"Hedge Funds Ate My Money" – Facts & Fantasies in Alternative Investments

In Fashion?

Hedge funds are "in". St. James and Mayfair in London, the Helmsley building in New York and Stanford, Connecticut are home to a plenitude of hedge funds. "Plenitude" refers to when there is too much of anything. The fund's names inevitably include the term "capital" - remember Long Term *Capital* Management ("LTCM").

Extreme sports are specialised sports where participants push themselves to the limits of their physical ability and fear. Hedge funds are "extreme" money. They play adrenaline rush, high risk money games with potentially high returns. Hedge fund managers are, in the words of Tom Wolfe from "The Bonfire of the Vanities", the *new* Masters of the Universe – "he considered himself as part of the new era and the new breed… a Master of the Universe who was a respecter only of performance". The Masters of Universe, their culture of risk and extreme money games exert enormous power and influence in financial markets. But they remain secretive and little understood.

Attempts to critically scrutinise the activities of hedge funds always meets resistance in equal proportions from the hedge funds and investors. Hedge fund managers always take the view that they alone can know what they do – it's all so *complex,* so *technical*! Investors in hedge funds, strangely, also resist scrutiny of their investments. After all they are providing *such* excellent returns! Why would you want to kill the goose that lays the golden eggs. I must just be a jealous, vindictive rabble-rouser!

In looking at hedge funds, I am always reminded of Fred Schwed Jr.'s famous description of professional investors published in 1940 in "Where Are the Customer's Yachts?". "At the close of day's business they take all the money and throw it up into the air. Everything that sticks to the ceiling belongs to the clients." This paper looks at the facts and fantasies of hedge funds.

Keeping Up With The Jones

The idea of hedge funds is usually attributed to Alfred Winslow Jones. Jones was variously an academic, diplomat, steamboat purser and journalist. The idea of hedge funds evolved out of his research that showed that it was impossible to forecast stock price movements accurately.

Jones wanted to generate profits while minimising the risk of losses from unpredictable market movements. He identified undervalued stocks (these he would buy) and overvalued stocks (these he would sell). The strategy would today be called "equity long-short". The combination of longs and shorts would reduce the risk of losses from general market movements. The shorts would "hedge" the longs giving rise to the term – "*Hedge* Fund". By the late 1960s, Jones had outperformed other mutual funds handsomely over long periods even after deducting his 20% incentive fee.

Jones' strategy contains the elements that continue to be a feature of hedge funds today:

1. **Hedging away market risk** - Jones used short selling to achieve this. But Jones' hedge fund was not actually fully hedged. He generally only shorted around 50% of the value of the longs. Jones was always net long stocks. The shorts reduced his risk but did not eliminate it entirely. He astutely figured that generally the market went up and being net long would be the right way to be.
2. **Leverage** - if Jones was long $1.5 million and short $1 million, then he was exposed to around $ 2.5 million of stock price movements on $ 0.5 million of net risk.
3. **Research** – success depended, primarily, on Jones' stock picking skills.
4. **Incentive fee structure** - Jones was paid 20% of performance.
5. **Management investment** - Jones also had his own capital invested in the fund.

Remarkably, Jones also anticipated other developments. His fund acted an "incubator" for two employees who left to set up their own funds. Later, Jones' fund transformed itself into a "fund-of-funds" – investing its capital in other hedge funds with different areas of expertise and investment styles.

The Rise and Rise of Hedge Funds

Jones started around 1950. In the late 1960s, Carol Loomis, a journalist with Fortune, published an article about him. The article had a huge impact. Others now copied Jones', hitherto secret, investment strategies.

Hedge funds rose to a new level of prominence in the 1990s. This was the age of "macro funds". The Looms article had actually inspired many of these funds. George Soros' success through his Quantum fund in speculating on the £ made him the glamour boy of hedge funds for a time. Julian Robertson, Michael Steinhardt, Stanley Druckenmiller, Martin Zweig, Joe Dimenna, Paul Tudor Jones, Monroe Trout, Louis Moore, David Shaw - came to prominence.

Today, there are probably over 8,000 hedge funds with over $1,500 billion in asset under management ("AUM").

Traditionally, the investors in hedge funds were the rich. You had to have a million or more to play. Currently, around 15-20% comes from individual investors, around 60-70 % comes from pension funds, insurance companies, mutual funds, foundations and endowment funds and banks. For example, the California Public Employees Retirement Scheme ("CalPERS") has announced a program to invest some $12 billion in hedge funds over a number of years. The rest comes from the usual suspects (Mafia barons, drug lords, arms merchants, despotic dictators of tin-pot countries etc).

Investment interest came from the stellar returns that the better hedge funds offered. There were more practical reasons. Hedge funds prosper during periods in which traditional asset classes under perform. In the early 1990s and again in the early 2000s, the economy was mired in a deep recession, equity markets were moribund and interest rates were at record lows. Investors chasing returns were forced to look elsewhere, prompting increased flow of money into hedge funds.

The switch to hedge funds is also driven by a profound crisis within the investment management industry. Over a long period, few if any active managers outperform the market, especially after trading costs and fees.

Inept fund managers might be one explanation – though, this is one never offered by the industry itself. Market efficiency might be one explanation. There is the winner's curse. If you outperform, then people give you more money to invest. The added money reduces flexibility. An orgy of mergers in the fund management industry has also created ever larger funds. Every time you try to trade the market moves against you - "dis-economies" of scale.

Star fund managers are "prima donnas" - difficult to manage and even more difficult to retain. It is frequently difficult to establish whether well performed fund managers are lucky or skillful. In selecting fund managers, investors should follow Napoleon's advice. Before battle, Napoleon asked his generals: "are you lucky?"

Traditional fund managers also slavishly measure investment performance in *relative* terms. In the 1990s, I consulted to a pension fund. If fund managers are priests, then asset consultants are cardinals. Asset consultants advise investors, evaluate fund managers, allocate money between fund managers and assess performance. The asset consultant to the pension fund took an instant dislike to me. I was a troublemaker.

Prior to my arrival, the asset consultant had persuaded the trustees to put a small amount of the portfolio into emerging markets. This was in 1996. In 1997, the Asian crisis had sent the emerging markets plunging. Using a slick PowerPoint presentation, the asset consultant took the trustees through the performance of their portfolio. "The emerging market portfolio has outperformed its benchmark by 3%", he stated when he got to it. "What was the absolute return?" I asked. The asset consultant turned to me. "We only deal with returns relative to benchmark." I pressed again. He did not answer. The Chairman didn't have a clue what I was saying. He sensed only the reluctance of the asset consultant to divulge this information. "Yes, what was our *about turn*?" he insisted. Emboldened, the rest of the trustees joined in. They too wanted to know what was the "about turn".

The asset consultant was furious. "Well, the portfolio was down 45% but the benchmark fell 48% so we were +3%." "What, we lost half our money?" The chairman was confused. "Not really, we outperformed our benchmark". It was not a smart answer. The chairman was apoplectic. "Son, you can't make money when you lose money. What kind of idiot are you?" It is how the game is played.

The 1980s and 1990s saw the emergence of new markets such as mortgage and other asset backed securities and derivatives (futures, options, swaps and complex financial products) in a wide range of asset classes. Traditional institutions looked on these products with suspicion. Reduced returns available from traditional assets forced institutions to participate in these markets. Hedge funds, specialising in these "new" markets, preyed on conservative investor's greed and fear with promises of arbitrage and sophisticated trading strategies. The "structured credit" market is merely the latest chapter in that story.

Conservative asset managers now allocate part of their funds to a new "asset class" – (alternative investments). Funds that can't short, can't leverage, can't use derivatives instead gave their money to hedge funds who can.

The number of hedge funds has also exploded. Every new product or instrument resulted in the emergence of a new type of hedge fund. Disgruntled fund managers and traders, especially derivative specialists, set up hedge funds. Tired of the politics, the inflexibility of large organisations and increasing compliance burdens, they are attracted to the money and the power of the "buy" side. Fund managers are owner managers. They can earn more than they ever would on the sell side.

The new mantra is - hedge funds for *everybody*. If it was good enough for the rich then it must be good enough for everybody. What did Groucho Marx say about not belonging to any club that would have him as a member?

Style Gurus

"What exactly does a hedge fund do?" In a recent interview, a minor Master of the Universe stated that he threw light on "fragmented information" and "opaque" track records. The statement reminded me another in a company prospectus during the South Sea bubble: "a company for carrying on an undertaking of great advantage, but nobody to know what it is".

"What" defines a hedge fund? I would say the following features:

1. Investment style emphasising reduction in risk by combining long and short positions.
2. Use of leverage to increase returns.
3. Pursuit of absolute returns.
4. Use of techniques such as short selling and (sometimes, complex) derivatives.

The "what" also encompasses "styles":

1. **Equity long-short** – it is little changed from what Jones practiced. One difference is how closely the longs and shorts are matched. Some funds match exactly; others take a view on the likely trend – this is known as the portion 'outside the hedge'. The process of stock selection also varies. Some favour fundamental analysis. Others use computer models to identify over and undervalued stocks. The degree of leverage used also varies.
2. **Market neutral or relative value** – the idea is to exploit market inefficiencies – market neutral hedge fund managers talk about "arb" (arbitrage) a lot. It uses a combination of purchases and sales of different instruments to reduce risk. There's fixed income arbitrage, convertible bond arbitrage, derivatives arbitrage, mortgage backed securities arbitrage, capital structure arbitrage, arbitrage arbitrage (!) - each is different. They all use sophisticated, sometimes highly quantitative, analysis to identify pricing discrepancies. Relative value funds use leverage, plenty of it, because the returns are small and the risk is low, supposedly.
3. **Event driven** – this is trading driven by corporate actions, mergers/ takeovers (known as "risk arb") or bankruptcy ("vulture funds" or "distressed debt" trading). Hedge funds specialising in event driven trading use their knowledge of regulations, legal documentation and (sometimes) inside information to make profits. Investment periods can be long and there is serious event risk (a merger not proceeding).
4. **Macro or tactical trading** – Dion Friedland, Chairman of Magnum Funds, described macro trading as: "mammoth and quick, keen and powerful, sudden and aggressive; they go for the kill, they want it all, not content with only a mere morsel of their prey". The focus is large, speculative, leveraged bets on currencies, stocks, interest rates and commodities. Size forces trading in large and relatively liquid asset markets. Trades are based on fundamental analysis, computer generated trading signals, market price action and (most often) a certain vibration in the intestinal tract.

Originally, hedge funds were specialists. Over time, single strategy hedge funds have found that opportunities in their area of expertise dry up leading to "style drift". Today most hedge funds are "multi-strategy". No one is sure of what this actually means. It allows the fund to do anything they wish. Investors having bought their tickets can only watch the show.

Traditional investors are keen on diversification. Diversification makes absolutely no sense in the context of alpha or hedge funds. It generally signals an abject poverty of conviction and brings average or worse returns. Institutions slavishly embrace it. Investors invest in a spread of hedge funds with different styles. Asset managers have also established FoF (fund of funds). The FoF manager selects a diverse group of hedge funds. They do the screening and monitor the hedge funds. Ordinary investors now pay several layers of fees. There is the fee to their mutual fund. There is a fee to the FoF manager (1% of AUM and 10% of performance). Then there is the hedge fund manager's fee (2% and 20%). FoF might just stand for Fee of Fees.

Fees for All

Jones got paid 20% of performance. He did not charge a management fee and met all the funds expenses from his fee. Traditional hedge funds paid the traditional formula of 1% management fee and 20% of performance above a benchmark (known as the "watermark"). These funds also have a "high watermark" feature - if a fund suffers losses, then the fund must recoup the losses before the incentive fees resume. Funds now charge 2% and 20% or higher with *no* watermark. One "hot" hedge fund charges more - 5% and 35% of profits; another 4% and 44%. Hedge funds are the only business where an unproven newcomer with no track record can charge more than an existing operation with a proven history. One manager explained the raison d'etre of a hedge fund: "A hedge fund is just an excuse to charge two and 20 (base fee of 2% and 20% of performance); they do not do anything else very different"[1].

The performance related fees and the manager's investment in the fund are supposed to align their interests. However, the fee structure heavily favours the manager. Assume a $100 million fund where the manager's fees are 1% and 20% of performance. Assume also the manager has a $5 million (5%) interest in the fund. If the hedge fund losses $20 million (20%) then, the manager losses $1 million (20% of $ 5 million). The loss is offset by the management fee received (1% of $100 million equaling $1 million). If the hedge fund makes $20 million (20%), then the manager earns $ 4 million (20% of $20 million) plus the management fee ($1 million) - a 100% return. In the words of Mark Twain: "I am opposed to millionaires, but it would be dangerous to offer me the position."

The fee structure creates a "moral hazard". This assumes the existence of a moral universe in the first place. The highly skewed payoffs for hedge funds encourage aggressive risk taking. Bank traders and our great and good corporate leaders have similar incentive structures. Thorstein Veblen, the great American sociologist, identified this: "It is always sound business to take any obtainable net gain, at any cost and at any risk to the rest of the community".

[1] See Alan Kohler "Hedging your bets for a life less ordinary" Weekend Edition Sydney Morning Herald 5-6 August 2006 at 39

Loss of reputation is also not a deterrent to risk taking and loss making. John Meriwhether and his colleagues had no difficulties raising funds after the collapse of LTCM. A member of banking consortium that has bailed out LTCM was quoted in the Financial Times that Meriwhether's re-emergence highlighted "the ongoing vitality of the Wall Street system". I would have liked to see the offering memorandum. The closest to perfection a hedge fund manager ever comes is when he or she prepares an offering memorandum seeking investors. Potential investors probably were comforted by the physicist Niels Bohr's observation: "An expert is a man who has made all the mistakes which can be made in a very narrow field". Financial markets exemplify Mark Twain's observation: "All you need in this life is ignorance and confidence; then success is sure".

Sharpe Practice

Hedge fund returns are, it is said, "hot". *Some* hedge funds have shown high returns. Long run returns are clouded by the "survivorship bias" – that is, many hedge funds have perished along the way. High returns require that you *select* the better performing funds. There are wide divergences between the best and worst performing funds. Fortunately, most hedge fund investors seem happy with *average* returns. However, the nature of hedge fund investments means that investor's position is similar to someone seeking to achieve a comfortable *average* ambient temperature with their feet in the oven and their head in the refrigerator.

Analysis of hedge fund returns present some interesting challenges. Julian Roberston's Tiger fund is estimated to have generated around 30% pa in its first 18 years. In the last two years of ist existence, it had substantial drawdowns (around 50%). Even taking these losses into account Tiger would have returned around 25% pa over its life. One analysis suggests the returns can be looked at differently. The analysis suggests that the fund may well have lost more *money* in the last years than it earned over its previous life. Tiger originally started life in 1980 with a mere $10 million. By 1998 it had $22 billion under management. The analysis suggests that the funds highest *percentage returns* came on a small dollar base. However, the losses came from a larger base (remember a 50% loss on $ 22 billion is a dollar loss of around $10 billion). This means it is possible that Tiger lost more *dollars* than it made over its life. This would leave investors net losing money.[2] Whatever, the real answer, its shows just how hard it is to work out whether you actually made money!

You need to consider the sustainability of returns. Macro funds were beneficiaries of the confluence of specific factors - the integration of emerging economies into global markets, the end of communism in Eastern Europe, the growth of world trade and deregulation of financial markets, such as currencies and interest rates. These epochal events were once-in-a-lifetime occurrences that created trading opportunities. For example, Soros' triumph in breaking the pound was predicated on the collapse of a highly flawed system of currencies. In 1997/ 1998, hedge funds made substantial returns when a similarly pegged currencies fell apart. The difficulty in sustaining returns can be seen in the varied fortunes of macro funds in recent years. Some have prospered but many funds, included the fabled Quantum and Tiger Funds, have restructured or disappeared.

[2] See Richard Bookstaber (2007) A Demon of our Own Design; John Wiley, Hoboken, New Jersey at 179-180.

Relative value hedge funds were beneficiaries of similar events. LTCM's early success was linked to opportunities related to the creation of a single European currency and tax arbitrage opportunities. Relative value funds benefited in the 1990s from the introduction of new and innovative products that few understood and fewer had the skills and systems to value. The shrinkage of opportunities has forced relative value funds to migrate into new areas – credit being the major one.

Hedge funds offer investors 15-20 % pa returns with minimal risk. Hedge funds are far riskier than the risk statistics reveal. The systems used do not actually capture the *real* risks.

Investors use Sharpe or information ratios to measure performance. Assume Treasury bills yield 5% pa. Assume hedge fund A has an annualised return of 20% with a volatility of 10% and hedge fund B has a return of 15% and a volatility of 5%. The Sharpe ratios are respectively:

Hedge Fund A = [20% - 5%]/ 10% = 1.5

Hedge Fund B = [15% - 5%]/ 5% = 2.0

B despite its lower absolute performance provides the investor with greater returns relative to risk than A.

Sharpe ratios are flawed. They are ex post (based on actual risk) rather than ex ante (expected risk). Actual return achieved should be compared to the risk that was known to be taken *at the time the position was taken*. This generally shows higher risk and lower risk adjusted returns.

There are alternative risk models. There is the Sortino ratio - a variation of the Sharpe ratio that only focuses on adverse price changes using deviation below a specified level. A personal favourite is "drawdowns" - an euphemism for actual losses incurred and the cash that must be found to cover a peak to trough change in the fund's position.

Models currently used to analyse hedge funds generally display a number of major weaknesses:

- The models do not pay sufficient attention to the asymmetry of hedge fund returns (hedge funds returns are **not** normally distributed). VaR type models therefore do not measure risk accurately.
- The models do not correct for the presence of widespread auto-correlation causing significant understatement of volatility of hedge fund returns.
- Benchmarks used are not often significant resulting in spurious comparisons.
- The models do not consider the impact of asymmetry on dependence measures such as correlation.
- The models do not consider the persistence of any alpha.
- The models generally seek to condense all of the relevant detail into one single standardized comparative number that is frequently meaningless.

The weaknesses in existing models mean that the unique characteristics of hedge funds and risks are not captured.

The real risks of hedge funds are correlation risk, liquidity risk and complexity or model risk. Unsurprisingly, traditional systems are poor at capturing these risks. Traders, whether in hedge funds or otherwise, are extremely skilled in arbitrage – internal arbitrage. Traders arb the internal risk metrics to inflate risk adjusted returns on which their bonuses are based.

Some types of hedge funds *should* show low risk – remember they are simultaneously long and short securities. If the prices move identically, then the gains and losses will cancel out leaving zero return where the portfolio of long and short positions are perfectly balanced. For the fund to make money, the price *relationship* between the long and short securities must change – correlation has to shift. Correlation may move unfavourably – the asset which you are long falls in value and the asset you are short rises in value, triggering losses. Many hedge fund strategies are effectively correlation positions where the risks are not properly captured.

Liquidity risk is the inability to sell out of or continue to finance positions. Hedge fund trading assumes liquidity risk. The position may be large. The assets held are illiquid. The liquidity risk is compounded by leverage. Hedge funds generally trade on margin – putting up a small fraction of the value of the asset as collateral. If prices fall then the hedge fund is required to post more collateral. If losses on the leveraged position exceed the hedge fund's ability to meet margin calls then the position is liquidated realising losses. This severely limits the holding power of hedge funds. Risk models, of course, assume "perfect" liquidity.

Hedge funds now use complex securities and derivatives in their trading. They use computers and sophisticated quantitative models to value and hedge positions. The models are highly subjective. They are sensitive to minor changes in parameters and inputs. There may be no transparent market in inputs making them difficult to value. Mark Twain provides the definitive view on "model risk": "It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so."

A number of hedge funds have suffered terminal losses in mortgage backed securities. Model failure was a factor in many of these losses. Currently, some funds trade CDO^2 – that is a CDO of a CDO, a complex instrument. Different funds use different models. Recently, I had to get market prices for some CDO^2 securities. There was firstly no market to speak of and secondly wide variation in prices. Master of the Universe do not measure model risk when quantifying risk.

Many hedge fund trades seek to buy or sell "mis-priced" securities. The position is hedged by an offsetting trade using similar securities. The idea is that the values will converge. The market prices may correct allowing the traders to unwind his trades at a profit. If the market prices do not correct, then the trader must hold the position through to maturity to realise the profit. The holding period can be long, very long – in the order of thirty years. Hedge funds have short risk horizons – no longer than six to twelve months. Changes in mark-to-market values, the resulting margin calls and the investor's right to redeem capital periodically makes it difficult to manage this risk. Leverage, liquidity risk and complexity are lethal companions.

LTCM liked to arbitrage small value differences between similar securities. The returns were small so LTCM typically leveraged the trades to increase returns. After the Asian crisis, credit spreads (the margin above government bonds for additional risk) blew out well above what was needed to cover the actual risk of people not paying up. LTCM wanted to lock this in and leverage the position.

LTCM entered into interest rate swaps where they received fixed rates getting government bond rates plus a margin (credit spread). Then they went short government bonds on the other side paying the government rate. LTCM effectively locked in the credit spread. They leveraged the position massively. The game depended on the spread getting smaller (convergence) or holding the position to maturity (10 years). Unfortunately, the spread kept getting wider. Interest rate swaps rose and government rates fell. LTCM now had losses on both legs of the trade. They had to find cash to cover their losses. The LTCM principals witnessed first hand the truth of Keynes observation: “There is nothing so disastrous as a rational investment policy in an irrational world”.

In 2006, emerging markets took a “hit”. “Market neutral” hedge funds losses mirrored the fall in the market. A short memory and a rising market generally passes for investment genius. One hedge fund manager explained: “Everything in the market was a compelling buy. We could find nothing to short.”

Over 50% of the hedge funds that fund-of-funds managers invest in have in existence for less than 2 years. The majority of hedge funds are small – less than 10 staff. The operational risk and key personnel dependency is high.

In 2006, Amaranth, a multi-strategy hedge fund, with around $9 billion under management lost $6 billion in natural gas trading[3]. In 2005, Brian Hunter, a 32-year old Canadian, made a bet that natural-gas futures would rise. Surging gas prices following Hurricane Katrina made large trading gains for the fund. Hunter was named head of Amaranth’s energy trading operations.

He placed a similar bet in 2006 but natural gas prices fell sharply triggering losses. Amaranth’s positions were staggeringly large, representing around 10% of the global market in natural gas futures. Amaranth ultimately discontinued operations. A spokesman for the hedge fund made the following observation regarding the losses: “We did not expect that the market would move so aggressively against our positions!”

Martin Baker, in his book *A Fool and His Money*, described the formula for hedge funds[4]: “Take a speculative cocktail shaker. Add four parts public ignorance and 33 parts greed. Toss in a little perceived genius. If you don’t have any freshly ground perceived genius to hand, a little dried genius status will do. Season generously with mystique. Add apparent publicity shyness to taste. Serve in opaque tumbler of awed, ill informed media coverage”.

“Embedded”

Another commentator[5] has compared hedge funds to “courtesans”; that is high class prostitutes whose clients are drawn from the wealthy or upper classes. Incidentally, the French terms for courtesans are even more descriptive – “luxury chicks”; “the great horizontal ones”. If hedge funds are the prostitutes – the girls – then the banks are clearly the pimps and bordello keepers. As *Forbes* magazine noted[6]: “it’s easy to guess who is likely to make most money in the long term”.

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[3] See “Flare Up” (23 September) The Economist at 75, 76
[4] Martin Baker (1996) A Fool and His Money; Orion; quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 70.
[5] See Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester
[6] See Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 5

Creating hedge funds to house trading activities "off-balance-sheet" solves many problems for banks. The introduction of capital on market risk in 1994 made it punitive for banks to hold trading positions on balance sheet. Hedge funds also alleviate with the problem of attracting and remunerating "gun" traders. Bank shareholders, regulators, the public at large and bank CEOs react negatively to large payments to traders, especially when it exceeds their own salaries. The hedge funds are also able to leverage more than the banks themselves.

Banks help set up hedge funds, invest in them and trade with them. Whole new services have developed:

- **Prime brokerage** - combining settling and clearing hedge fund trades, execution services and financing hedge funds.
- **Capital introductions** – raising capital for hedge funds (for a modest 2-4% up front).
- **Incubators** - to help budding traders create hedge funds; services include training in etiquette and investors relations to communicate properly with investors.
- **Hedge fund linked investments and derivatives -** banks also design products around hedge funds, such as fund of hedge funds and capital guaranteed hedge fund investments for risk averse investors – you can't lose your principal although you may end up earning nothing on your investment for 10 years. This type of investment helps explain why many investors in hedge funds in the words of Groucho Marx - "work [themselves] up from nothing to a state of extreme poverty."

Dealers love hedge funds. Dealers earning from hedge funds at around 30-40% plus of total earnings. The bulk of earning is from lending money to hedge funds.

Lending is made possible through repos (short for repurchase agreements) and derivative trades. In a repo, the bank lends money against the value securities held or short sold by the hedge fund. The value of the security (collateral) secures repayment. Derivatives do not require initial investment just a promise to perform in the future. The promise is secured by the hedge fund lodging cash or securities. The collateral is increased or reduced as market prices change to ensure adequate covered. This is no risk lending – regulators allow banks to hold minimal capital against these transactions.

If a position moves adversely then the bank will require the hedge fund to lodge more collateral – a margin call. What happens if they can't come with it? In order to reduce risk, banks use a "haircut" – over collateralisation to ensure that in case the hedge fund cannot meet a margin call it has a buffer. Banks are under competitive pressure to reduce the haircut. LTCM did not require *any* haircut at all- it was "special". Holman Jenkins (writing in the Wall Street Journal) observed[7]: "Would hedge funds even exist without a fatty dollop of moral hazard somewhere along the great protein chain of lending?"

The setting of the haircut is often flawed. Banks must estimate the worst case daily change in value of the positions to cover their risk. This is neither art not science. Hedge fund strategies have "event" risk when the value of the position could change a lot.

[7] See Holman W. Jenkins (5 April 2000) "How a Cat Becomes a Dog" at WSJ Interactive.

The relationship between dealers and the hedge funds is littered with moral hazards. Senior executives at many banks were personal investors in LTCM. Some were involved in negotiating the bailout. It's all part of the "special" relationship"[8].

Banks love dealing with successful hedge funds so they can copy from the "best and brightest". Banks have internal hedge funds that work closely with special sales desks that service hedge funds. Some had been created to specifically serve LTCM. They worked out LTCM's trading strategies and then did the trades for their own account. When risk limits were full, they marketed the same strategies to other banks and hedge funds.

When the storm hit in mid 1998, all the traders found that they had put on the same trades. LTCM was perhaps the only ones who were not aware of this. Louis Bacon, the principal of Moore Capital, once remarked that[9]: "There are those who know that they are in the game; there are those who don't know they are in the game; and there are those who don't know they are in the game and have become the game." In the end, LTCM became the 'game'.

Under stress conditions, prices are affected by illiquidity. Sometimes, prices are unavailable. The valuation of positions are often very conservative triggering larger mark-to-market losses necessitating more collateral. Mark Twain observed that: "A banker is a fellow who lends you his umbrella when the sun is shining, but wants it back the minute it begins to rain". To this day, LTCM swears that the banks manipulated the prices to force them out of business.

Even if the hedge fund goes under, banks can make money by buy the positions at an "undisclosed" – read "distressed" - price. They make money from unwinding the position. Banks provide a true cradle to grave services for hedge funds.

Investment banks reliance was highlighted when Citadel Investment Group, an uber hedge fund, disclosed that they paid more than $5.5 *billion* in trading costs to investment banks[10]. The largest portion was interest on the debt (around $150 billion) provided by bankers. Citadel's assets total about $166 billion but its *net assets* are around $ 13 billion. So, trading costs totaled around 1/3rd of its net assets. Who paid that? The investor.

More Money Than You Know What Do With?

Hedge fund managers are the new elite. Brian Hunter, responsible for energy trading at Amaranth before it imploded, earned between $ 75 million to $100 million in 2005. This only ranked him a middling 29th highest paid in his profession (according to *Trader Monthly*)[11]. One hedge fund manager earned $ *1 billion* in 2005[12]. Hedge fund managers tell me that money isn't important; it's just a scorecard of success!

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[8] Merrill Lynch, Bear Stearns and Paine Webber senior executives are understood to have had invested in LTCM; see Roger Lowenstein (2002) When Genius Fails: The Rise and Fall of Long-Term Capital Management; Fourth Estate, London.
[9] Quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 41
[10] See David Wighton, Ben White and Deborah Brewster "Citadel Trading Costs Hit $5.5 bn" (2-3 December 2006) Financial Times at 1.
[11] See "Flare Up" (23 September) The Economist at 75, 76
[12] The manager is reputed to be Jim Simons of Renaissance Technologies; See Alan Kohler "Hedging your bets for a life less ordinary" Weekend Edition Sydney Morning Herald 5-6 August 2006 at 39

Having more money than you can possibly spend creates new challenges for the masters of the universe. Billionaire hedge fund managers bid up the price of luxury apartments and modern art. Michael Steinhardt owns a large estate containing exotic wildlife. He was seeking to collect every duck and swan variety in the world.

Hedge funds managers are often generous donors to charities - tax deductible of course. There is the paradox of charity – how enrichment by a variety of means paves the way for conspicuous generosity. George Soros supports free markets and democratic initiatives in Eastern Europe. Detractors question whether it has anything do with the fact that hedge funds are beneficiaries of the opening up of these economies? Some "donations" are also "involuntary" to settle anti-trust and securities charges.

Hedge fund managers are generally secretive. Paradoxically, some hedge fund managers brazenly seek acceptance as "thought leaders". George Soros has written many books – the *Alchemy of Finance*, *Staying Ahead of the Curve*, *The Crisis of Global Capitalism*. He thinks of himself as a "financial and philosophical speculator"[13].

The centerpiece of Soros' musings is "reflexivity". Markets do not tend towards equilibrium. Markets feed on their own misconceptions to produce exaggerated price changes until they reach an "inflexion point" when it changes. Soros suggests following the trend and selling as it reaches the peak. This takes about 400 pages. In the December 1998 issue of the Economist, the following review of Soros' book *The Crisis of Global Capitalism* appeared[14]:

> "*Because of who he is there will always be buyers for his books, publishers for his books and cash-strapped academics to say flattering things about his books. None of this alters the fact that his books are no good…A remarkable thing happens to money when it passes through Mr. Soros; it emerges multiplied, but otherwise unchanged. With other inputs the results are more disappointing – to be blunt, more in line with biology. Mr. Soros gorged on chopped philosophy, mashed economics and fact and figures swimming in grease. It was too much. Before he knew what was happening out rushed this book*."

The Fall of Hedge Funds?

The flood of money flowing into hedge funds has not actually reflected returns. Hedge funds have under performed more traditional asset classes such as equities in recent years. The compound return for Hedge Fund Research's index dropped from 18.3% pa in the 1990s to only around 7.5% since 2000[15]. Investors always chase yesterday's returns. Adjusted properly for risk and the absence of liquidity, hedge funds probably return at best no more than and frequently *less* than traditional assets.

13 See Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 70

14 Quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 25

15 See "Rolling In It" (16 November 2006) The Economist.

A recent study[16] found hedge fund performance does not appear to consistently deliver alpha. There are notable exceptions. They are few and far between. Many of the really good hedge funds are closed to investors. Even where you can invest, the flow of funds into better performing funds rapidly erodes returns. There is too much money chasing too few opportunities. Louis Bacon (of Moore Capital) when returning capital to investors commented[17]: “Size matters. It is the bane of the successful money manager”.

Clever people can make money if there are a few clever people and lots of opportunities. This is the problem of “scalability” – what works on a small scale cannot work on a larger scale. In 2004, Hilary Till argued that the *maximum* size of the hedge fund industry was 6% of institutional (and high net worth) assets[18]. There are other constraints. Some hedge fund strategies need liquid markets and a complete set of instruments. There are few such markets.

Ultimately, if you make money from inefficiency then someone – other investors - must supply the inefficiency. We cannot all exploit inefficiencies as there would be nobody supplying the market inefficiency in the first place. To be “alternative” there has to be a “majority”; the “alternative” cannot be the “majority”.

Hedge funds with certain areas of expertise also begin to trade in other markets as opportunities in traditional markets become limited - “style drift”. LTCM too had drifted from their metier - relative value trading in fixed income – into volatility trading, credit spread trading and merger arbitrage. Cases of fraud and other common crimes have also begun to surface.

Some hedge fund managers have sounded a cautionary note. Steven Cohen, the founder of SAC Capital Advisors, a large hedge fund manager noted: “It’s hard to find ideas that aren’t picked over and harder to get real returns and differentiate yourself. We’re entering a new environment. The days of big returns are gone.”[19]

The smart money already knows that there is no money to be made from investing in hedge funds. In investing, the majority is generally wrong. The focus is now “incubators” - venture capital for hedge funds. They identify traders, seed start-ups and allow them to establish a track record. Once established, the hedge fund seeks third party funding allowing the original investors to exit. They retain the real money - a free carry or shareholding in the general partner or fund manager. Incubators are only open to the really rich and connected.

The hedge fund universe is overheated. At the suggestion of a “bubble”, one hedge manager bristled that hedge funds weren’t an “asset class”, therefore there was no “bubble” to burst. Only asset classes experienced bubbles. Another hedge fund apologist argued that all funds managers in the future would be hedge funds. The semantics aren’t reassuring.

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[16] See William Fung, David Hsieh, Narayan Naik and Tarun Ramadorai “Hedge Funds: Performance, Risk and Capital Formation” (19 July 2006) Working paper available on www.ssrn.com/ abstract=778124.

[17] Quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 42

[18] See Hilary Till “On The Role of Hedge Funds in Institutional Portfolios” (Spring 2004) Journal of Alternative Investments 77-89.

[19] See “The Hedge Fund King Is Getting Nervous” (16 September 2006) The Wall Street Journal at page A.1.

Hedge funds are also under attack from *clones*. Hedge fund performance does not appear to depend significantly on skill; nor is it as distinctive as the masters of the universe claim. In fact, hedge fund returns can be replicated using readily available instruments such as equity index futures and corporate bonds[20]. Banks are starting to clone hedge funds using precisely these instruments[21]. The advantage for investors is lower fees and avoiding the risk of blow-ups like Amaranth or LTCM. The clones are not the "real thing" – cheap reproductions. Some analysts argue that the replication models are flawed though they have their own version which "works". In fashion, few punters buy the haute couture of designer boutiques. Investors it seems are now looking for "grand masters" at "knock-off" prices.

By 2006, there were sure signs of the "top" in the market. Hedge funds started going public selling shares to investors[22]. The trail was blazed by the appropriately named Pirate Capital. Good hedge fund managers rely on being able to spot the right moment to buy or sell. They were applying the same astute logic to their own business. The Masters of the Universe who ran hedge funds were selling out at the top. They mouthed the usual platitudes.

Banks also convinced themselves that they needed to *own* hedge fund managers. An orgy of billion dollar buying ensued – as you know a billion doesn't buy you much these days. The parallel to the lemming like move to buy conventional asset managers in the 1990s was notable. That round of buying ended in tears – everybody paid too much. Wall Street and the City are bad judges of value – having enjoyed the milk, in a moment of monumental confusion they tend over pay for the cow.

[20] See Jasmina Hasanhodzicy and Andrew W. Lo "Can Hedge-Fund Returns Be Replicated?: The Linear Case" (16 August , 2006) Working paper available on www.ssrn.com/ abstract=924565.

[21] See H. Kat and H. Palaro, Who Needs Hedge Funds? A Copula-Based Approach to Hedge Fund Return Replication, Alternative Investment Research Centre Working Paper No. 27, Cass Business School, City University London, 2005; H. Kat and H. Palaro, Replication and Evaluation of Fund of Hedge Fund Returns, Alternative Investment Research Centre Working Paper No. 28, Cass Business School, City University London, 2006; H.Kat and H. Palaro, Superstars of Average Joes? A Replication-Based Performance Evaluation of 1917 Individual Hedge Funds, Alternative Investment Research Centre Working Paper No. 30, Cass Business School, City University; London, 2006; H.Kat and H. Palaro, Tell Me What You Want, What You Really, Really Want! An Exercise In Tailor-Made Synthetic Fund Creation Alternative Investment Research Centre Working Paper No. 36, Cass Business School, City University London, 2006.

[22] See Thorold Barker " Does It Do What It Says On The Tin?" (2-3 December 2006) Financial Times at 11.

"Who's" in Charge?

Galbraith observed that: "In central banking as in diplomacy, style, conservative tailoring, and an easy association with the affluent count greatly and results far much less." Regulators see hedge funds as providing essential liquidity and distributing risk more efficiently, reducing risks of a major financial shock. There is also a ideological element. In the aftermath of the Asian crisis, Robert Wade, an economist observed[23]: "[Greenspan] and other US officials see it as imperative to make sure that the troubles in Asia are blamed on the Asians and that free capital markets are seen as key to world economic recovery and advance; the idea that international capital market are themselves the source of speculative disequilibria and retrogression must not be allowed to take root". Bail outs of troubled banks in developed countries are naturally not contrary to free market principles.

In theory, hedge funds remove risk from *regulated* banks. But banks are deeply embedded in the hedge fund industry. The only significant control is on lending to or entering into derivative trades with hedge funds using collateralisation to manage risk. Lou Corrigan (writing in the Motley Fool Internet Bulletin Board) noted[24]: "Alan Greenspan was mistaken in believing that the largely unregulated hedge fund industry can be effectively controlled by regulating creditors…Creditors can be just as prone to greed as the latest wizard of Wall Street, but they are often the last to understand the risks that would ordinarily help fear counterbalance greed".

Benign neglect is giving way to belated concern. Timothy Geithner, the President of the New York Fed, has warned that the changes in markets may make financial crises less common but more severe. Glen Stevens, the Australia Central Bank head, has speculated that hedge funds are in crises users rather than providers of liquidity. UK's Financial Services Authority has identified conflicts of interest in the relationship between banks and hedge funds as well as operational risks.

Hedge Funds Ate My Lunch?

There is a temptation to dismiss the masters of the universe, their culture of risk the hedge funds and the extreme money games as peripheral to "real" life. After all, fast and foolish money will always find a way to play extreme sports. Isn't it just a case of a few rich investors playing around with their courtesans who got more excitement than they bargained for?

Hedge funds affect all of us – directly and indirectly. Your money – your savings, your retirement funds, the money you invest in banks – increasingly finds it way into the hands of hedge funds. Corporate or government pensions and defined benefit schemes are a thing of the past. The investment performance of hedge funds - preservation of capital and returns - will shape your senior years and the ability of company pension funds to meet their liabilities.

[23] See Robert Wade (November 1998) "The Asian Financial Crisis and the Global Economy" at www.wright.edu; quoted in The Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 141.
[24] Quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 110.

Hedge funds also affect us indirectly. In 1997, the attacks on the overvalued currencies of Asian countries helped bring about deep recessions resulting in the collapse of companies, massive unemployment and social unrest is well documented. Malaysia's Prime Minister Mahathir blamed hedge funds[25]: "It was greed; a kind of greed that cares nothing for the destruction caused for the collapse of perfectly healthy and prosperous economies, greed that thrives on the misery of others". Mahathir did not refer to the poor government, crony capitalism and corruption that created the conditions for the problems. But the activities of hedge funds undoubtedly exacerbated the severity of the problems. Hedge funds may have colluded in manipulating markets to maximise their returns. In the event of a major shock, hedge funds will sharply increase volatility and the severity of any adjustment.

Any major problems in the hedge fund industry will ultimately affect the stability of the banks and the financial system itself. Hedge funds trade with banks. Banks provide the leverage that hedge funds use. Hedge funds do not really disperse risks. They increase and concentrate them. The rise of ever larger hedge funds and a few ever larger banks servicing them through their prime broking operations exacerbates this.

In recent years, there have been warnings - – the turmoil in credit market in 2005 when General Motors and Ford were downgraded; the emerging market correction in mid 2006; the collapse of Amaranth in 2006; the meltdown in the sub-prime mortgage market in the USA. Commentators have seized these to illustrate the robustness of the system. Banks and financial system emerged seemingly unaffected.

Banks and hedge funds sustained significant losses in each episode that were absorbed by profits or gains in other activities. Low cost of money allowed the problems to be handled without a meltdown. The markets also recovered helped by traders increasing positions, assuming the correction was a "buying" opportunity at "better price levels". Banks sometimes merely bought the portfolio from the distressed hedge fund to avoid potential losses from a forced liquidation of the position. The bank was getting the positions at attractive price levels and hoped they could trade their way out of it.

The greatest concern is concentration of risk. Shortage of trading opportunities means that traders – both in hedge funds and banks – focus on "events" –the emergence of the BRIC economies; commodity prices; corporate actions (mergers, LBOs and bankruptcy). There are innovations - Volatility Swaps (bets on the level of volatility), Correlation Swaps (bets on correlation) and Gamma/Dispersion Swaps (bets on both volatility and correlation). Hedge funds use them to further leverage up their bets on the "big" stories. The tremendous volatility created by relatively minor events points to the explosive build-up of risk concentration.

[25] Quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 144.

Matthew Lynn, writing in UK's *Sunday Business*, warned[26]: "…the risk to the stability of the world's financial system posed by the existence of these massive vehicles has not gone away. We have chosen, in the main, not to think about it – in the same way that wives sometimes choose not to think about whether their husbands are really working late at the office. The implications of thinking about it are just too scary".

Courtesans played pivotal roles in the rise and fall of empire. Hedge funds may yet play such a role. If a major event occurs then the effect on the masters of the universe and the extreme money games may seriously damage the financial system and economy. Taxpayers will bear the losses. Ian Macfarlane, then the head of the Australian Central Bank, observed[27]: "Hedge funds have become the privileged children of the international financial scene, being entitled to the benefits of free markets without any of the responsibilities".

The popular investment consensus is that hedge funds, alternative investments, should be a part, indeed a growing part, of your investment strategy. Galbraith's observed: "The conventional view serves to protect us from the painful job of thinking." There is peer pressure. "In any great organization it is far, far safer to be wrong with the majority than to be right alone". Galbraith again!

In any major global city today, you can find homeless people - "sleeping rough". They are the dark underbelly of capitalism. Passing people rarely look at them, mysteriously drawn to their companion or their PDA, mobile phone or Blackberry™. If you look into those eyes, then you see resignation, hopelessness, despair and occasionally defiance. Why are they there? Substance abuse, mental illness, just sheer bad luck! I fear a future when many us will be on the streets. Etched into the tattered piece of cardboard will be our story: "Please help. Hedge Funds Ate My Money!"

[26] See Matthew Lynn "Financiers Play With Fire Again" (9 April 2000) Sunday Business; quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 141.
[27] Quoted in Peter Temple (2001) Hedge Funds: The Courtesans of Capitalism; John Wiley & Sons, Chichester at 133.

The draws on material from ***Traders Guns and Money: Knowns and Unknowns in the Dazzling World of Derivatives*** by Satyajit Das (2006, FT - Prentice Hall, London, ISBN 0273 70474 5) available at all good book stores, online booksellers or online directly from the publisher at www.pearson-ed.com.

Satyajit Das works in the area of financial derivatives and risk management. He is the author of a number of key reference works on derivatives and risk management. His works include ***Swaps/ Financial Derivatives Library – Third Edition*** (2005, John Wiley & Sons) (a 4 volume 4,200 page reference work for practitioners on derivatives) and ***Credit Derivatives, CDOs and Structured Credit Products –Third Edition*** (2005, John Wiley & Sons). He is the author of ***Traders, Guns & Money: Knowns and Unknowns in the Dazzling World of Derivatives*** (2006, FT-Prentice Hall), an insider's account of derivatives trading and the financial products business filled with black humour and satire. The book has been described by the Financial Times, London as "*fascinating reading … explaining not only the high-minded theory behind the business and its various products but the sometimes sordid reality of the industry*". He is also the author (with Jade Novakovic) of ***In Search of the Pangolin: The Accidental Eco-Tourist*** (2006, New Holland), an unique travel narrative offering passionate and often poignant insights into the natural world and the culture of eco-travel.