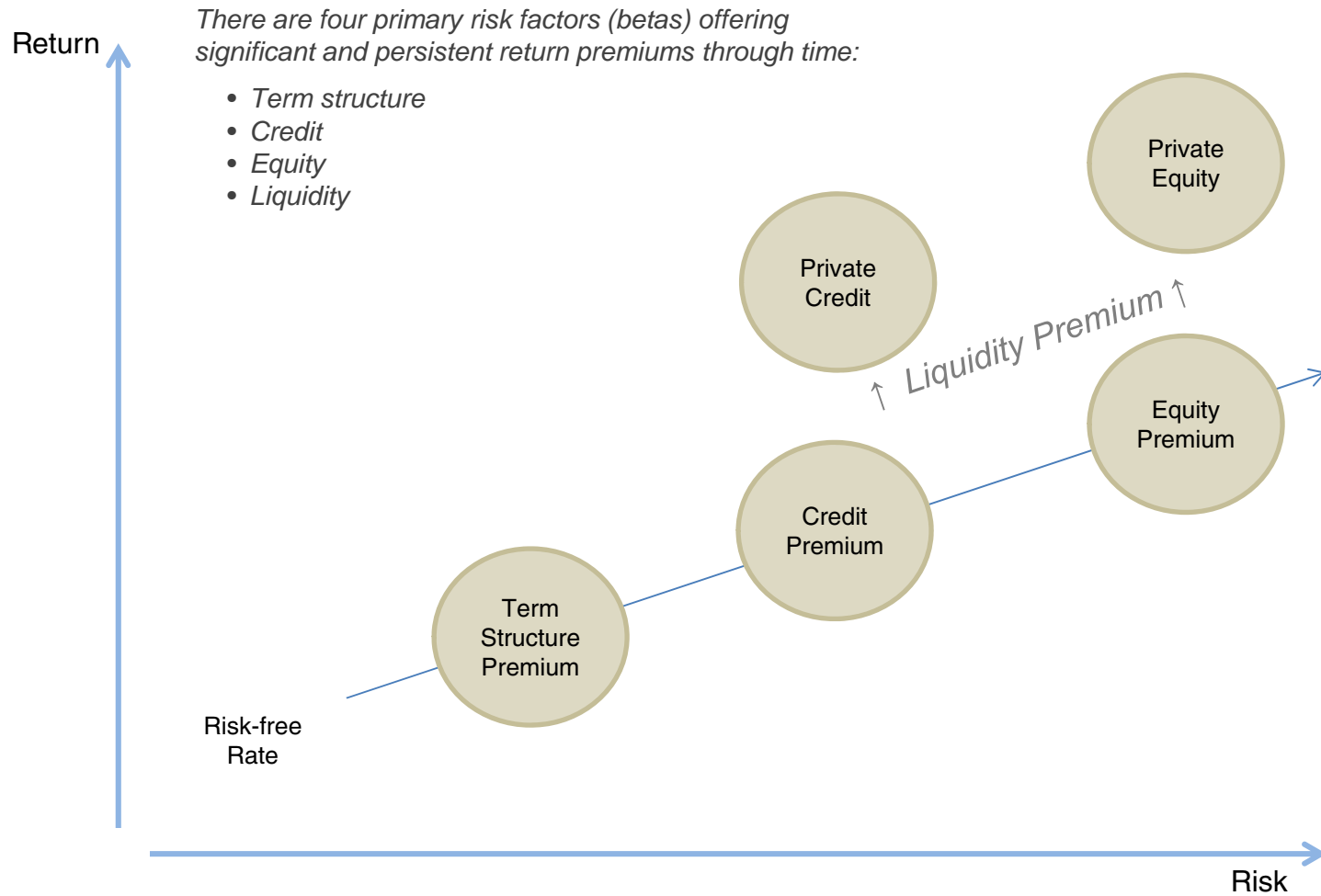




# Credit as one of four major risk factors (betas)



Cliffwater has identified four primary risk factors for which investors receive risk premiums. In the stylistic depiction above, the risk factors are ordered by Cliffwater's views on historical risk/return relationships. Return and risk not shown to scale.

# A historical comparison of risk premiums (last 27 years)

## Historical Risk Premiums (Jan 1990 to Dec 2016)

	<u>Term Structure</u>	<u>Credit</u>	<u>Equity</u>	<u>Liquidity</u>
Description	Time value of money	Compensation for the probability of principal loss	Compensation for uncertain outcomes from macro, business cycle risks	Compensation for locking up money for defined period
Measurement	10 yr. Treasury minus 30 day T-bills	BB High Yield Bond Index minus duration adjusted Treasuries	Russell 3000 Index minus 30 day T-bills	N/A
Return Premium	2.77%	3.88%	6.13%	1% to 3% <sup>1</sup>
Risk <sup>2</sup>	7.11%	9.71%	14.45%	–
Return/Risk	0.39	0.40	0.42	–

- *Key risk premiums had similar return-to-risk ratios (~0.40) over the long measurement period*
- *Cliffwater believes a 15% to 25% allocation to credit is generally appropriate for institutional portfolios*

<sup>1</sup> Based on Cliffwater's review of various published studies, a list of which can be provided upon request.

<sup>2</sup> Risk is calculated as annualized standard deviation of return premiums.

# The Credit Cycle

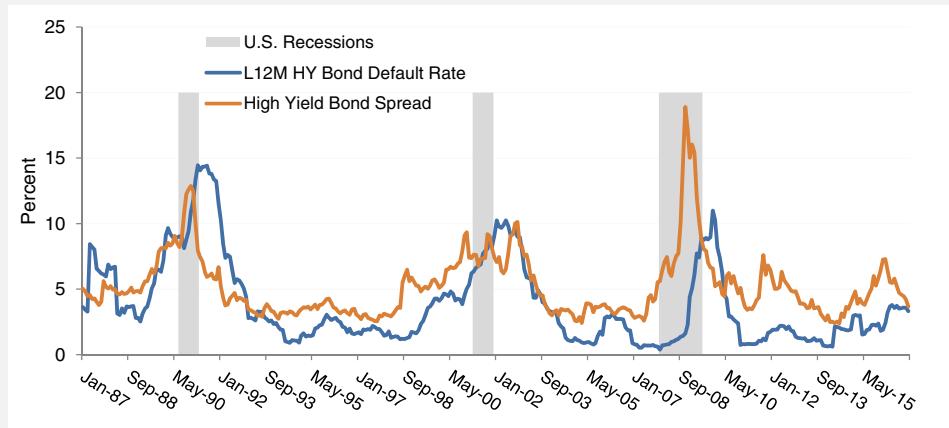
Widening margins  
Free cash flow  
Leverage declines  
Spreads narrow

Increase in leverage  
Speculation  
Narrow spreads

Expansion

Recovery

Downturn



Source: Bloomberg Barclays, JPMorgan, BLS

Repair

Debt repayment  
Improved balance sheets  
Cost cutting  
Wide spreads

Credit contracts  
Recession  
Falling asset prices  
Spreads widen

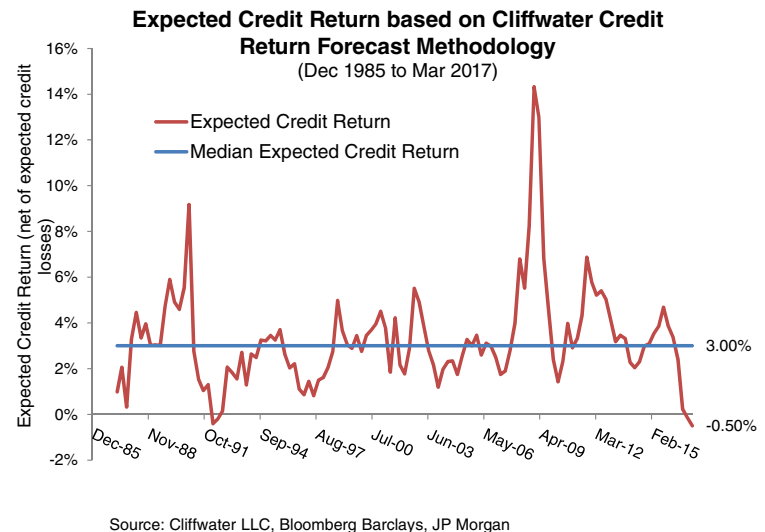
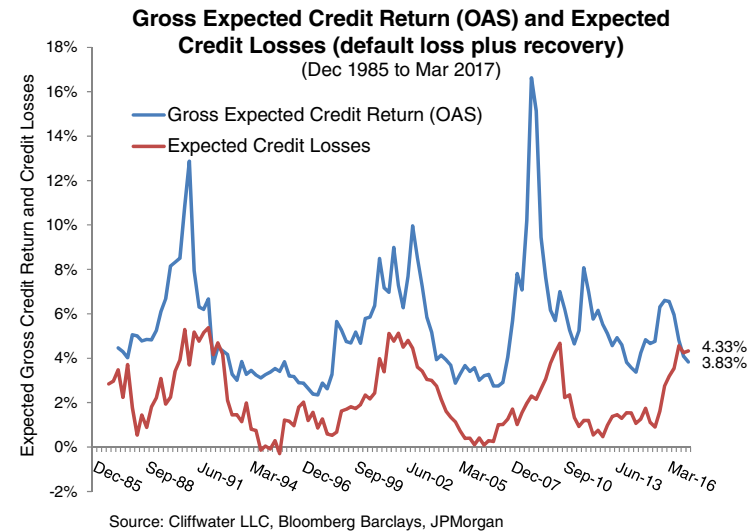
# Credit return forecast methodology

## Cliffwater methodology:

- High yield bonds as credit bellweather
- Expected return model:

$$\text{Exp Credit Return} = \text{Gross Exp Credit Return} - \text{Exp(default) + Exp(recovery)}$$

- Gross expected credit return = high yield option adjusted spread (OAS)
- Expected default calculated from 7 predictive factors:
  1. CCC issuance
  2. GDP growth
  3. Interest coverage
  4. Debt coverage
  5. Corporate earnings growth
  6. Senior loan officer survey
  7. Current default rate
- Expected recovery based upon historical (negative) relationship between defaults and recoveries



Expected credit returns are calculated by applying the current Cliffwater credit return forecast methodology to historically available market information. The forecast methodology does not predict or project the actual performance of any security, investment vehicle or account managed by Cliffwater. There can be no assurance that the forecast methodology will be accurate, and Cliffwater may change its return forecast methodology materially at any time as economic and market conditions change or otherwise in its discretion.

## Cliffwater definition of “Private Credit”

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We define Private Credit as investment opportunities where:

- *Current income represents the preponderance of return*
- *Capital gains are limited*
- *Risk of loss is driven by borrower default and creditor recovery*
- *Liquidity is limited and categorized as Level 3<sup>1</sup>*
- *Periodic valuation is discretionary, relying upon models and expert judgment*

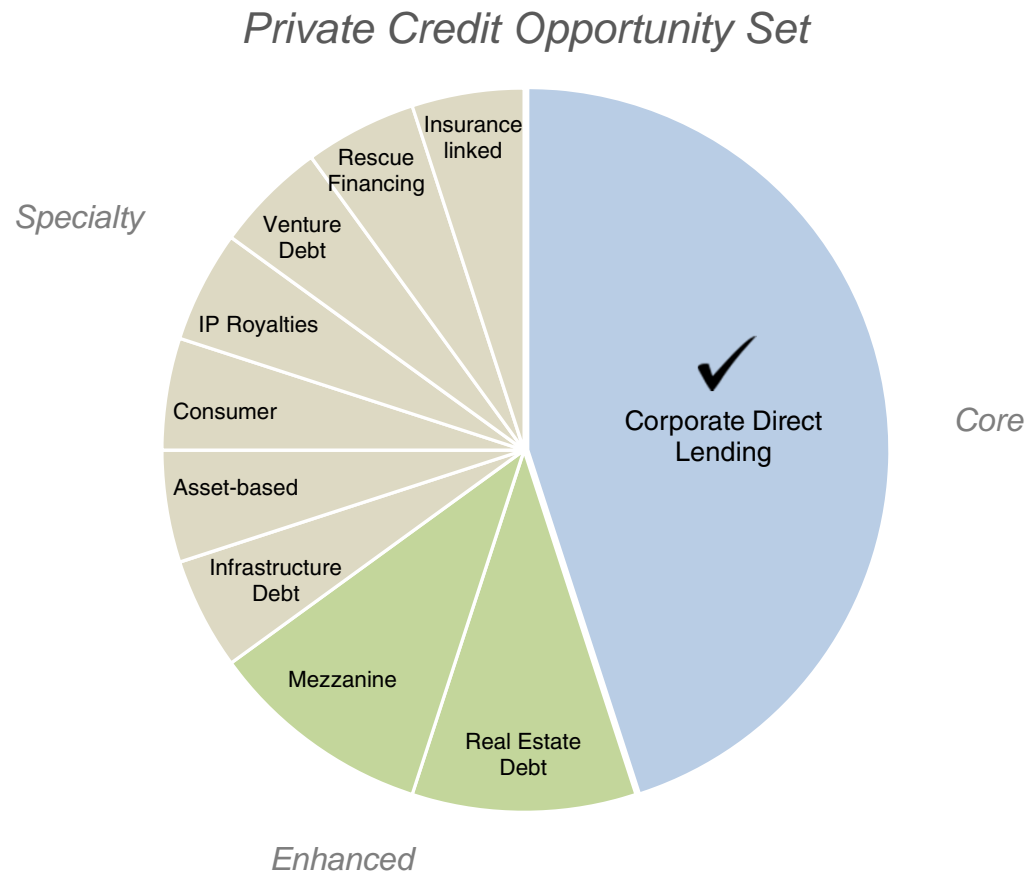
We believe that investors can view Private Credit as:

- *A separate “Credit” allocation, which might include public credit*
- *Part of a fixed income allocation*
- *Part of a private equity allocation*

---

<sup>1</sup> Assets with a value that cannot be determined by observable measures and include situations where there is nominal, if any, market activity. The fair value of a Level 3 asset can only be estimated by using significant assumptions as inputs to the valuation model.

# Investment opportunities in Private Credit



*For illustrative purposes only. The chart only is intended to identify the subsectors within the Private Credit opportunity set.*

## ERSRI Current Private Credit Exposure and Plan

As part of the Income Asset Class, ERSRI has a target allocation of 3.2% to Private Credit:

- *Current exposure to Private Credit equals \$58 million or 0.7% of total fund*
- *Pacing plan calls for \$130 million of commitments per year to reach target in 2021*
- *Plan calls for 2-4 commitments per year*

Current exposure:

- *Commitments to four funds in 2011-2016*
- *Three direct lending funds and one multi-sector fund*

ERSRI Private Credit Funds as of March 2017

Fund	Vintage Year	Committed Capital	Invested Capital	Distributed Capital	Market Value	Annualized IRR Net	S&P Leveraged Loan Index+3%
Summit Partners Credit Fund	2011	20,000,000	20,696,526	21,080,350	4,795,583	9.75%	7.25%
Summit Partners Credit Fund II	2014	25,000,000	17,495,672	3,291,364	16,744,750	10.56%	9.53%
Garrison Opportunity Fund IV	2014	30,000,000	23,919,341	-	25,764,003	4.76%	8.45%
CapitalSpring Fund V	2016	30,000,000	10,277,522	-	10,531,694	2.78%	10.49%
		105,000,000	72,389,061	24,371,714	57,836,030		

Private Credit Sector Exposures

Core	Specialty			Enha
	Direct Lending	Asset-Based	Consumer	
X				
X				
X	X	X		X
X				



## A historical comparison of risk premiums

### Historical Risk Premiums (Jan 1990 to Dec 2016)

	<u>Term Structure</u>	<u>Credit</u>	<u>Equity</u>	<u>Liquidity</u>
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Risk <sup>2</sup>	7.11%	9.71%	14.45%	–
Return/Risk	0.39	0.40	0.42	–

*Cliffwater believes a 15% to 25% allocation to credit is generally appropriate for institutional portfolios.*

<sup>1</sup> Based on Cliffwater's review of various published studies, a list of which can be provided upon request.

<sup>2</sup> Risk is calculated as annualized standard deviation of return premiums.

# Public credit opportunities

## Public Credit

Rated debt or loan securities with active secondary markets

### Sub-Categories:

### Basic Definitions:

Sovereign
IG corporates
Asset-backed*
Bank loans
High yield bonds
CLO equity*
Non-agency RMBS*
CMBS*
Emerging market debt

Debt obligations of developed sovereign or quasi-sovereign entities

Corporate bonds receiving a credit rating of BBB or higher

Performing bonds collateralized by diversified pools of loans, including auto loans, student loans, credit card debt, and others

Senior, secured, floating rate obligations of corporate entities

Corporate bonds receiving a rating of BB or below

Residual cash flows from levered corporate bank loans

Bonds collateralized by residential mortgages, primarily originating in 2007 and earlier

Bonds collateralized by commercial real estate loans

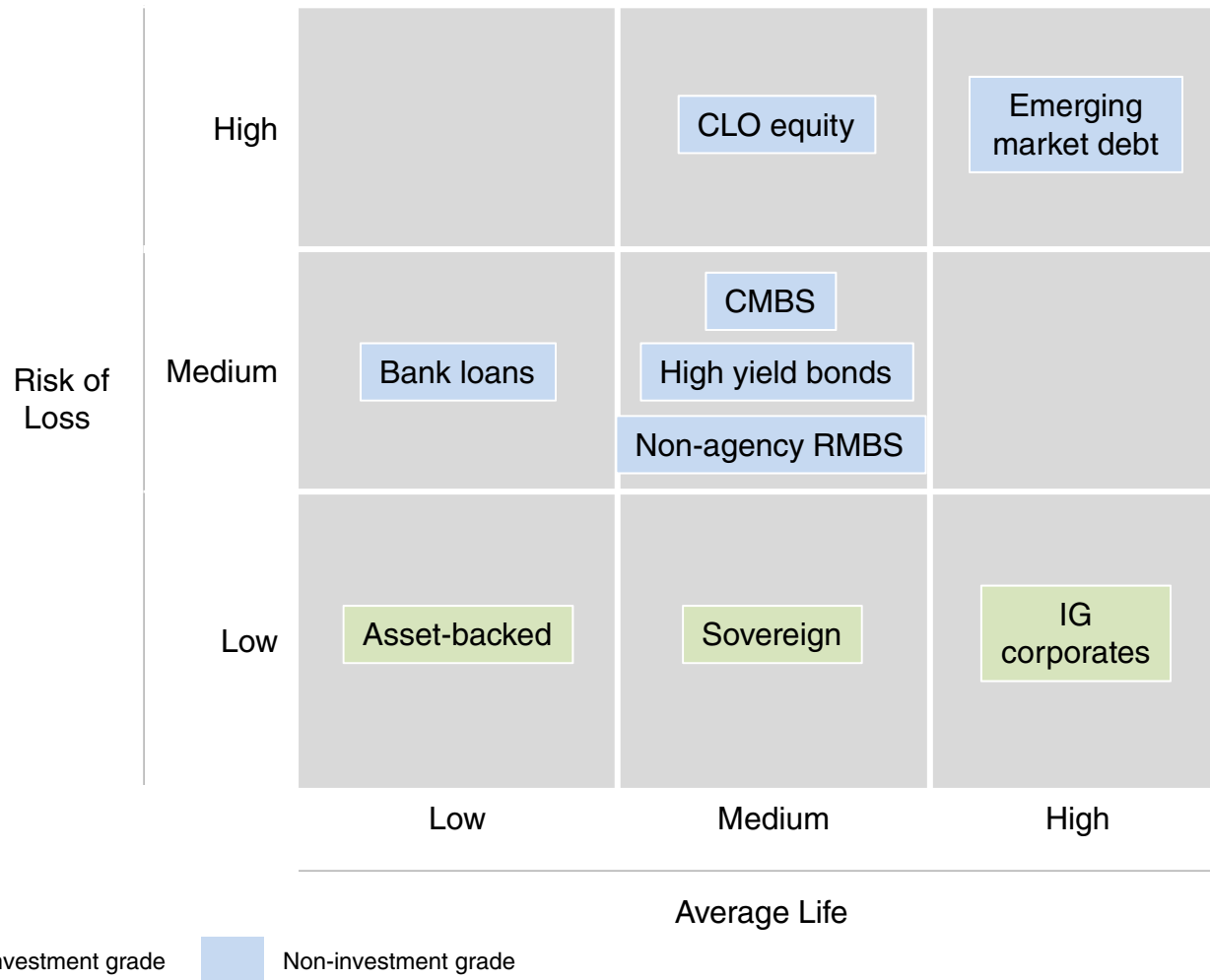
Debt obligations of both sovereign and corporate issuers in emerging markets

Investment grade
  Non-investment grade

\* Also known as “structured credit”

*The categorizations of the asset classes were determined based on Cliffwater's views of the characteristics of assets representative of the asset class. Other industry participants may categorize asset classes differently.*

# Public credit risks – duration and loss



*For illustrative purposes only. The categorizations and positions of the asset classes were determined based on Cliffwater's views of the characteristics of assets representative of the asset class. Positions not shown to scale. Other industry participants may categorize or position asset classes differently.*

# Private credit opportunities

## Private Credit

Non-traded, non-control, performing debt

### Sub-Categories:

### Basic Definitions:

Corporate direct lending
Real estate debt
Real assets
Mezzanine
Asset-based lending
Consumer lending
Intellectual property
Venture debt
Rescue financing
Insurance linked

Cash flow loans to diversified set of middle market companies, BDC, SBIC

Loans backed by real estate assets and projects

Secured credit & royalties on energy, agriculture, infrastructure, mining & minerals, and aircraft assets

Unsecured, subordinated debt of middle market companies

Loans against receivables, inventories, equipment, and other fixed assets



Unsecured consumer debt, student loans, marketplace lending, and credit cards

Secured credit & royalties on healthcare, music, film/TV, brand licensing assets

Enterprise lending made to high growth, but non-cash flowing VC companies

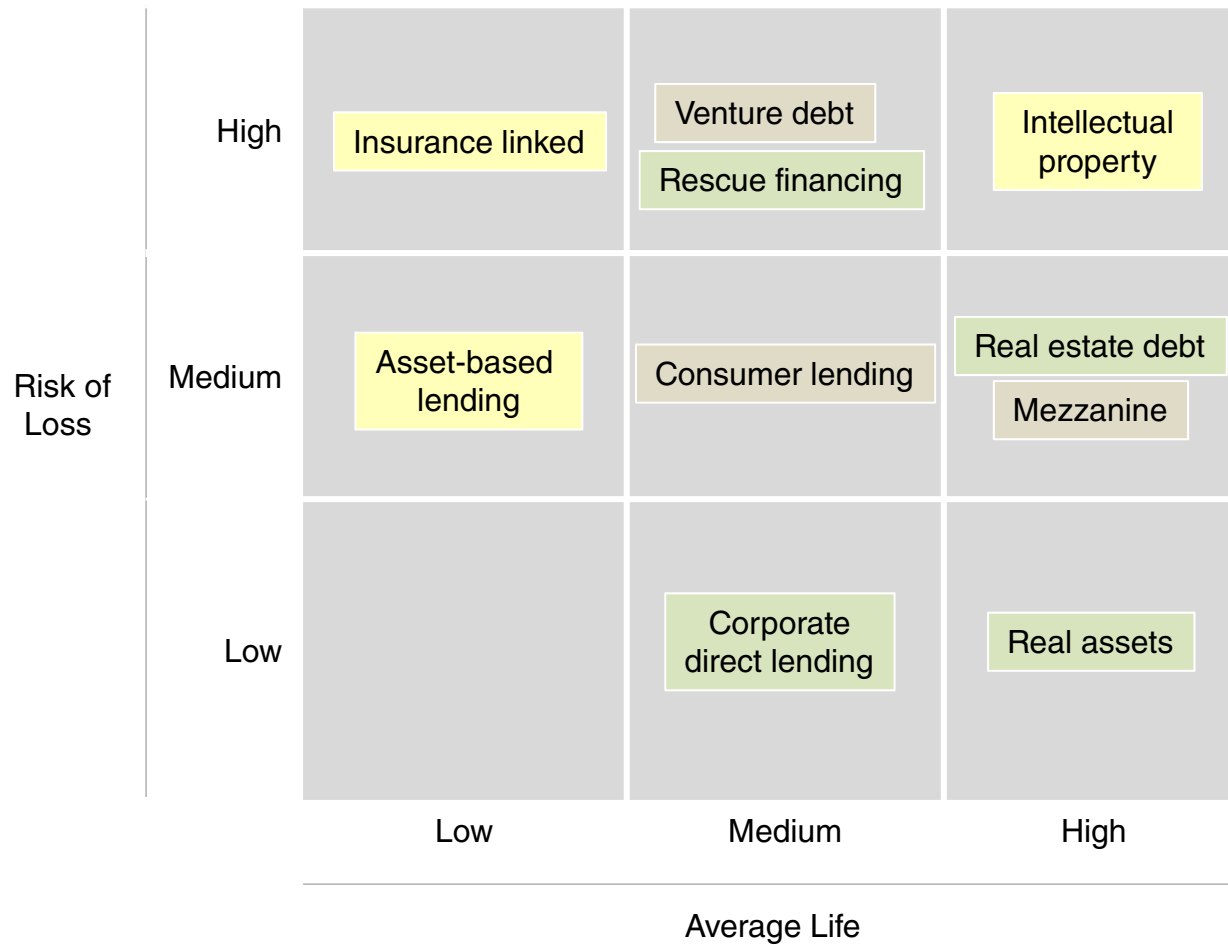
Non-control debt of troubled companies, such as NPLs and DIP financing

Bilateral reinsurance agreements, life settlements

 Lower risk    Medium risk    Higher risk

*The categorizations of the asset classes were determined based on Cliffwater's views of the characteristics of assets representative of the asset class. Other industry participants may categorize asset classes differently.*

# Private credit risks – duration, loss, market beta



Low market beta
  Medium market beta
  High market beta

*For illustrative purposes only. The categorizations and positions of the asset classes were determined based on Cliffwater's views of the characteristics of assets representative of the asset class. Positions not shown to scale. Other industry participants may categorize or position asset classes differently.*

# Considerations in credit portfolio construction

---

## Portfolio objectives

- Liquidity
- Return
- Volatility

Target allocation between public and private credit

Desired positioning relative to credit risk, duration, equity beta

Category target allocations

Category ranges to accommodate tactical views

Guidelines ('look-through') as to:

- Number of credits
- Geographical (currency) exposure
- Maturity
- Industry exposure

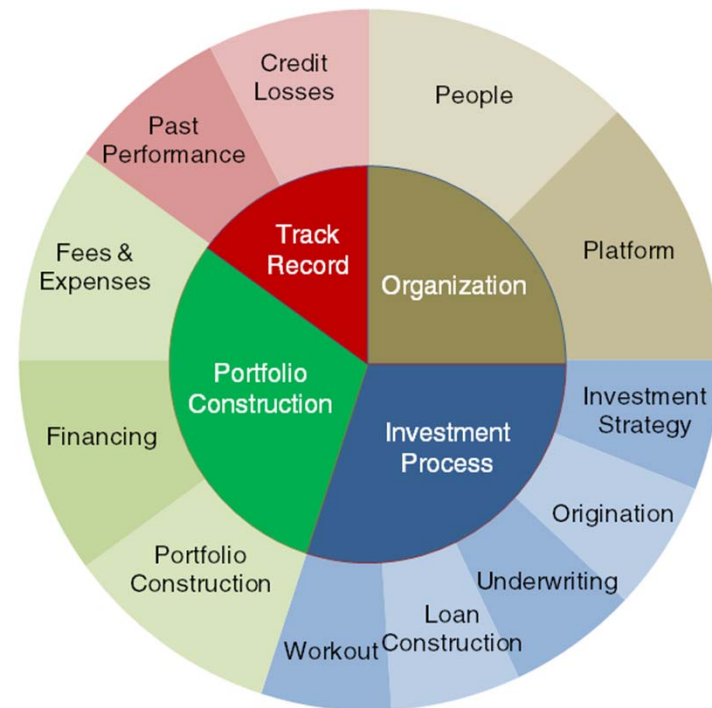
Performance benchmarks

# Credit manager selection

*Comprehensive approach to manager selection and due diligence*

Key value drivers include:

- Organization: Evaluation of the quality of the portfolio managers and the backing provided by the platform
- Investment process: Assessment of repeatable and differentiable processes for sourcing investment opportunities, credit analysis and overall investment strategy
- Portfolio construction: Loan mix (capital structure, industry, sponsor vs. non-sponsor, etc.), financing sources, investor alignment and expenses
- Track record: Demonstrable track record of successfully originating, underwriting, and working out loans and meeting return targets



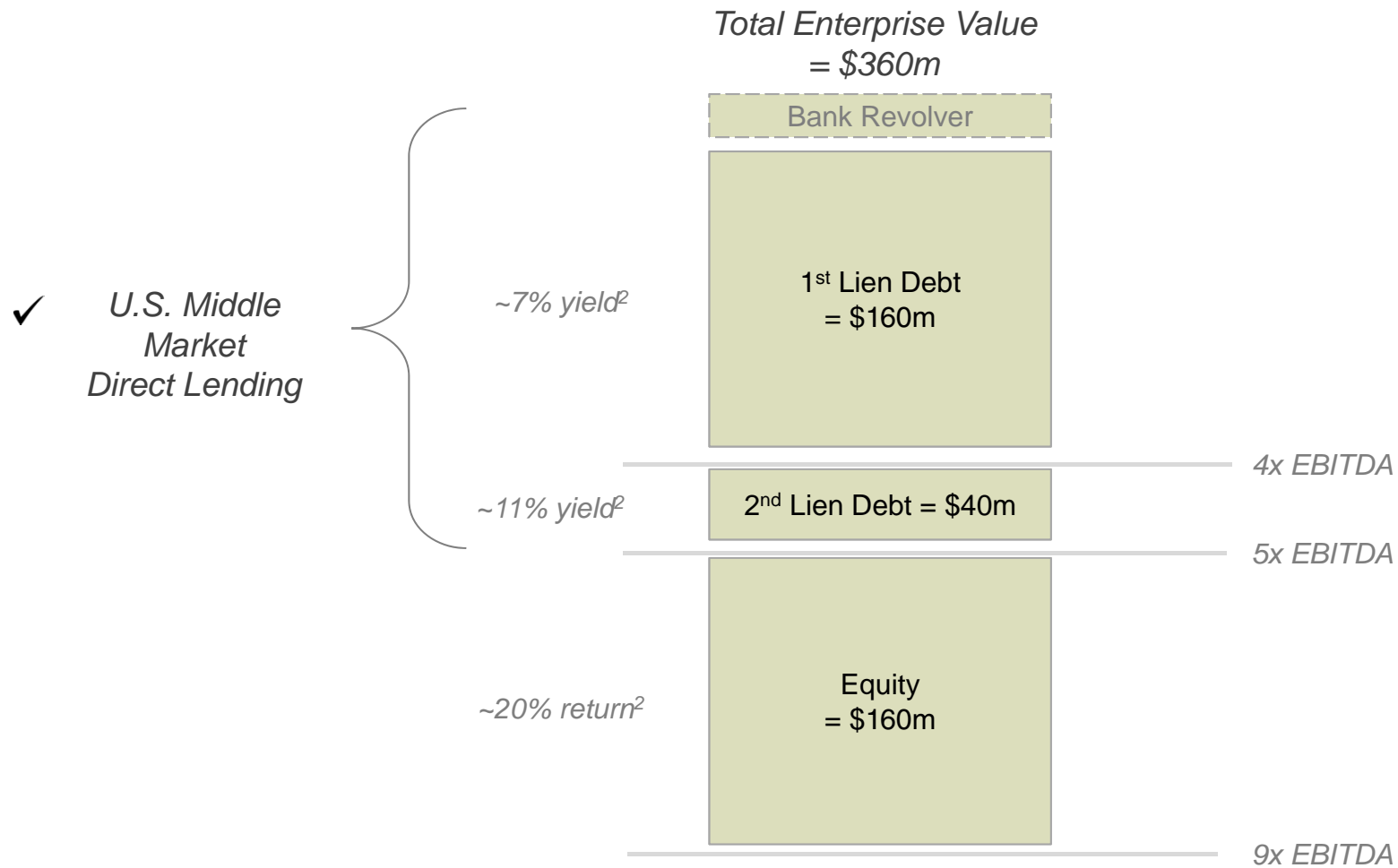


## Example Private Credit Strategy – Direct Lending

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# Illustrative capitalization of \$40m EBITDA middle market company<sup>1</sup>

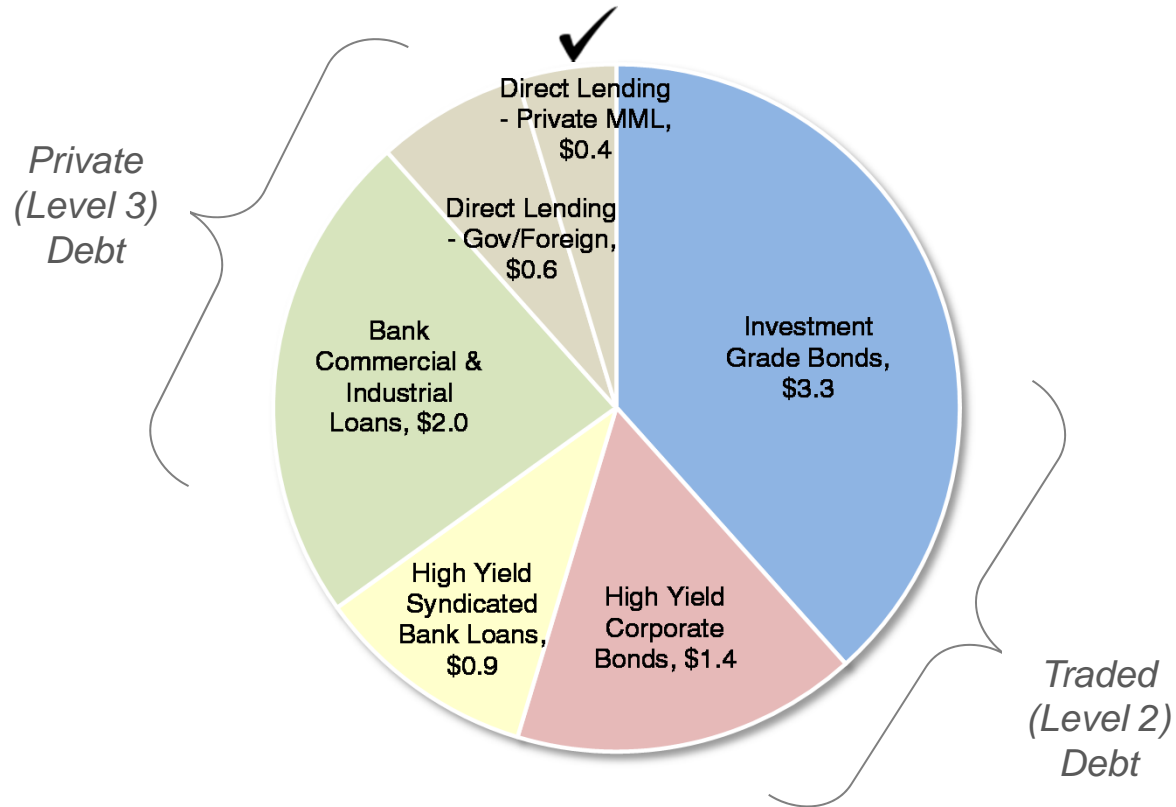


<sup>1</sup> EBITDA means earnings before interest, taxes, depreciation, and amortization. Based on Cliffwater's research, the data included in this chart is indicative of recent middle market deals. This data is based upon assumptions regarding future events and conditions that may not prove to be accurate. This chart is for illustrative purposes only and does not reflect an actual investment.

<sup>2</sup> Source: JMP Securities.

# Private direct lending provides 5% of U.S. corporate debt financing

*\$8.6 Trillion U.S. Corporate Debt Market*



Sources: Federal Reserve, Barclays, S&P Capital IQ. Information as of December 31, 2015.

## Key characteristics of U.S. middle market direct loans

---

### Illiquid loans to U.S. companies with \$10m to \$100m EBITDA

- Similar in size to Russell 2000 companies

### Originated directly by asset manager without banker/broker intermediary

- Mostly buy and hold, not syndicated
- Some club deals

### Floating rate loans

- Libor plus a spread; generally with 1% Libor floor
- Income increases with rising interest rates (zero interest rate duration)

### 5 year average maturity and 3 year average loan life

### Various credit structures

- First lien, unitranche, second lien, subordinated, mezzanine

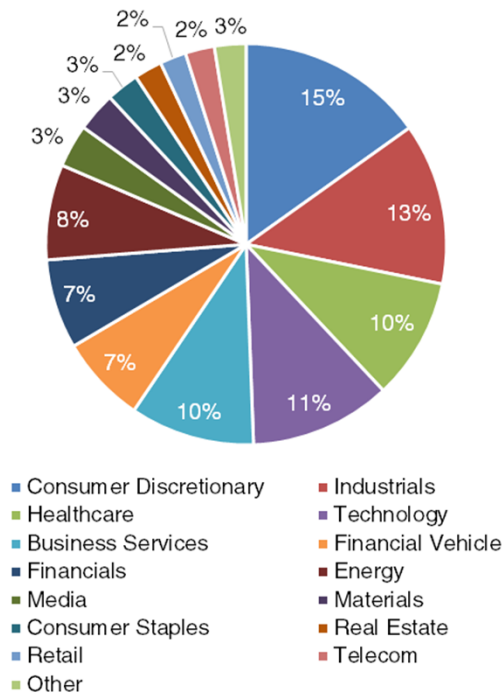
### Sponsored (private equity backed) and non-sponsored borrowers

### Broad industry representation

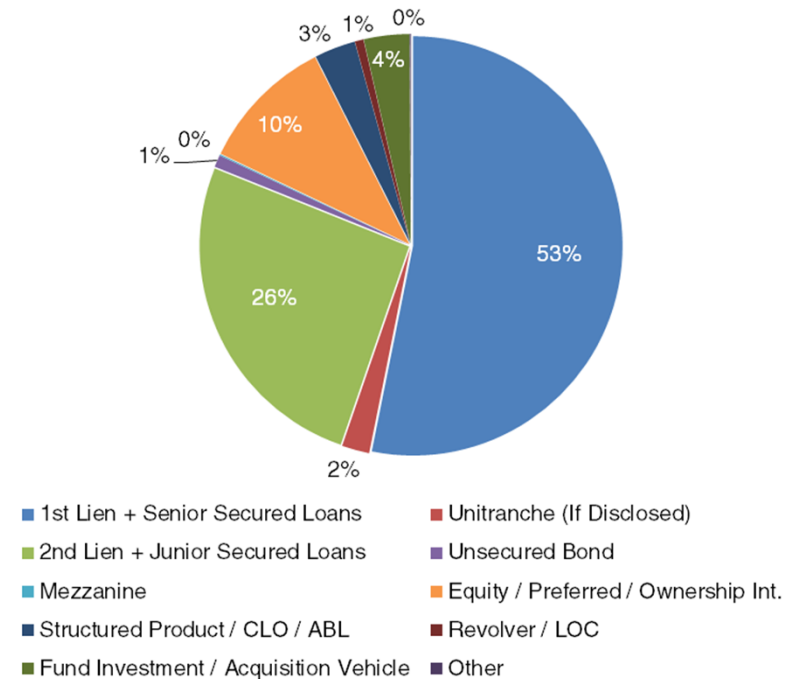
# Industry and credit composition of U.S. direct lending assets

Data based upon >6,800 loans in the CDLI

Middle Market Direct Lending Assets by Industry  
(as of Sep 2016)



Middle Market Direct Lending Assets by Credit Type  
(as of Sep 2016)



Source: Cliffwater research, as of September 30, 2016. "Middle Market Direct Lending Assets" consist of the assets in the Cliffwater Direct Lending Index, which is described on the following page. Industry categorizations and asset seniority are determined based on Cliffwater's interpretations of SEC filings. Other industry participants may categorize assets differently. Please see additional CDLI disclosures at the end of the presentation.

# The Cliffwater Direct Lending Index (CDLI)

## Why an Index?

- Understand loan market characteristics (size, geography, industry, etc.)
- Return, risk, correlation history
- Asset allocation studies (asset class status)
- Benchmark to evaluate loan managers

## Cliffwater Direct Lending Index

- SEC filings from public and private BDCs
- Loans managed for total return
- No survivorship, self-reporting biases
- September 2004 start date
- \$87 billion held within 62 public and private BDCs
- [www.CliffwaterDirectLendingIndex.com](http://www.CliffwaterDirectLendingIndex.com)
- Unlevered, gross of fees & expenses

## CDLI Performance

	First Quarter <u>2017</u>	Trailing Four Quarters*	From Sept 2004 <u>Inception*</u>
Income	2.45%	10.43%	11.21%
Net Realized Gains(Losses)	(0.50)	(1.62)	(1.01)
Net Unrealized Gains(Losses)	<u>0.41</u>	<u>3.28</u>	<u>(0.34)</u>
Total Return**	2.36%	12.16%	9.79%

\* Returns through March 31, 2017. Since inception return annualized.

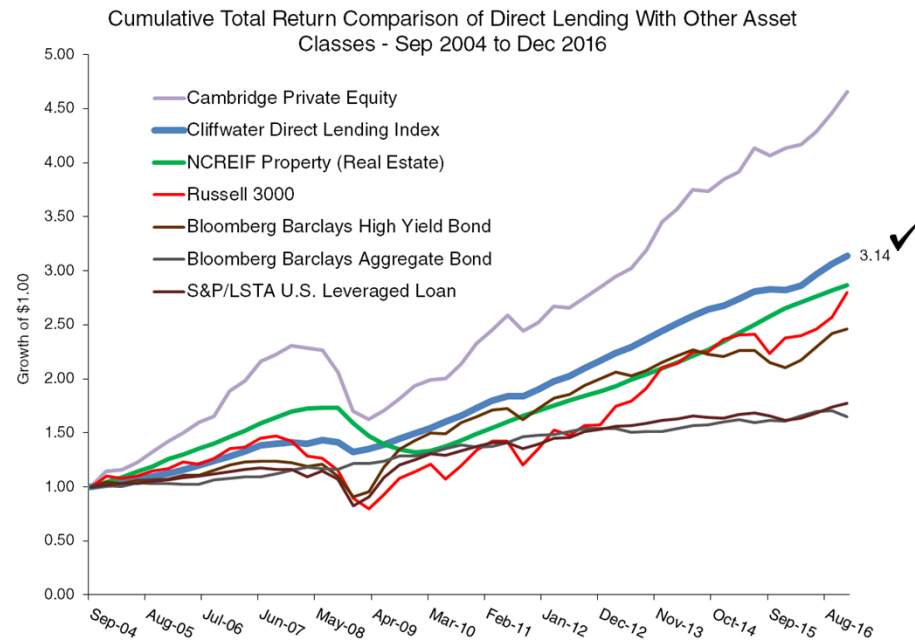
\*\*Return subcomponents may not add exactly to total return due to compounding effects.

The Cliffwater Direct Lending Index (the "CDLI") is an index comprised of all underlying assets held by public and private Business Development Companies that satisfy certain eligibility requirements. The CDLI is asset-weighted by reported fair value. Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The CDLI performance has been prepared for informational purposes only. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of this presentation.

# Cliffwater created a direct lending index to benchmark performance

## Cliffwater Direct Lending Index and loan database<sup>1</sup>

- Research tool
- Data from public 10-K/Q filings
- \$87 billion in loan assets (~20% of the estimated direct lending universe)
- > 6,800 individual loans
- Asset weighted performance similar to NCREIF (real estate)
- Unlevered
- Gross of manager fees
- Research and quarterly returns at [www.CliffwaterDirectLendingIndex.com](http://www.CliffwaterDirectLendingIndex.com)



	Sep 2004 to Dec 2016	
	Return <sup>2</sup>	Risk <sup>2</sup>
Cambridge Private Equity	13.4%	10.3%
✓ Cliffwater Direct Lending Index	9.8%	3.7%
NCREIF Property (Real Estate)	9.0%	5.7%
Russell 3000	8.8%	15.8%
Bloomberg Barclays High Yield Bond	7.6%	11.2%
Bloomberg Barclays Aggregate Bond	4.2%	3.4%
S&P/LSTA U.S. Leveraged Loan	4.8%	10.7%

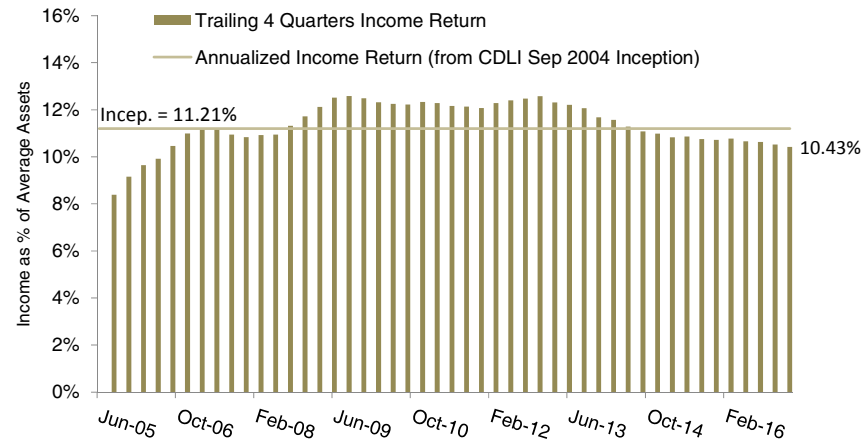
<sup>1</sup> Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The CDLI performance has been prepared for informational purposes only. Past performance is not indicative of future returns. The index returns are provided for information only. Reference to an index does not imply that a portfolio will achieve returns, volatility or other results similar to the index. Please see additional CDLI and Index disclosures at the end of the presentation.

<sup>2</sup> Annualized returns and risks. Risk is calculated as annualized standard deviation of historical returns.

# CDLI income return (Sep 2004 to Mar 2017)

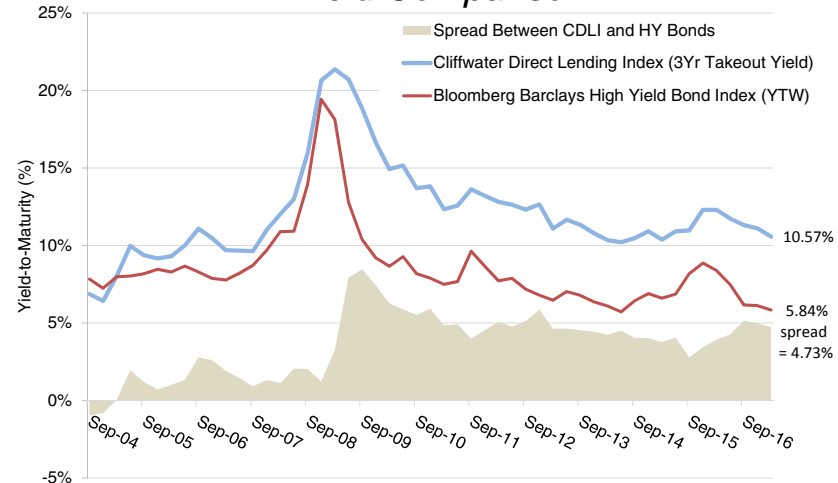
*Interest and other income has ranged from 9% to 12% (11.21% annualized since inception)*

**CDLI Income Return**



*Income spread to high yield bonds averages 4.3% over the past 10 years, and equals 4.7% at March 2017*

**Yield Comparison**

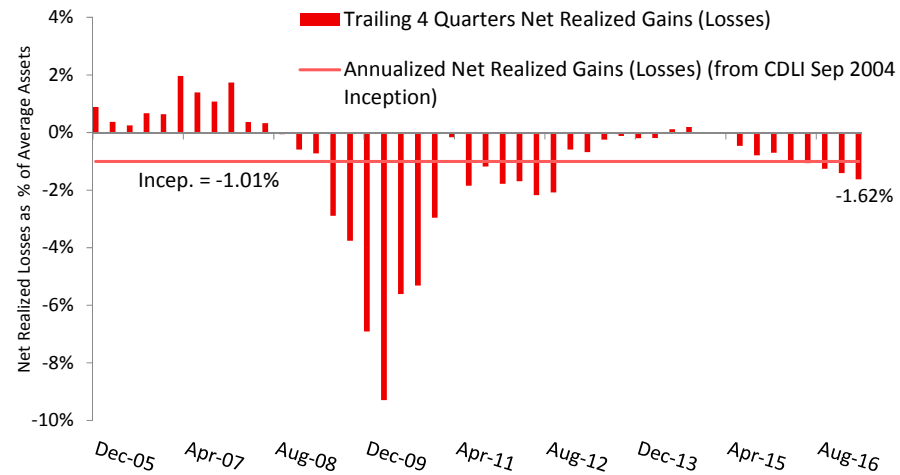


*Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The CDLI performance has been prepared for informational purposes only. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of this presentation.*

# CDLI net realized, unrealized gains (losses) (Sep 2004 to Mar 2017)

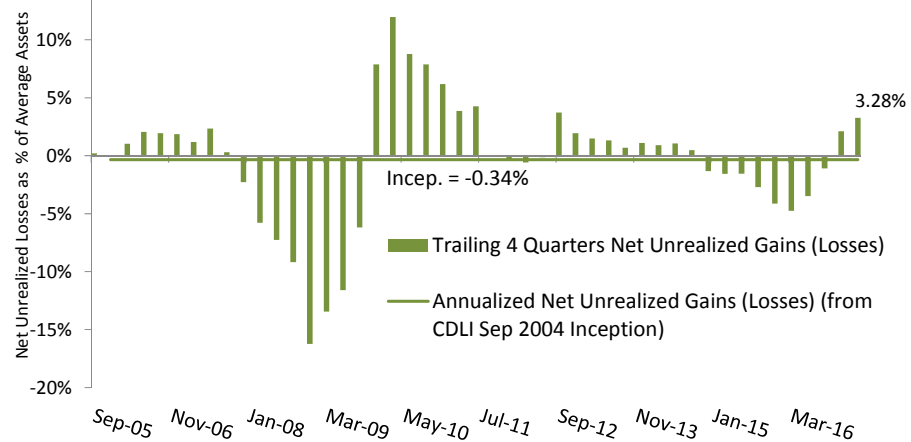
*Net realized losses contributed about -1% per year, roughly equal to broadly syndicated bank loans and below a 1.5% loss ratio for high yield bonds<sup>1</sup>*

### CDLI Net Realized Gains (Losses)



*Net unrealized gains (losses) telegraph changes in general credit spreads or anticipated realized losses*

### CDLI Net Unrealized Gains (Losses)



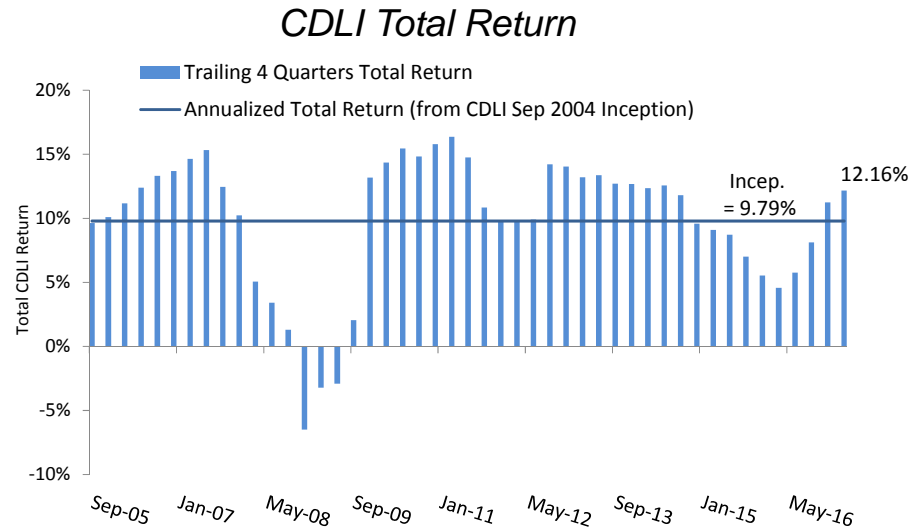
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<sup>1</sup> Source: J.P.Morgan Default Monitor. J.P. Morgan reports default and recovery ratios. Cliffwater calculates loss ratios from the J.P. Morgan data by combining reported default and recovery rates. This information is provided for purposes of comparison.

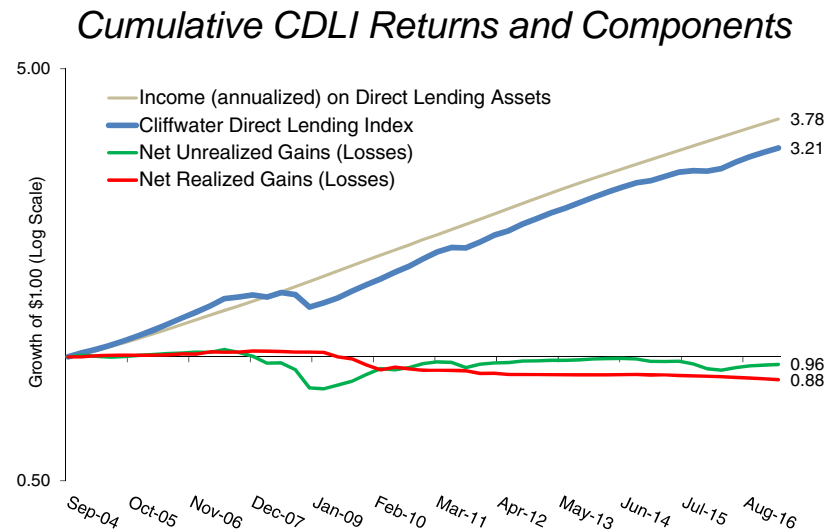


# CDLI total return (gross of fees) (Sep 2004 to Mar 2017)

*Annual CDLI total returns are fairly stable, but for the Financial Crisis*



*Income return drives long term return for direct lending assets*



Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The CDLI performance has been prepared for informational purposes only. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of this presentation.

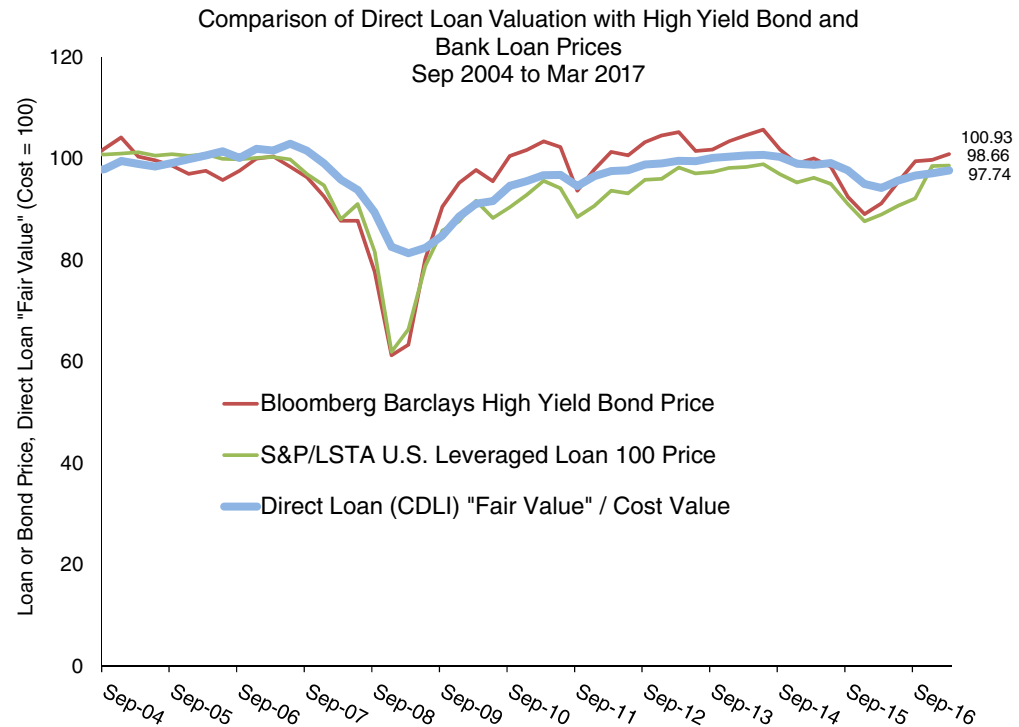
# Direct loan values lag price changes to high yield bonds and bank loans

## Direct loan valuation

- Quarterly valuation
- Independent director oversight
- Valuation by independent valuation firm at least annually

## Findings

- Direct loans lag high yield bonds and bank loans
- Not surprisingly, direct loan valuation process leads to:
  - Dampened markdowns and markups
  - Valuation changes that lag market price changes for high yield bonds and bank loans
- These findings are consistent with relationship of REITs and NCREIF



Source: Cliffwater research, as of March 31, 2017. "Direct Loan "Fair Value" / Cost Value" is calculated based on the SEC filings of the BDCs that comprise the CDLI. Because direct loans are not traded assets and fair values are independent and unbiased estimates of the market values of assets, Cliffwater believes this metric can be used as a reasonable comparison to high yield bond and bank loan prices. The index returns are provided for information only. Reference to an index does not imply that a portfolio will achieve returns, volatility or other results similar to the index. Past performance is not indicative of future returns. Please see additional CDLI and Index disclosures at the end of the presentation.

# Historical return and risk for direct lending and other asset classes

12.25 years of quarterly data from Sep 2004 to Dec 2016

**Historical Asset Class Return, Risk, and Correlations: September 2004 to December 2016**

		Return	Risk	Return- to-Risk	Max Draw Down	Correlations															
						MSCI World	Russell 3000	MSCI EAFE	MSCI EM	ML T- Bills	5 yr Tsy	Barc 3- Agg	S&P / LSTA	Barc HY	HFRI	NCREI F	CDLI	Cambr PE	Cambr Venture	Cambr Buyout	Cambr Energy
Public Equity	MSCI ACWI (All Country World)	6.7%	17.1%	0.39	-49%	1.00	0.95	0.98	0.92	0.03	-0.48	-0.17	0.70	0.80	0.93	0.22	<b>0.66</b>	0.80	0.56	0.77	0.51
	Russell 3000	8.8%	15.8%	0.56	-46%	0.95	1.00	0.88	0.78	-0.10	-0.55	-0.28	0.67	0.76	0.84	0.24	<b>0.68</b>	0.76	0.59	0.76	0.42
	MSCI EAFE	5.2%	18.9%	0.27	-52%	0.98	0.88	1.00	0.91	0.08	-0.44	-0.14	0.64	0.76	0.92	0.20	<b>0.59</b>	0.78	0.52	0.74	0.53
	MSCI EM (Emerging Markets)	7.8%	23.6%	0.33	-53%	0.92	0.78	0.91	1.00	0.17	-0.39	-0.06	0.73	0.81	0.94	0.11	<b>0.61</b>	0.76	0.45	0.71	0.56
Rates	Merrill Lynch 0-3 Month T-Bill	1.3%	0.9%	1.43	0%	0.03	-0.10	0.08	0.17	1.00	0.23	0.07	-0.13	-0.15	0.13	0.29	<b>-0.03</b>	0.22	0.07	0.12	0.42
	Bloomberg Barclays 3-5 Yr U.S. Tr	3.5%	3.8%	0.91	-3%	-0.48	-0.55	-0.44	-0.39	0.23	1.00	0.80	-0.61	-0.45	-0.53	-0.12	<b>-0.56</b>	-0.46	-0.39	-0.48	-0.35
	Bloomberg Barclays U.S. Aggregate	4.2%	3.4%	1.24	-2%	-0.17	-0.28	-0.14	-0.06	0.07	0.80	1.00	-0.20	-0.01	-0.21	-0.17	<b>-0.28</b>	-0.26	-0.29	-0.25	-0.22
Credit	S&P/LSTA U.S. Leveraged Loan	4.8%	10.7%	0.45	-30%	0.70	0.67	0.64	0.73	-0.13	-0.61	-0.20	1.00	0.93	0.74	-0.04	<b>0.76</b>	0.56	0.35	0.57	0.38
	Bloomberg Barclays High Yield	7.6%	11.2%	0.68	-27%	0.80	0.76	0.76	0.81	-0.15	-0.45	-0.01	0.93	1.00	0.79	-0.08	<b>0.72</b>	0.60	0.33	0.60	0.39
Alternatives	HFRI Fund Weighted	5.2%	7.4%	0.71	-19%	0.93	0.84	0.92	0.94	0.13	-0.53	-0.21	0.74	0.79	1.00	0.18	<b>0.70</b>	0.81	0.56	0.78	0.59
	NCREIF Property (Real Estate)	9.0%	5.7%	1.56	-24%	0.22	0.24	0.20	0.11	0.29	-0.12	-0.17	-0.04	-0.08	0.18	1.00	<b>0.41</b>	0.56	0.56	0.56	0.45
	<b>Direct Lending Index (CDLI)</b>	<b>9.8%</b>	<b>3.7%</b>	<b>2.66</b>	<b>-6%</b>	<b>0.66</b>	<b>0.68</b>	<b>0.59</b>	<b>0.61</b>	<b>-0.03</b>	<b>-0.56</b>	<b>-0.28</b>	<b>0.76</b>	<b>0.72</b>	<b>0.70</b>	<b>0.41</b>	<b>1.00</b>	<b>0.76</b>	<b>0.58</b>	<b>0.77</b>	<b>0.56</b>
	Cambridge Private Equity	13.4%	10.3%	1.30	-29%	0.80	0.76	0.78	0.76	0.22	-0.46	-0.26	0.56	0.60	0.81	0.56	<b>0.76</b>	1.00	0.78	0.97	0.74
	Cambridge U.S. Venture	9.8%	8.0%	1.23	-17%	0.56	0.59	0.52	0.45	0.07	-0.39	-0.29	0.35	0.33	0.56	0.56	<b>0.58</b>	0.78	1.00	0.76	0.36
	Cambridge U.S. Buyouts	14.7%	10.1%	1.45	-29%	0.77	0.76	0.74	0.71	0.12	-0.48	-0.25	0.57	0.60	0.78	0.56	<b>0.77</b>	0.97	0.76	1.00	0.69
Cambridge Private Energy	15.7%	16.3%	0.97	-33%	0.51	0.42	0.53	0.56	0.42	-0.35	-0.22	0.38	0.39	0.59	0.45	<b>0.56</b>	0.74	0.36	0.69	1.00	

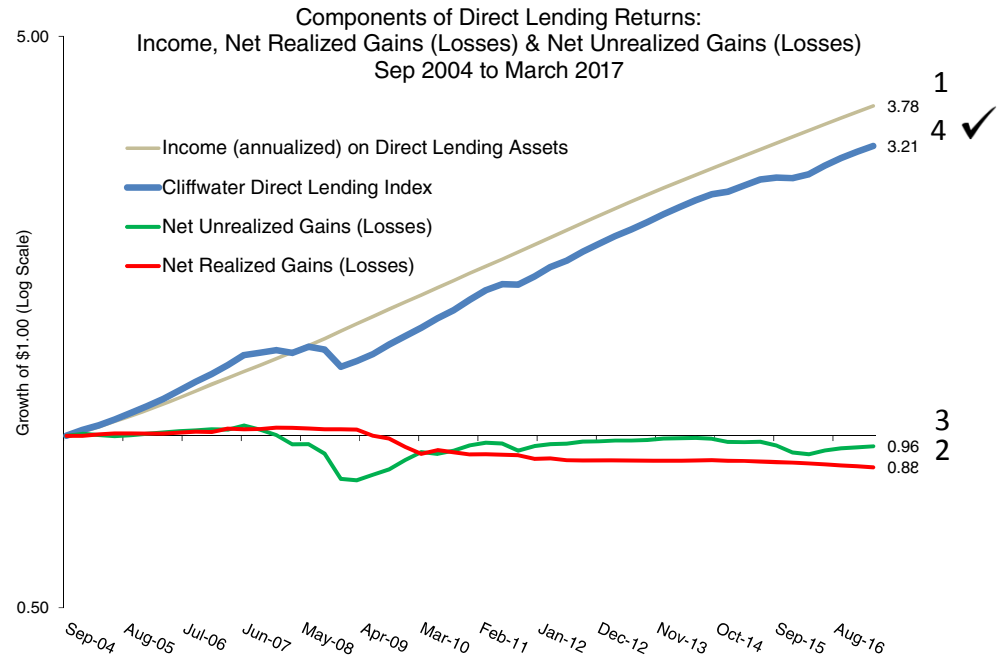
<sup>1</sup> Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The CDLI performance has been prepared for informational purposes only. Past performance is not indicative of future returns. The index returns are provided for information only. Reference to an index does not imply that a portfolio will achieve returns, volatility or other results similar to the index. Please see additional CDLI and Index disclosures at the end of the presentation.

<sup>2</sup> Annualized returns and risks. Risk is calculated as annualized standard deviation of historical returns.

# Direct lending returns have income and credit loss components

## Components of Cliffwater Direct Lending Index

1. Income return contributed 11.21% over the index history and has been a stable source of return
2. Net realized losses contributed -1.01% per annum, less than the average -1.47% credit loss for high yield bonds<sup>1</sup> and similar to the average -0.96% credit loss for bank loans<sup>1</sup> for the 2005-2016 time period
3. Net unrealized losses contributed -0.34% per annum and generally foreshadow some future realized losses
4. Returns net of losses averaged 9.79% annualized over the 12.5 year measurement period



	Sep 2004 – Mar 2017 (annualized)
1. Income return	11.21%
2. Net realized gains (losses)	(1.01%)
3. Net unrealized gains (losses)	(0.34%)
4. Return net of losses	<u>9.79%</u> ✓

Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The CDLI performance has been prepared for informational purposes only. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of this presentation.

<sup>1</sup> Source: J.P.Morgan Default Monitor. J.P. Morgan reports default and recovery ratios. Cliffwater calculates loss ratios from the J.P. Morgan data by combining reported default and recovery rates. This information is provided for purposes of comparison.

# Direct lending fees & expenses

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## Management fees

- Typically charge on invested assets, not committed assets
- Some managers charge on gross assets and others on net assets
- Those charging on net assets charge higher headline fees, but lower fees after leverage, all else equal

## Carried interest

- Generally ranges between 7% and 20%
- Preferred return generally ranges between 6% and 8%

## Other notables

- Little/no broken deal fees
- Opportunity for GP interests in special circumstances

### *Fees & Expenses for Unlevered Direct Lending Private Commingled Funds<sup>1</sup>*

Management fee	1.15%
Carried interest	13.00%
Preferred return	<u>6.00%</u>
Subtotal <sup>2</sup>	2.15%
Fund expenses	<u>0.30%</u>
Total	2.45%

<sup>1</sup> Excludes funds that charge on committed assets

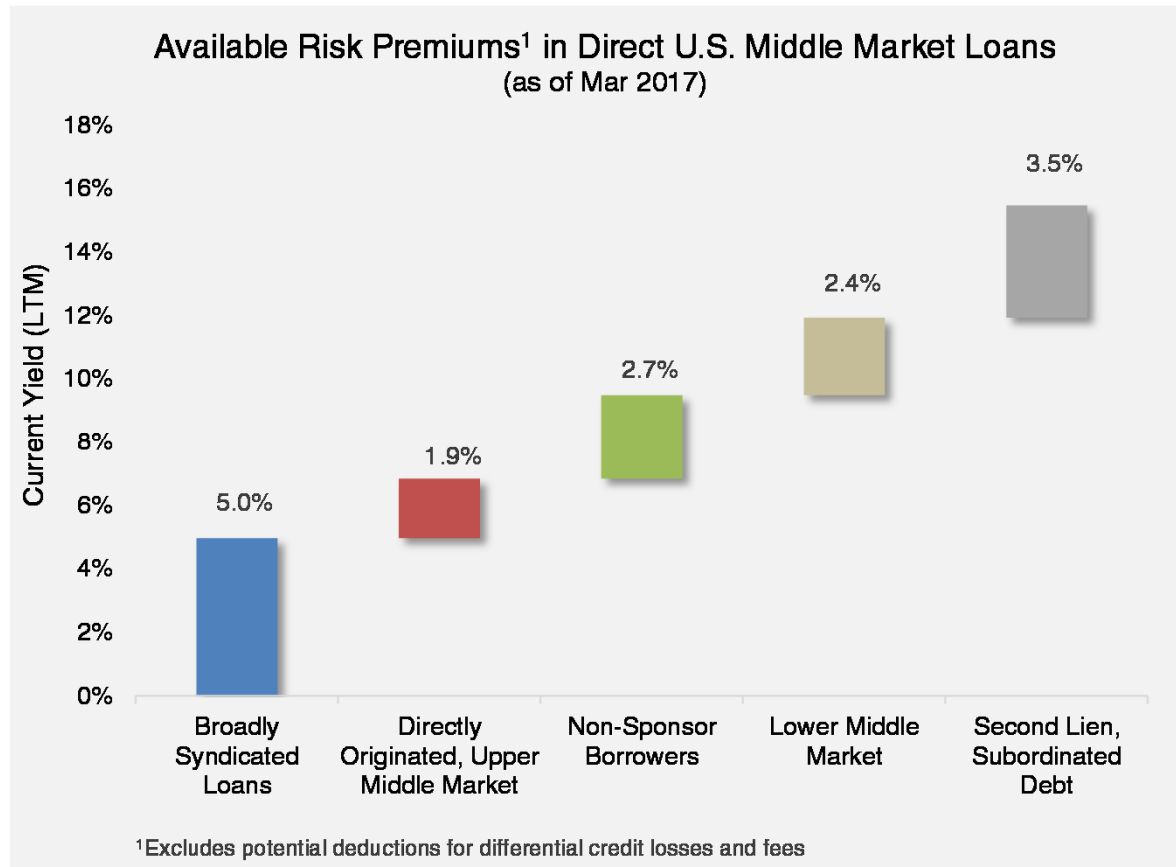
<sup>2</sup> Based upon 9.25% gross unlevered yield

## Potential return on direct lending portfolios

	<u>Unlevered Portfolio</u>	<u>Levered Portfolio</u>
Interest income	9.25%	9.25%
Credit losses	(1.00%)	(1.00%)
Mgmt. fee (on gross assets)	(1.00%)	(1.00%)
Fund expenses (on gross assets)	(0.20%)	(0.20%)
Return on leverage		3.00%
Carried interest (10%)	<u>(0.00%)</u>	<u>(1.00%)</u>
<b>Net return</b>	<b>7.05%</b>	<b>9.05%</b>
notes:	50% senior 50% unitranche	50% senior 50% unitranche
	7% preferred	7% preferred 0.85x leverage 3.50% debt cost

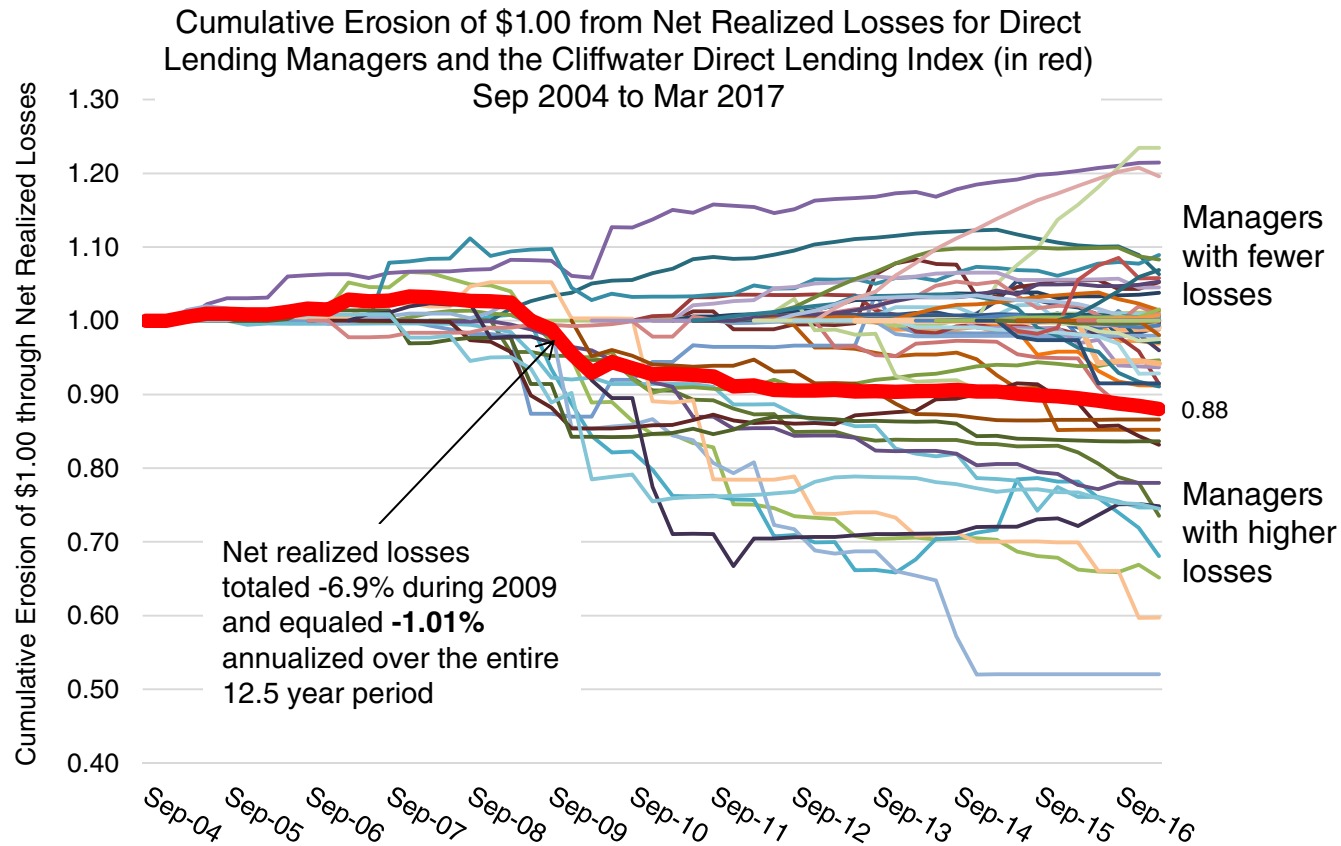
*The Cliffwater return forecast shown is calculated by applying the current Cliffwater return forecast methodology to currently available market information and the use of Cliffwater's professional judgment. Due to the forward-looking nature of the forecast, it is necessarily speculative and may prove to be inaccurate. The return forecast reflects expected returns of a hypothetical direct lending portfolio based on the specified parameters and not for specific investments within the asset class. Specific investments within the asset class will perform differently and may underperform the forecasted returns. The forecasted returns do not reflect actual performance of any account(s) managed by Cliffwater. Cliffwater may change its return forecast methodology at any time and the Cliffwater return forecast should not be used to predict the actual future performance of any Cliffwater account. The fees and expenses specified are representative of a direct lending portfolio based upon Cliffwater's experience with advising its institutional clients.*

## Direct lenders differ in what risk premiums they capture



Source: Cliffwater research based on public information and confidential responses to Cliffwater inquiries. Information may be over a year old and subject to interpretation by direct lending manager respondents. Risk premiums are estimated using a cross-sectional three-factor regression of public and private BDCs' 12 month gross yields through March 31, 2017 against Cliffwater's best estimates of each manager's loan seniority, expected/actual portfolio company size by average EBITDA and expected/actual share of sponsor vs. non-sponsor lending. Three factor statistical regression reports a 76% R<sup>2</sup>. Broadly syndicated loan yield as reported by the interest return of the S&P/LSTA U.S. Leveraged Loan Index through March 31, 2017. See Cliffwater Research Report, "Risk Premiums in U.S. Middle Market Lending (Part 1: An attribution of yield spread by key risk factors)," available upon request, for a detailed description of this analysis.

# Managers vary widely in their ability to limit net realized losses



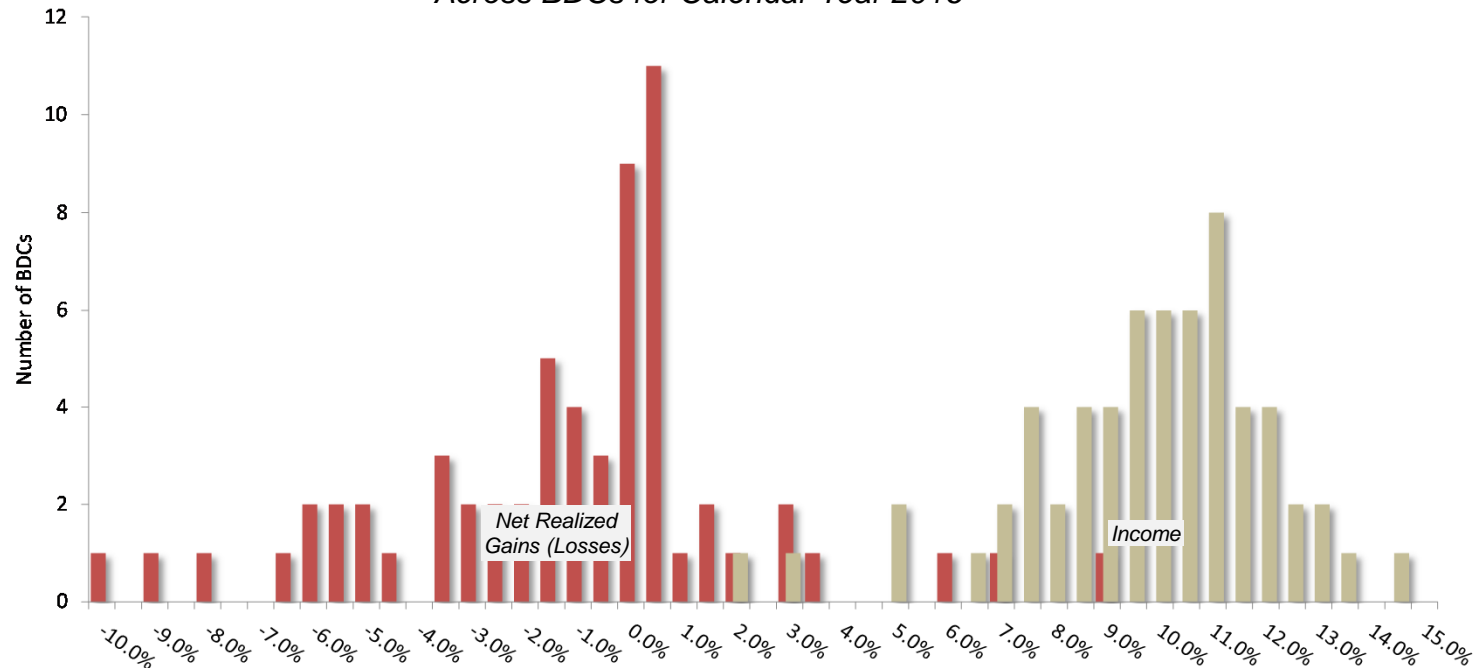
Net realized losses for the Cliffwater Direct Lending Index equaled -1.01% annualized since inception, and the difference in loss ratio between a first and fourth quartile manager was 2.2% per year

Source: Cliffwater research, as of March 31, 2017. "Direct Lending Managers" consist of the managers of the BDCs included in the CDLI. Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The CDLI performance has been prepared for informational purposes only. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of the presentation.



# Managers vary widely in income generation and net realized losses

**Net Realized Gains (Losses) and Income**  
Across BDCs for Calendar Year 2016

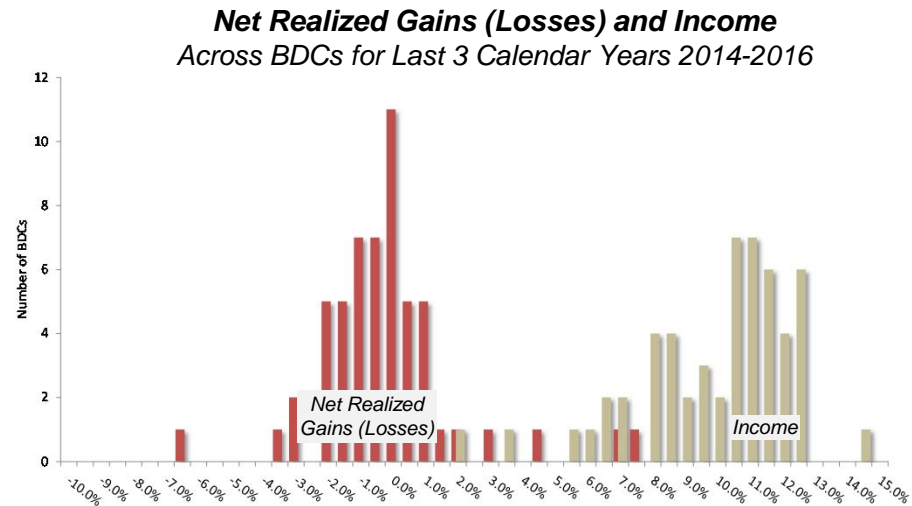
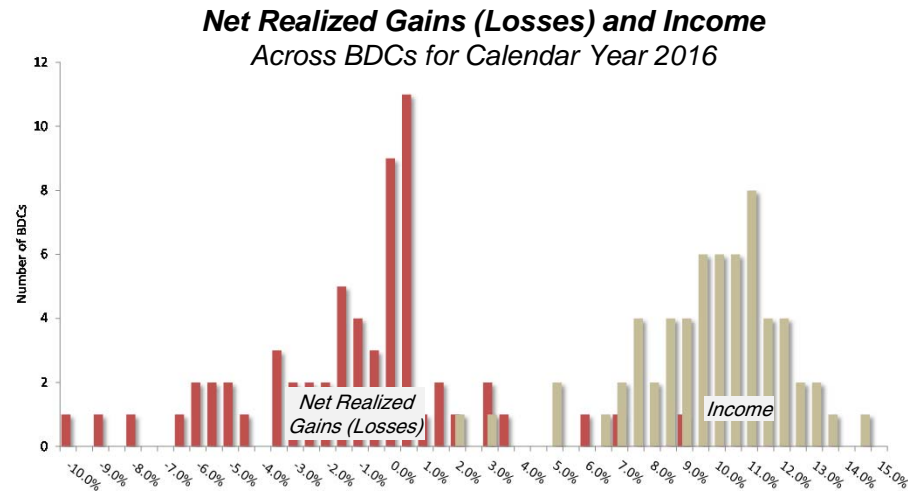


- There is significant dispersion in both income and net realized losses, even in years like 2016 with low credit losses
- And we find that the correlation between income and net realized losses = **-0.31**

Includes all BDCs in the CDLI, except for those BDCs that have not reported for a full four quarters during the calendar year 2016. The performance of the CDLI has been prepared for informational purposes only. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of this presentation.

# Manager differences carry over to longer time periods

- Dispersion among managers persists over a longer (3 year) time period
- And we find that the negative correlation between income and net realized losses over a longer time period persists (-0.35)



Includes all BDCs in the CDLI, except for those BDCs that have not reported for a full four quarters during the calendar year 2016 and 12 full quarters during the last three calendar years 2014-2016, respectively. Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. The performance of the CDLI has been prepared for informational purposes only. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of this presentation.