

# Understanding alternative investments

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Exploring needs, delivering solutions

**Investment and Insurance Products are:**

- **Not Insured by the FDIC or Any Federal Government Agency**
- **Not a Deposit or Other Obligation of, or Guaranteed by, the Bank or Any Bank Affiliate**
- **Subject to Investment Risks, Including Possible Loss of the Principal Amount Invested**

# Alternative investments overview

Alternative investments are investments other than stocks, bonds and cash. Alternative investment strategies may deliver significant benefits to an overall investment portfolio.

## Types of alternative investments

**Hedge funds**

**Private real estate**

**Private capital**

## Potential benefits of alternative investments



Greater potential for diversification



Potential for improved risk-adjusted returns



Historically low or non-correlation to traditional investments



Seek to minimize market cycle peaks and troughs



Exposure to a broader range of investment opportunities

# Suitability requirements

Many alternative investments are structured as private placements and may be limited to investors that meet certain eligibility requirements.

Qualification standards	Individuals	Entities
<b>Qualified Purchasers (QP)</b>	<b>\$5 million</b> in investable assets	<b>\$25 million</b> in investable assets
<b>Qualified Eligible Purchasers (QEP)</b>	<b>\$2 million</b> in investable assets	<b>\$5 million</b> in assets
<b>Qualified Client (QC)</b>	<b>\$2.2 million</b> in net worth	<b>\$5 million</b> in assets
<b>Accredited Investor (AI)</b>	<b>\$1 million</b> in net worth <sup>1</sup>	<b>\$5 million</b> in assets

<sup>1</sup> Excludes equity in primary residence, or earns an individual annual income of at least \$200,000, or a joint annual income of at least \$300,000 for the past two calendar years, with the reasonable expectation that the income will continue in the current calendar year.

The table above is intended to provide a general overview of investor qualifications. Other qualifications or requirements may apply.

# Hedge funds

# Hedge funds overview

- The term “hedge fund” generally refers to a fund that is exempt from registration as an investment company under federal securities laws.
- Typically, a private entity that invests on behalf of its investors (e.g., limited partners of limited partnership).
- Less constrained in their investment strategies compared to traditional investment funds.
- May use leverage, borrowing, shorting, private investments and non-daily traded securities in an attempt to enhance diversification, control risk or amplify potential returns.
- Tend to be highly specialized, relying on the specific expertise of the manager or management team.
- Many are designed to lower the overall volatility of a portfolio.

# Hedge fund strategies

Hedge funds are less constrained in their investment strategies compared to traditional investment funds.

Equity hedge	Event driven	Global macro	Relative value
<p>Maintain long and short positions in primarily equity and equity derivative securities.</p> <p>Includes both quantitative and fundamental analysis.</p> <p>Typically has a directionally long bias, with long exposure slightly offset by short exposure.</p>	<p>Focus on companies currently or prospectively involved in corporate transactions such as mergers, restructurings, and financial distress.</p> <p>Typically, long-biased focused on equity and/or credit securities.</p> <p>Utilizes active hedging to isolate transaction-specific risk and return.</p>	<p>Focus on movements in underlying economic variables and the impact these have on equity, fixed income, credit, hard currency and commodity markets.</p> <p>Systematic strategies typically utilize mathematical, algorithmic, and technical models.</p> <p>Discretionary strategies rely on the fundamental top-down analysis of macroeconomic variables.</p>	<p>Predicated on the realization of a small valuation discrepancy between multiple securities.</p> <p>Trade structure typically includes both a long and short position resulting in low net exposure and lower targeted volatility.</p>

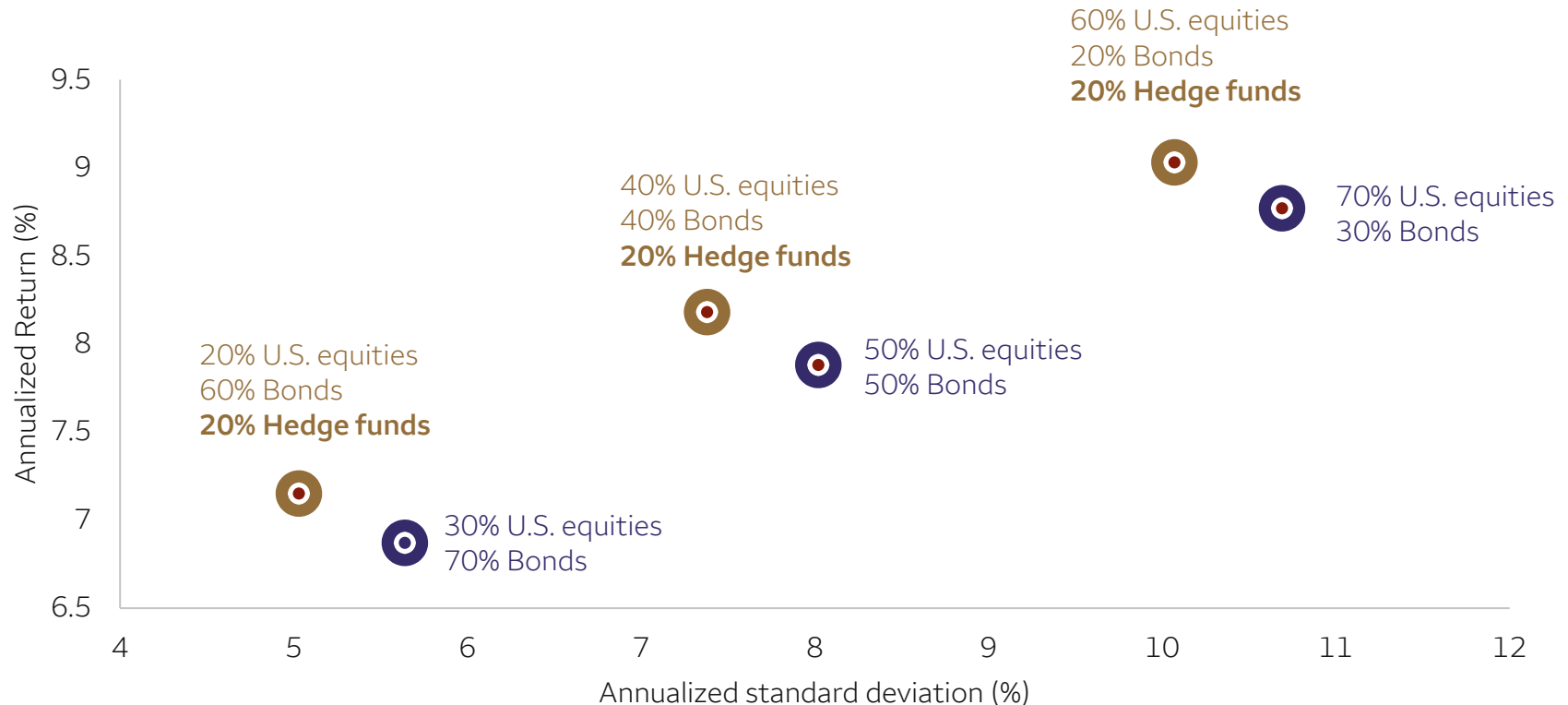
# Hedge fund strategy returns

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Global equities 15.83%	Global equities 26.68%	Global bonds 5.89%	Global bonds 0.60%	Event Driven 10.57%	Global equities 22.40%	Global bonds -0.03%	Global equities 27.67%	Equity hedge 17.41%	Global equities 21.82%	Global macro 8.99%
Relative value 10.59%	Equity hedge 14.28%	Global macro 5.58%	Relative value -0.29%	Relative value 7.67%	Equity hedge 13.29%	Relative value -0.43%	Equity hedge 13.74%	Global equities 15.90%	Event driven 12.41%	Relative value -0.80%
Event Driven 8.89%	Event Driven 12.51%	Global equities 4.94%	Global equities -0.87%	Global equities 7.51%	HFRI composite 8.59%	Event Driven -2.13%	HFRI composite 10.45%	HFRI composite 11.61%	Equity hedge 11.67%	HFRI composite -4.20%
Equity hedge 7.41%	HFRI composite 9.13%	Relative value 4.02%	Equity hedge -0.97%	Equity hedge 5.47%	Event Driven 7.59%	Global macro -4.08%	Global bonds 8.98%	Event Driven 8.84%	HFRI composite 10.16%	Event driven -4.65%
HFRI composite 6.36%	Relative value 7.07%	HFRI composite 2.98%	HFRI composite -1.12%	HFRI composite 5.44%	Relative value 5.14%	HFRI composite -4.75%	Relative value 7.53%	Global bonds 7.60%	Global macro 7.72%	Equity hedge -10.21%
Global bonds 4.64%	Global macro -0.44%	Equity hedge 1.81%	Global macro -1.26%	Global bonds 2.78%	Global bonds 3.70%	Equity hedge -7.14%	Event Driven 7.46%	Global macro 5.31%	Relative value 7.59%	Global bonds -13.10%
Global macro -0.06%	Global bonds -1.93%	Event Driven 1.08%	Event Driven -3.55%	Global macro 1.03%	Global macro 2.20%	Global equities -8.71%	Global macro 6.46%	Relative value 3.66%	Global bonds -1.40%	Global equities -18.14%

Source: MPI Stylus. For illustrative purposes only. Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of this presentation for the definitions of the indices, important information regarding index comparisons and for a description of the asset class risks. HFRI Composite represented by the HFRI Fund Weighted Composite Index. Hedge fund strategies (Equity Hedge, Event Driven, Global Macro, Relative Value) represented by their respective HFRI strategy indices. Global Bonds represented by the Bloomberg Global Aggregate Index. Global Equities represented by the MSCI World Index.

# Improved risk/return profile

Adding hedge funds to a traditional portfolio of stocks and bonds has historically increased return and decreased risk.



Source: MPI Stylus. Data as of March 31, 2023. Data shown since January 1, 1990, the inception of the HFRI Fund Weighted Composite Index. For illustrative purposes only. Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of this presentation for the definitions of the indices, important information regarding index comparisons and for a description of the asset class risks. Drawdown is any losing period during an investment record. It is defined as the percent retrenchment from an equity peak to an equity valley. Hedge Funds represented by the HFRI Fund Weighted Composite Index. Bonds represented by the Bloomberg U.S. Aggregate Index. U.S. Equities represented by the S&P 500 Index.



# Minimizing significant monthly losses

Global equities

Year	J	F	M	A	M	J	J	A	S	O	N	D
2023	7.1	-2.4	3.1									
2022	-5.3	-2.5	2.7	-8.3	-0.1	-8.7	7.9	-4.2	-9.3	7.1	6.9	-4.2
2021	-0.9	2.6	3.3	4.7	1.6	1.4	1.8	2.5	-4.2	5.7	-2.2	4.3
2020	-0.6	-8.5	-13.2	10.9	4.8	2.7	4.8	6.7	-3.5	-3.1	12.8	4.2
2019	7.8	3.0	1.3	3.6	-5.8	6.6	0.5	-2.1	2.1	2.5	2.8	3.0
2018	5.3	-4.1	-2.2	1.2	0.6	-0.1	3.1	1.2	0.6	-7.3	1.1	-7.6
2017	2.4	2.8	1.1	1.5	2.1	0.4	2.4	0.1	2.2	1.9	2.2	1.4
2016	-6.0	-0.7	6.8	1.6	0.6	-1.1	4.2	0.1	0.5	-1.9	1.4	2.4
2015	-1.8	5.9	-1.6	2.4	0.3	-2.3	1.8	-6.6	-3.7	7.9	-0.5	-1.8
2014	-3.7	5.0	0.1	1.0	2.0	1.8	-1.6	2.2	-2.7	0.7	2.0	-1.6
2013	5.1	0.2	2.4	3.1	0.0	-2.5	5.3	-2.1	5.0	3.9	1.8	2.1
2012	5.0	4.9	1.3	-1.1	-8.6	5.1	1.3	2.5	2.8	-0.7	1.3	1.9
2011	2.3	3.5	-1.0	4.3	-2.1	-1.6	-1.8	-7.1	-8.6	10.3	-2.4	-0.1
2010	-4.1	1.4	6.2	0.0	-9.5	-3.5	8.1	-3.7	9.3	3.7	-2.2	7.4
2009	-8.8	-10.2	7.5	11.2	9.1	-0.5	8.5	4.1	4.0	-1.8	4.1	1.8
2008	-7.6	-0.6	-1.0	5.3	1.5	-8.0	-2.4	-1.4	-11.9	-19.0	-6.5	3.2
2007	1.2	-0.5	1.8	4.4	2.8	-0.8	-2.2	-0.1	4.8	3.1	-4.1	-1.3
2006	4.5	-0.2	2.2	3.0	-3.4	0.0	0.6	2.6	1.2	3.7	2.5	2.0
2005	-2.3	3.2	-1.9	-2.2	1.8	0.9	3.5	0.8	2.6	-2.4	3.3	2.2
2004	1.6	1.7	-0.7	-2.1	0.8	2.1	-3.3	0.4	1.9	2.5	5.3	3.8
2003	-3.1	-1.8	-0.3	8.9	5.7	1.7	2.0	2.2	0.6	5.9	1.5	6.3
2002	-3.0	-0.9	4.6	-3.6	0.2	-6.1	-8.4	0.2	-11.0	7.4	5.4	-4.9
2001	1.9	-8.5	-6.6	7.4	-1.3	-3.2	-1.3	-4.8	-8.8	1.9	5.9	0.6
2000	-5.7	0.3	6.9	-4.2	-2.5	3.4	-2.8	3.2	-5.3	-1.7	-6.1	1.6
1999	2.2	-2.7	4.2	3.9	-3.7	4.7	-0.3	-0.2	-1.0	5.2	2.8	8.1
1998	2.8	6.8	4.2	1.0	-1.3	2.4	-0.2	-13.4	1.8	9.0	5.9	4.9
1997	1.2	1.1	-2.0	3.3	6.2	5.0	4.6	-6.7	5.4	-5.3	1.8	1.2
1996	1.8	0.6	1.6	2.3	0.1	0.5	-3.6	1.1	3.9	0.7	5.6	-1.6
1995	-1.5	1.4	4.8	3.5	0.8	-0.1	5.0	-2.3	2.9	-1.6	3.5	2.9
1994	6.6	-1.3	-4.3	3.1	0.2	-0.3	1.9	3.0	-2.7	2.8	-4.4	0.9
1993	0.3	2.3	5.8	4.6	2.3	-0.9	2.0	4.6	-1.9	2.7	-5.7	4.9
1992	-1.9	-1.8	-4.7	1.4	4.0	-3.4	0.2	2.4	-1.0	-2.7	1.8	0.8
1991	3.6	9.2	-3.0	0.8	2.2	-6.2	4.7	-0.4	2.6	1.6	-4.4	7.3
1990	-4.7	-4.3	-6.1	-1.5	10.5	-0.7	0.9	-9.4	-10.6	9.3	-1.7	2.1

Hedge funds

Year	J	F	M	A	M	J	J	A	S	O	N	D
2023	2.7	-0.6	-0.8									
2022	-2.1	-0.1	1.2	-1.4	-0.5	-3.0	1.3	0.5	-2.4	1.3	1.2	-0.4
2021	1.2	3.7	0.8	2.2	1.4	0.5	-0.9	0.8	-0.2	1.3	-2.0	1.2
2020	-0.4	2.2	-9.0	4.6	2.4	2.0	3.0	2.4	-1.1	0.2	5.8	4.4
2019	3.5	1.3	0.6	1.3	-1.9	2.3	0.4	-0.8	-0.2	0.6	1.0	1.9
2018	2.3	-1.8	-0.5	0.4	0.9	-0.4	0.5	0.3	-0.3	-3.1	-0.4	-2.4
2017	1.2	0.9	0.4	0.5	0.2	0.3	1.1	0.5	0.7	1.0	0.5	1.0
2016	-2.6	0.0	2.1	1.0	0.4	0.4	1.9	0.5	0.6	-0.6	0.8	1.0
2015	0.0	1.9	0.4	1.0	0.6	-1.2	-0.5	-2.4	-1.4	1.7	0.2	-1.2
2014	-0.5	2.0	-0.3	-0.2	0.9	1.3	-0.6	1.3	-0.9	-0.4	0.8	-0.2
2013	2.5	0.1	1.0	0.6	0.5	-1.5	1.3	-0.7	1.6	1.5	0.9	1.1
2012	2.8	2.1	-0.2	-0.5	-2.6	0.3	0.9	0.8	1.3	-0.4	0.4	1.4
2011	0.4	1.2	0.1	1.5	-1.2	-1.2	0.2	-3.2	-3.9	2.7	-1.4	-0.5
2010	-0.8	0.7	2.5	1.2	-2.9	-1.0	1.6	-0.1	3.5	2.1	0.2	3.0
2009	-0.1	-1.2	1.7	3.6	5.2	0.3	2.5	1.3	2.8	-0.2	1.5	1.3
2008	-2.7	1.5	-2.2	1.6	1.9	-1.3	-2.3	-1.4	-6.1	-6.8	-2.7	0.2
2007	1.1	0.7	1.0	1.8	2.0	0.7	0.1	-1.5	2.7	2.9	-2.2	0.5
2006	3.5	0.5	2.0	1.9	-1.6	-0.2	-0.2	1.0	0.2	1.8	2.1	1.5
2005	-0.2	1.8	-0.9	-1.5	1.0	1.6	2.3	0.8	1.9	-1.4	1.7	1.8
2004	2.0	1.2	0.5	-1.5	-0.3	0.8	-1.0	0.1	1.7	0.8	2.8	1.7
2003	0.7	0.0	0.1	2.6	3.6	1.4	1.3	1.8	1.2	2.5	1.1	1.9
2002	0.5	-0.7	1.9	0.3	0.0	-1.9	-2.9	0.5	-1.5	0.6	2.1	-0.2
2001	3.4	-2.2	-1.6	2.0	1.2	0.3	-0.8	-0.4	-2.8	2.0	2.1	1.7
2000	0.6	6.2	0.9	-2.9	-2.0	3.7	-0.6	3.8	-1.2	-1.8	-3.5	2.1
1999	2.2	-1.3	3.1	4.5	0.7	3.6	0.5	0.0	0.2	1.6	5.1	7.7
1998	-0.7	3.3	3.0	1.0	-2.1	-0.1	-0.8	-8.7	0.7	1.2	3.7	2.8
1997	3.2	1.0	-1.6	-0.1	4.4	2.7	3.9	0.3	3.7	-1.5	-0.9	0.9
1996	2.9	1.2	1.5	4.0	3.1	0.2	-2.1	2.3	2.1	1.0	2.1	1.3
1995	-0.2	1.3	1.7	2.1	1.7	2.5	3.2	2.2	2.0	-0.7	1.9	2.1
1994	2.5	-0.6	-1.5	-0.6	0.7	0.3	1.4	2.5	0.9	0.0	-1.3	-0.1
1993	2.3	1.3	3.1	1.5	2.6	2.6	2.1	2.9	1.6	3.2	0.2	3.9
1992	3.8	2.1	0.6	0.3	1.8	-0.4	2.1	-0.3	1.9	2.1	2.8	2.5
1991	2.6	4.0	5.0	1.3	2.0	0.4	2.6	2.1	2.3	1.8	0.3	4.0
1990	-2.1	1.5	3.2	0.0	3.1	2.1	1.5	-3.5	-2.0	0.0	0.8	1.4

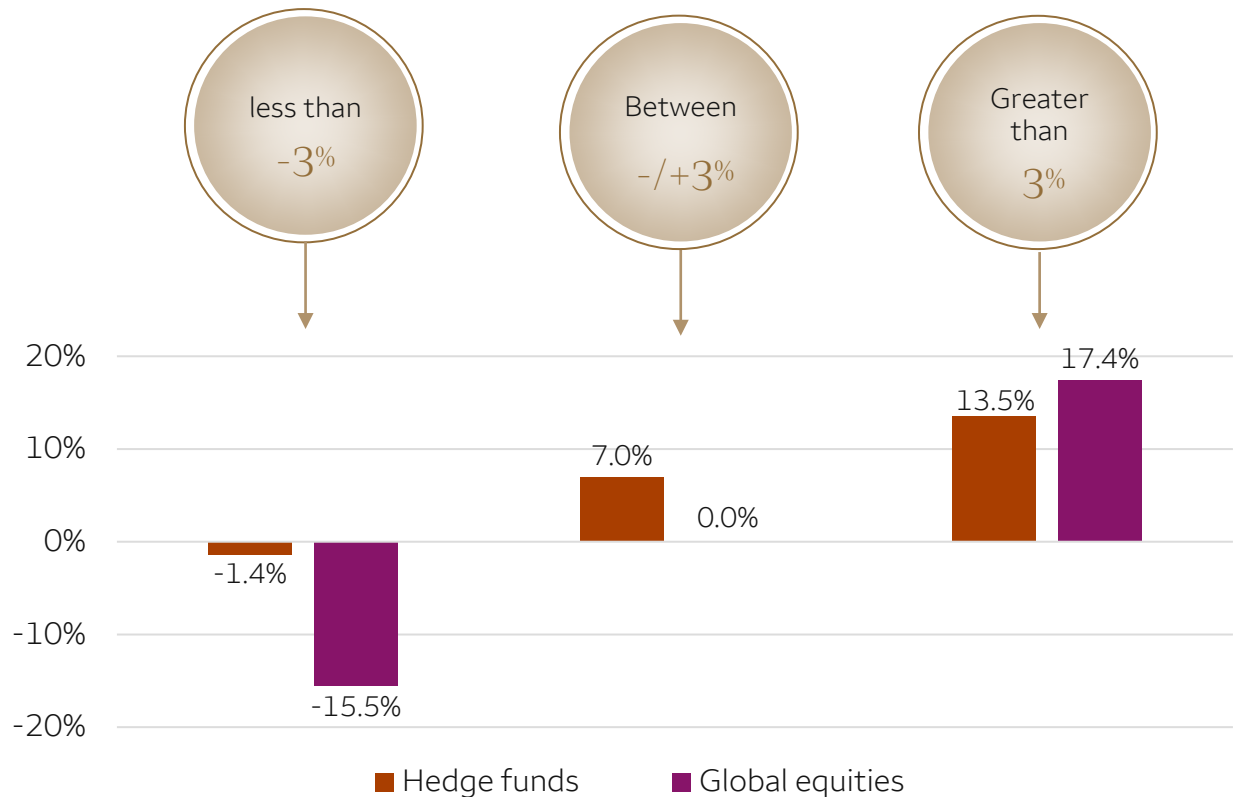
Source: MPI Stylus. Data shown since January 1, 1990, the inception of the HFRI Fund Weighted Composite Index. For illustrative purposes only. Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of this presentation for the definitions of the indices, important information regarding index comparisons and for a description of the asset class risks. Red cells indicate significant negative returns and are defined as less than -3%. Hedge Funds represented by the HFRI Fund Weighted Composite Index. Global Equities represented by the MSCI World Index.

# Potential to participate and mitigate

Hedge funds have been able to minimize losses during negative equity markets while maintaining participation in the upside.

When the 12-month return for global equities has been...

...the average 12-month returns for hedge funds and global equities has been



Source: MPI Stylus. Data as of March 31, 2023. Data shown since January 1, 1990, the inception of the HFRI Fund Weighted Composite Index. For illustrative purposes only. Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indices, HFR Index returns reflect deduction for fees. Because the HFR indices are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of this presentation for the definitions of the indices, important information regarding index comparisons and for a description of the asset class risks. Downside/upside capture is a ratio that shows whether a given portfolio has outperformed-gained more or lost less than-a broad benchmark during periods of market strength and weakness, and if so, by how much. Hedge Funds represented by the HFRI Fund Weighted Composite Index. Global Equities represented by the MSCI World Index.

# Private real estate

# Private real estate overview

Real estate is often the single largest asset in an individual investor's portfolio.



Since holdings generally take the form of personal residences, real estate may also represent a highly concentrated portfolio position both by class and location.



Real estate funds are typically diversified by property type (apartments, retail, industrial, office) and geographical area.

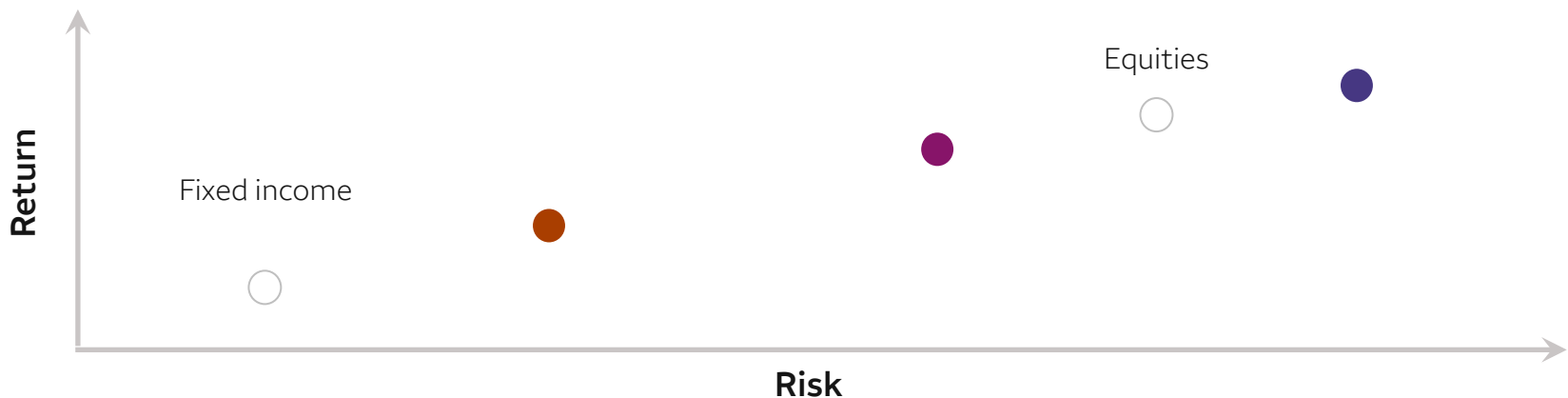


Real estate funds pool investor capital for the purchase, development, management and sale of property and improvements.

# Private real estate

Each private real estate investment strategy offers its own characteristics and risk/return profile.

Strategy	Core	Value-Add	Opportunistic
<b>Property type</b>	<ul style="list-style-type: none"> <li>Fully leased</li> <li>Multi-tenant property</li> </ul>	<ul style="list-style-type: none"> <li>Repositioning</li> <li>Moderate redevelopment</li> <li>Re-leasing</li> </ul>	<ul style="list-style-type: none"> <li>Distressed sellers</li> <li>Development</li> <li>Significant redevelopment</li> <li>Complex structures</li> </ul>
<b>Primary return composition</b>	Current income	Current income Capital appreciation	Capital appreciation
<b>Holding period</b>	10+ years	5-7 years	<5 years
<b>Leverage</b>	0-50%	50-70%	70-80%



# Private real estate - Core

## Core

- May be appropriate for longer term, strategic investors.
- Investors typically seek a secure return, largely generated from ongoing current property cash flow.

## Representative investments

Properties with long term net leases to strong credit tenants.

First class office buildings in major urban markets with intermediate to longer term leases.

Premier multi-tenant buildings with limited lease rollovers.

# Private real estate – Value-add

## Value-add

- May appeal to investors seeking the potential for enhanced return in exchange for somewhat higher levels of operating risk.
- Properties offer a mix of current cash flow and future appreciation.

## Representative investments

May be in recovering primary markets as well as in secondary markets.

Existing occupancy and/or rents below current market levels.

Can benefit from a change in marketing, operating, or leasing strategy, physical improvements, or a new capital structure.

# Private real estate - Opportunistic

## Opportunistic

- Investors tend to have a high-risk tolerance and are comfortable with the higher levels of leverage that are typical in this segment.
- Investments tend to be growth and development oriented or centered on a repositioning or redevelopment strategy.
- Significant portion of the return is typically achieved upon the sale or refinancing of an asset.

## Representative investments

Acquiring an existing property and demolishing to rebuild it and create something new.

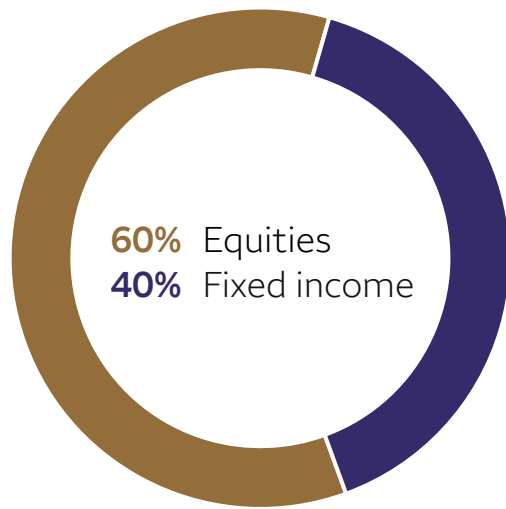
Vacant property that requires significant construction to reposition and attract tenants.

Distressed property that is performing well below its potential.



# Improved risk/return profile

Adding private real estate to a traditional portfolio has historically increased return while decreasing volatility.

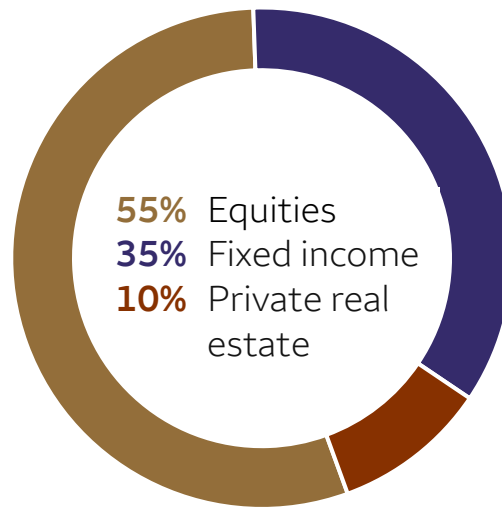


7.5%

Return

9.3%

Standard deviation

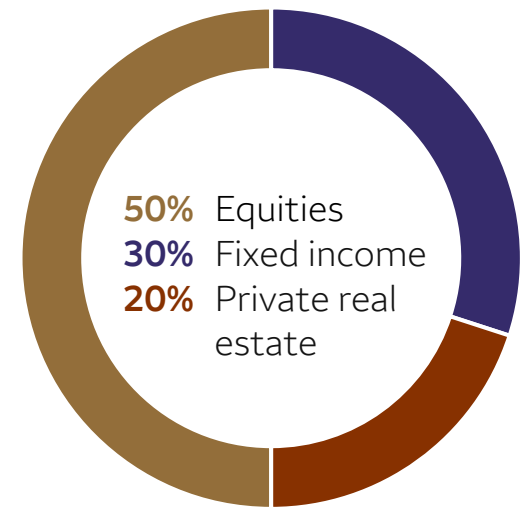


8.0%

Return

9.0%

Standard deviation



8.1%

Return

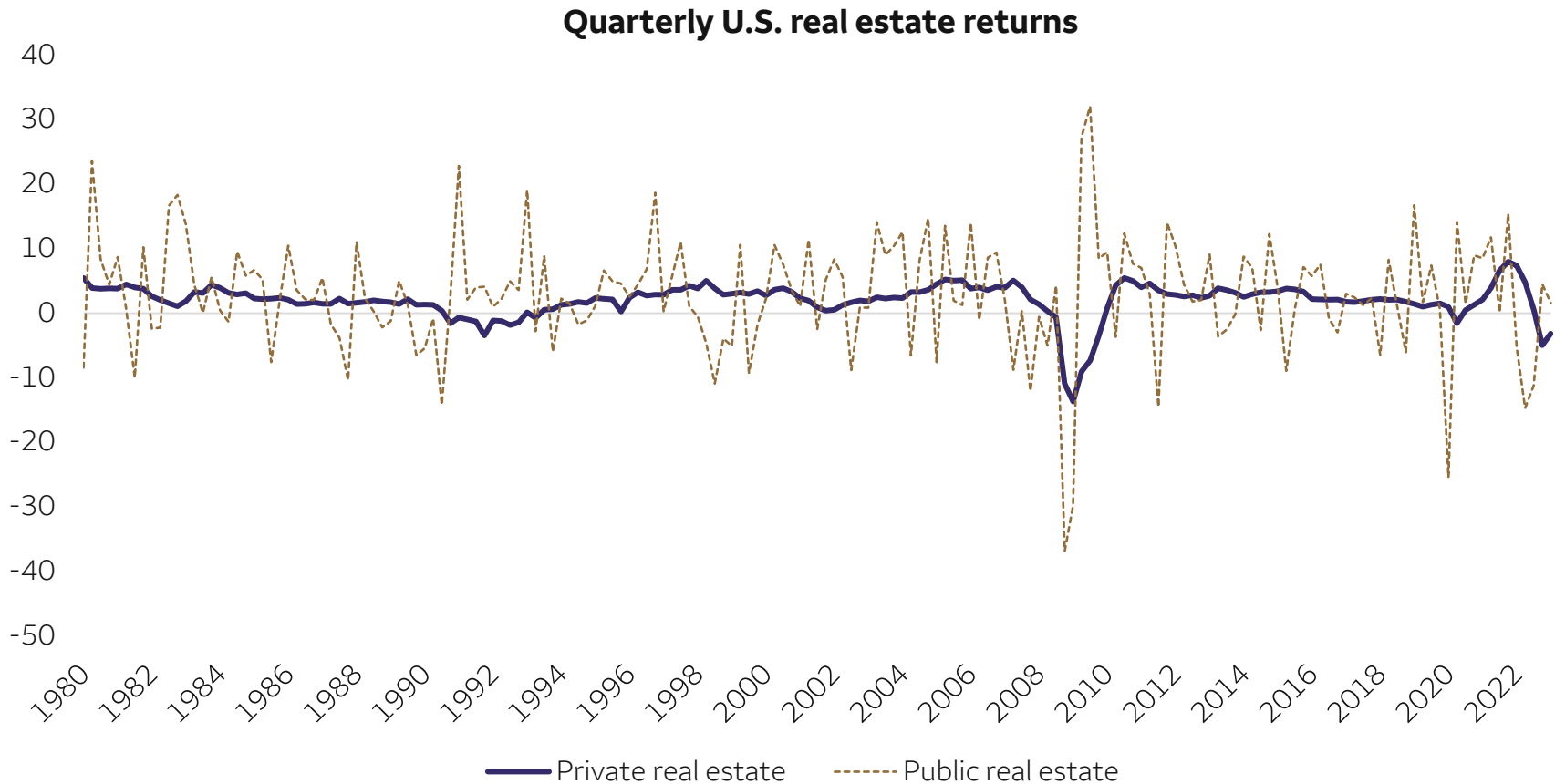
8.3%

Standard deviation

Source: MPI Stylus. Data shown for the 20-year period ending March 31, 2023. *For illustrative purposes only.* Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of this presentation for important information. Equities represented by the S&P 500 Index. Fixed income represented by the Bloomberg U.S. Aggregate Index. Private real estate represented by the NCREIF Open-End Diversified Core (ODCE) Index.

# Lower return volatility

Private real estate has exhibited less volatility than public real estate.



Source: MPI Stylus. Data shown from the common inception date of January 1980 through March 2023. *For illustrative purposes only.* Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of this presentation for important information. Private real estate represented by the NCREIF Open-End Diversified Core (ODCE) Index. Public real estate represented by the NAREIT Index.

# Low correlation to other asset classes

Private real estate has traditionally exhibited low or negative correlation to equities, fixed income, and public real estate.

## Private real estate correlation



Source: MPI Stylus. Data shown for the 20-year period ending March 31, 2023. *For illustrative purposes only.* Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see the end of this presentation for important information. Equities represented by the S&P 500 Index. Fixed income represented by the Bloomberg U.S. Aggregate Index. Public real estate represented by the NAREIT Index. Private real estate represented by the NCREIF Open-End Diversified Core (ODCE) Index.

# Private capital

# Private capital overview

Private capital primarily consists of two core investment types — private equity and private debt.

Strategy	Private equity	Private debt
<b>Overview</b>	Investing directly into private companies or assets that result in an equity ownership position.	Providing capital to a company, typically to receive an interest income payment.
<b>Purpose</b>	Used to fund new technologies, expand working capital within an owned company, make acquisitions, or to strengthen a balance sheet.	Provides companies unable to secure debt financing or those in distress a variety of loan-like investments across its capital structure.
<b>Typical holding period</b>	10+ years, to allow for a turnaround and exit strategy.	5+ years, to allow for the end of the debt's term or an exit strategy via the secondary market.
<b>Investment strategies</b>	Buyout, special situations, venture capital.	Direct lending, distressed debt.

# Private equity investment strategies

## Venture capital

Equity financial capital that is often provided to early-stage or growth start-up companies.

Typically focuses on young, high-growth companies that may not yet be cash flow positive, often occurring after the initial seed funding round.

Often takes on a substantially higher degree of risk in exchange for potentially higher returns.

## Growth Equity

Equity investment in established company with high growth potential.

Often target companies that are established but needs additional funding to grow the business.

## Buyout

Purchasing a controlling interest via equity in an oftentimes established and positive cash flow company or asset.

Potential to improve the business or unlock intrinsic value organically to provide what is intended to be a more favorable business model post investment.

# Private debt investment strategies

## Traditional

Consists of directly providing private debt capital to a company, or purchasing a company's debt via a secondary, typically to receive an interest income payment and higher contractual coupon.

Companies unable to secure debt financing via the capital markets or those experiencing balance sheet stress may seek private debt investors to provide them with a variety of loan-like investments across its respective capital structure.

Focus on cash coupon interest payments and yield generation with some value accretion to provide returns to investors.

## Special situations

This type of financing or investment opportunity often presents itself following a catalyst event for a company or asset showing signs of stress or distress.

The value drivers and cash flow characteristics are normally distinct and encompass a variety of strategies, but the investment asset is typically obtained by purchasing stressed or distressed credit prior to obtaining equity/control.

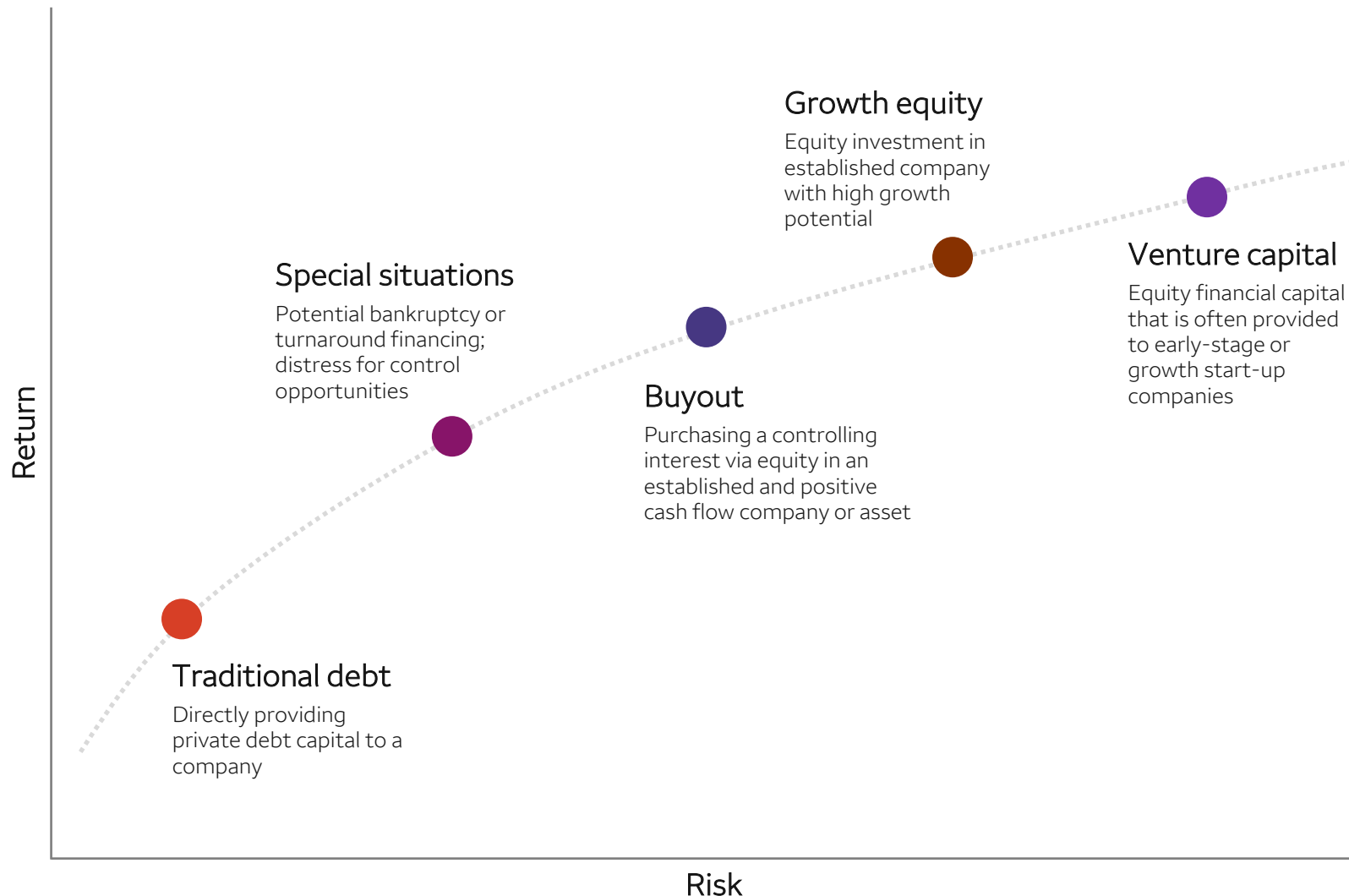
May include operational turnarounds, mezzanine, distressed debt asset purchases, rescue financing, and secondary distressed corporates and buyouts.

Focus on exploiting stressed or distressed balance sheet problems opportunistically.

Collect cash coupon interest payments but ultimately seeking value accretion and total return.

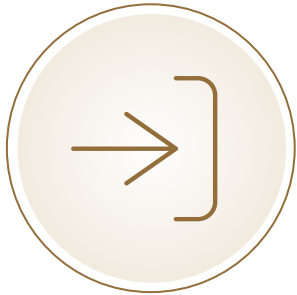
# Private capital investment strategies

Each private capital investment strategy offers its own risk/return profile based on the lifecycle of its portfolio companies.





# Private capital investment types



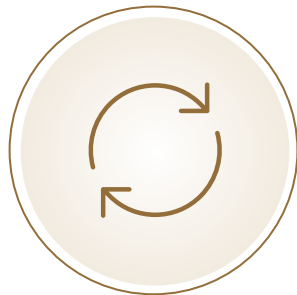
## Direct

- Investments made directly in a specific company or asset.
- Success requires ability to source, underwrite and analyze transactions. Success requires implementation of new corporate/asset strategy for underlying investment.
- Includes co-investments that are typically made alongside fund managers.



## Primary

- Investments in new private equity single manager funds.
- Success requires due diligence and accurate assessment of investment manager capabilities and core competencies.
- Can provide broad diversification through investments with multiple experienced managers across multiple global locations and/or sectors.

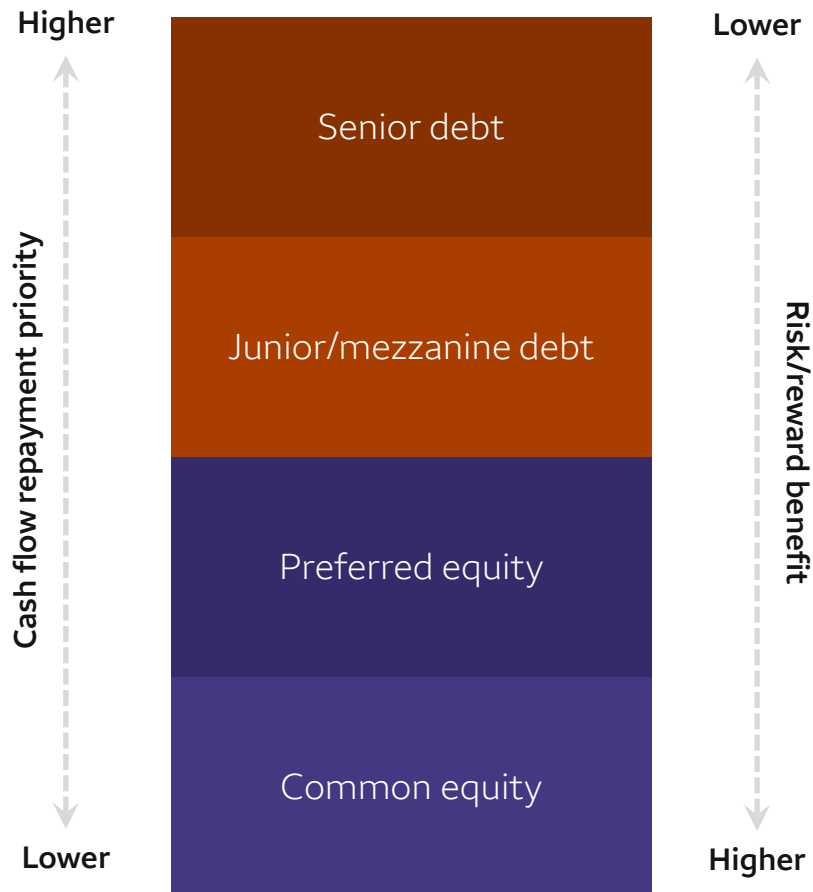


## Secondary

- Purchased interests in private capital funds that are acquired from other investors, often purchased at a discount to NAV.
- Success requires due diligence, accurate assessment of investment manager capabilities and accurate portfolio pricing/valuation.
- Typically provide early distributions to investors that reduce and mitigate j-curve.

# Investing across the capital structure

Debt and equity form a company's capital structure, and the priority of cash flow repayment and risk/reward profile is based on the seniority within this structure.



**Debt** has a higher priority of cash flows, but typically a lower total return expectation. The more senior the debt, the greater likelihood that an investor will be repaid, but at a lower rate due to the lower risk taken by the investor.

**Equity** has a higher expectation of total return realization, but also a higher degree of risk. Investors are compensated more with equity ownership because of the increased risk of non-payment.

# Other private capital investment strategies

There are other more complex and financially engineered/structured investments that may be utilized by investment managers.



## Revenue interests

- Acquisition of the rights to a cash flow stream based on a percentage of product revenue payable by a company that markets a product or service, etc. directly.
- Contractual agreement utilizing structural elements (milestones, tiering, annual/aggregate minimums/maximums) to facilitate risk mitigation/sharing and typically benefitting from a broad lien on all assets of the company.

## Royalty interests

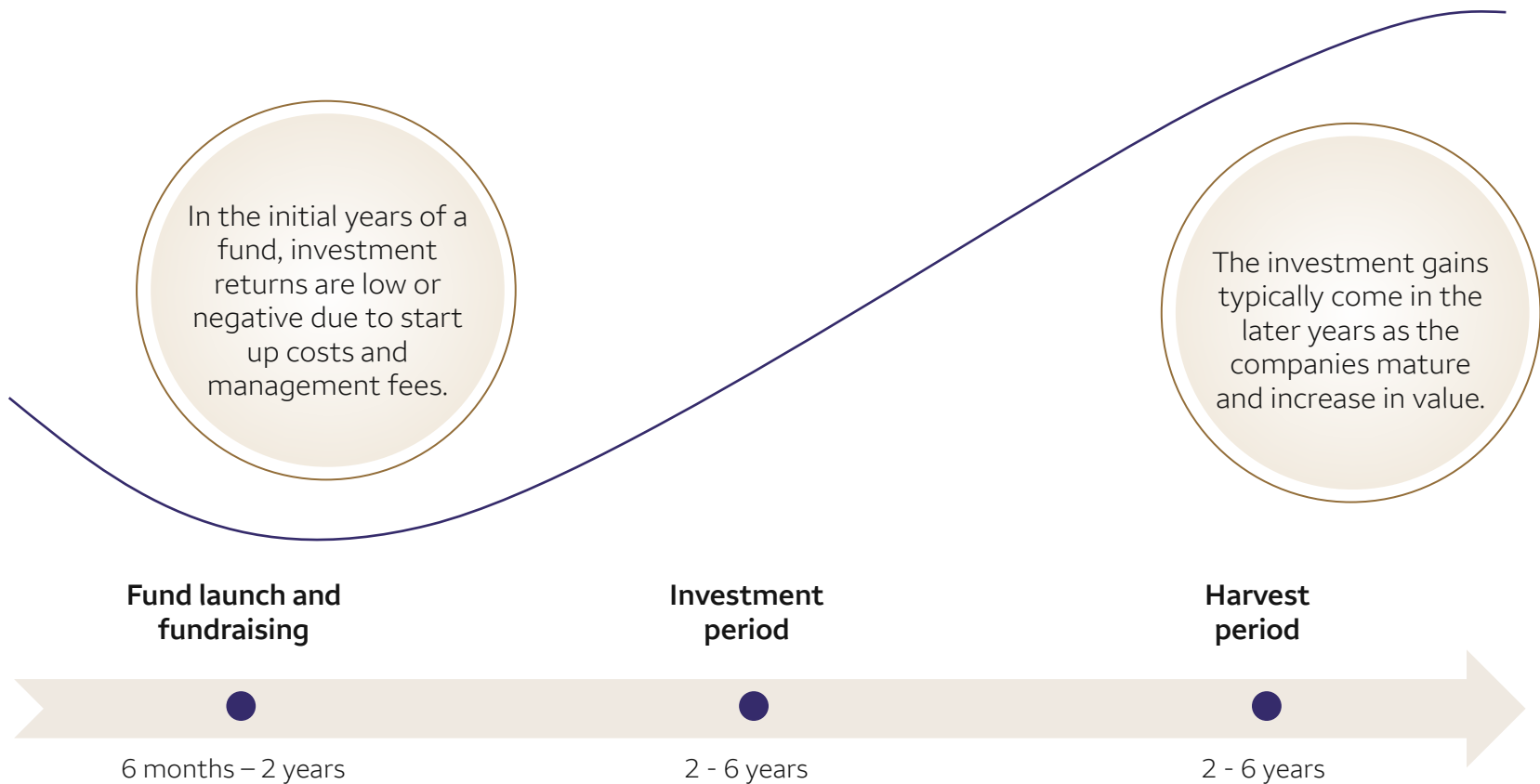
- Acquisition of the rights to future royalty and milestone payments based on product/service revenue pursuant to a license agreement between the owner of intellectual property and the marketer of the product.
- **Complete royalty stream purchases:** outright acquisition of rights to all future payments and full risk transfer.
- **Structured royalty stream purchases:** partial acquisition of rights to future payments utilizing structural elements (e.G., Milestones, tiering, annual/aggregate minimums/maximums) to facilitate risk mitigation/sharing.
- **Royalty-backed securities:** securitization debt backed by future payments to facilitate risk management.

## Hybrid investments

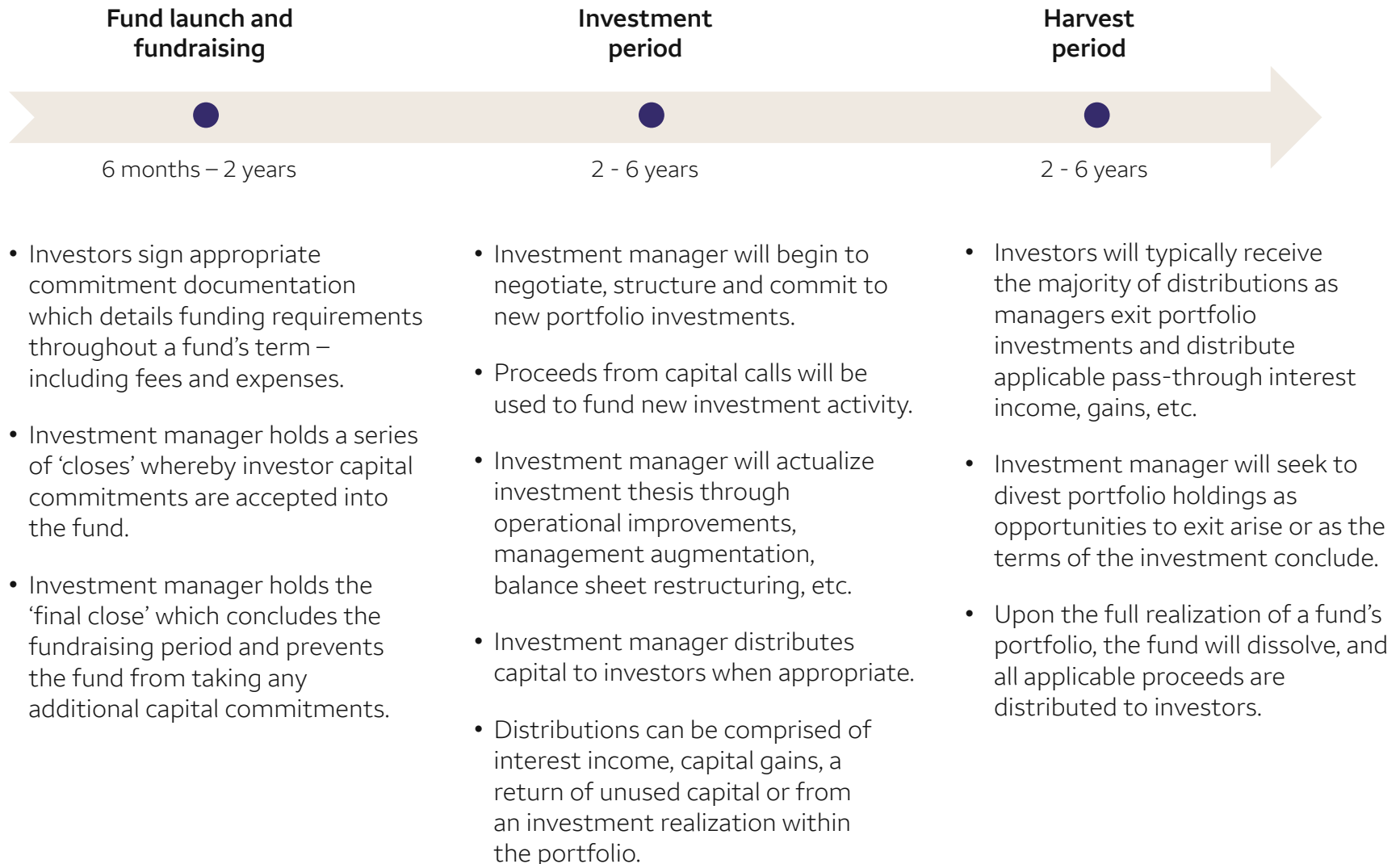
- Investments that combine secured debt, revenue interests, and/or royalty streams.
- Structures may selectively include preferred/common equity or warrants/options seeking to enhance returns.

# Understanding the “J-curve”

The “j-curve” refers to the investment cycle of a private equity investment — early-stage returns are negative while fund manager pursues investment opportunities.

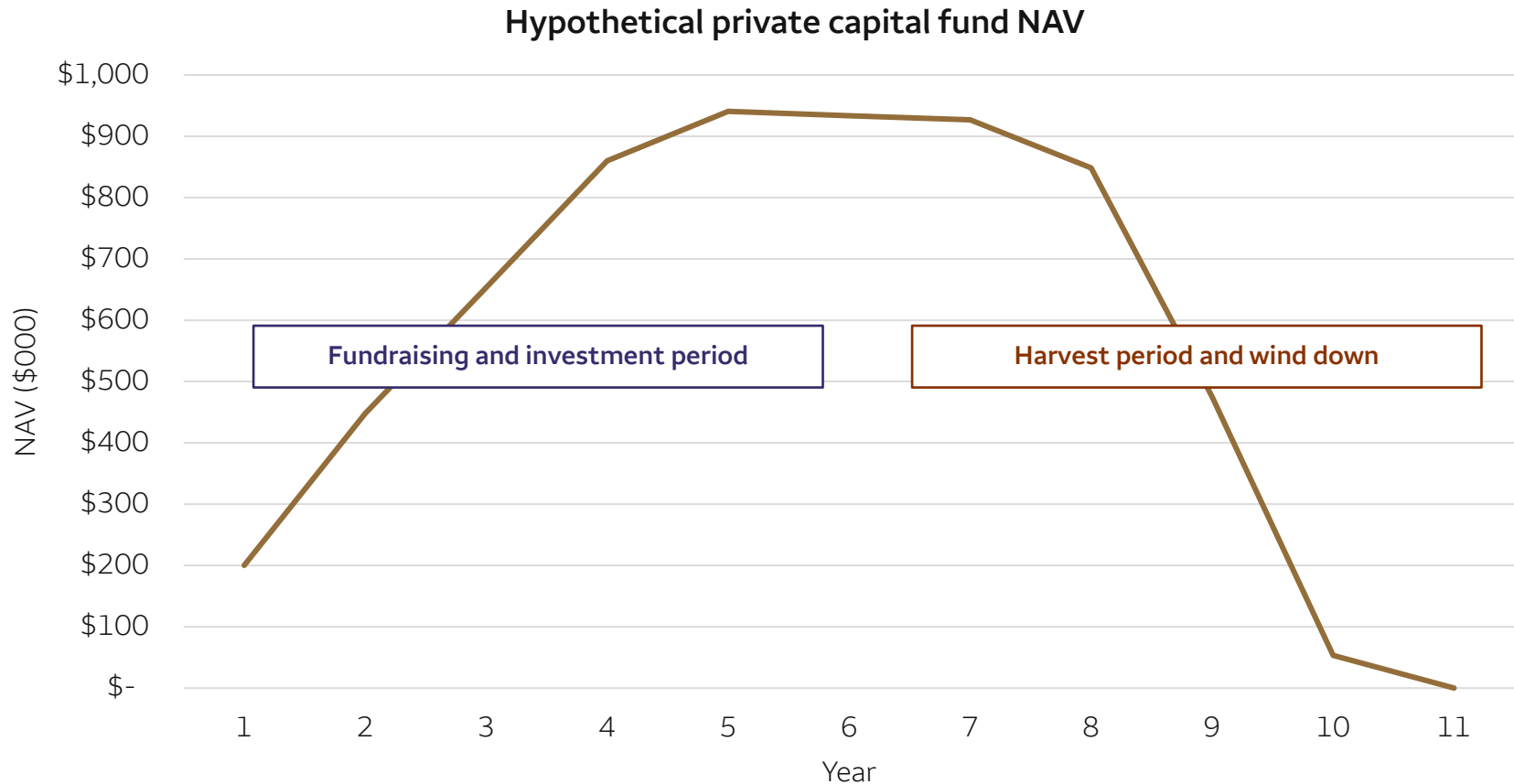


# Investment lifecycle



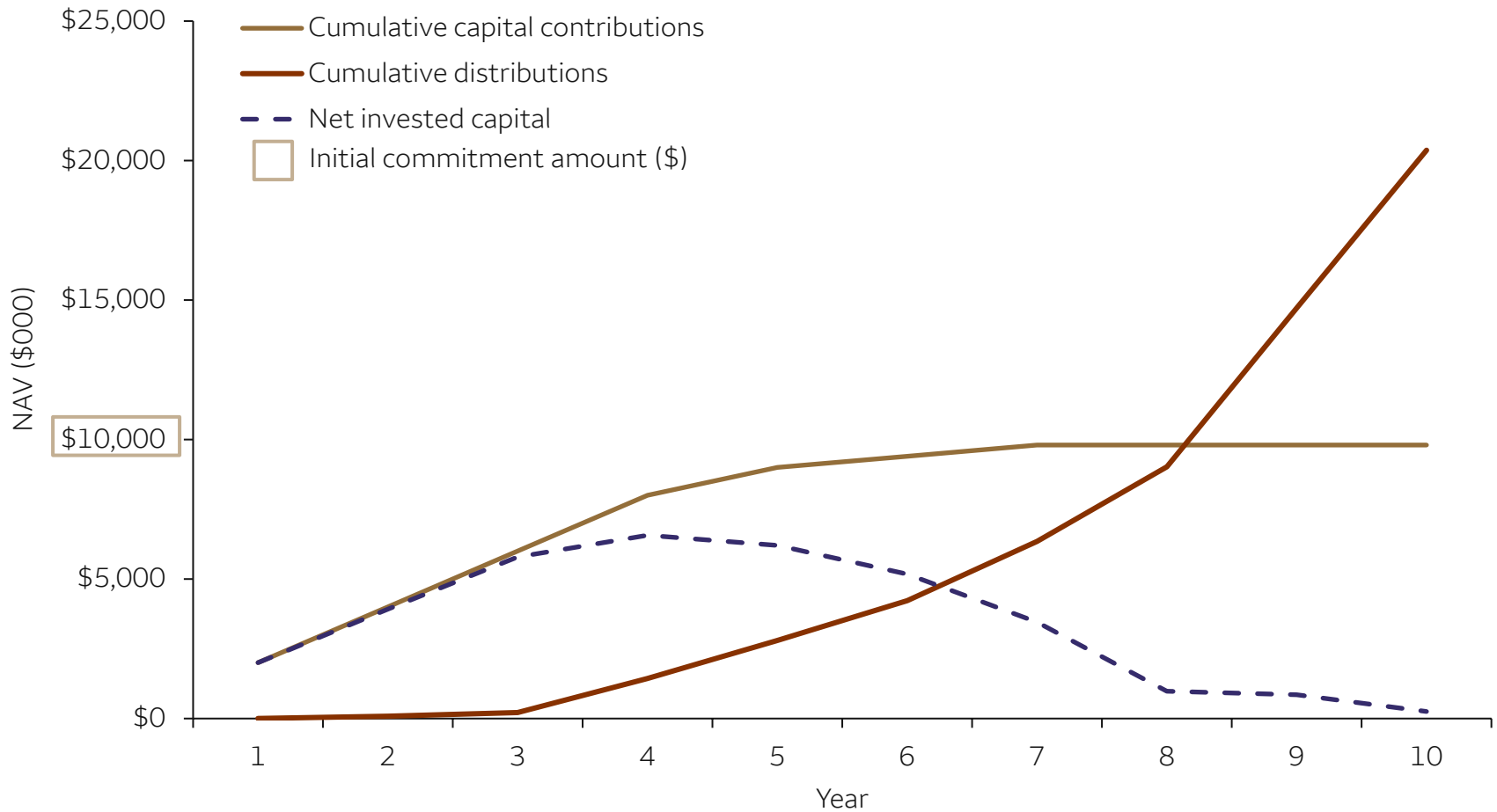
# Private capital lifecycle

Funds gradually acquire assets, exit/realize them, and distribute proceeds to investors.



Source: Wells Fargo investment Institute. Chart is intended to show the hypothetical NAV performance of a buyout fund over its term and for a \$1 million commitment. It is for illustrative and educational purposes only and does not represent a specific fund. There is no direct correlation between a hypothetical investment and the anticipated performance of any fund.

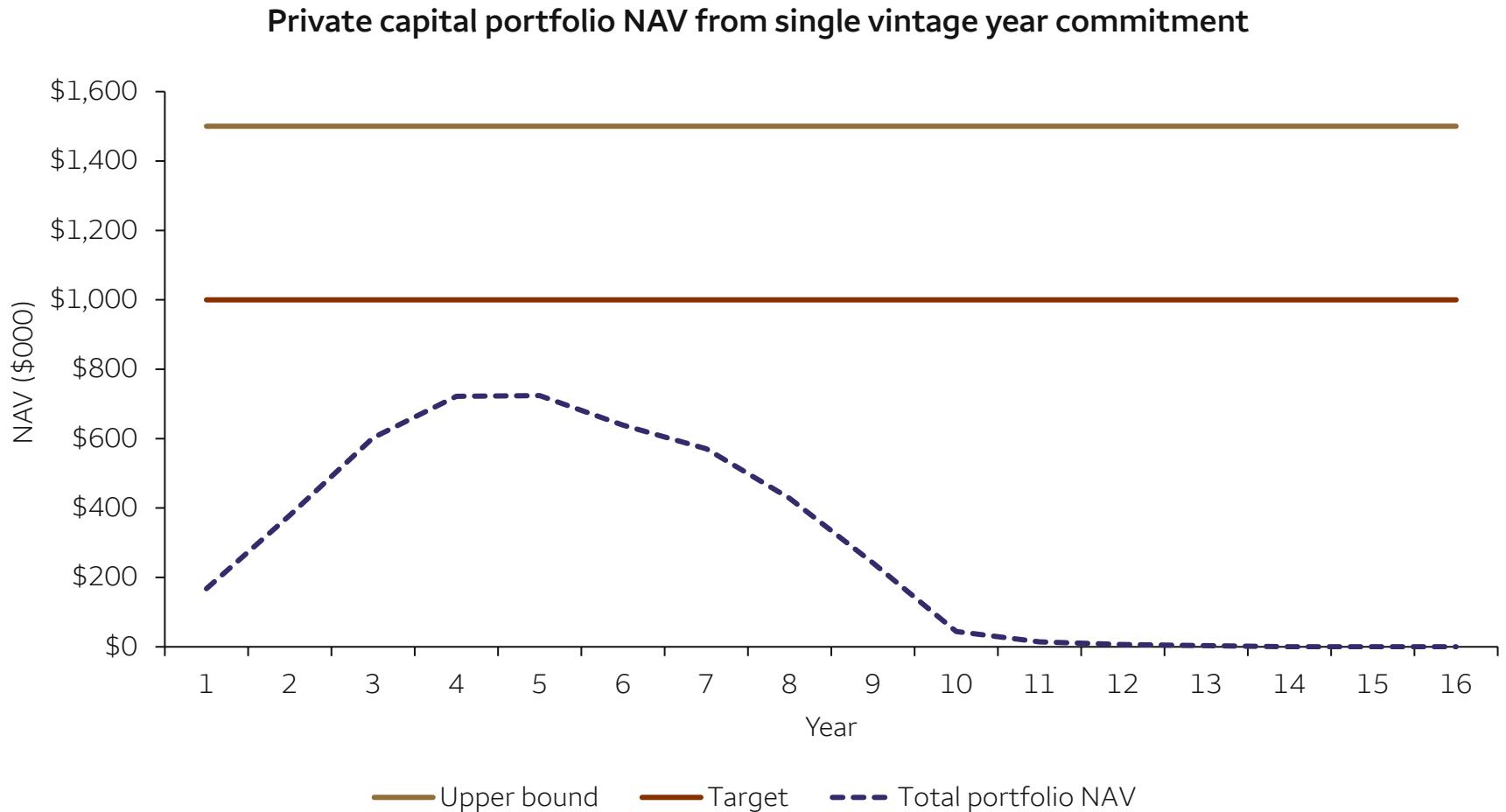
# Committed capital $\neq$ Invested capital



Source: Wells Fargo Investment Institute. Note, the investment example above is for illustrative and educational purposes only.

# Committed capital $\neq$ Net asset value

Committing all an investor's capital in one calendar year may result in target allocations not being achieved.

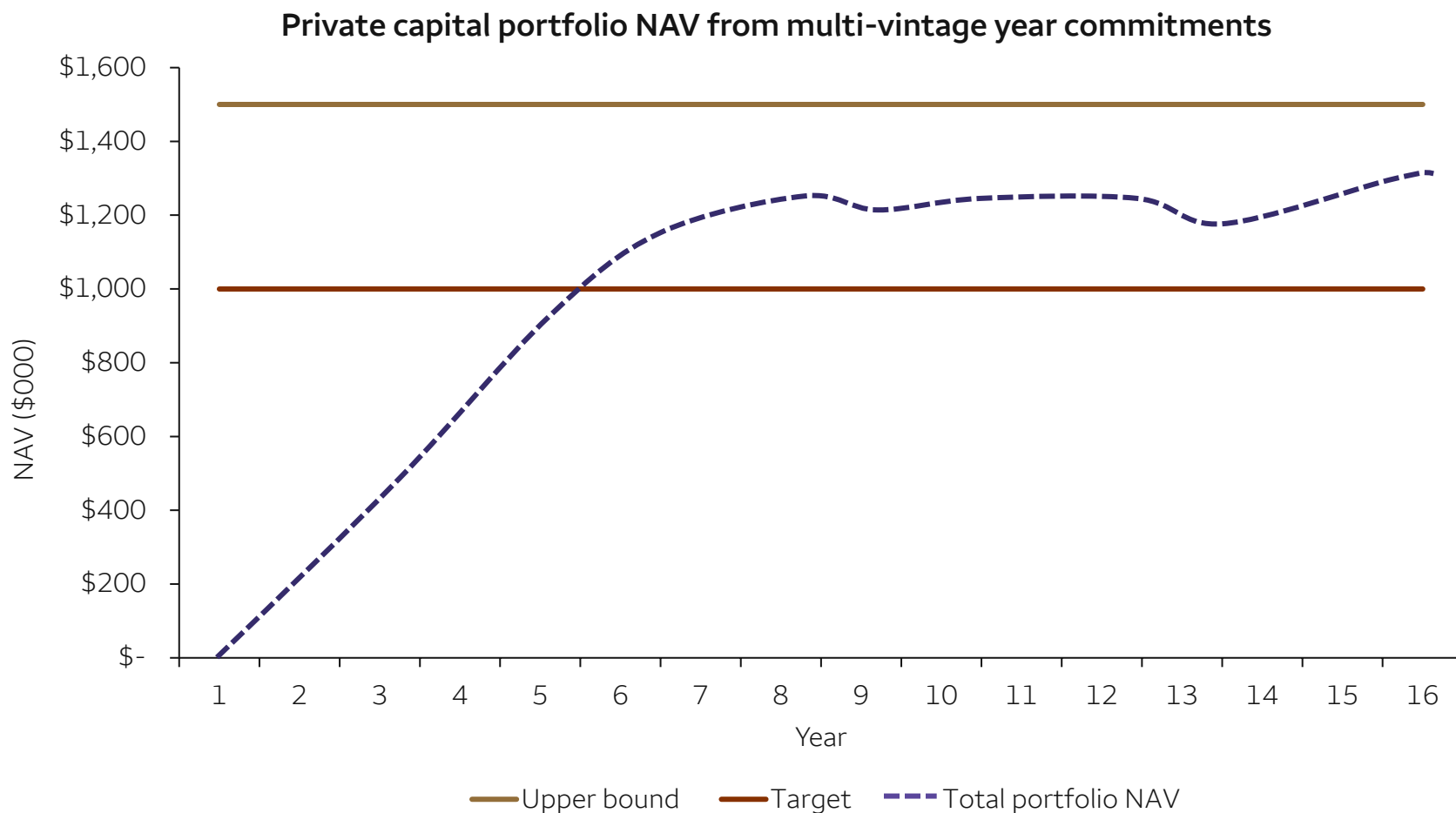


Source: Wells Fargo Investment Institute. Note, the investment example above is for illustrative and educational purposes only.



# Achieving target allocations

Wells Fargo Investment Institute recommends creating a diversified portfolio across vintage years, strategies and offerings in order to achieve target allocations.



Source: Wells Fargo Investment Institute. Note, the investment example above is for illustrative and educational purposes only.

# Terminology

Investors should understand the unique terms associated with private capital prior to investing.

<b>Capital call</b>	Amount requested by a fund manager from an investor in the fund. An investor agrees to a maximum investment amount upfront (commitment) and the fund manager will make a series of capital calls over time as investment opportunities arise.
<b>Commitment</b>	The amount that an investor commits to investing in a fund. This amount is not drawn right away, rather it is requested by the fund manager in a series of capital calls during the fund's term.
<b>Distribution</b>	The payment of cash to an investor resulting from the sale, liquidation or IPO of one or more portfolio companies in which the fund manager invested.
<b>Internal Rate of Return (IRR)</b>	Represents a time-weighted return expressed as a percentage. Applies a discount to the present sum of cash drawdowns, present value of distributions, and the current value of unrealized investments.
<b>Multiple On Invested Capital (MOIC)</b>	Provides performance by showing the total value (distributions + current portfolio value) as a multiple of an investment's cost basis. Unlike IRR, a multiple does not account for the time value of money.
<b>Preferred return</b>	Also known as hurdle rate, represents the minimum return to investors to be achieved before a fund manager can share in the profits.

# Performance metrics

Private capital fund returns are not calculated in the same manner as traditional assets because the commitment may not be fully invested.

**There are two generally accepted measures of private capital returns:**

## Internal Rate of Return

# IRR

- Typically defined as discount rate that sets net present value of a series of cash flows equal to zero.
- Considers the time value of money.
- May emphasize investments that return capital early in the investment cycle or were realized quickly.

## Multiple On Invested Capital

# MOIC

- Ratio of the money returned to the money invested.
- May correct one of the main drawbacks of IRR — placing too much weight on early distributions or quick realizations.
- Does not consider the time value of money.

**IRR values time value of money while return multiple values total return regardless of time.**

# Performance metrics

The internal rate of return (IRR) is typically expressed as an annualized rate of return that accounts for the timing of cash flows.

The example below shows two hypothetical private equity commitments that were made on the same date. Note how the timing of cash flows affects the IRR shown for each investment.

Date	A	Activity	Invested capital	Distributions received	B	Activity	Invested capital	Distributions received
3/31/2016		Capital Call	50,000	-		Capital Call	5,000	
6/30/2016		Capital Call	50,000	-				
9/30/2016		Capital Call	50,000	-		Capital Call	50,000	
12/31/2016		Distribution	-	50,000		Capital Call	15,000	
3/31/2017		Capital Call	32,000	-		Capital Call	90,000	
6/30/2017		Capital Call	15,000	-		Capital Call	32,000	
9/30/2017		Capital Call	55,000	-		Capital Call	100,000	
12/31/2017		Capital Call	40,000	-				
3/31/2018		Distribution		75,000				
6/30/2018								
9/30/2018		Distribution		49,000				
12/31/2018						Distribution		35,000
3/31/2019		Distribution		72,000		Distribution		74,000
6/30/2019								
9/30/2019		Distribution		55,000		Distribution		93,000
12/31/2019		Distribution		70,000		Distribution		169,000
Total			292,000	371,000			292,000	371,000

IRR

14.4%

Investment A

10.7%

Investment B

# Performance metrics

The multiple on invested capital (MOIC) represents the total value as a multiple of an investment's cost basis and does not account for the time value of money.

The example below shows two hypothetical private equity commitments that were made on the same date. Note how the MOIC is exactly the same, as it only reflects each investment's profitability.

Date	A	Activity	Invested capital	Distributions received	B	Activity	Invested capital	Distributions received
3/31/2016		Capital Call	50,000	-		Capital Call	5,000	
6/30/2016		Capital Call	50,000	-				
9/30/2016		Capital Call	50,000	-		Capital Call	50,000	
12/31/2016		Distribution	-	50,000		Capital Call	15,000	
3/31/2017		Capital Call	32,000	-		Capital Call	90,000	
6/30/2017		Capital Call	15,000	-		Capital Call	32,000	
9/30/2017		Capital Call	55,000	-		Capital Call	100,000	
12/31/2017		Capital Call	40,000	-				
3/31/2018		Distribution		75,000				
6/30/2018								
9/30/2018		Distribution		49,000				
12/31/2018						Distribution		35,000
3/31/2019		Distribution		72,000		Distribution		74,000
6/30/2019								
9/30/2019		Distribution		55,000		Distribution		93,000
12/31/2019		Distribution		70,000		Distribution		169,000
Total			292,000	371,000			292,000	371,000

MOIC

1.27x

Investment A

1.27x

Investment B

# Performance metrics

Internal rate of return (IRR) and multiple on invested capital (MOIC) should be utilized together to review private capital performance.

Date	A	Activity	Invested capital	Distributions received	B	Activity	Invested capital	Distributions received
3/31/2016		Capital Call	50,000	-		Capital Call	5,000	
6/30/2016		Capital Call	50,000	-				
9/30/2016		Capital Call	50,000	-		Capital Call	50,000	
12/31/2016		Distribution	-	50,000		Capital Call	15,000	
3/31/2017		Capital Call	32,000	-		Capital Call	90,000	
6/30/2017		Capital Call	15,000	-		Capital Call	32,000	
9/30/2017		Capital Call	55,000	-		Capital Call	100,000	
12/31/2017		Capital Call	40,000	-				
3/31/2018		Distribution		75,000				
6/30/2018								
9/30/2018		Distribution		49,000				
12/31/2018						Distribution		35,000
3/31/2019		Distribution		72,000		Distribution		74,000
6/30/2019								
9/30/2019		Distribution		55,000		Distribution		93,000
12/31/2019		Distribution		70,000		Distribution		169,000
<b>Total</b>			292,000	371,000			292,000	371,000

IRR

*Illustrates the cash flow returns of an investment over time*

14.4%

10.7%

MOIC

*Provides the cash-on-cash total value return*

1.27x

1.27x

# Disclosures

# Risk considerations

Alternative investments, such as hedge funds, funds of hedge funds, managed futures, private capital, real assets and real estate funds, are not appropriate for all investors. They are speculative, highly illiquid, and are designed for long-term investment, and not as trading vehicles. There is no assurance that any investment strategy pursued by the Master Fund (and thus the Feeder Fund) will be successful or that a fund will achieve its intended objective. Investments in these funds entail significant risks, volatility and capital loss including the loss of the entire amount invested. The increased risk of investment loss is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund for which the fund does not represent a complete investment program. These funds carry specific investor qualifications which can include high income and net-worth requirements as well as relatively high investment minimums. The high expenses associated with alternative investments must be offset by trading profits and other income which may not be realized. Unlike mutual funds, alternative investments are not subject to some of the regulations designed to protect investors and are not required to provide the same level of disclosure as would be received from a mutual fund. They trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods with adverse consequences for the fund and the investor. An investment in these funds involve the risks inherent in an investment in securities and can include losses associated with speculative investment practices, including hedging and leveraging through derivatives, such as futures, options, swaps, short selling, investments in non-U.S. securities, “junk” bonds and illiquid investments. The use of leverage in a portfolio varies by strategy. Leverage can significantly increase return potential but create greater risk of loss. At times, a fund may be unable to sell certain of its illiquid investments without a substantial drop in price, if at all. Other risks can include those associated with potential lack of diversification, restrictions on transferring interests, no available secondary market, complex tax structures, delays in tax reporting, valuation of securities and pricing. An investment in a fund of funds carries additional risks including asset-based fees and expenses at the fund level and indirect fees, expenses and asset-based compensation of investment funds in which these funds invest. An investor should review the private placement memorandum, subscription agreement and other related offering materials for complete information regarding terms, including all applicable fees, as well as the specific risks associated with a fund before investing.

While investors may potentially benefit from the ability of alternative investments to potentially improve the risk-reward profiles of their portfolios, the investments themselves can carry significant risks. Government regulation and monitoring of these types of investments may be minimal or nonexistent, returns may be volatile and present an increased risk of investment loss. Some important considerations for investors in alternative strategies include:

**Complexity:** Alternative investment strategies may span multiple markets, securities and risk factors. Because of the complex nature of these investment opportunities, an investor must rely on the experience, representations and credentials of advisors, fund managers and distribution agents.

**Holdings:** Markets for a portfolio's holdings may be relatively inactive and it is possible that trading in a specific portfolio holding could cease altogether. As a result, market valuations of specific portfolio holdings may not always be possible, causing accurate valuation of a portfolio to be difficult at times. This is most commonly characteristic of investments in real properties or private companies but is also a concern of hedge fund investors.

**Transparency:** In order to preserve strategic advantage and the ability to transact nimbly, hedge fund managers often significantly limit the ability for investors to review portfolio holdings. This practice – known as opacity or lack of transparency – can limit investors' and advisors' abilities to monitor managers and evaluate risks.

**Leverage:** Because many alternative investment strategies seek to amplify mispricings that are relatively small, borrowing is often critical to delivering significant returns to investors. This use of leverage tends to amplify both gains and losses.



# Risk considerations continued

**Liquidity:** An investor's ability to withdraw capital from funds or partnerships may be subject to specific limitations, including initial "lock-up" periods, advance notification requirements and predetermined "windows" for redemptions.

While most alternative strategies impose lock-ups, the practice tends to be most restrictive for participants in real estate partnerships and private equity funds where holding periods can be quite long (more than a decade in some cases) and positions indivisible.

**Fees and expenses:** In most alternative investment strategies, managers are paid in two ways: They typically receive a fee calculated as a percentage of assets under management. They also typically receive a share of the strategy's gains – a practice designed to reward the manager for positive returns. Trading fees and expenses – for managed futures, in particular – may be significant with the potential to deplete trading profits. Funds of funds are subject to multiple layers of such fees.

**Potential Loss of Investment:** Alternative Investments are speculative investments and are not appropriate for all investors, nor do they represent a complete investment program. Such funds are not subject to the same regulatory requirements as mutual funds.

**Valuation Variations:** Investors should recognize that privately offered funds are not required to provide periodic pricing or valuation information or information about their underlying investments to investors.

**Tax Risks:** Investing in privately offered funds may involve significant tax consequences. Investors should understand that they will likely be required to obtain extensions of the filing date for their income tax returns due to possible delays in the delivery of Schedule K-1. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied upon in making an investment or other decision.

**Limited Liquidity:** A fund may not have a secondary market for its interests, and none may be expected to develop, and there are restrictions on transferring interests of the fund. Performance figures may be based on valuations of illiquid investments that are difficult to value, and certain managers may carry such assets at cost until a realization event.

# Index definitions

Barclay CTA Index is a leading industry benchmark of representative performance of commodity trading advisors. There are currently 541 programs included in the calculation of the Barclay CTA Index for 2018. The Index is equally weighted and rebalanced at the beginning of each year.

Bloomberg U.S. Aggregate Bond Index is a broad-based index that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS, and CMBS. Securities in the index have at least one year until final maturity.

HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in US Dollar and have a minimum of \$50 Million under management or a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include funds of hedge funds.

MSCI World Index is a broad global equity index that represents the large and mid-cap equity performance across 23 developed market countries. MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed, or produced by MSCI.

FTSE NAREIT Equity Index is an unmanaged index of all publicly traded U.S., tax-qualified REITs that have 75% or more of their gross invested book assets invested in the equity ownership of real estate. An individual cannot invest directly in an index. The NAREIT Equity Index was created in 1972 in response to a major ground swell of REIT initial public offerings beginning in 1969 and the need for a reliable benchmark to track real estate stock performance. On March 6, 2006, FTSE, the global index provider, took over the calculations of the NAREIT Domestic Real Estate Index Series, which was renamed the FTSE NAREIT U.S. Real Estate Index Series. The FTSE NAREIT Equity Index is unmanaged, assumes the reinvestment of dividends, does not reflect the impact of transaction, management or performance fees and is unavailable for investment.

NFI-ODCE Index (NCREIF Fund Index – Open End Diversified Core Equity) is an index of investment returns reporting on both a historical and current basis the results of open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted. NCREIF will calculate the overall aggregated Index return.

S&P 500 Index is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the US stock market.

HFRI Indices have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI Indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.

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CAR-0523-00332