



STATE TREASURER OF NORTH CAROLINA
DALE R. FOLWELL, CPA

INVESTMENT MANAGEMENT DIVISION

Opportunistic Fixed Income Review

November 20, 2019

All Data as of September 30, 2019 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 total 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.



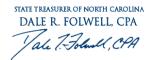


Portfolio Components

Components Strategies / Types of Investments Traditional Corporate Credit High Yield Bonds Bank Loans High Yield Bonds Post-Reorg Equity **Distressed Credit** Structured Credit Long/Short Credit **Relative Value Hedge Funds** Convertible Arbitrage **Distressed Credit Derivatives Event-Driven** Structured Credit Mezzanine Debt **Special Situations** 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



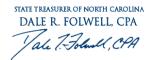


Opportunistic Fixed Income

- Currently under-weight vs. target by 1.4%
- Additional capacity for more than \$1.5B

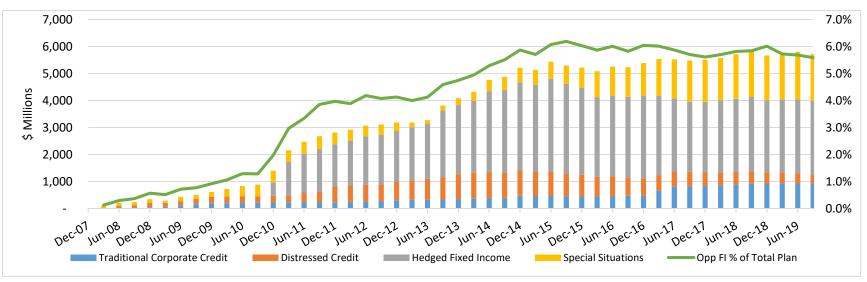
	Market Value	%	Target	Range			Relative \$
	(\$MM)	/0		Minimum	Maximum	Relative %	(MM)
Growth	\$47,049	46.00%	58.0%	37.0%	71.0%	-12.00%	(\$12,279)
Public Equity	32,654	31.92%	42.0%	37.0%	47.0%	-10.08%	(\$10,307)
Private Equity	5,460	5.34%	6.0%	0.0%	8.8%	-0.66%	(\$678)
Non Core Real Estate	3,226	3.15%	3.0%	0.0%	8.0%	0.15%	158
Opportunistic Fixed Income	5,709	5.58%	7.0%	0.0%	7.50%	-1.42%	(\$1,452)
Rates & Liquidity	41,271	40.35%	29.0%	24.0%	42.0%	11.35%	11,607
IG Fixed Income & Cash	30,915	30.22%	28.0%	24.0%	32.0%	2.22%	2,274
Pension Cash	10,356	10.12%	1.0%	0.0%	10.0%	9.12%	9,333
Inflation Sensitive & Diversifiers	11,894	11.63%	11.0%	4.0%	16.0%	0.63%	642
Inflation Sensitive	6,106	5.97%	6.0%	2.0%	7.5%	-0.03%	(\$31)
Core Real Estate	5,788	5.66%	5.0%	2.0%	10.0%	0.66%	673
Multi-Strategy	2,076	2.03%	2.0%	0.0%	4.0%	0.03%	30
Grand Total	\$102,290	100.00%					

Unaudited financials as of 9/30/19

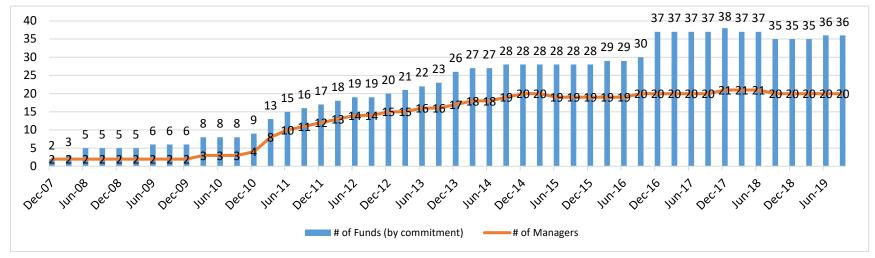


Portfolio History

Portfolio Market Value Timeline by Component



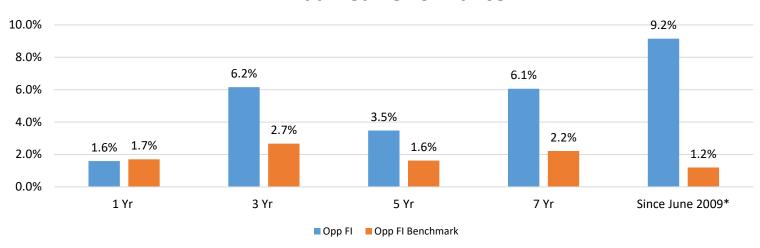
Growth of Manager Relationships and Number of Funds



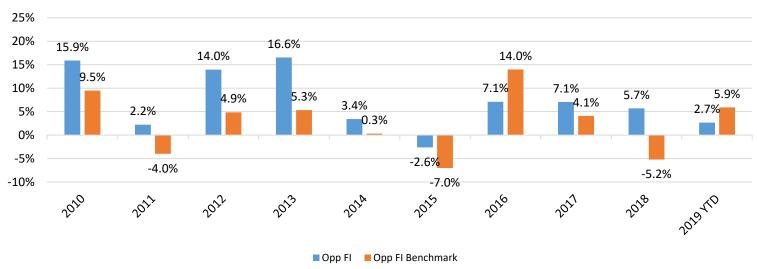


Portfolio Performance

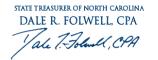
Annualized Performance



Calendar Year Performance

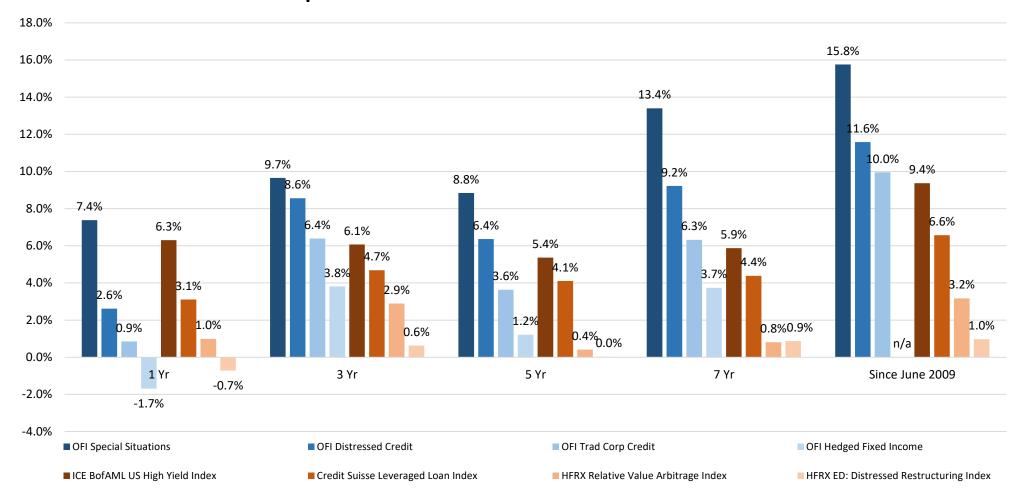






Portfolio Performance

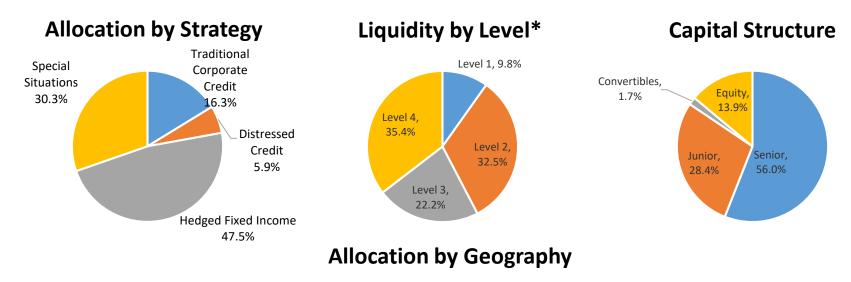
Portfolio Component Annualized Performance vs. Market Benchmarks

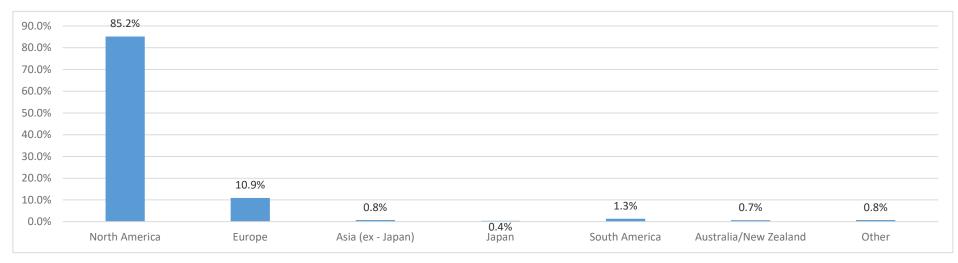




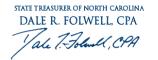


Portfolio Characteristics





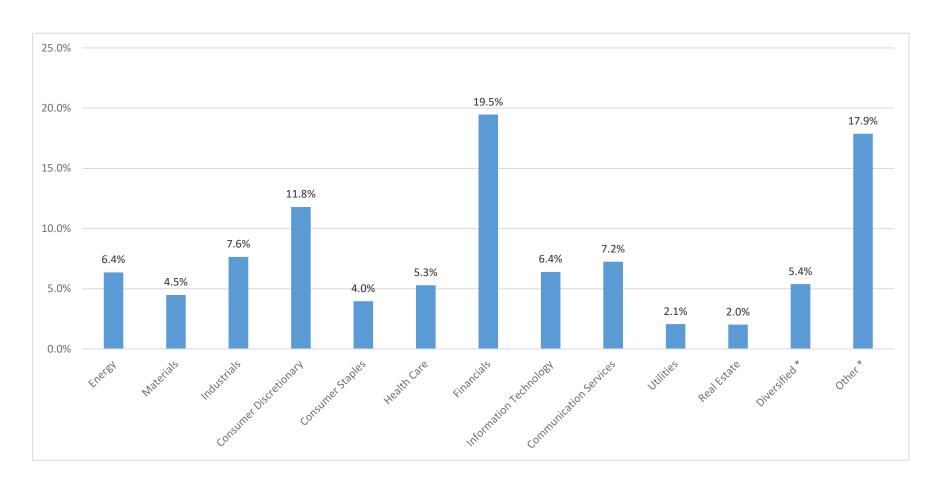




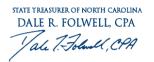
Portfolio Characteristics

Allocation by GICS Sector

As of June 30, 2019







Credit Market Update

Private Credit

- Senior, secured private loans continue to perform well
- Insulated from public market volatility, so far

Structured Credit

- Market has been firm for CMBS, RMBS, and ABS
- CLO debt and equity performing well but with more dispersion between quality

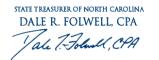
Bonds

- Higher quality HY spreads continue to be historically tight
- Dispersion between CCC spreads and higher quality bonds

Loans

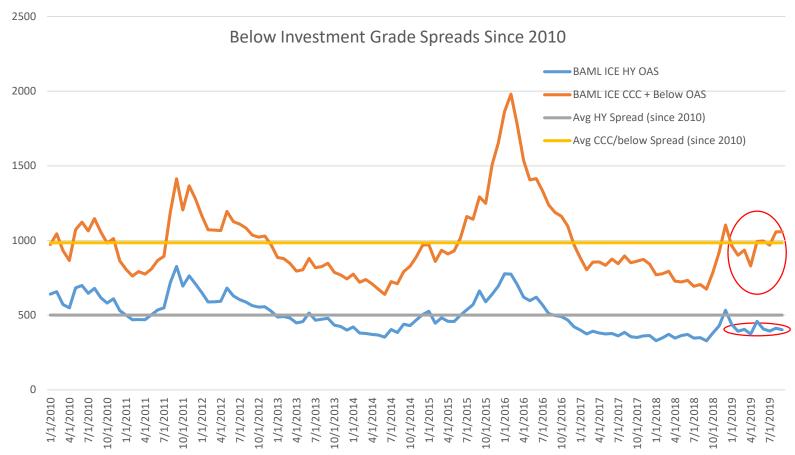
- Outflows from mutual funds and ETFs have been offset by CLO new issuance
- Starting to see some cracks creating opportunities





High Yield Credit Spreads

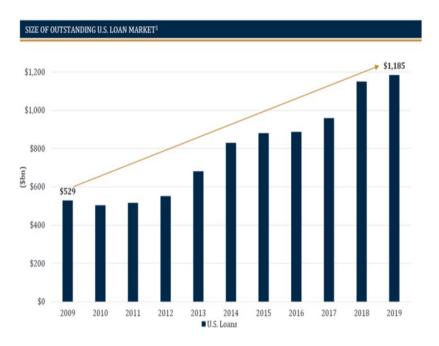
- Seeing dispersion between low (CCC) and higher quality bond spreads
- CCCs are slowly reaching the prior wides seen in Q4'18



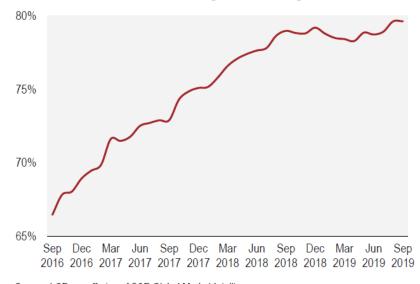


In Focus - Loans

- Leveraged debt market (bonds and loans) has doubled in size since 2009
- Leveraged loan market is more than \$1T in size, comparable to the HY Market
- Almost 80% of Leveraged Loans are covenant lite



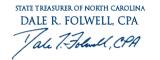
Covenant-lite share of outstandings, U.S. leveraged loans



Source: LCD, an offering of S&P Global Market Intelligence

As of 9/30/2019.

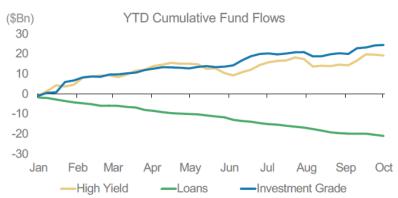
¹ LCD, an offering of S&P Global Market Intelligence..



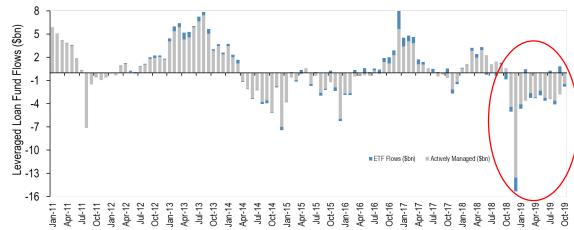
In Focus - Loans

• While IG and high yield flows have been steady YTD, loans have seen significant outflows from ETFs and mutual funds.

Exhibit 5: Loans fund flows persistently negative this year, with \$22bn of outflows YTD

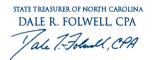


Source: Morgan Stanley Research, EPFR Global Note: Includes Mutual Funds and ETFs



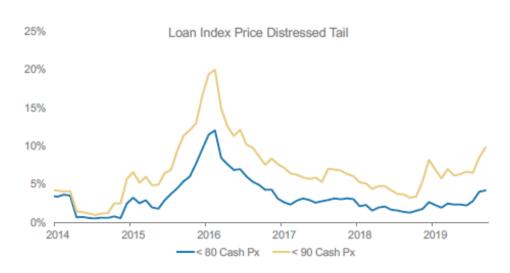
Source: JP Morgan

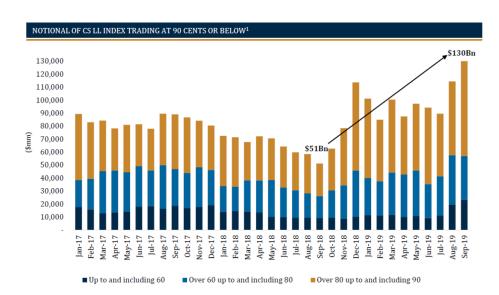




In Focus - Loans

- Flows/technical dynamics have created some dislocation in the loan market
- The percentage of bonds trading below 80 and 90 cents on the dollar is now higher than we saw in Q4'18, which creates an attractive buying opportunity
- \$130B in notional value in loans trading below 90



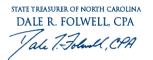


Source: Morgan Stanley Research, S&P LCD

As of 9/30/2019.

¹ Credit Suisse Leveraged Loan Index.





Late Cycle Investment Considerations

- Remain disciplined continue to focus on higher quality, senior secured, larger issues that may be more defensive in the event of a credit market disruption
- 2. Take advantage of structural dislocations and mis-pricings while being opportunistic in restructurings
- Continue to explore the creation of additional 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 or distressed cycle
 - Capital call features to drawdown capital using market triggers (i.e. spreads, default rates, and price levels)





Forward Looking Opportunity Set

More Attractive

- Dislocation Mandate
 - Opportunistically buy corporate credit when market triggers are breached
- On a select basis:
 - Loans higher quality, trading off due to technical issues
 - Larger issuers
 - High Quality
 - Senior/Secured
 - Strong fundamentals
 - Middle market lending
 - Select restructurings
 - Energy debt

Less Attractive

- US High Yield
- Large issuer distressed
- Regular way loans –
 "loan beta"
- Covenant-lite,
 broadly syndicated
 loans



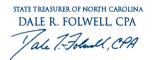


Appendix

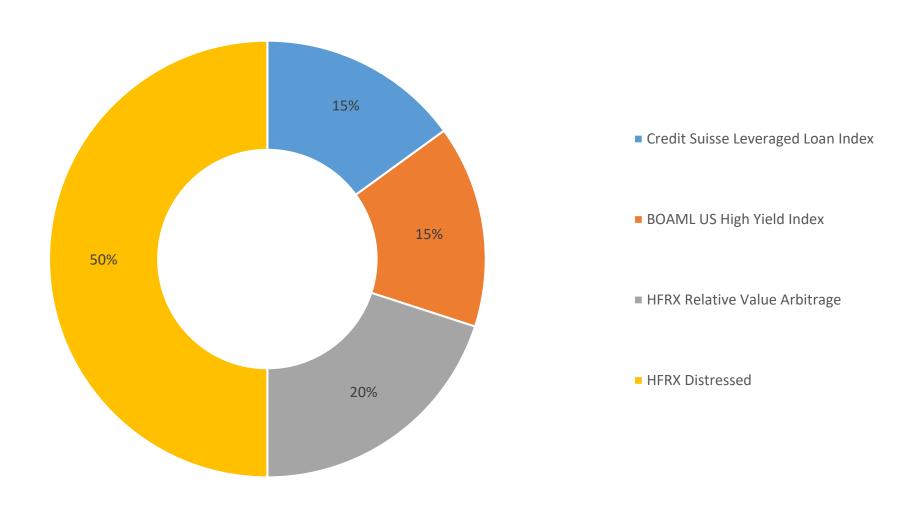


Portfolio Components

Portfolio Component*	Target*	9/30/19	+/-	Maximum*
Traditional Corporate Credit	15%	16%	+1%	50%
Distressed Credit	25%	6%	-19%	50%
Hedged Fixed Income	45%	48%	+3%	75%
Special Situations	15%	30%	+15%	75%



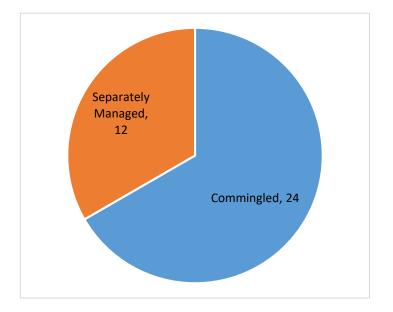
Portfolio Benchmark



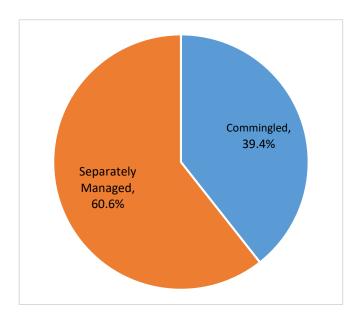


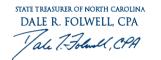
Portfolio Characteristics

Account Type by Count

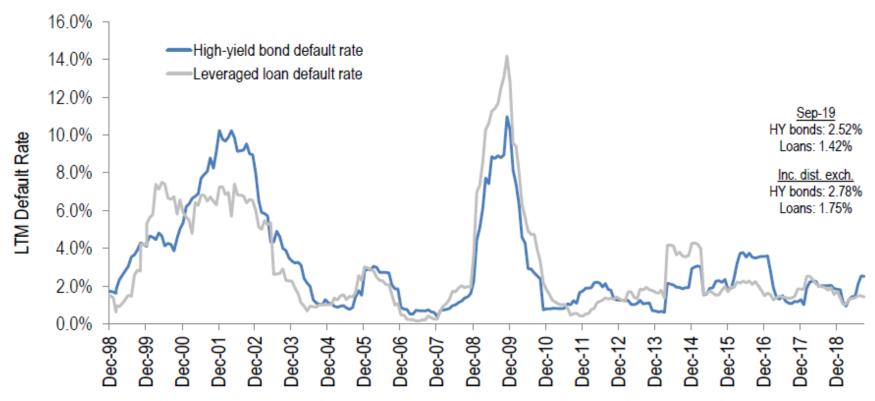


Account Type by Market Value



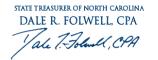


High Yield Bond and Loan Default Rates



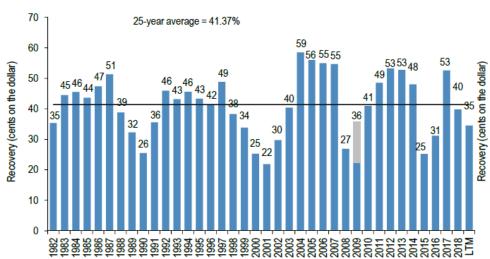
Source: J.P. Morgan.



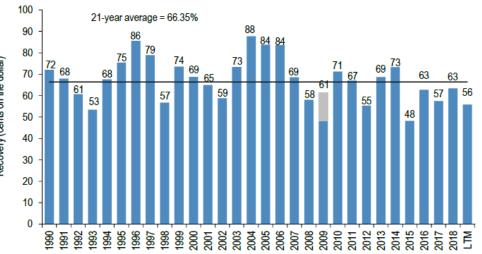


High Yield Bond and Loan Recovery Rates

Bond issuer-weighted recovery rates



First-lien leveraged loan issuer-weighted recovery rates

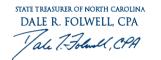


Note: Recoveries in 2009 were 22.4 based on prices 30-days post default and were 35.7 based on year-end prices.

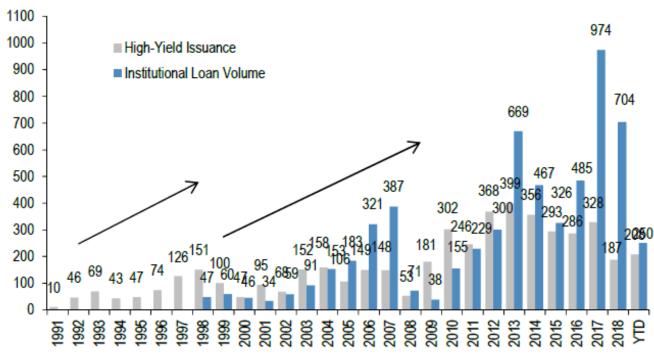
Source: Moody's Investors Services; J.P. Morgan

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

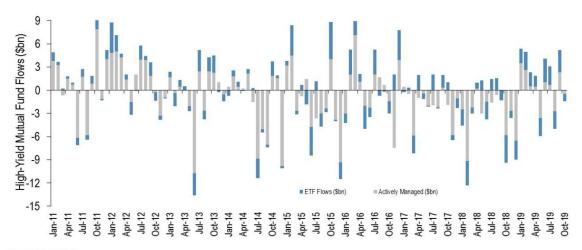


Source: J.P. Morgan; S&P LCD



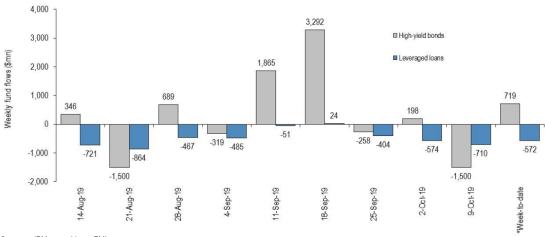
High Yield Bond and Loan Fund Flows

High Yield

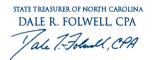


Source: Lipper FMI

Loans

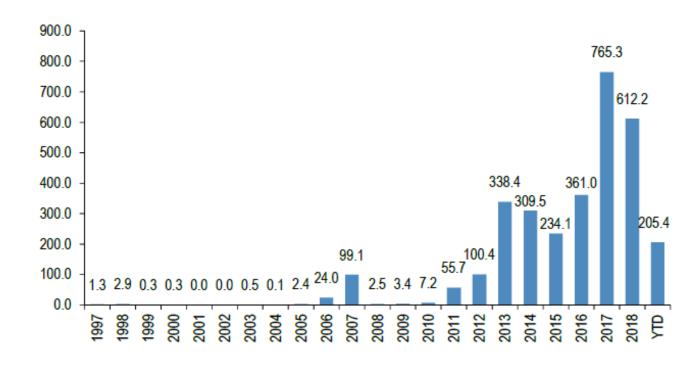


Sources: JPMorgan, Lipper FMI



'Covenant-Lite Loan' New Issue Volume

Covenant-lite loan new-issue volume



Source: J.P. Morgan

Note: Includes only US dollar-denominated securities





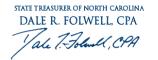
Notes:

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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