CHAPTER 4 PORTFOLIO MANAGEMENT: AN OVERVIEW

Presenter Venue Date



THE PORTFOLIO PERSPECTIVE

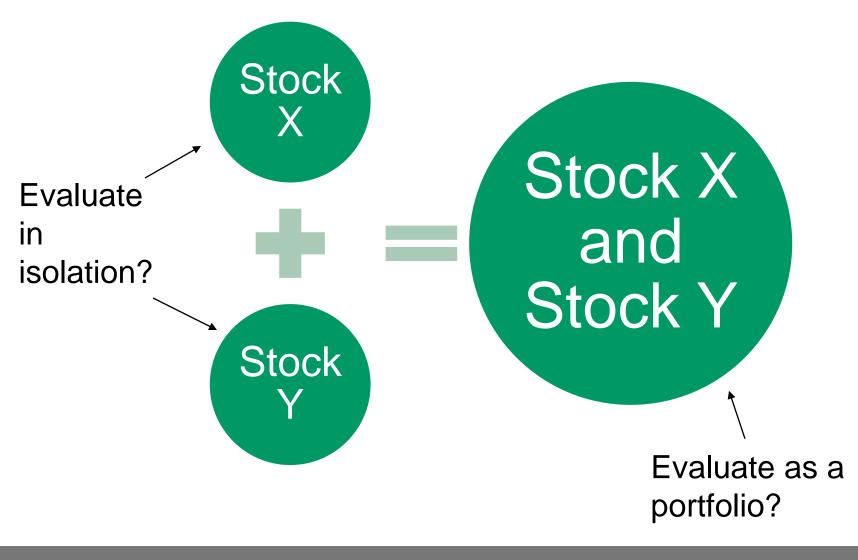
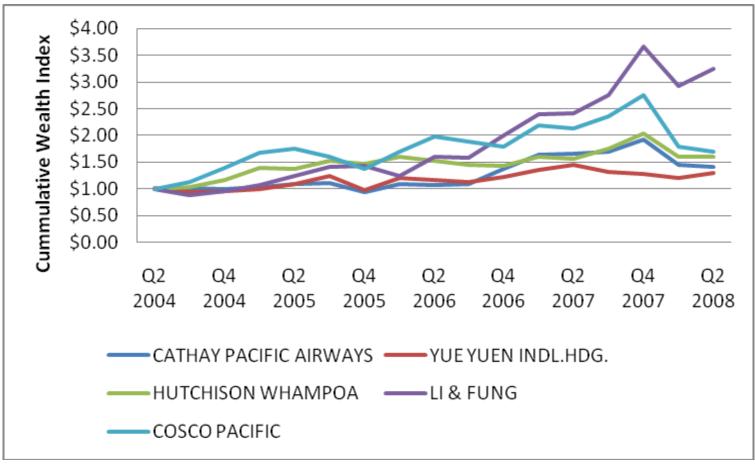


EXHIBIT 4-3 CUMULATIVE WEALTH INDEX OF SAMPLE OF SHARES LISTED ON HKSE



Source: Datastream

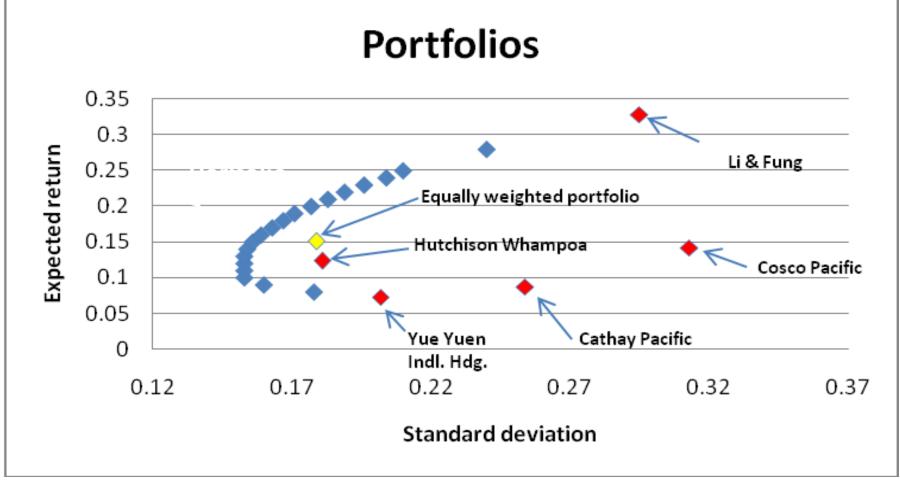
EXHIBIT 4-4 THE IMPORTANCE OF THE PORTFOLIO PERSPECTIVE

| | Yue Yuen Industrial | Cathay Pacific Airways | Hutchinson Whampoa | Li & Fung | COSCO Pacific | Equally Weighted Portfolio |
|---------------------------------|------------------------|------------------------------|-----------------------|-----------|------------------|----------------------------------|
| Mean annual return | 7.3% | 8.7% | 12.3% | 32.8% | 14.2% | 15.1% |
| Annual standard deviation | 20.2% | 25.4% | 18.1% | 29.5% | 31.3% | 17.9% |

Mean annual return, randomly selected security = 15.1% Annual standard deviation, randomly selected security = 24.9%

Source: Datastream

EXHIBIT 4-5 OPTIMAL PORTFOLIOS FOR A SAMPLE OF HKSE SHARES



Source: Datastream

KEY TENETS OF MODERN PORTFOLIO THEORY



Investors should hold portfolios and focus on how individual securities in the portfolio are related to one another.



The priced risk of an individual security is affected by holding it in a well-diversified portfolio.



Systematic or nondiversifiable risk should be the only risk that affects the asset's price.

REPRESENTATIVE INVESTMENT MOTIVES FOR INDIVIDUAL INVESTORS

Short-Term Goals

- Children's education
- Saving for a major purchase
- Starting a business

Long-Term Goals

• Retirement (defined contribution plan)

EXAMPLES OF INSTITUTIONAL INVESTORS

Defined Benefit Pension Plans

University Endowments

Charitable Foundations

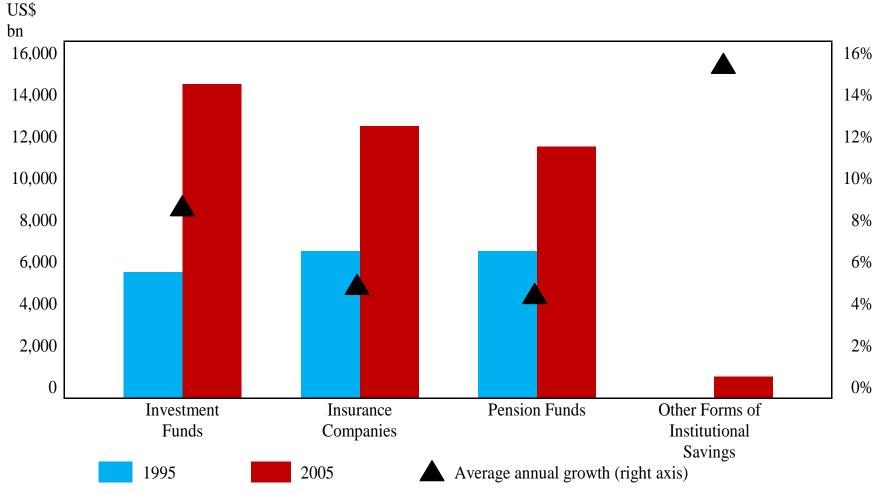
Banks

Insurance Companies

Investment Companies

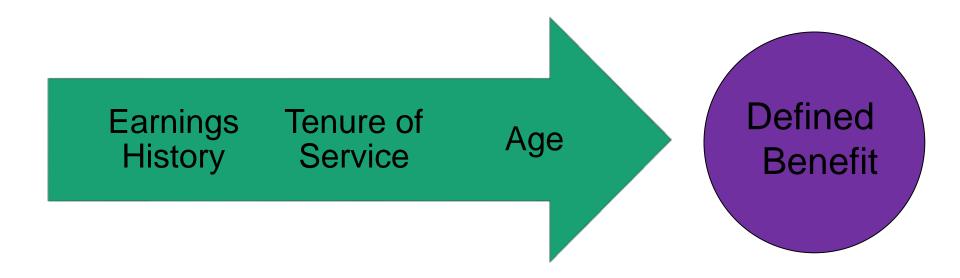
Sovereign Wealth Funds (SWFs)

EXHIBIT 4-10 INSTITUTIONAL ASSETS (IN US\$ BILLIONS)



Source: OECD, "Recent Trends in Institutional Investors Statistics" (2008).

DEFINED BENEFIT PENSION PLANS



Investment Returns?

EXHIBIT 4-11 TOP TEN U.S. UNIVERSITY ENDOWMENTS BY ASSET VALUE

| | | State | Endowment | |
|------|---|-------|--------------|--|
| Rank | Institution | | Funds 2008 | |
| | | | (US\$ | |
| | | | thousands) | |
| 1 | Harvard University | MA | \$36,556,284 | |
| 2 | Yale University | СТ | 22,869,700 | |
| 3 | Stanford University | CA | 17,200,000 | |
| 4 | Princeton University | NJ | 16,349,329 | |
| 5 | University of Texas System | TX | 16,111,184 | |
| 6 | Massachusetts Institute of Technology | MA | 10,068,800 | |
| 7 | University of Michigan | MI | 7,571,904 | |
| 8 | Northwestern University | IL | 7,243,948 | |
| 9 | Columbia University | NY | 7,146,806 | |
| 10 | Texas A&M University System and foundations | TX | 6,659,352 | |

Source: NACUBO, "2008 NACUBO Endowment Study" (January 2009).

EXHIBIT 4-12 TOP TEN U.S. FOUNDATION ENDOWMENTS BY ASSET VALUE

| | | Assets (US\$ | As of Fiscal |
|------|---|--------------|---------------|
| Rank | Foundation | thousands) | Year-End Date |
| 1 | Bill & Melinda Gates Foundation | \$38,921,022 | 12/31/07 |
| 2 | J. Paul Getty Trust | 11,187,007 | 06/30/07 |
| 3 | Ford Foundation | 11,045,128 | 09/30/08 |
| 4 | Robert Wood Johnson Foundation | 10,722,296 | 12/31/07 |
| 5 | William and Flora Hewlett Foundation | 9,284,917 | 12/31/07 |
| 6 | W.K. Kellogg Foundation | 8,402,996 | 08/31/07 |
| 7 | Lilly Endowment | 7,734,860 | 12/31/07 |
| 8 | John D. and Catherine T. MacArthur Foundation | 7,052,165 | 12/31/07 |
| 9 | David and Lucile Packard Foundation | 6,594,540 | 12/31/07 |
| 10 | Andrew W. Mellon Foundation | 6,539,865 | 12/31/07 |

Source: Foundation Center (2009).

BANKS, INSURANCE COMPANIES, AND INVESTMENT COMPANIES

Banks

 Legal restrictions?

Risk and liquidity concerns?

Insurance Companies

- Risk and liquidity concerns?
- Time horizons?

Investment Companies

- Investment category?
- Limits and legal restrictions?

EXHIBIT 4-13 SOVEREIGN WEALTH FUNDS BY ASSET VALUE

| Fund | Assets as of March 2009 | Inception Date | Country |
|--------------------------------|----------------------------|-------------------|----------------------------|
| | (US\$ bns) | | |
| Abu Dhabi Investment Authority | \$627 | 1976 | Abu Dhabi, UAE |
| SAMA Foreign Holdings | 431 | n/a | Saudi Arabia |
| SAFE Investment Company | 347 | n/a | People's Republic of China |
| Norwegian Government Pension | 326 | 1990 | Norway |
| Fund-Global | | | |
| Government of Singapore | 248 | 1981 | Singapore |
| Investment Corporation | | | |
| National Welfare Fund | 220 | 2008 | Russia |
| Kuwait Investment Authority | 203 | 1953 | Kuwait |
| China Investment Corporation | 190 | 2007 | People's Republic of China |
| Hong Kong Monetary Authority | 173 | 1998 | People's Republic of China |
| Investment Portfolio | | | |
| Temasek Holdings | 85 | 1974 | Singapore |
| Total of top 10 SWFs | \$2,850 | | |
| Total of all SWFs | \$3,582 | | |

Source: SWF Institute (www.swfinstitute.org).

EXHIBIT 4-14 SUMMARY OF INVESTMENT NEEDS BY CLIENT TYPE

| Client | Time Horizon | Risk Tolerance | Income Needs | Liquidity Needs |
|----------------------------------|--|-------------------------|---|--|
| Individual | Varies by | Varies by | Varies by | Varies by |
| investors | individual | individual | individual | individual |
| Defined benefit pension plans | Typically long- term | Typically quite high | High for mature funds; low for growing funds | Typically quite low |
| Endowments and foundations | Very long-term | Typically high | Sufficient to meet spending commitments | Typically quite low |
| Banks | Short-term | Quite low | Sufficient to pay interest on deposits and operational expenses | High to meet repayment of deposits |
| Insurance companies | Short-term for property and casualty; long- term for life insurance companies | Typically quite low | Typically low | High to meet claims |
| Investment companies | Varies by fund | Varies by fund | Varies by fund | High to meet redemptions |

STEPS IN THE PORTFOLIO MANAGEMENT PROCESS

Planning Step

- Understanding client needs
- Preparing an investment policy statement (IPS)

Feedback Step

- Portfolio monitoring and rebalancing
- Portfolio measurement and reporting

Execution Step

- Asset allocation
- Security analysis
- Portfolio construction

SELL-SIDE FIRM VS. BUY-SIDE FIRM

Sell-Side Firm

- Broker or dealer who sells securities
- Provides independent investment research and recommendations

Buy-Side Firm

- Investment management company (mutual fund, pension fund, etc.)
- Clients of sell-side firms
- May perform in-house research

POOLED INVESTMENTS

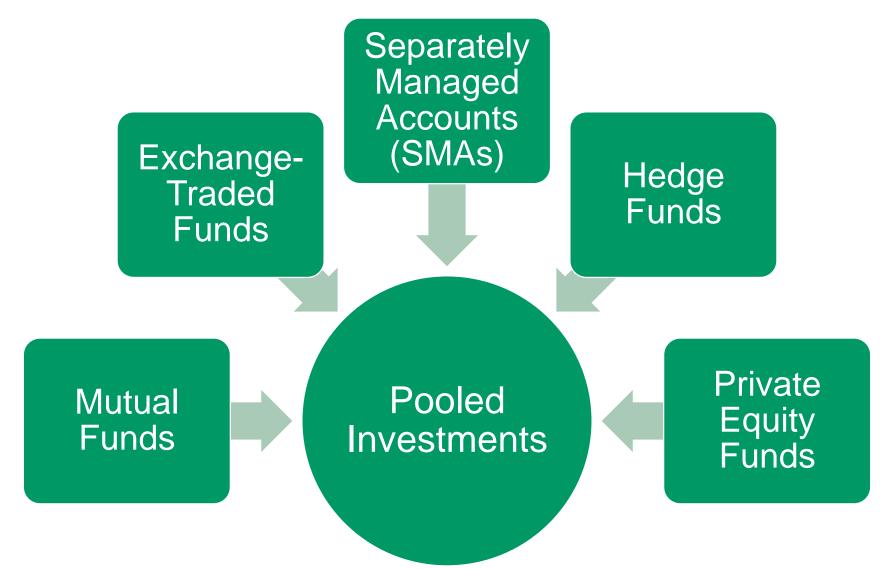
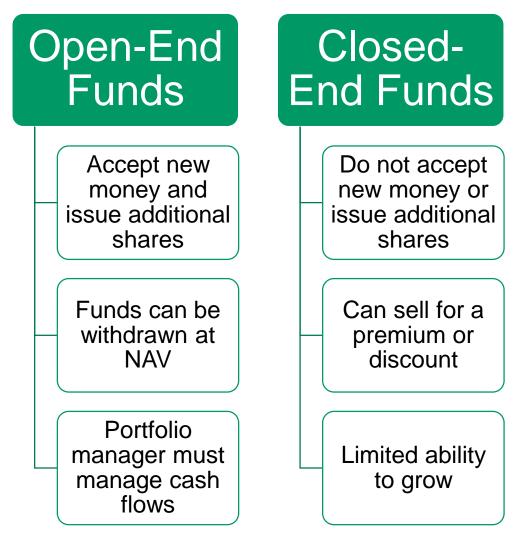
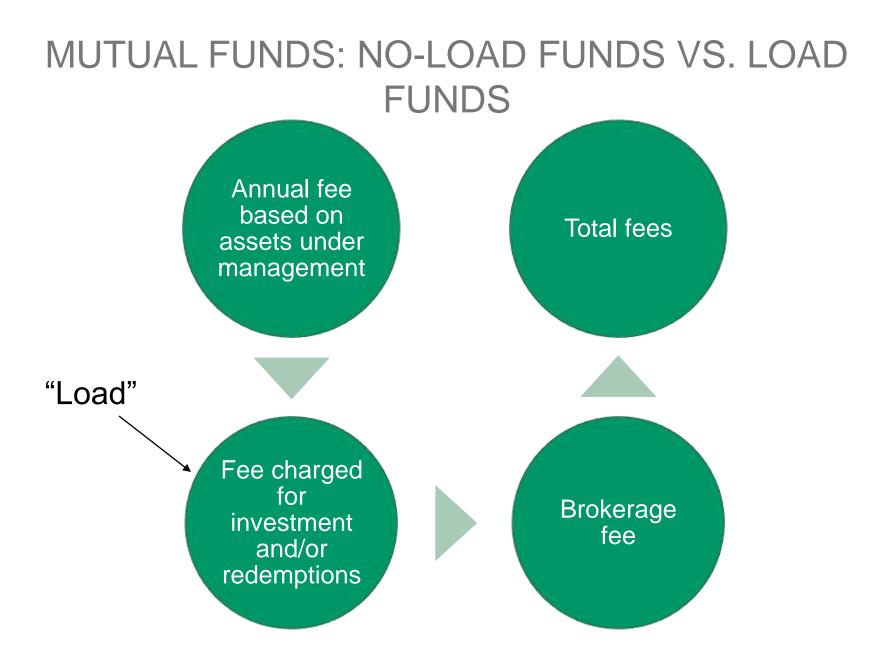


EXHIBIT 4-17 INVESTMENT PRODUCTS BY MINIMUM INVESTMENT

| Mutual funds Exchange- traded funds | Mutual funds Exchange- traded funds Separately managed accounts | Mutual funds Exchange-traded funds Separately managed accounts Hedge funds Private equity funds | | | | | |
|--|---|---|--|--|--|--|--|
| As little as US\$50 | US\$100,000 | US\$1,000,000 + | | | | | |
| Minimum Investment | | | | | | | |

MUTUAL FUNDS: OPEN-END FUNDS VS. CLOSED-END FUNDS





MONEY MARKET FUNDS

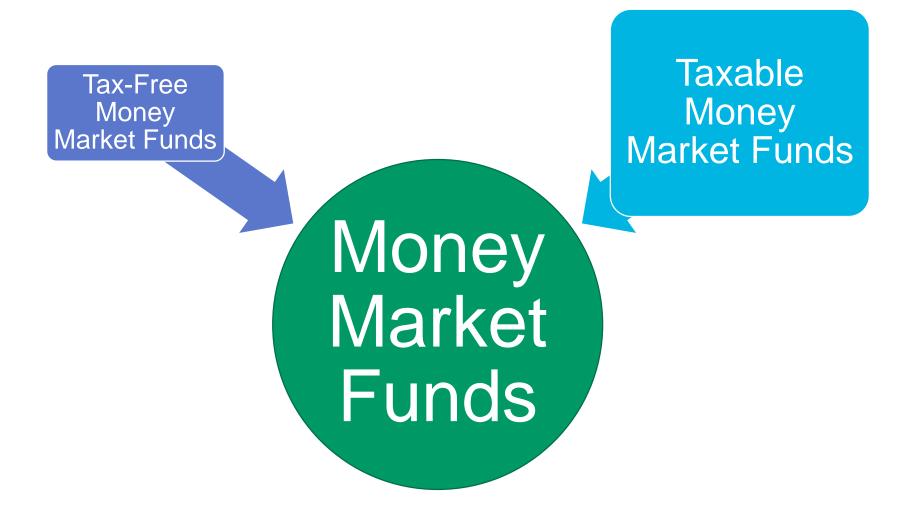


EXHIBIT 4-21 BOND MUTUAL FUNDS

| Type of Bond Mutual Fund | Securities Held |
|---|-------------------------------------|
| Global | Domestic and nondomestic |
| | government, corporate, and |
| | securitized debt |
| Government | Government bonds and other |
| | government-affiliated bonds |
| Corporate | Corporate debt |
| High yield | Below-investment-grade corporate |
| | debt |
| Inflation | Inflation-protected government debt |
| protected | |
| National tax-free | National tax-free bonds (e.g., U.S. |
| bonds | municipal bonds) |

STOCK MUTUAL FUNDS: ACTIVE VS. PASSIVE MANAGEMENT

Actively Managed

Manager seeks outstanding performance

- Higher fees
- Frequent trading
- More likely to realize capital gain distributions

Passively Managed

Manager seeks to match the performance of an index

EXCHANGE-TRADED FUNDS (ETFS)



Are typically index funds Trade like closedend funds

Have prices that track NAV Pay dividends out to investors

EXHIBIT 4-23 TYPES OF EXCHANGE-TRADED FUNDS (ETFS) JANUARY 2009

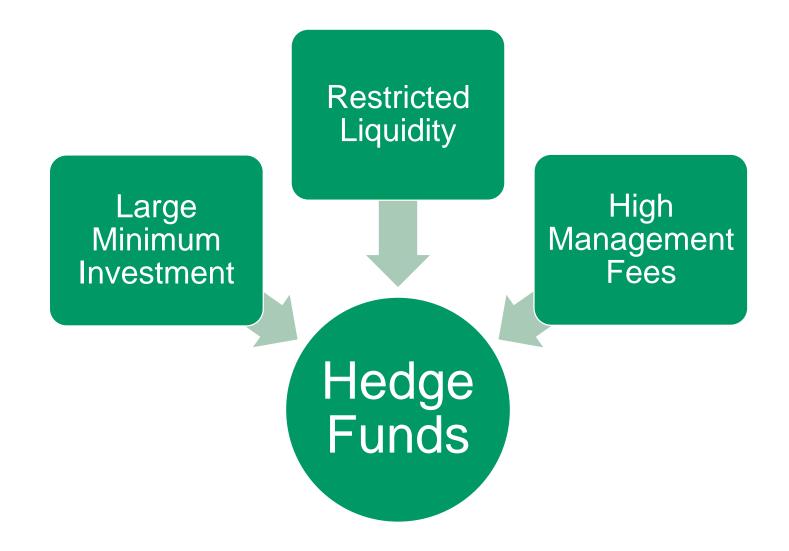
| Type of ETF | End of 2008 | Totals (in US\$ millions) | Asset Class by Type of ETF as a Percentage of Assets under Management | | | | | | | |
|---------------|-------------|---------------------------------|---|-------------------|-------------------|-----------------------|---------------------|------------|-----------|------------------|
| Broad-based | | | Total Market | Large Cap | Mid Cap | Broad-Based, Other | | | | |
| equity | 50.6% | \$266,161 | 7.4% | 69.4% | 9.4% | 3.4% | | | | |
| Sector | | | Commodities | Consumer | Financial | Natural Resources | Real Estate | Technology | Utilities | Other Sectors |
| Sector | 17.9% | 94,101 | 38.0% | 5.0% | 16.6% | 7.0% | 12.8% | 7.9% | 4.8% | 4.6% |
| Global/ | | | Global | International | Regional | Single Country | Emerging Markets | | | |
| international | 19.7% | 103,713 | 8.8% | 41.4% | 5.6% | 11.5% | 42.3% | | | |
| | | | Hybrid | | | | | | | |
| Hybrid | 0.0% | 125 | 100% | | | | | | | |
| | | | Government Bond | Municipal Bond | Corporate Bond | International Bond | | | | |
| Bond | 11.8% | 62,185 | 44.7% | 3.5% | 41.4% | 2.4% | | | | |
| Totals | 100.0% | \$526,285 | | | | | | | | |

Source: Investment Company Institute, "Exchange-Traded Fund Assets, January 2009" (25 February 2009).

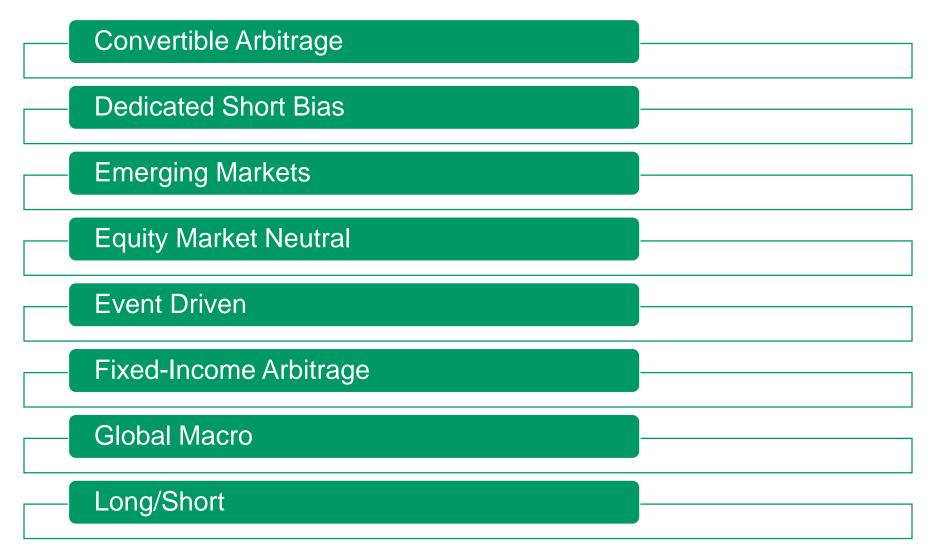
SEPARATELY MANAGED ACCOUNT (SMA)



HEDGE FUNDS



HEDGE FUND STRATEGIES



BUYOUT AND VENTURE CAPITAL FUNDS



Short-term investors

Minimum investment requirement

Fees for funds under management and performance

SUMMARY

- Portfolio approach to investing
- Investment management clients: types, characteristics, and needs
- Steps in the portfolio management process
- Pooled investments