Hedge Fund Investing

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Invest for the Long-term

If you don't feel comfortable owning something for 10 years, then don't own it for 10 minutes.

Warren Buffet (according to Wikiquote)
What is a Hedge Fund?
What is a Hedge Fund?

Regulation
- Tries to avoid regulation in order to allow flexible trading

Actively Trading
- Active trading helps to capture risk premia and control risk
- Significant variation in risk over time and across positions

Raises External Assets
- Manager mostly compensated with performance fee

- Not a mutual fund. Mutual funds want to maximise distribution
- Not long-only or venture capital, or private equity
- Not an in-house trading desk

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Key Differences Between Hedge Funds and (Usual) Funds

- Absolute return objective (10% to 25% per year) versus relative returns (out-performance of an index)
- Often clearly stated risk objective, e.g. 15% p.a.
- Market volatility presents opportunities since hedge funds can trade from both the long and short of the market
- Managers compensation is primarily based on performance, not based on the size of the assets under management (better aligning interests of managers with investors)
- Many funds are closed or give an explicit size at which they will close
  - Limited capacity for most strategies, managers try to grow by steps, e.g. 100 MUSD, 400 MUSD, 1000 MUSD in order to avoid failure
  - Successful Managers often return assets to investors
- Many funds are very secretive

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Hedge Fund Fees

- The fee structure is homogenous:
  - A management fee of a 1–3% p.a. and,
  - An incentive fee of 10%–30% of profits
  - Often a reference rate must be met before incentive fees are paid, e.g. 3 month T−bill + 200 bp.

- Incentive fee gives incentive and protects from "earnings dilution" due to size constraints of a particular strategy

- High watermark
  - The manager only receives the incentive fee on new "highs", typically calculated monthly or quarterly.
  - Reduces risk taking incentives of managers
  - Locks in investors when the fund is in "drawdown" (100% participation in first profits). At the same time, gives managers incentives to close and start fresh.
  - Gives managers a downside
Drawdowns and Performance Fees

CSFB-Tremont Managed Futures

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How do they make money?
Sources of Returns in Financial Markets

1. Taking a priced risk
   - Equity risk, Term premium, Liquidity premium
   - Does not disappear if spotted by investors
   - Easy – Can often be captured using passive, or systematic trading methods

2. Exploiting a price inefficiency
   - Pure arbitrage, Statistical arbitrage, Risky arbitrage
   - Hard to capture, often very information intensive

3. Exploit superior information
   - Know the impact of events before other investors
   - Disappears when spotted by investors
   - Hard to capture, often very information intensive
Example: Average Daily Trading Profits

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Profits</th>
<th>Commissions</th>
<th>Transaction Taxes</th>
<th>Net Total</th>
<th>of Market Cap p.a.</th>
<th>≈ 0.4 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profits</td>
<td>178.0</td>
<td>-25.6</td>
<td>-27.0</td>
<td>125.4</td>
<td></td>
<td>0.4 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individuals</th>
<th>Profits</th>
<th>Commissions</th>
<th>Transaction Taxes</th>
<th>Net Total</th>
<th>of Market Cap p.a.</th>
<th>≈ 1.5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profits</td>
<td>-178</td>
<td>-216</td>
<td>-228</td>
<td>-622</td>
<td></td>
<td>1.5 %</td>
</tr>
</tbody>
</table>

- It is easy to lose money, hard to profit

How Much Can Hedge Funds Make?

**Market Neutral**
Size of Stock Market x % Losers x Trades per year x Loss per trade x Efficiency of Hedge funds
$36000 bn x 20% x 1 x 1% x 20% = $14bn

**Timing**
Size of Stock Market x Valuation Change x Efficiency
$36000 bn x 10% x 10% = $360bn

**Long Only**
Size of Stock Market x Equity Risk Premium
$36000 bn x 5% = $1800 bn

**Cf. Momentum** Our best known inefficiency
Are Momentum Profits Robust to Trading Costs? By Robert Korajczyk and Ronnie Sadka -> Capacity less than USD $ 5bn, Max profits around $100m p.a.

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Hedge Fund Expectations

- Equity related hedge funds $500bn
- Fees 3% p.a. = $15bn
- Profits 6% p.a. = $30bn
- Total return expectation $45 bn p.a.

-> Returns, if any, will not be pure Alpha returns.
-> Most potential returns are available long–only
-> Hedge funds focus on risk control. Allocate only when risk control is needed.

Cf. Opportunities
Market Neutral $14bn
Market Timing $360bn
Equity Risk Premium $1.800bn

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Alpha means Risk Control

Equity Hedge Funds versus Broad US Equity

Source: Reuters EcoWin

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Hedge Fund Trading Risk is falling

Annualised Individual Hedge Fund risk

Equal Weighted
Asset Weighted
Historical Performance of Alternatives | January 1997–December 2012

Value of an Initial $1,000 Investment

Source: Altegris | Indexes: Long/Short (L/S) Equity: HFRI Equity Hedge (Total) Index; Global Macro: Barclay Global Macro Index; L/S Fixed Income: HFN Fixed Income (non-arbitrage) Index; Managed Futures: Altegris 40 Index; U.S. Stocks: S&P 500 Total Return Index
Blow-Up Risk

A financial loss sufficiently large to undermine the business of the hedge fund.
Victor Niederhoffer loses >100%
Hedge Fund Liquidation
It is generally easy to start a
Liquidation Frequency

- 30% of newly started funds close within 3 years (Brooks and Kat, 2002)
- 40% of newly started funds close within 5 years (Amin and Kat, 2003)
- 27% of funds fail within the first two years. (Howell, 2001)
- 8.8% annual attrition rate (Getmansky, Lo and Mei, 2004)
- In 2001–03, 13% of long/short funds liquidated each year (Getmansky, Lo and Mei, 2004).
- The average hedge fund liquidates after 6.5 years (Rouah, 2005)

Source: Rouah 2005
Attrition Rate

Percentage of funds liquidated each year

- Convertible Arbitrage: 5%
- Emerging Markets: 9%
- Equity Market Neutral: 8%
- Event Driven: 5%
- Fixed Income Arbitrage: 11%
- Global Macro: 13%
- Long/Short Equity: 8%
- Multi Strategy: 8%
- Fund-of-Funds: 7%

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Attrition is Higher For Funds With

- Low Absolute Performance
- Low Relative Performance
- High Return Volatility
- High Leverage
- Low assets under management
- Low Age
- Low Fees
- Low Fee Income
- Asset Outflows
- Far from high-watermark
Problems when a Fund Liquidates

- Finding alternative use of the capital with short notice
- Investor forced to realise tax loss/profit
- Unwanted exposure from the press, board or superiors.
- Loss of high-water-mark
- Significant management time may be required

➢ Hedge fund liquidation is an important risk for institutional investors!
A Bang or a Fizzle?

Some Hedge fund go with their "15 minutes of fame" as they suddenly lose investor confidence

- LTCM, Amaranth, Motherrock, Victor Niederhoffer, Sowood, Bear Stearns, DKR Commodity Arbitrage, Latitude, Basis Capital, Absolute Capital, Jaguar

But hedge fund liquidations are not dramatic. Often liquidations are completely anonymous and many fail even before they launch

- Axiom, Kreon, Coromandel, Elysium, Moose, Alinpa, Beach, Enso Macro, Equalt, Gregersen & Partners, PV Capital, Hirst Currency, Georgica, WoodAllen, Big Sky, ....
Porter 5 Forces analysis

- Medium: Bargaining Power of Customers
- Very High: Threat of New Entrants
- Medium: Bargaining Power of Suppliers
- Low: Threat of Substitute Products
- Competitive Rivalry within an Industry

Main Industry Drivers

Low Barriers to Entry, No Barriers to Exit
- Trading models are well known
- Many service providers, often offering contingency fees
- High turnover of both managers and investors

Large Returns to Scale
- Enormous pay-offs to successful managers

Asymmetric Information
- Difficult to compare performance
- Skills are mostly visible on the down-side. In many cases past performance is irrelevant
- Large components of performance is random

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Hedge Funds as Hollywood 1/2

Enormous in-flow of hopefuls
- It is always worth a try
- High turnover of individuals and organisations

Reputation and connections are key resources
- Building trust is difficult
- Many hedge funds start from banks or fund managers

Very limited price competition.
- Performance fees are necessary to maintain some incentives. Investors are often unable to bargain
Hedge Fund Size Distribution

- Tiny <5M: 17%
- Small 5-25: 28%
- Average 25-100M: 33%
- Large 100-500M: 17%
- Very Large >500M: 5%

Source: vanhedge.com
Hedge Funds as Hollywood

Complex Environment

- Few managers know the competitive environment.
- Most truly believe they are above average
- Hard to understand what happens
- Contacts matter a lot

Many types of intermediaries,

- capital introduction, fund-of-funds, advisors, angel investors, conference organisers etc.
Investor Confidence is Key

PALMA DE MALLORCA, Spain, September 18
To: ACMH Shareholders and Investors

In the recent market, I have become concerned with the performance of certain of our funds. My dedication to ACMH's investors is such that, I donated 5 million shares of ACMH, worth approximately EUR33 million to the funds last month. This move was consistent with other firms in the industry which have contributed their own capital in order to help investors ride out the instability in the markets. As a result of my actions, those funds ended up positive or neutral for the month.

...

It is apparent that I share a different investment and management philosophy from the current and prior management of ACMH. Therefore, I have decided that it is time that I left the company I founded to focus on other pursuits. I am resigning effective Wednesday, 19th September 2007.

...

Yours sincerely,
Florian Homm
Before:
Fund management company Absolute Capital Management Holdings has increased its assets under management by 165 per cent since 30 June 2006 to USD3.2bn. (Hedgeweek)

After:
The company's shares rose ... 4.1 percent, to 50.5 pence ... The stock closed at 400 pence a week ago. (www.bloomberg.com)
2010 On-Shore Hedge Fund Strategy distribution by AUM

Source: Eurekahedge

- Multi-Strategy: 47%
- Macro: 15%
- Long/Short Equities: 16%
- Event Driven: 7%
- Fixed Income: 10%
- CTA Managed Futures: 1%
- Arbitrage: 2%
- Relative Value: 1%
- Others: 1%

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Is it profitable to start a hedge fund?

- Fees are high, perhaps 4% per year on average, but so are costs.
- Typically a fund needs 50 MUSD in order to be reasonably profitable
  - 2% management fee incentive: 1 MUSD
  - 20% performance fee on 10% excess return – 1 MUSD
- Cost-conscious funds need less capital to break even
  - Many new funds started by existing managers
  - Since professional salaries are lower in Europe, European funds can be smaller.
- Low risk funds need much more capital
- Several hedge fund managers have had years where they made 100 MUSD, e.g. Soros, Renaissance
Remember!

Not all profits are available to hedge fund investors!

- CSFB Tremont Long–short Index
  - Reported 6.76% p.a. (36 months)
  - Investable index 3.66% p.a. (36 months)

- HFR
  - Fund–weighted 8.9% p.a. (36 months)
  - Fund–of–funds 5.5% p.a. (36 months)
  - Fund–of–funds ex fees 7.5% p.a. (36 months, guesstimate)

- Law of large numbers work against us!
- Good capacity is taken by insiders
Possible Outcomes of a Due Diligence Process

Manager is ‘Good’

Accept
Accept a good manager
Correct Analysis. No Problem

Reject
Reject a good manager
Surprising loss but Real Investment Skill. Small Problem before investment. Big problem after investment

Manager is ‘Bad’

Accept
Accept a bad manager
Good track record, Good CV but No Real Investment Skill. Really Big Problem!

Reject
Reject a bad manager
Correct Analysis. No Problem

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All happy families resemble one another, each unhappy family is unhappy in its own way.

Leo Tolstoy, *Anna Karenina* (1875–77)
How to Recognise Good Managers?

Qualities are typically easy to identify:
- Good People, Strong Administration, Skilled Team, Neat Office, Full Focus on the Business, Like what they Do, Work with top-class service providers, Serious Research, Diplomas, .....  

Weaknesses are more difficult to spot. Some clues:
- Dependence on few models, markets or market phenomena.
- Absence of development. Unique models, Constantly Changing models, Multiple programs, Simulated Performance exceeds what is reasonably possible.
Remember

- The more managers you evaluate, the more likely it is that you will make a mistake.
- It is easier to make mistakes with idiosyncratic trading styles.
- Do Not Use Quantitative Criteria More Than Once
  - Quantitative criteria can be used for initial screening, but are very dangerous in later stages of the investment process.
"Markets can remain irrational longer than you can remain solvent."

J.M. Keynes
NASDAQ and My Sell Recommendations

It is impossible to short a bubble!
Fundamental trading

- Trading on fundamentals is one of the most common ways to profit in financial markets
- Market prices can diverge from fundamentals
  - for several years and by orders of magnitude
- Fundamentally based trading is therefore very risky and requires very explicit risk controls.
- In addition to direct losses there is also opportunity cost.
- Long-term strategies are particularly risky.

**We address the risks by**

- Finding ways to trade selectively.
  - Technical indicators, multiple time frames, options, stop losses
- Diversifying
In March 2000, Julian Robertson announced the closing of the Tiger funds blaming “irrational markets” for the fund’s poor performance. His statement was: “Earnings and price considerations take a back seat to mouse clicks and momentum”. Approximate assets in 1998: USD 4 bn

At the same time George Soros cut back his $8.5 billion Quantum Fund after having faced huge double-digit losses. Evidently the two largest Macro players were unable to cope with “irrational markets” during the second half of 1999 and first quarter of 2000. [Lars Jaeger].
You know the risk only when you see it
You know the risk only when you see it
Points to Remember

No Manager is Unique
- It may require work, but you can always find another manager with similar skills.

Skills can only be seen on the downside
- Track records with only positive months never tell the whole story.

Hedge Funds is a ‘People Business’
- Picking a hedge fund is similar to deciding on dentists or plumbers
- Make sure to build relationships both with managers and other investors
Points to Remember …

Survivorship bias is everywhere
- You will only be contacted by surviving funds.
- They will only call after a string of good news.
- Only surviving funds will offer you a job
- You will start your own fund when you have been lucky

Verify all claims
- Against audit reports, employers, other investors, market opportunities