

Maximizing FHLBank Membership for Insurance Companies

February 2, 2021



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Presenters

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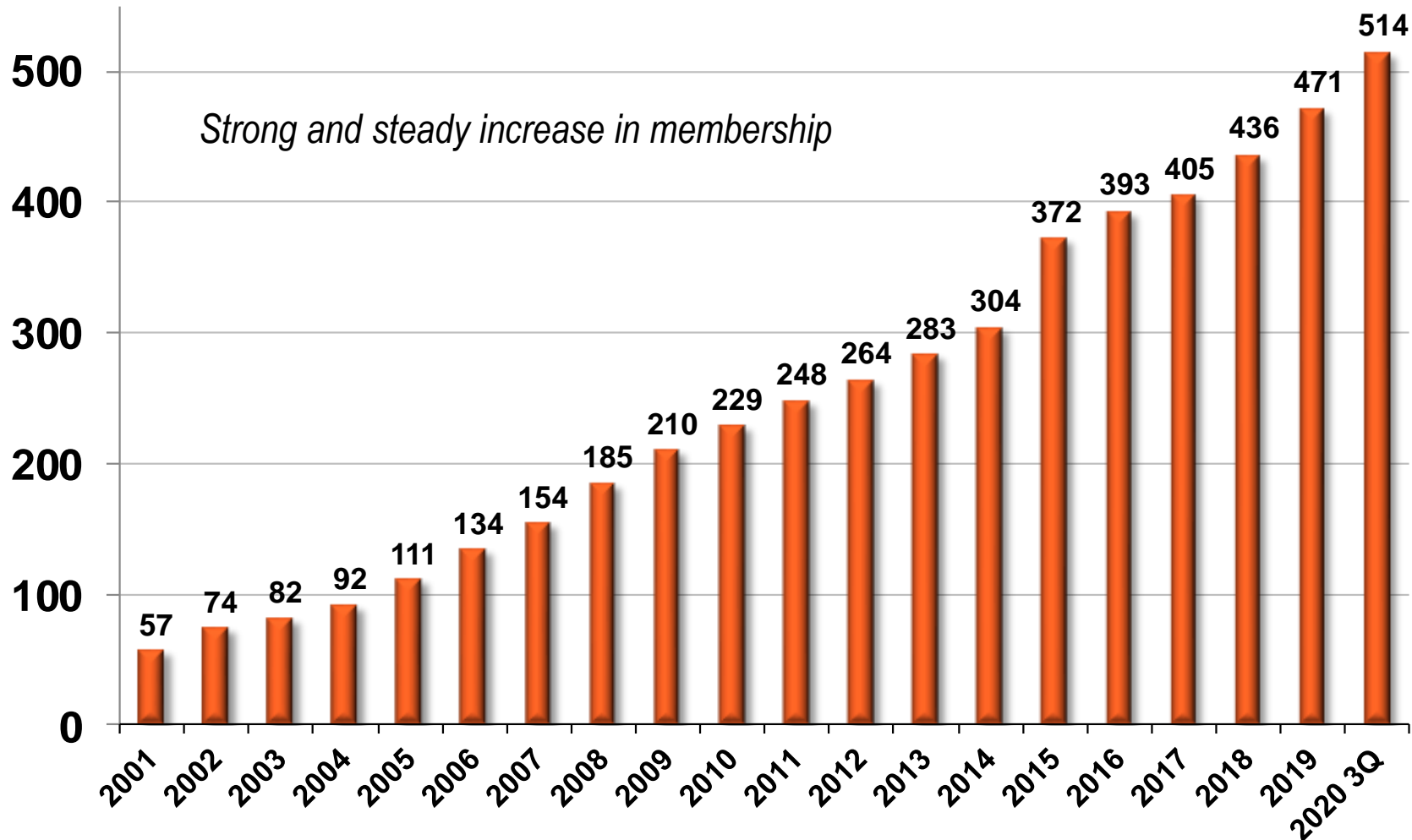
Vice President, Director of Strategies



FHLBanks and Insurance Company Update



Insurance Company Membership in the FHLBank System

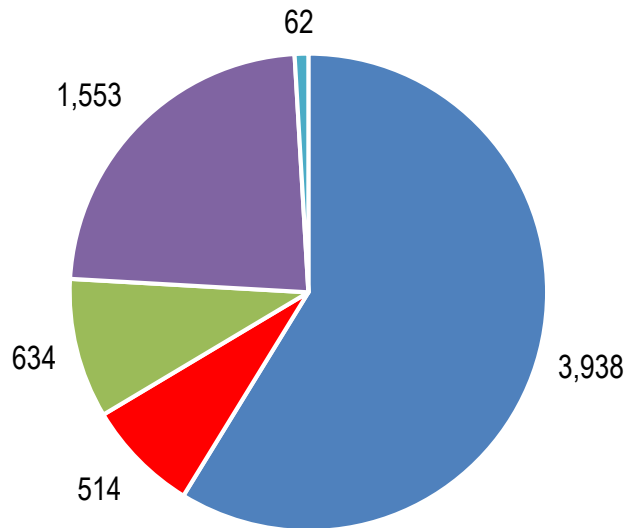


Source: FHLBank System Consolidated Reports

Member Types – FHLBank System

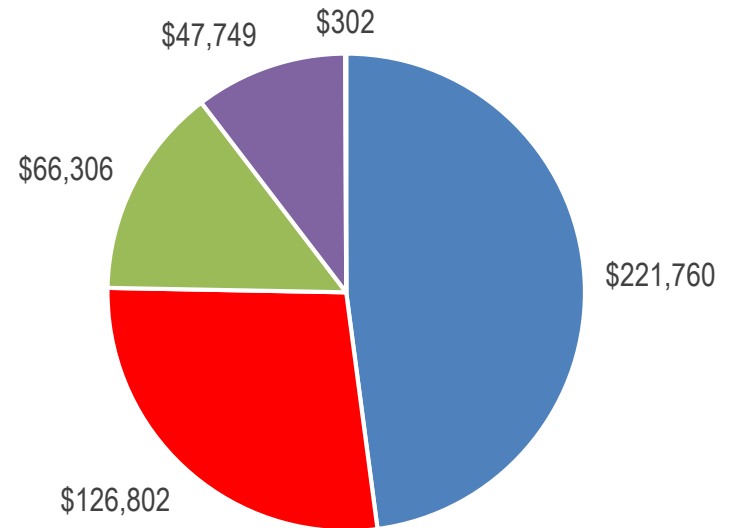
As of third quarter 2020

Number of Members



- Commercial Banks
- Insurance companies
- Savings Institutions
- Credit Unions
- Community Development Financial Institutions

Advances by Members (millions)



- Commercial Banks
- Insurance companies
- Savings Institutions
- Credit Unions
- Community Development Financial Institutions

Source: FHLBank System Consolidated Reports

Largest U.S. Insurance Companies

Ranked by total admitted assets 2019 – in Billions

Companies listed by Group

Rank	Life Companies	Assets	FHLB Member	Rank	Property and Casualty	Assets	FHLB Member
1	Prudential	\$634	Yes	1	Berkshire Hathaway	\$394	
2	Metropolitan Life	\$427	Yes	2	State Farm	\$209	Yes
3	NY Life	\$344	Yes	3	Liberty Mutual	\$86	Yes
4	TIAA	\$328	Yes	4	Travelers	\$82	
5	AIG	\$308	Yes	5	Chubb	\$71	
6	Northwestern	\$290	Yes	6	AIG	\$68	Yes
7	Lincoln Financial	\$286	Yes	7	Allstate	\$56	
8	MassMutual	\$279	Yes	8	USAA	\$55	Yes
9	John Hancock	\$274	Yes	9	Nationwide	\$52	Yes
10	Jackson National	\$269	Yes	10	Progressive	\$49	
11	AXA Equitable	\$221	Yes	11	Hartford	\$45	Yes
12	Aegon	\$214	Yes	12	CNA	\$44	Yes
13	Principal Financial	\$210	Yes	13	Zurich	\$32	Yes
14	Nationwide	\$195	Yes	14	Farmers	\$30	Yes
15	Brighthouse	\$194	Yes	15	Tokio Marine	\$29	Yes

Source: A.M. Best, FHLBank System Consolidated Reports

FHLBank Boston Insurance Members

Life Companies

1. Amical Life Insurance
2. Commonwealth Annuity & Life
3. Hartford Life and Accident
4. Lincoln Life Assurance Co
5. Mass Mutual Life Insurance Co
6. Merit Life Insurance
7. National Life Insurance
8. Nassau Life Insurance
9. Nassau Life and Annuity
10. PHL Variable Life Insurance
11. Prudential Retirement Ins Annuity
12. SBLI of Massachusetts
13. Starmount Life Insurance
14. Talcott Resolution Life Insurance
15. Talcott Life and Annuity Insurance
16. Unum Life Insurance
17. Vantis Life
18. Voya Retirement Insurance & Annuity

Health Companies

19. Aetna Life Insurance
20. Blue Cross Blue Shield of MA
21. Blue Cross Blue Shield of MA HMO Blue
22. Blue Cross Blue Shield of RI
23. Blue Cross Blue Shield of VT
24. Fallon Community Health
25. Harvard Pilgrim Health Care

Depositors Insurance

26. Depositors Insurance Fund
27. Mass Credit Union Share Ins.

P&C Companies

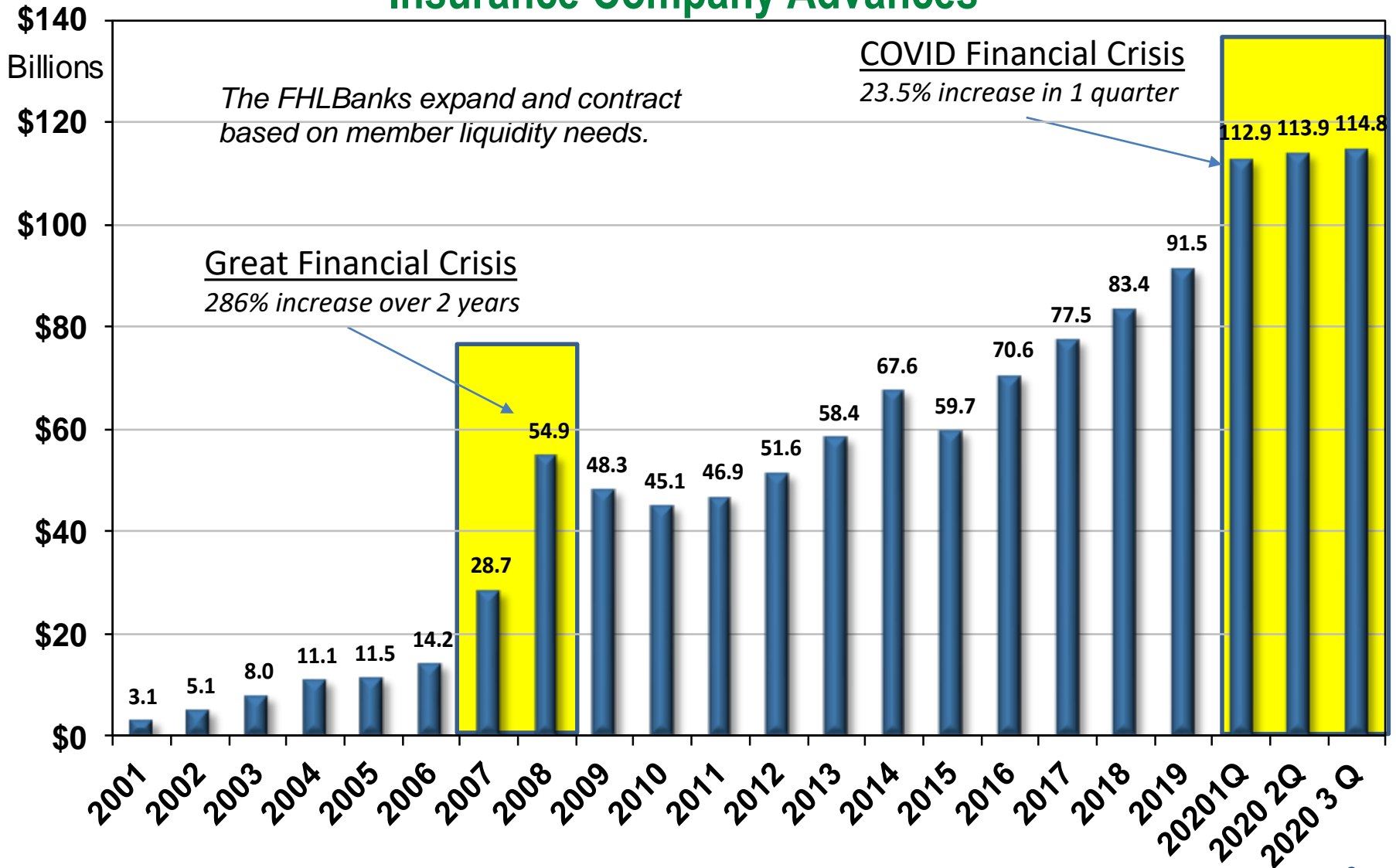
28. AIM Mutual
29. Alliance of Non Profits, RRG
30. American European
31. American Excess, RRG
32. Amica Mutual
33. Arbella Mutual Insurance
34. Aspen American Insurance
35. Aspen Specialty Insurance
36. Barnstable County Mutual
37. Beacon Mutual Insurance
38. Citizens Insurance Co of America
39. Commerce Insurance Co
40. Connecticut Attorneys Title
41. Coverys, RRG
42. CW Reinsurance Co
43. Danbury Mutual
44. Dorchester Mutual
45. Fitchburg Mutual
46. Hanover Insurance Co
47. Hartford Fire Insurance
48. Hingham Mutual
49. Hospitality Mutual
50. Housing Authority Property Insurance
51. Housing Authority, RRG
52. ICI Mutual, RRG
53. Ironshore Specialty Insurance Co
54. Lexington Insurance (AIG)
55. Liberty Mutual Insurance Co
56. Maine Employers Medical Mutual
57. Medical Professional Mutual
58. MEMIC Casualty
59. MEMIC Indemnity
60. Metropolitan P&C (MetLife)
61. MMG Insurance
62. Narragansett Bay Insurance
63. New London County Mutual
64. Norfolk and Dedham
65. Peerless Insurance Co
66. Quincy Mutual Insurance
67. Safety Insurance
68. Vermont Mutual
69. United Educators, RRG
70. Yosemite Insurance



Source: FHLBank Boston (as of 1/1/21)

FHLBank Reliability During Market Dislocations

Insurance Company Advances*

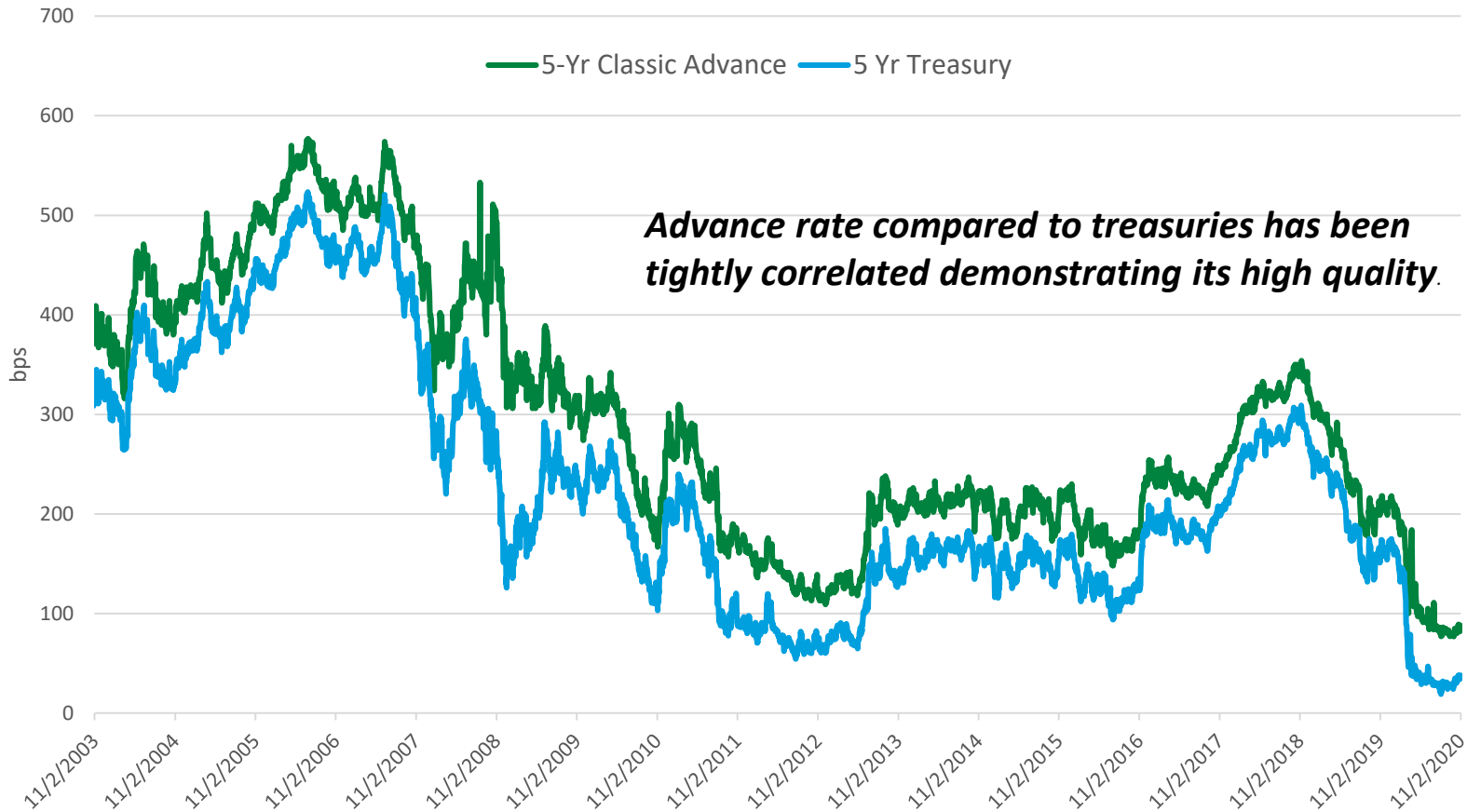


*Excludes captives

Source: FHLBank System Consolidated Reports

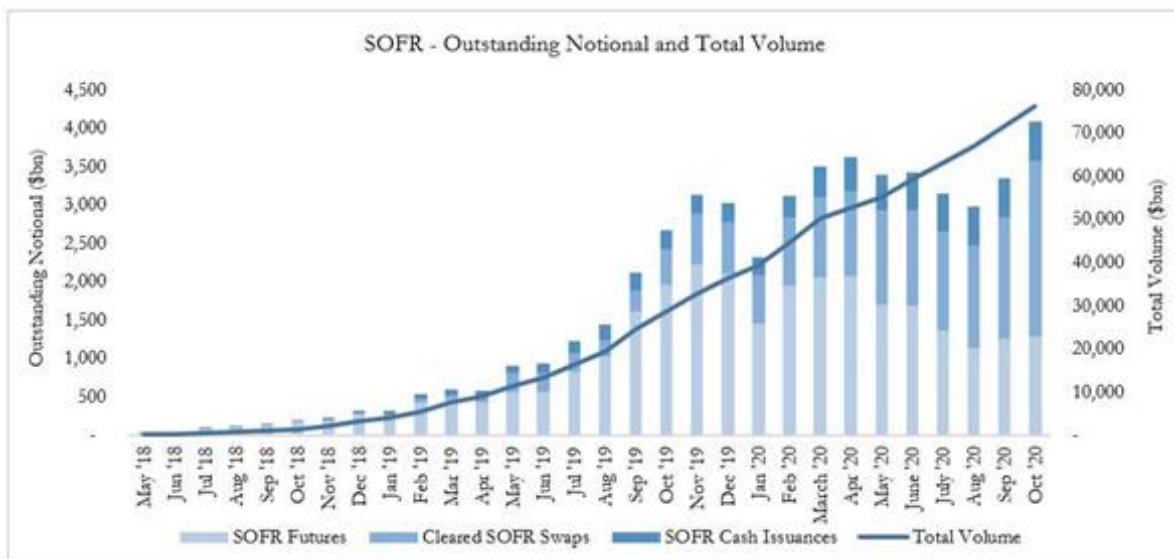
FHLBank Boston 5-year Advance Rate vs. 5-year Treasury Rate

Advance Rates vs. Treasury Rates



Source: FHLBank Boston, Federal Reserve Bank of St. Louis

FHLBanks Leading the Transition from LIBOR to SOFR



Total SOFR Issuances through October 2020

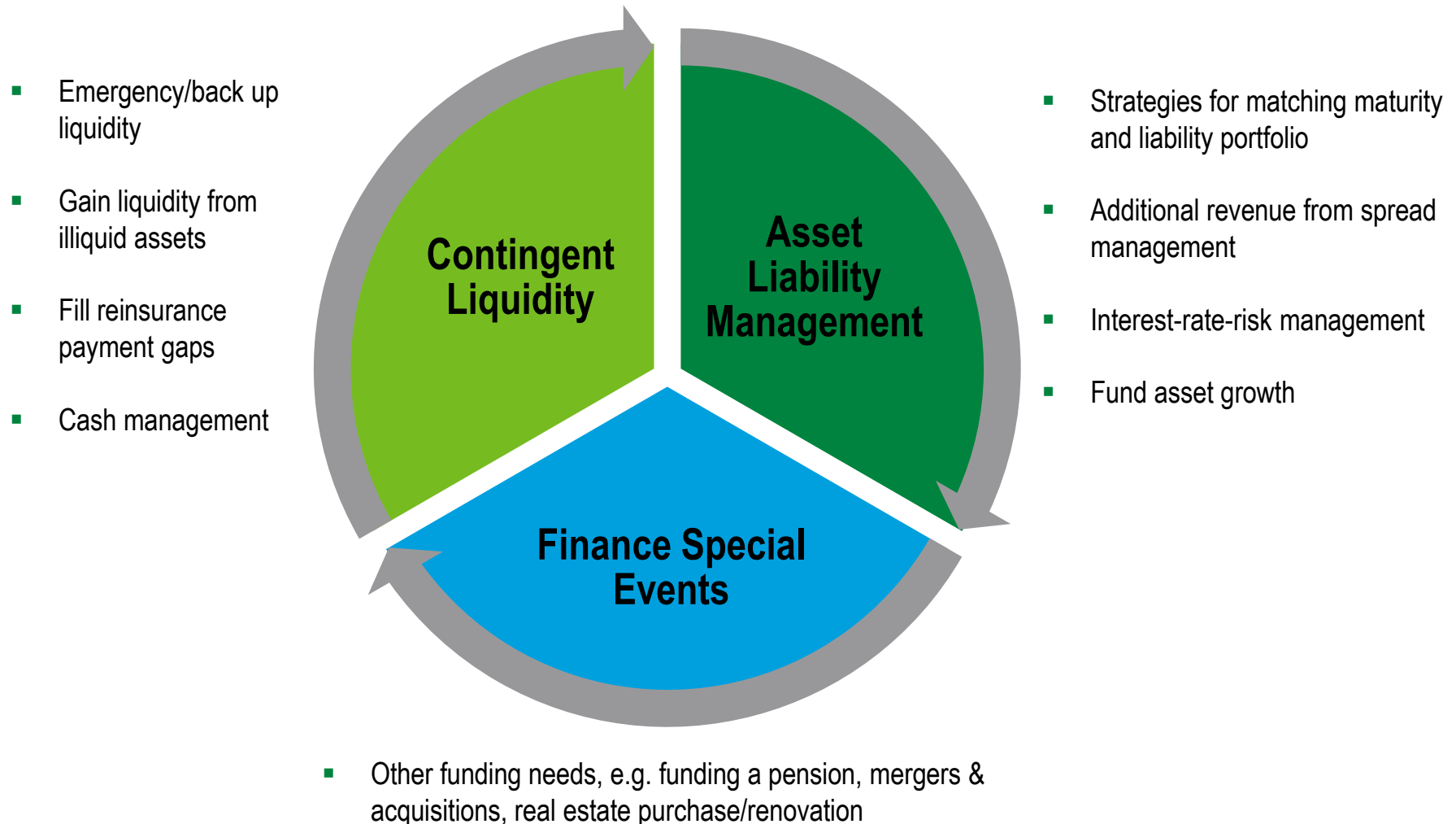
Source: CME Group, FHLBank Boston

Issuer	Issuer Industry	# of Bonds	Total Issued	SOFR Outstanding	% of SOFR Issuance
FHLB	GSE	250	\$ 375,536,375,000	\$ 191,372,375,000	38.1%
FHLMC	GSE	110	\$ 144,331,523,000	\$ 76,956,023,000	14.6%
FNMA	GSE	96	\$ 136,053,755,000	\$ 114,054,255,000	13.8%
FFCB	GSE	78	\$ 43,857,000,000	\$ 42,482,000,000	4.5%
JP Morgan	Bank	17	\$ 36,300,000,000	\$ 35,250,000,000	3.7%
Credit Suisse	Bank	99	\$ 36,190,500,000	\$ 20,559,000,000	3.7%
Bank of America	Bank	12	\$ 25,500,000,000	\$ 25,250,000,000	2.6%
Citi	Bank	12	\$ 24,300,000,000	\$ 23,300,000,000	2.5%
Morgan Stanley	Financial	11	\$ 18,406,000,000	\$ 18,406,000,000	1.9%
Wells Fargo	Bank	6	\$ 13,625,000,000	\$ 12,500,000,000	1.4%
BNP Paribas	Bank	20	\$ 13,554,000,000	\$ 13,529,000,000	1.4%
MetLife	Insurance	14	\$ 9,555,000,000	\$ 6,630,000,000	1.0%
HSBC	Bank	6	\$ 9,025,000,000	\$ 9,025,000,000	0.9%
European Investment Bank	SUPRA National	7	\$ 9,000,000,000	\$ 9,000,000,000	0.9%
Bank of Montreal	Bank	34	\$ 8,523,000,000	\$ 4,920,500,000	0.9%
Deutsche Bank	Bank	5	\$ 5,765,000,000	\$ 5,765,000,000	0.6%
IBRD	SUPRA National	5	\$ 5,700,000,000	\$ 4,700,000,000	0.6%
Goldman Sachs	Bank	31	\$ 5,138,470,000	\$ 2,025,000,000	0.5%
State Street	Financial	12	\$ 4,500,000,000	\$ 4,000,000,000	0.5%
Group BPCE	Bank	4	\$ 3,700,000,000	\$ 3,700,000,000	0.4%

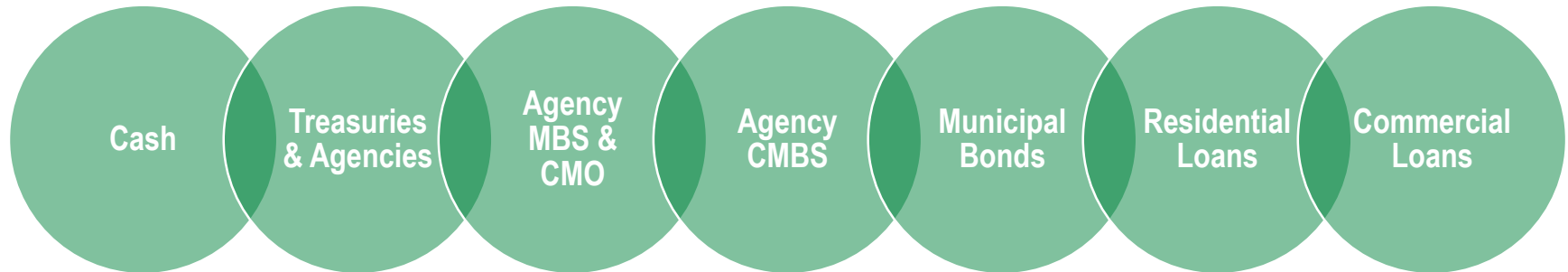
Products, Solutions & Funding Opportunities



Funding Usage by Insurance Companies



Available Collateral Types



Ability to pledge assets of varying liquidity profiles, providing flexibility to efficiently meet:

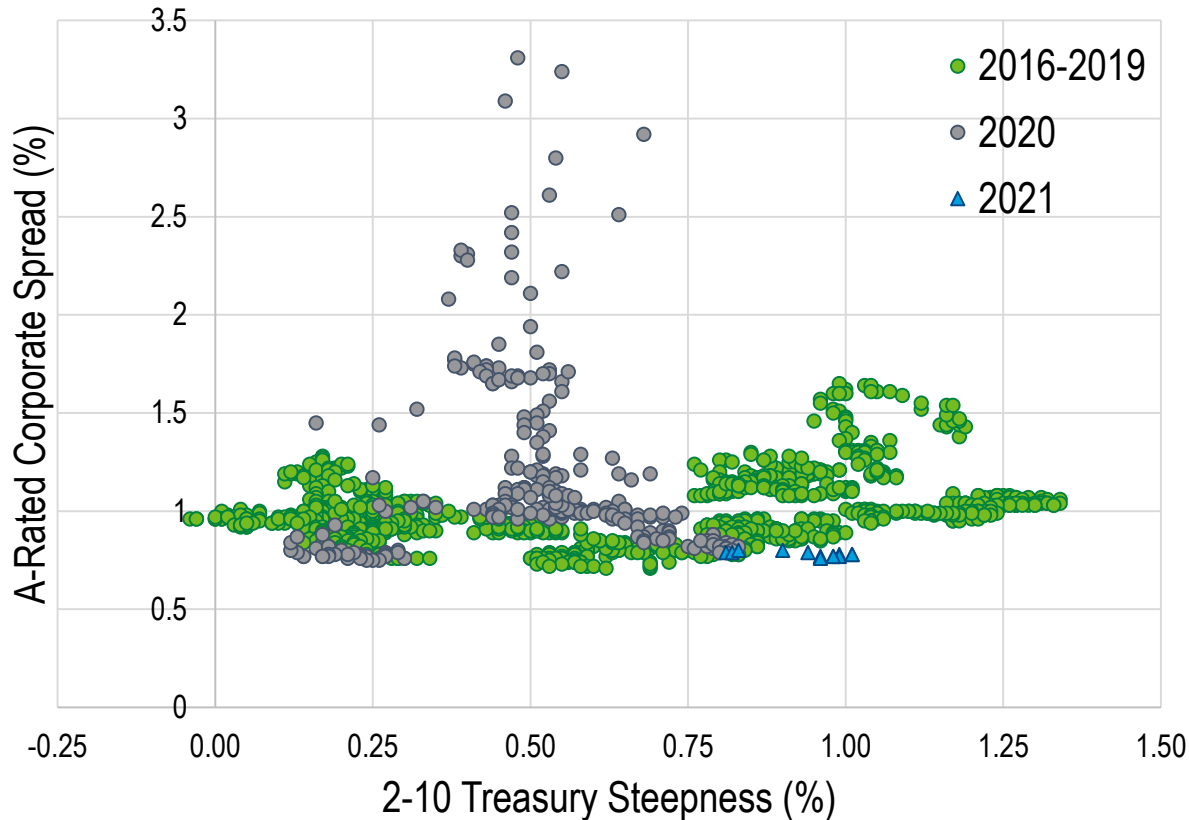
- short-term cash management needs,
- long-term funding, earnings and risk management requirements.

Pledged assets:

- remain in control of the member and can easily be swapped out.
- remain classified as admitted assets.

Mitigating Interest-Rate Risk

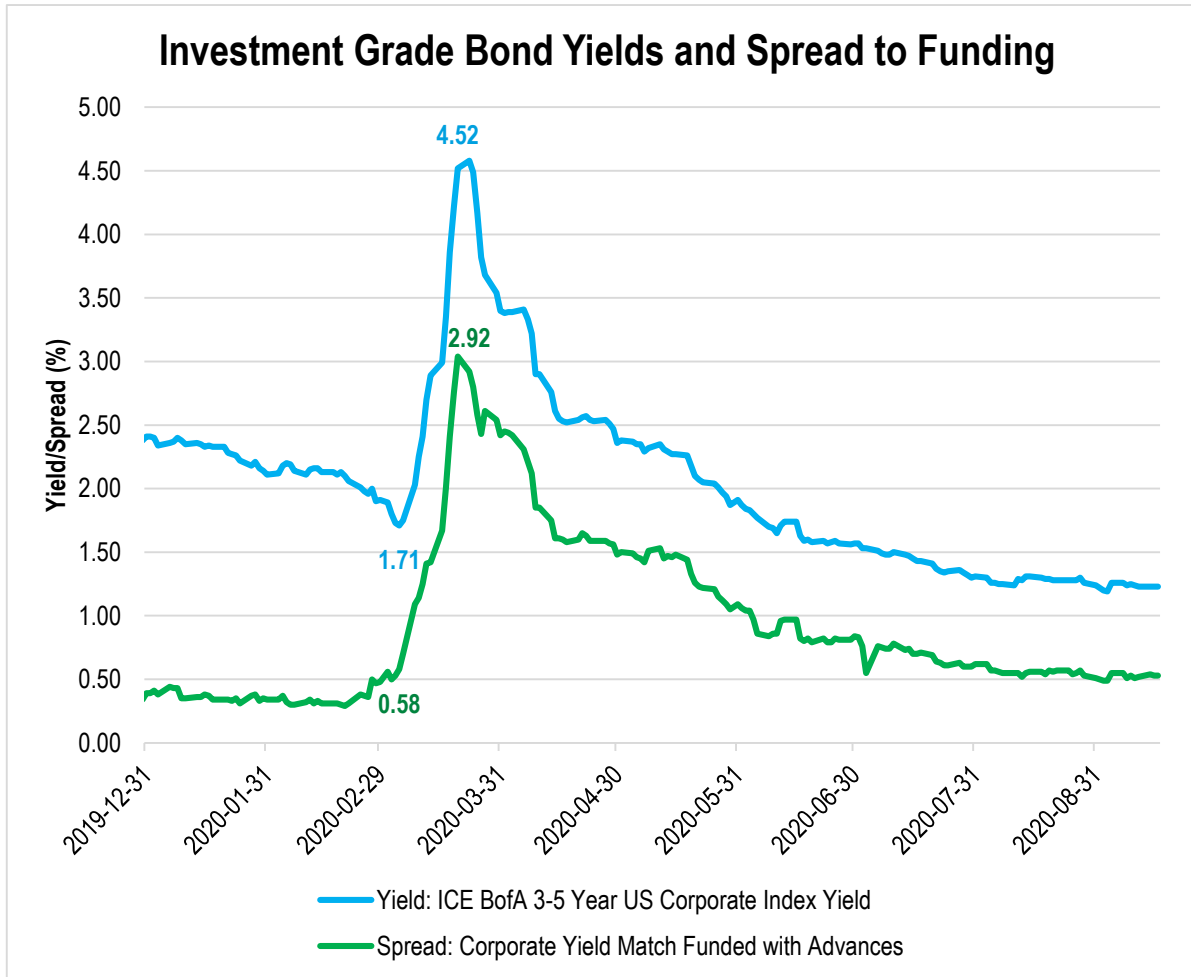
Bond Spreads and Curve Steepness



- Recent curve steepening has been accompanied by tightening spreads
- Minimal correlation between level of spreads and amount of steepness
- Match funded transactions with FHLBank Boston advances allow members **to mitigate the interest-rate risk** of asset decisions and **isolate the return from the credit spread** component.
- Treatment as operating, not financial, leverage

Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Advance Spread Stability in Volatile Markets

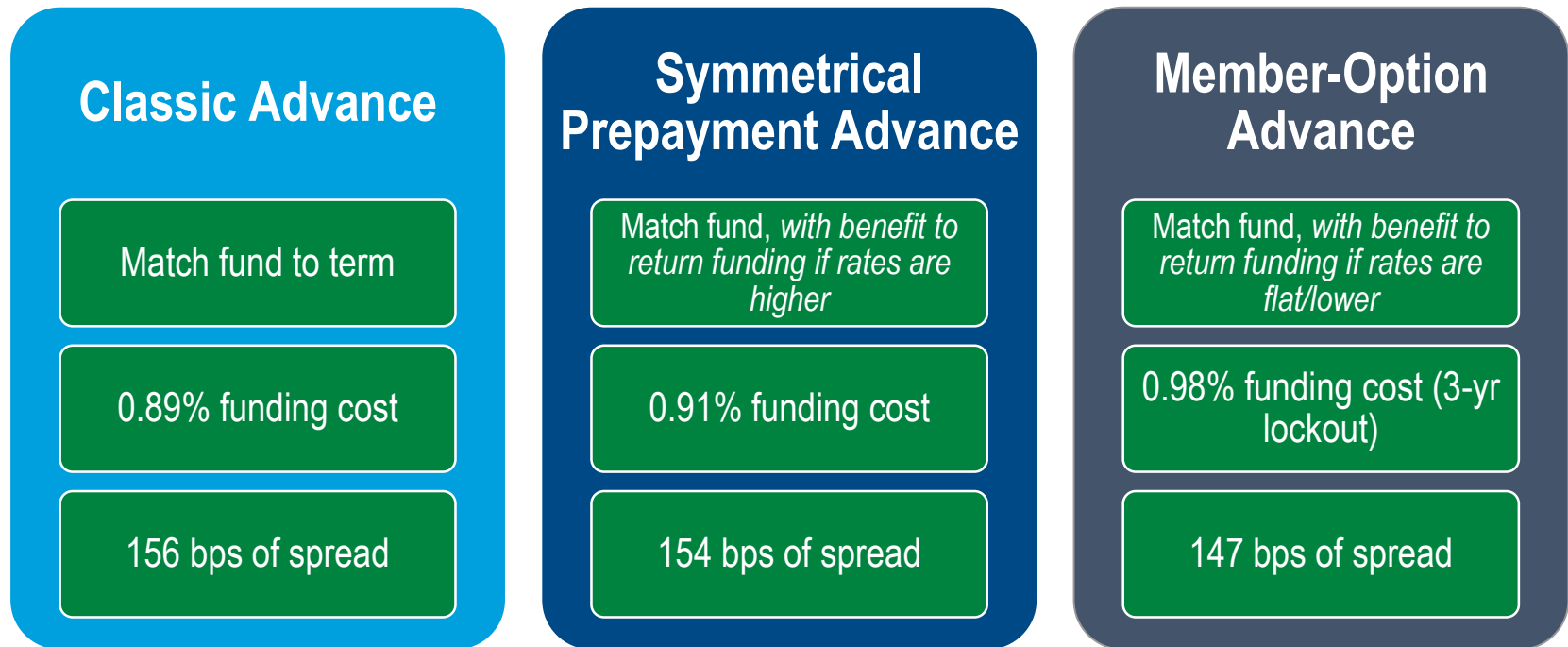


- Advance spreads tend to outperform, often significantly, when markets become volatile
- Example- March 2020
 - Credit markets widened quickly and considerably at the onset of the pandemic
 - Even the highest-grade corporate issuers had challenges accessing liquidity, and those who could paid steep concessions
 - **Return from spread lending increased by over 200 bps** for transactions match funded with advances

Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Fixed-Rate Alternatives

Assuming the purchase of a **5-year asset yielding 2.45% (+200 spread)**, depending on the need for flexibility, match funding options consist of:



Utilizing the Advance Renewal Discount Program (ARDP) can add savings of 2-8 bps

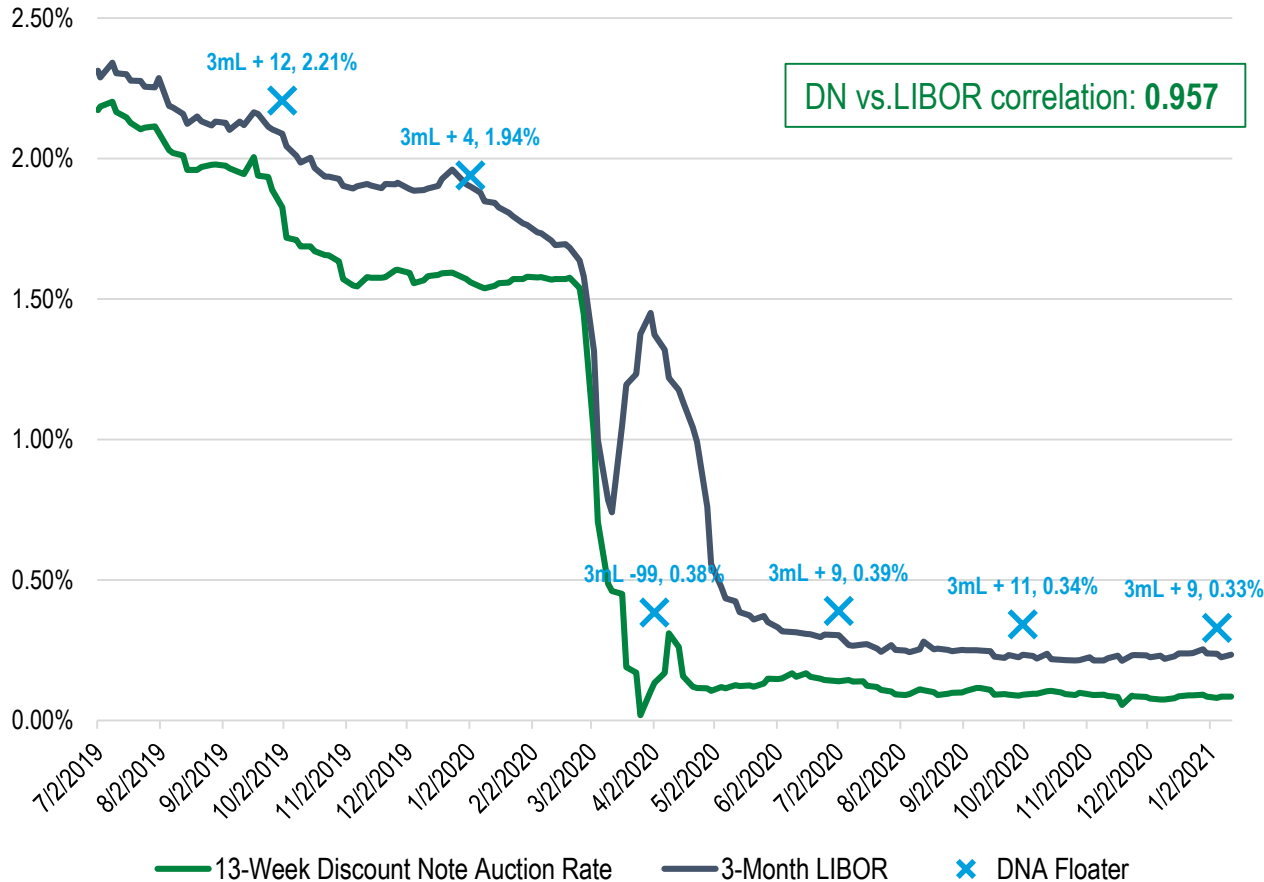
Floating-Rate Alternatives

- **Fund with rolling short-term advances**
 - Good for managing interest-rate risk and principal paydown
 - But creates liquidity risk profile of longer asset and shorter liability
- **Fund with floating-rate advances**
 - Align funding rate resets with asset repricing
 - Manage asset amortization and prepays with a combination of laddered maturities and exercising of calls on the funding
 - Longer stated final maturity of floating-rate advances creates a more balanced liquidity profile vs. asset average life
 - Both SOFR and the Discount Note index have historically exhibited an extremely strong correlation vs. LIBOR
 - Transaction spreads (i.e.- CLO funded by DNA Floater) improve in market dislocations
 - Asset yields based off credit sensitive index move higher, while funding costs based off more stable index stay low

	SOFR-Indexed Advance	Discount Note Auction-Floater Advance
Index	SOFR	Office of Finance Discount Note Auction
Index Term	Overnight	4-week or 13-week
Advance Prepayable w/o fee?	No	Yes
Indicative Pricing	3-month: SOFR +21 12-month: SOFR +27	1-year/3-month: DN +34 5 year/3-month: DN + 43

Funding Example

13-Week Discount Note Auction vs 3-Month LIBOR

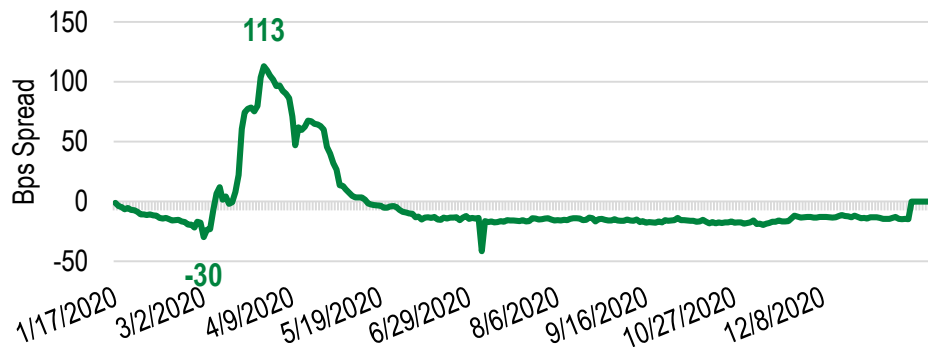


- October 2019
 - **1-year/3-month DNA Floater priced at +38**
 - DN Index Rate at 1.83% and 3-month LIBOR at 2.09%
 - All-in DNA Floater rate of 2.21%, or **3mL+ 12**
- January 2020
 - DN Index and LIBOR rates reset, DNA Floater spread remains the same
 - All-in DNA Floater rate of 1.94%, or **3mL +4**
- April 2020
 - LIBOR spikes higher while DN Index goes down
 - New DNA Floater spreads are tighter, so refinance old +38 advance into **new 1-yr/3-mo at +25**
 - All-in DNA Floater rate of 0.38%, or **3mL -99**
- July 2020 forward
 - DN index and LIBOR rates continue to reset, as spread remains the same

Source: Federal Reserve Bank of St. Louis, FHLBank Boston

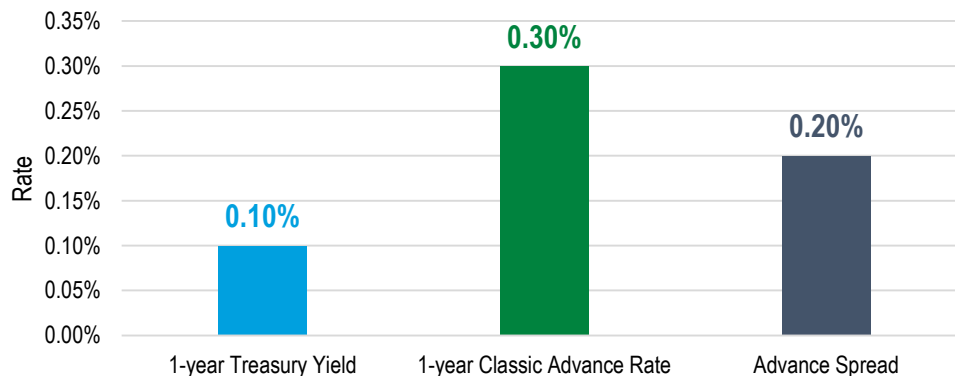
Liquidity Management

3-Month LIBOR vs. 3-Month Classic Advance Rate



- Like with long-term spread lending, **short-term advance rates remain stable** as market stress pushes rates like LIBOR higher

Treasury & Advance Rates



- **Low rates and tight spreads** to Treasuries offer availability to optimize liquidity planning and capital structure

Source: Federal Reserve Bank of St. Louis, FHLBank Boston

Cash Management Examples

	Not Using FHLBank Boston	Using FHLBank Boston	
		Example 1	Example 2
	Hold excess cash of \$25 million in deposit account	Stay invested, borrow full 12-month term	Stay invested, borrow overnight on 100 separate days
Asset Type	Money Market	Standard	Standard
Asset Yield	0.01%	2.00%	2.00%
Asset Return	+\$2,500	+\$500,000	+\$500,000
Funding Type	N/A	12-month Classic	Daily Cash Manager
Funding Rate	N/A	0.30%	0.42%
Funding Cost	N/A	(\$75,000)	(\$29,167)
Net return	\$2,500	\$425,000	\$470,833

OR

Source: FHLBank Boston

Thank you!

For more information, please contact:

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Providing highly reliable wholesale funding and liquidity to member insurance companies.