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ENIX

2024

**Bond and Financial
Markets, Now and Future**



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TBA Market- Current State and Looking Ahead

NCSHA- September 30, 2024





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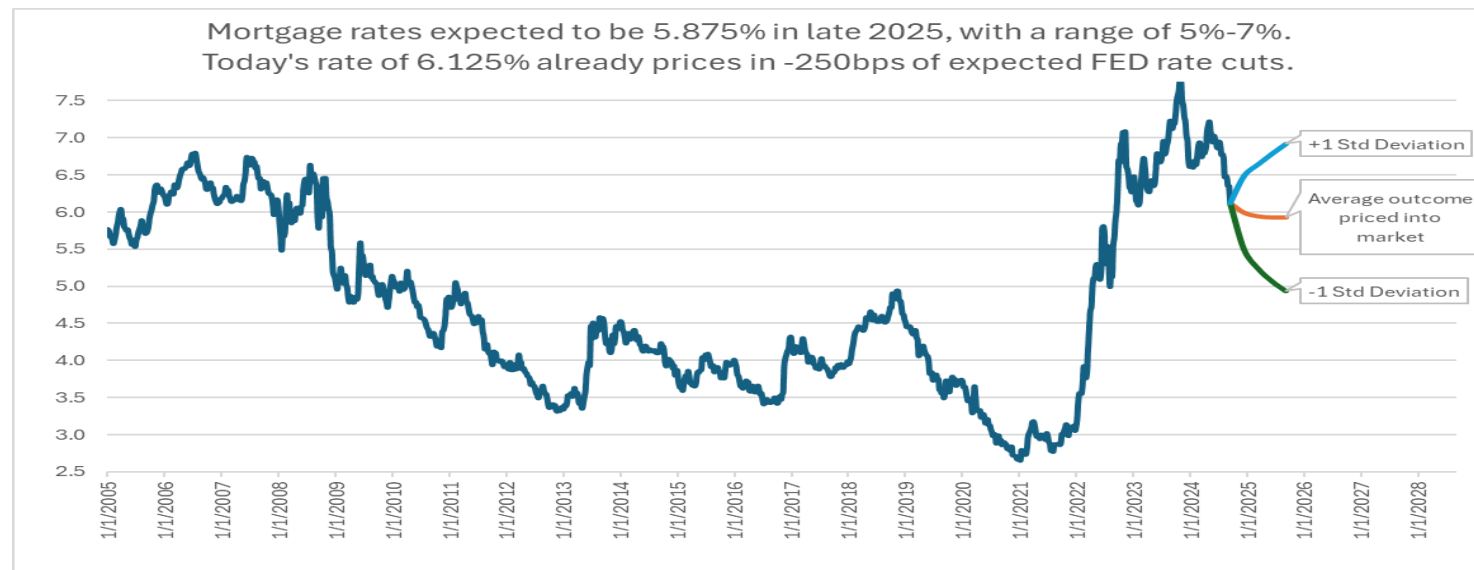
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Mortgage Rates & the Bond Market- Current State

- All eyes have been on the Fed as the market has been anxiously awaiting anticipated rate cuts.
- 9/18/2024 50 basis point rate cut marked the first rate cut in 4 years, with further rate cuts expected through mid 2026.
- While most correlate Fed easing to lower mortgage rates, mortgage rates are more correlated to 10YR Treasury Yields; Bond market has been pricing in the 1st cut for 4 weeks.
- Despite Fed easing and mortgage rates expected to go lower, the bond market is pricing mortgage rates to stay between 5-7% (not to revisit the ultra-lows of 2011-2021).



*Historical mortgage rates from Optimal Blue. Projected mortgage rates based on US swaps forward curve and implied volatility as of 9/12/2024.



Mortgage Rates & the Bond Market- Looking Ahead

- Despite the expectation that rates will decline, a broad refinancing wave is highly unlikely given the short duration of time spent in a “higher” (still relatively low historically speaking) interest rate environment.
- 2022-2024 non-HFA originated production will have more opportunity for refinance as mortgage rates fall and borrowers become in the money.
- Markets with declining HPA (HPD) will have a muted prepayment response.
- HFA Borrowers in markets with strong HPA will have more optionality to refinance, despite utilizing DPA in the form of repayable 2nd liens.

Mtg Rate	Borrowers who can reduce Mtg rate by 150bps
2.0	22,037,313
2.5	16,196,527
3.0	11,663,191
3.5	8,517,006
4.0	6,202,043
4.5	4,565,764
5.0	2,929,831
5.5	1,384,975
6.0	386,587
6.5	69,249
7.0	9,029
7.5	1,306
8.0	252

*EMBS as of 9/12/24





TBA and Specified Pool Execution

- Newly originated mortgages have unusually high amounts of negative convexity in the current environment. (Durations are short at 2-3 years and volatility is high)
- Mortgages earn only 10-50 bps of "option-adjusted" spread over Treasuries, which at 2-3yr duration is only \$0.25 to \$1.5 points of "cheapness to Treasuries".
- Securitizing loans into MBS pools shifts this convexity risk to investors.
- As interest rates are expected to fall, call protection is increasingly important as investors seek prepayment protection.
- MBS backed by HFA loans with repayable/forgivable 2nd liens that are locked out of re-subordination are highly desirable as they provide investors with so desired call protection.
- Premium pricing in the TBA market continues to be dismal and is largely dependent upon the Fed's actions for the remainder of 2024 and well into 2025.
- Should the Fed continue it's recent easing and the yield curve steepens, a noticeable improvement in TBA execution and a return of premium pricing should be expected.
- A strong focus on 2nd lien structure and re-subordination policy should continue to be front and center of HFA strategies as both impact the levels investors are willing to pay for HFA bonds.



NCSHA 2024 Annual Conference

Bond and Financial Markets, Now and Future

September 30, 2024

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Director

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Capital
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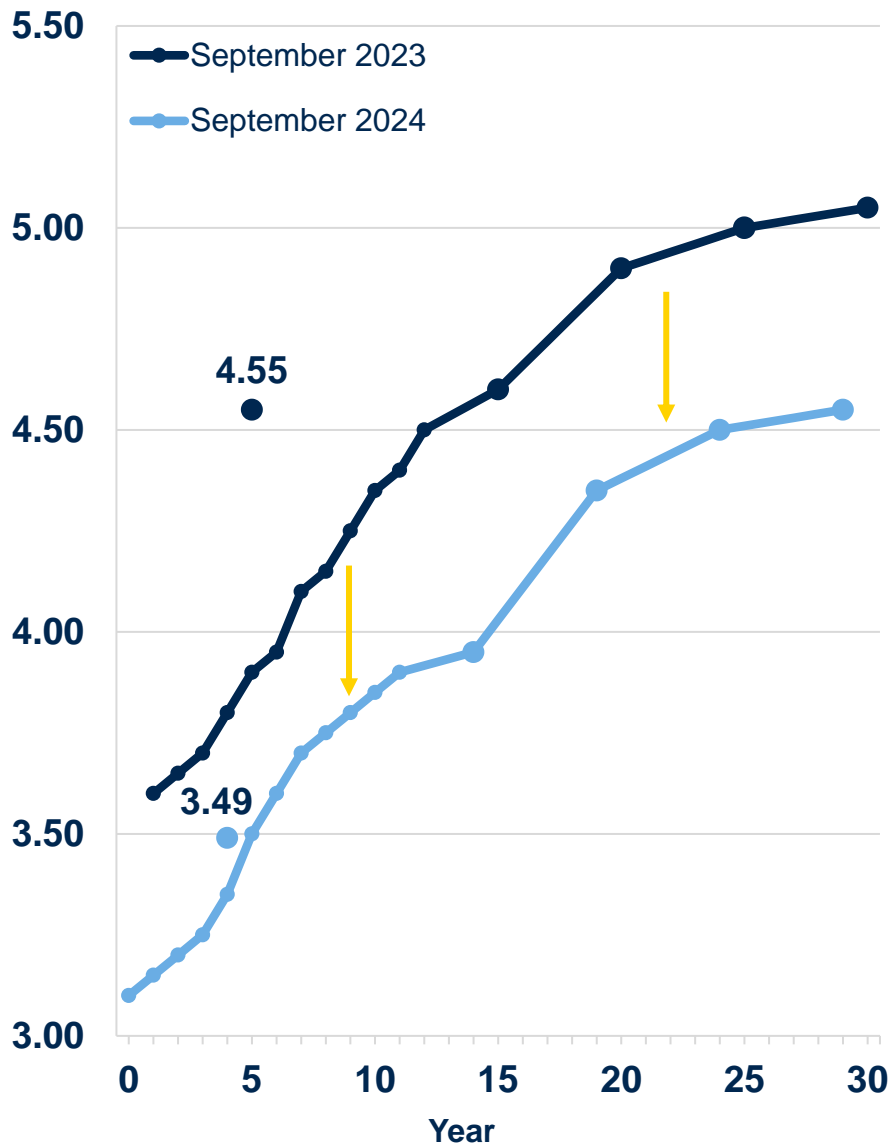
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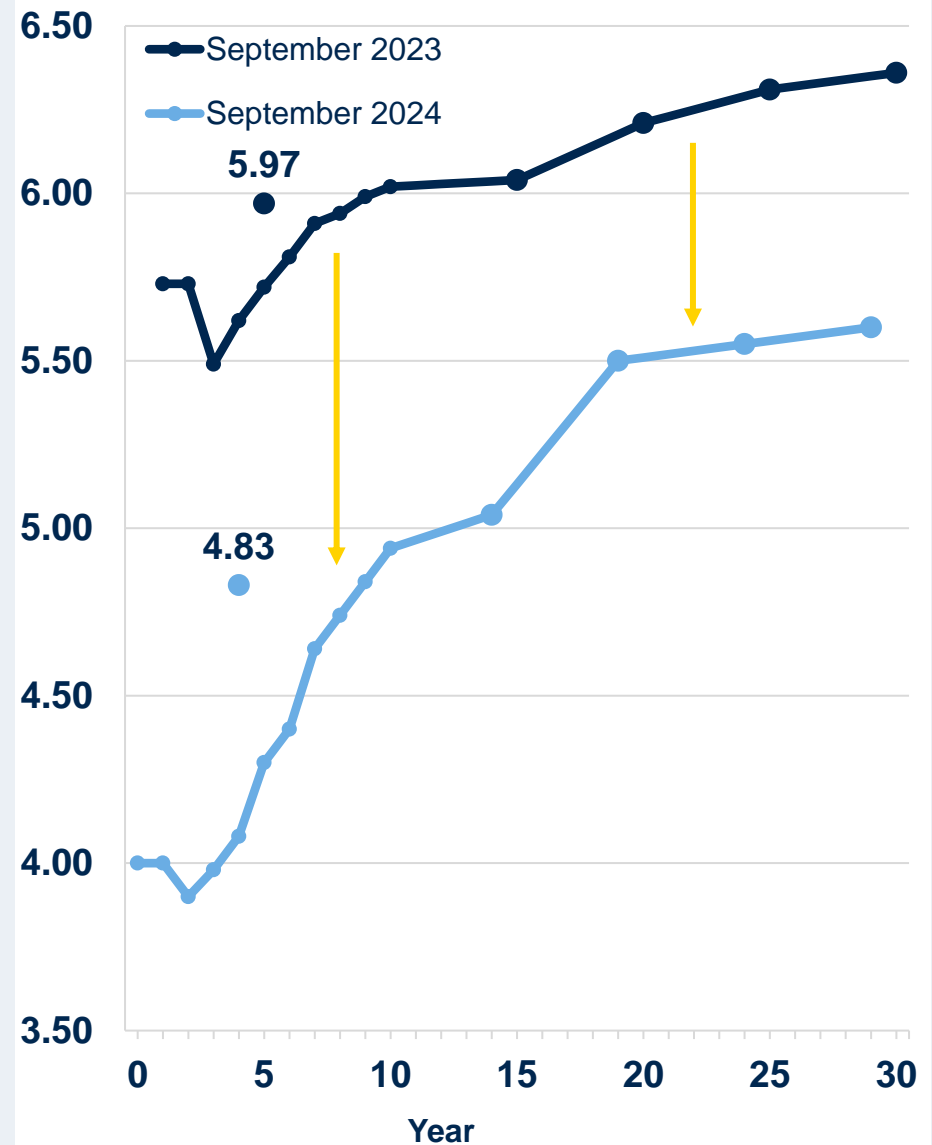
Implications of the Fed: Steepening of MRB Yield Curves



Tax-Exempt Yield Curve



Taxable Yield Curve

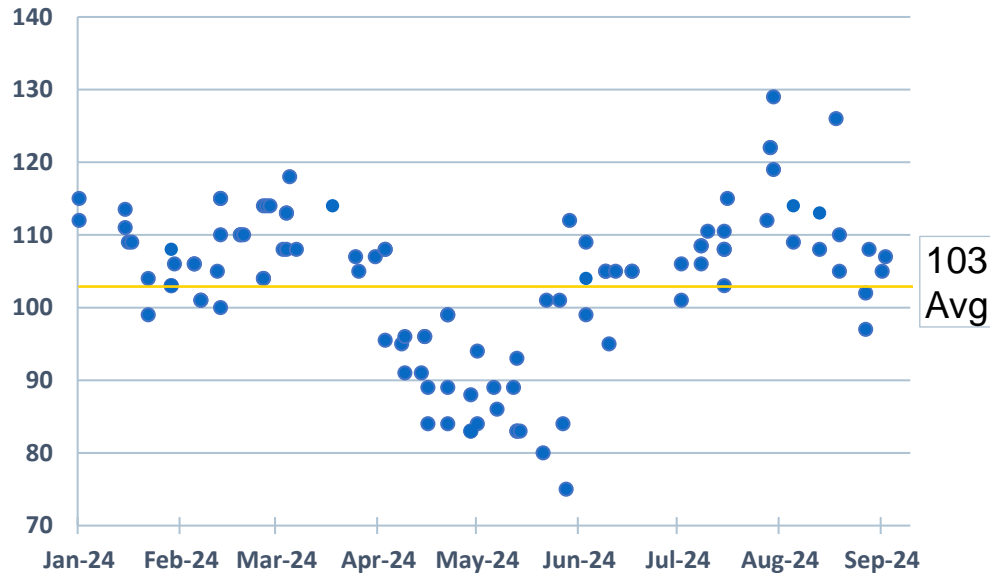


Source: RBCCM Internal Tracking

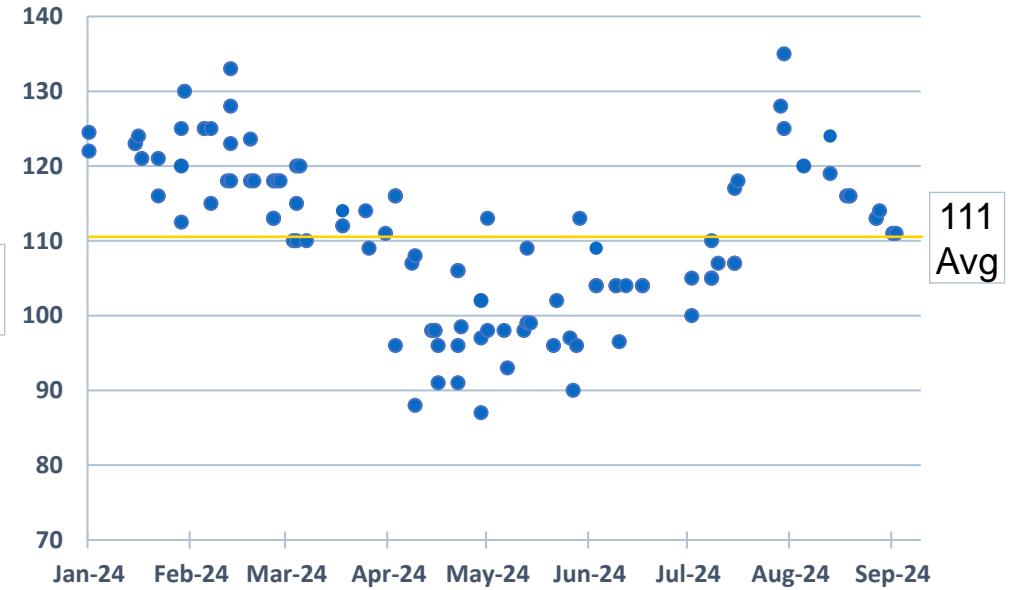
Credit Spread Volatility



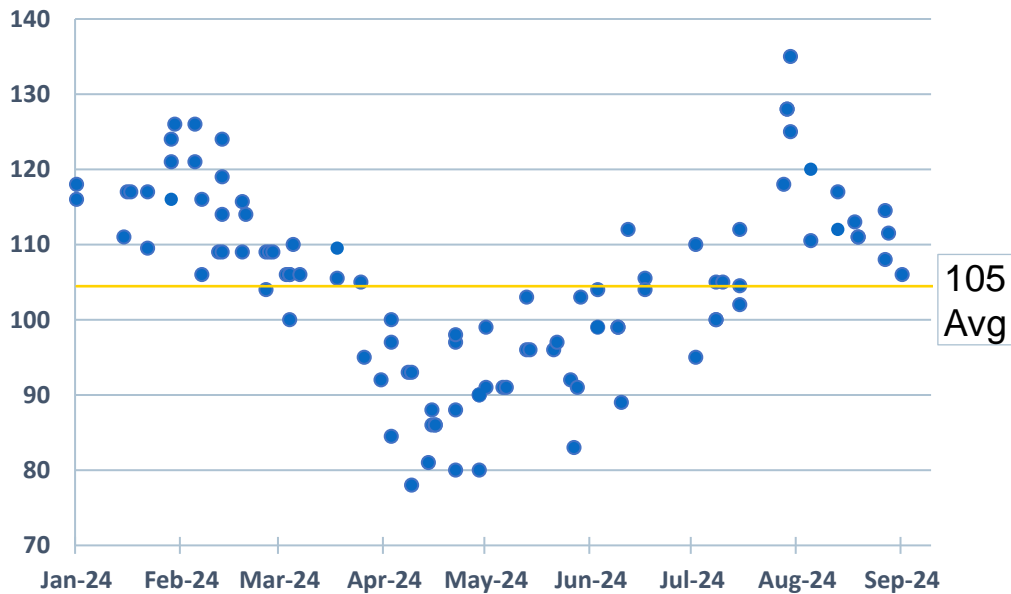
2039 Term Spreads



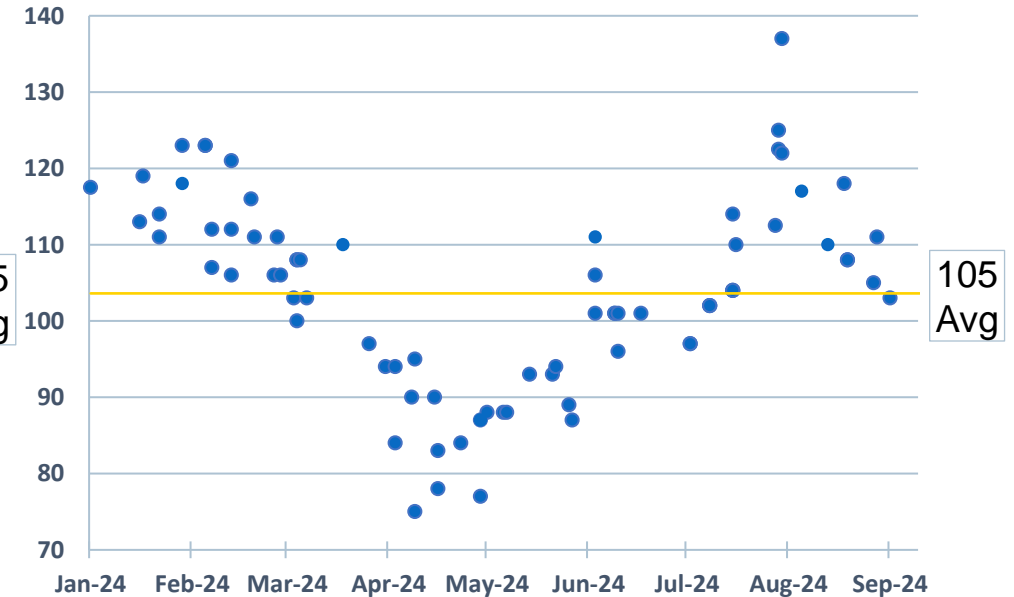
2044 Term Spreads



2049 Term Spreads



2054 Term Spreads

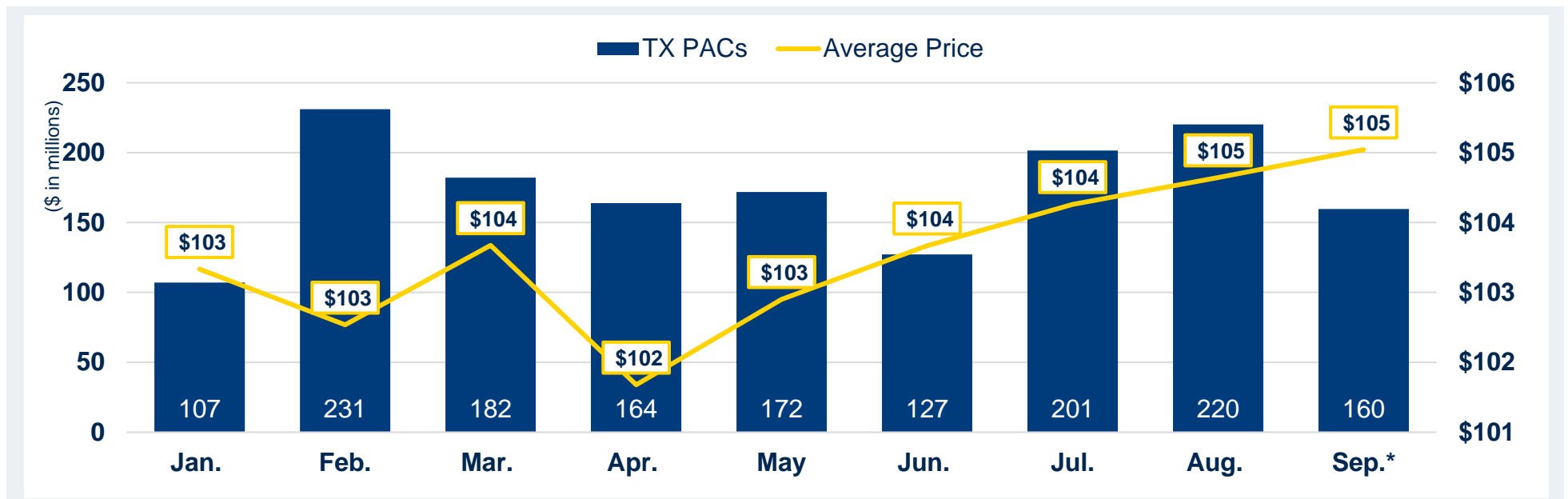
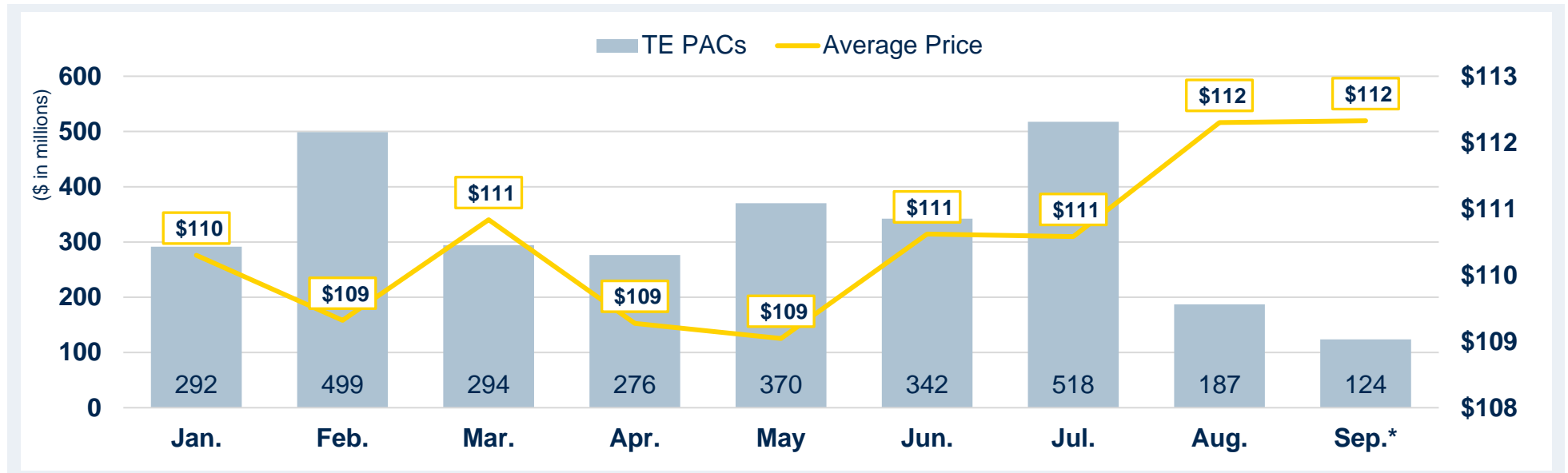


Source: Ipreo; RBCCM Internal Tracking

PAC Considerations



Yield Benefit Average Life PSA Speed Premium



Source: Ipreo; RBCCM Internal Tracking

Impacts on MRB Issuance



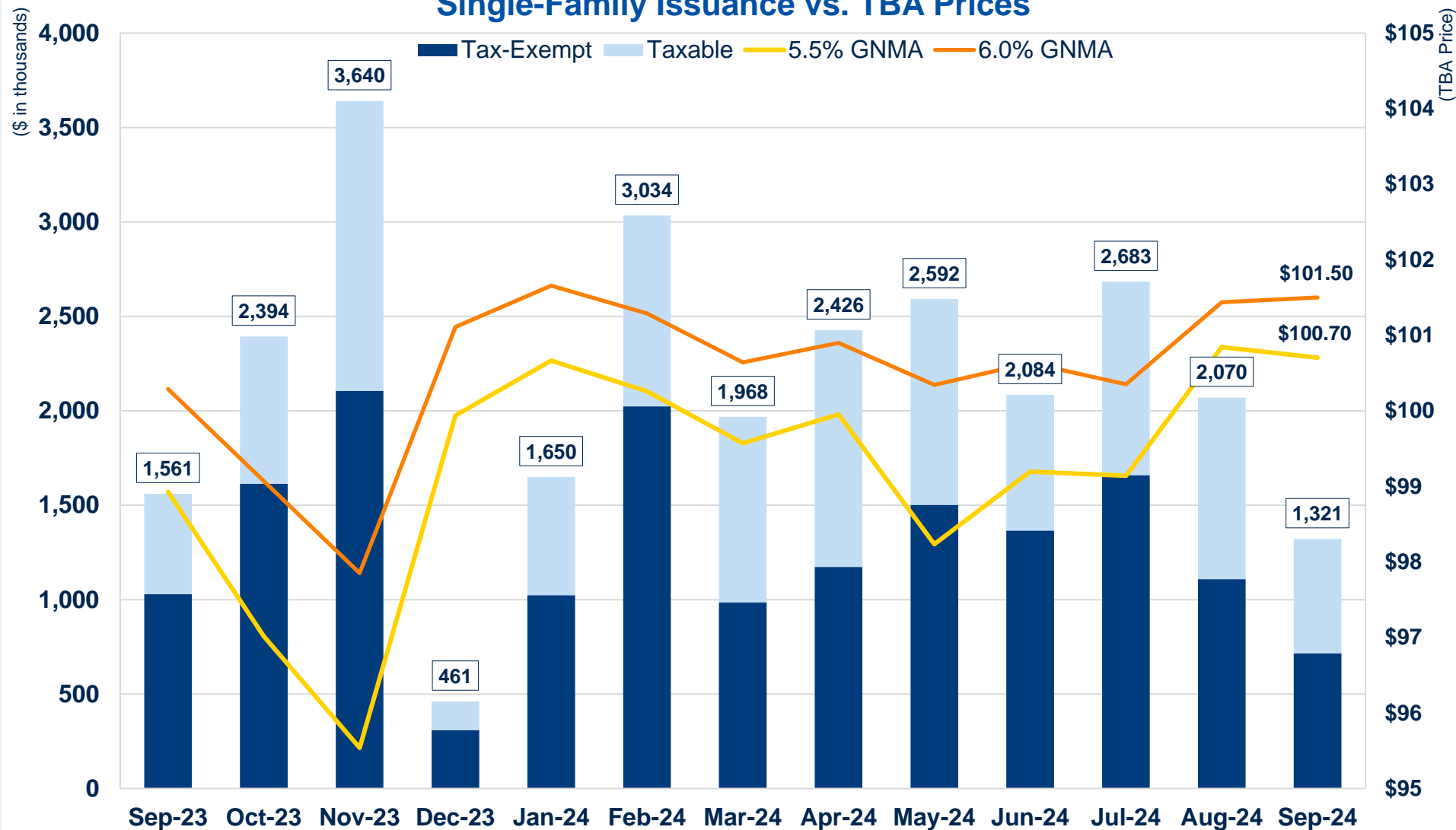
TBA Performance

Volume Cap

Refinancings

DPA Funds

Single-Family Issuance vs. TBA Prices



Source: Bloomberg; MuniDSS; RBCCM Internal Tracking

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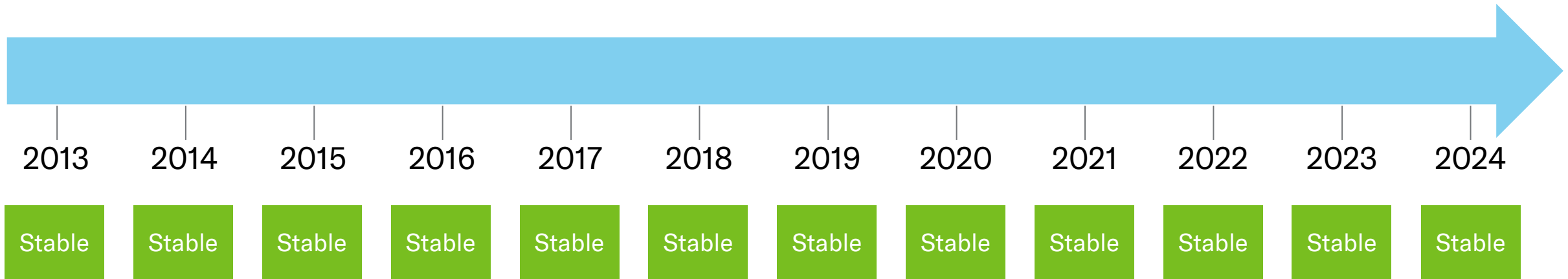
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Bond and Financial Markets Now and in the Future

September 2024

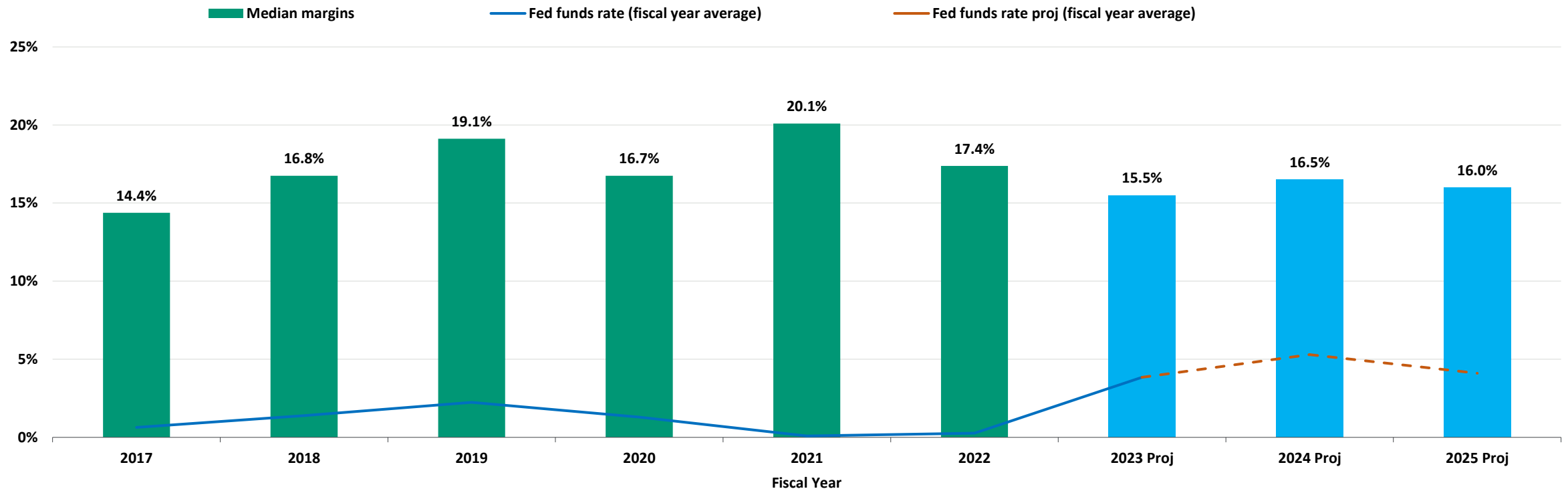
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Moody's 2024 HFA outlook stable with higher-for-longer interest rates providing both benefits and challenges



- HFA's strong competitive profile supports solid single family loan originations
- Higher-for-longer interest rates will drive steady HFA margins
- Multifamily portfolios will remain healthy due to demand for affordable housing
- The negative outlook on the US government presents a potential challenge, but strong financial and loan performance are mitigants

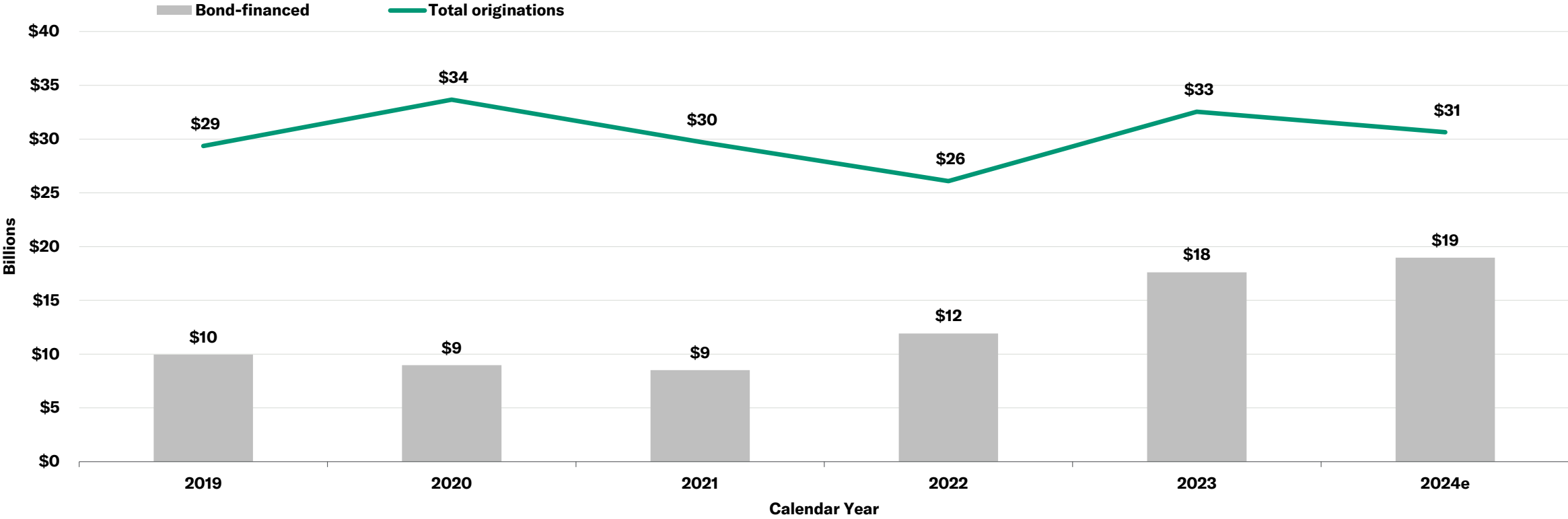
HFA margins will benefit from higher investment earnings and interest income



Fiscal year-end for most HFAs is June 30

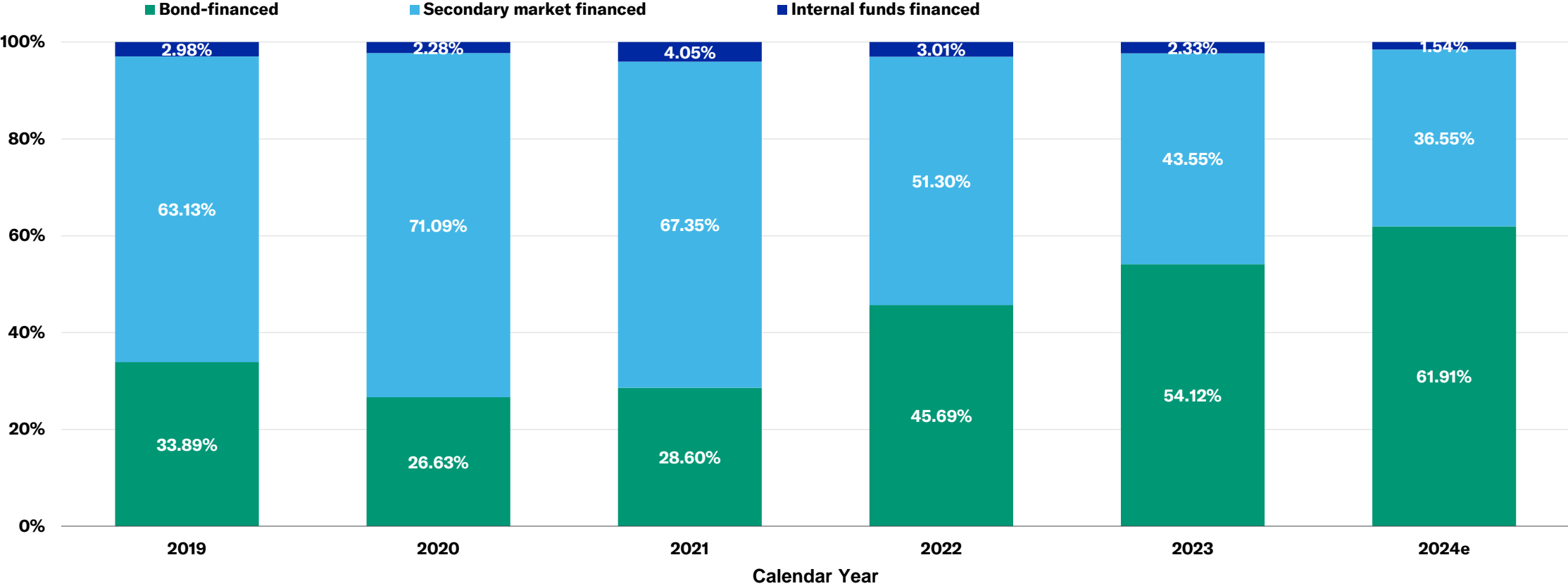
Source: Moody's-adjusted HFA audited financial statements, Federal Reserve and Moody's Macroeconomic Board

Bond-funded loan originations continue to climb, strengthening HFA balance sheets



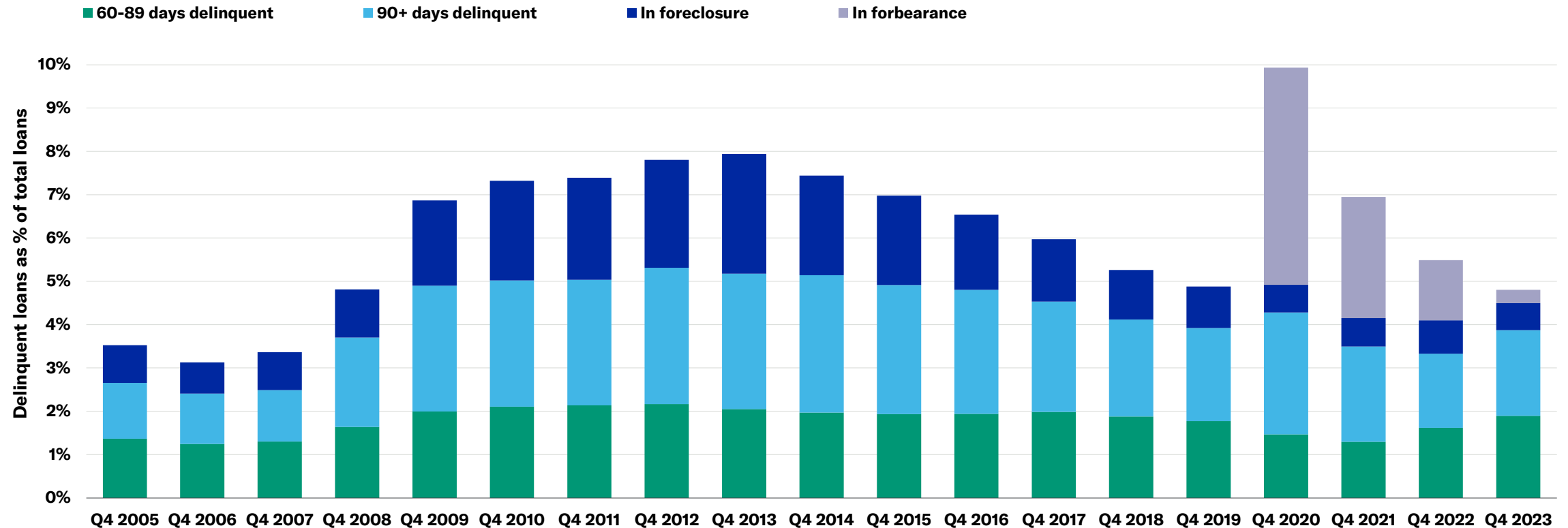
Source: HFA Surveys

Shift to bond funded originations continue to grow



Source: HFA Surveys

Loan performance favorably impacted by economic recovery and forbearance expiration








Source: HFA Surveys





Flexible Business Model a Positive for HFAs

Loan financing strategies include MBS sale in the secondary market, direct loan sales to Government Sponsored Entities, MBS pass-through bonds, and traditional Mortgage Revenue Bonds

Rewards

-  New revenue streams
-  Ability to originate competitive loans
-  Future flexibility to switch between secondary and bond markets
-  Broadened customer base
-  Recognition from new bond investor bases

Risks

-  Trade-off of up-front transaction revenue from loan sales vs. long-term revenue from bond-financed loans
-  New management challenges related to secondary market operations
-  New counterparty risks
-  Interest Rate Risk

Despite federal counterparties, most HFAs are resilient to US outlook revision

HFAs are exposed to the federal government through counterparty risk

→ HFAs are exposed to the federal government through mortgage insurance or securitization (MBS)

Stand-alone programs 100% securitized minimally impacted

→ Conduits have no outlook and were not impacted

→ Ratings would move in lockstep with rating change on U.S. Government

Most HFA programs are resilient to downgrade of U.S. Government

→ High overcollateralization levels offset stress case loan loss scenarios

→ Counterparty risk is assessed case by case as part of the methodology

→ Stand-alone programs 100% securitized of government insured move in lockstep

Minimal number of program outlooks revised to negative

→ Impacted credits were 100% MBS with very low asset-to-debt ratios

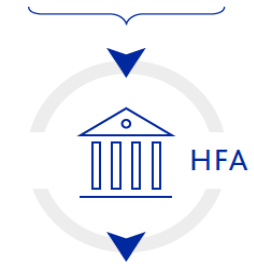
Strategic choices position State Housing Finance Agencies (HFAs) to weather future market downturns

Since the financial crisis in 2008, HFAs have increased loan enhancements, reduced variable rate debt, and begun secondary market financing to better equip them to withstand adverse macroeconomic and housing trends

How HFAs work

Financing sources

Bond issuance | Sale of loans on secondary market

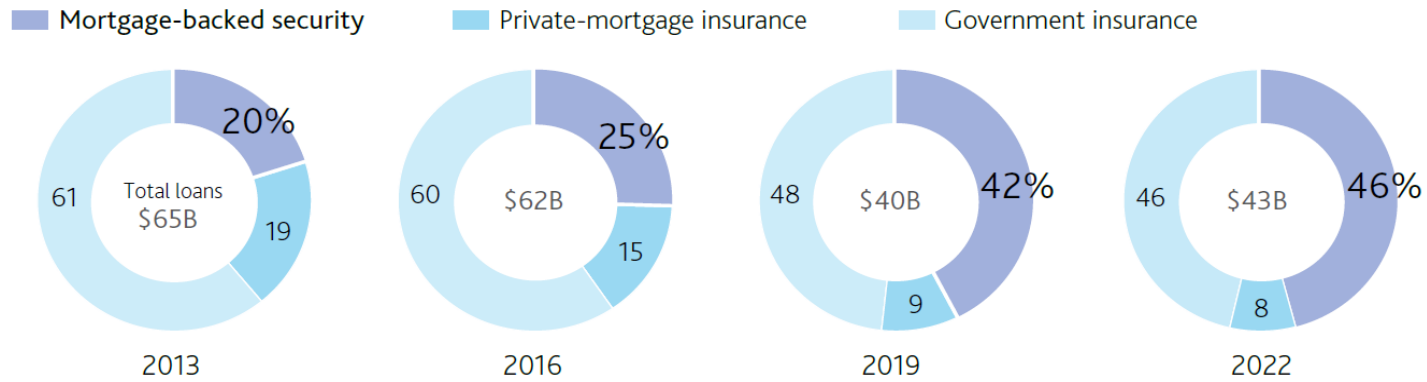


Loan

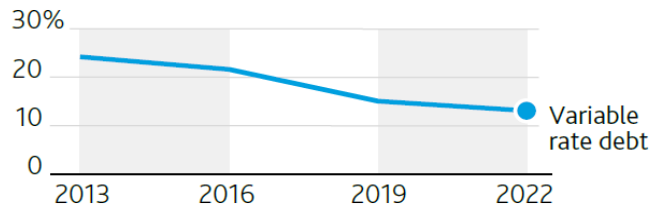


Loans for affordable homeownership and rental housing

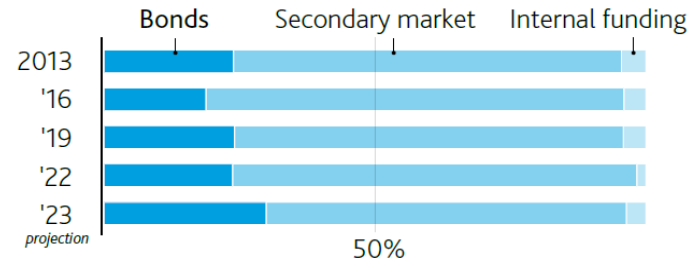
HFAs have reduced balance sheet risk by increasing the proportion of mortgage-backed securities (MBS) in their portfolios



Debt structures have become more conservative as variable rate debt has declined

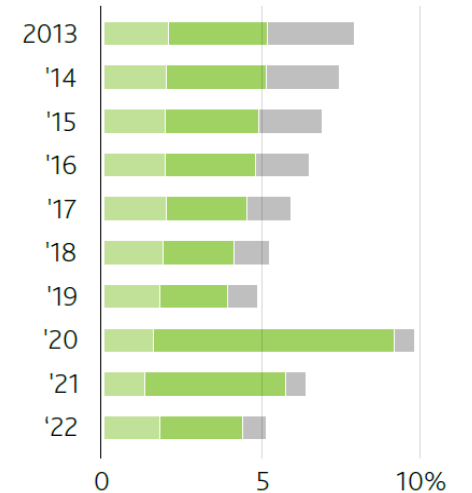


Multiple loan financing channels help HFAs respond nimbly to different market conditions



HFAs' decision to add more MBS will aid them as delinquency rates shift over time

60-89 days } Delinquent or in forbearance
 90+ days }
 In foreclosure

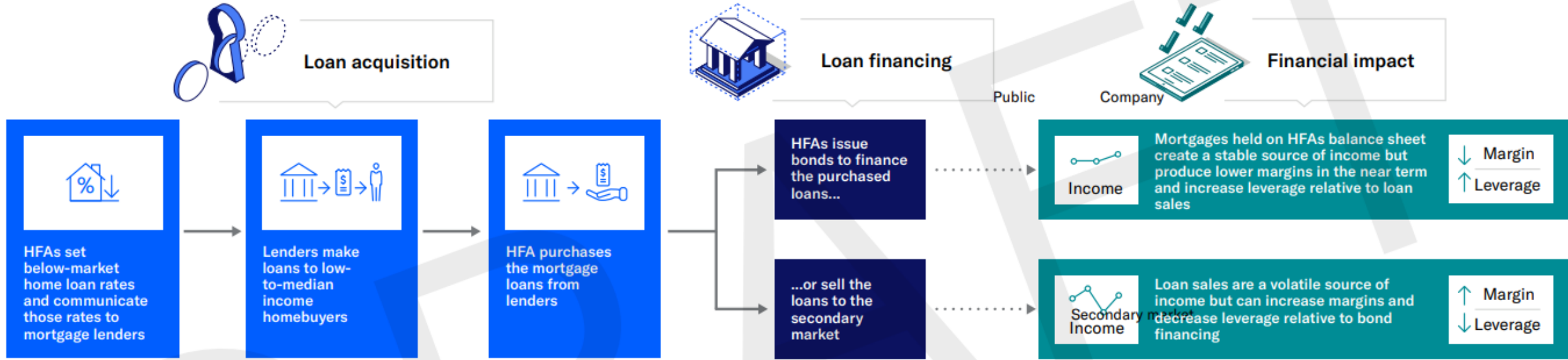


*Note:
 1) Periods prior to 12/31/20 do not have any loans in forbearance.
 2) For HFAs that did not include loans in forbearance in their 60-90 day or 90+ delinquency rates, we have added forbearance into the 90+ day category.

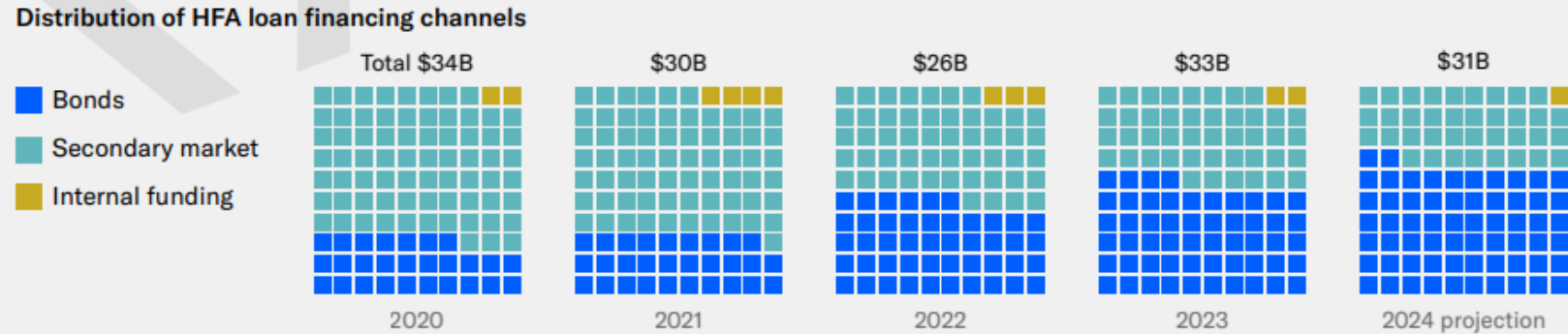
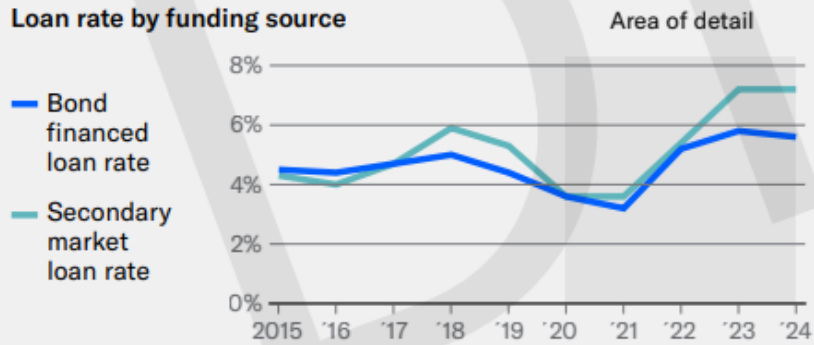
Source: Moody's HFA Survey

Housing Finance Agencies face a complex balancing act when deciding how to finance home loans

Two options for financing home loans — bond issuance and secondary market sales — have differing impacts on HFAs' margins, leverage and revenue volatility



HFAs issue more bonds when the mortgage rate for secondary market-financed loans is higher than the rate for bond-financed loans



Sources: Moody's Ratings and Caine Mitter (loan rates); Moody's HFA Surveys (distribution)

Thank you

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EXPERT DISCUSSION



AUDIENCE Q&A

