Memo to: Oaktree Clients

From: Howard Marks

Re: No Different This Time – The Lessons of '07

On July 16, I published a memo called "It's All Good." I wrote it while on vacation in late June and early July, and then it took a week after my return to get it out. It reviewed the excesses that had occurred in the preceding few years and the extent to which people were overlooking them, thinking instead that everything was ideal and would stay that way. It discussed the recurring tendency of investors in bullish times to feel that "it's different this time" – that the process which caused past cyclical highs to correct wouldn't apply in the current instance.

The bullish balloon remained unpunctured as of July 16, and some may have thought my memo unduly pessimistic. It's a good thing it didn't take another week or two to put it out, however, because by July 30, things had started to go bad, set off by defaults among subprime mortgages and downgrades of securities based on them.

"An isolated development," the bulls replied, as is usual when the first crack in the dam appears. It's hard to believe that less than five months later, the effects are widespread, significant losses have been registered, and negativism has taken over from euphoria. No one doubts that we're in the throes of a full-fledged credit crunch. But in that way, **it truly is no different this time.**

Investor Behavior in a Low-Return Market

> Each player must accept the cards life deals him or her. But once they are in hand, he or she alone must decide how to play the cards in order to win the game.

I found that quote on the wall of a Melbourne, Australia coffee shop last month, with an attribution to Voltaire. I was struck immediately by its applicability to the financial markets. As I've pointed out in the past, we must never overlook the need to deal with the investment environment **as it is**. The environment is the product of natural phenomena as well as the decisions made by millions of "economic units" such as consumers, investors, companies and nations. We are presented with it, and no one of us can alter it. What matters is what we do with it.

To succeed as investors, we must recognize the environment for what it is and act accordingly. In any given environment, some actions will lead to success and others to failure. Which is which varies greatly over time. Our first task as investors is to assess the environment and map a course which is appropriate for it.

As I noted a few years ago, (see "Risk and Return Today," October 2004) we were living in a low-return world. The prospective returns offered on traditionally safe investments were low in the absolute. Moving out on the risk curve added little to expected returns; i.e., risk premiums were in many cases at record lows. Overall, then, the Capital Market Line – the risk/return curve – was "low and flat." In all, the rewards offered for risk bearing were paltry.

So what was an investor to do in that low-return world? You could make your usual investments and accept returns below those you're used to, perhaps deciding to allocate your capital for the long term and ignore the short term. Or you could decline to invest and hold cash instead, despite the fact that the expected return for doing so is invariably the lowest. Or – as I think most people did – you could reject the low returns available on your usual investments and go for more. **That is, you could insist on achieving high returns in a low-return world.** But insisting on them is one thing, and positioning your portfolio to get them is another. How might the latter be accomplished?

The answer is simple: many reached for return. Primarily that meant making riskier investments or using leverage to increase the capital at risk (or both). That's the main story of the last few years, and the reason behind the jam the markets are in today.

So What Happened?

As I wrote in "Risk and Return Today," in recent years investors did things they'd never done before – or hadn't done as much of – because they wanted more than the 4-5% they could get in high grade bonds and the 6-7% they felt they could expect from U.S. equities. They put more into hedge funds, for example, and their commitments expanded the largest buyout funds from $3-5 billion to $20 billion-plus in just a year or two.

Investors succumbed to the siren song of leverage. They borrowed cheap short-term funds – the shorter the cheaper (you can get money cheap if you're willing to pledge assets and promise repayment monthly). And they used that money to buy assets that offered higher returns because they entailed illiquidity and/or fundamental risk. And institutional investors all over the world took Wall Street up on the newest promises of two "silver bullets" that would provide high returns with low risk: securitization and structure.

On the surface, these investments made sense. They promised satisfactory absolute returns, as the returns on the leveraged purchases would more than pay the cost of capital. The results would be great . . . as long as nothing untoward happened.

But, as usual, the pursuit of profit led to mistakes. The expected returns looked good, but the range of possible outcomes included some very nasty ones. The success of many

techniques and structures depended on the future looking like the past. And many of the "modern miracles" that were relied on were untested.

A Dearth of Skepticism

Unlike market bottoms, where investors are too skeptical, during upswings most people believe too much, worry too little and fail to apply enough skepticism. Since all investors want a good deal – and see the people around them making money so easily – they tend to jump aboard. They want to see the good times roll on, not to pour cold water on the party by questioning what's going on.

Everyone dreams of easy riches – of high returns earned without risk. Wall Street comes up with surefire solutions to which the hopeful flock, such as portfolio insurance in the 1980s and dot-com IPOs in the 1990s. In the current decade, investors became convinced that securitized mortgages and highly leveraged entities offered the magic solution. People who long ago stopped believing in Santa Claus jumped aboard, and now they're disappointed. But past results never deter new generations of dreamers from chasing the next silver bullet.

In the last few years, people accepted myths that now have been exposed. Let's review a few:

- In 2006-07, we heard a lot of talk to the effect that **disintermediation had reduced risk**. Because lending banks were moving loans off their books through syndication to other banks and non-bank lenders alike, the risk residing at any one bank – and thus in the financial system as a whole – had been reduced. Of course, the feeling that the world had become a safer place led many participants to take on more risk than they otherwise would. **And where are we seeing the biggest losses reported? At those supposedly safer banks.**

- A lot of people have lost money as a result of **excessive reliance on credit ratings**. How is it, for example, that investors are showing up with such large losses on mortgage-related CDO debt? Well, rather than accept the low yields on AA-rated corporate bonds, they went for the AA-rated tranches from CDOs . . . because they offered higher yields. **But wait a minute! More yield for the same quality? A free lunch? Not likely.** Maybe the buyers relied too much on ratings in lieu of their own due diligence. Maybe the credit rating agencies didn't fully understand the debt under review, or had biases which led to too-high ratings. Maybe they didn't intend the AA rating on CDO debt to mean the same thing as an AA rating on corporate debt. And maybe the rating-agency analysts lacked the above-average skills that are needed to add value in the investment world; if they possessed them, wouldn't they be spending their time more lucratively as investors?

- Perhaps most telling, it seems people were willing to drink up without asking, **"Who's paying the tab?"** Take the CDO creation process: Acting on behalf of a

mortgage company, a mortgage broker made a loan. The mortgage company sold the loan to an investment bank. The investment bank packaged it into a residential mortgage-backed security and sold it to a CDO originator. The originator packaged it into a CDO, having raised the money for the CDO through sales of debt to institutional investors. The sale of the debt was facilitated by a placement agent or investment bank. I count at least five parties who got paid each time a mortgage loan was placed, securitized and distributed. Someone was paying a lot of fees. **Even if the original mortgage loan was priced reasonably at the beginning, is it possible the CDO debt was fairly priced at the end?** Wall Street's answer is simple: The overall process may have been heavily laden with fees, but the individual tranches were attractive. Huh? Few people looked at the multiple fees and asked if the deals could withstand paying so many middlemen. In 2003-07, they didn't feel the need.

Widespread failings of skepticism are significant in two ways. Individually, each one represents a way to lose money through an ill-considered investment. And collectively, they're indicative of the market climate. In times of excess on the upside, fairy tales gain currency and encourage risk taking. And then they are debunked, as is happening today. **Or as Warren Buffett puts it, "when the tide goes out, we find out who's been swimming without a bathing suit." This time around, the answer is "lots of people."**

The Magic of Leverage

It's obvious that the key element in many of the errors that tripped up investors this time around was cheap and easy credit, utilized without much awareness of risk. An oversupply of capital looking for a home in non-traditional investments caused vast sums to be pushed into mortgage loans at low-cost teaser rates to un-creditworthy homebuyers who often weren't required to document their incomes. It let hedge funds bulk up on the carry trade and buyout funds bid enough to acquire world-class companies, taking on enough leverage to target high expected returns. And it was the building block supporting CLOs, CDOs, CDO^2s, conduits, SIVs and other highly leveraged entities.

The Fed delivered cheap credit for the best of reasons: to counter the depressing effects of the emerging market crisis, 9/11, the tech bubble bust, the first three-year stock market decline since the Depression, Y2K, the telecom meltdown, concern about deflation, and whatever else was on its mind. Interest rates were the lowest most of us had ever seen, anchored by 1% on cash. The low rates both (a) drove down returns on investments at the safe end of the risk curve and (b) provided the fuel for elevated risk taking.

One must never forget that leverage doesn't make investments better; it just magnifies the gains and losses. Since most investments have a positive expected value, meaning that gains are expected on average, leverage has the effect of appearing to enhance the expected return. And most of the time, that works just fine.

But once in a while, something goes awry. Maybe asset prices go so high they become unsupportable. Maybe the analysis behind an investment proves to have been faulty.

Maybe an exogenous event negatively influences asset prices or funding availability or both. And maybe they all happen at once. When the unlikely occurs – when asset prices decline unexpectedly – the impact as magnified by leverage can be unbearable, setting off a negative chain reaction.

Falling asset prices cause lenders to shy away from providing credit, and eventually to demand repayment. With credit less available, repayment might have to come from asset sales, putting additional downward pressure on prices in an already unaccommodating market. Prices go down further; confidence worsens; lenders grow more cautious; and credit becomes even less available. **What used to be a virtuous circle becomes a vicious circle. This is how credit crunches occur.**

There is a recurring element in most investor meltdowns. Lured by attractive promised returns or spurred on by the perceived inadequacy of unleveraged returns, **investors borrow short-term capital with which to buy long-term assets.** And then eventually there comes a bad day, on which the short-term capital flows out (in response to demands for repayment, the maturing of borrowings, or investor withdrawals). And on that particular day, perhaps (a) the outgoing capital can't be replaced and (b) portfolio assets can't be sold at fair prices. Sales, if feasible, may have to be made at prices so low that, if all the assets were marked there, the entity's net worth would be negative. That's it: meltdown. That's what happened this summer to Bear Stearns's High-Grade Structured Credit Strategies Enhanced Leveraged Fund. It happened to Long-Term Capital Management in 1998 and to the Granite Fund in 1994. And it'll happen again – because financial memory is short and the attraction of leverage can be irresistible.

Investors must remember that it's not enough that an investment has a good expected return, or that the negative outcomes are unlikely. One of the overlooked effects of leverage is that it "fattens the tails" – increases the likelihood of extreme outcomes in both directions – and worsens the consequences of negative events. **Every portfolio or investing entity must be examined to make sure it will be able to survive that bad day – that it has been set up so the interaction of its terms, its borrowings and the riskiness of its assets won't cause it to implode.** Of course, this leads to the question of how negative a set of circumstances we should allow for. Each investor's degree of risk averseness will determine what level of negative developments a portfolio should be built to withstand. But certainly these are topics that must be considered.

When I think about investors using leverage to try to wring acceptable results from low-return investments, it seems like folly. Let's see: You have $100 to invest, and you come across a fundamentally sound investment that yields 6%. But you consider the 6% return too low. So rather than buy $100 worth, you borrow another $400 at 5% interest and buy $500 worth. If you can borrow at 5% and invest at 6%, each "turn" of leverage adds 1% to your expected return. Thus, in addition to the $6 earned on your own $100 of capital, you'll earn an additional $1 per $100 of borrowed capital, or $4 on $400. Thus the total return on your $100 of capital, leveraged four times, is $10. Voila! That inadequate 6% return has been turned into a handsome 10%.

But wait a minute. Remember, you originally thought the 6% return on the investment was too low. What happens when everyone comes to agree that it should be higher? Well, the normal way for an investment's prospective return to go up is for its price to fall. **So now, with help from leverage, you've bought five times as much of an asset that's under-returning and due for a price decline. It all reminds me of my friend Sandy, whose favorite restaurant review is "the food's terrible, but the portions are huge." In this case, it's "the return's inadequate, but thanks to leverage you can buy a lot."** Is that a good thing?

Garbage In, Garbage Out

This expression was in broad circulation 10-20 years ago, but I haven't heard it much lately. It's meaning is simple: models and decision-making processes can't produce good decisions if they don't begin from valid inputs. Roughly stated, I think all computers can do is maintain and search data bases, compare one thing against another, and perform calculations. They cannot think (yet).

I think the importance of this for financial decision makers is that while computers can find, verify and extrapolate relationships that have held in the past, they can't tell when those relationships will cease to work and what new relationships will take their place.

Put another way, computers know a lot about the past but much less about the future. In order for computers – or people lacking foresight, for that matter – to know what will happen in the future, they need reliable data regarding the past and an ability to expect that the future will be like the past. People were let down in both regards in 2007.

Most people have heard of "value at risk," or VAR, a worst-case estimate of a portfolio's one-day loss potential. *The Economist* reported on November 1 that on no fewer than 16 trading days in the third quarter (a quarter of all the days), UBS's trading losses exceeded the VAR calculated the preceding day. In all the preceding years since UBS began to use VAR in 1998, there hadn't been one such day. What went wrong? Maybe VAR isn't a good measure. Maybe the data UBS used was erroneous. Maybe the model was based on a period that was atypical or too short to be statistically significant. Or maybe the world changed, invalidating the model.

In the last few years, financial alchemy led to the creation of large numbers of high-rated securities out of pools of low-grade mortgages. Investors relied on the ratings, and I suppose the rating agencies relied on default rate assumptions that looked reasonable in the light of experience. But they didn't allow for changed circumstances (e.g., for the fact that since mortgage initiators no longer risked their own money for long, they had stopped making lending decisions the way they used to). It's for reasons like this that assumptions can turn out to be inappropriate.

I'm not saying you can't invest profitably when the inputs are garbage. But only after critically assessing the reliability of assumptions can sufficient allowance for risk be built in via demands for an appropriate risk premium. In the last few years, people bought "safe" securities where they really had little understanding of their workings or foundations. The results are now clear.

I'm Shocked . . . Shocked

Given that market upswings are often accompanied by insufficient skepticism, it's not unusual for lofty expectations to be disappointed. A story on Citibank's results in the Wall Street Journal of November 2 contained words such as "unnerved" and "unsettled." Few things have a more corrosive effect on investor psychology than disillusionment like we're seeing today.

I remember getting a kick out of an article that ran in the Wall Street Journal around 1991. After taking big losses in high yield bonds, a mutual fund investor was quoted as saying, "I thought I was investing in a high yield bond fund. If I'd known it was a junk bond fund, I never would've bought it." It's common for investors to act without adequate understanding, and for them to feel betrayed when their hopes are unfulfilled. This time they're saying, "It was rated triple-A, and now no one can tell me what it's worth."

The disillusionment has been swift and dramatic (not to mention terrifying). Most CDO investors must now realize they had no idea how the mechanisms would work or how much risk they were taking. Holders have seen investment grade debt downgraded to single-C in a single rating action. Investors in Bear Stearns's High-Grade Structured Credit Strategies Enhanced Leveraged Fund lost all their money, finding no protection in all those great adjectives. Some assets became unsalable at any reasonable price. A lot of asset-backed commercial paper became unrenewable. And $5 billion anticipated writedowns turned into $8 billion actual writedowns in just a few weeks.

In a statement that seems representative of this period, Marcel Rohner, the Chief Executive of UBS, said last week the "ultimate value of our subprime holdings . . . remains unknowable." I don't doubt that it is, and for that reason his statement calls to mind a 2005 memo titled "Hindsight First, Please (or, What Were They Thinking?)." Why couldn't investors figure out in advance that the result of these investments were unpredictable? What caused them to make investments that now are described that way? It truly makes me wonder what they were thinking.

The Challenge of Managing Risk

One of the reasons investor confidence has been hit so hard is simply that it was too high (as is required for unsustainable market highs to be reached). And much of

investors' excessive comfort was in the area of risk, where it was roundly believed things were under control. But the truth is, it's hard to manage risk.

As I stated in "Risk" (February 2006), investment risk is largely invisible – before the fact, except perhaps to people with unusual insight, and even after an investment has been exited. For this reason, many of the great financial disasters we've seen have been failures to foresee and manage risk. There are several reasons for this.

1. **Risk exists only in the future, and it's impossible to know for sure what the future holds. Or as Peter Bernstein puts it, "Risk means more things can happen than will happen . . ."** No ambiguity is evident when we view the past. Only the things that happened happened. **But that definiteness doesn't mean the process that creates outcomes is clear-cut and dependable. Many things could have happened in each case in the past, and the fact that only one did happen understates the variability that existed.** What I mean to say (inspired by Nicolas Nassim Taleb's *Fooled by Randomness*) is that the history that took place is only one version of what it could have been. If you accept this, then the relevance of history to the future is much more limited than may appear to be the case.

2. **Decisions whether or not to bear risk are made in contemplation of normal patterns recurring, and they do most of the time. But once in a while, something very different happens.** Or as my friend (and highly skilled investor) Ric Kayne puts it, "Most of financial history has taken place within two standard deviations, but everything interesting has occurred outside of two standard deviations." That's what happened in 2007. We heard all the time this past summer, "that was a 5-standard deviation event," or "that was a 10-sigma event," implying it should have happened only once every hundred or thousand or ten thousand years. So how could several such events have happened in a single week, as was claimed in August? The answer is that the improbability of their happening had been overestimated.

3. Projections tend to cluster around historic norms and call for only small changes. The point is, **people usually expect the future to be like the past and underestimate the potential for change**. In August 1996, I wrote a memo showing that in the Wall Street Journal's semi-annual poll of economists, on average the predictions are an extrapolation of the current condition. And when I was a young analyst following Textron, building my earnings estimates based on projections for its four major groups, I invariably found that I had underestimated the extent of both the positive surprises and the shortfalls.

4. **We hear a lot about "worst-case" projections, but they often turn out not to be negative enough**. What forecasters mean is "bad-case projections." I tell my father's story of the gambler who lost regularly. One day he heard about a race with only one horse in it, so he bet the rent money. Half way around the track, the horse jumped over the fence and ran away. Invariably things can get worse than people expect. Maybe "worst-case" means "the worst we've seen in the past." But that

doesn't mean things can't be worse in the future. In 2007, many people's worst-case assumptions were exceeded.

5. **Risk shows up lumpily**. If we say "2% of mortgages default" each year, and even if that's true when we look at a multi-year average, an unusual spate of defaults can occur at a point in time, sinking a structured finance vehicle. Ben Graham and David Dodd put it this way 67 years ago: ". . .the relation between different kinds of investments and the risk of loss is entirely too indefinite, and too variable with changing conditions, to permit of sound mathematical formulation. This is particularly true because investment losses are not distributed fairly evenly in point of time, but tend to be concentrated at intervals . . ." (*Security Analysis*, 1940 Edition). It's invariably the case that some investors – especially those who employ high leverage – will fail to survive at those intervals.

6. **People overestimate their ability to gauge risk and understand mechanisms they've never before seen in operation**. In theory, one thing that distinguishes humans from other species is that we can figure out that something's dangerous without experiencing it. **We don't have to burn ourselves to know we shouldn't sit on a hot stove. But in bullish times, people tend not to perform this function.** Rather than recognize risk ahead, they tend to overestimate their ability to understand how new financial inventions will work.

7. **Finally and importantly, most people view risk taking primarily as a way to make money.** Bearing higher risk generally produces higher returns. The market has to set things up to look like that'll be the case; if it didn't, people wouldn't make risky investments. But it can't always work that way, or else risky investments wouldn't be risky. **And when risk bearing doesn't work, it <u>really</u> doesn't work, and people are reminded what risk's all about.**

Most of the time, risk bearing works out just fine. In fact, it's often the case that the people who take the most risk make the most money. However, there also are times when underestimating risk and accepting too much of it can be fatal. **Taking too little risk can cause you to underperform your peers – but that beats the heck out of the consequences of taking too much risk at the wrong time. No one ever went bankrupt because of an excess of risk consciousness. But a shortage of it – and the imprudent investments it led to – bears responsibility for a lot of what's going on now.**

<u>Recapping the Lessons – Nothing New</u>

The markets are a classroom where lessons are taught every day. The keys to investment success lie in observing and learning, which is what I've tried to do in the 40 years since I got my first job at Citibank.

I think the credit cycle that began around 2002 will go down as one of the most extreme on record and be the subject of discussion for years to come. It is one of the most important, potentially most serious financial episodes I've witnessed, and it presents a great learning experience. (Of course, it's said that "experience is what you got when you didn't get what you wanted.")

People were blindsided this summer when the financial markets went wobbly in just a few weeks on the basis of unhappiness in a remote corner of the mortgage market. But nothing that happened should have come as a surprise. While the details of each financial crisis may seem new and different, the major themes behind them are usually the same, and several were repeated in the current cycle. Not one of the following twelve lessons is specific to 2007 or to subprime mortgages or CDOs. And each one is something I've seen at work before.

1. **Too much capital availability makes money flow to the wrong places**. When capital is scarce and in demand, investors are faced with allocation choices regarding the best use for their capital, and they get to make their decisions with patience and discipline. But when there's too much capital chasing too few ideas, investments will be made that do not deserve to be made.

2. **When capital goes where it shouldn't, bad things happen.** In times of capital market stringency, deserving borrowers are turned away. But when money's everywhere, unqualified borrowers are offered money on a silver platter. The inevitable results include delinquencies, bankruptcies and losses.

3. **When capital is in oversupply, investors compete for deals by accepting low returns and a slender margin for error.** When people want to buy something, their competition takes the form of an auction in which they bid higher and higher. When you think about it, bidding more for something is the same as saying you'll take less for your money. Thus the bids for investments can be viewed as a statement of how little return investors demand and how much risk they're willing to accept.

4. **Widespread disregard for risk creates great risk.** "Nothing can go wrong." "No price is too high." "Someone will always pay me more for it." "If I don't move quickly, someone else will buy it." Statements like these indicate that risk is being given short shrift. This cycle's version saw people think that because they were buying better companies or financing with more borrower-friendly debt, buyout transactions could support larger and larger amounts of leverage. This caused them to ignore the risk of untoward developments and the danger inherent in highly leveraged capital structures.

5. **Inadequate due diligence leads to investment losses.** The best defense against loss is thorough, insightful analysis and insistence on what Warren Buffett calls "margin for error." But in hot markets, people worry about missing out, not about losing money, and time-consuming, skeptical analysis becomes the province of old fogeys.

6. **In heady times, capital is devoted to innovative investments, many of which fail the test of time.** Bullish investors focus on what might work, not what might go wrong. Eagerness takes over from prudence, causing people to accept new investment products they don't understand. Later, they wonder what they could have been thinking.

7. **Hidden fault lines running through portfolios can make the prices of seemingly unrelated assets move in tandem.** It's easier to assess the return and risk of an investment than to understand how it will move relative to others. Correlation is often underestimated, especially because of the degree to which it increases in crisis. **A portfolio may appear to be diversified as to asset class, industry and geography, but in tough times, non-fundamental factors such as margin calls, frozen markets and a general rise in risk aversion can become dominant, affecting everything similarly.**

8. **Psychological and technical factors can swamp fundamentals**. In the long run, value creation and destruction are driven by fundamentals such as economic trends, companies' earnings, demand for products and the skillfulness of managements. But in the short run, markets are highly responsive to investor psychology and the technical factors that influence the supply and demand for assets. In fact, I think confidence matters more than anything else in the short run. Anything can happen in this regard, with results that are both unpredictable and irrational.

9. **Markets change, invalidating models.** Accounts of the difficulties of "quant" funds center on the failure of computer models and their underlying assumptions. The computers that run portfolios primarily attempt to profit from patterns that held true in past markets. They can't predict changes in those patterns; they can't anticipate aberrant periods; and thus they generally overestimate the reliability of past norms.

10. **Leverage magnifies outcomes but doesn't add value.** It can make great sense to use leverage to increase your investment in assets at bargain prices offering high promised returns or generous risk premiums. But it can be dangerous to use leverage to buy more of assets that offer low returns or narrow risk spreads – in other words, assets that are fully priced or overpriced. **It makes little sense to use leverage to try to turn inadequate returns into adequate returns.**

11. **Excesses correct**. When investor psychology is extremely rosy and markets are "priced for perfection" – based on an assumption that things will always be good – the scene is set for capital destruction. It may happen because investors' assumptions turn out to be too optimistic, because negative events occur, or simply because too-high prices collapse of their own weight.

12. **Investment survival has to be achieved in the short run, not on average over the long run.** That's why we must never forget the six-foot-tall man who drowned crossing the stream that was five feet deep on average. **Investors have to make it through the low points. Because ensuring the ability to do so under adverse**

circumstances is incompatible with maximizing returns in the good times, investors must choose between the two.

Most of these twelve lessons can be reduced to just one: be alert to what's going on around you with regard to the supply/demand balance for investable funds and the eagerness to spend them. We know what it feels like when there's too little capital around and great hesitance to part with it (like now). Worthwhile investments can go begging, and business can slow throughout the economy. It's called a credit crunch. But the opposite deserves to receive no less attention. There's no official term for it, so "too much money chasing too few ideas" may have to do. **Regardless of what it's called, an oversupply of capital and the accompanying dearth of prudence such as we saw in the last few years – with their pernicious effects – can be dangerous for your investing health and must be recognized and dealt with.**

All of the rules enumerated above can be depended on to take effect . . . eventually. But rarely do they operate on schedule. That's why, as markets go further to excess, more and more people join in bullish behavior at worse and worse moments. Remember, though, as Larry Summers put it, "in economics things happen slower than you expected they would, but when they finally do, they happen faster than you imagined they could."

These are the themes behind the current crisis. Master them and you'll have a better chance of side-stepping the next one.

December 17, 2007