a year's income. In fact, in the last 18 months, the personal savings rate has dropped below zero. In 2005 we spent collectively more than we earned for the first time since 1932. Obviously, 1932 – the depths of the depression – offered a compelling reason to eat up savings. 2005, in remarkable contrast, was a strong economic year. What were we thinking?

"No problem," say the optimists looking at the shortfall in personal savings since they believe foreigners, mainly Chinese, will prevent a capital shortage by saving for us. This Jack Sprat situation where they save dangerously too much, we save dangerously too little, but together we look okay may, or may not, be a sustainable situation. But that is a different topic that is much discussed, and much disagreed upon. What I'd like to focus on here is the group of savers who are due to retire now or in the next 10 to 15 years who are missing their 60% of a year's income plus compounding, and are still horrifically undersaving.

Why did this painful and disappointing situation in savings arise? Simply because savers were seduced by inflated asset prices into thinking they were rich. They felt rich first because their stocks did so well in the 1990s. Then, as Greenspan rode to the rescue of the economy to

offset the effects of the breaking of the technology stock bubble in 2000, they began to feel even richer because of rising house prices, which have a much bigger effect for the average household than rising stock prices. They also felt richer because rates fell and bond values rose. Notably, these increases in wealth were predominantly paper increases. The actual income received from the combination of interest coupons, dividends, and rents did not change dramatically. So, bonds may be worth more, but they pay less, and, in aggregate, stocks are built on the same GNP battleship that they always were – a battleship that never seems to materially change its growth rate for long (see last quarter's letter). In particular, houses might appear to represent three times the wealth they used to, but are, undoubtedly, the very same houses they used to be, neither more, nor less. Housing and housing prices represent the clearest possible comparison between real assets and paper wealth.

Feeling wealthier on all sides of their capital account and under pressure from the curious lack of growth in real hourly wages for the last 30 years (see July 2005 letter), reducing savings, or increasing borrowing (the same thing), was compelling, and was facilitated by improvements in the ease of home refinancing.

The professional optimism of the financial community and the media dangerously encouraged this carefree attitude. (Louis Rukeyser may have had a charming smile, but he certainly did not frighten people into saving. From his reactions, I suspect he broke out in hives if a bear came near his program. Sorry, Lou.)

The insidious part of this con game is that it is so hard to make up for the years of lost ground. Not only does your savings rate have to go back to 8%, which in itself will take years because everyone is so used to saving little and borrowing a lot, but, in addition, you have to make up the 60 points that are missing. If you have 12 years to go to retirement, that would take an extra 5% saving a year, for a total of 13%. Obviously, nothing close to this is going to happen. You will either have to get used to coworkers over 60 – a truly terrifying thought – or you'll have to see me about buying some cheap retirement land in Panama. (Dear SEC, this is a joke. I'm holding all my land in Panama for a rainy day.)

The price that is ultimately paid when all assets finally end up at fair price (or trend) will, unfortunately, be very high or, as Warren Buffett likes to say, when the investment tide goes out, it will be revealed which swimmers are not wearing swimming shorts. Unfortunately, it will also show us who has small pensions.

Exhibit of the Quarter

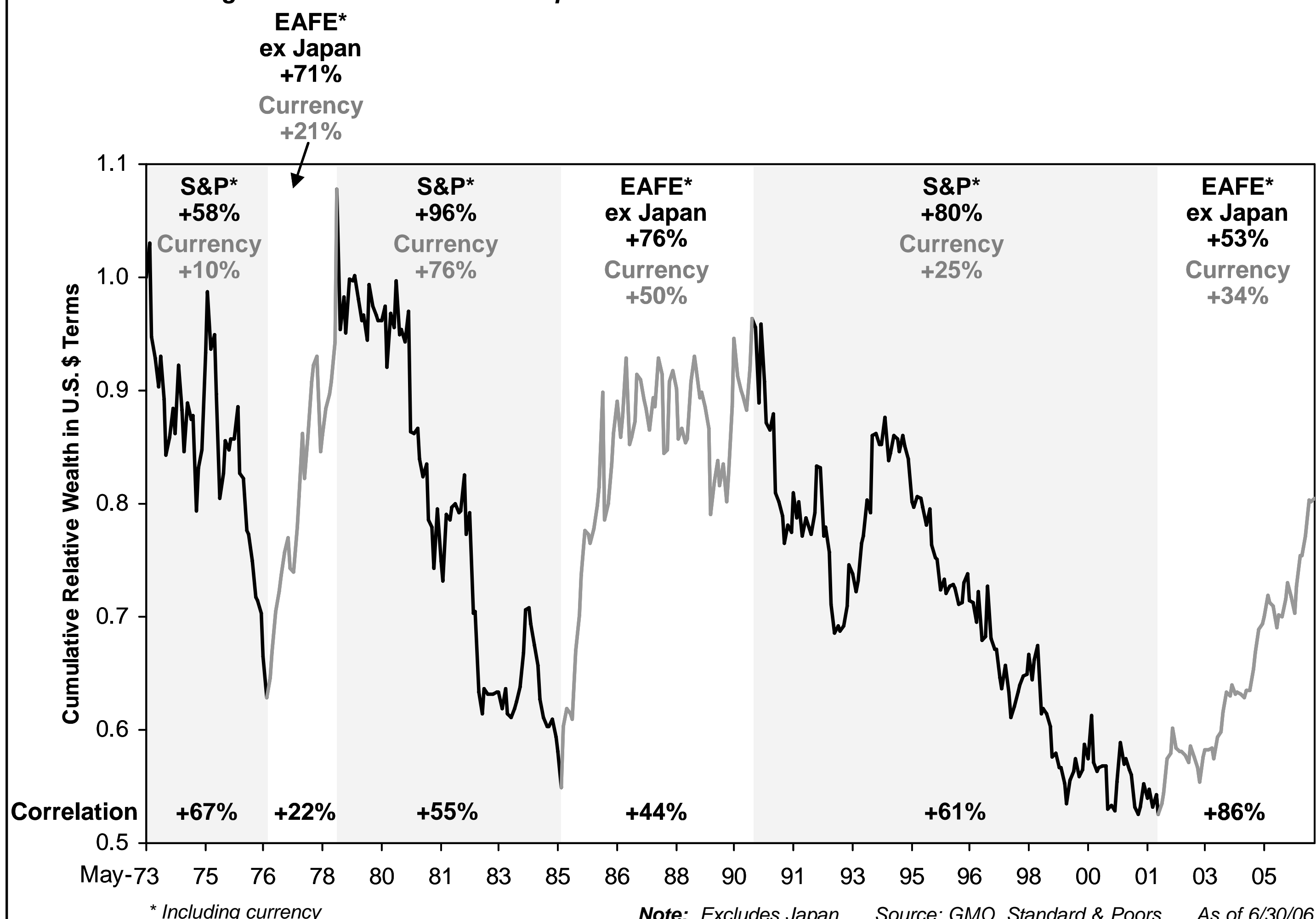
A story that grew and grew in the institutional world in the late 1990s was that foreign equity investing was not necessary because its difference from U.S. equity, that had been traditionally large in the 80s when non-U.S. investing was starting up, had appeared to diminish steadily in the 90s. And, it was indeed true that the correlation between EAFE and the S&P had risen steadily from about .45 to about .80 over 30 years or so. But, what was really going on here was complicated and interesting.

First, EAFE outperformed the S&P in the mid to late 1980s by over 100 percentage points (76% excluding the once in several lifetimes Japanese bubble). Next, this outperformance of EAFE stimulated an enormous amount of interest, and international investing took off rapidly (albeit from a **very** low base), and AIMR (the financial analysts' organization now known as the CFA Institute) staged its first ever conference on international investing at which I can personally attest there was a general enthusiasm that approached ecstasy.* Murphy's Law then ensured that EAFE would immediately start a sustained period of underperformance. It underperformed, of course, for the usual reasons: it had just finished a major run of relative strength, had overrun fair value, and entered 1991 horribly overpriced. The early movers felt substantial performance pain, and the late movers for once got to gloat at the early movers. Both groups though were eagerly seeking a good academic reason why they should either reduce or refrain from EAFE investing. As an industry, we produce such convenient reasons very well indeed!

The argument of increasing correlations sounded academic, and was undeniably based on accurate data, so it was a godsend. It did, however, immediately raise an odd dissonance. If correlations were so high that diversification had become irrelevant, how come EAFE investors were getting hammered? To address this precise point, we designed Exhibit 4 almost 10 years ago and we still happily use it. It was meant to raise the question of why we should be concerned at all with correlations calculated monthly when, as long-term investors attempting to build efficient portfolios, we should be concerned only with the **multi-year cumulative difference** and, Lord knows, that seems to exist here. The exhibit charts the ebb and flow of relative performance of the S&P 500 and EAFE ex-Japan. (The pattern with Japan is similar, but more extreme, and the Japanese bubble was so transcendental it seemed better left out to avoid the dismissive,

* I was of course happy to give a contrarian view in my presentation, "Dirty Secrets of International Investing," available to anyone interested in our website's Library.

Exhibit 4
Exhibit of the Quarter
Markets with "high" correlations can still be powerful diversifiers



** Including currency*

Note: *Excludes Japan* *Source: GMO, Standard & Poors* *As of 6/30/06*

"Oh that's just a reflection of the never-to-be repeated Japanese bubble and therefore irrelevant.")

The cycles shown are impressive in scale and size, and, interestingly, they seem to peak and trough at roughly similar levels, which is perhaps not that remarkable because, in the long run, the returns on different markets tend towards pretty similar numbers.

We had some uncomfortable times with this exhibit from about mid 1998 as the cycle dropped below even the 1985 low. We certainly held our breath for a long time, but in the end, it did not drop further, and then in 2001, when most commentators had agreed on the abject uselessness of Japanese and Euro economies (and, therefore, their markets) this particular worm turned. EAFE has now had a handsome 53% outperformance from its low, but is probably not finished because it is still cheaper than the U.S. (at least on GMO data) by about 16%. If EAFE made up this difference, it would take its current indexed value on the exhibit from .80 to .93. Next, EAFE is likely to overrun. The peaks of 1973, 1978, and 1990 were all relatively overpriced for EAFE and the troughs of 1976, 1985, and 2001 were all relatively cheap. That is to say, **every** cycle has overrun fair value in both directions. We estimate the average overrun at 14%, with a range of 7% to 33%. If this cycle overcorrects by its average of 14% this time, it would take this series from .93 to 1.06, which compares favorably with the range of other cycles. There is also the possibility (I would rate it moderately over 50/50) of a further contribution to outperformance from some relative strength in EAFE currencies against the dollar. So, the first major point of this exhibit is that there has been a very important difference in EAFE performance relative to the S&P in multi-year cycles, and this makes EAFE portfolios a real help in diversifying returns.

An interesting secondary point is reflected in the contribution from currency to each cycle of relative performance. A view in international investment, so predominant that it is almost conventional wisdom, is that strong cur-

rency hurts exports, and, hence, profits and the stock market. Accordingly, most commentaries suggest that a strong relative currency effect will be offset by a weak relative market. As can be seen in Exhibit 4, this is absolutely not the case. For six large cycles in a row since 1973, the currency move has reinforced the relative market performance. Currency has averaged 50% of the cycle outperformance ranging from a low of 17% of the market move in the 1975 cycle, to a high of 79% in the late 1980s. My guess – and that's all it is – is that better average stock values, later compounded by strong relative momentum, attract foreign stock buying, which in turn pushes the currency up over a number of years. Any other suggestions certainly would be welcome, as this counter-intuitive effect has not been heavily analyzed as far as we know.

Recent Forecasts

Nine months ago, my quarterly letter featured a warning of an imminent narrowing of the risk premium ("Ready or Not, Here Comes the Risk Premium") and, painfully for us, it widened for the first 7½ months, in particular the gap between junky stocks in the U.S. and quality stocks. For 5 weeks during the market decline, quality stocks moved respectably ahead of junk, although quality did give back half the move, as risky assets recovered sharply in the closing days of the quarter. I have also done a lot of talking and writing about the Presidential Cycle Effect, and these first 2 years of the cycle have not been as weak as normal, but for the U.S. equity market, they came close. Last year it was up only 1.5% real for the S&P, and this year, through June, it was flat in real terms within 1 or 2% of the 40-year average. But risky assets did far better than normal. In fact, this was the second best performance of volatile stocks relative to the market early in the Presidential Cycle since our records began in 1964! (I can't resist a digression here for the very best performance is a true anomaly and very interesting. In the late 1960s, the Nifty Fifty – the then-great franchise companies – became so popular, and nearly unanimously desirable, that they became known as 'one-decision' stocks. Since you should never sell them, you only had the single decision as to when to buy them. In that period of extreme consensus, the volatility of these great companies, with their superbly high fundamental quality, rose to be the highest. This was the supreme dissonance between two major measures of risk. The risk of the Nifty Fifty defined by volatility, or beta, became the highest, and their risk, defined by fundamental quality – high, stable return and low debt – was the lowest. So it is not entirely clear whether their outperformance in years one and two was really affirming or contradicting the general thesis. What a strange world!)

The encouraging news about these poor or certainly premature forecasts that I made on the risk front is that they nearly all moved substantially in the predicted direction in the 5 risk-averse weeks of this last quarter. Hopefully, a sneak preview of major things to come. This speculative market is certainly not eager to throw in the towel. On a more positive note for us, our sustained forecast that U.S. equity markets would underperform other equity markets, which is critical to our asset allocation accounts, is still accurate for this year so far, notwithstanding the 5-week shocker.

GMO's Recent Performance

After three great years (2000-2002) and three generally very good years with a few weak spots (2003-2005), we are having a tough year. The brighter side is that the bulk of our assets under management are in EAFE and global equity strategies, and they remain generally slightly up on their benchmarks for the year, following a flat quarter. Our $15 billion in fixed income is up for the year, having had a decent quarter (and emerging debt is nicely up), and our $11 billion of local money managed out of London and Sydney remains slightly up for the year, having had a mixed quarter. Asset allocation had a weak quarter, but remains flat for the year following six consecutive annual wins.

Our bad news comes from the 20% of our business in U.S. equity, which has underperformed all the way up this 3½ year rally. The rally has been exceptionally speculative, and our pain has been focused on the difference between GMO's value parameter and the traditional value measures such as price to book and P/E. GMO's value model is a long-term dividend discount model that is based on profit margins regressing towards normal at a rate based on stock specific characteristics including quality and growth. Over 22 of the last 30 years, our value model and the traditional ones have been, broadly speaking, the same in performance. For a glorious 5½ years (1993-98) our version persistently outperformed the S&P while book, etc., persistently underperformed. (Internally this era is wistfully referred to as the Microsoft Era since until late in 1998 we continually owned Microsoft in our value stream because our model recognized that its franchise value was **far** higher than book. Correctly, I would say, with hindsight.) Now the second big deviation is the other way. For 3½ long years, price to book and P/E have badly beaten our broad based value measure with the key to this deviation being the market's remarkable confidence about accepting increasing risk during the 3½ years.

Net net, over 30 years there has not been a huge difference in performance – just over 1% a year in our favor – between these two substantially different approaches to value. There is, however, one very significant other difference between the two models that Fama and French would be impressed with (if data on market inefficiency could indeed impress them) and that is that the average fundamental quality of our value stream is equal to the S&P and that of cheap price to book is far, far lower. Exhibit 5 shows these relationships. Fama and French can argue with some justification that **price to book is a risk factor**, if risk is measured by fundamental factors such as stable profitability and low debt and not poor old beta (see "Letters to the Committee" next quarter), and our proprietary research showed that low price to book stocks badly underperformed in the grandmother of all fundamental stock declines – 1929 to 1932. But they could never accuse our value model of being a risk factor, hidden or otherwise.

Well, lowering risk has not sold much business yet for anyone, and raw, unadjusted performance is still the key, and we know it. I also believe Point 30 in the attached "Letters to the Investment Committee VIII," which states, "90% of what passes for brilliance or incompetence in investing is the ebb and flow of investment style." The current ebb in the performance of our type of value parameter certainly makes us look incompetent right now, and I understand the frustration that sustained underperformance always causes. I am confident, though, that led by Sam Wilderman, our director of U.S. Equities, we will get it all back with interest, and sooner would certainly be better.

Asset Allocation Advice

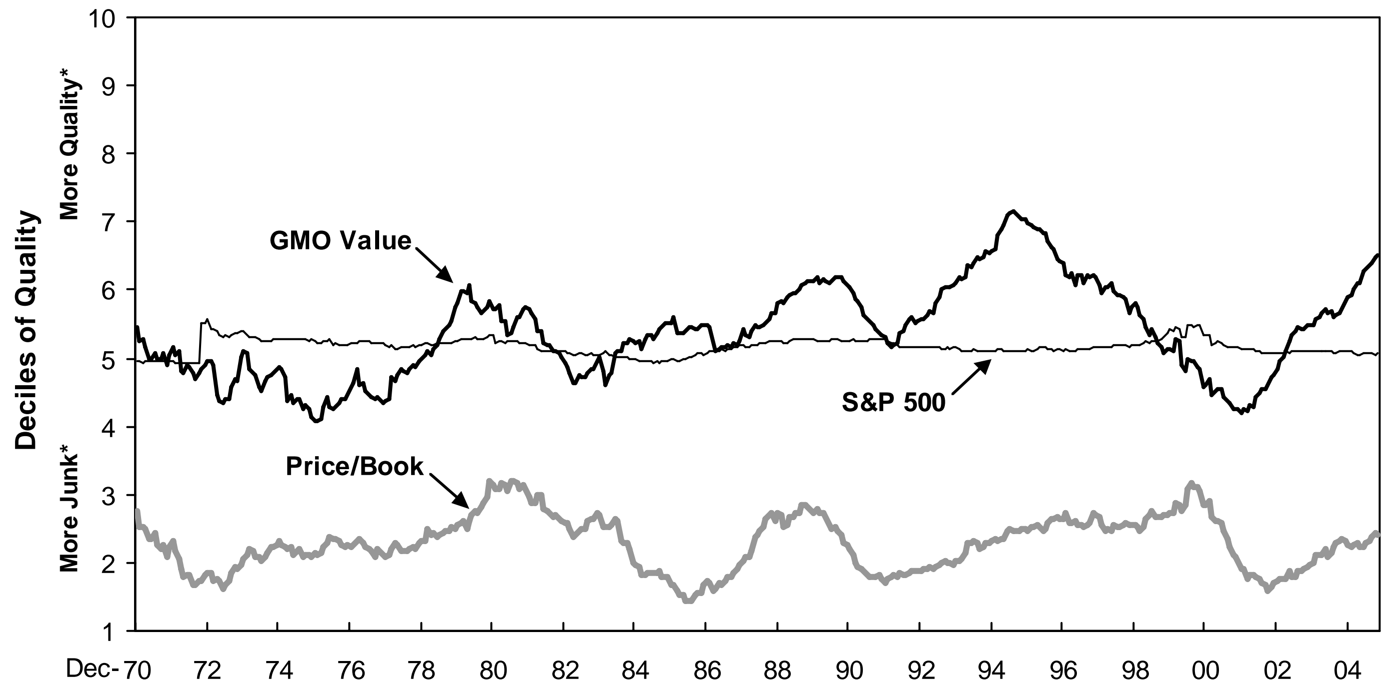
This section is becoming repetitive and redundant. I'm sorry. The sooner P/Es and profit margins of equity markets move down to normal and the risk premium widens, the sooner our recommendations can recycle into something new and interesting. In the meantime, we continue to recommend as much risk avoidance as your career or business risk can tolerate. In particular, we recommend overweighting cash and cash equivalents, which we know is the toughest career risk of all – "Is this what we are paying these guys for?" "Is this the most creative idea they can come up with?" Well, er, yes, it is, unfortunately.

An Academic Aside on Asset Allocation

Recently, the grandfather of the Capital Asset Pricing Model (CAPM), Harry Markowitz, wrote an interesting article in the *Financial Analysts Journal* (Vol. 61, No. 5, September 2005), which is probably inconvenient enough

Exhibit 5

Price/Book Has Persistent Very Low Quality* and Is a Risk Factor, Whereas GMO Value Parameter Equals S&P Quality



Simulated results are achieved by the retroactive application of a model constructed on the basis of historical data and based on assumptions integral to the model which may or may not be capable of testing. Simulated results do not reflect actual trading or the effect of material economic and market factors on the decision-making process. Simulated results include the effect of simulated transaction costs, but not management fees, performance fees or expenses, if any. Simulated results are supplemental to the strategies' AIMR compliant presentations. AIMR compliant presentations of composite performance have preceded this information in the past 12 months or accompany this information, and are also available at www.gmo.com. Performance data quoted represents past or simulated results and is not predictive of future performance.

Source: GMO As of 6/30/06

to the academic financial establishment to be more or less ignored. In it he points out that though his overachieving student, Bill Sharpe, had done an elegant job in polishing up and delivering the CAPM, it all hinged on three clearly spelled out assumptions that Markowitz believes do not apply to the real world. Two of these assumptions, he says, probably do not have much effect, but the third – unlimited access to shorting assets, and unlimited long and short levering at the risk-free rate – have a profound effect. In CAPM there is a **single** optimal asset portfolio mix that everyone should own. If you are relatively risk-averse, you add cash to this efficient portfolio, and if you are a risk taker, you add leverage. Everyone in this way moves smoothly up and down the efficient frontier with the same underlying portfolio. But in real life, says Markowitz, this cannot be done, and risky portfolios will tend to have more risky assets, like emerging and small cap, and low risk portfolios will tend to have more cash and treasuries. He points out that this was exactly what contemporary portfolio management was doing back in the 50s and 60s when he was doing his thinking on the topic. This all seems nicely ironic to us since our optimal portfolios have always responded this way to varying risk levels, and still do today. For example, in 2002 our 'optimized' risky portfolios had masses of emerging equity and debt, and our low risk portfolios had quantities of TIPS, U.S. REITs, and regular bonds. It's unusual and agreeable that Markowitz would make this inconvenient truth available in a form that practitioners can understand, and in a publication that makes it hard to miss. Thank you.

Ben Inker on Earnings Quality

Ben is finishing an exposé on the deterioration of earnings quality, which I warmly recommend. It will be posted later this summer on our website (www.gmo.com).

The Quant Movie Review Section: Inconvenient Truths and Pascal's Paradox

It's not often quants get offered a movie based on statistics, and with good reason – it is not easy to make such a movie watchable. In fact, I would have thought it impossible, but I believe "An Inconvenient Truth" has pulled it off. The statistics are admirably well presented and compelling, and the movie, of what is basically a slide show, works surprisingly well. It is very clever movie-making, although what you make of the 20% that is about Al Gore probably depends more on how red or blue you are, rather than how green. For the record, I am deep, deep green, but reddish, or bluish, depending on circumstances.

Presumably, in answer to the movie's opening, *The Wall Street Journal's* op-ed page ran not one article, but two, by Richard Lindzen from MIT, challenging some of the data. Is this the first time a very similar op-ed piece by the same author has appeared twice in the same month? It no doubt reflects the difficulty in finding plausible scientists to take the other side of the global warming issue. His articles, however, make at least one point that resonates with me: the difficulty in getting heard in academia when a powerful consensus has formed. It reminds me of the great Efficient Market Hypothesis tyranny of the 1975 to 1995 period when anti-articles not only did not get published, but also jeopardized academic careers.

But regardless of the odd good point, the two articles do a grave disservice to the well-being of society by missing perhaps the most important issue on global warming – Pascal's Paradox. What is the expected value in an uncertain situation of acting as if global warming is a hoax when it's deadly serious, compared to the expected cost of treating it seriously when it's benign? We are, by far, the wealthiest population the world has ever seen, measured by however you want to measure it. We can surely afford an insurance premium to protect against even the **possibility** that our house may burn down, leaving us and our descendents with harsh and irreversible consequences. Not paying the insurance premium runs the risk that we have simply missed the boat and are facing irreversible consequences. And even if we get unexpectedly lucky, a serious war on carbon dioxide would surely lead to unexpected beneficial technologies and long-term efficiencies. If we get unlucky, on the other hand, at least my house on Beacon Hill will be ocean front property!

So please, see the movie, and red types, just avert your eyes from the Gorey bits; it will be worth it. My personal view is that he does a very professional job. I have given variants of the same financial talk over 50 times and it is difficult maintaining enthusiasm when you can hear your own words echoing around. The former Vice President has given his talk over 1,000 times, and after that prodigious effort still sounds enthusiastic! And this is the guy I voted* against 6 years ago for sounding so wooden.

* This, admittedly, was a metaphysical vote, for as a Brit, I don't get the real kind. But I suppose in Massachusetts, all votes under the electoral college system might as well be metaphysical.

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SPECIAL TOPIC

July 2006

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*Letters to the Investment Committee VIII**

Summer Recess

By way of a time-out from Risk (Part III of which is written and will appear in the third quarter letter), it seemed like a good summer idea to reproduce an old chestnut of mine: "Everything I Know About the Market in 15 Minutes." The original was delivered in November 1991 and reproduced by *Barron's*. It was changed a little in the next two years. The minimal changes I have made for this rewrite have asterisks, while shading represents "mini" sections. You will, unfortunately, notice the paucity of changes that 15 years of extra thought has produced!

Everything I Know About the Market in 15 Minutes
Or
One or Two Good Ideas a Year Are Enough

1. The investment management business creates no value, but it costs, in round numbers, 1% a year to play the game. In total, we are the market, and given the costs, we collectively **must** underperform. It is like a poker game in which the good player must inflict his costs and his profits onto a loser. To win by 2%, you must find a volunteer to lose by 4%. Every year.

2.* In a zero sum world, hedge funds in total merely increase investment fees.

3. Most stock markets are approximately efficient at the stock selection level and probably getting more so.

4. Transaction costs and management costs are certain, but anticipated outperformance is problematical.

5. Given the above, within single asset classes **indexing** is hard to beat, and relative passivity is not a vice.

6. Therefore, indexing must surely squeeze out active managers until it represents a substantial majority of the business. Remember, it is the worst players who drop out of the poker game to index. The standard of the remaining players, therefore, rises ... and rises ... but, fortunately, for us, beginners continue to join the game.

7. Indexing is held at bay only by the self interest of the players or agents, as opposed to the real investors. The outside managers want fees, and the hired guns want a job that looks demanding.

8.* More recently much of what passes for outperformance or alpha in hedge funds (and private equity for that matter) is merely leveraged market exposure.

* The Letters to the Investment Committee series is designed for a very focused market: members of institutional committees who are well informed but non-investment professionals.

9.* Asset allocation is intellectually easy to get right because mean reversion is a reality, and new paradigms almost always an illusion. Asset class mispricing is sometimes so large it simply cannot be missed. (35 P/E in March 2000).

10.* However, in asset allocation **timing uncertainties can be longer than clients' patience**, introducing large career and business risk.

11. Historically, equity investors have overpaid for **excitement** or sex appeal: **growth**, profitability, management skills, technological change, and, most of all, **acceleration** in the above.

12. Bodies in motion tend to stay in motion (Newton's First Law). Earnings, and stock prices with great yearly **momentum**, tend to keep moving in the same direction for a while.

13. Everything concerning markets and economies **regresses** from extremes towards normal **faster than people think**. Factors that regress include sales growth, profitability, management skill, investment styles, and **good fortune**.

14. One of the keys to investment management is reducing risk by balancing Newton (Momentum and Growth) and regression (Value).

15. **Growth** companies seem impressive as well as exciting. They seem so reasonable to own that they carry little career risk. Accordingly, they have underperformed for the last 50 years by about 1½% a year.

16. **Value** stocks, in contrast, belong to either boring, struggling, or sub-average firms. Their continued poor performance **seems**, with hindsight, to have been predictable, and, therefore, when it happens, it carries serious career risk. To compensate for this career risk **and lower fundamental quality**, value stocks have outperformed by 1½% a year.

17. Real risk is **not** accurately measured by beta or volatility, which is compromised by a positive correlation with other characteristics, such as growth, excitement, liquidity, and analyst coverage, which are valued as 'goods' and reduce career risk. The good news is that they don't take Nobel Prizes back.

18.* Real risk is mainly **career** and **business** risk, which together shape our industry. Efforts to reduce career risk – "never, ever be wrong on your own" – create herding, momentum, and extrapolation, which together are the main causes of mispricing.

19. There is no small cap effect, price/book effect, or stock vs. bond effect, only a **cheap** effect. The current price tag is always more important than historical averages. (Stocks don't beat bonds because it is divinely ordained – Jeremy Seigel's *Stocks for the Long Run* – but because they are **usually** priced to outperform. Today, for example, they are not.)

20. The stock market fluctuates many times more than would be suggested by its future stream of earnings and dividends or by the GNP, both of which are historically remarkably stable: i.e., the market is driven by greed, fear, and career risk, not economics.

21. Inflation is the primary influence on P/E levels in the equity markets however illogical that may be for a real asset. The correlation coefficient is -.73 in the U.S.: low inflation 'explains' or is coincident with high P/Es.

22. But since inflation is probably mean reverting, and certainly unstable, buying when inflation and interest rates are low and P/Es are high will mostly be painful.

23. Size of assets under management is the ultimate barrier to successful investing. As assets grow, you are forced **either** to pick increasing numbers of decreasingly good stocks **or** to buy larger, indigestible posi-

tions of your original holdings. The investment business is the perfect example of the Peter Principle: do well with $500 million, and they'll give you $5 billion.

24.* In the good old days, little talent came into the business as belief in efficient markets discouraged serious quants in particular. Now finance professors run quant shops and vastly more talent is drawn into the business, painfully increasing competition.

25. Quantitative investing is to traditional investing as the written word is to the spoken: you believe it more and can march confidently off the cliff.

26. Quants also find it irresistible to put in just one more variable and risk drowning in data mining.

27.* Quants naturally prefer the mathematically neat to the rugged and simple. A sign on every quant's wall should read: **"There are no points for elegance!"**

28. For quants, the advantage lies in their ability to handle complexity with speed and consistency. Quants also **never** fall in love with a stock – just methodologies.

29.* The most critical advantage for quants, though, is that they can build on the past, remember mistakes, and **pass on all their accumulated knowledge**.

30. 90% of what passes for brilliance or incompetence in investing is the ebb and flow of investment style (growth, value, small, quality).

31. Since opportunities by style regress, past performance tends to be negatively correlated with future relative performance.

32. Therefore, managers are harder to pick than stocks. Clients have to choose between **facts** (past performance) and the conflicting marketing **claims** of several potential managers. Practical clients will usually feel they have to go with the past facts. They therefore rotate into previously strong styles that regress, dooming most manager selections to failure.

33. Getting the big picture right is everything. One or two good ideas a year are enough. Very hard work gets in the way of thinking.

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