

NORTH CAROLINA
DEPARTMENT OF STATE TREASURER



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INVESTMENT MANAGEMENT DIVISION

Opportunistic Fixed Income Review

November 17, 2021

All Data as of September 30, 2021 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

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 \$1.5B to achieve target weight
- Anticipate 2022 manager distributions to be greater than \$800MM

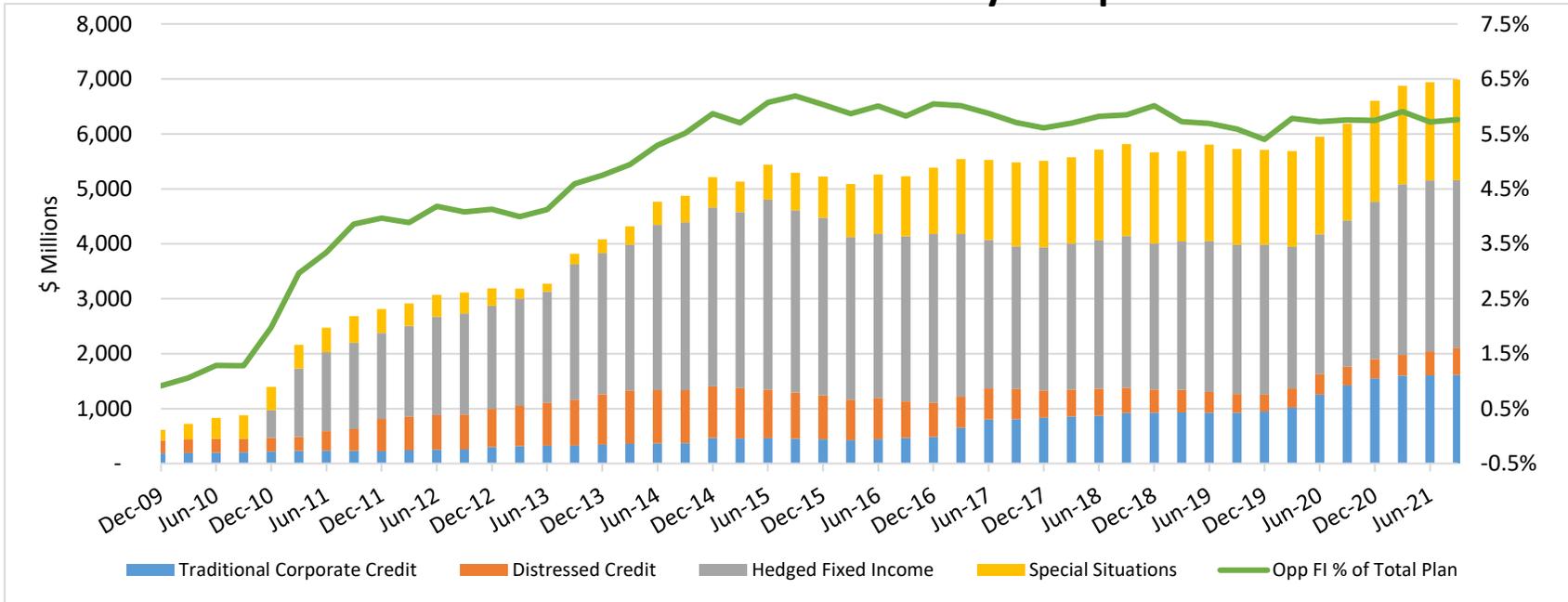
	Market Value (\$MM)	%	Target	Range		Relative %	Relative \$ (MM)
				Minimum	Maximum		
Growth	\$60,560	49.91%	58.0%	37.0%	71.0%	-8.09%	(\$9,815)
Public Equity	42,924	35.38%	42.0%	37.0%	47.0%	-6.62%	(\$8,037)
Private Equity	7,608	6.27%	6.0%	0.0%	8.8%	0.27%	328
Non Core Real Estate	3,037	2.50%	3.0%	0.0%	8.0%	-0.50%	(\$603)
Opportunistic Fixed Income	6,990	5.76%	7.0%	0.0%	7.50%	-1.24%	(\$1,503)
Rates & Liquidity	46,992	38.73%	29.0%	24.0%	42.0%	9.73%	11,805
IG Fixed Income & Cash	33,302	27.45%	28.0%	24.0%	32.0%	-0.55%	(\$672)
Pension Cash	13,690	11.28%	1.0%	0.0%	10.0%	10.28%	12,477
Inflation Sensitive & Diversifiers	11,497	9.48%	11.0%	4.0%	16.0%	-1.52%	(\$1,850)
Inflation Sensitive	5,615	4.63%	6.0%	2.0%	7.5%	-1.37%	(\$1,665)
Core Real Estate	5,882	4.85%	5.0%	2.0%	10.0%	-0.15%	(\$185)
Multi-Strategy	2,287	1.88%	2.0%	0.0%	4.0%	-0.12%	(\$140)
Grand Total	\$121,336	100.00%					

As of 9/30/21

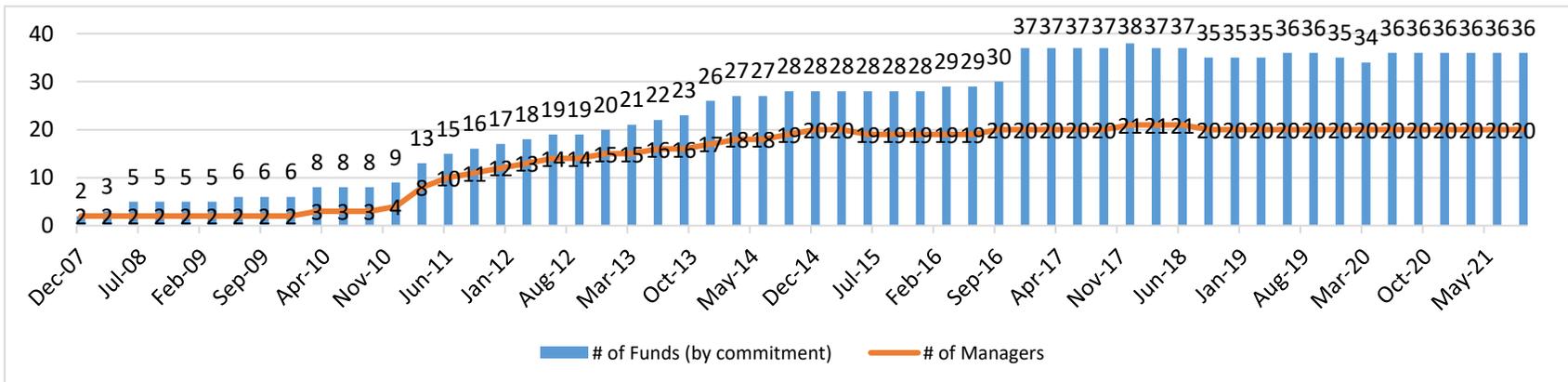


Portfolio History

Portfolio Market Value Timeline by Component



Growth of Manager Relationships and Number of Funds

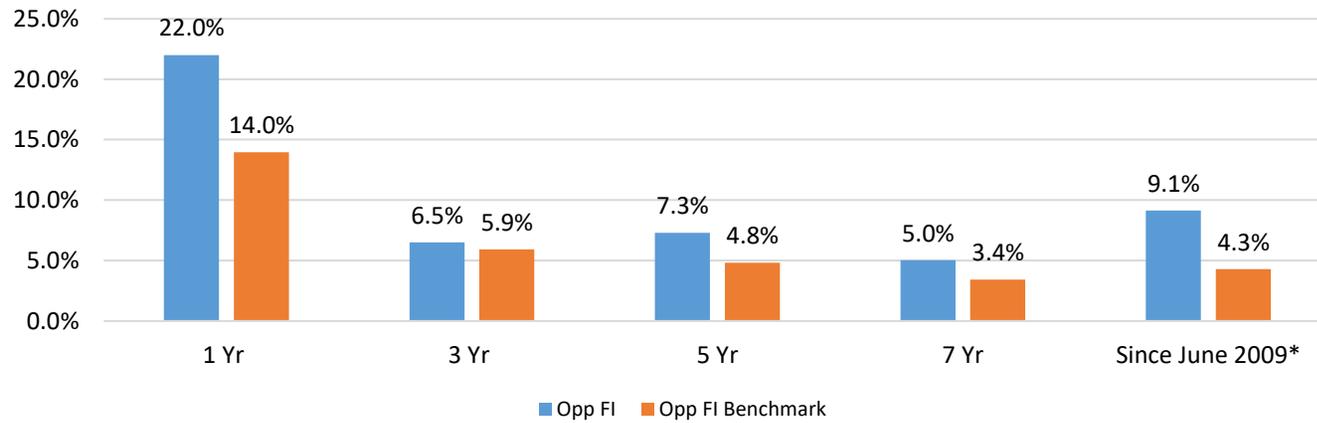


Note: Fund count excludes liquidated investments.

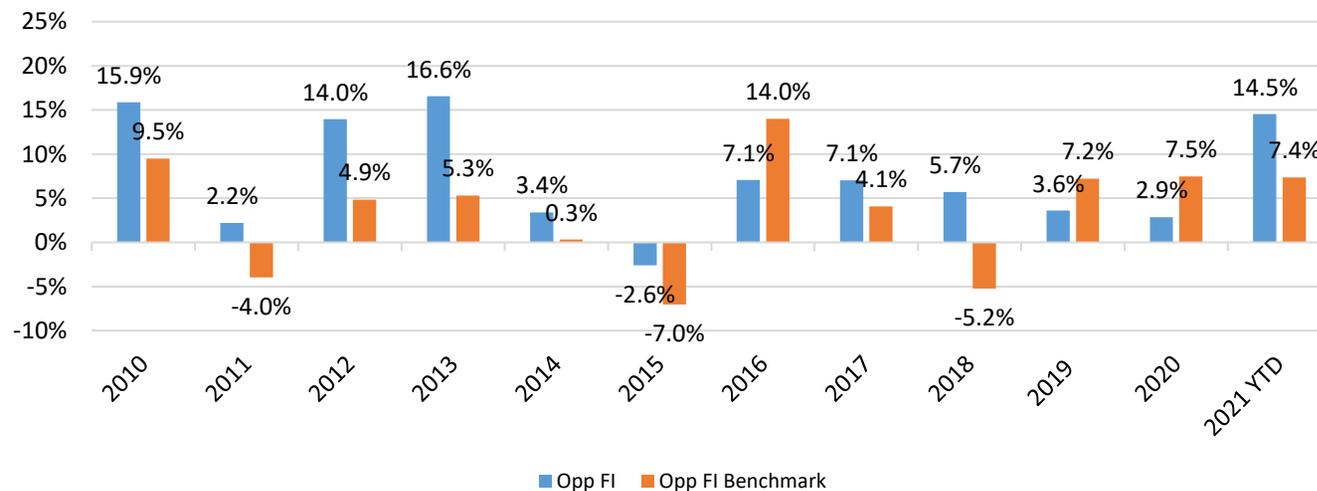


Portfolio Performance

Annualized Performance



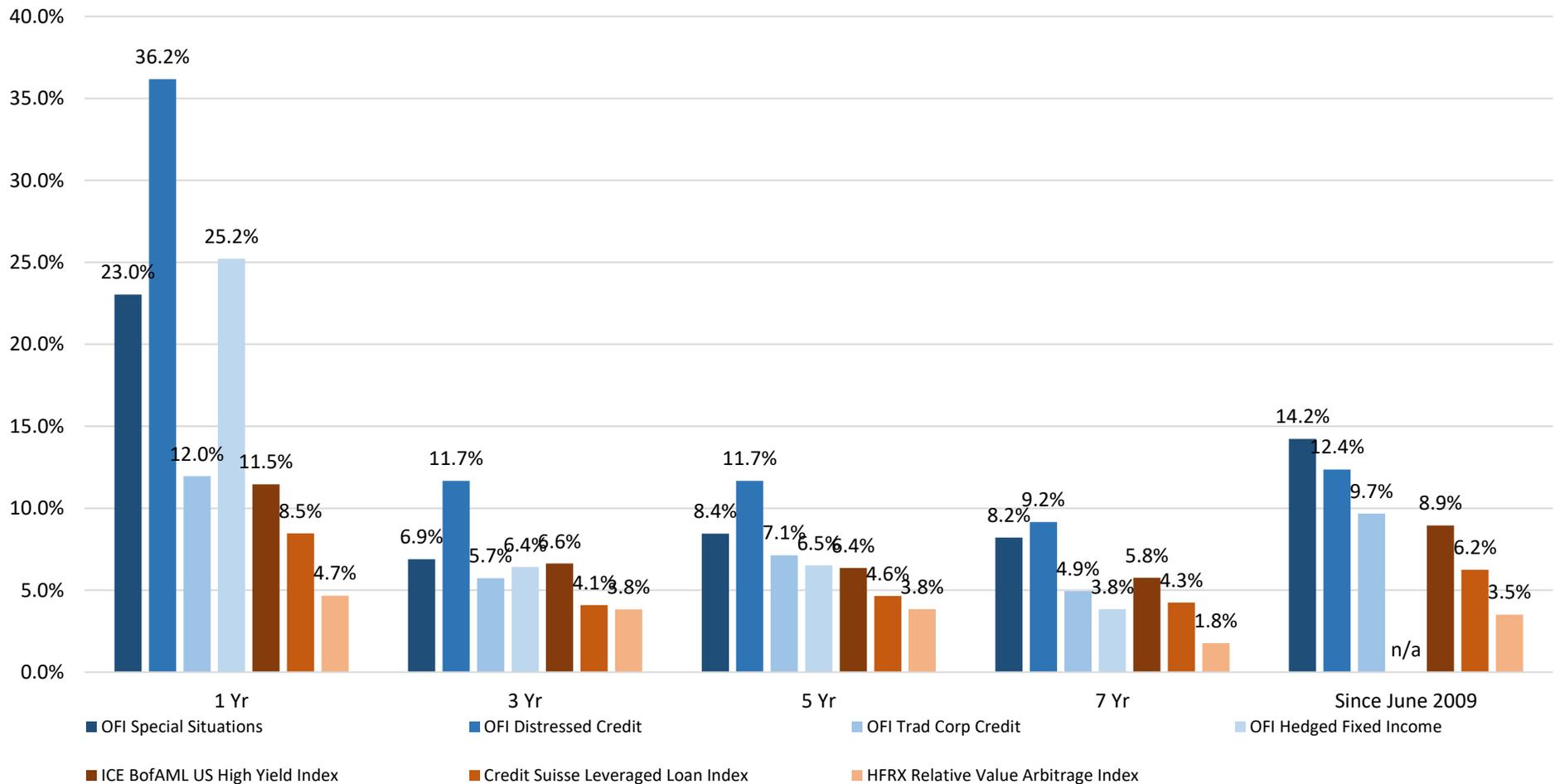
Calendar Year Performance



Note: Performance through Sept 30, 2021; See slide 25 for details on the composition of the Opportunistic Fixed Income Benchmark.

Portfolio Performance

Portfolio Component Annualized Performance vs. Market Benchmarks

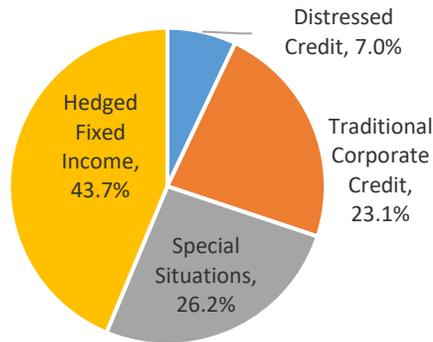


Note: Performance through Sept 30, 2021; See slide 25 for details on the composition of the Opportunistic Fixed Income Benchmark.

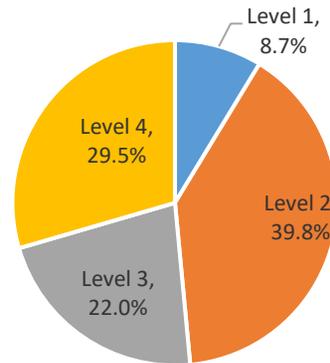


Portfolio Characteristics

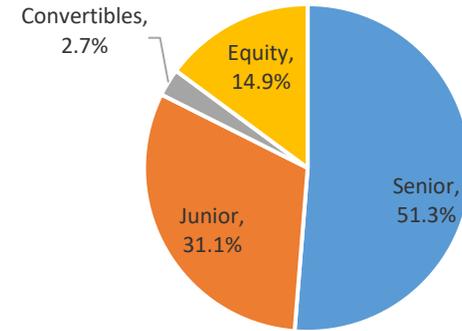
Allocation by Strategy



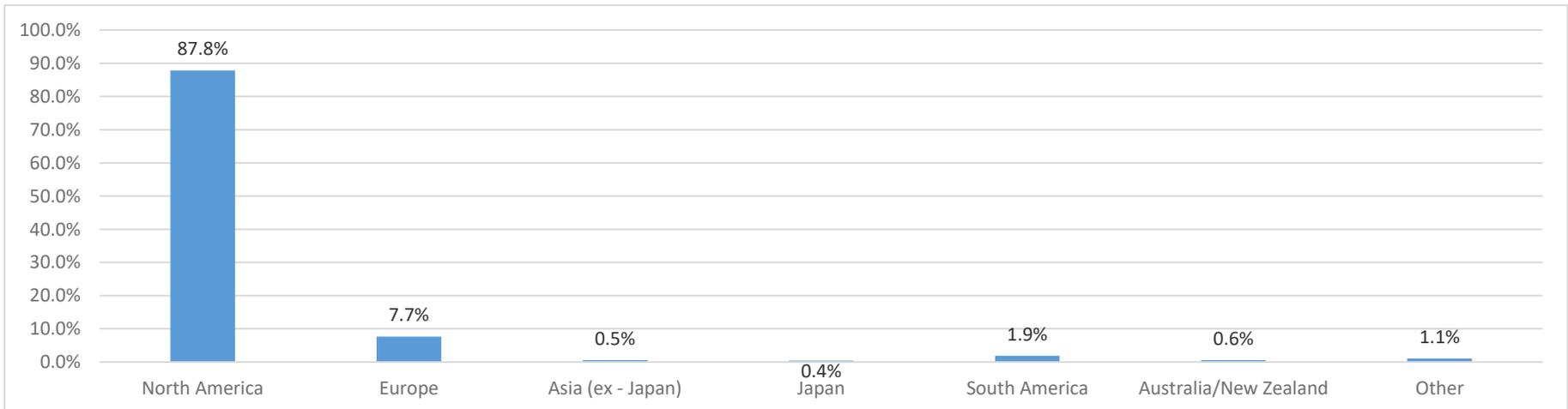
Liquidity by Level*



Capital Structure



Allocation by Geography



Note: Information is based on market value, as of June 30, 2021

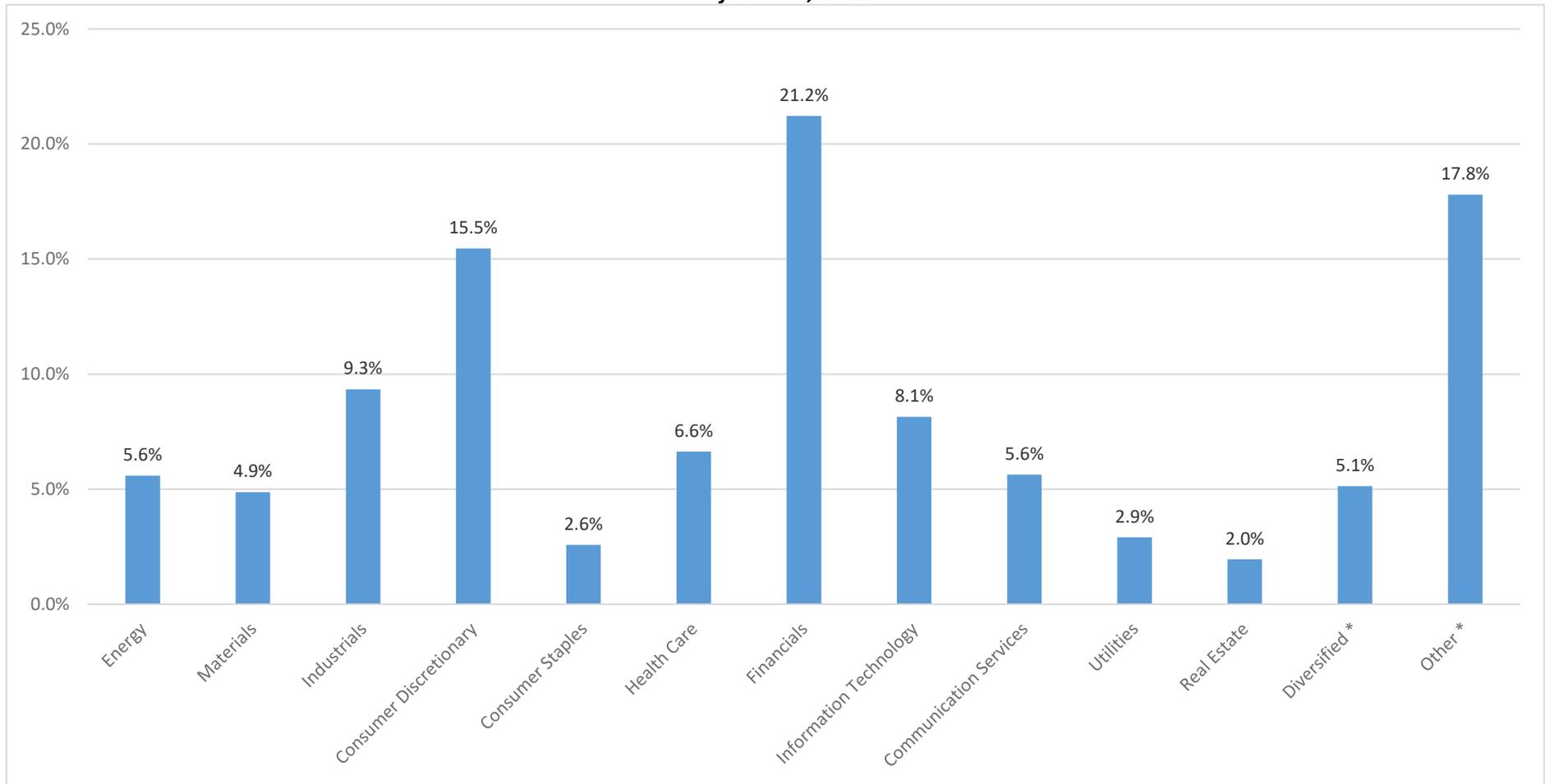
*Level 1 Liquidity = T+3; Level 2 = T+3 to 12 Months; Level 3 = 12 to 24 Months; Level 4 = Greater than 24 Months



Portfolio Characteristics

Allocation by GICS Sector

As of June 30, 2021



*Holdings that cannot be classified into any one particular sector, as self-reported by the investment manager, may include CMBS, RMBS, ABS, or CLOs



Credit Market Update

Private Credit

- Allocations to senior, secured private loans provided steady risk adjusted return
- Managers were able to effectively navigate covid impact on underlying businesses and provide flexible financing in certain cases

Structured Credit

- RMBS, CMBS, and ABS markets have rebounded post-COVID.
- There continues to be some dispersion between quality of CLO debt and equity

Bonds

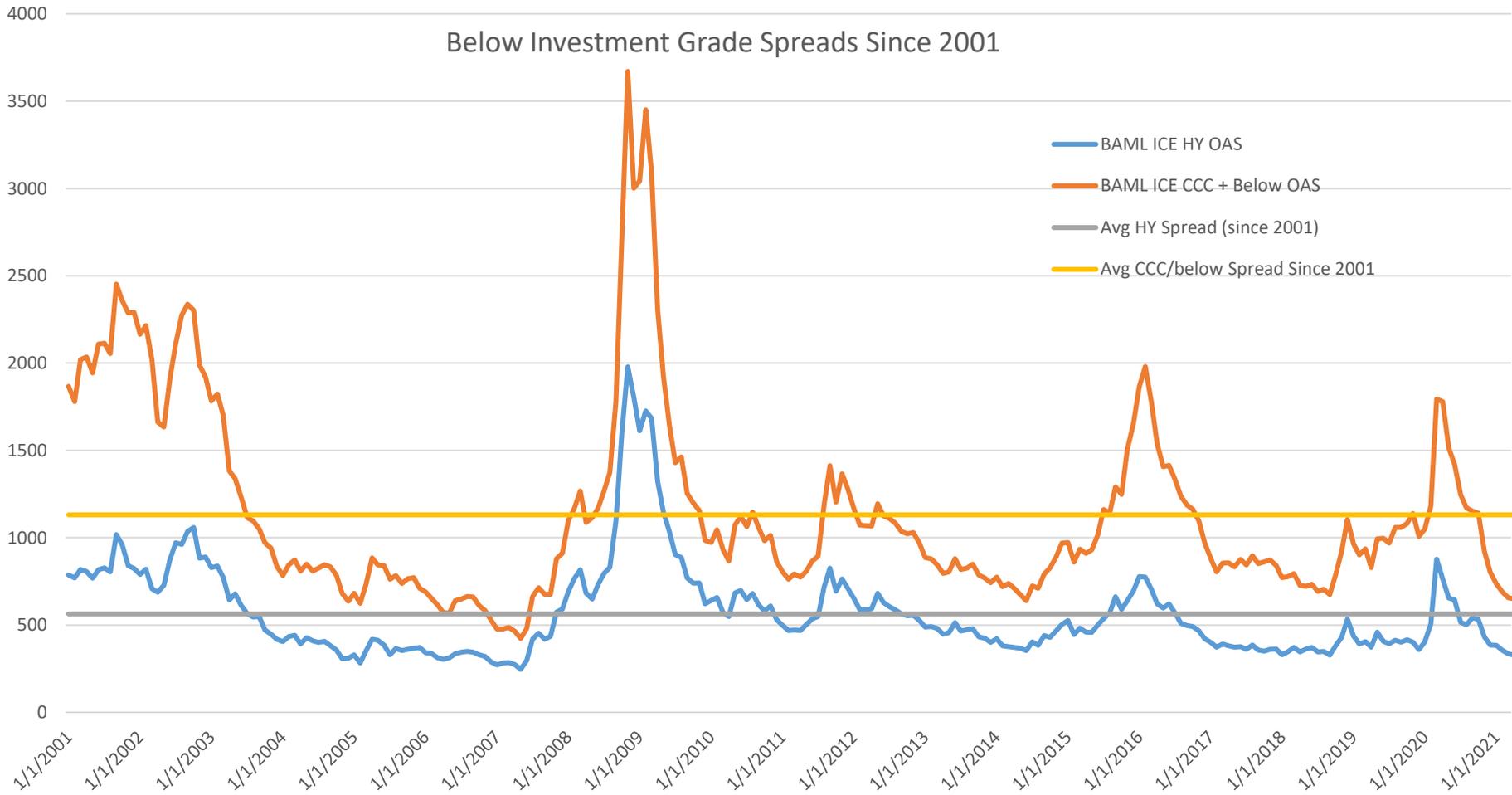
- All qualities of HY have recovered to pre-covid spread levels
- Higher debt coverage and lower debt/EV levels provide some cushion vs. lofty valuations

Loans

- Outflows from mutual funds and ETFs reversed over the past year
- Floating rates provide natural hedge against higher rate environment

High Yield Credit Spreads

- High and low quality HY spreads are back below long-term average



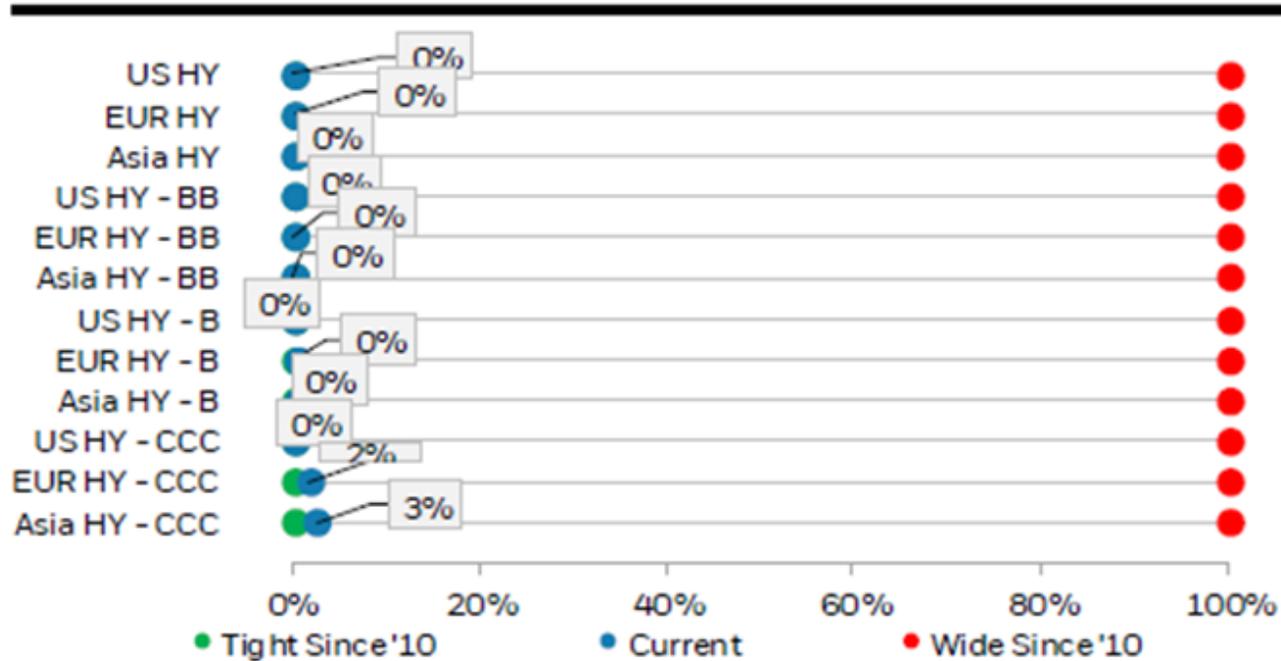
Source: BofA Merrill Lynch (accessed via Bloomberg).



High Yield

- Yields are lowest in over a decade

Yields hover near the 0th percentile since 2010²



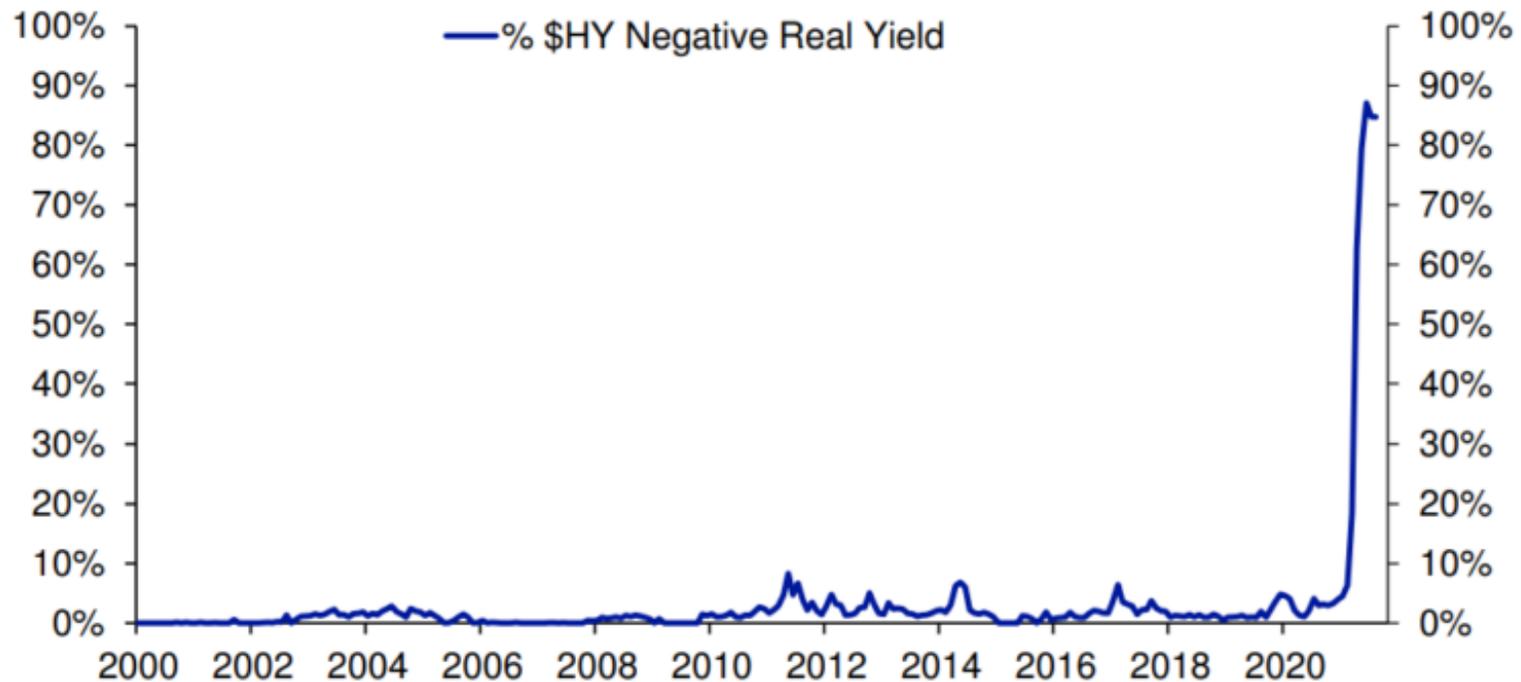
Source: Blackrock



Where's the Yield?

- 85% of high yield bonds have negative real yields

Figure 1: 85% of the US HY market currently yields below US CPI..

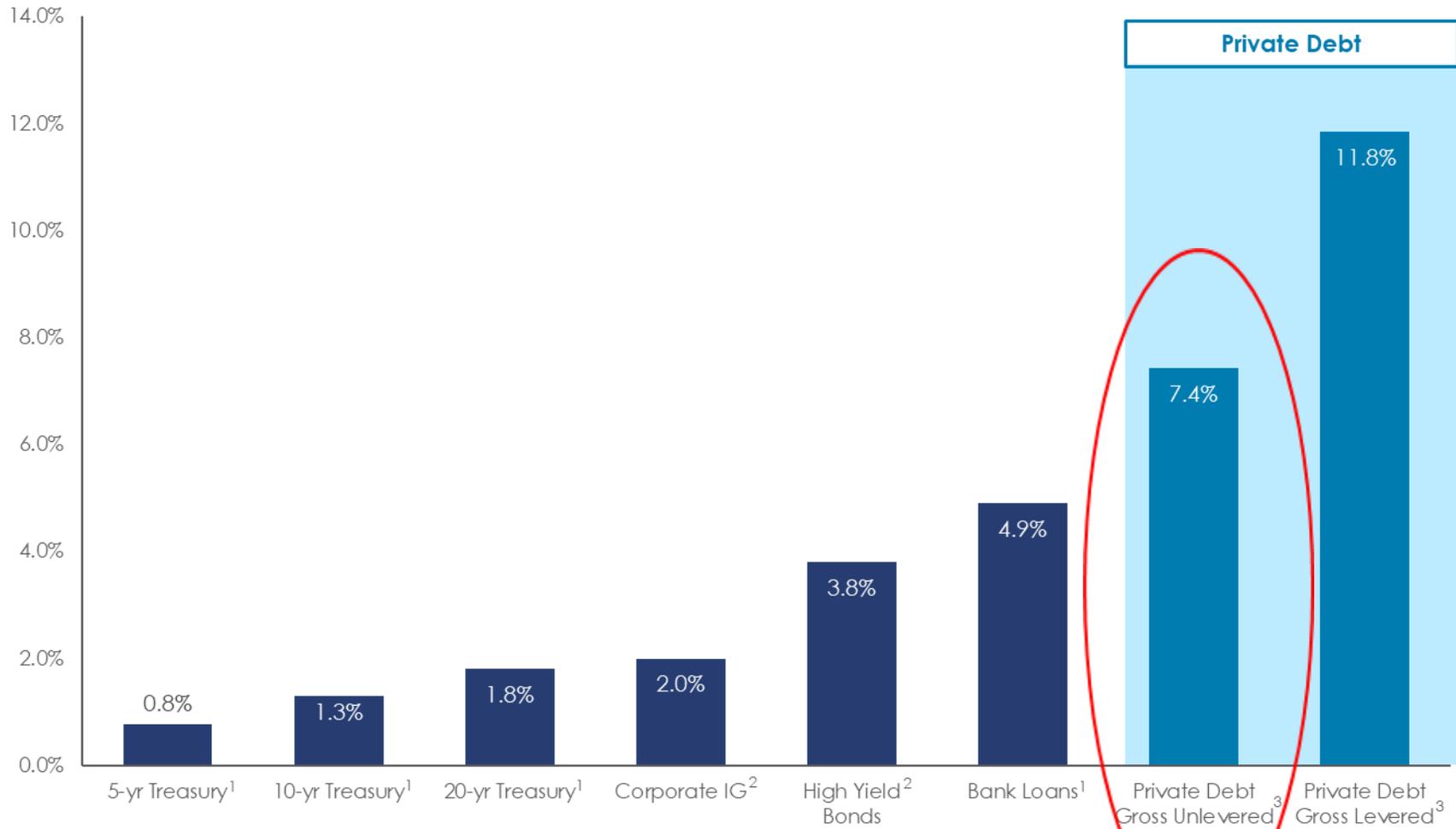


Source : Bloomberg Finance LP, Deutsche Bank



Private Debt

- Private debt still offers attractive risk-adjusted yield



¹ Source: Bloomberg; Represents YTM as of September 20, 2021; Bank Loans represent the JPM Leveraged Loan Index;

² Source: Bloomberg; Represents YTM as of September 20, 2021; Corporate IG represents the ICE BofAML US Corporate Index; HY Bonds represent the ICE BofA US High Yield Index.

³ Source: Cliffwater Asset Allocation Outlook Fourth Quarter 2020, 10-year Expected Return as of 4Q'20. There can be no assurance that any expected rates of return or risk will be achieved. Expected rates of return and risk may be based upon assumptions regarding future events and conditions that prove to be inaccurate. Expected rates of return and risk should not be relied upon as an indication of future performance and should not form the primary basis for an investment decision. Past performance is not indicative of future returns, which may vary.



Portfolio Priorities

1. Maintain meaningful exposure to senior, secured direct loans
2. Opportunistically add differentiated private credit exposure
3. Continue to focus on SMAs and custom opportunities with co-investments
4. Re-visit dislocation mandate



Appendix

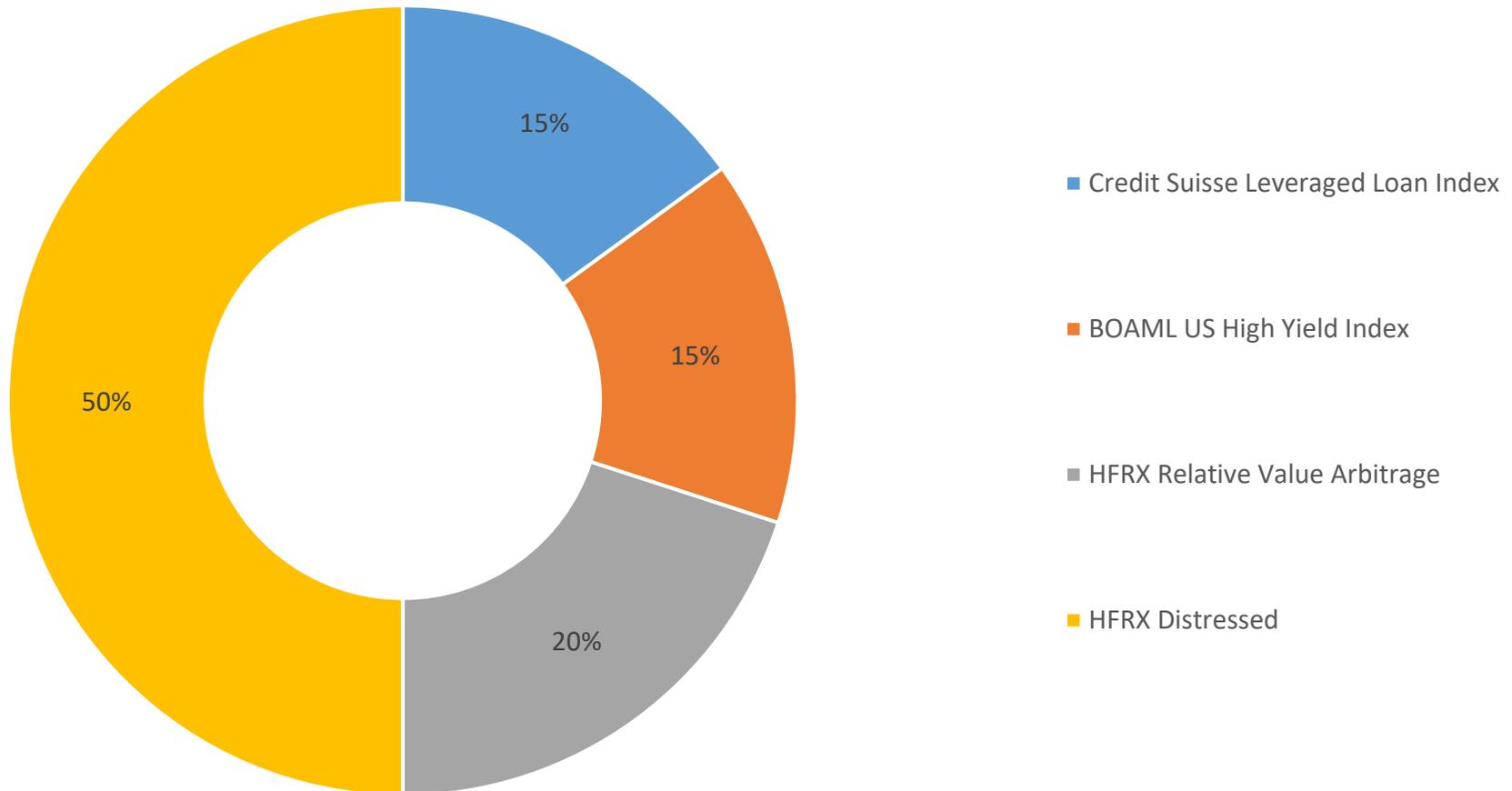


Portfolio Components

Portfolio Component*	Target*	9/30/21	+/-	Maximum*
Traditional Corporate Credit	15%	23%	+8%	50%
Distressed Credit	25%	7%	-18%	50%
Hedged Fixed Income	45%	44%	-1%	75%
Special Situations	15%	26%	+11%	75%



Portfolio Benchmark

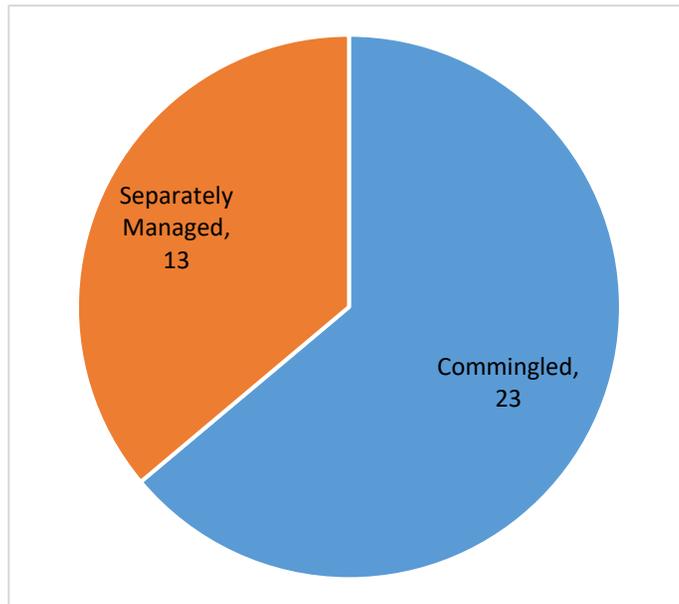


Note: The BOAML US High Yield Index is from BofA Merrill Lynch and is used with permission. See disclaimer on slide 26.

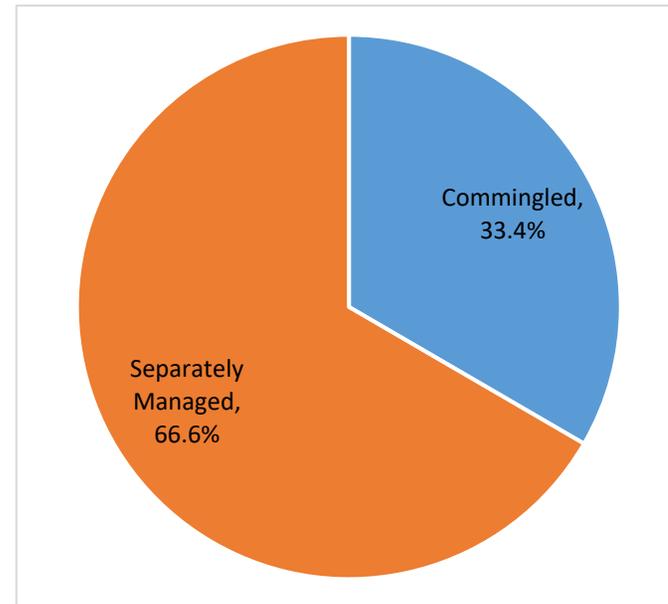


Portfolio Characteristics

Account Type by Count

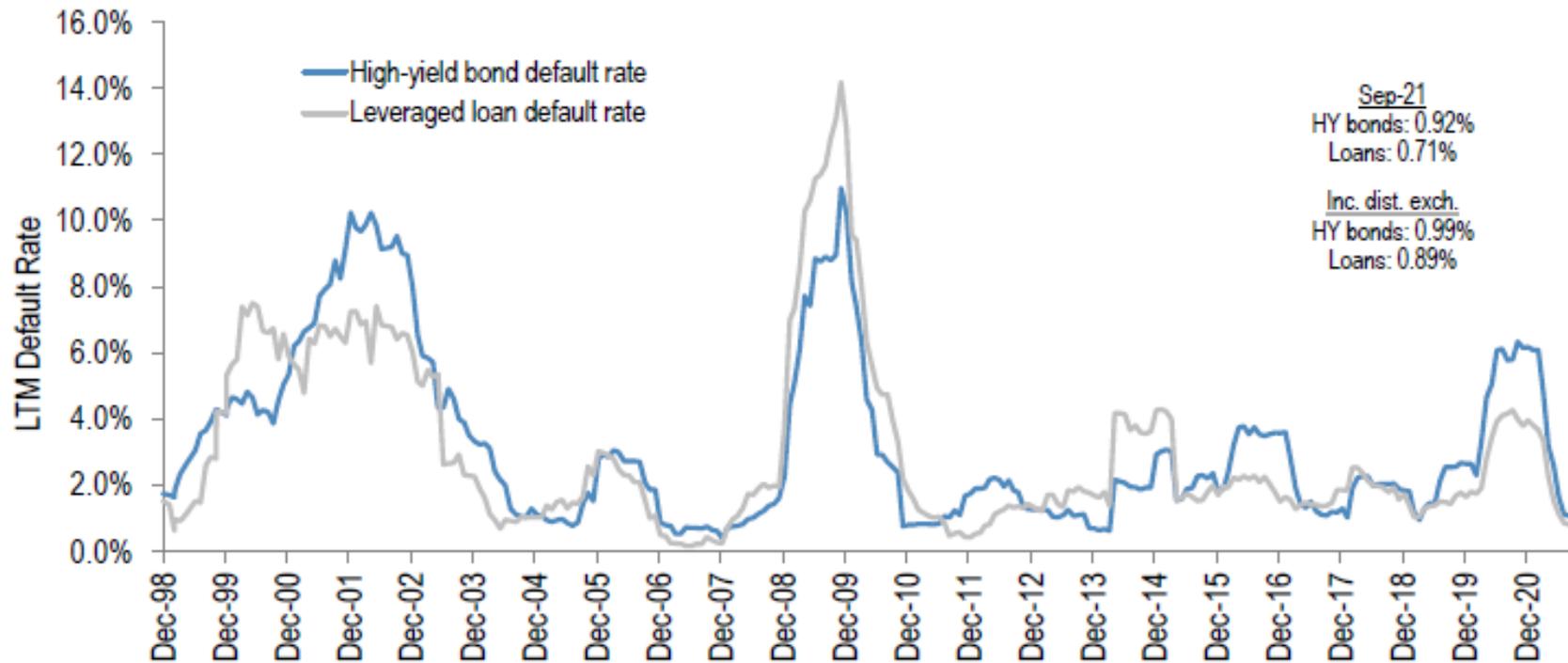


Account Type by Market Value





High Yield Bond and Loan Default Rates

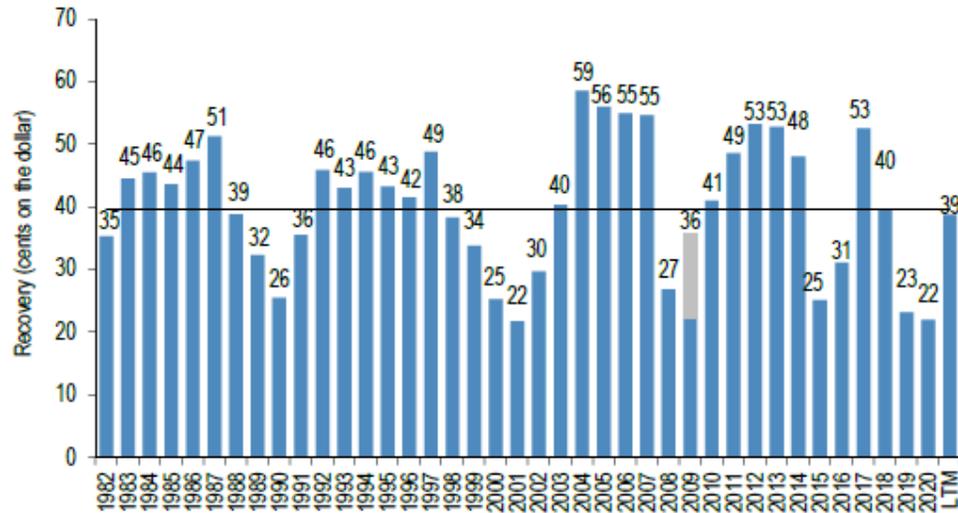


Source: J.P. Morgan.



High Yield Bond and Loan Recovery Rates

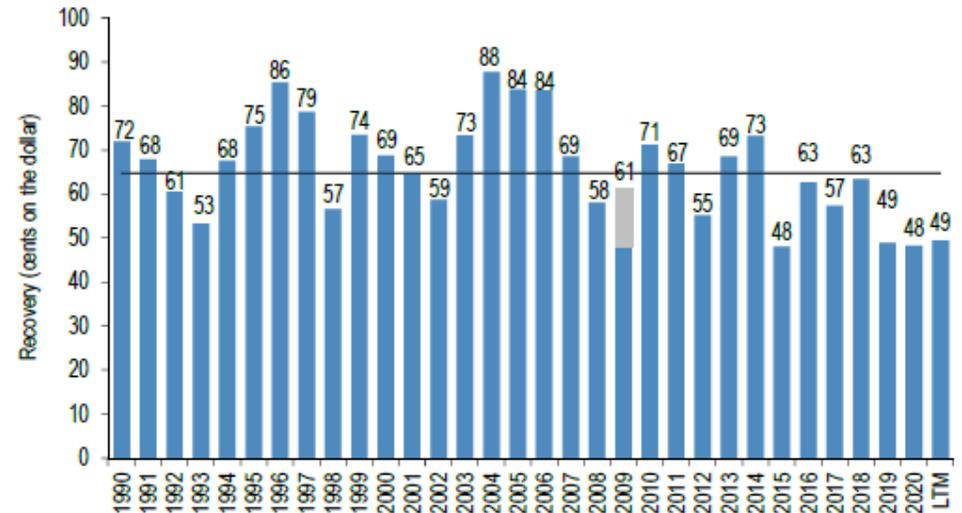
Bond issuer-weighted recovery rates



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

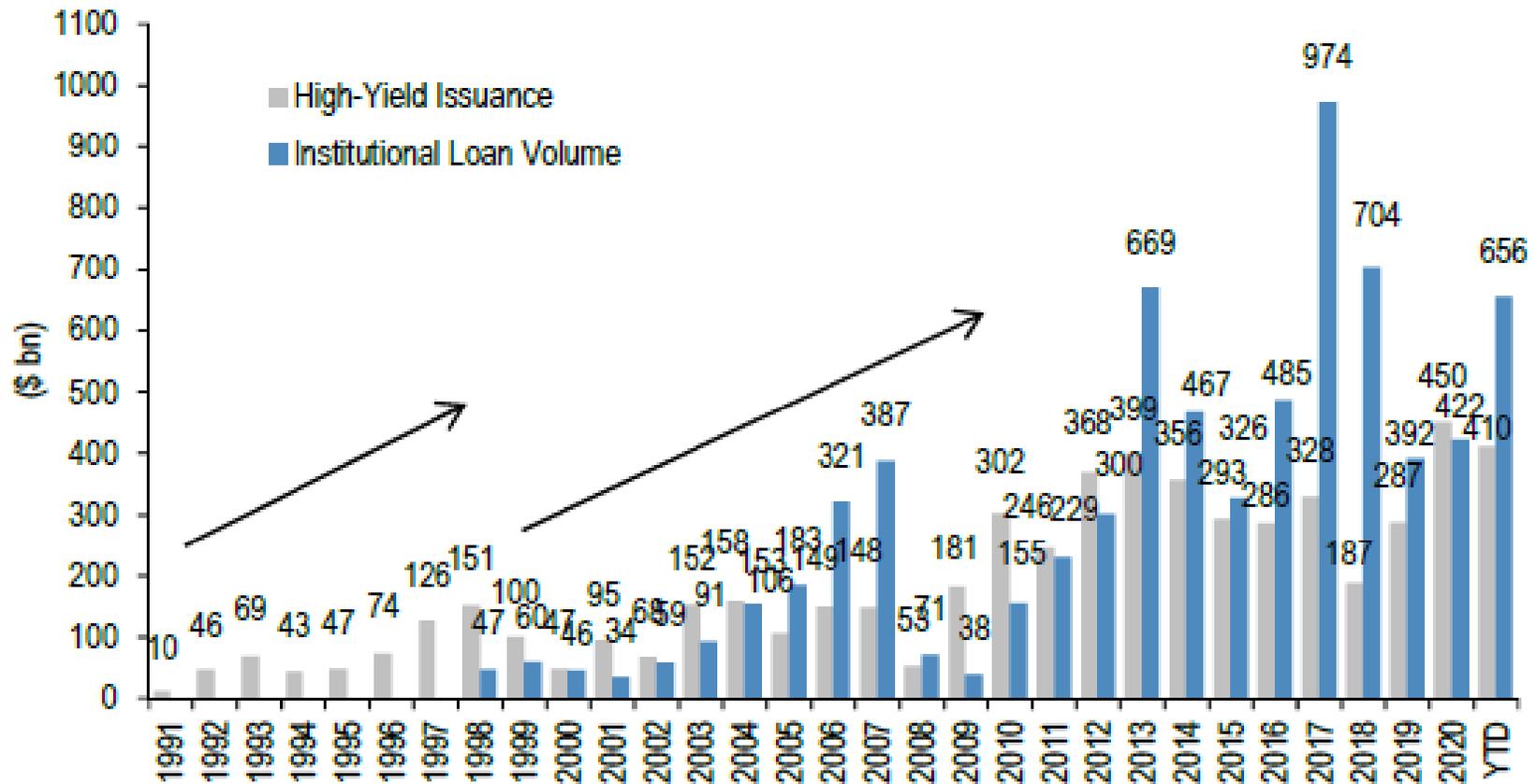


Note: Recoveries in 2009 were 48.3 based on prices 30-days post default and were 61.4 based on year-end prices.

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



High Yield Bond and Loan Issuance

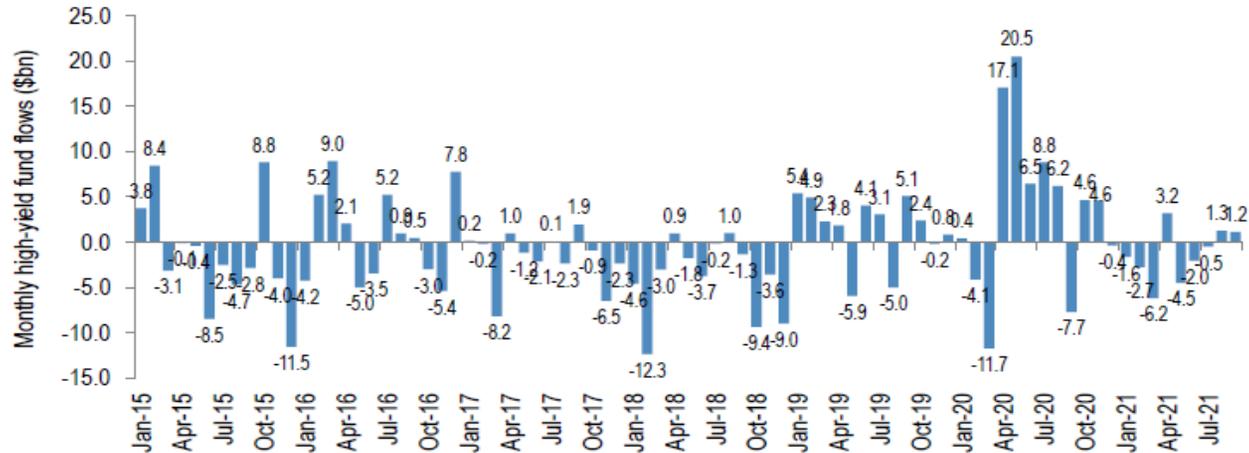


Source: J.P. Morgan; S&P LCD



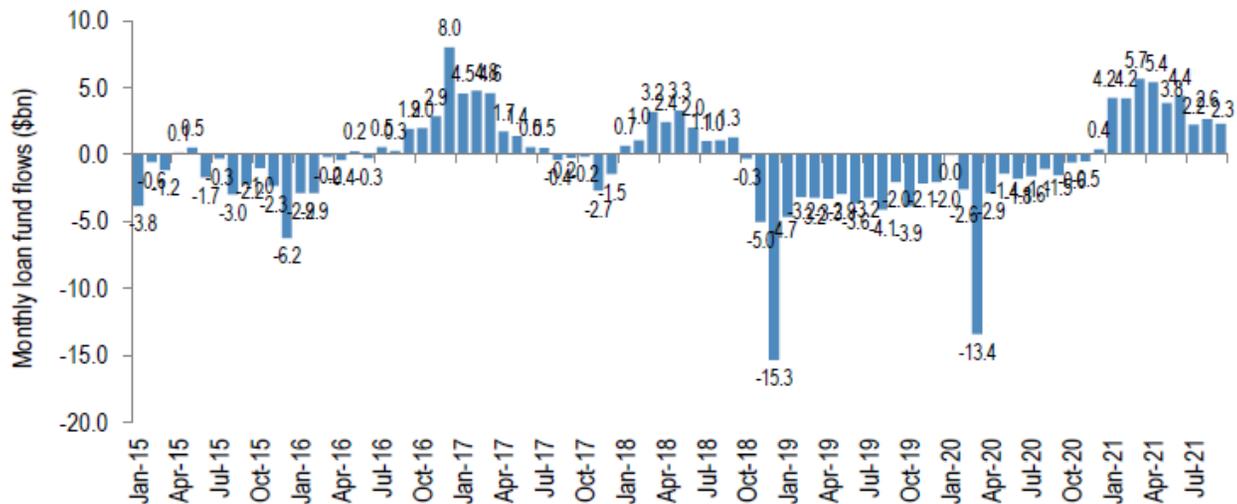
High Yield Bond and Loan Fund Flows

High Yield



Source: Lipper FMI.

Loans

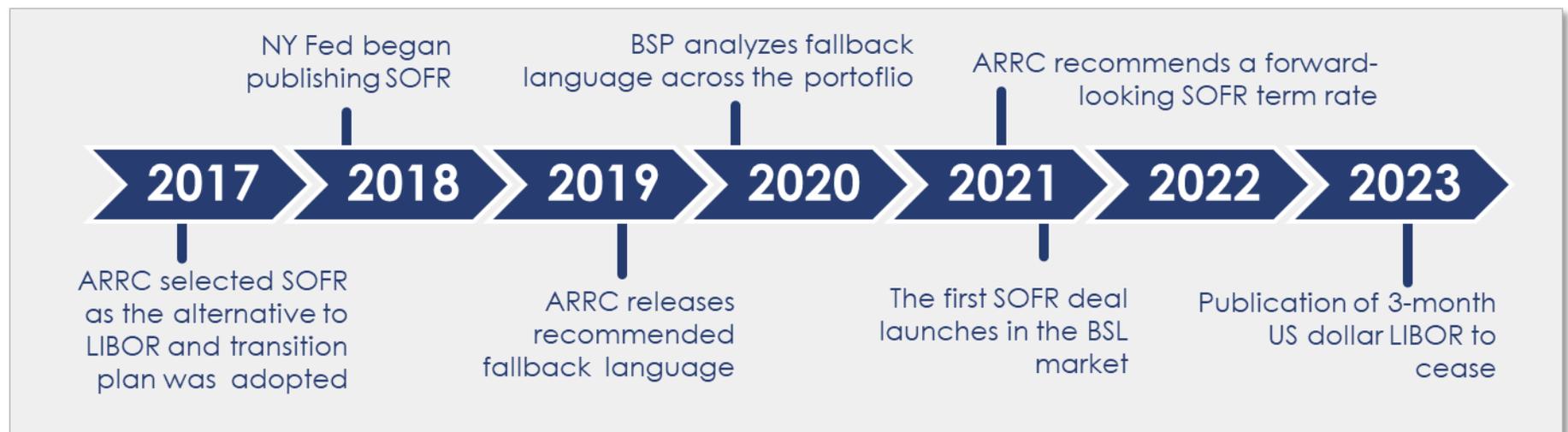


Source: Lipper FMI.

Libor vs. SOFR

LIBOR	SOFR
Forward-looking rate	Backward-looking Rate
Published for multiple terms (1 mos., 3 mos.)	One term, overnight
Unsecured Rate	Secured Rate, collateralized using US treasuries
Based on a very small number of transactions between banks	Based on several hundred billion dollars of transactions daily

Timeline of Transition Events





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 26.

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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