

ASSET MANAGEMENT

Fintech 520

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WHAT IS ASSET MANAGEMENT?

- Asset Management refers to the professional management of investment funds for individuals, families, and institutions
- Investments include stocks, bonds, convertibles, alternative assets, commodities, and money market investments
- Asset managers specialize in different asset classes
- Fees are typically paid based on the asset class and assets undermanagement (AUM)

TYPES OF ASSET MANAGERS

Mutual Fund Companies

- A mutual fund is a professionally managed collective investment vehicle allowing investors to pool financial resources to purchase a diversified portfolio of assets designed to meet a specified financial goal or objective
- Types of Mutual Funds include Open-ended Investment Companies, Closed-ended Investment Companies, Unit Investment Trusts, and Exchange-traded Funds

TYPES OF ASSET MANAGERS

Separate Account Managers

— lots of investment managers

- Institutional – invest on behalf of pensions, endowments, foundations, Central Banks, Sovereign Wealth Funds, insurance companies, corporations and other institutions
- Individuals – invest primarily for high-net-worth individuals, including trusts

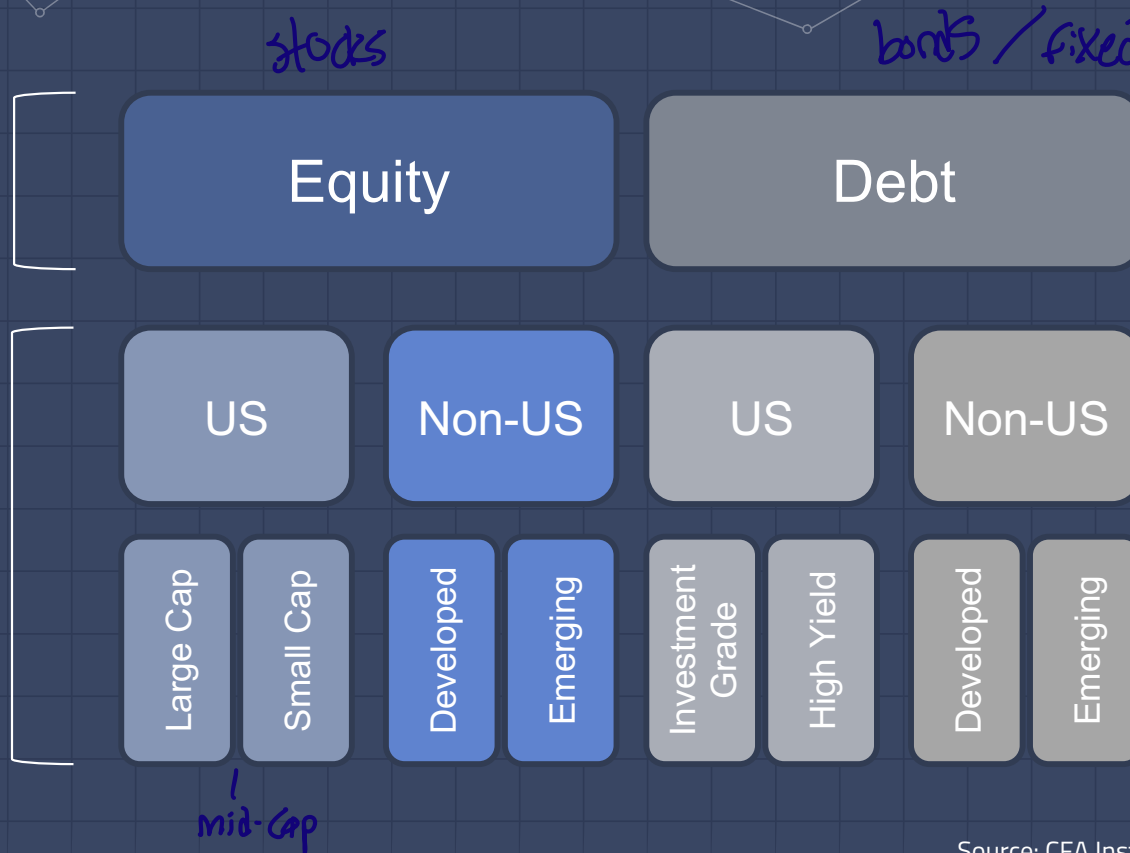
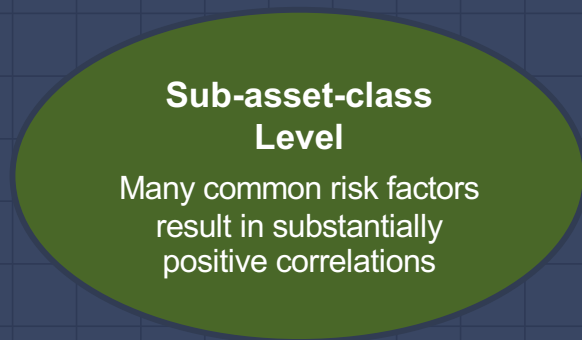
— deals w/ only one manager

TYPES OF ASSET MANAGERS

Alternative Asset Managers

- Professionally manage portfolios with limited constraints, often composed of non-traditional asset classes, including real estate, commodities, private equity, venture capital, and hedge funds

ASSET CLASSES



ASSET ALLOCATION

Strategic Asset Allocation

- Arises from long-term investment planning
- Expected to be effective in achieving an asset owner's investment objectives, given their investment constraints and risk tolerance
- Typically documented in an investment policy statement

ASSET ALLOCATION

Tactical Asset Allocation

- Involves deliberate short-term deviations from a strategic asset allocation
- Whereas a strategic asset allocation incorporates an investor's long-term market expectations, tactical asset allocation is designed to exploit perceived deviations from equilibrium
- Key barriers to successful tactical asset allocation are monitoring and trading costs, including higher short-term capital gains taxes

Wash sales - Can't buy back for 30 days

ACTIVE VERSUS PASSIVE INVESTING

Active Investing

- Active investing is a hands-on approach to making decisions about where and how to invest
- The aim is to outperform a passive benchmark index that is composed of securities with similar characteristics
- Active managers respond to changing capital market expectations or to investment insights resulting in changes to portfolio composition
- The objective is to achieve, after expenses, positive excess risk-adjusted returns relative to a benchmark

ACTIVE VERSUS PASSIVE INVESTING

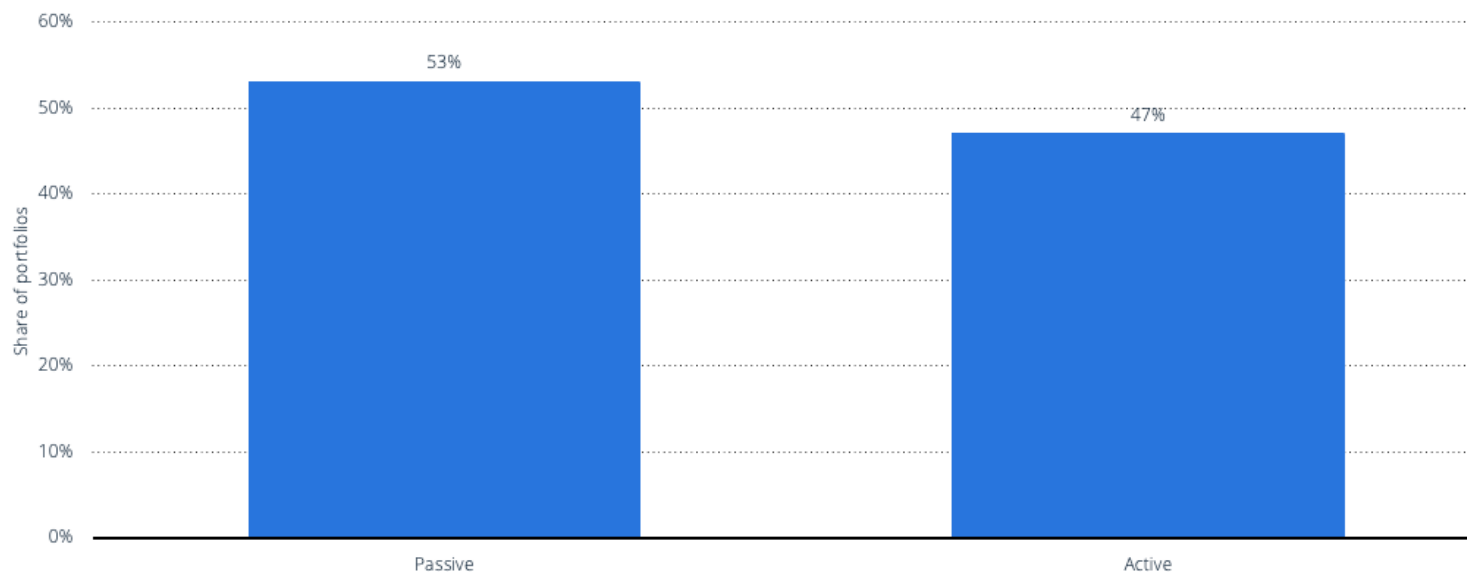
Passive Investing

- A long-term strategy in which investors buy and hold a diversified mix of assets to match, rather than beat, the market
- The most common passive investing approach is to buy an index fund, whose holdings mirror a particular or representative segment of the financial market
- Portfolio composition does not react to changes to capital market expectations or to insights into individual investments (the word passive means not reacting)
- Investors are concerned with minimizing fees and tracking error *deviations*

ACTIVE VERSUS PASSIVE INVESTING

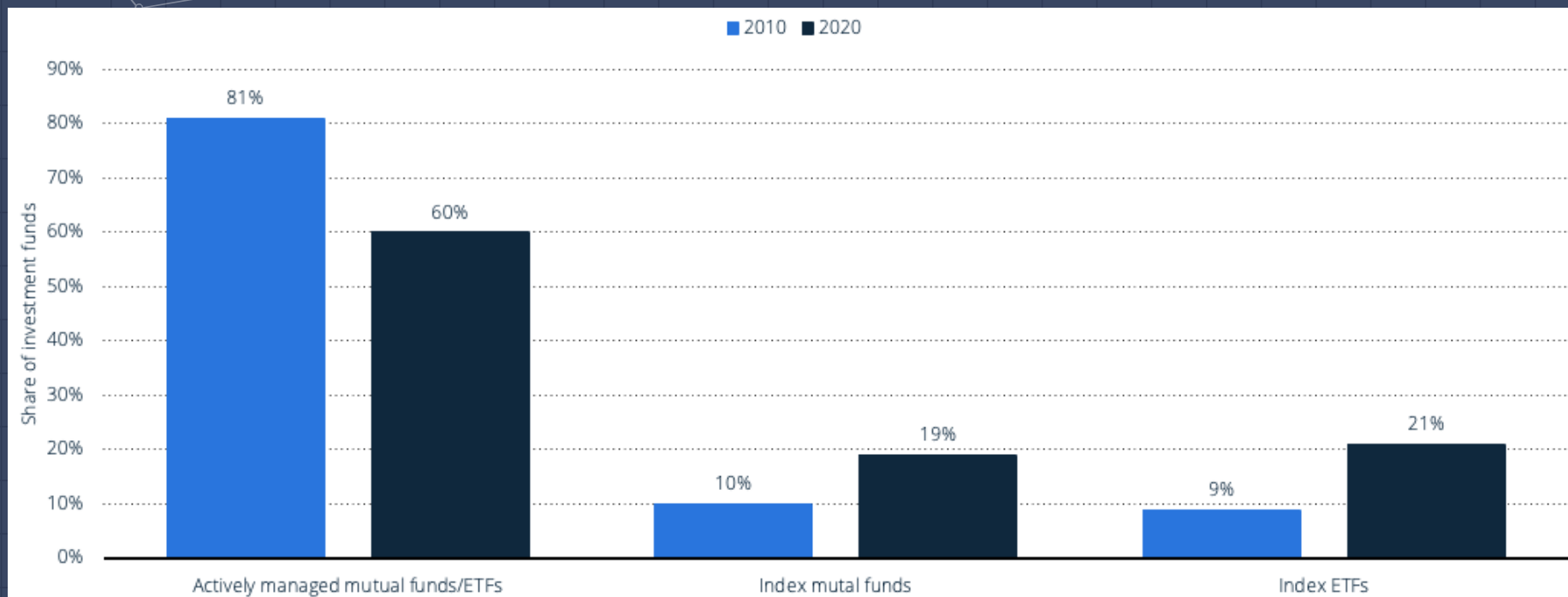
Proportion of active versus passive investment portfolios worldwide 2020

Active versus passive investment portfolios worldwide 2020



ACTIVE VERSUS PASSIVE INVESTING

Active vs passive mutual funds in the U.S. 2010 and 2020, by type



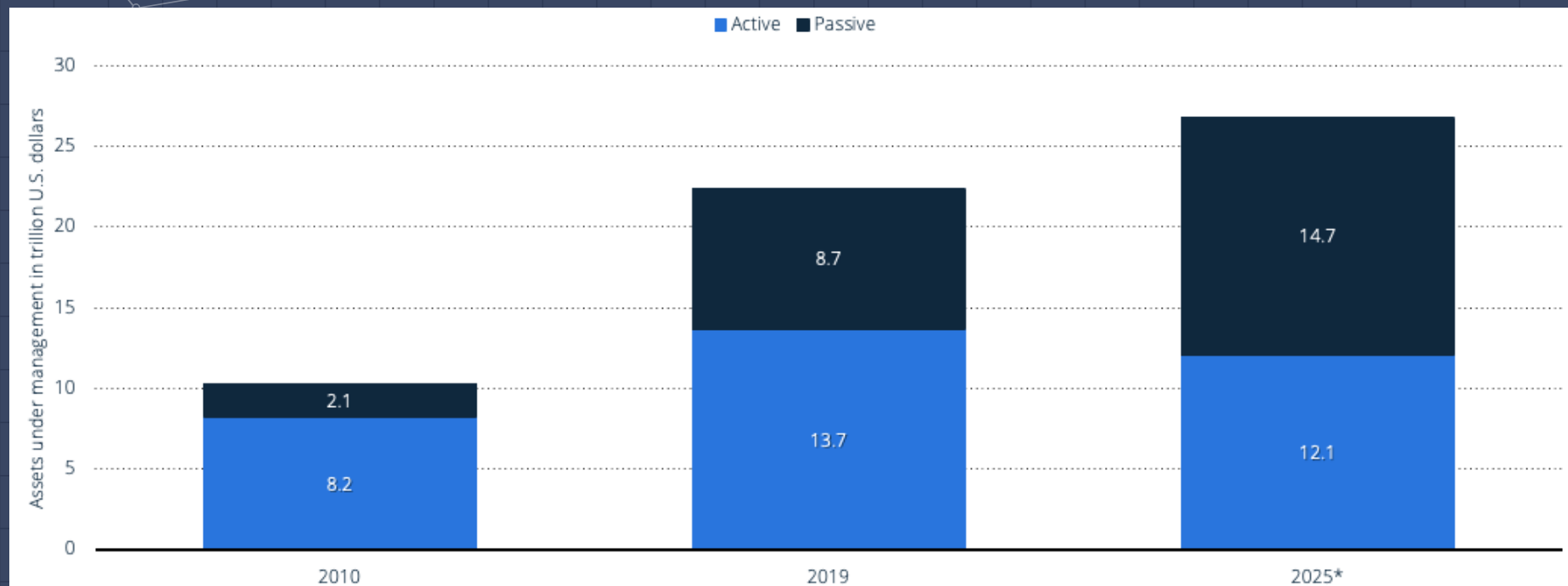
Passive

Passive

Source: Statista

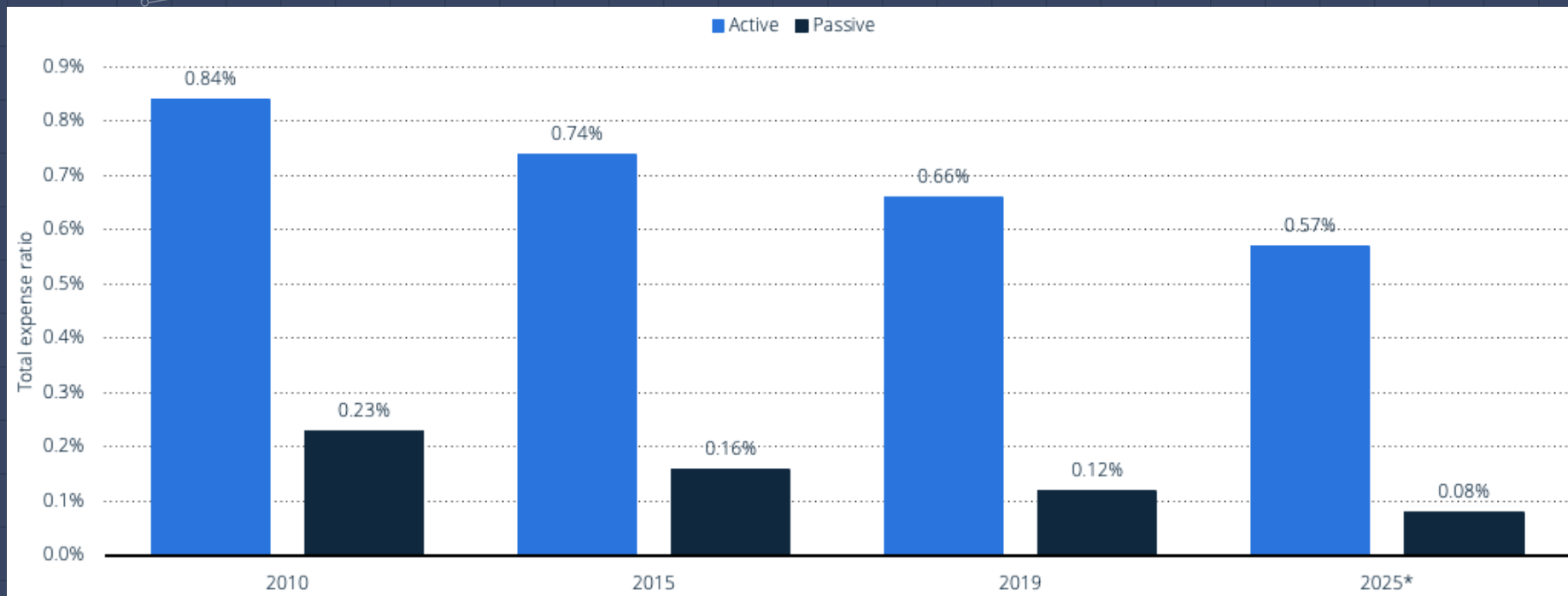
ACTIVE VERSUS PASSIVE INVESTING

- Assets under management of U.S. mutual funds in 2010 and 2019, with a 2025 forecast



ACTIVE VERSUS PASSIVE INVESTING

Expense ratio of mutual funds in U.S. in 2010, 2015, and 2019, with a 2025 forecast

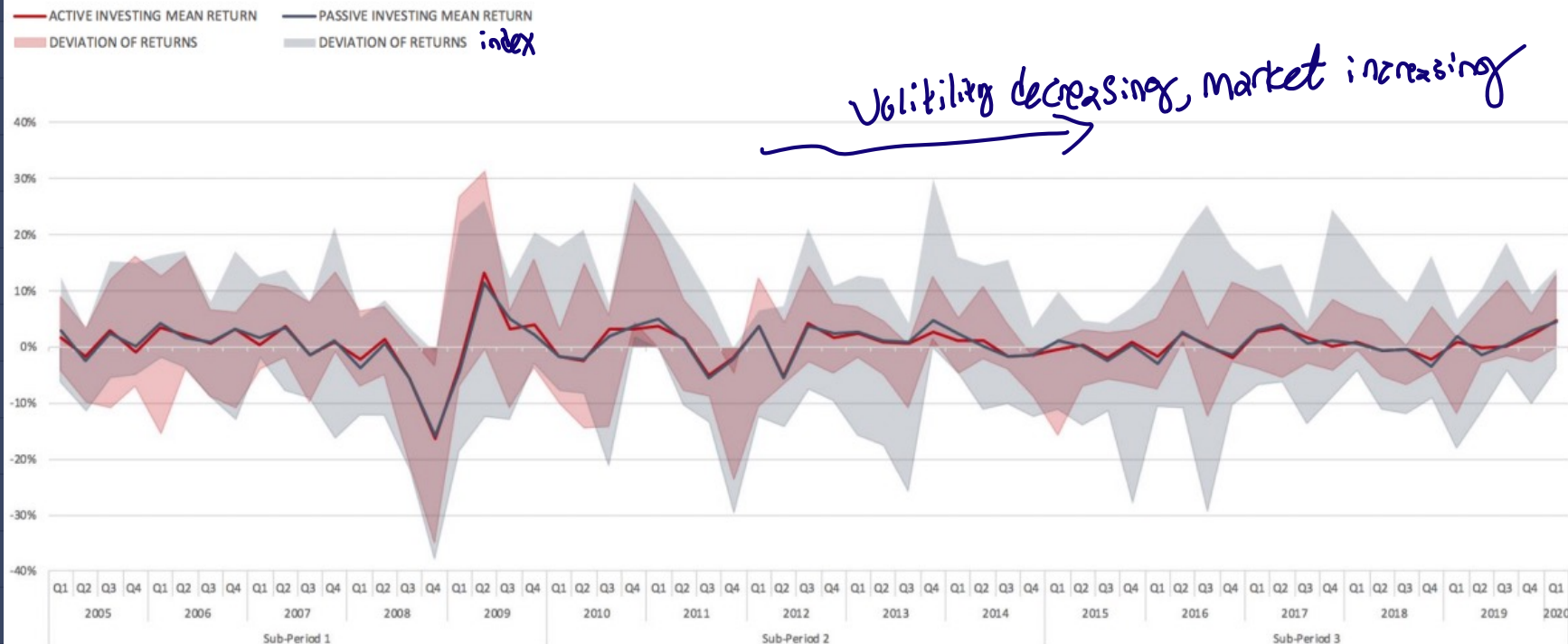


Vanguard

ACTIVE VERSUS PASSIVE INVESTING

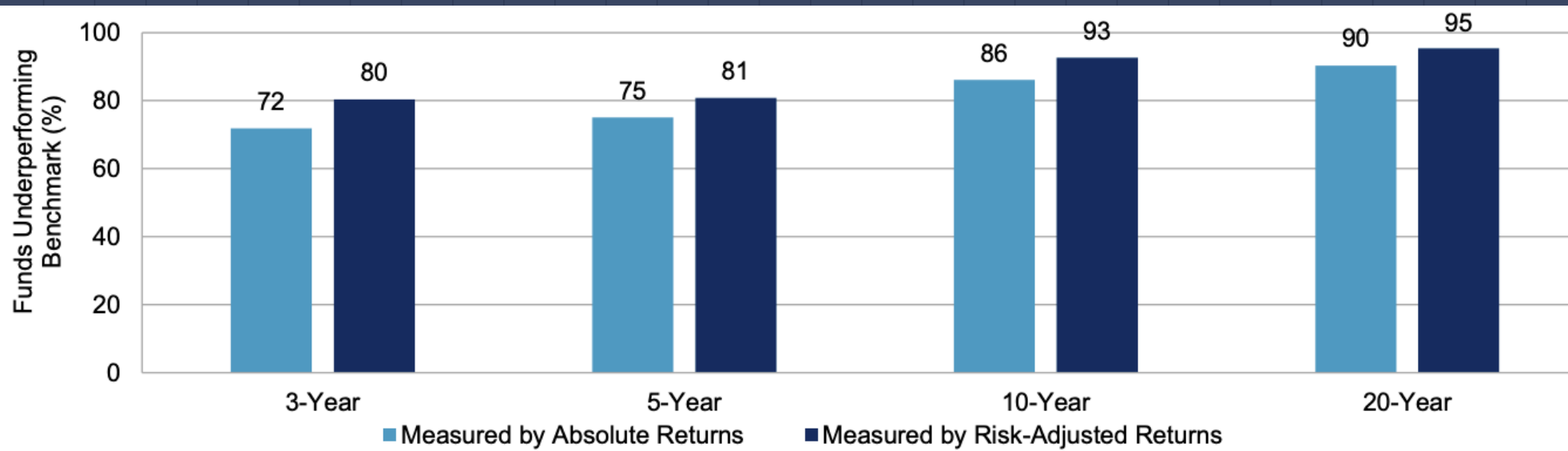
returns almost the same

The excess returns of active and passive investments, 2005 – 2020.



ACTIVE VERSUS PASSIVE INVESTING

Among domestic equity funds, while 90% have underperformed the S&P Composite 1500 over the past 20 years, an even greater 95% did so on a risk-adjusted basis



COMMON FUND TYPES

Mutual Funds

- A mutual fund is a professionally managed, pooled investment vehicle

COMMON FUND TYPES

Exchange-Traded Funds (ETFs)

- A pooled investment vehicle that trades on an exchange, much like stocks
- Investors buy and sell shares on the secondary market
- Only authorized participants (usually large broker/dealers) buy and sell shares of an ETF directly from the Fund

COMMON FUND TYPES

Hedge Funds

- Professionally managed portfolio of investments that use advanced investment strategies such as leveraged, long, short and derivative positions with the goal of generating high returns
- Typically geared towards accredited individual investors and institutions

COMMON FUND TYPES

Private Capital

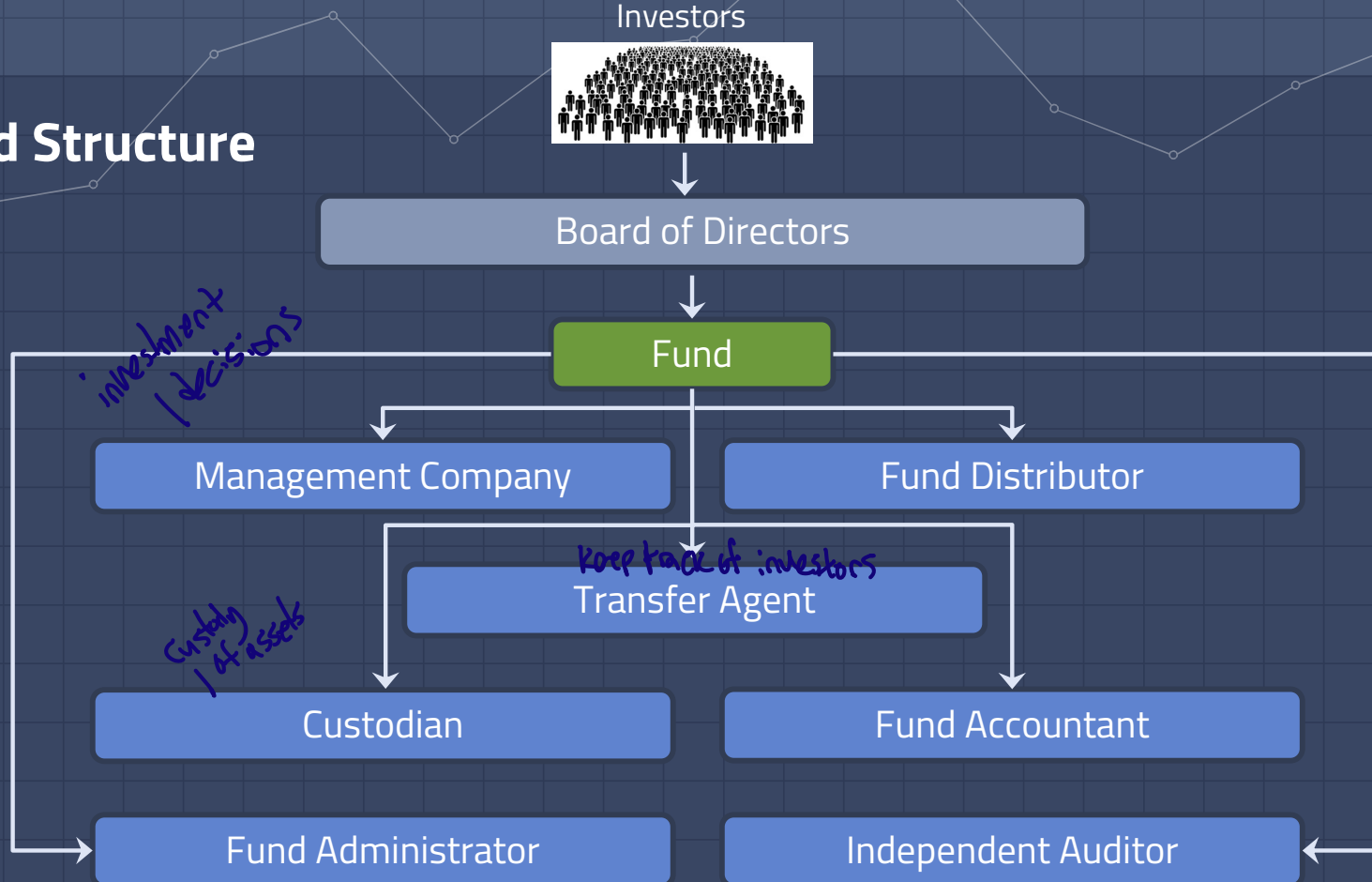
- Private equity (PE) funds invest in companies, whether startups or established firms, that are not listed on a public exchange, or they invest in public companies with the intent to take them private
- Venture capital (VC) funds, a specialized form of private equity, typically invest in or provide financing to startup or early-stage companies with high growth potential
- Private debt largely encompasses debt provided to private entities, including direct lending, mezzanine loans, venture debt, and distressed debt

MUTUAL FUNDS

- A mutual fund is a professionally managed, pooled investment vehicle
- Invests in a portfolio of securities (stocks, bonds, money market funds, commodities, even other mutual funds)
- Managed by a fund manager who makes investment decisions based on a documented investment objective
- Overseen by a Board of Directors
- Priced at the end of each trading day (called the 'Net Asset Value' or NAV)

MUTUAL FUNDS

Fund Structure



MUTUAL FUNDS

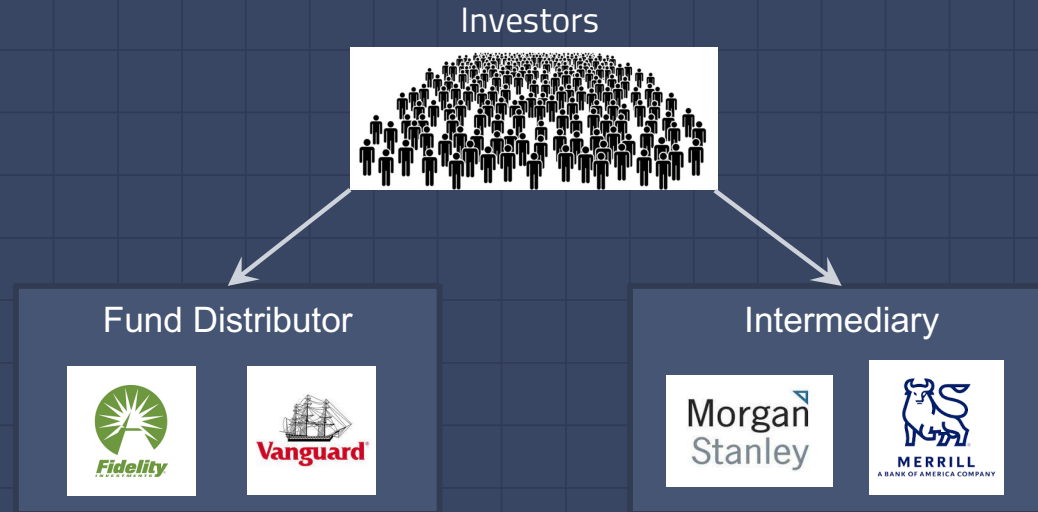
What is the Governing Authority within the Management Structure?

- The Board of Directors ("Board") is the governing authority within the management structure and its members are elected by fund shareholders
- The Board is responsible for the following:
 - Protecting the organization's assets as part of its fiduciary duty
 - Overseeing the fund audit process
 - Approving the use of service providers
 - Reviewing and approving fees that are charged to the funds
 - Review board reporting
 - Approve trading practices and procedures

MUTUAL FUNDS

How do investors purchase shares of a mutual fund?

- Investors can purchase shares either directly from the fund's distributor or through an intermediary such as a 3rd party broker



MUTUAL FUNDS

Who facilitates the purchase of shares?

- Transfer Agents facilitate investor transactions, maintain shareholder records, and distribute dividends



The largest transfer agents include BNY Mellon and American Stock Transfer and Trust

MUTUAL FUNDS

Who holds the securities purchased in safekeeping?

- A Custodian Bank provides safekeeping of financial securities for an investor, including the related accounting and reporting services

- A Custodian Bank's services include safekeeping of a fund's assets, clearing, receiving dividends and interest from the fund's investments, managing the fund's excess cash, monitoring corporate actions, and tracking loaned securities
- State Street, BNY Mellon, and JP Morgan are among the largest Custodian Banks

Management
Company



Instructs Custodian on cash and securities movements

Custodian



- Management Company and Custodian reconcile accounts daily
- Fund Accountant, Independent Auditors and Fund Administrators reconcile periodically

MUTUAL FUNDS

Who determines the value of the fund?

- A Fund Accountant calculates the net asset value (NAV) which is the current market value of a fund's holdings minus the fund's liabilities
- The NAV is expressed as a per-share amount and is computed daily by dividing net assets by the number of fund shares outstanding
- The Fund Accountant records all income, such as dividends and interest
- The Fund Accountant accrues and accounts for all fund expenses

MUTUAL FUNDS

Who oversees the daily operations of the fund?

- The Fund Administrator oversees the daily operations and activities that are carried out in support of the actual process of running a Fund

Fund Administrator Activities

Set up and launch new funds	Coordination of the valuation process
Calculation and payment to the transfer agent of dividends and distributions (if required)	Calculation of the total returns and other performance measures of the fund
Payment of fund expenses	Board reporting
Preparation of reports for shareholders	Preparation and filing of the fund's prospectus
Monitoring investment compliance with SEC, prospectus, or U.S. Internal Revenue Code restrictions	Preparation and filing of other SEC filings/reports
<i>Since Fund Accountants and Fund Administrators work so closely together, these functions are typically part of the same group (or outsourced entity) in order to facilitate the seamless transfer of information</i>	

MUTUAL FUNDS

Who certifies the Fund's financial statements?

- An Independent Auditor examines the fund's financial statements and certifies that they are accurate, truthful, complete and prepared according to a set of accounting standards called "Generally Accepted Accounting Principles" (GAAP)



MUTUAL FUNDS

What fees do investors pay?

load = Commission

MR. BIG

Sales Loads

The fees that a mutual fund or broker may charge to conduct the transaction

Front Load

Back-end Load

Contingent
Deferred Sales
Charge

No Load

Miscellaneous Fees

The percentage of assets that the mutual fund charges to the customer

Management Fee

Marketing (12b-1)

Shareholder Servicing Fee

Other Administrative Fees

MUTUAL FUNDS

Benefits of a Mutual Fund

Access to professional investment management

Ability to convert holdings to cash easily (i.e., liquidity)

Diversification

Convenience of buying and selling

Flexibility to fit any investment goal

EXCHANGE TRADED FUNDS (ETF)

What is an ETF?

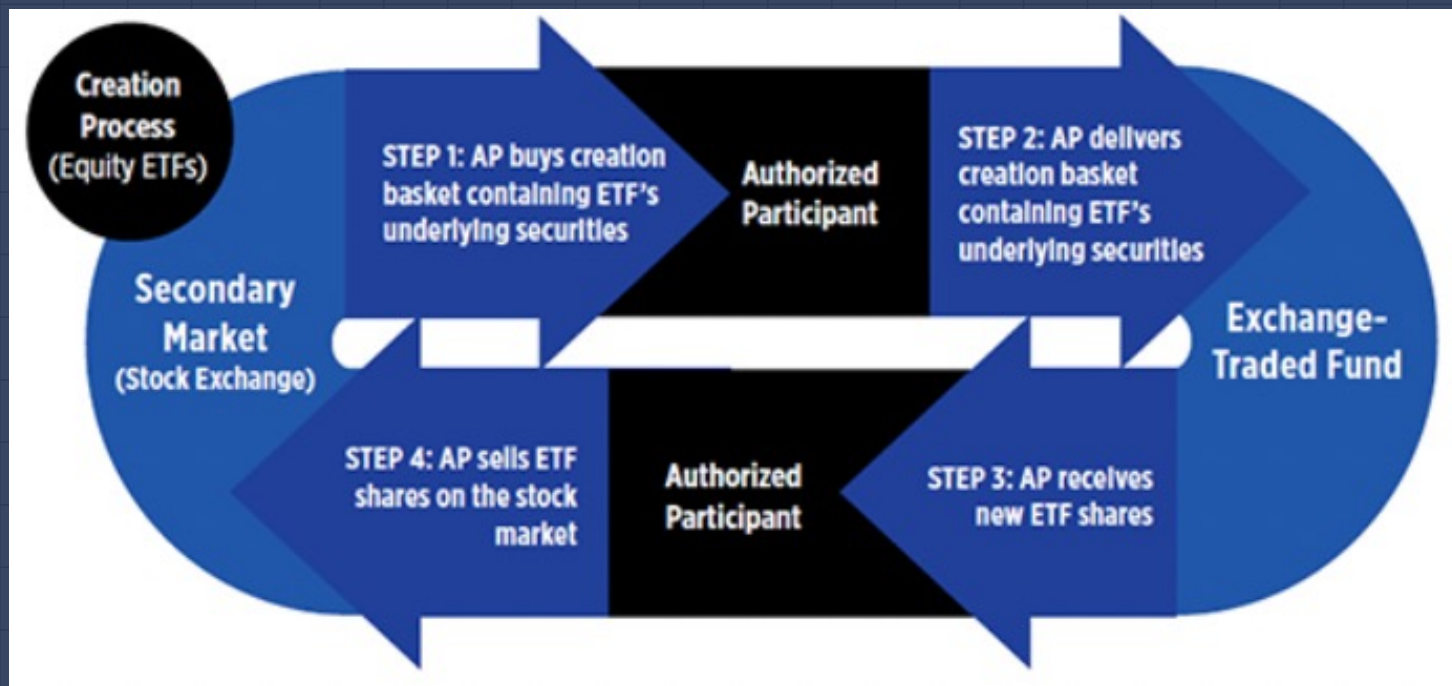
traded on stock exchange, minute-to-minute liquidity

- An Exchange Traded Fund is a pooled investment vehicle traded on a stock exchange which can hold assets such as stocks, commodities, or bonds
- The price at which an ETF trades over the course of a day can fluctuate either higher or lower than the NAV of its underlying assets
- Authorized Participants create and redeem units of the ETF
- This process provides liquidity, and arbitrage ensures the market price doesn't fluctuate too far from the NAV

EXCHANGE TRADED FUNDS (ETF)

What is the ETF 'creation' process?

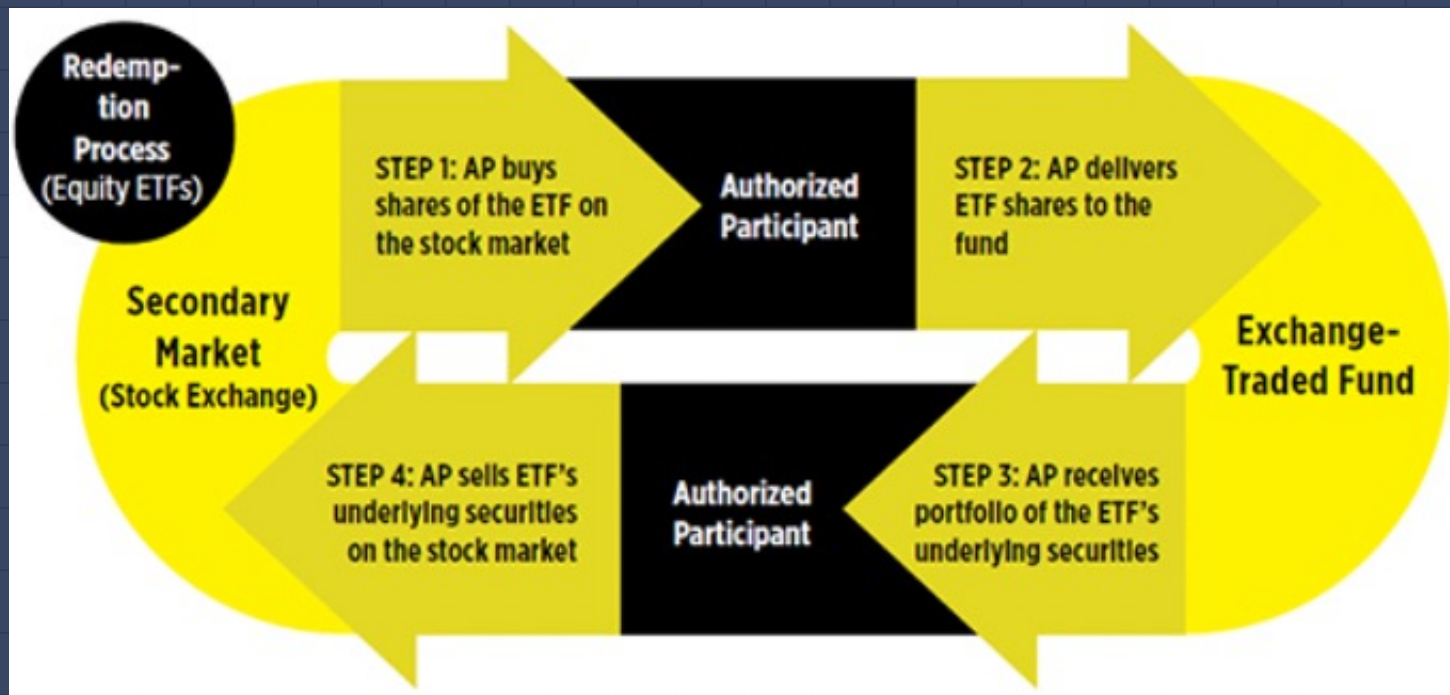
ETF selling at premium



EXCHANGE TRADED FUNDS (ETF)

What is the ETF 'redemption' process?

ETF buy at discount



EXCHANGE TRADED FUNDS (ETF)

How do ETFs compare with Mutual Funds?

Exchange-traded Funds		Mutual Funds
Buy and Sell	On an exchange throughout the day	Directly through the mutual fund or intermediary
Valuations	Trades constantly when the market is open	Priced daily at the market close
Minimum Investment	Typically, one share	Minimum depends on fund
Transparency of holdings	Holdings are typically disclosed daily ✓	Holdings are typically reported quarterly
Cash position	Generally, there is no cash needed ✓	Most mutual funds maintain cash position to satisfy investor redemptions
Tax Implications	Capital gains are triggered when shares are sold ✓	Capital gains are triggered by fund manager transactions
Fees	Transaction fee, typically low management fees ✓	Typically, higher depending on management and distribution fees

EXCHANGE TRADED FUNDS (ETF)

Who are the largest ETF companies?

ETF Provider	Assets under Management	Number of ETFs	Average Expense Ratio
BlackRock	\$2,314 billion	392	.18%
Vanguard	\$2,003 billion	82	.05%
State Street	\$974 billion	136	.13%
Invesco	\$375 billion	237	.30%
Charles Schwab	\$261 billion	27	.08%

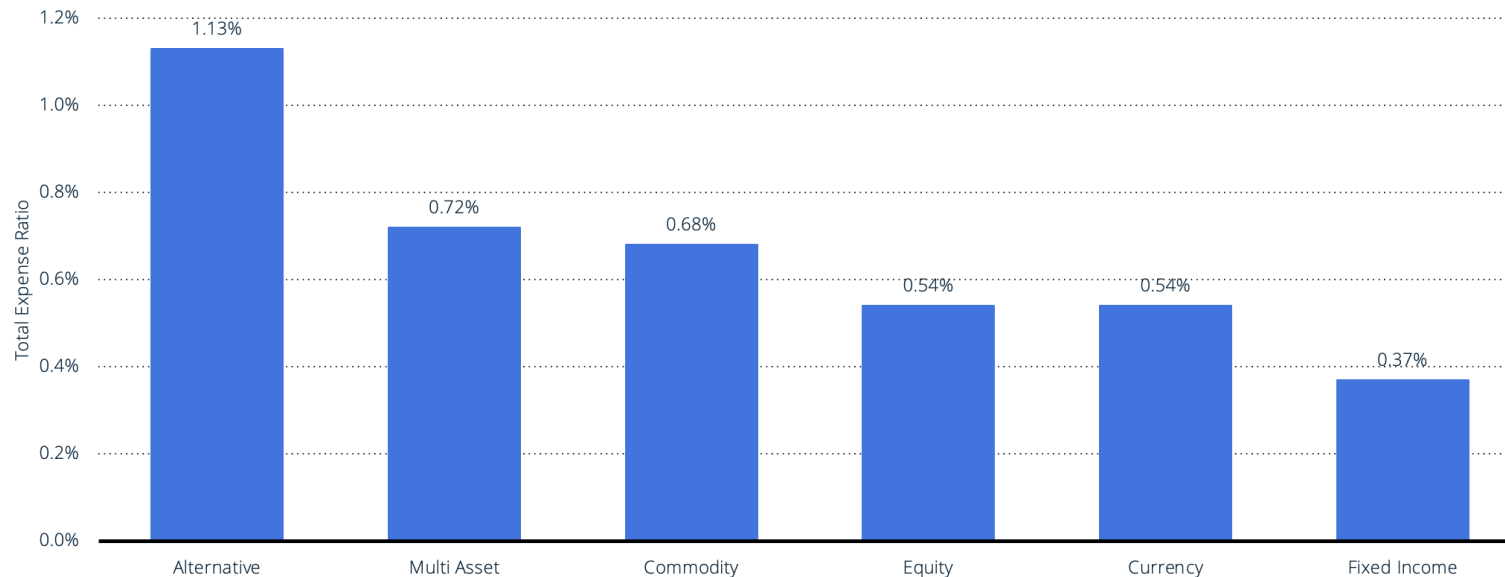
✓ least amount of tracking error

EXCHANGE TRADED FUNDS (ETF)

What are the expense ratios for the various categories of ETFs?

Total Expense Ratio of Exchange Traded Funds (ETFs) in the United States in 2016, by asset class

Total Expense Ratio of ETFs in the U.S. 2016, by asset class



EXCHANGE TRADED FUNDS

Benefits of ETFs

Tax efficiency

Lower transaction and management fees

Intraday trading

Greater transparency

HEDGE FUNDS

What is a Hedge Fund?

By simple definition, hedge funds are pooled investment vehicles that can invest in a wide variety of products, including derivatives, foreign exchange, and publicly traded securities

HEDGE FUNDS

Hedge Funds have the following characteristics:

1. Lower legal and regulatory constraints *"sophisticated investors"*
2. Flexible investment mandates permitting use of shorting and derivatives
3. A larger investment universe on which to focus
4. Aggressive investment styles that allow for concentrations and exposures to credit, volatility, and liquidity risk premiums
5. Relatively liberal use of leverage
6. Liquidity constraints that include lock-ups and liquidity gates
7. Relatively high fee structures involving management and incentive fees

HEDGE FUNDS

What are Hedge Fund strategies by category?

Equity

- Long/short Equity
- Dedicated Short Bias
- Equity Market Neutral

Event-driven

- Merger Arbitrage
- Distressed Securities

Relative Value

- Fixed-income Arbitrage
- Convertible-bond Arbitrage

Opportunistic

- Global Macro
- Managed Futures

Specialist

- Volatility Strategies
- Reinsurance Strategies

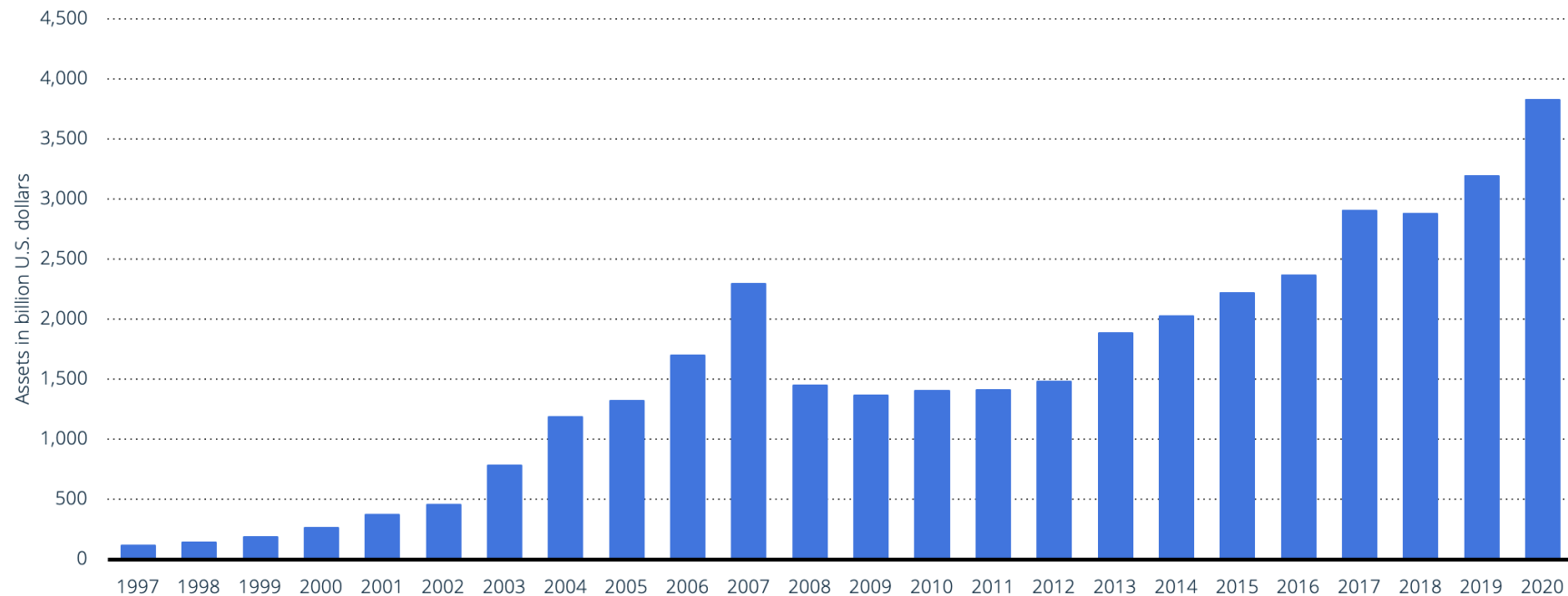
Multi-manager

- Multi-strategy
- Fund-of-Funds

HEDGE FUNDS

Value of assets managed by hedge funds worldwide from 1997 to 2020 (in billion U.S. dollars)

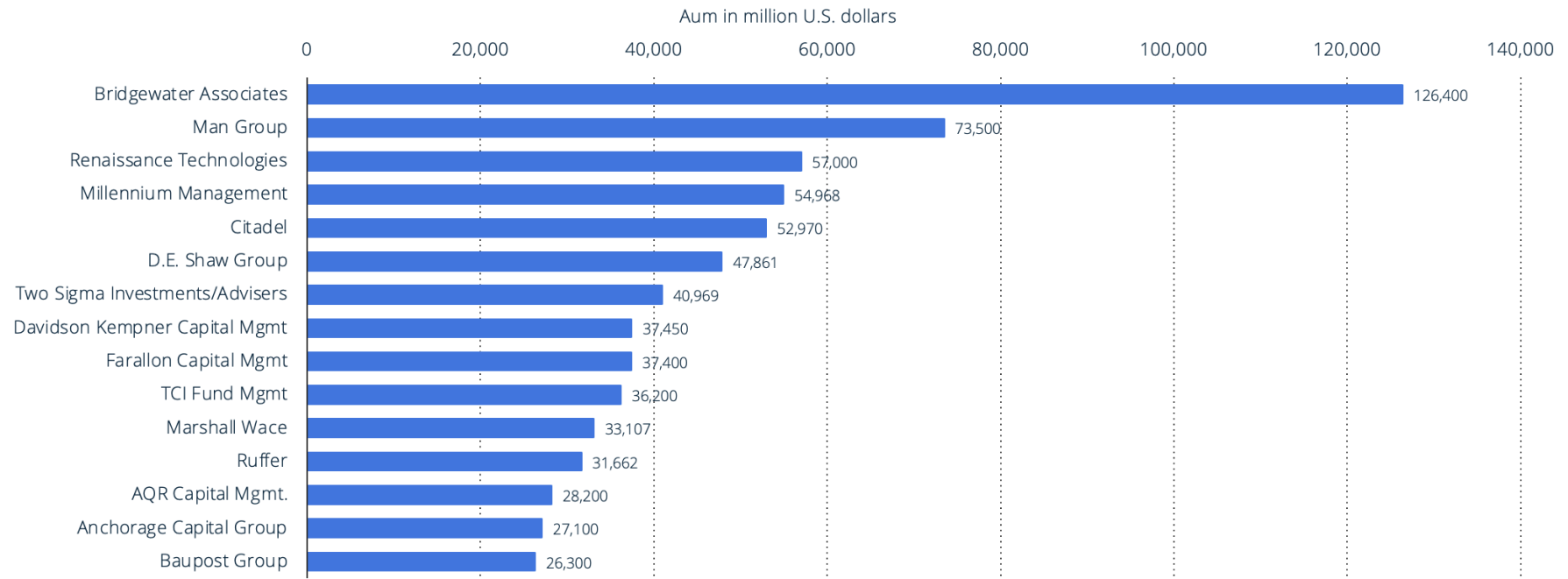
Assets under management of hedge funds worldwide 1997-2020



HEDGE FUNDS

Assets under management of the largest hedge fund firms worldwide in June 2022 (in billion U.S. dollars)

Aum of the largest hedge fund firms globally 2022



HEDGE FUNDS

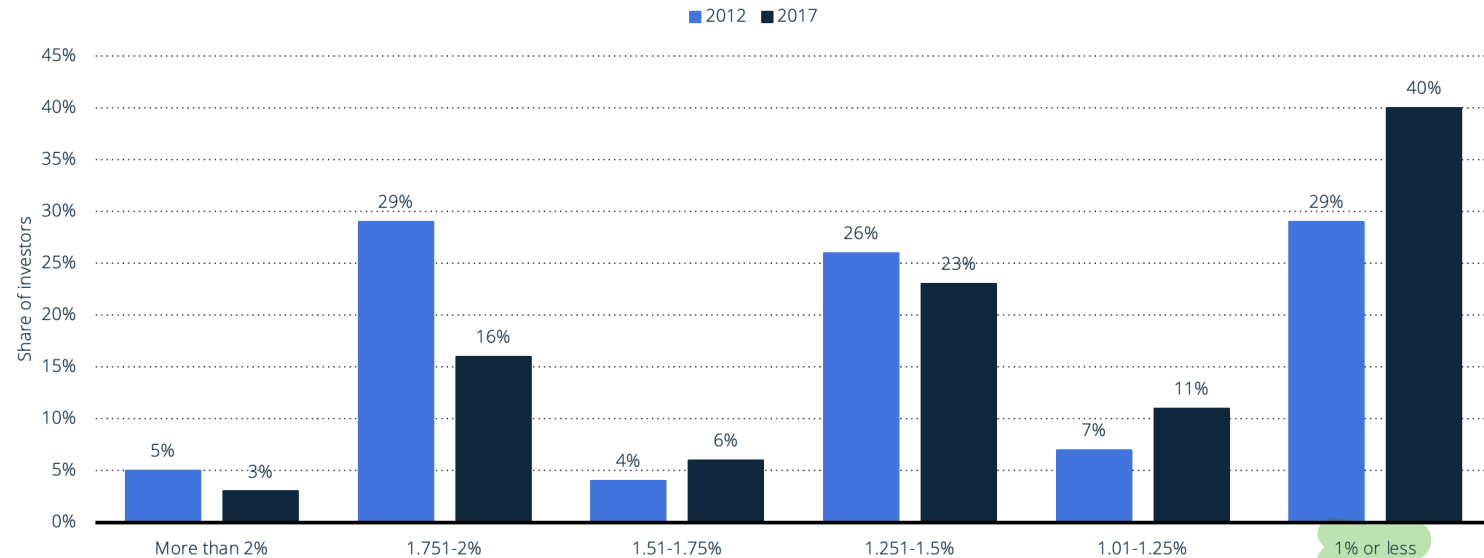
What fees do Hedge Funds charge?

fee pressure

doesn't include profit-sharing fee

Distribution of management fees of hedge funds worldwide in 2012 and 2017

Distribution of hedge fund management fees globally 2012-2017



HEDGE FUNDS

Benefits of Hedge Funds

Diversification

Enhance risk-adjusted returns

Exposure to a wider variety of asset classes

Access to exceptional managers

talent

Lower legal and regulatory constraints

PRIVATE EQUITY

What is Private Equity?

- Private equity as an asset class is an *ownership interest in a private (non-publicly-traded) company*
- Private equity refers to equity capital raised via a *private placement* rather than through a public offering

PRIVATE EQUITY

How can Private Equity be classified?

1. Venture Capital
2. Growth
3. Buyout
4. Special Situations

not tested on anything below this slide! ↓↓

PRIVATE EQUITY

How the PE classifications break down ...

Broad Category	Subcategory	Brief Description
Venture Capital	Seed stage	Financing provided to research business ideas, develop prototype products, or conduct market research
	Start-up stage	Financing to recently created companies with well-articulated business and marketing plans
	Later (expansion) stage	Financing to companies that have started their selling effort and may already be covering costs: Financing may serve to expand production capacity, product development, or provide working capital.
	Replacement Capital	Financing provided to purchase shares from other existing venture capital investors or to reduce financial leverage

PRIVATE EQUITY

How the PE classifications break down ...

Broad Category	Subcategory	Brief Description
Growth	Expansion capital	Financing to established and mature companies in exchange for equity, often a minority stake, to expand into new markets and/or improve operations

PRIVATE EQUITY

How the PE classifications break down ...

Broad Category	Subcategory	Brief Description
Buyout	Acquisition capital	Financing in the form of debt, equity, or quasi-equity provided to a company to acquire another company
	Leveraged buyout	Financing provided by an LBO firm to acquire a company
	Management buyout	Financing provided to the management to acquire a company, specific product line, or division (carve-out)

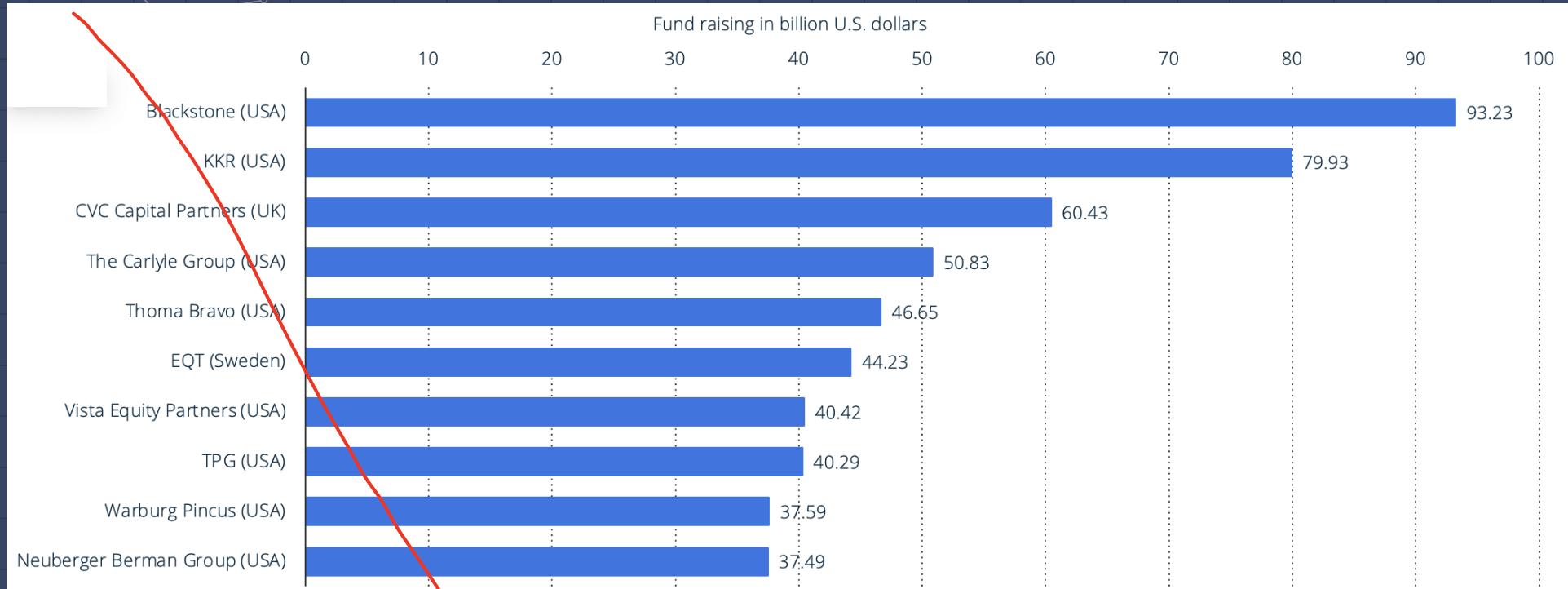
PRIVATE EQUITY

How the PE classifications break down ...

Broad Category	Subcategory	Brief Description
Special Situation	Mezzanine finance	Financing generally provided in the form of subordinated debt and an equity kicker (warrants, equity, etc.) frequently in the context of LBO transactions
	Distressed/turnaround	Financing of companies in need of restructuring or facing financial distress
	One-time opportunities	Financing in relation to changing industry trends and new government regulations
	Other	Other forms of private equity financing are also possible—for example, activist investing, funds of funds, and secondaries

PRIVATE EQUITY

Who are the largest Private Equity firms?

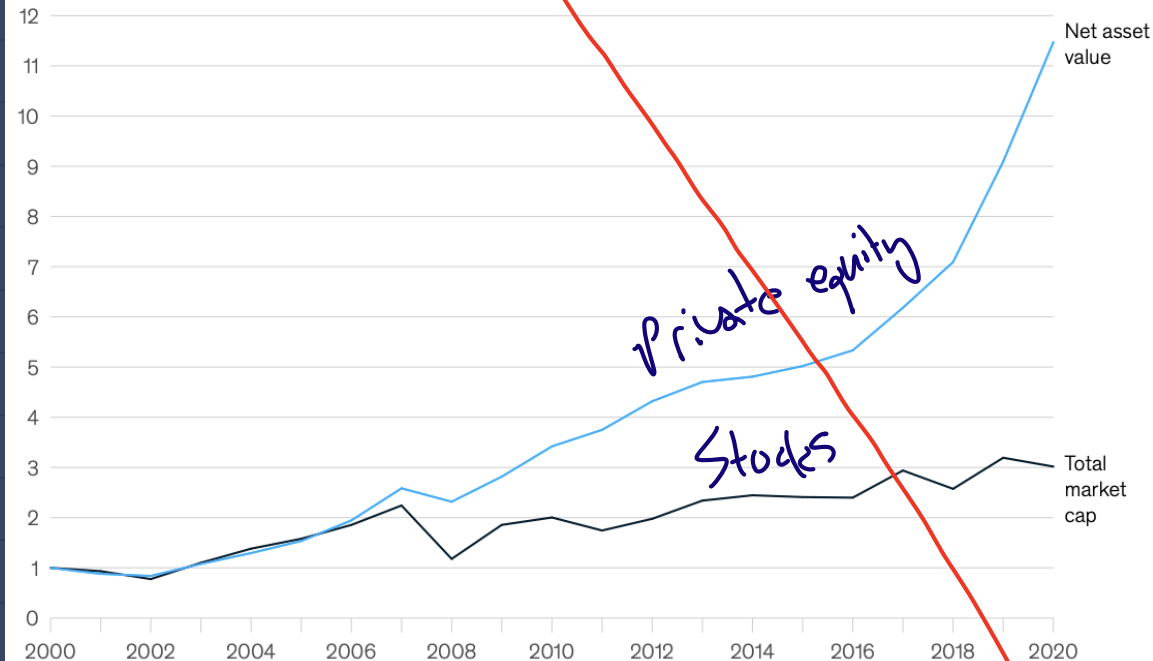


Largest global private equity companies, by fund-raising capacity 2021

PRIVATE EQUITY

How has PE performed relative to public equity?

Growth of global PE net asset value and market cap,¹
indexed to 2000 value, 2000–20, %



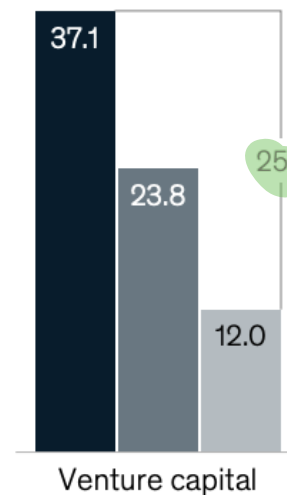
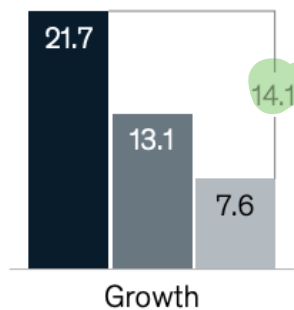
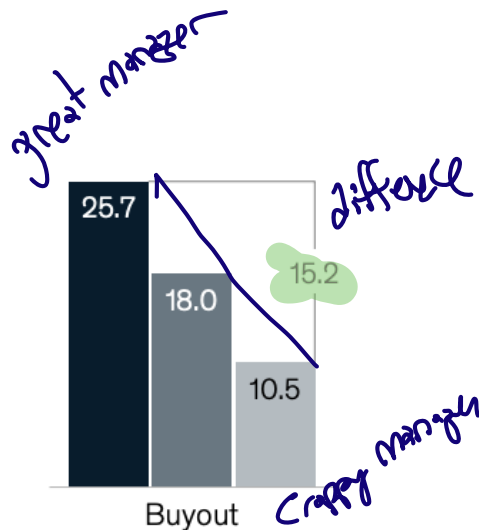
PRIVATE EQUITY

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How have PE sectors performed?

Global PE fund performance by strategy, net IRR to date through Sept 30, 2021,
2008–18 vintages, %

■ Top 25% ■ Median ■ Bottom 25%



PRIVATE EQUITY

Benefits of PE

Reduce risk

Enhance absolute returns

Exposure to privately-held companies

Lower legal and regulatory constraints

Fund job creation, innovation, development of the real economy

A word cloud centered around the phrase "ASSET MANAGEMENT". The words are arranged in a circular pattern, with "ASSET" and "MANAGEMENT" being the largest and most prominent. Other words include "COST", "MONITORING", "PROCESS", "IT", "PROVIDING", "DISPOSING", "ENTITY", "LIFE CYCLE", "FIXED", "FACILITIES", "INFRASTRUCTURE", "UPGRADING", "MAINTAINING", "GOODWILL", "OBJECTIVE", "SYSTEM", "DIGITAL", "PROPERTY", "INTELLECTUAL", and "UP". The words are in various colors (orange, grey, black) and sizes, creating a dynamic visual effect. A red diagonal line crosses the image from the top right to the bottom left.

PROVIDING
DISPOSING
ENTITY
LIFE CYCLE
FIXED
FACILITIES
INFRASTRUCTURE
UPGRADING
MAINTAINING
GOODWILL
OBJECTIVE
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DIGITAL
PROPERTY
INTELLECTUAL
UP

ASSET

MANAGEMENT

COST

MONITORING

PROCESS

IT

