Introduction to Hedge Funds – Strategies

- Educational Presentation #2 – Hedge Funds
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- Sources: Pitchbook, Bloomberg, HFR, FT, Investopedia, Hedgeweek, Aurum, company websites

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Section I: Hedge Fund Overview

Overview, Objectives, and Key Characteristics

What are Hedge Funds?

- **Private Investment Pools**: Hedge funds gather capital from accredited investors, aiming for high returns through active management and complex strategies
- **Exclusive Access**: Often only open to UHNWIs and institutions due to the high-risk nature and regulatory requirements

Core Objectives

- **Absolute Returns**: Strive to generate positive returns regardless of market conditions, using strategies that may involve betting on or against various assets
- **Risk Management**: Use diverse methods to control risk, including hedging, i.e. taking an offsetting position to reduce potential losses

Key Characteristics

- **Flexible Strategies**: Invest in a wide range of assets including stocks, bonds, derivatives, currencies and use leverage to amplify potential gains and risks
- **Low Liquidity**: Typically require long lock-up periods and advance notice for redemptions, limiting investors’ ability to withdraw funds

Key Terms

Alpha

- Alpha measures the extra, risk-adjusted return of an investment over a benchmark index
- It reflects a manager's ability to exceed market returns through active management
- Positive alpha shows outperformance; negative alpha shows underperformance

Beta

- Measures a fund's systematic risk relative to the market

Beta = 1 → Fund moves in sync with market fluctuations
Beta < 1 → Fund carries less systematic risk than the market
Beta > 1 → Fund carries more systematic risk than the market

Fee Structure

- Hedge funds often have a "2 and 20" fee structure, that includes a 2% management fee on AUM and a 20% performance fee on profits
- The hurdle rate sets the minimum return that must be reached before performance fees can be collected

Gross and Net Exposure

- Gross exposure represents the total percentage of long and short positions of a fund's portfolio combined
- Net exposure calculates the difference between the long and short positions within a fund's portfolio
- For example, a hedge fund with 70% long and 30% short would have a 100% gross exposure, and 40% net exposure

Section II: Strategies

Long / Short Equity

Definition	Main players

Definition: Strategy that involves taking long positions in undervalued stocks and short positions in overvalued stocks to capitalize on market inefficiencies

Long positions: Buying stocks expected to rise in value. Profits are made when the stock price increases

Short positions: Borrowing stocks, and then selling them with the expectation of buying them back at a lower price. Profits are realized when the stock price declines

Market conditions: Effective in varying market conditions—beneficial during both bull markets (through long positions) and bear markets (through short positions)

Performance metrics: Evaluated using metrics like alpha and beta to measure effectiveness

Point72

- **Founder:** Steven A. Cohen
- **Founded:** 2014 (1992)
- **Strategy:** Multi strategy incl. L/S
- **Annual Returns (2023):** 9.7%

CITADEL

- **Founder:** Kenneth C. Griffin
- **Founded:** 1990
- **Strategy:** Multi strategy incl. L/S
- **Annual Returns (2023):** 14.3%

Long / Short Equity – Case Study

Involved Parties:

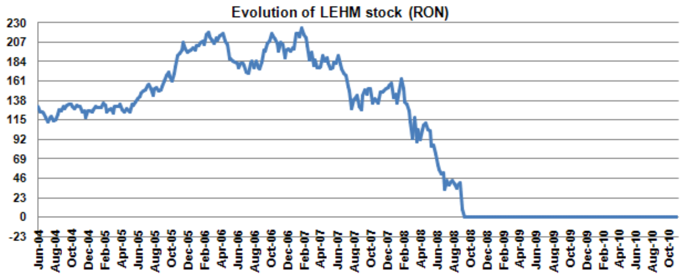
- **Name**: Greenlight Capital
- **Founder**: David Einhorn
- **Founded**: 1996
- **Type**: L/S hedge fund

- **Name**: Lehman Brothers
- **Founder**: Henry Lehman and brothers
- **Founded**: 1850
- **Type**: Investment bank

Trade / Results / Performance:

- **Trade:** Greenlight takes short position against Lehman Brothers in early 2008, totalling approximately $1 bn

- **Results:** Lehman files for bankruptcy in September 2008, resulting in an approx. profit of $1 bn for Greenlight



Conclusion: David Einhorn's Greenlight Capital exemplifies the L/S equity strategy through its famous short position against Lehman Brothers. By identifying Lehman’s vulnerabilities, particularly its risky real estate exposure, Greenlight profited around $1 bn when Lehman filed for bankruptcy in September 2008. Greenlight achieved an alpha of 28% that year, outperforming the S&P 500, which had a beta of -1.6.

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Different Types of Long / Short Hedge Funds

Market Neutral

- **Objective**: Aim to maintain balanced long and short positions to eliminate market risk, typically targeting a net exposure of 0% while having a gross exposure of 100%
- **Strategy**: By focusing on stock selection, these funds profit from the price differentials between undervalued long positions and overvalued shorts, allowing returns that are independent of market movements

Directional

- **Objective**: Aim to capitalize on market trends by maintaining a bias toward either long or short positions, often reflecting a net exposure that skews heavily in one direction (e.g., 130% long and 30% short)
- **Strategy**: Adjust exposure based on market forecasts, making them potentially more vulnerable to market movements than neutral strategies, thereby increasing both potential returns and associated risks

Sector Specific

- **Objective**: Concentrate only on particular industries, allowing managers to exploit sector-specific trends and inefficiencies while maintaining flexible net and gross exposures tailored to their targeted market
- **Strategy**: By leveraging deep industry knowledge, these funds aim to select the best-performing stocks for long positions while shorting those perceived as overvalued

Global Macro

Definition	Main players

Definition: Strategy that focuses on macroeconomic trends to make investment decisions across various asset classes, including currencies, commodities, bonds, and equities

Economic analysis: Global macro funds use complex econometric models to analyse major economic indicators—such as GDP growth, inflation, and interest rates—to forecast economic shifts and identify investment opportunities

Diversification: The strategy seeks to capitalize on political or economic events that influence markets globally, positioning for outcomes like central bank rate changes, geopolitical events, or major trade agreements

Volatility Management: The strategy can be effective in volatile markets, allowing managers to profit from price swings driven by geopolitical events, economic reports, and central bank policies

BRIDGEWATER

- **Founder:** Ray Dalio
- **Founded:** 1975
- **Strategy:** Multi strategy incl. macro
- **Annual Returns (2023):** -3.6%

Man

- **Founder:** James Man
- **Founded:** 1783
- **Strategy:** Multi strategy incl. macro
- **Annual Returns (2023):** 0.9%

Global Macro – Case Study

Involved Parties:

- **Name**: Quantum Fund
- **Founder**: George Soros
- **Founded**: 1973
- **Type**: Global macro hedge fund

- **Name**: Bank of England
- **Founder**: William Paterson
- **Founded**: 1694
- **Type**: Central bank

Trade / Results / Performance:

- **Trade:** Soros takes a short position of approx. $10 bn against the British pound in 1992
- **Macroeconomic reasons:**
  - **ERM Challenges:** Britain joined the European Exchange Rate Mechanism (ERM) at a high exchange rate, overvaluing the pound
  - **Interest Rate Misalignment:** High UK interest rates strained the economy and diverged from Germany's rates, which were rising due to reunification
- **Result:** The UK exits the ERM on September 16, 1992 (Black Wednesday) and Soros's Quantum Fund gains approx. $1 bn

Conclusion: George Soros's Quantum Fund exemplifies the global macro strategy through its short position against the British pound. Soros recognized the UK's overvaluation and anticipated that the Bank of England would have to exit the ERM, which was intended to maintain currency stability. When Britain left the ERM in September 1992, the pound crashed, yielding around $1 bn in profits for Soros' Quantum Fund.

Different Types of Global Macro Hedge Funds

Discretionary

- **Objective**: Aim to profit from broad market trends by constructing portfolios based on the manager's top-level views of the global economy, allowing them to be highly adaptable in various market conditions

- **Strategy**: Take long or short positions across multiple asset classes, leveraging the manager's insights and forecasts to capitalize on perceived mispricings and shifts in market

Commodity Trading Advisor (CTA)

- **Objective**: Focus on identifying price trends in various markets, aiming to generate returns through systematic trading strategies based on market prices rather than overarching economic views

- **Strategy**: Utilize algorithmic models and trend-following techniques to execute trades in futures and options, allowing to profit from market movements driven by price trends rather than fundamental analysis

Systematic

- **Objective**: Combine both fundamental analysis and algorithmic trading to generate returns, aiming to capitalize on macroeconomic trends and price movements across global markets

- **Strategy**: Employ quantitative models informed by economic data to build diversified portfolios and execute trades that leverage both qualitative insights and algorithmic precision

Event-Driven

Definition	Main players

Definition: Strategy that seeks to capitalize on price movements resulting from specific events such as mergers, acquisitions, restructurings, or other corporate actions

Merger Arbitrage: Involves buying shares of a target company in a merger while shorting shares of the acquiring company, profiting from the spread between their prices as the deal closes

Distressed Securities: Investing in companies facing financial distress, where funds anticipate recovery or restructuring, aiming for substantial returns if the company improves

Activist Investing: Funds may acquire significant stakes in companies to influence management decisions, often pushing for strategic changes to unlock shareholder value

Pershing Square Holdings

- **Founder:** Bill Ackman
- **Founded:** 2004
- **Strategy:** Multi strategy incl. event-driven
- **Annual Returns (2023):** 19.6%

ELLIOTT

- **Founder:** Paul Singer
- **Founded:** 1977
- **Strategy:** Multi strategy incl. event driven
- **Annual Returns (2023):** 8.8%

Event-Driven – Case Study

Involved Parties:

- **Name**: Elliott Management
- **Founder**: Paul Singer
- **Founded**: 1977
- **Type**: Multi strategy incl. event driven hedge fund

- **Name**: Government of Argentina
- **Founded**: 1816
- **Type**: Sovereign government

Trade / Results / Performance:

- **Trade:** After Argentina's debt default, Elliott purchased bonds in 2001 at a massive discount and pursued repayment through legal means instead of settling for restructured debt
- **Events triggering the trade:**
  - **Argentina's Default:** Created distressed debt opportunities; most creditors restructured, while Elliott sued
  - **Legal Leverage:** A U.S. ruling backed Elliott's claim, intensifying Argentina's debt pressures
- **Result:** In 2016, Argentina settled with Elliott for approx. $2.4 bn, offering an estimated 4x return

Conclusion Elliott's Argentine debt position exemplifies the event-driven strategy, as it capitalized on a specific event—Argentina's default—and pursued unique legal and financial methods to generate returns. Elliott's proactive approach to this event transformed a distressed asset into a high-yielding investment, marking one of the most profitable sovereign debt disputes in hedge fund history.

Different Types of Event-Driven Hedge Funds

Merger Arbitrage

- **Objective**: Target M&A deals, betting on the likelihood of successful closing
- **Strategy**: Take long positions in the target company's shares while shorting the acquirer's shares, aiming to profit from the spread between the acquisition price and the market price during the deal's execution

Distressed / Restructuring

- **Objective**: Concentrate on investing in companies facing financial difficulties or entering bankruptcy proceedings
- **Strategy**: Purchase the debt or equity of struggling firms at a significant discount, anticipating recovery or successful restructuring. The potential for high returns exists if the company's situation improves

Activist

- **Focus**: Influence companies' management and strategic decisions by acquiring significant stakes in them
- **Strategy**: By pushing for specific changes activist investors seek to unlock shareholder value. Their success is predicated on the belief that these changes will result in stock price appreciation

Quantitative

Definition	Main players

Definition: Relies on mathematical models and statistical analysis to identify market inefficiencies across various asset classes

Data-driven: Utilize extensive data, including historical prices, market indicators, to inform trading decisions and develop predictive models

Algorithmic Trading: Many quant funds utilize algorithms to execute trades automatically, optimizing timing and reducing emotional bias in trading decisions

Risk Management: Strategies include risk management techniques, employing models to assess and limit exposure across positions

Performance metrics: Evaluated using metrics like alpha, Sharpe ratio (risk-adjusted return), and maximum drawdown (largest decline)

Renaissance

- **Founder:** Jim Simons
- **Founded:** 1982
- **Strategy:** Quantitative
- **Annual Returns (2023):** Not disclosed

D E Shaw & Co

- **Founder:** David E. Shaw
- **Founded:** 1988
- **Strategy:** Quantitative
- **Annual Returns (2023):** 9.6%

Quantitative – Case Study

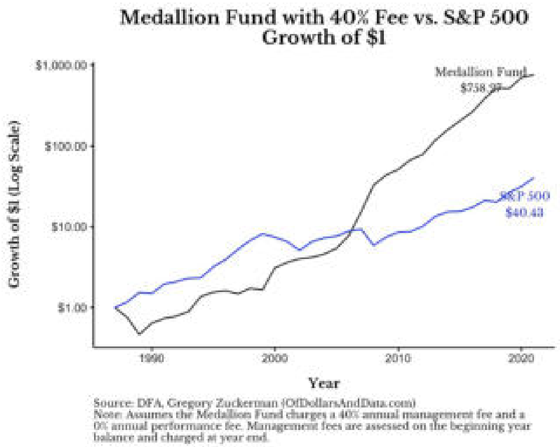
Involved Parties:

Renaissance

- **Name**: Renaissance Technologies
- **Founder**: Jim Simons
- **Founded**: 1982
- **Type**: Quant hedge fund

Quant Strategy:
Jim Simons – ”The Man who Solved the Market” – and his Medallion Fund employed high-frequency algorithms and machine learning to exploit market inefficiencies across stocks, futures, and currencies.

Results:



Result:
Achieved consistent annual returns of over 66% before fees and 30% (net of fees) for three decades, setting the standard for quant hedge funds

Conclusion: Jim Simons’ Renaissance Technologies set a historic benchmark for quant hedge funds by combining data science with finance. The Medallion Fund demonstrated the impact of these strategies, with average net returns exceeding 30%, marking it as one of the most successful hedge funds in history. It showcases the quant strategy's ability to “crack the code” of market patterns over traditional investments.

Types of Quantitative Hedge Funds

Statistical Arbitrage

- **Objective**: Aim to exploit short-term pricing inefficiencies in the market by executing numerous trades based on statistical relationships between securities
- **Strategy**: Utilize mathematical models to identify mispriced assets, executing high-frequency trades to capitalize on statistical correlations and revert to mean prices

Algorithmic Trading

- **Objective**: Seek to enhance trading efficiency and reduce execution costs by using algorithms that execute trades at optimal times and prices
- **Strategy**: Develop automated trading strategies based on quantitative analysis and real-time data, allowing to react swiftly to market changes and capitalize on trading signals

Market Making

- **Objective**: Provide liquidity to financial markets while profiting from the bid-ask spread by continuously buying and selling securities across different markets
- **Strategy**: Implement algorithms to manage inventory and balance risk, ensuring that trades are executed at advantageous prices while maintaining adequate liquidity

Factor-Based

- **Objective**: Target specific factors (like value, momentum, or size) believed to drive long-term returns, aiming to construct portfolios that maximize exposure to these factors
- **Strategy**: Analyse large datasets to select securities based on factor characteristics, employing quantitative models to optimize portfolio construction and adjust exposure

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