

NORTH CAROLINA
DEPARTMENT OF STATE TREASURER



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INVESTMENT MANAGEMENT DIVISION

Opportunistic Fixed Income Review

November 15, 2018

All Data as of September 30, 2018 Unless Otherwise Stated



Role in the Portfolio

Attractive Absolute Returns

- Long-term returns that are competitive with long-term public equities, after consideration of lower downside risk, due to opportunistic investments, longer duration private investments, restructurings, leverage, hedging, and trading skill

Competitive Relative Returns

- Achieve or exceed the return on the performance benchmark over a long period of time, within reasonable risk parameters

Diversification

- Enhance the diversification of the Fund relative to public equity and investment grade fixed income

Capital Preservation

- Protect capital through credit-oriented investments and trading strategies that are designed to minimize downside risk

Deflation Protection

- The structure of certain fixed income assets may provide protection against the detrimental effects of deflation

Portfolio Launched June 2009

- The asset class (N.C.G.S. § 147-69.2(b)(6c)) was approved for investment by the NC General Assembly in June 2009.



Portfolio Components

Components

Traditional Corporate Credit

Distressed Credit

Hedge Funds

Special Situations

Strategies / Types of Investments

High Yield Bonds

Bank Loans

High Yield Bonds

Post-Reorg Equity

Structured Credit

Long/Short Credit

Relative Value

Convertible Arbitrage

Distressed Credit

Derivatives

Event-Driven

Structured Credit

Mezzanine Debt

Whole Loans

Direct Lending

Real Estate Loans

Dislocation

* Portfolio Components, Targets, and Maximums come from the Investment Policy Statement for North Carolina Retirement Systems, July 1, 2014



Opportunistic Fixed Income

- Currently under-weight vs. target by 1.2%
- Additional capacity for more than \$1.1B

	Market Value (\$MM)	%	Target	Range		Relative %	Relative \$ (MM)
				Minimum	Maximum		
Growth	\$53,583	53.92%	58.0%	37.0%	71.0%	-4.08%	(\$4,057)
Public Equity	39,319	39.56%	42.0%	37.0%	47.0%	-2.44%	(\$2,421)
Private Equity	5,264	5.30%	6.0%	0.0%	8.8%	-0.70%	(\$699)
Non Core Real Estate	3,217	3.24%	3.0%	0.0%	8.0%	0.24%	236
Opportunistic Fixed Income	5,784	5.82%	7.0%	0.0%	7.50%	-1.18%	(\$1,173)
Rates & Liquidity	32,115	32.32%	29.0%	24.0%	42.0%	3.32%	3,295
IG Fixed Income & Cash	27,606	27.78%	28.0%	24.0%	32.0%	-0.22%	(\$220)
Pension Cash	4,509	4.54%	1.0%	0.0%	10.0%	3.54%	3,515
Inflation Sensitive & Diversifiers	11,672	11.74%	11.0%	4.0%	16.0%	0.74%	740
Inflation Sensitive	6,307	6.35%	6.0%	2.0%	7.5%	0.35%	344
Core Real Estate	5,365	5.40%	5.0%	2.0%	10.0%	0.40%	396
Multi-Strategy	2,009	2.02%	2.0%	0.0%	4.0%	0.02%	21
Grand Total	\$99,379	100.00%					

Unaudited financials as of 9/30/18



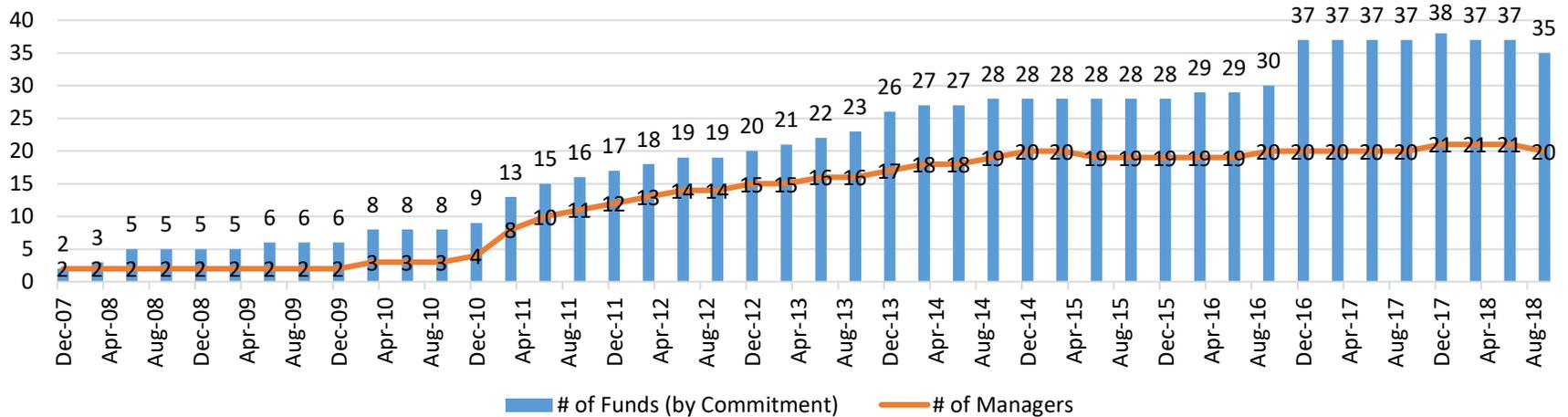
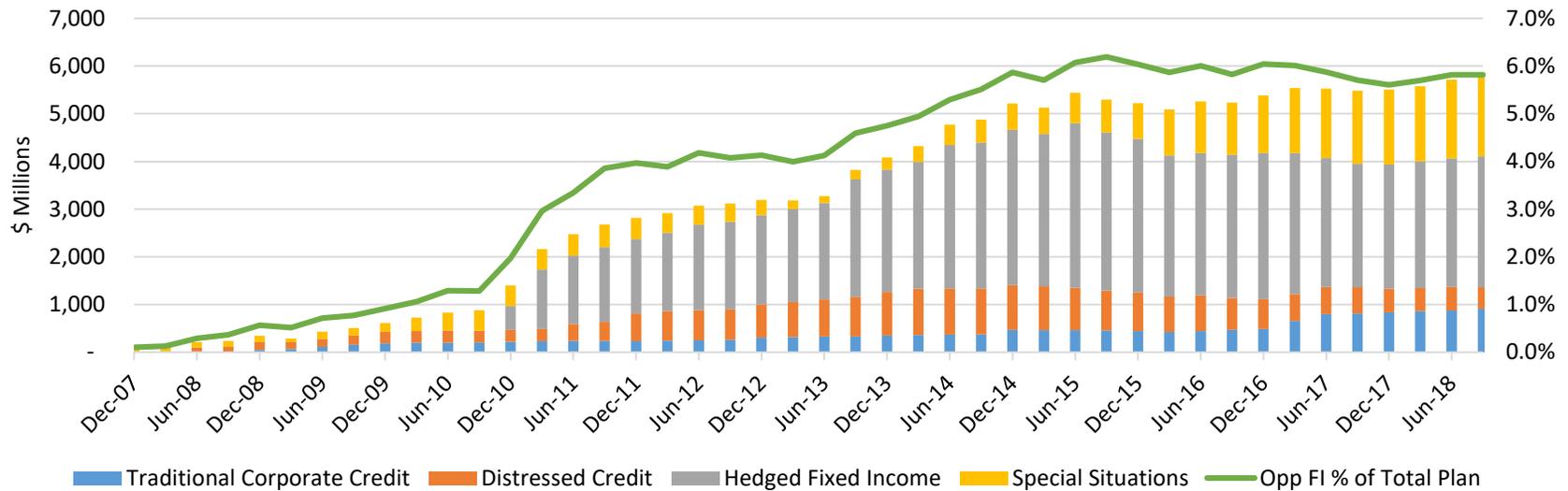
Portfolio Components

Portfolio Component*	Target*	9/28/18	+/-	Maximum*
Traditional Corporate Credit	15%	16%	+1%	50%
Distressed Credit	25%	8%	-17%	50%
Hedged Fixed Income	45%	48%	+3%	75%
Special Situations	15%	29%	+14%	75%

Note: See slide 19 for details on the composition of the Opportunistic Fixed Income Benchmark.

Portfolio History

Portfolio Market Value Timeline by Component

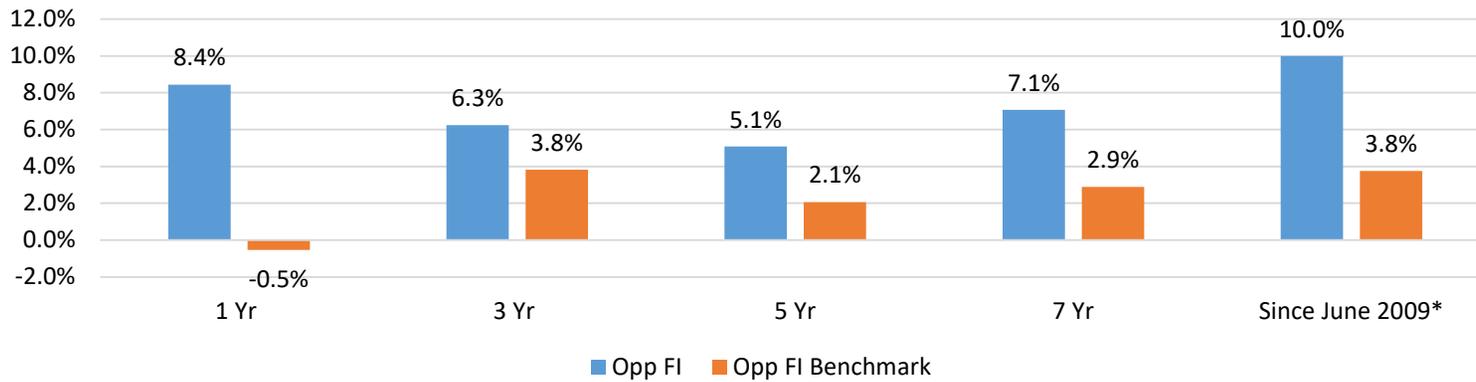


Note: Fund count excludes liquidated investments.

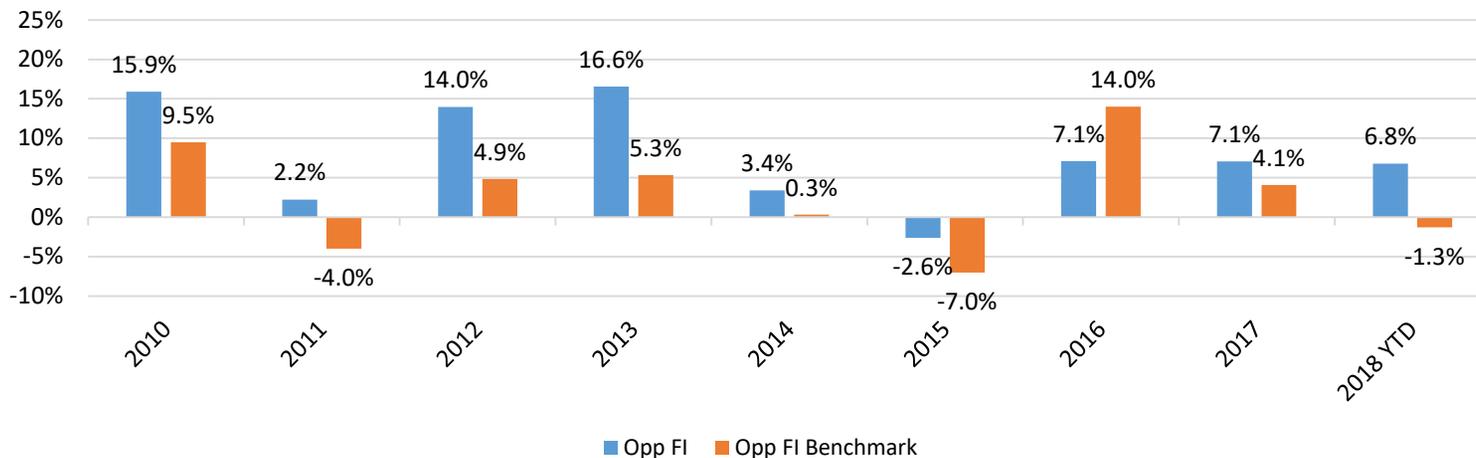


Portfolio Performance

Annualized Performance



Calendar Year Performance

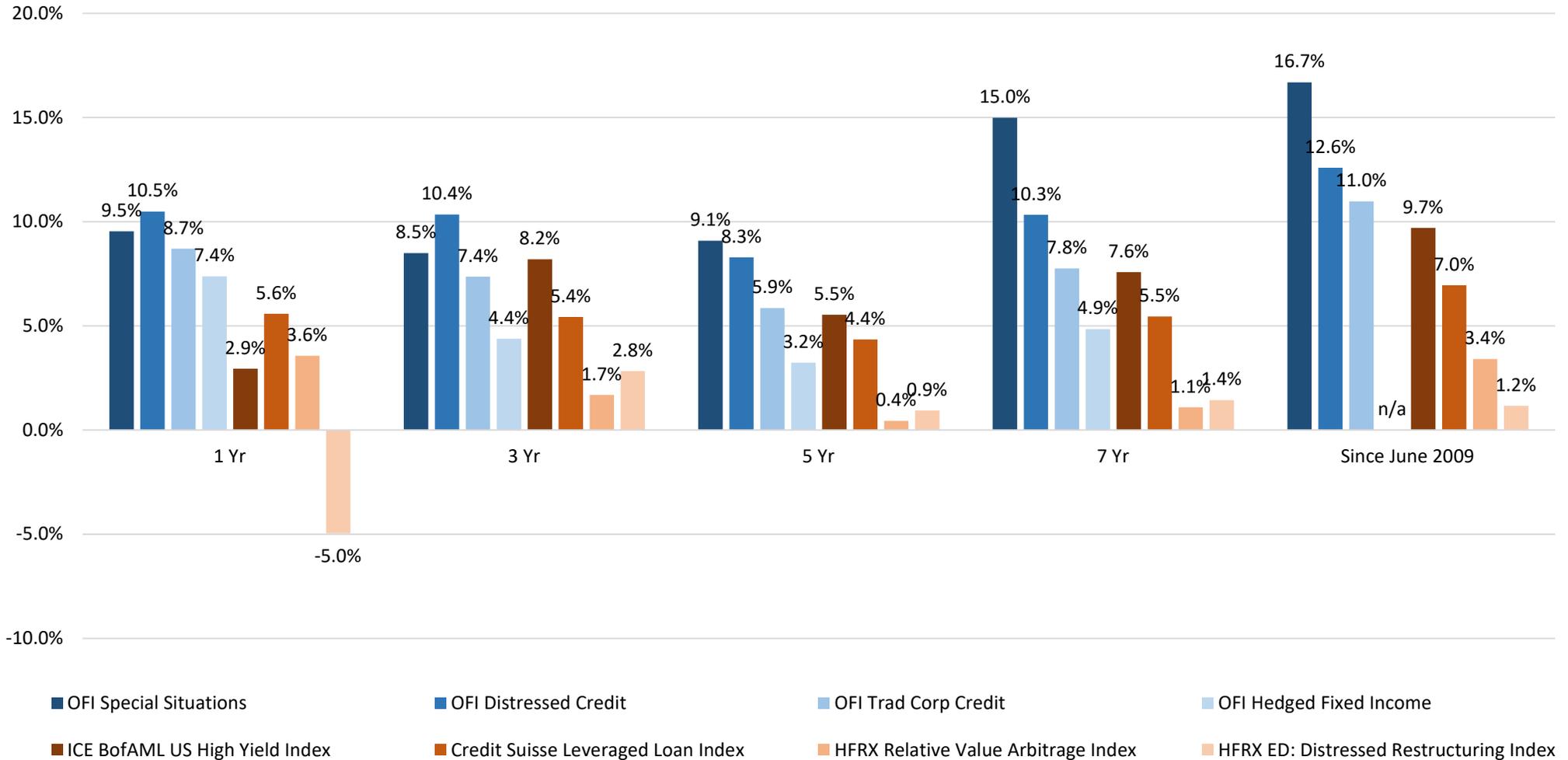


Note: See slide 19 for details on the composition of the Opportunistic Fixed Income Benchmark.



Portfolio Performance

Portfolio Component Annualized Performance vs. Market Benchmarks

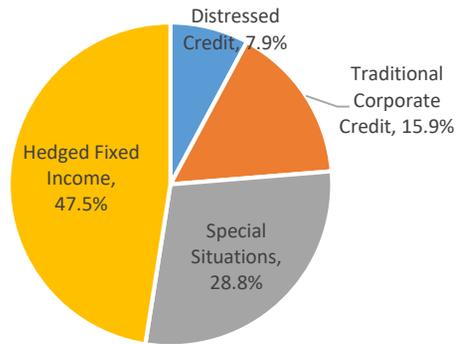


Note: See slide 19 for details on the composition of the Opportunistic Fixed Income Benchmark.

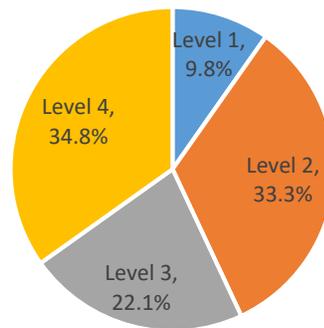


Portfolio Characteristics

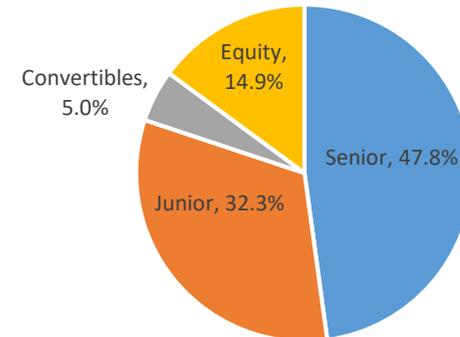
Allocation by Strategy



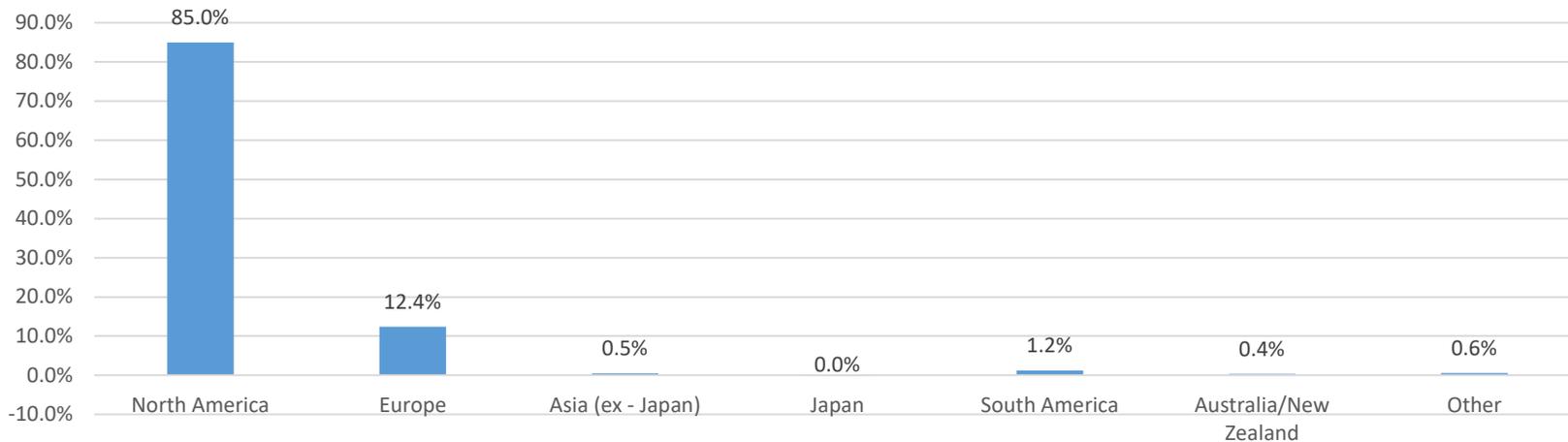
Liquidity by Level*



Capital Structure



Allocation by Geography



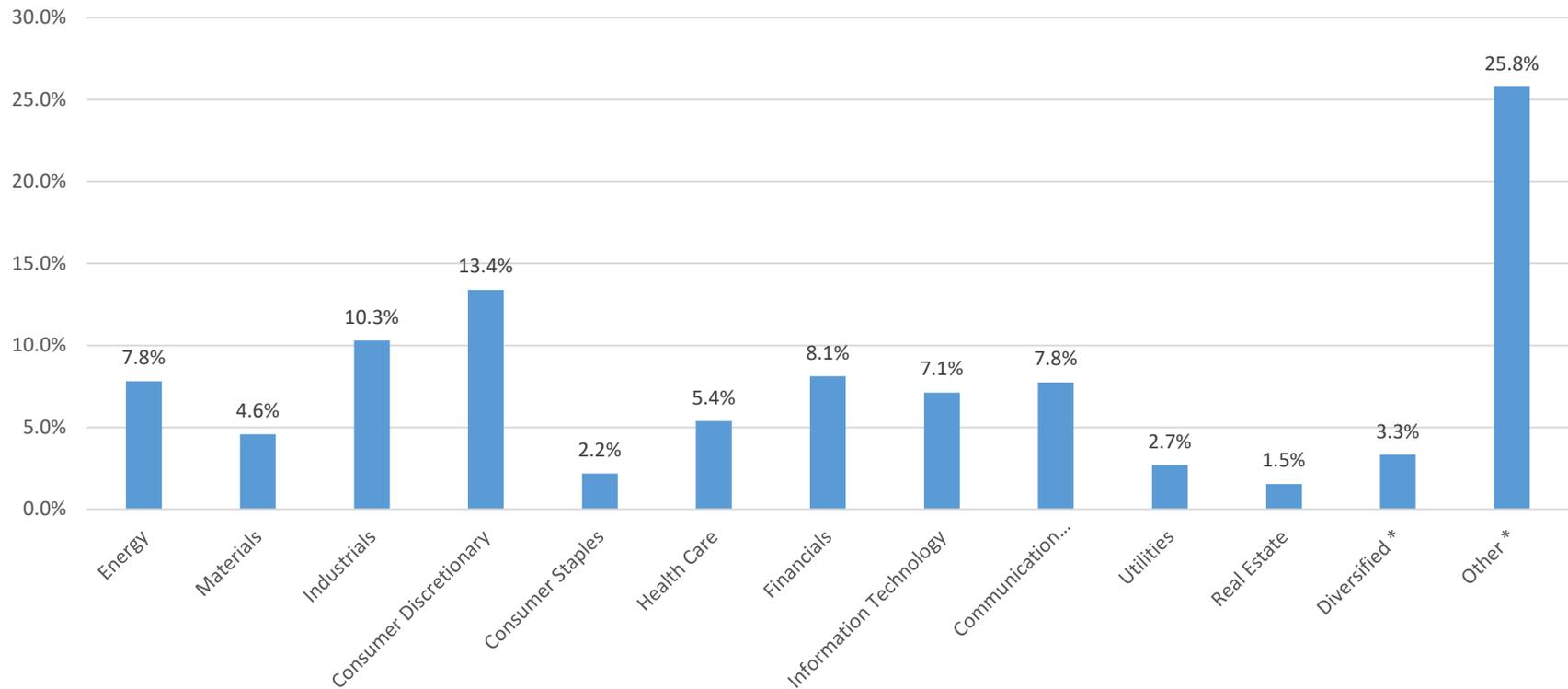
Note: Information is based on market value

*Level 1 Liquidity = T+3; Level 2 = T+3 to 12 Months; Level 3 = 12 to 24 Months; Level 4 = Greater than 24 Months



Portfolio Characteristics

Allocation by GICS Sector

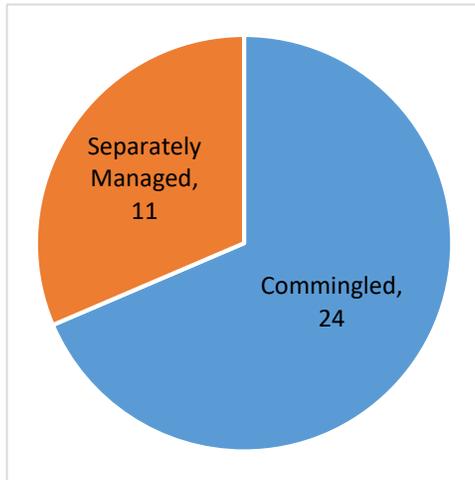


*Holdings that cannot be classified into any one particular sector, as self-reported by the investment manager

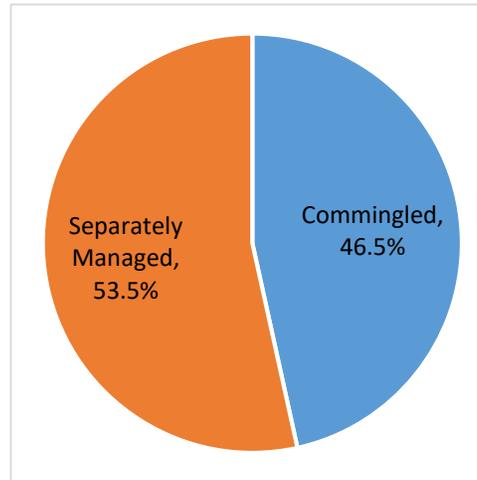


Portfolio Characteristics

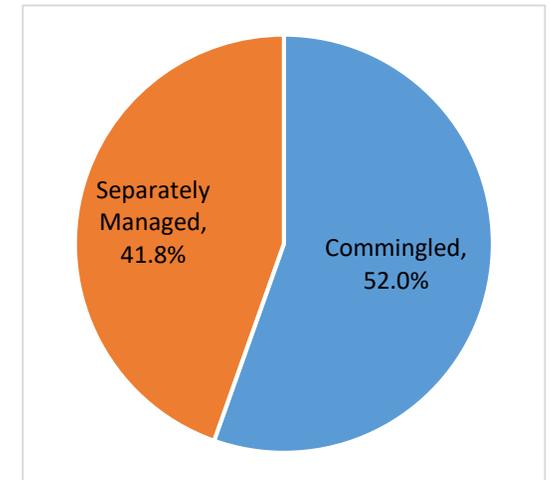
Account Type by Count



Account Type by Market Value



Account Type by Commitment





Since we last spoke to the IAC

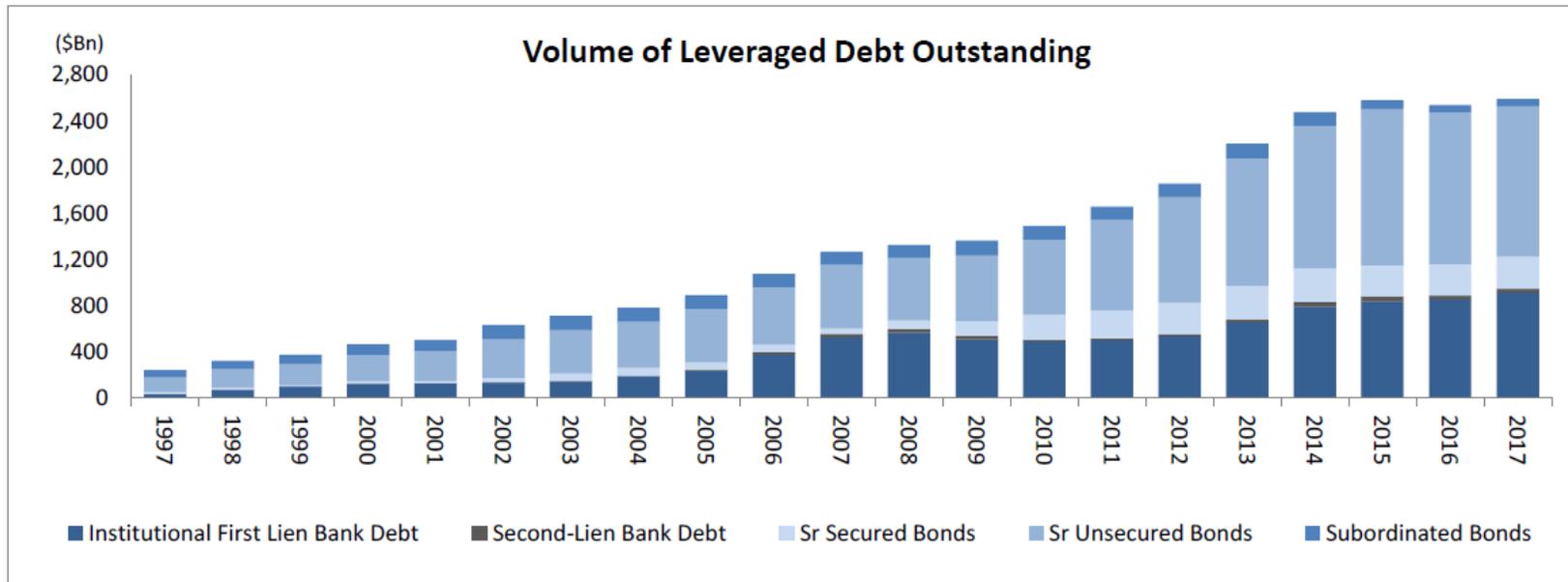
Generally speaking, the market continues to grind ahead:

- Credit spreads continue to be historically tight as new loan issuance supported by buyouts and CLO demand.
 - Volatility remains low
 - Corporate credit markets remain open for new issuance
 - Default rates remain low
 - Recovery rates are stable
 - Fundamentals are strong buoyed by robust economic backdrop
- Risk-adjusted returns remain attractive
- Net inflows into bank loan mutual fund products/outflows from high yield



Current State of the Non-Investment Grade Market

- Leveraged debt market has doubled in size
- BAML's HY Index is 72% larger today than it was in 2008/2009
- Leveraged loan market is more than \$1T in size, comparable to the HY Market
- 80% of Leveraged Loans are covenant lite (almost half have no covenants)

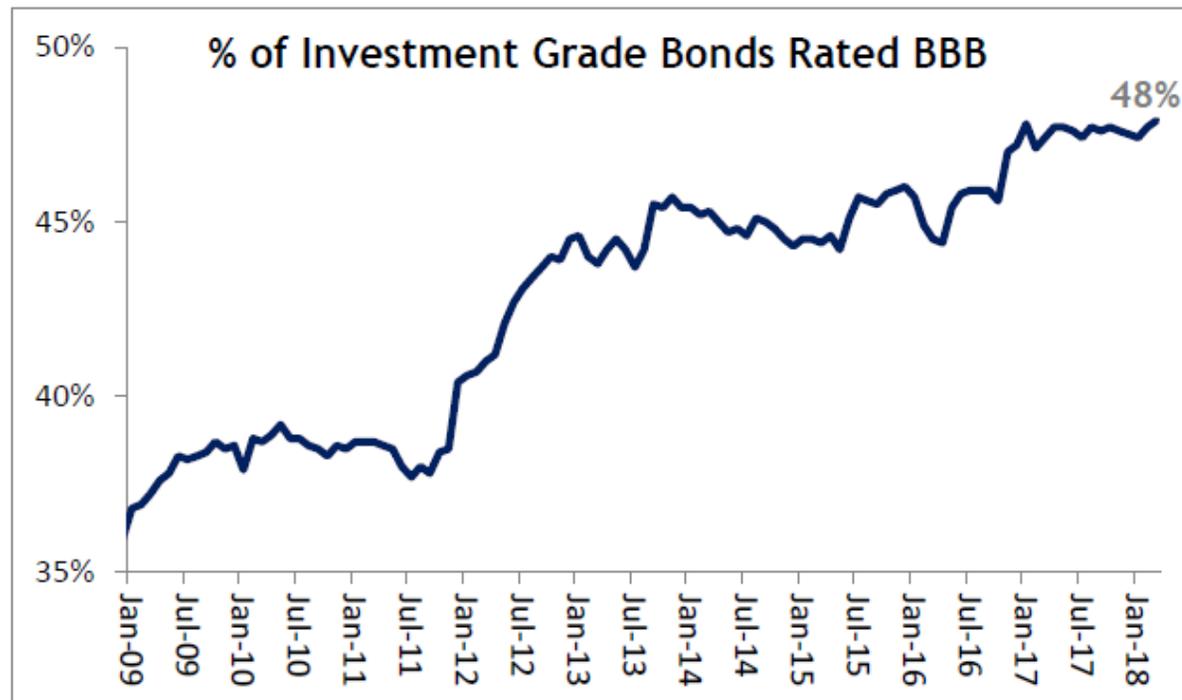


Source: Morgan Stanley as of year-end 2017.

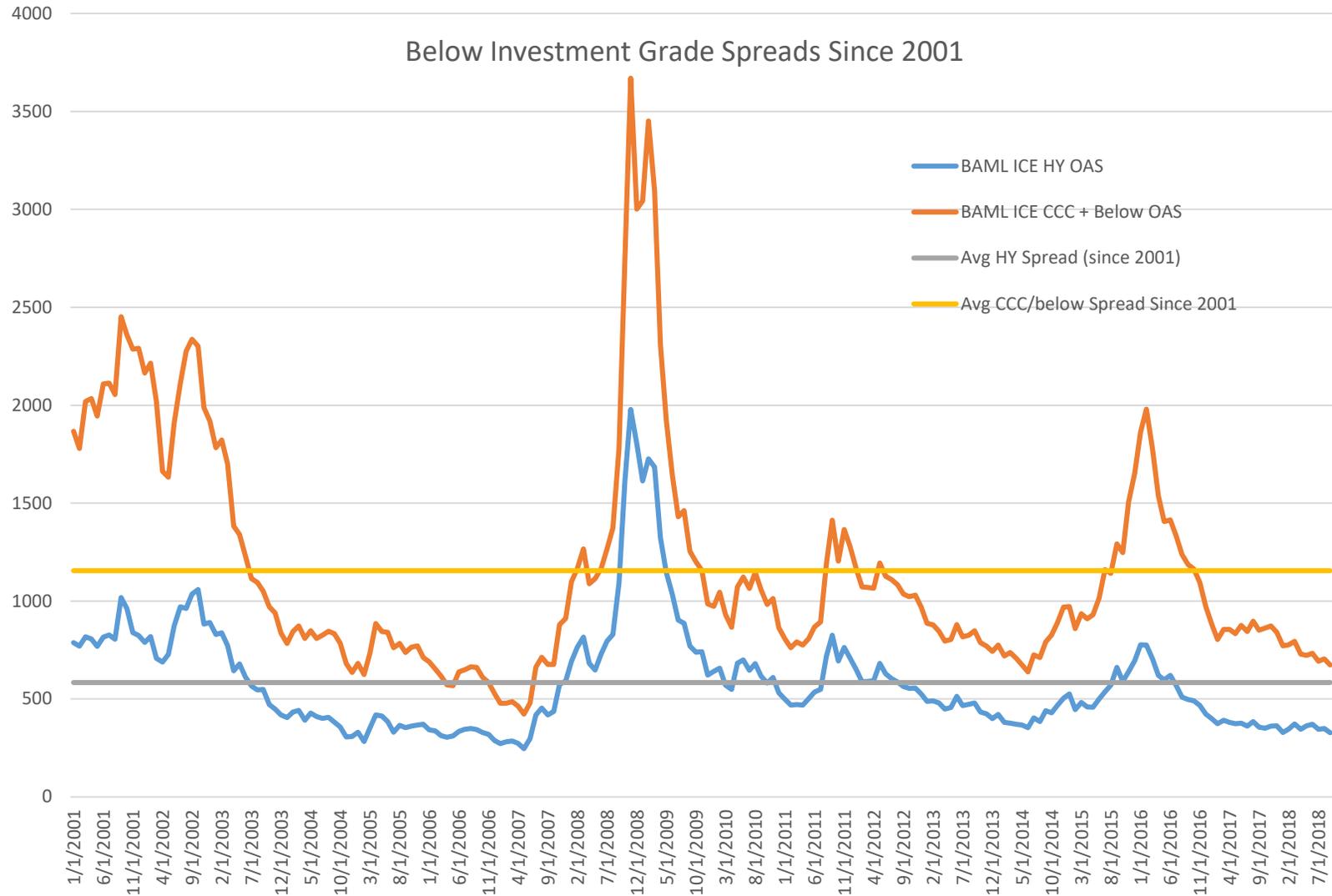


High Yield and Lower Rated IG

- While the high yield market has almost doubled in size since the global financial crisis, the IG Market has also grown with almost half of IG bonds rated BBB, the lowest rating for IG.
- A slower economy or credit market disruption could create a large number of “fallen angels” – bonds downgraded to below-investment grade.



Below IG Corporate Credit Spreads





Late Cycle Investment Considerations

1. Rates (Libor and Fed Funds) have increased, making floating rate (bank loans) relatively more attractive
2. Remain disciplined – continue to focus on higher quality, larger issues that may be more defensive in the event of a credit market disruption.
3. Create investment capacity and prepare for the next large scale investment opportunity
 - Working with existing and new managers to add capacity to capitalize on a structural credit dislocation
 - Preference for separately managed accounts versus commingled funds
 - Capital call features to drawdown capital using market triggers (i.e. spreads, default rates, and price levels)



Forward Looking Opportunity Set

More Attractive

- On a select basis:
 - Middle Market Lending
 - Senior Secured Debt
 - Larger issuers
 - High Quality
 - Senior/Secured
 - Floating Rate
 - Real Estate Debt

Less Attractive

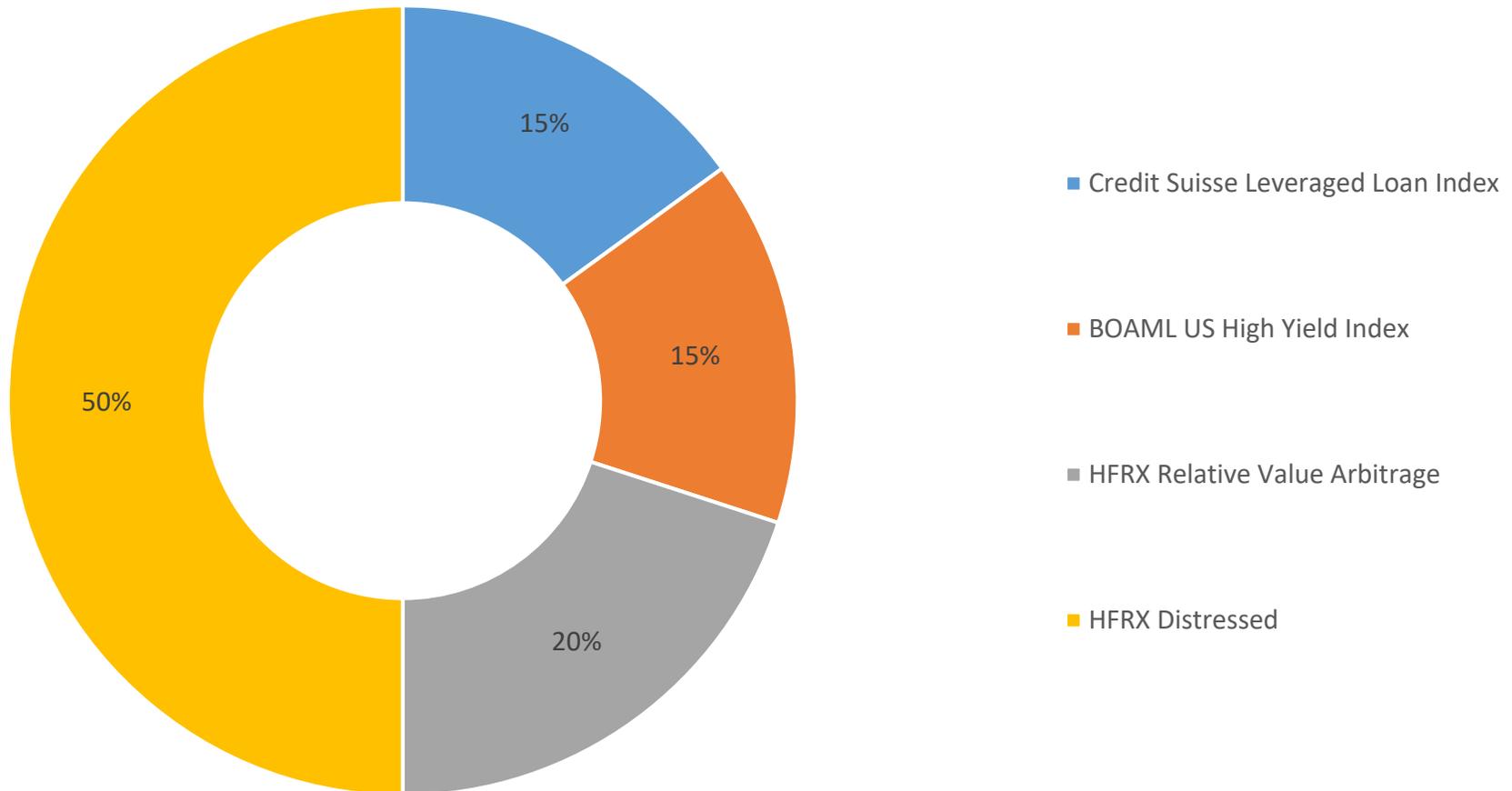
- US High Yield
- Broad Distressed



Appendix

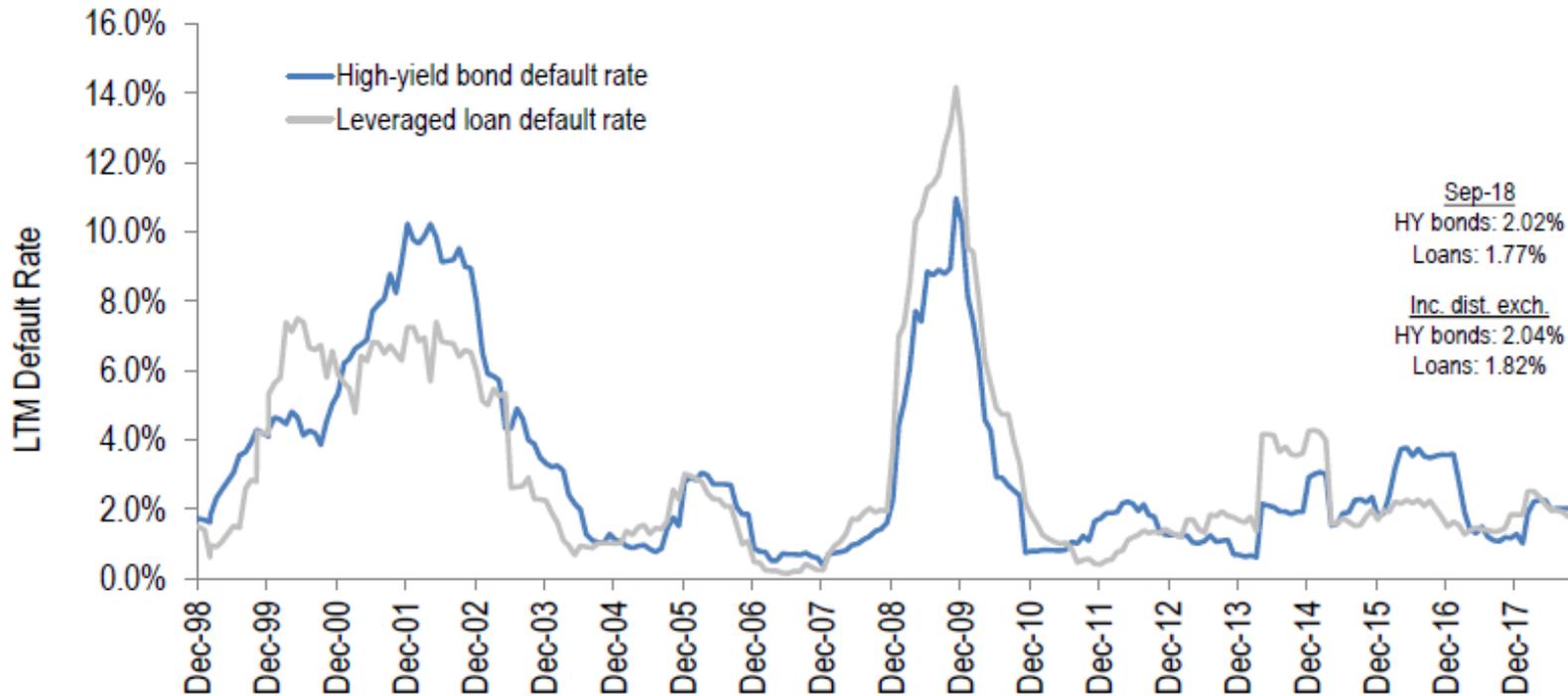


Portfolio Benchmark





High Yield Bond and Loan Default Rates

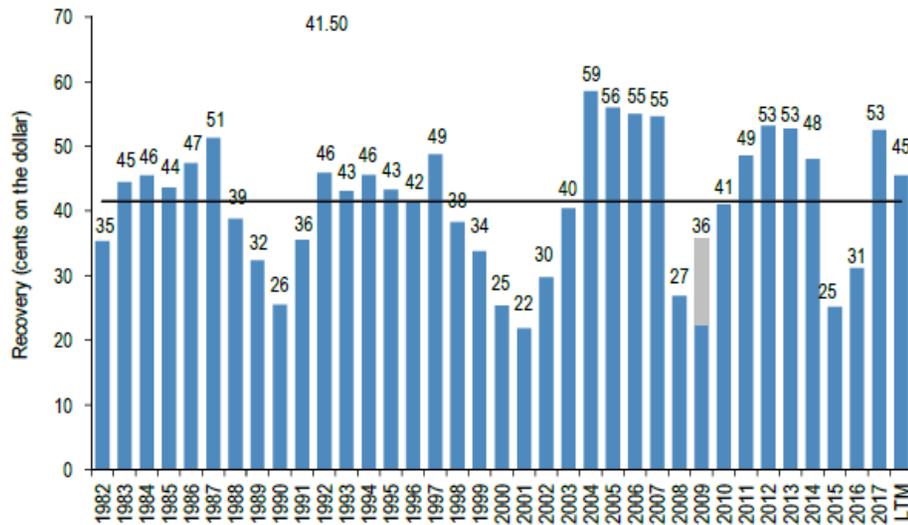


Source: J.P. Morgan.



High Yield Bond and Loan Recovery Rates

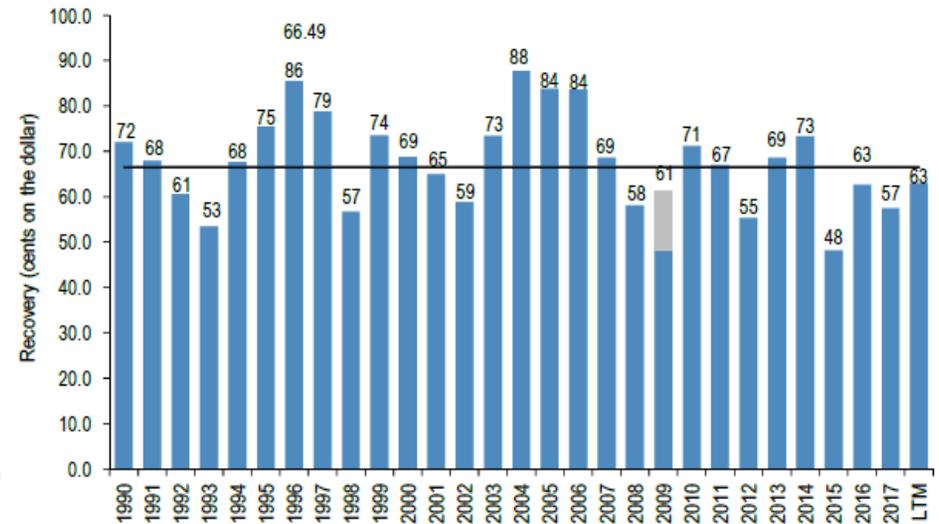
Bond issuer-weighted recovery rates



Note: Recoveries in 2009 were 22.4 based on prices 30-days post default and were 35.7 based on year-end prices.

Source: Moody's Investors Services; J.P. Morgan

First-lien leveraged loan issuer-weighted recovery rates

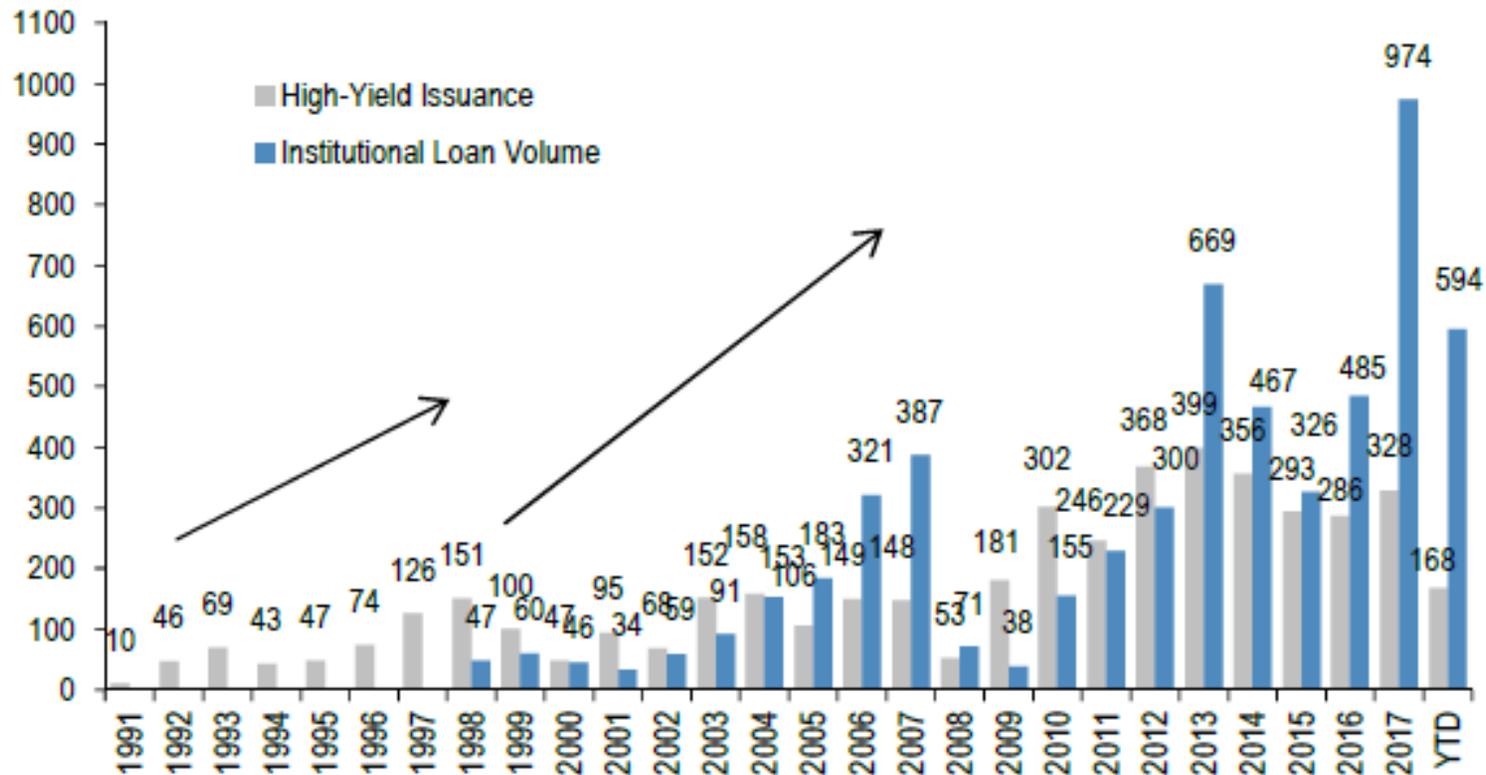


Note: Recoveries in 2009 were 48.3 based on prices 30-days post default and were 61.4 based on year-end prices.

Sources: Moody's Investors Service; J.P. Morgan; Markit



High Yield Bond and Loan Issuance

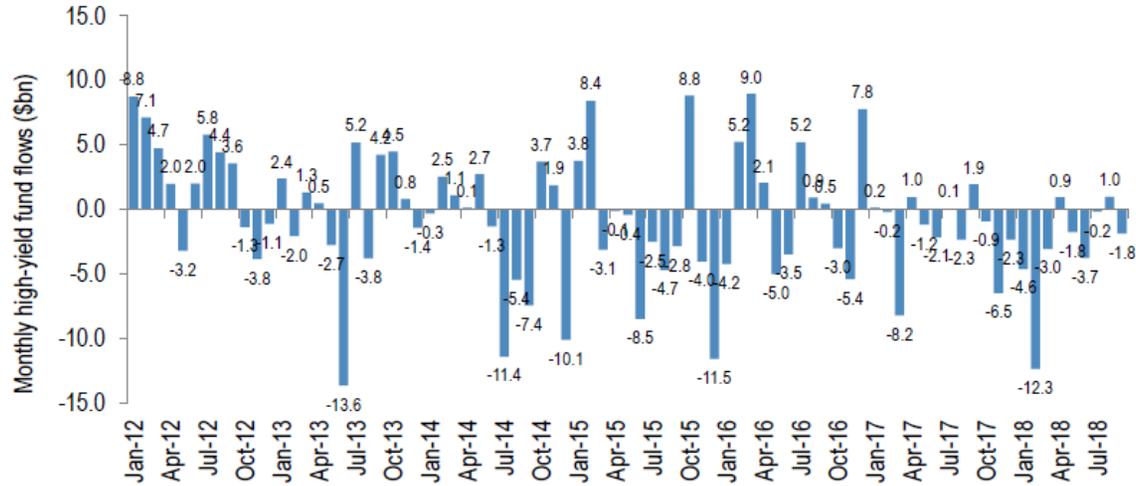


Source: J.P. Morgan; S&P LCD

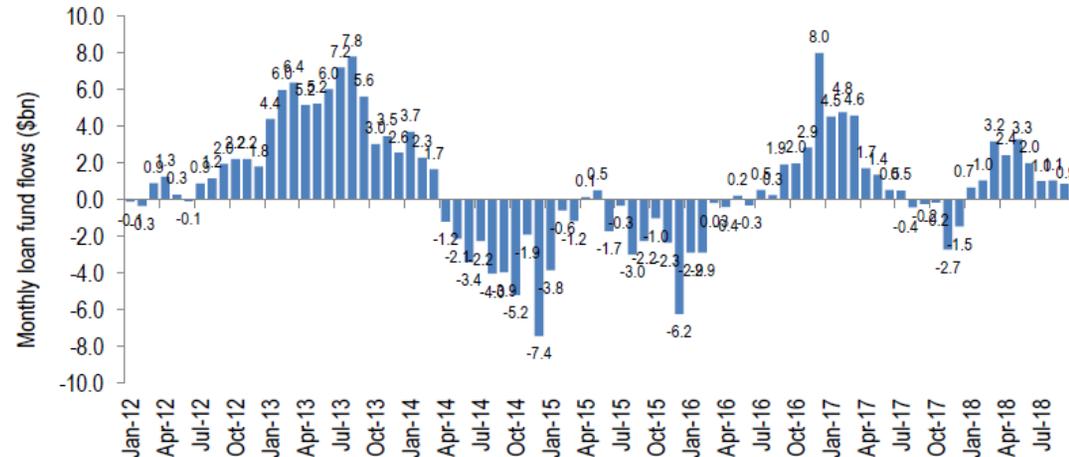


High Yield Bond and Loan Fund Flows

High Yield



Source: Lipper FMI.

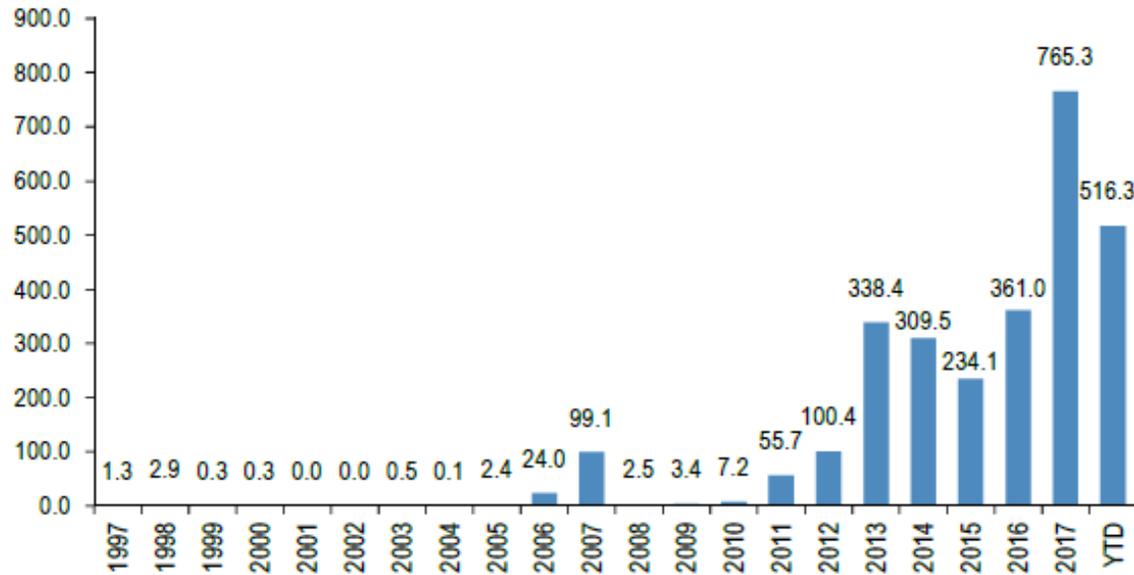


Source: Lipper FMI.



`Covenant-Lite Loan` New Issue Volume

Covenant-lite loan new-issue volume

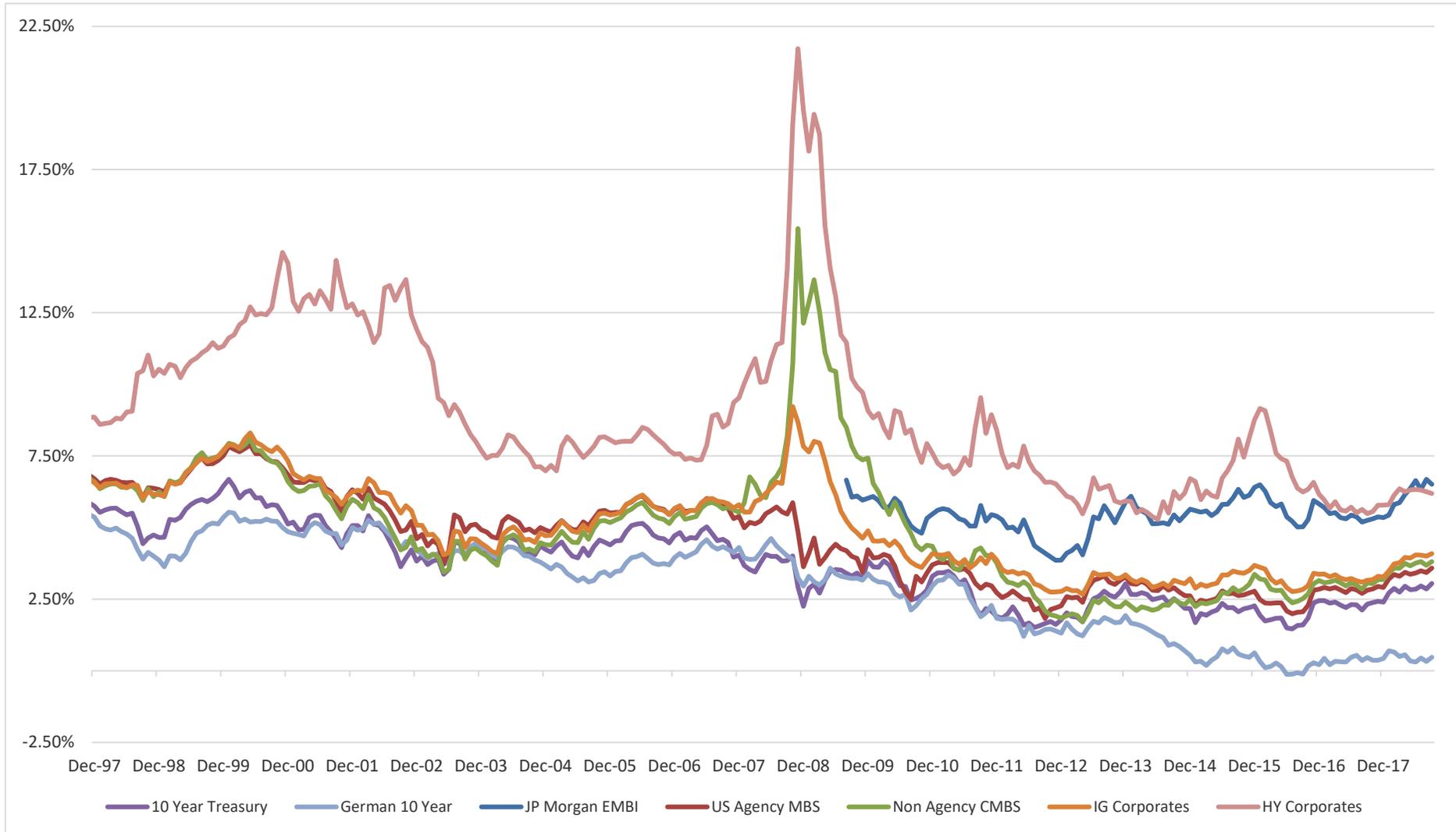


Source: J.P. Morgan

Note: Includes only US dollar-denominated securities



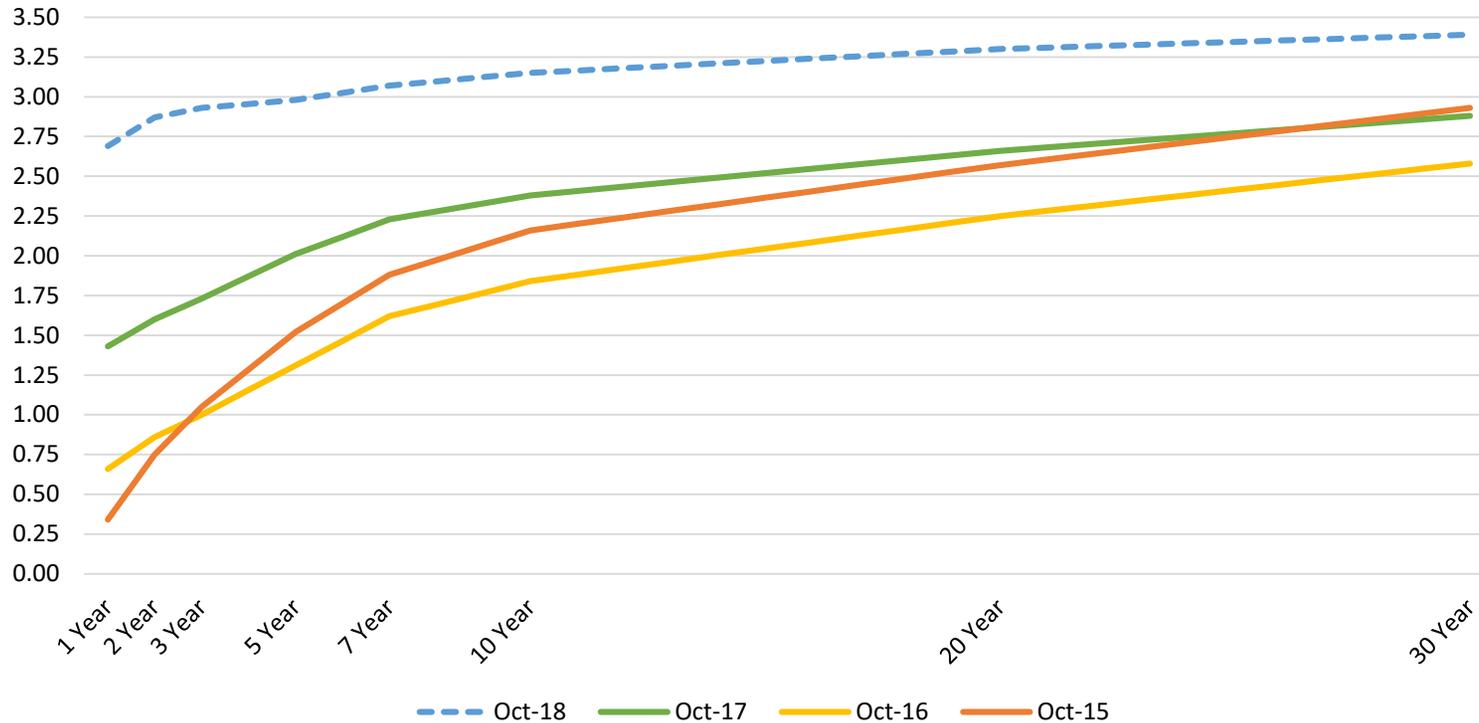
Fixed Income Yield Landscape





Review of Rate Changes and Sensitivity

U.S. Treasury Yield Curve



12-Months Ending	10-Year UST Yield Rise (%)	Total Return (%)							
		Treasuries	IG Credit	Bank Loans	HY Credit	Relative Value	Distressed	S&P 500	
10/20/94	2.54	-5.54	-5.67	12.88	0.30	--	--	3.01	
01/21/00	2.09	-2.95	-3.02	4.42	1.19	11.77	15.46	18.17	
06/14/04	1.76	-4.95	-2.92	6.79	9.29	5.01	10.44	15.79	
06/27/06	1.31	-2.16	-2.65	6.23	4.40	4.84	7.41	6.04	
12/30/09	1.69	-4.19	19.45	45.35	58.70	37.28	-9.84	29.54	
09/05/13	1.38	-4.59	-2.52	6.64	7.27	2.74	1.99	20.58	
07/10/17	1.01	-3.59	0.74	7.11	10.92	4.28	11.29	16.36	



Notes:

All data presented are based on currently available information at time of publication and may be revised subsequently.

The Opportunistic Fixed Income Benchmark is comprised of 50% HFRX Distressed Securities Index; 20% HFRX Relative Value Index; 15% Credit Suisse Leveraged Loan Index; and 15% BOAML US High Yield Index. The BOAML US High Yield Index is from BofA Merrill Lynch and is used with permission. See disclaimer on slide 28.

The Opportunistic Fixed Income asset class (N.C.G.S. § 147-69.2(b)(6c)) was created by the General Assembly in June 2009. It included some investments that were previously authorized under other provisions of G.S. § 147-69.2.



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