Hiring a Money Manager – The Process

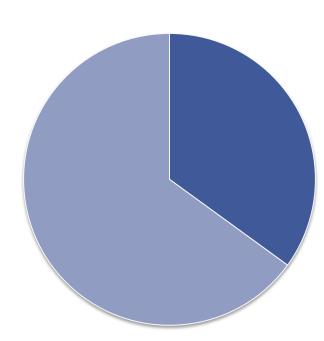




Your Portfolio

Equity (50-70%)

- Public Equity
 - US Large Cap
 - US Mid Cap
 - US Small Cap
 - Developed Int'l
 - Emerging Markets
 - ACWI ex-US
 - Global
- REITs
- Private Equity
- Hedge Funds
 - Long/Short
 - Global Macro



Fixed Income (30-50%)

- Bonds
 - US Core
 - Global Core
 - Core Plus
 - High Yield
 - Bank Loans
 - Total Return
 - Unconstrained
- Private Real Estate
 - Core
 - Core Plus
 - Value-Add
- Natural Resources
 - Timber
 - Agriculture

The Investable Universe

• Equity

- Domestic:
- International:
- Global:
- Fixed Income
 - Domestic:
 - Global:

313 Firms 584 Products

946 Firms

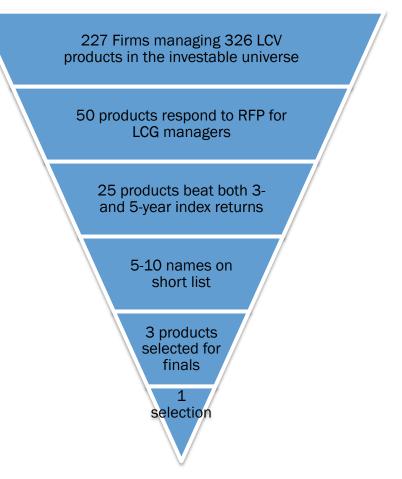
301 Firms

382 Firms 1576 Products93 Firms 186 Products

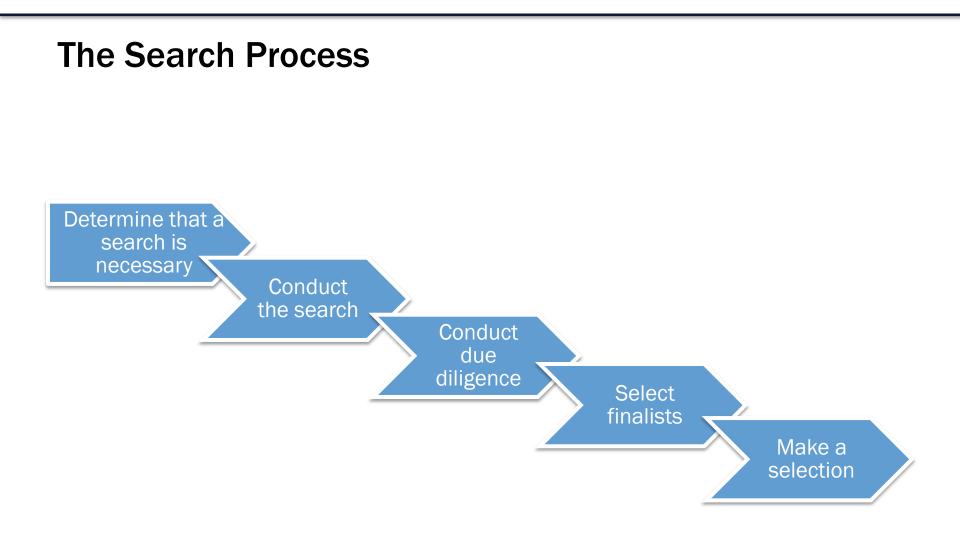
3113 Products

905 Products

An Example: Large Cap Growth



Source: PSN Enterprise



Conduct Due Diligence

- Initial screens
 - Performance
 - Organizational structure
 - Investment team
 - Litigation history
 - Fee structures
 - Available fund structures
 - Suitability
 - Investment Policy Statement (IPS)
 - P&G (Policy and Guidelines)

Statistics

- Rate of Return
 - Net of Fees or Gross of Fees?
- Alpha and Beta
- Standard Deviation
- Upside and Downside Capture
- Tracking Error and Information Ratio
- Turnover

Risks

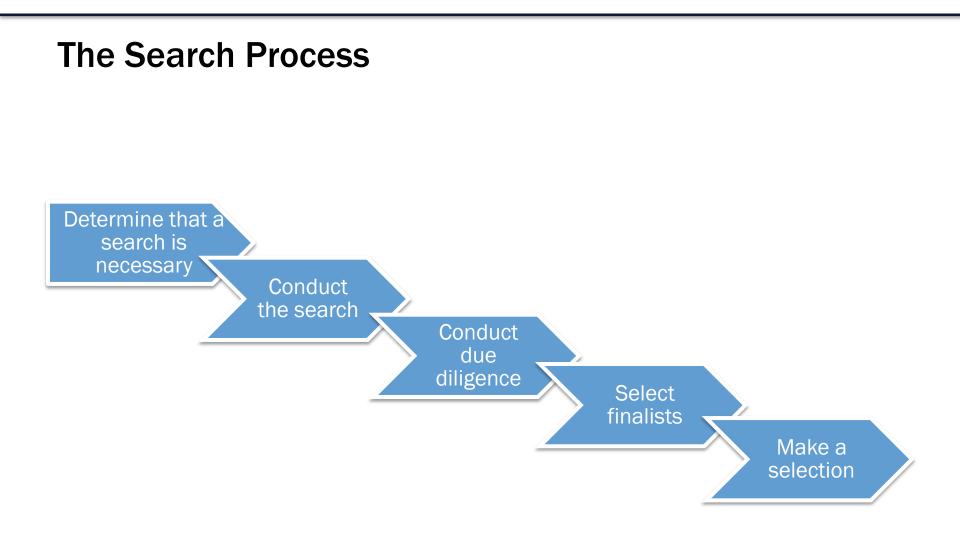
- Liquidity
- Credit
- Counterparty
- Sovereign
- Operational
- Model
- Security Lending

The real risk is permanent loss of capital

Finals and Selection

Key criteria to consider:

- How a manager fits in the overall portfolio
 - Growth vs. Value
 - Do asset classes overlap with another allocation?
- Fee schedule and structure
 - Fees are *almost always* negotiable
 - Always worth it to ask for a Most Favored Nation (MFN)
 - Never underestimate the value of low-cost index funds
- Comfort and trust in team and relationship manager



The Investment Vehicles

Separate Accounts

- Board has full discretion over assets
- Securities remain with custody bank
- Usually lower management fees
- Potentially higher trading costs, especially international
- The Board can impose any constraints it wants
- Highly liquid

Commingled Funds

- Board has no discretion over assets
- Securities reside with investment manager
- Management fees may vary
- Pooled vehicles with other investors
- Investors share trading costs
- Varying liquidity (daily-monthly)

Mutual Funds

- Board has no discretion over assets
- Securities reside with investment manager
- Usually higher management fees
- Pooled vehicles that are marked to market every day
- Investors share trading costs
- Withdrawals occur at the end of any day
- Highly liquid (daily)

The Glossary in Plain English

Rate of Return Net of Fees Gross of Fees	Average geometric annual return of the portfolio over some time period (e.g. 3, 5, 10 years) Return after fees have been paid Return before fees have been paid
Alpha	Measures the excess return of a portfolio that's unexplained by the market
Beta	Measures the risk of a portfolio explained by the market
Standard Deviation	Measures the dispersion of annual returns
Upside and Downside Capture	Measures how much of an up- or down-market the portfolio captures High upside capture is good, low downside capture is good
Tracking Error	Measures how similar a portfolio's returns is to the index
Information Ratio	A ratio of excess return to standard deviation of excess return
Sharpe Ratio	A ratio of excess return to standard deviation of total return
Turnover Name Cash Ticket	Measure how much the portfolio changes Measures what percent of names enter and exit the portfolio Measures how often each dollar is used in transactions Measures the number of actual buy/sell orders each year
Most Favored Nation Clause	A guarantee that no comparable client is paying less in fees A variation may stipulate, instead, that no future client will pay less in fees

The Glossary in Plain English - Risks

Liquidity	Assets might not be easily sold at desired prices
Credit	Assets might lose all value (bankruptcy) or miss scheduled payments (default)
Counterparty	A guaranteeing organization may fail to secure the asset
Sovereign	A foreign government may undergo a major change, or may not have a favorable legal systems
Operational	Key members of the investment team may leave
Model	Key assumptions underlying investments may be wrong
Security Lending	Assets may be leant out to other parties for trading, secured by theoretically low-risk assets