Αμοιβαία Κεφάλαια και Εναλλακτικές Επενδύσεις

Αμοιβαία Κεφάλαια, ETFs και Hedge Funds

Alternative Investments

- Alternative assets refer to alternative asset classes (assets other then plain equities and bonds).
- Examples include hedge funds, private equity, real estate, commodities, art, etc.
- These investments usually involve less liquidity, longer time horizons and difficulties in establishing fair valuation.

Purposes of Investing in Alternative Investments

- **Reduced Risk through Diversification**. A primary goal of alternative investing is to reduce risk through diversification. One of the distinguishing features of most alternative investments is their lack of correlation with the major traditional asset classes of public equities and public fixed-income assets. A portfolio containing a variety of alternative assets may offer reduced risk without a proportionate reduction in expected return.

Purposes of Investing in Alternative Investments

- **Enhanced Return through Alpha**. A second major goal of alternative investing is to enhance the expected return of a portfolio by acquiring alternative assets that offer reasonable expectations of alpha—that is, superior risk-adjusted returns. Alternative investing has a track record of offering opportunities, including hedge funds and private equity, that can enhance the risk-adjusted returns of well-diversified portfolios through alpha.

- **Avoiding Obsolescence.** The asset classes viewed as appropriate for institutional investing have changed dramatically over time. The asset classes used in the future for institutional investing will continue to change.

Mutual Funds

What is a Mutual Fund?

- A **mutual fund company** is an **investment company** that receives money from investors for the sole purpose to invest in stocks, bonds, and other securities for the benefit of the investors.
- A **mutual fund** is a pool of money managed by a professional money manager.

Mutual Funds

- Mutual funds can be classified into one of two categories, depending upon the liquidity they provide to their investors.
  - An **open-ended fund** is available for subscriptions and redemptions on a continuous basis. Investors can conveniently buy and sell units at Net Asset Value (NAV) related prices which are declared on a daily basis.
  - A **close-ended fund** is open for subscription only during a specified period at the time of launch of the scheme which is the New Fund Offer (NFO). Investors can invest in the scheme at the time of the NFO and thereafter, they can buy or sell the units of the scheme on the stock exchanges where the units have to be mandatorily listed.

Important Definitions

- Net asset value (NAV)
- Factsheet
- Actively managed funds vs passively managed funds
- Turnover
- Fees

Net Asset value

- The net asset value (NAV) of a mutual fund is the value of the investment company's assets minus its liabilities, stated on a per-share basis.

- The share price of an open-end fund will always equal the NAV since the investment company is obligated to redeem shares at any time at this value.

- The share price of a closed-end fund may or may not equal the NAV (i.e. it may trade at a premium or at a discount to the actual NAV) since the share price is determined in the secondary market.

Net Asset value

- **Example**: Let's assume at the close of trading yesterday that a particular mutual fund held $10,500,000 worth of securities, $2,000,000 of cash and $500,000 of liabilities. If the fund had 1,000,000 shares outstanding, then yesterday's NAV would be:
- NAV = ($10,500,000 + $2,000,000 - $500,000) / 1,000,000 = $12.00

Factsheet

- A mutual fund factsheet is a basic three-page document that gives an overview of a mutual fund. For potential investors, this is a necessary and easy report to read before delving more deeply.

Factsheet

- The fact sheet will give you the following information:
  - ***Fees:*** Before you buy a fund, you need to analyze what fees it comes with. Good returns can be easily obliterated by high fees.
  - ***Risk assessment:*** The fact sheet will show how risky a fund is. The choice to invest in a certain fund should ideally be consistent with your risk profile.
  - ***Returns:*** The fact sheet will usually show the fund's results over the last 10 years. This is crucial to know before you buy a fund, as it gives a sense of the fund's history and current trajectory.
- You can find the fact sheet on the fund's company website.

fact-sheet-global-allocation-60-40.PDF

Passively Managed Funds

- Passively managed funds (or index funds) seek to track (or even mimic) an underlying securities index (or benchmark) and achieve returns that closely correspond to the returns of that index with low fees.
- They generally invest in the component securities of the index and typically have lower management fees than actively managed funds.
- Index funds with seemingly similar benchmarks can actually be quite different and can deliver very different returns. For example, some passively managed funds invest in all of the companies included in an index at the exact same weights as in the index; other passively managed funds invest in a representative sample of the companies included in an index.

Passively Managed Funds

- **Example**: Investor A puts his money in a fund that tracks the S&P 500 Index. A's fund is a passively managed index fund. He pays a 0.06% management fee.
- A's fund mimics the performance of the S&P 500. When the S&P 500 rises 4%, A knows that his money did the same thing. Similarly, if S&P 500 drops by 5%, he knows his money did the same.

Actively Managed Funds

- Actively managed funds may buy or sell components in the portfolio on a daily basis without regard to conformity with an index, provided that the trades are consistent with the overall investment objective of the fund.
- Note that actively managed funds can either report a benchmark, or report no benchmark at all.
- Usually they charge higher fees, compared to passively managed funds.

Actively Managed Funds

- **Example**: Investor B puts her money in an actively managed mutual fund. She pays a 0.95% management fee.
- B's actively managed fund buys and sells all kinds of stocks -- banking stocks, real estate stocks, energy stocks, auto manufacturing stocks. Her fund managers study industries and companies and buy-and-sell based on their predictions of those companies' performance.

Actively Managed Funds

- B knows that she's paying almost 1 percent to those fund managers, which is significantly more than investor A is paying. She also knows that her fund won't track the S&P 500. When the S&P 500 rises by 2%, B can't draw any conclusions about what her money did. Her fund might have risen or fallen.
- B likes this fund because of the possibility of it beating the benchmark. A is stuck to the index; his fund's performance is tied to it. Sheila, however, has a chance of "outperforming," or doing better than, the index.

Turnover

- A measure of how much trading a fund does, calculated as the lesser of total purchases or sales during a year divided by average daily assets.
- **Example**: Suppose a fund had average daily assets of $50 million during 2017. It bought $80 million worth of stocks and sold $70 million during the year. What is its turnover?
- The lesser of purchases or sales is $70 million, and average daily assets are $50 million. Turnover is thus $70/$50 = 1.4 times.

Turnover

- A fund with a turnover of 1 has, in effect, sold off its entire portfolio and replaced it once during the year. Similarly, a turnover of 0.5 indicates that, loosely speaking, the fund replaced half of its holdings during the year. All else the same, a higher turnover indicates more frequent trading and higher trading costs.
- Turnover is more relevant for actively managed funds.

Fees

- The fees charged by the investment companies decrease an investor's return.
- With differences in fees among the different funds, an investor's anticipated holding period (time horizon) will be an important determinant of which class of shares and associated fee structure will be most advantageous.

Fees

- There are numerous fees associated with specific activities, the total of which can vary from .5% to 8.5%, the legal maximum.
- Management fee (main fee) are annual charges for administering the fund, which can vary from about .5% to 2%.
- Distribution and service fees (12b-1 fees) cover marketing expenses to bring in new investors.
- Redemption fees are assessed when shares of the fund are sold, to discourage frequent trading, unless the investor has held the shares for a minimum of time, specified in the prospectus. Most mutual funds do not include any redemption fees.

Fees

- Operating expenses, such as management fees and 12b-1 fees, but not including transaction costs in the buying and selling of securities or fund shares, can be summarized by the expense ratio:

$$\text{Expense Ratio} = \frac{\text{Total Operating Expenses}}{\text{Average Net Asset Value}}$$

What types of funds can I buy?

Asset Class Classification

1. Money Market Funds
2. Bond Funds
3. Balanced Funds
4. Income Funds
5. Equity Funds
6. Specialty Funds

What is a Money Market Fund?

- This type of fund's main objective is to hold investment instruments that are liquid and secure. This type of fund is usually held on a short-term basis and invests in money market securities.
- **Examples**: Short term debt securities, such as Treasury bills and commercial paper.
- One thing an investor should be aware of is that these funds are NOT guaranteed like a fixed deposit, and hold NO fixed return, but are of low risk.

What is a Bond Fund?

- This type of fund's main objective is to provide a steady stream of income, and holds bonds issued by either governments or corporations.
- The risk level of this type of fund will be determined by the guidelines in the prospectus, which will, in turn, determine what type of "rating" and term (years to maturity) of bond the manager is allowed to purchase.

What is a Bond Fund?

Moody's	S&P	Meaning
Investment Grade Bonds		
Aaa	AAA	Bonds of the highest quality that offer the lowest degree of investment risk. Issuers are considered extremely stable and dependable.
Aa1, Aa2, Aa3	AA+, AA, AA-	Bonds are of high-quality by all standards, but carry a slightly greater degree of long-term investment risk.
A1, A2, A3	A+, A, A-	Bonds with many positive investment qualities.
Baa1, Baa2, Baa3	BBB+, BBB, BBB-	Bonds of medium-grade quality. Security currently appears sufficient, but may be unreliable over the long term.
Non Investment Grade Bonds (Junk Bonds)		
Ba1, Ba2, Ba3	BB+, BB, BB-	Bonds with speculative fundamentals. The security of future payments is only moderate.
B1, B2, B3	B+, B, B-	Bonds that are not attractive investments. Little assurance of long-term payments.
Caa1, Caa2, Caa3	CCC+, CCC, CCC-	Bonds of poor quality. Issuers may be in default or are at risk of being in default.
Ca	CC	Bonds of highly speculative features. Often in default.
C	C	Lowest rated class of bonds.
-	D	In default.

What is a Balanced Fund?

- This type of fund's main objective is to hold an optimal mix of investments among cash, equities and fixed income securities.
- This type of fund usually has several managers who specialize in a specific area.
- This type of investment is ideal for someone who wants a better return than a fixed income, but also wants less risk than equity.

What is a Income Fund?

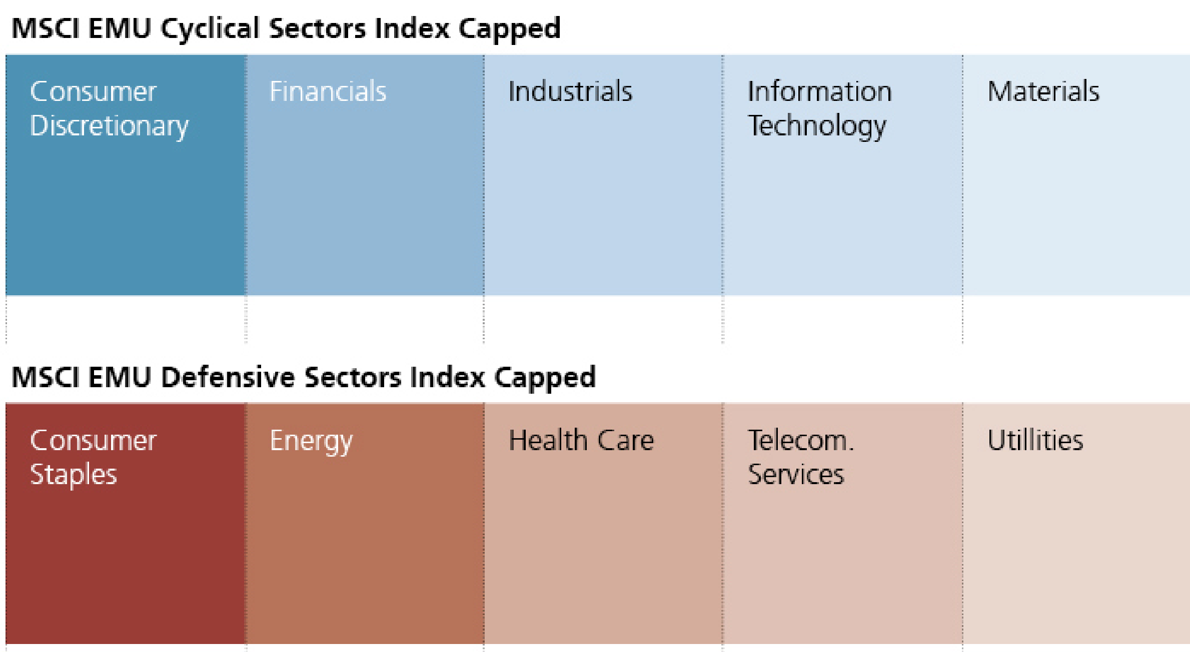
- The aim of income funds is to provide safety of investments and regular income to investors. Such schemes invest predominantly in income-bearing instruments like bonds, government securities, and stocks with high dividend yield.

- The return as well as the risk are lower in income funds as compared to equity funds.

- Similar to balanced funds, income funds invest in both equities and bonds. The difference is that their goal is to provide income through coupons and dividends.

What is a Equity Fund?

- Equity funds invest predominantly in equity and equity related instruments. The objective of such schemes is to provide capital appreciation over the medium to long term. These types of schemes are generally meant for investors with a long term investment horizon and with a higher risk appetite.



What is a Specialty Fund?

- This type of fund's main objective is to concentrate its holdings in one particular sector, geographic region, or in one capital market.

- **Examples**: telecommunications, health care, technology, financial services, European markets or Japan.

  - As you specialize, you minimize diversification, and that results in increased risk.

What are the three different investment styles for equity investing?

- Fund managers have different styles of investing. Their style affects the type of stocks they will purchase, and the price they are willing to pay. This, in turn, affect future returns.

1. **Value**: A manager purchases stocks that offer value at a time when the price of the stock is low, relative to the actual fair or intrinsic value. In other words, the company is selling for less than it is worth (for example small P/E). Usually these stocks generate returns through dividend payments.
    - This is the most conservative approach.

What are the three different investment styles for equity investing?

2 **Growth**: A manager purchases stocks that are deemed to have growth potential, which, in turn, could generate above average returns in the future mainly through capital appreciation.

- Growth investments are usually small- to medium-sized companies, thereby increasing the risk exposure.

3 **Blend**: A blend of value and growth stocks.

- This is a medium-risk way of investing.

What are the benefits of purchasing a mutual fund?

1. Professional management: An average investor lacks the knowledge of capital market operations and does not have large resources to reap the benefits of investment. Hence, he requires the help of an expert. It, is not only expensive to ‘hire the services’ of an expert but it is more difficult to identify a real expert. Mutual funds are managed by professional managers who have the requisite skills and experience to analyse the performance and prospects of companies. They make possible an organised investment strategy, which is hardly possible for an individual investor.

What are the benefits of purchasing a mutual fund?

2. Portfolio diversification: An investor undertakes risk if he invests all his funds in a single scrip. Mutual funds invest in a number of companies across various industries and sectors. This diversification reduces the riskiness of the investments.

3. Reduction in transaction costs: Compared to direct investing in the capital market, investing through the funds is relatively less expensive as the benefit of economies of scale is passed on to the investors.

What are the benefits of purchasing a mutual fund?

4. Liquidity: Often, investors cannot sell the securities held easily, while in case of mutual funds, they can easily encash their investment by selling their units to the fund if it is an open-ended scheme or selling them on a stock exchange if it is a close-ended scheme.

5. Convenience: Investing in mutual fund reduces paperwork, saves time and makes investment easy.

6. Tax benefits: Mutual fund investors enjoy income-tax benefits in some countries.

Fund of Funds

- Fund of Funds (FoF) as the name suggests are schemes which invest in other mutual fund schemes. The concept is popular in markets where there are number of mutual fund offerings and choosing a suitable scheme according to one's objective is tough.
- Just as a mutual fund scheme invests in a portfolio of securities such as equity, debt etc., the underlying investments for a FoF is the units of other mutual fund scheme(s), either from the same fund family or from other fund houses.

Fund of Funds

- One of the biggest criticisms of funds of funds is that they make investing more expensive by adding another layer of annual management and performance fees.
- A fund of funds might charge investors annual management fees of 0.5% to 1% each year to invest its clients' capital in funds that charge another 1% annual management fee. Over time, the additional fee burden makes it difficult for funds of funds to generate good returns for their investors.

Exchange traded fund

- An exchange traded fund (ETF) is a special type of fund that invests in a portfolio of stocks or bonds and is usually designed to mimic the performance of a specified index.
- ETFs traditionally have been index funds, but in 2008 the U.S. Securities and Exchange Commission began to authorize the creation of actively managed ETFs.
- Shares are traded in the secondary market like the shares of a closed-end fund, with the investor having the ability to trade at any time during market hours.

Exchange traded fund

ETFs	**Mutual Funds**
Trade during trading day	Trade once per day
Low operating expenses	Operating expenses vary
No investment minimums	Most have investment minimums
Tax-efficient	Less tax-efficient
ETF might trade at a premium or a discount to its NAV	Buy or sell at NAV

- Another feature unique to ETFs is their use of "in-kind" creation and redemption of shares.
- Exchange specialists, call authorized participants, are established by the fund to ensure an efficient, orderly market in the shares.

Authorized Participant

- When an ETF company wants to create new shares of its fund, for example to meet increasing market demand, it turns to someone called an **authorized participant (AP)**. An AP may be a market maker or any other large financial institution. Essentially, it's someone with a lot of buying power.
- It is the AP's job to acquire the securities that the ETF wants to hold. For instance, if an ETF is designed to track the S&P 500 Index, the AP will buy shares in all the S&P 500 constituents in the exact same weights as the index, then deliver those shares to the ETF provider. In exchange, the provider gives the AP a block of equally valued ETF shares, called a creation unit. These blocks are usually formed in blocks of 50,000 shares.

Why Is The Creation/Redemption Process Important?

- The exchange takes place on a one-for-one, fair-value basis. The AP delivers a certain amount of underlying securities and receives the exact same value in ETF shares, priced based on their net asset value (NAV), not the market value at which the ETF happens to be trading.
- The process can also work in reverse. APs can remove ETF shares from the market by purchasing enough of those shares to form a creation unit and then delivering those shares to the ETF issuer. In exchange, APs receive the same value in the underlying securities of the fund.

Why Is The Creation/Redemption Process Important?

- Because an ETF trades like a stock, its price will fluctuate during the trading day, due to simple supply and demand. If many investors want to buy an ETF, for instance, the ETF's share price might rise above the value of its underlying securities.
- When this happens, the AP can jump in to intervene. Recognizing the "overpriced" ETF, the AP might buy up the underlying shares that compose the ETF and then sell ETF shares on the open market. This should help drive the ETF's share price back toward fair value, while the AP earns a basically risk-free arbitrage profit.

Why Is The Creation/Redemption Process Important?

- Likewise, if the ETF starts trading at a discount to the securities it holds, the AP can snap up 50,000 shares of that ETF on the cheap and redeem them for the underlying securities, which can be resold. By buying up the undervalued ETF shares, the AP drives the price of the ETF back toward fair value while once again making a nice profit.
- This arbitrage process helps to keep an ETF's price in line with the value of its underlying portfolio. With multiple APs watching most ETFs, ETF prices typically stay in line with the value of their underlying securities.

Why Is The Creation/Redemption Process Important?

- This is one of the critical ways in which ETFs differ from closed-end funds. With closed-end funds, no one can create or redeem shares. That's why you often see closed-end funds trading at massive premiums or discounts to their NAV: There's no arbitrage mechanism available to keep supply and demand pressures in check.

Special ETF investment strategies

- **Leveraged, inverse, and inverse leveraged ETFs** seek to achieve a daily return that is a multiple or inverse multiple of the daily return of a securities index.
- These ETFs often employ techniques such as engaging in short sales and using swaps, futures contracts and other derivatives that can expose the ETF, and by extension the ETF investors, to a host of risks. As such, these are specialized products that typically are not suitable for buy-and-hold investors.

Assessing risk

Type of risk	Type of investment affected	How the fund could lose money
Country risk	Foreign investments	The value of a foreign investment declines because of political changes or instability in the country where the investment was issued.
Credit risk	Fixed income securities	If a bond issuer can't repay a bond, it may end up being a worthless investment.
Currency risk	Investments denominated in a currency other than EUR	If the other currency declines against the EUR, the investment will lose value.
Interest rate risk	Fixed income securities	The value of fixed income securities generally falls when interest rates rise.
Liquidity risk	All types	The fund can't sell an investment that's declining in value because there are no buyers
Market risk	All types	The value of its investments decline because of unavoidable risks that affect the entire market

Performance Measures

- Treynor Measure
- Sharpe Measure
- Jensen’s Alpha
- Morningstar Rating System

Treynor Measure

- Treynor's Index = $\frac{E(R_t)-R_f}{b}$

Where, R_t represents return on fund, R_f is risk free rate of return and *b is beta of the* fund.

- All risk-averse investors would like to maximize this value.
- While a high and positive Treynor's Index shows a superior risk-adjusted performance of a fund, a low and negative Treynor's Index is an indication of unfavorable performance.

Sharpe Measure

- Sharpe Index = $\frac{E(R_t)-R_f}{\sigma}$

Where, σ is standard deviation of the fund.

- While a high and positive Sharpe Ratio shows a superior risk-adjusted performance of a fund, a low and negative Sharpe Ratio is an indication of unfavorable performance.
- The higher the Sharpe ratio, the greater an investment's return per unit of risk. Thus if portfolio's Sharpe ratio is better than the market than it is giving better returns per unit of risk. The greater a portfolio's Sharpe ratio, the better its risk-adjusted performance has been. Thus its risk adjusted performance is better.

Jensen's Alpha

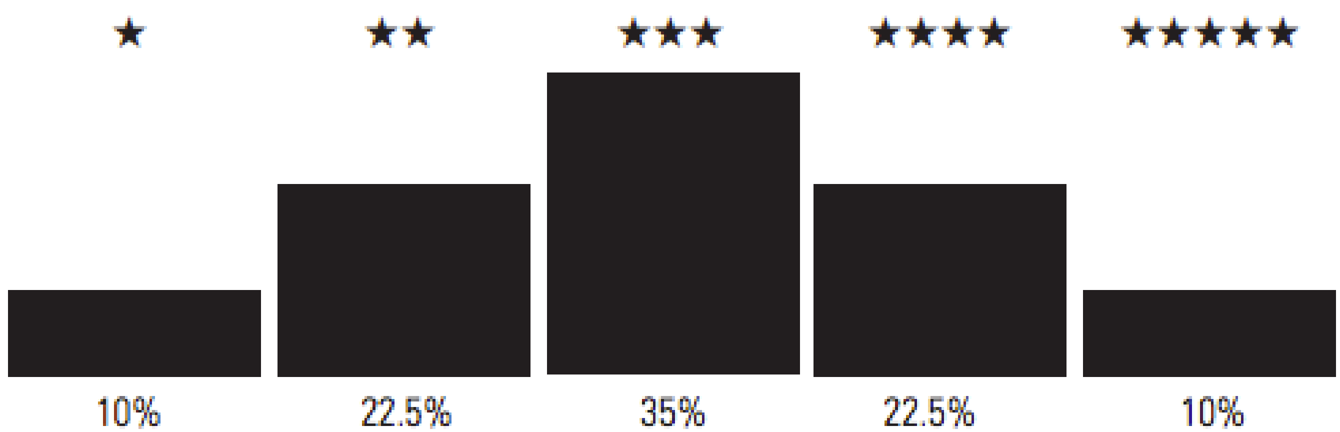
- Required return of a fund at a given level of risk can be calculated as: $R_t = R_f + b_i(M_t - R_f)$

Where, M_t is the market return during the given period.

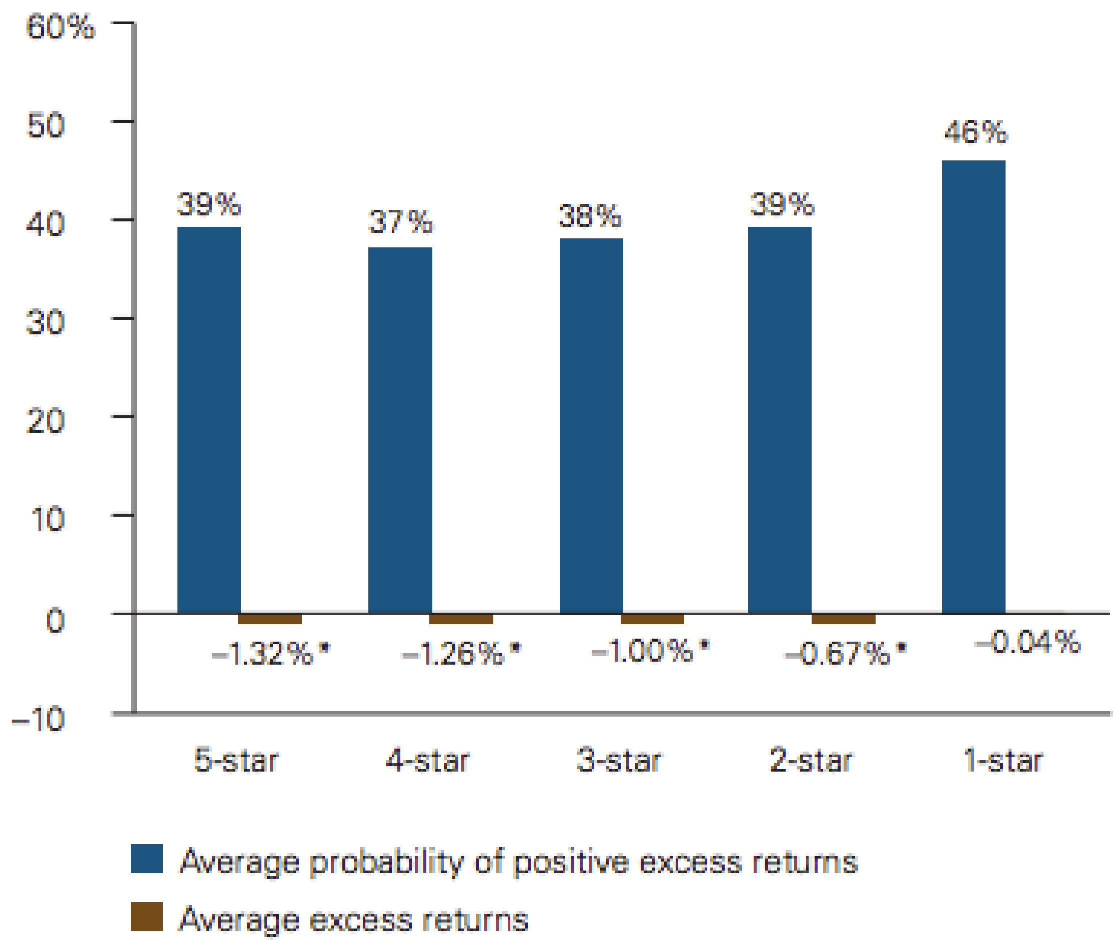
- Alpha can be obtained by subtracting required return from the actual return of the fund.
- Higher alpha represents superior performance of the fund and vice versa. Limitation of this model is that it considers only systematic risk not the entire risk (systematic + idiosyncratic risks) associated with the fund.

Morningstar Rating

- The Morningstar Rating is a measure of a fund's risk-adjusted return, relative to similar funds. Funds are rated from 1 to 5 stars, with the best performers receiving 5 stars and the worst performers receiving a single star.



Morningstar Rating



Performance Measures

- **Example**: Funds A and B try to beat the S&P 500 (benchmark). Assume that Fund A has an average return for 2017 of 4.2%, a realized return of 4.4% and a standard deviation of 7.1%, while for fund B the numbers are 3.9%, 4.1% and 5.2%, respectively. The beta of fund A is 1.05 while that of fund B is 0.92. The risk free rate is 1% and the market return is 4%. Which fund should the investor choose?

Performance Measures

- Solution:

		Fund A	Fund B
Treynor Measure	$\frac{E(R_t) - R_f}{b}$	$\frac{0.042 - 0.01}{1.05} = 0.030$	$\frac{0.039 - 0.01}{0.92} = 0.032$
Sharpe Measure	$\frac{E(R_t) - R_f}{\sigma}$	$\frac{0.042 - 0.01}{0.071} = 0.45$	$\frac{0.039 - 0.01}{0.052} = 0.56$
Jensen's Alpha	$R_t - (R_f + b_i(M_t - R_f))$	$0.044 - \left(0.01 + 1.05\,(0.04 - 0.01)\right) = 0.25\%$	$0.041 - \left(0.01 + 0.92\,(0.04 - 0.01)\right) = 0.34\%$

Hedge Funds

Hedge Funds

- Hedge funds strive for absolute returns.
- They do not perform relative to some specific benchmark or index and seek to maximize returns in all market scenarios.
- Most hedge funds are in the form of either a limited partnership, a limited liability corporation, or an offshore corporation.
- The manager of the fund receives compensation that is comprised of two components.

Fees

- The base fee is typically around 1% of assets, and the manager receives this fee regardless of performance of the hedge fund.
- The second component, the incentive fee, is paid based on the actual returns of the fund, provided that these are positive or above some benchmark (if the fund provides a benchmark).
- A “high watermark provision” is sometimes included, which stipulates that incentive fees are only based on returns above the highest value achieved over the life of the fund.

Fees

- **Example:** Assume an investor is invested in a hedge fund that charges a 20% performance fee, which is quite typical in the industry. Assume the investor places $500,000 into the fund, and during its first year, the fund earns a 15% return. Thus, the investor's original investment is worth $575,000. The investor owes a 20% fee on this $75,000 gain, which equates to $15,000.
- At this point, the high-water mark for this particular investor is $575,000, and the investor is obligated to pay $15,000 to the portfolio manager.

Fees

- Next, assume the fund loses 20% in the next year. The investor's account drops to a value of $460,000.
- This is where the importance of the high-water mark is noted. A performance fee does not have to be paid on any gains from $460,000 to $575,000.
- Assume in the third year, the fund unexpectedly earns a profit of 50%. In this unlikely case, the value of the investor's account rises from $460,000 to $690,000. Without a high-water mark in place, the investor owes 20% on the gain from $460,000 to $690,000, which equates to $46,000 in performance fees.
- With high-water mark, the performance fee is 20% * ($690,000- $575,000) = $23,000.

Types of hedge funds

- *Long/short funds* make up the largest category of hedge funds in terms of asset size.
  - These funds take long and short common stock positions and usually use leverage.
- *Market-neutral funds* are a type of long/short fund that strive to hedge against general market moves.
- *Global macro funds* make bets on the direction of a market, interest rate, or some other factor.
  - Global macro funds are typically highly leveraged and rely heavily on derivatives.
- *Event-driven funds* strive to capitalize on some unique opportunity in the market.
  - This may involve investing in a distressed company or in a potential merger and acquisition situation.

Leverage

- Most hedge fund managers utilize some form of leverage.
- Some arbitrage opportunities may have such a small return that leverage is necessary to make the strategy meaningful.
- However, leveraged positions can sometimes backfire and cause losses to be magnified.
- Hedge funds typically limit the amount of leverage that can be used, and fund managers are legally required to operate within the limit.

Risks associated with hedge funds

- *Illiquidity.* Investing in markets with little liquidity, such as derivatives, decreases a hedge fund's trading flexibility.
- *Short covering.* Short selling is a component of many common hedge fund strategies. Hedge fund managers run the risk that they will have to cover their shorts and repurchase securities at a price higher than where they originally sold.
- *Asymmetrical returns.* Some investment strategies used by hedge funds may have a limited upside potential but unlimited downside potential. Traditional risk measures, such as standard deviation or value at risk, do not fully account for this asymmetric return profile.
- *Fee structure and incentives.* The existence of performance fees may cause fund managers to take big risks, especially if past performance is bad and they have "nothing to lose."

Reporting Biases

- Hedge funds are normally exempt from SEC regulations regarding reporting and only publicly disclose performance information on a voluntary basis.
- *Cherry picking :* Fund managers tend to "Cherry pick" the information they choose to release, reporting on their more successful funds while not providing information on poorly performing or defunct funds.
- *Survival of the fittest.* As with any industry, only the fittest hedge funds survive. By design, an index that tracks the aggregate performance of hedge funds, only includes ongoing funds and excludes those that have failed.