Memo to: Oaktree Clients

From: Howard Marks

Re: Whodunit

who-dun-it – ($h\bar{o}\bar{o}$ dun' it) n. a narrative dealing with a murder or a series of murders and the detection of the criminal (The Random House Dictionary of the English Language)

The subprime crisis, credit crunch and possible recession are subjects of daily conversation. In addition to wanting to talk about how things got this way and what's going to happen in the future, a lot of people are eager to discuss who's to blame. It's the purpose of this memo to say where I think responsibility lies.

The Subprime Factory

I've heard it said about laws that, "like sausages, you don't want to see how they're made." I'd like to suggest something else where the manufacturing process was particularly distasteful: subprime mortgages.

This decade's vast expansion of the subprime factory originated in the ability of **Wall Street** to sell a lot of mortgage-related Collateralized Debt Obligations, or CDOs. The high interest rates on subprime mortgages enabled the Street to promise a lot of return on the lower CDO tranches and a lot of safety on the upper ones. With high-enough ratings, the debt looked very attractive to potential buyers. Thus, there was a use for large amounts of the underlying raw material: subprime mortgages. It happened, however, that Wall Street could sell more bologna sandwiches than there was bologna. That is, there was more appetite for securities built from high yielding mortgages than there were qualified borrowers. No problem: just provide incentives to increase production and turn a blind eye to creditworthiness.

Mortgage brokers played an essential and often ugly part in this process. They were tasked with creating mortgages in quantity, and that's where their incentives lay. Since neither they nor the Wall Street firms would hold the mortgages for long, the emphasis was on volume rather than creditworthiness. Making loans was good; rejections were bad. The website of broker Kevin Schmidt's firm in Louisiana said it best, "We don't get paid unless we say YES." (*The Wall Street Journal*, January 17) The *Journal* went on to point out that, "Key players often get a cut from what a transaction is supposed to be worth when first structured, not what it actually delivers in the long term."

Thus I believe mortgage brokers committed many sins. They offered more debt than many subprime borrowers could carry. They assured borrowers that they'd always be able to refinance into new loans at teaser rates, so they needn't worry about a reset to market rates. They probably weren't clear on all the terms and practiced the old bait-and-switch. They hid from first-mortgage lenders the fact that borrowers were borrowing their equity too. And I'm sure some encouraged borrowers to lie about their incomes, invoking "Everyone does it," "Why should Joe and Sue have a nicer house than you?" and "Nobody gets hurt."

Appraisers made a similarly negative contribution to the process. In the days when home prices were stable, appraisals were based on established parameters like price per square foot. But with prices rising rapidly, they could only reference "comps" to other highly appreciated homes. Like the credit rating agencies, appraisers lent a veneer of respectability to a faulty process. And like rating agencies, the job probably went to the appraiser willing to assign the highest value. I've read about appraisers being blacklisted because they were too conservative, restraining loan volume. According to the *L.A. Times* of January 27, a Wharton professor, Susan Wachter, has estimated that "appraisers helped inflate mortgage values by \$135 billion during 2006 alone." Borrowers, home sellers, mortgage brokers and Wall Street all had a vested interest in seeing high values assigned. There's something fundamentally wrong when there's no party to a transaction who wants the appraisal to be conservative. But that became the case when far-away, ratings-assured buyers of sliced-and-diced mortgage securities took the place of lenders risking their own money and expecting to hold to maturity.

Mortgage insurers played a similar role by lending their imprimatur and thus implying instruments were safe. Everyone thinks of taking out insurance as a cautious thing to do. When risks are insured, the people exposed to them believe they're safe to behave differently than they otherwise would. But what happens when the insurers miscalculate the risks involved, and thus issue more coverage than their capital can support in tough times? In the extreme, losses can go unreimbursed, meaning the insureds don't really have the protection they think they have and their situation is riskier than they intended. Certainly in this cycle, insufficiently cautious insurers abetted the bearing of risks that have exceeded expectations.

Let's remember that the **mortgage borrowers** don't deserve a free pass. It was stupidity or cupidity, naïveté or moral turpitude. At best they took on massive financial responsibilities they didn't understand, and at worst they were fraudsters. Many took out "no-doc loans" at interest rates above those charged on loans requiring documentation of income. Why? I assume they wanted to be free to lie. And many agreed to terms they couldn't decipher. But why worry, if the result is a great house at a low initial monthly payment (and maybe cash taken out in the process)? I hate to see the borrowers' suffering, but each one willingly participated in a deal that was too good to be true.

Turning Mortgage Loans into CDOs

CDO investors are in the headlines for having lost \$100 billion-plus (thus far) on subprime-related obligations. Someone sold them something that turned out to have been massively overpriced. Thus I have to start with the **investment bankers**. Again, was it naïveté or avarice?

When Oaktree considers a new product, we ask a number of questions: First, will it work for our clients; what's the return potential; and are the risks controllable? And second, can we sell it; and will it be profitable for us? Which of these did Wall Street ask regarding subprime CDOs? The second group of questions undoubtedly, but the results provide no assurance regarding the first. They sold something that failed massively, and they've gotten off somewhat easy in terms of society's judgment. Fittingly, investment banks like Merrill Lynch, Citigroup and UBS ate a lot of their own cooking (and a good part of the losses). But that does not absolve them of responsibility, for others were hurt as well.

I believe firmly in *caveat emptor*, but that doesn't mean there's no such thing as misconduct on the part of sellers. Did they perform thoughtful and balanced due diligence? Did they give enough thought to the buyers' downside risk? Did they suspect that the good deal might be illusory? Did they see the flaws in the mortgage origination process? When they marshaled data with which to prove to customers and rating agencies that CDOs were secure, did they consider the data's sparseness or limited relevance? Did they fail to disclose information regarding the "exceptions" in CDO portfolios – mortgages that didn't meet minimum lending standards – as the New York Attorney General is investigating (*WSJ*, January 31)?

Some of the same questions can be asked about the role of **CDO managers**. I haven't been close to the process – Oaktree didn't have any involvement – but I believe managers met with investment bankers who offered a near-turnkey proposal: "Here's how it works. The documents are ready to go. We have the assets in inventory. The debt is teed up for issuance. Your fees will be x million per billion." Did the managers vet the process? Did they undertake an independent effort to gauge the risks? Or did they just sign on to the magical fee machine?

Next up, in my opinion, are the **credit rating agencies**. In summary, everything was wrong with the process through which CDO debt was rated, a process fed by the agencies' hunger for profit. The agencies worked with CDO sponsors to design the products, so how could they then be objective in evaluating them? They accepted payment from the companies whose offerings they were rating; they all did, but that doesn't mean the arrangement left them objective. They competed for the business, with the fees going to the agency that would assign the highest rating.

But in the end, the rating agencies' greatest failing lay in giving their blessing to securities whose risk they couldn't accurately assess. The eventual default rate was crucial and unknowable. The historic data on subprime defaults related to mortgages that

were issued through a far different process and incentive system. But I can't imagine any agency saying, "The risks are unknowable; we just can't assign a rating."

How do we know the agencies bobbled the ball? The **twelve-digit losses** to date give a pretty good indication. An article in *The Wall Street Journal* of January 31 gives another:

Standard & Poor's downgraded or threatened to downgrade more than 8,000 mortgage investments and projected a widening array of financial institutions would ultimately face mortgage securities losses totaling more than \$265 billion. . .

S&P's rating actions touched on \$534 billion in mortgage-related investments, including **47%** of the U.S. subprime mortgage bonds rated in 2006 and the first half of 2007. . .

S&P... has now placed 69% of the triple-A rated subprime bonds from 2006 on negative watch. (emphasis added).

I'd call that a thorough indictment. It indicates a flawed process, not occasional error.

The situation is remarkably similar for the **monoline insurers** . . . but with an added wrinkle. These firms carved out a good but dull and slow-growing business in insuring municipal bonds. Since munis default so infrequently, they needed little in the way of capital to cover potential losses, and they probably started to feel they were pretty good at gauging losses. In the 1990s, they concluded that mortgage-backed securities were no more risky than munis. (Not so, it turns out: MBIA recorded mortgage-related losses of \$714 million in the fourth quarter, versus losses of \$920 million on munis over its 36-year history, for an average of \$26 million a year.) Thus the insurers applied their capital and acumen to insuring \$125 billion of CDO debt. They acted out of the same ignorance as the rating agencies, **but they promised to make good on any losses**.

The results are potentially disastrous. Their capital is clearly insufficient to cover their responsibilities. ACA Financial Guaranty Corp., for example, wrote \$69 billion of credit protection on the basis of its \$425 million of capital. And if CDO losses eat into the monoline insurers' capital and/or cause them to lose their triple-A ratings, it will diminish the reliability of their assurance with regard to \$1 trillion-plus of munis they backed. Loss of the triple-A rating would hurt the outstanding insured munis, wreak havoc in the muni market generally, and make it harder for new bonds to be issued, at just the time that cities and states need money to cover economy- and subprime-related revenue declines. Also of critical importance, it will require holders of insured CDO paper to take additional writedowns. The monoline situation has begun to contribute to the credit crisis, and people are scurrying to find a solution (thus far without success).

All the participants in the CDO creation process took part in an activity we can call "ratings arbitrage." If you can take a bunch of assets with low ratings and – without adding to the intrinsic value of the collateral in any way – turn them into securities with

much higher average ratings, you can make a lot of money. But the ability to do so means there's something wrong. (In other words, if it's possible to start with 100 pounds of hamburger and end up selling ten pounds of dog food, 40 pounds of sirloin and 50 pounds of filet mignon, the truth-in-labeling rules can't be working.) In the case of CDOs, ratings and insurance were supplied by parties who underestimated the risk, and the end product was sold – and bought – by people who were willing to participate in this purported miracle without asking the hard questions.

The Failure of Risk Management

I've long been critical of risk management as a distinct investment discipline. Now, a convincing case for my view can be made on the basis of *prima facie* evidence: The fact that most financial institutions appointed **risk managers** after the collapse of Long-Term Capital Management in 1998 doesn't seem to have helped them avoid the subprime mess.

If you trust someone to be expert enough to make an investment, then that's the person who can best assess its risk. If you trust someone to assemble portfolios, it's they who can best judge how things will behave in combination. In the isolated risk management function, I feel people who know less about the underlying investments second guess the people who know more.

There's an ongoing dilemma, as expressed in a joke I posted on my bulletin board in 1970, about the fact that analysts know a great deal about a few things, while portfolio managers know a little bit about a lot of things. In my view, however, risk managers know the littlest bit about the most things, so they're least suited to evaluate portfolio risk.

In December's "No Different this Time," I included a discussion of the leading risk modeling tool, "value at risk" or VaR, which provides a "worst case" estimate of the risk in a portfolio. I mentioned that in the first nine years after the model was adopted, its predicted maximum trading loss was never exceeded. And then, in the third quarter of 2007, it was exceeded on a quarter of the trading days. So clearly, this model proved to be less than totally reliable. The model may be flawed, the historic data on which it was based may have been non-representative or insufficient, or the world may have changed. Regardless of the reason, VaR failed.

When you read about Goldman Sachs's success in avoiding the CDO turmoil and getting net-short, (see *The Wall Street Journal* of December 14), you see it was done on the basis of the reasoned judgment of executives on its proprietary trading desk. Ironically, when mortgage-related security prices first began to plummet, the increase in volatility raised Goldman's VaR, causing the elimination of positions that eventually would have been highly profitable. According to the *WSJ*, "a client who had similar positions at the time ... says he made \$100 million by relieving Goldman of [a] short bet. 'It appeared to me that [the traders] constantly fought a VaR battle with the firm once the market started to

break." But in the end, subjective judgment was permitted to override risk management science, with great results.

Interestingly, many banks got into trouble because their top executives wanted to "be like Goldman" and demanded that more be bet for the house's account. But they lacked people capable of correctly making the needed judgments and relied instead on statistical risk managers. They've lost a lot of money, and a lot of the executives and the risk managers are out of a job.

Enough with the Quants Already

Over the forty years since I attended grad school at the University of Chicago – largely inspired by theories originated there – there's been a pronounced rise in the participation of "quants" in the investment business. These are people who know a lot about statistics and computer modeling. They specialize in manipulating large amounts of data and predicting how portfolios are likely to perform under a variety of scenarios. But usually they don't know much about the individual securities that make up the portfolios . . . or feel the need to do so. In other words, you might say they know the price of everything and the value of nothing.

In recent years – and in the excesses we're examining – the ranks of quants grew to include the risk managers discussed just above; "financial engineers" at investment banks who structured complex entities and simulated their future performance; analysts at monoline insurers who assessed the risks they were asked to insure; and people who managed portfolios, usually hedge funds, on the basis of mathematical algorithms.

However, it should be noted that quants and their computer models primarily extrapolate the patterns that have 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.

To give you a context in which to think about that, I'll again borrow some wisdom from my friend Ric Kayne: "99% of financial history has taken place within two standard deviations," he says, "but everything interesting has taken place outside of two standard deviations." In other words, most of the time markets follow their normal patterns, and when they do, assets are priced reasonably and there isn't much to do. But on rare occasion, the markets go off the rails, and that's when big money is made and lost.

Now think about the quants. They know all about how things will work if times are normal, but their analysis is of no help when events occur that reside in the far-off, improbable tails of the probability distribution – like when it turns out that 2% isn't the right default rate for subprime mortgages, and the actual figure is several times that.

One of the great investment books of the 1960s was *The Money Game* by the pseudonymous Adam Smith. Smith talked about a veteran investor, the Great Winfield, who knew he was falling behind the times but had the answer: "Our trouble is that we are too old for this market. . . . My solution to the current market: kids." In the last decade or two, everyone hired quantitative whiz kids, and the results were disastrous. **Hopefully, the events of the last few years will produce a sea change, in which investors come to rely more on seasoned judgment and less on financial engineers.**

Greenspan and the Fed

Alan Greenspan deserves a lot of credit for presiding over one of the greatest periods of prosperity and market gains in our history, and for saying, presciently, ". . . history has not dealt kindly with the aftermath of protracted periods of low risk premiums." With apologies to my indirect personal connection to the ex-Fed Chairman, I must express my view that his stewardship wasn't perfect. (Of course, I doubt he'd say it was perfect.)

- Because he rarely used his bully pulpit to warn about excesses, advances were permitted to run unchecked. For example, his warning against "irrational exuberance" attracted a lot of attention, but I've always wondered why, if he considered it justified in 1996 with the Dow at 6,400, we heard nothing from him on the subject in 2000, when it topped out at 11,700. And mightn't he have warned in recent years about overheated home prices and aggressive mortgage lending tactics?
- He did little to "remove the punchbowl," or puncture bubbles. He could have pushed for higher margin requirements in 1998-99, or for mortgage reforms in 2004 or 2005, but he didn't, insisting that it's difficult to identify bubbles other than in hindsight.
- He was too much of a cheerleader, providing justification for market advances, often on the basis of productivity gains.
- In 2004, he urged people to take out adjustable rate mortgages rather than fixed-rate loans, since they always carry the lowest initial interest rate. But he overlooked the fact that (a) low-income borrowers might be ill-equipped to handle the risk of resets to higher rates, and (b) with mortgage rates at multi-generational lows, that would have been a great time for them to fix their interest cost. Just think where we'd be if a good portion of today's adjustable-rate mortgages carried fixed rates instead.
- Having cut interest rates to head off negative ramifications from the bumps in the road, he left them low for too long. I learned in the hyperinflationary late 1970s and early '80s that when people feel an asset will always appreciate at an annual rate in excess of the cost of money, the result is speculative demand. That certainly was the case this decade.

In general, it seems the Fed – including the current Bernanke regime – wants to let advances run and limit declines, whether in the economy or the markets. Everyone wants

advances and no one – except bargain hunters and investors in distress – relishes pullbacks. But I wonder if that stance makes sense.

How can we have gains but not losses? How can a free-market economy allocate capital effectively if capital creation is abetted and capital destruction is prevented? The fact is, excesses like we've just seen have to be corrected – painfully – and if they aren't, they'll just grow bigger and bigger as the cycles wear on. "Moral hazard" will arise, convincing people that risk takers will always be bailed out, something that's bound to encourage greater risk taking.

The Fed's actions in the current situation have been dramatic:

- an unexpectedly large half-point cut in the discount rate in September,
- strong steps to inject liquidity and encourage borrowing by banks, and
- an unusual ³/₄-point rate cut on January 21, followed by another ¹/₂ point a week later.

In two decades as Fed Chairman, Alan Greenspan was required to deal with the emerging market crisis and meltdown of Long Term Capital Management in 1998; the possibility of a Y2K glitch; the tech stock and broader bear market in 2000-02; the ramifications of the 9/11 attack; and concern over the possibility of deflation. **And yet he never cut rates by 3/4 point in one step or by 1-1/4 points in just eight days.** Thus Bernanke's actions seem extreme. Is the Fed attempting to prevent a normal recession? Does it foresee an unusually serious one, perhaps driven by unprecedented weakness in home prices? Or is it concerned about profound financial system weakness, centered at banks and the monoline insurers?

Kudos and Brickbats

I hesitate to single out an individual for criticism, especially after he's been punished through loss of his job, but CEO **Chuck Prince of Citigroup** contributed the unfortunate quote that just has to stand as the symbol of the last few years' excesses. In early July, he showed foresight by saying "when the music stops, in terms of liquidity, things will get complicated." Unfortunately, he added, "as long as the music is playing, you've got to get up and dance. We're still dancing."

What I think Prince was saying is that even if the market's overheated, a financial institution has to participate or risk losing market share to those who will. But that's my point. Is there any business a company won't do? Is there any profit a company won't pursue? Might there be something worse than losing market share? What a wonderful thing it would have been to lose market share in the crazy period leading up to last summer. Doing so held the key to avoiding the CDO carnage. Short-termism is one of the greatest problems in U.S. business today, and it makes it tough to go left when all your competitors are going right. But our business leaders should dare to be great.

Bank of America CEO Ken Lewis won my respect early last year when he said, "We are close to a time when we'll look back and say we did some stupid things . . . We need a little more sanity in a period in which everyone feels invincible and thinks this is different." He was dead right. The question is what he did about it. B of A took a \$5.4 billion writedown in the fourth quarter and has \$12 billion of CDO exposure left. Those numbers are about a third of Citigroup's. Is that good or bad?

Who else saw what was coming?

- **Jim Grant** was very outspoken about CDO excesses in his newsletter, "Grant's Interest Rate Observer," and early enough for heedful investors to have done something about it. He was one of the first, for example, to question the fact that most of the collateral behind CDOs was rated below investment grade, and yet a vast majority of CDO debt was rated above investment grade.
- **William Conway** of Carlyle Group attracted a lot of attention but perhaps not all he deserved for a January 2007 memo to his Carlyle colleagues, in which he wrote:

As you all know (I hope), the fabulous profits that we have been able to generate for our limited partners are not solely a function of our investment genius, but have resulted in large part from a great market and the availability of enormous amounts of cheap debt. . . . Frankly, there is so much liquidity in the world financial system, that lenders (even "our" lenders) are making very risky credit decisions. . . . I know that this liquidity environment cannot go on forever. . . . I know that the longer it lasts, the greater the pressures will be on all of us to take advantage of this liquidity. And I know that the longer it lasts, the worse it will be when it ends.

- **John Paulson** won well-deserved fame for generating returns up to 590% in his hedge funds last year. He did three things well: He recognized the excesses in the residential real estate arena. He figured out how to profit from their inevitable reversal. And he was lucky enough to get the timing right; rather than reach his conclusion earlier, look wrong for a long time and give up as others did he turned bearish in 2005 and was able to hold on until events began to prove him right in 2006.
- I'm glad to say **our clients' sectors of the investment world** such as pension and endowment funds and insurance companies generally haven't reported much participation in the most highly leveraged entities.
- Goldman Sachs has distinguished itself thus far by avoiding subprime and CDO losses, being short mortgage paper and skating through the crisis. Lehman Brothers, Credit Suisse, Deutsche Bank and JP Morgan Chase are other institutions that seem to have signed on for less subprime pain than their competitors.

Finally, a statement by the Chief Executive of **UBS** provided another insight into the recent events. Early last December, he said, "the ultimate value of our subprime holdings . . . remains unknowable." I admire his candor, and I'm sure he's right. But the question I'm left with is whether it might have been possible for buyers of subprime-related paper to reach that realization at the time they first evaluated those assets?

Where Does the Buck Stop?

In affixing ultimate responsibility for losing investments, I tend to look to the investors who made them. Sometimes investors are blind-sided by unforeseeable events, and sometimes they're preyed upon by unethical or even criminal purveyors. But usually the process couldn't have gone as far as it did if it wasn't for buyers who sought return too avidly, trusted too much, failed in some way to be alert to the potential for loss, and fell for something that was too good to be true.

Everyone dreams of return without high risk. But where can it be found? Not in markets that are working properly – that is, markets that are efficient. Not in leverage, which should be expected to cut both ways, magnifying both risk as well as return. Not in doing what everyone else is doing, or in buying the product *du jour* that's being touted broadly and purchased unquestioningly. At best it can be found, with regard to markets that are less than fully efficient, in possessing – or aligning yourself with investors who possess – that scarce attribute: personal skill . . . superior insight . . . alpha.

To fully understand how superior returns are achieved and why they're rare, you have to grasp the concept of "excess return." It's what everyone wants. It's "superior risk-adjusted return": the amount by which an active investor's return exceeds that which can be achieved through a passive portfolio of the same riskiness. For active investing to work and for excess return to exist, market participants – and thus, collectively, the market – have to be making mistakes. That's how I think of the thing called "market inefficiency." Thus, people who think excess return is readily available fail to ask a few simple questions:

- Why should a free lunch exist despite the presence of thousands of investors who're ready and willing to bid up the price of anything that's too cheap?
- Why is the seller of the asset willing to part with it at a price from which it'll give me an excessive return? Do I really know more about the asset than he does?
- If it's such a great proposition, why hasn't someone else snapped it up?
- Why is the broker offering it to me (rather than grabbing it for his prop desk)?
- And if the return appears so generous in proportion to the risk, might I be overlooking some hidden risk?

How do the CDO buyers measure up in this regard? I'd guess they were told they could get better returns from a double-A mortgage security than a double-A corporate without any incremental risk (or else leveraging up wouldn't have seemed so safe). I believe they were told the source of this return would be the market, as opposed to great skill on the

part of CDO managers. I imagine they relied heavily on the participation of the rating agencies and monoline insurers. Each of these was flawed.

What made them believe that mortgage loans could be bought up and packaged into CDO securities (with multiple fees paid along the way) with the resulting return still excessive? Why should one legitimate double-A significantly out-yield another? Why didn't they ask more about the process through which this miracle was being accomplished? Why did they accept that narrow spreads could safely be turned into generous returns through leverage? Why did they trust so heavily in the simulated performance of securities for which the existing track record wasn't applicable? Did they look into the motivation and capabilities of the rating agencies and insurers on which they depended? **In short, were they skeptical enough?**

Many CDO buyers had no independent ability to assess the risks of CDOs. But they bought anyway. They followed their desire for high risk-adjusted returns, took action based on the relationship between promised return and rating, and went astray.

The bottom line of all of this is that one of the main functions of markets is to drive out excess return by bringing buyers and sellers together at prices from which the return will be just fair. Realizing that makes skepticism an indispensable ingredient in superior investing. Most investment failures are preceded by a dearth of it.

* * *

I often think back to an early 1990s issue of *Forbes* on the subject of compensation. It quoted an experienced corporate director as saying something like, "I've given up on trying to get people to do what I tell them to do. They do what I pay them to do."

It's clear that in recent years, improper incentives caused a lot of people to do the wrong thing. Loan originators with nothing riding on the loans' long-term performance. Investment bankers who expected to package and resell loans before they went bad. Rating agencies and appraisers – the investor's protectors – incentivized to come in high. Companies that (a) were lured by potential profit into areas where there was no way to understand what would happen in tough times, and thus (b) accepted risks for which they were unprepared. Financial institutions that failed to sit out when the markets became overheated.

My wife Nancy says she likes this memo more than most, because the lesson is so easy to understand. "People can't be counted on to do the right thing," she said, "when they don't have anything at risk."

Far more participants in this process covered themselves with dishonor than with distinction, as attested to by the magnitude and ubiquitousness of the losses. But the

blame for the current problems falls primarily on two groups, and there's nothing new about either:

- middlemen who were improperly motivated by the ability to profit from actions for which they wouldn't remain responsible, and
- buyers who believed too readily that return was available without proportionate risk and thus were willing to buy things they didn't understand.

Errors in process, judgment and character like those of the last few years cannot be kept from occurring. All any of us can do is try to avoid joining in.

Manigustine

February 20, 2008