

FEBRUARY 2022



# The MBS Market in Transition

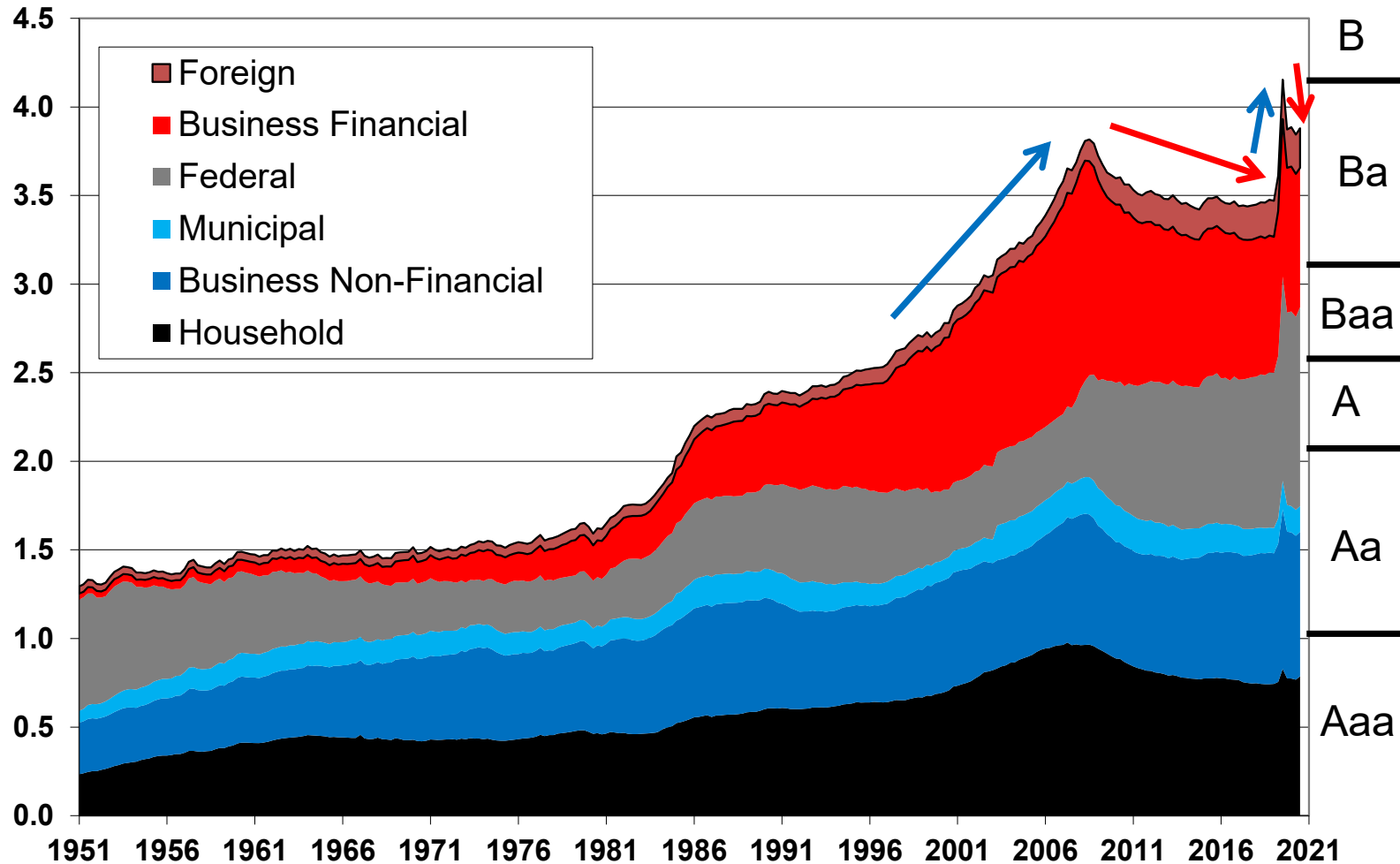
## From QE to QT

Walt Schmidt, CFA  
Alexis Vilimas  
Brandon Messing

- 1. Background**
2. Prepayments
3. Application
4. Et-cetera

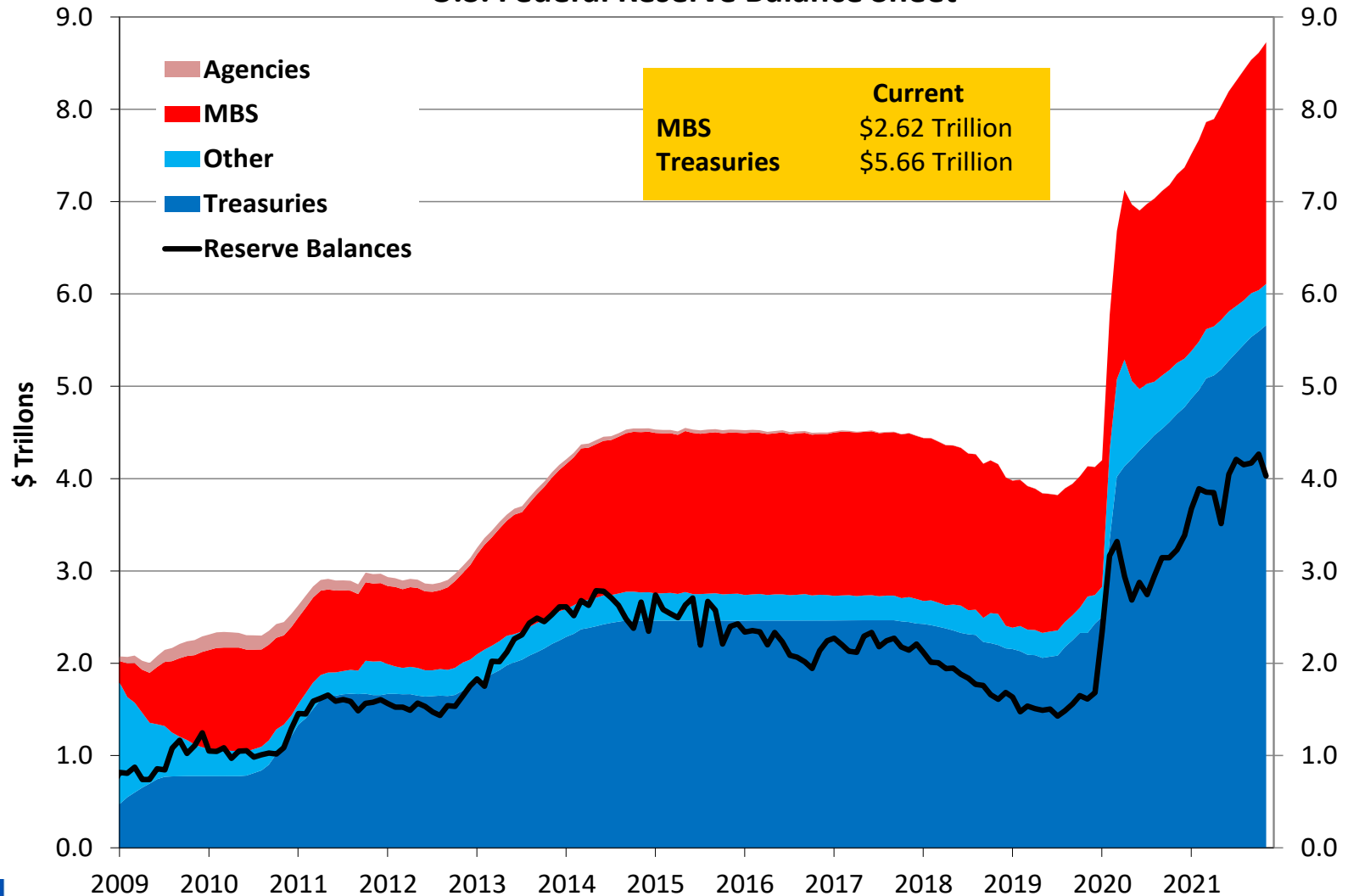
# High Volatility in US Debt to GDP

Debt to GDP in the U.S. Economy (Through Q2 2021)



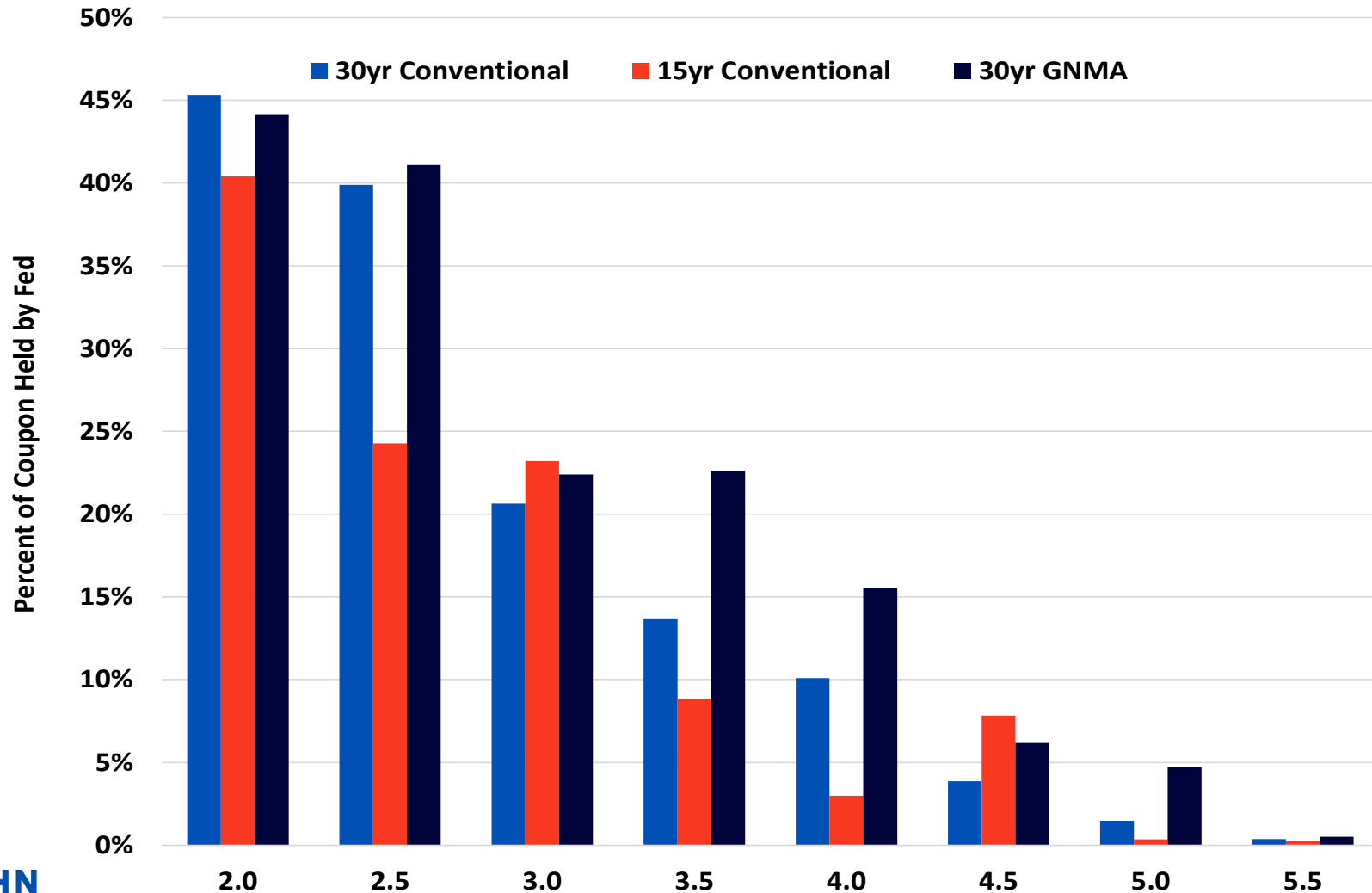
# Fed Has Mopped Up a Large Amount of “New” Debt in the Past Decade

U.S. Federal Reserve Balance Sheet

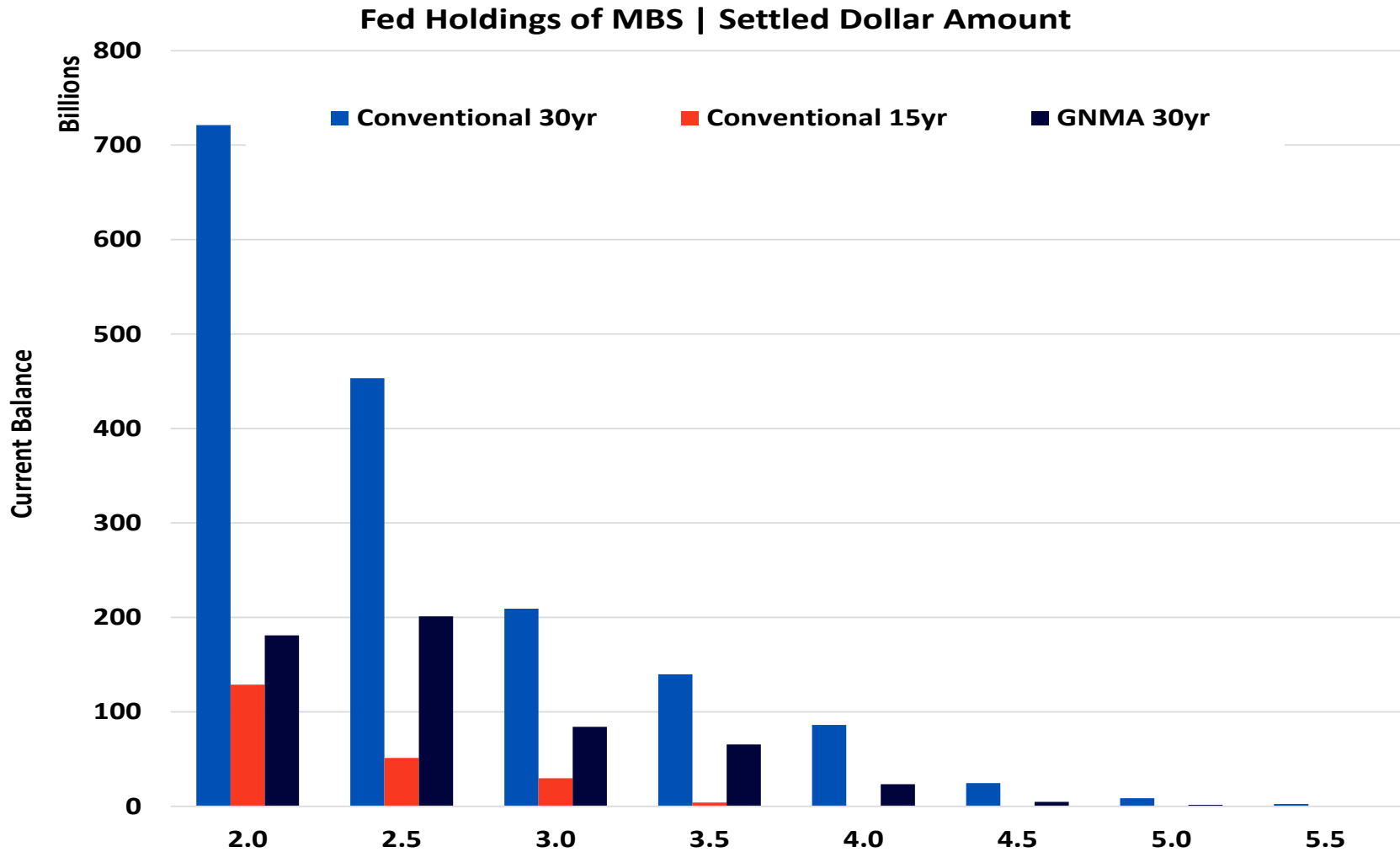


# Fed Dominates the Float in the Lower Coupons

Fed Holdings of MBS | Percent of Float

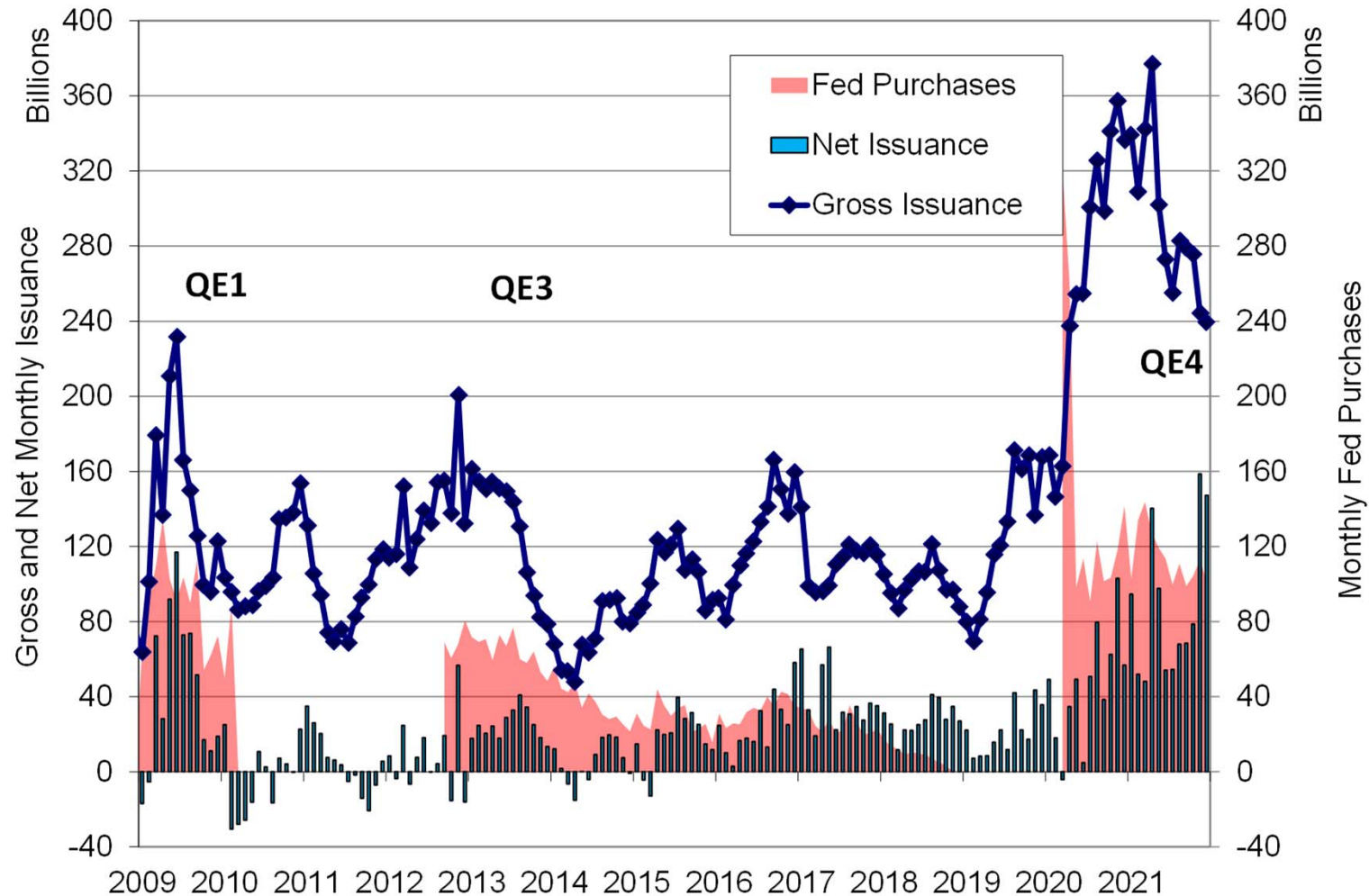


# Fed Holdings and Market Now Dominated by Discount Coupons



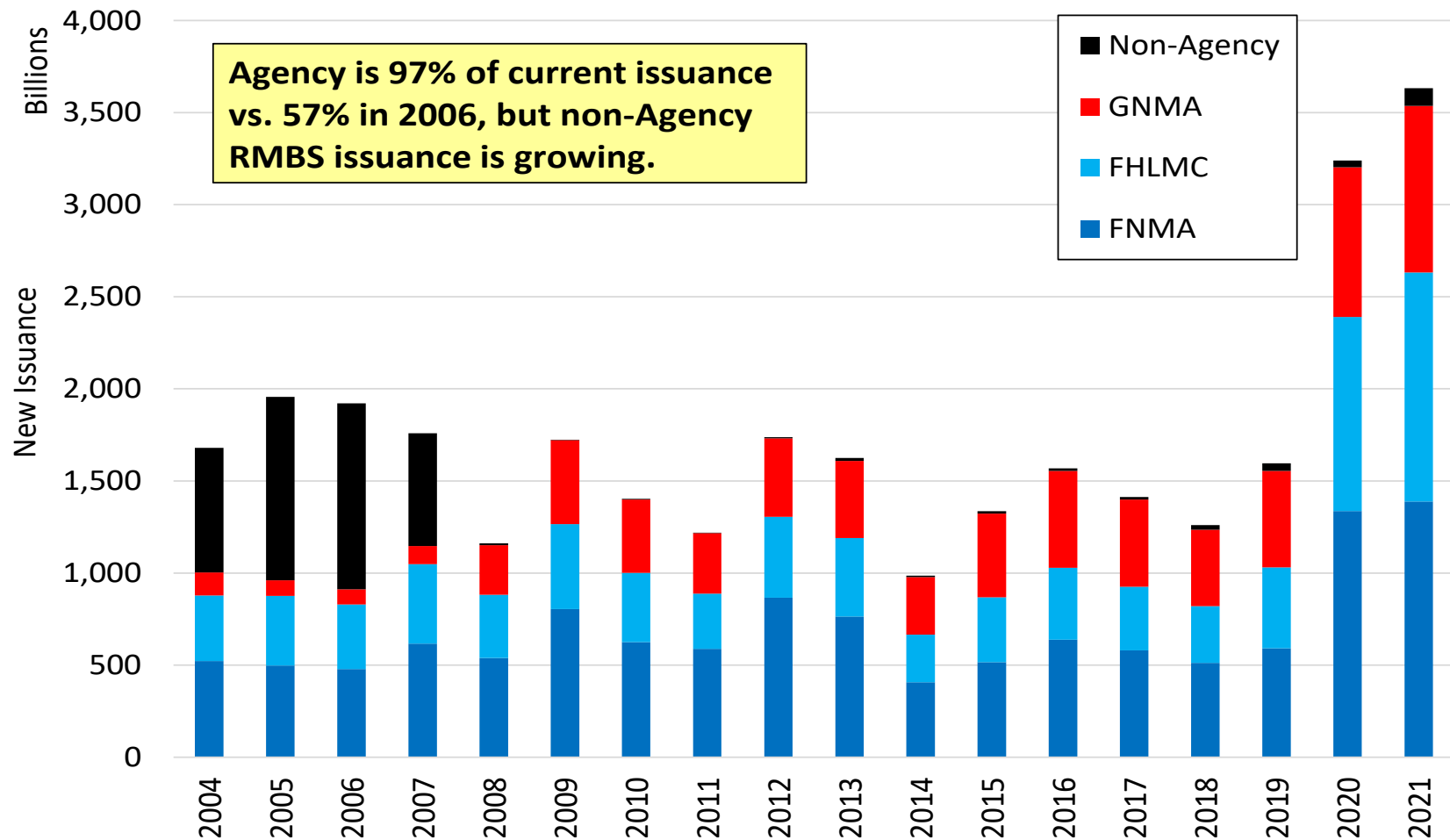
# Recent Fed MBS Purchases Unprecedented Relative to QE1 or QE3

Agency Fixed Rate Monthly MBS Issuance  
And Fed Purchases During the QE Era



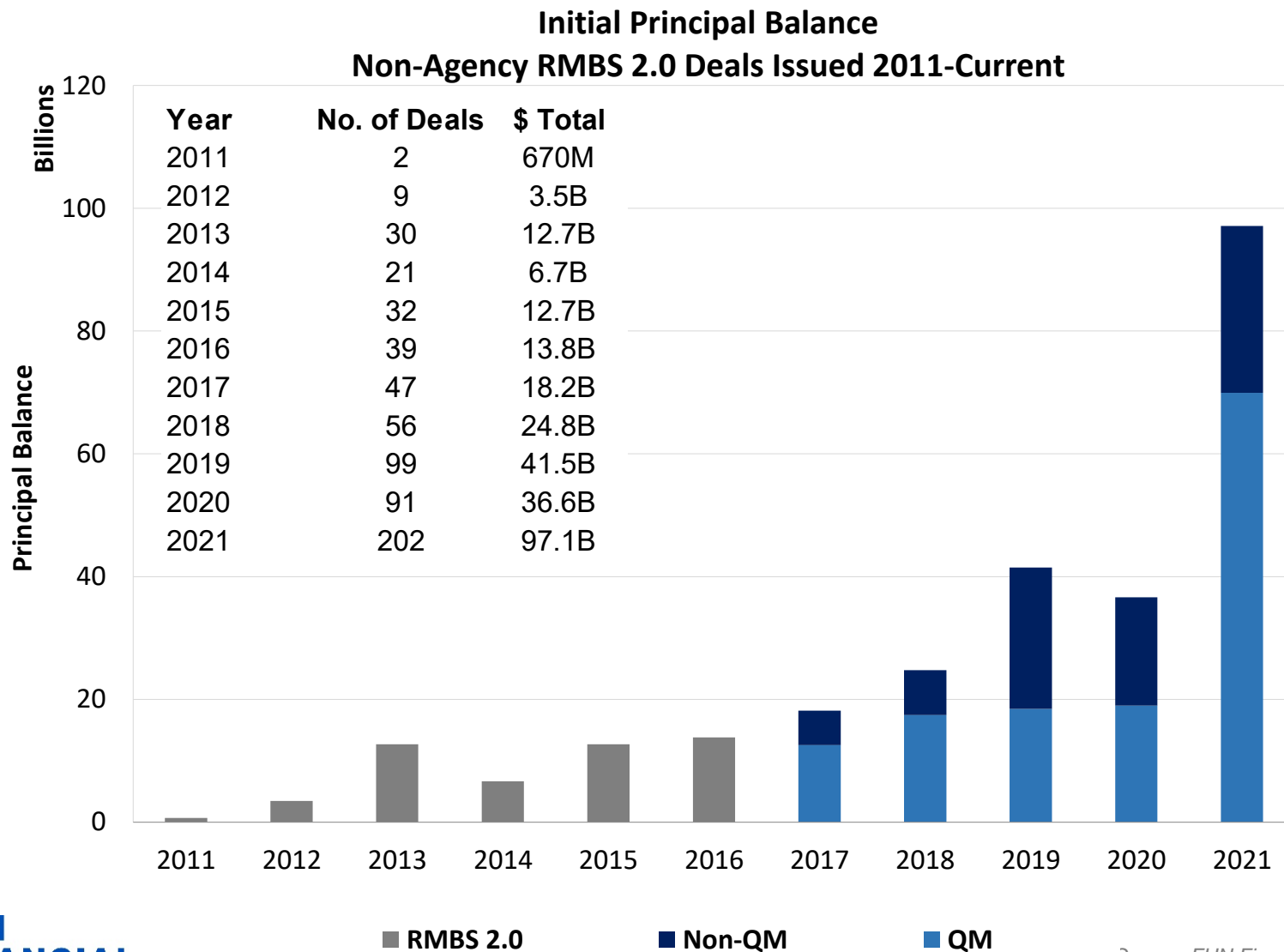
# Record Issuance, By Far, During QE4

## Annual Issuance in Securitized Mortgage Market



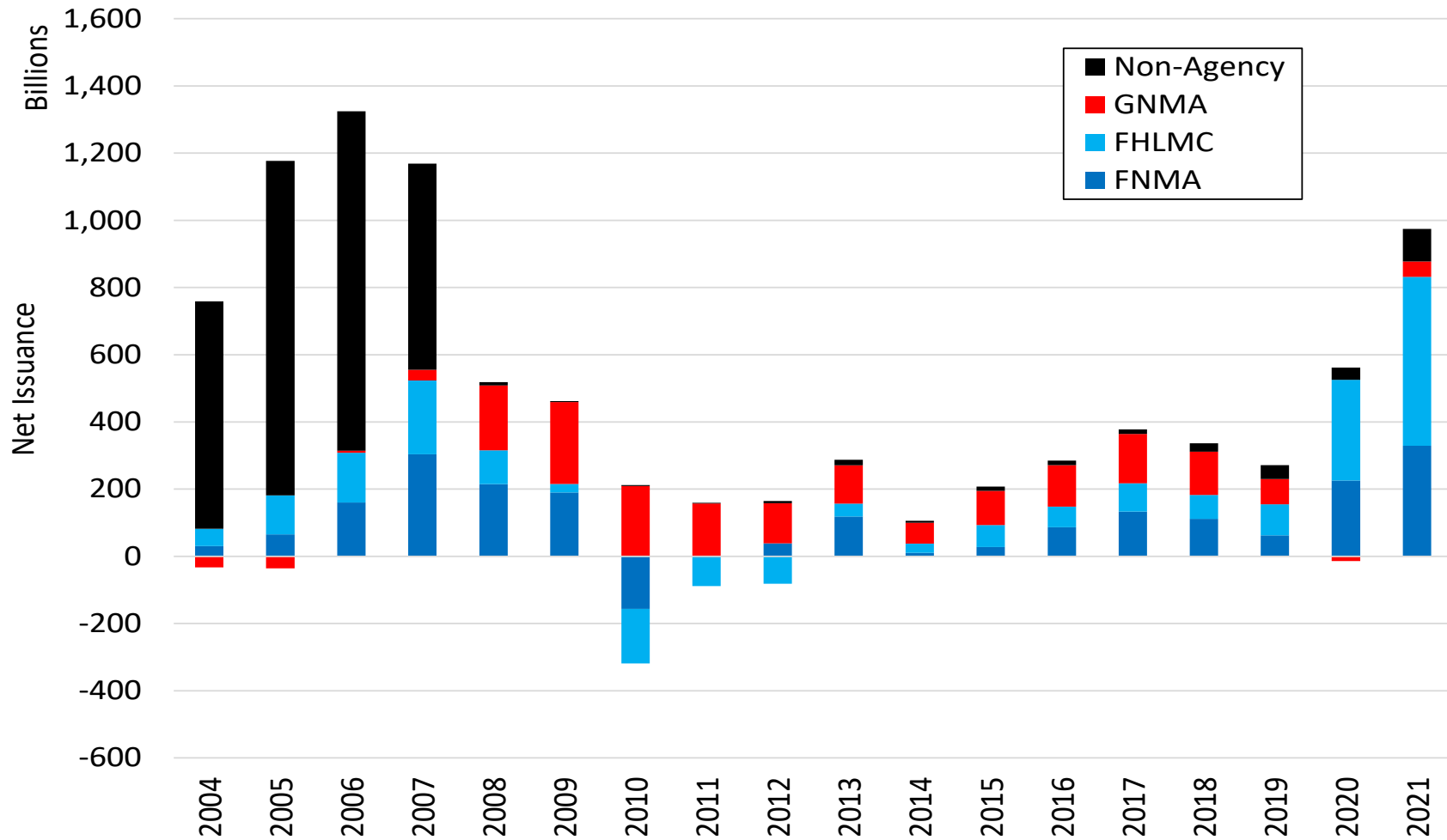


# Non-Agency RMBS Deal Volume Exploded After 2020 Speed Bump



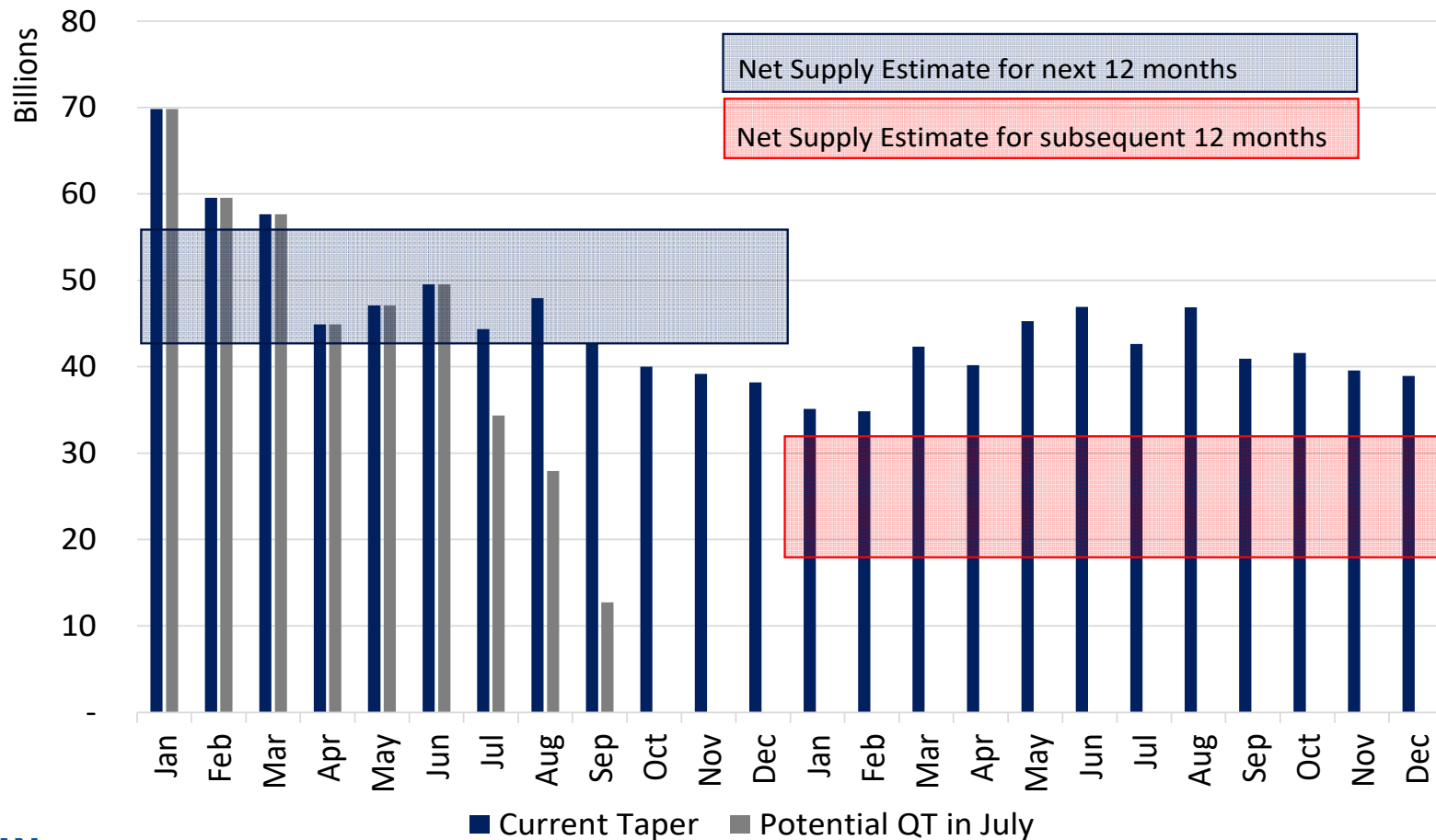
# Record *Net* Agency MBS Issuance

## Annual Net Issuance in Securitized Mortgage Market



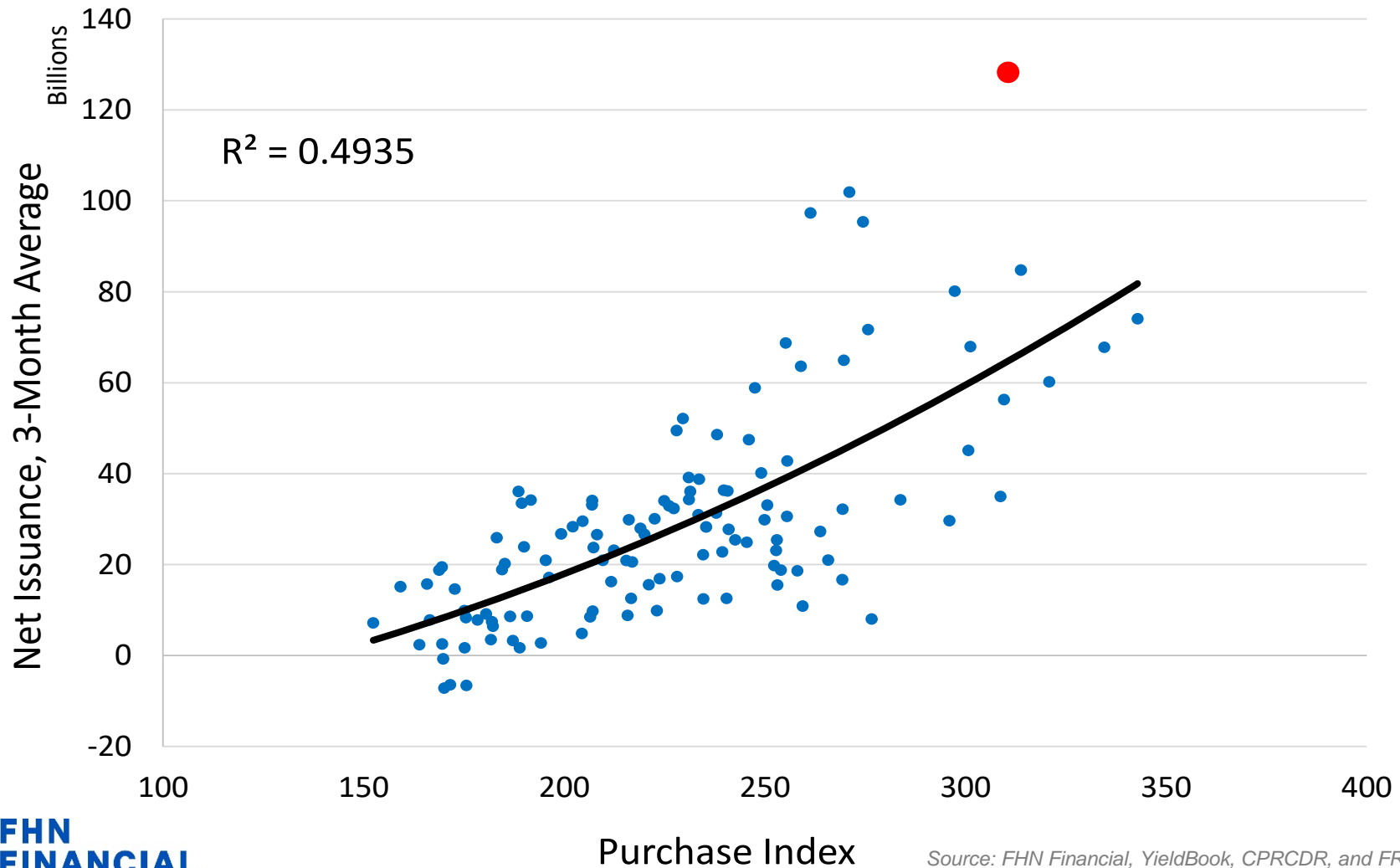
# FHN Financial Projections of Fed Buys and MBS Supply, 2-Year Horizon

Projected Monthly Purchase Amounts for SOMA Portfolio  
 With Monthly MBS *Net* Supply Estimate Ranges  
 Base Case, 24-Month Horizon



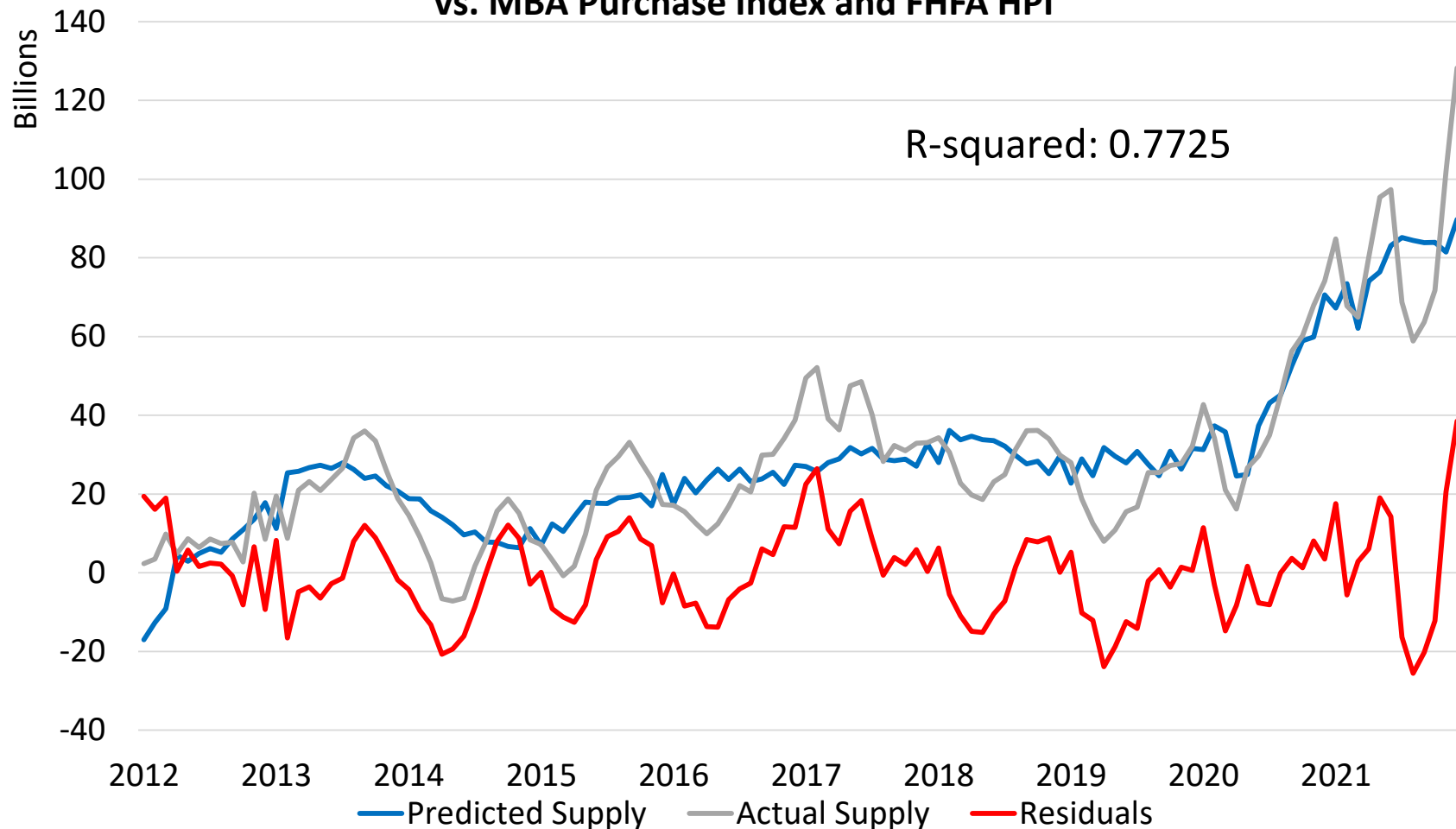
# Current Supply Trend Out of Bounds vs. 10-Year Lookback

Fixed Rate Net MBS Issuance | 3mo MA  
vs. MBA Purchase Index



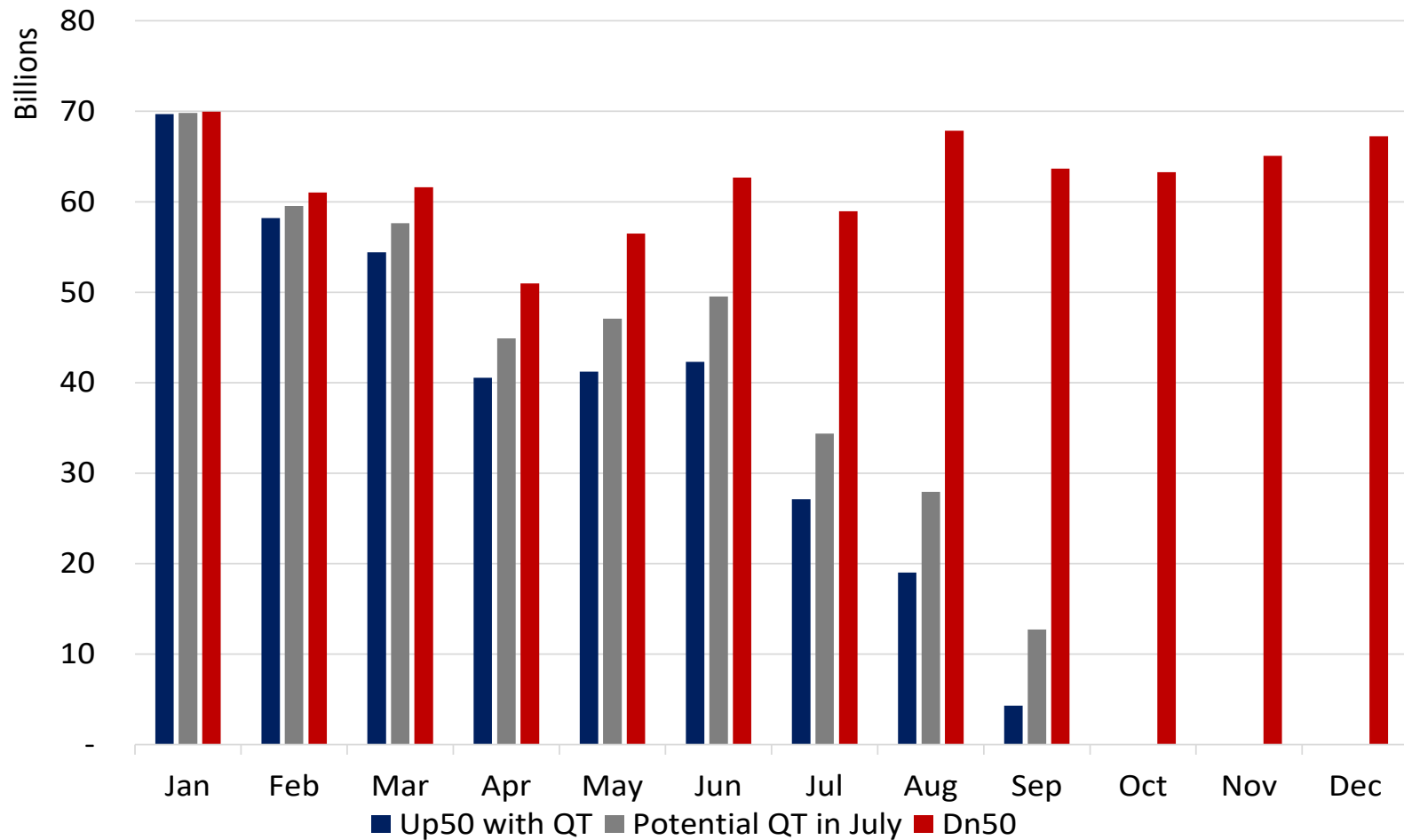
# Adding HPI Improves R-squared, Current Supply Still Too High

Net Supply of Fixed Rate Agency MBS | 3mo MA  
vs. MBA Purchase Index and FHFA HPI



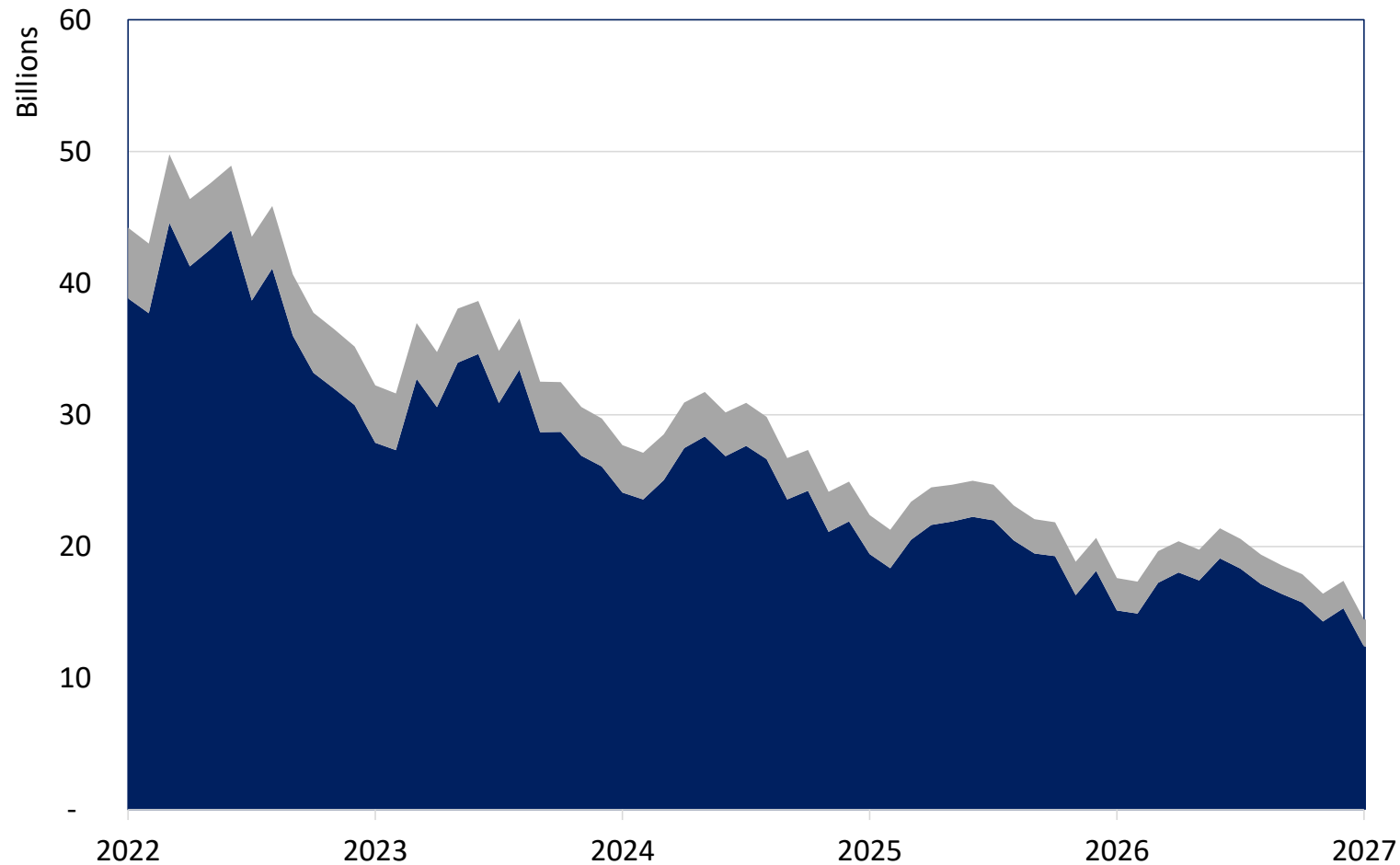
# How Fed Purchases May Vary Based on Potential Rate Changes

Projected Monthly Purchase Amounts for SOMA Portfolio  
Three Scenarios, 12-Month Horizon



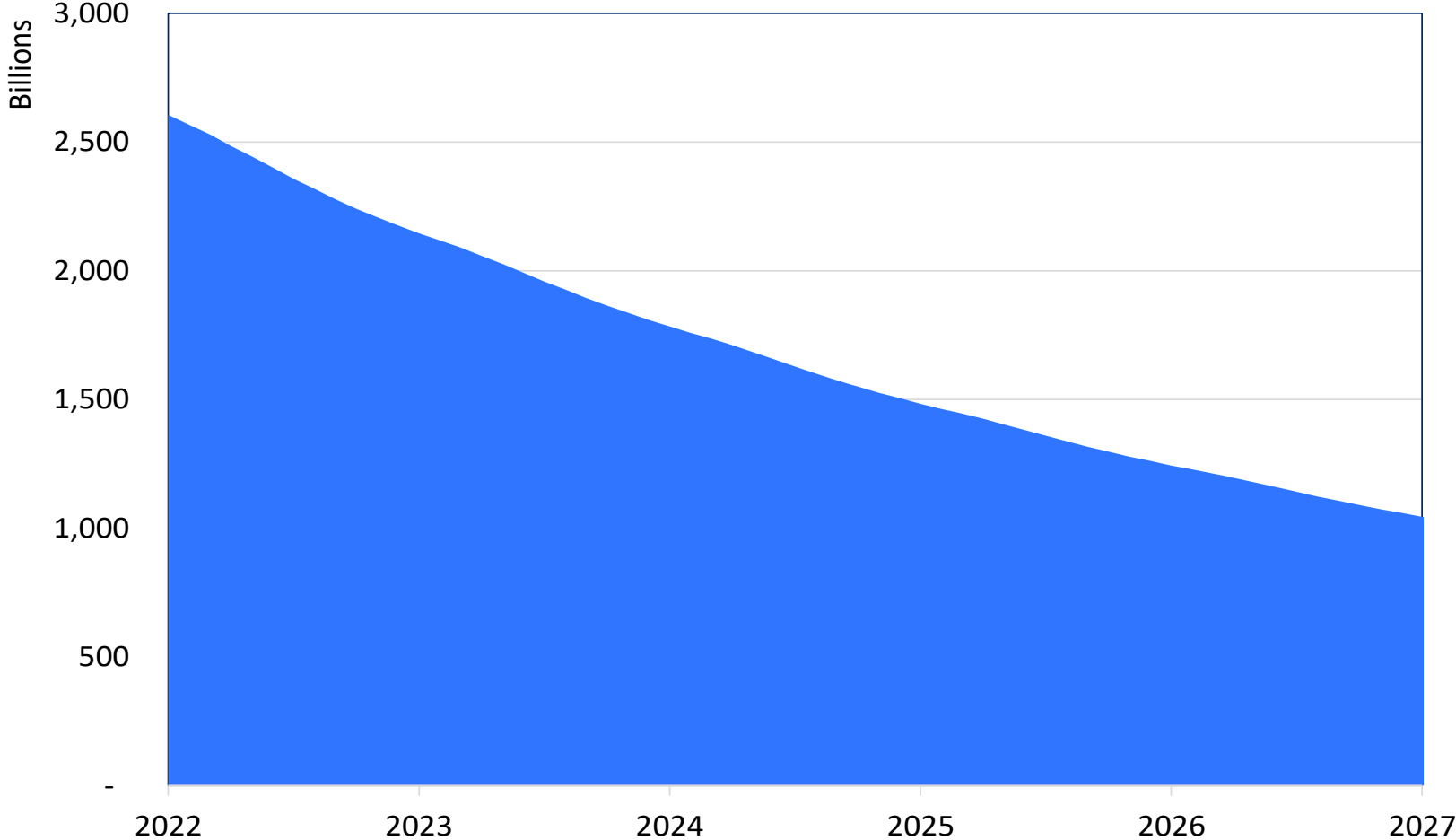
# Monthly Cash Flows for Market to Replace if Fed Goes “Cold Turkey”

Projected Monthly Cash Flows - SOMA MBS Portfolio  
Assumes QT Starts Immediately, 5yr Horizon



# Would Take Approximately Four Years to Unwind MBS QE4 at Normal Run-Off

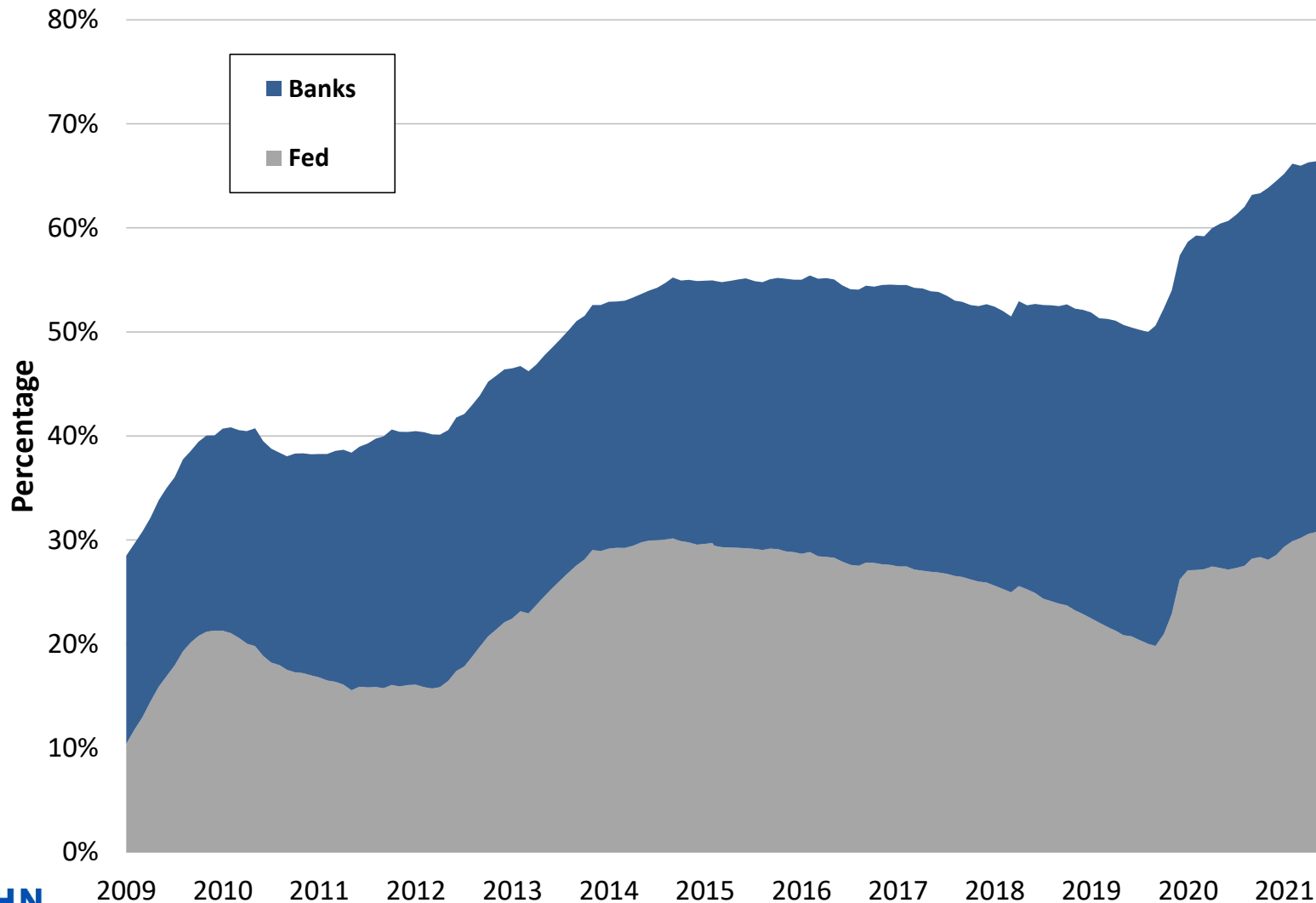
Projected Outstanding SOMA MBS Portfolio  
Assumes QT Starts Immediately, 5yr Horizon





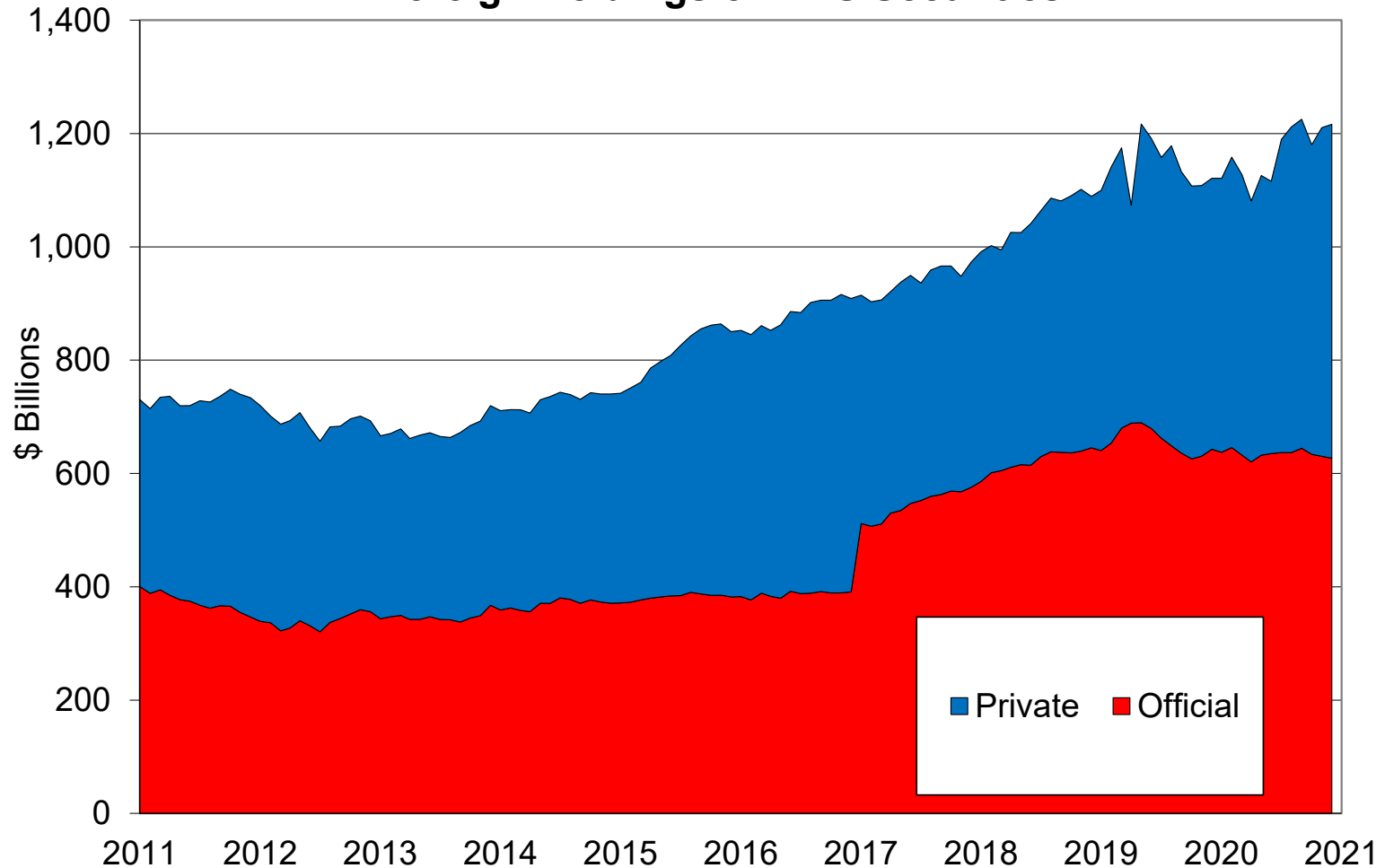
# Banks are Regulated by the Fed and Encouraged to Own MBS (and USTs)

Percent of MBS Market Sponsored by FED and Banks



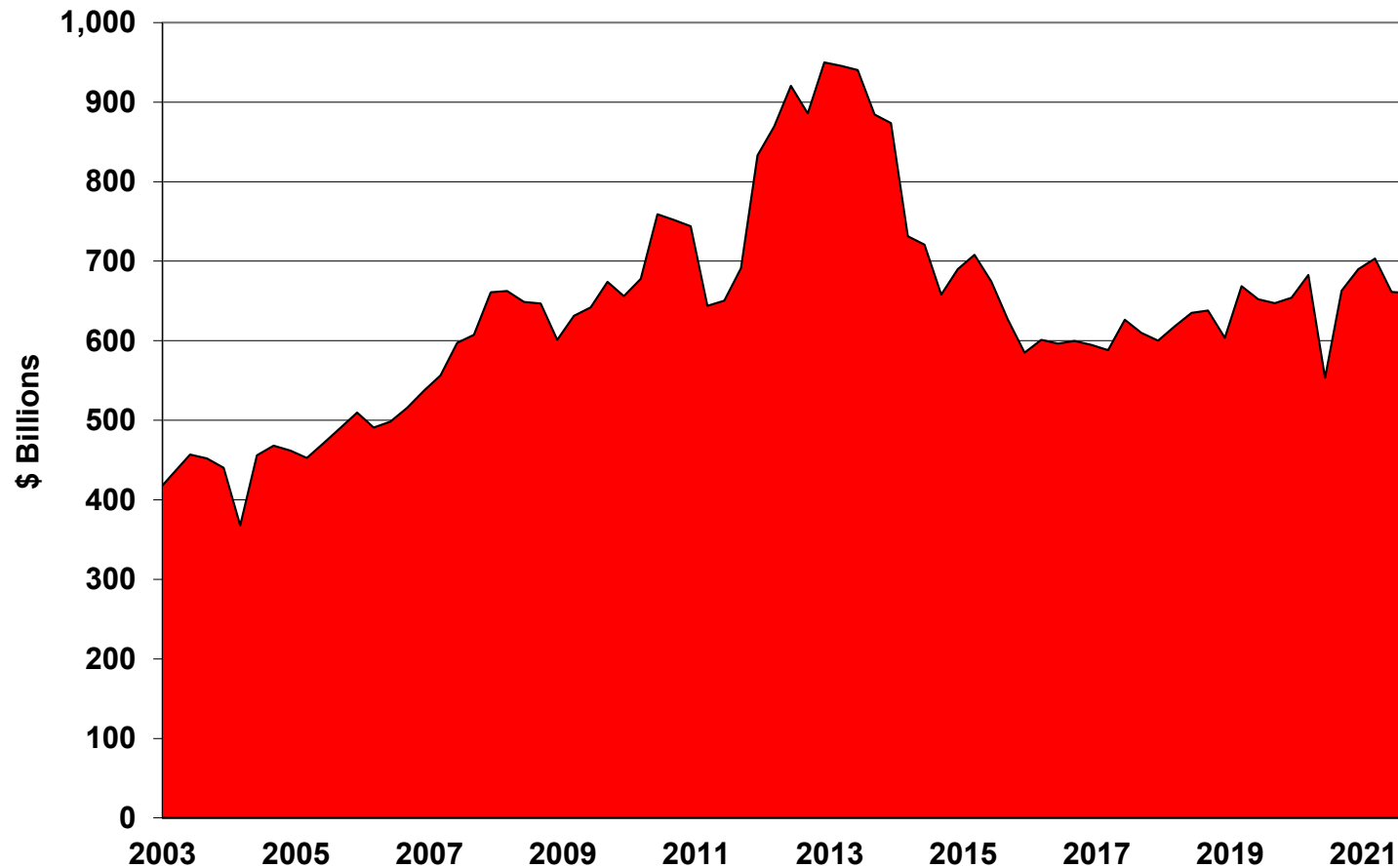
# Foreign Investors Are Returning on Relative Value of USD Assets

## Foreign Holdings of MBS Securities



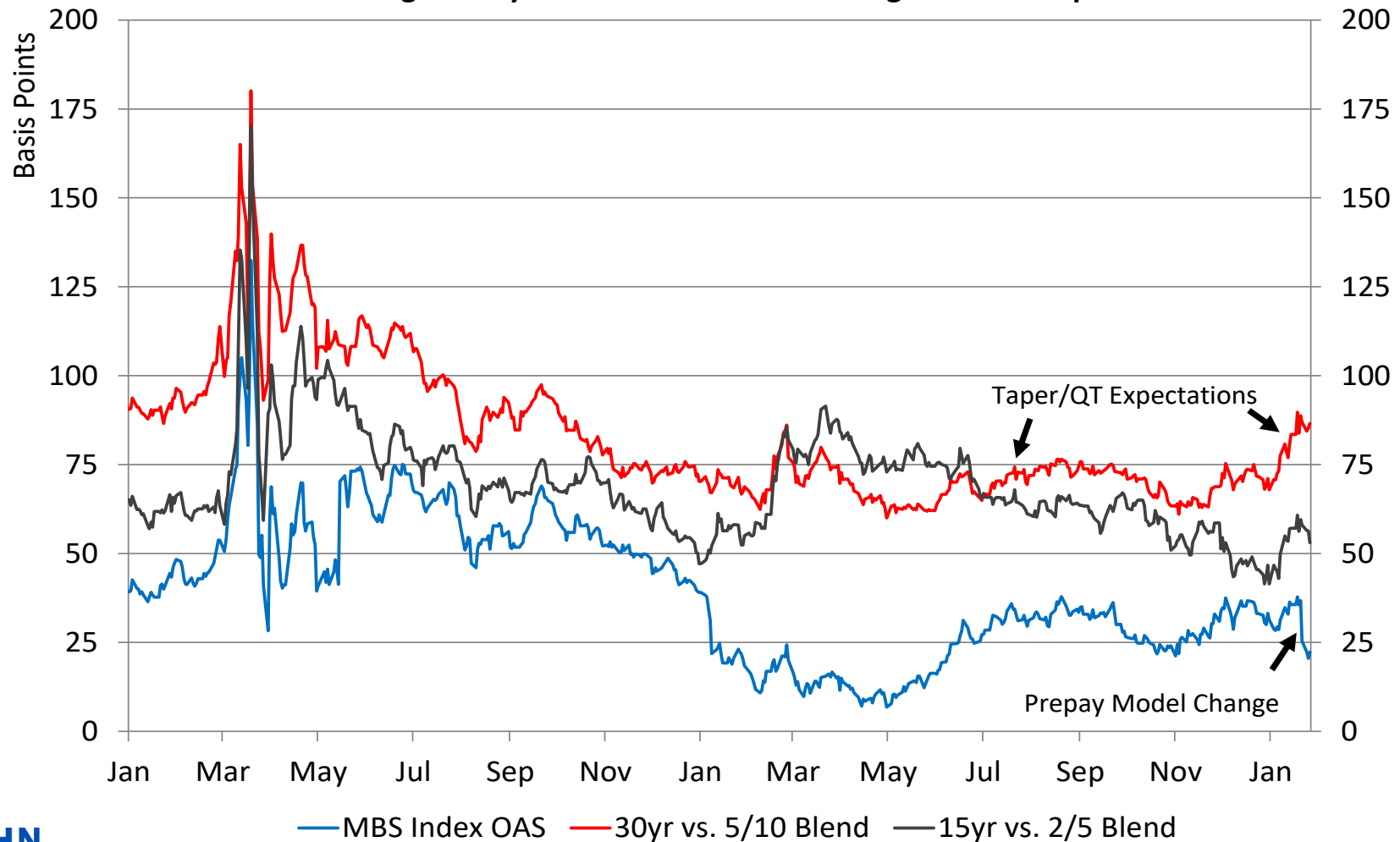
# Money Managers Off 2013 Peak, Can Add Quickly

Mutual Fund Holdings of MBS and Agencies



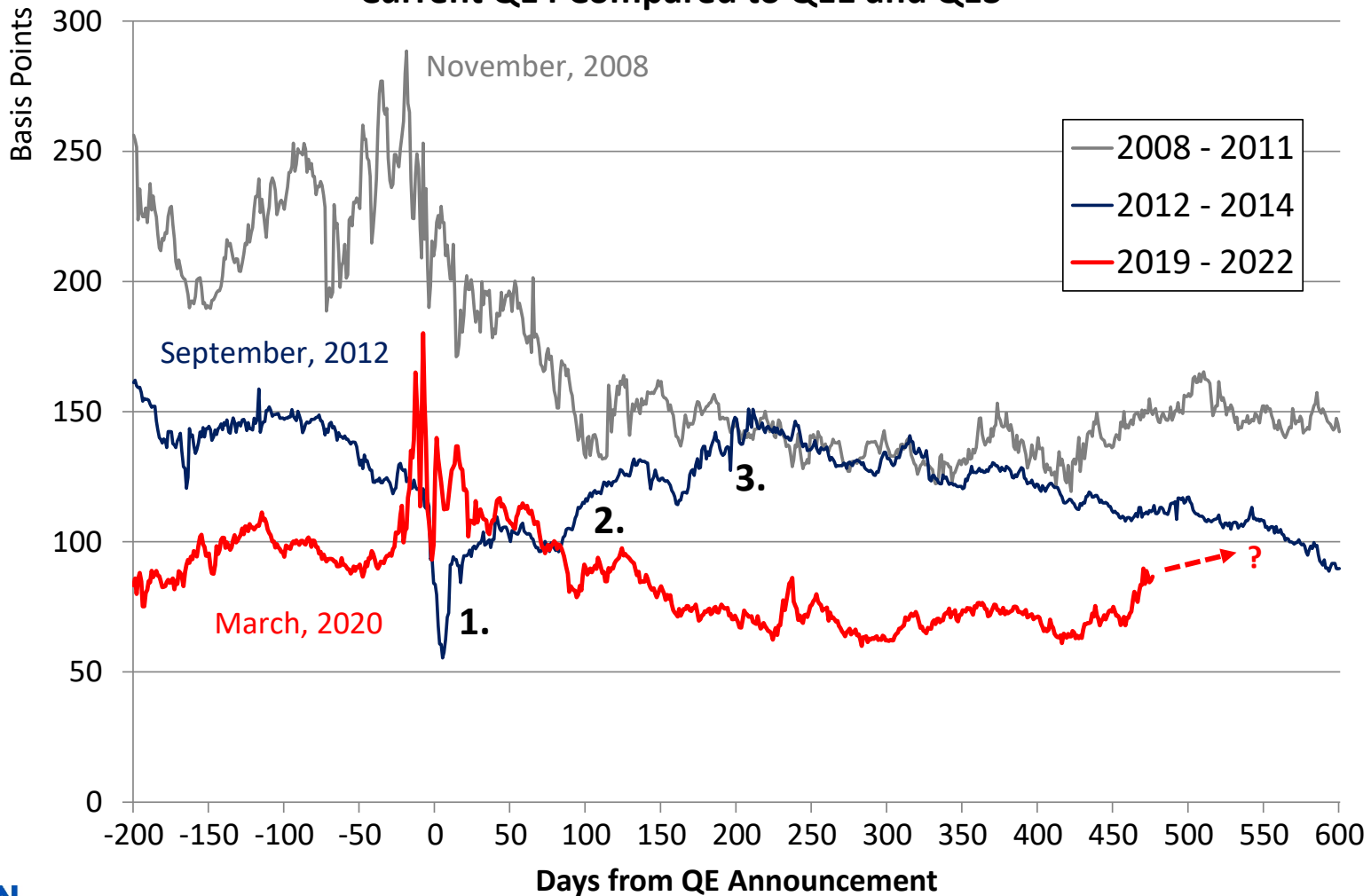
# OAS and Static Spread Moving In Opposite Directions

**MBS Index OAS and MBS Current Coupons vs. UST Blends**  
 Bloomberg Barclays MBS Index and Bloomberg Current Coupon



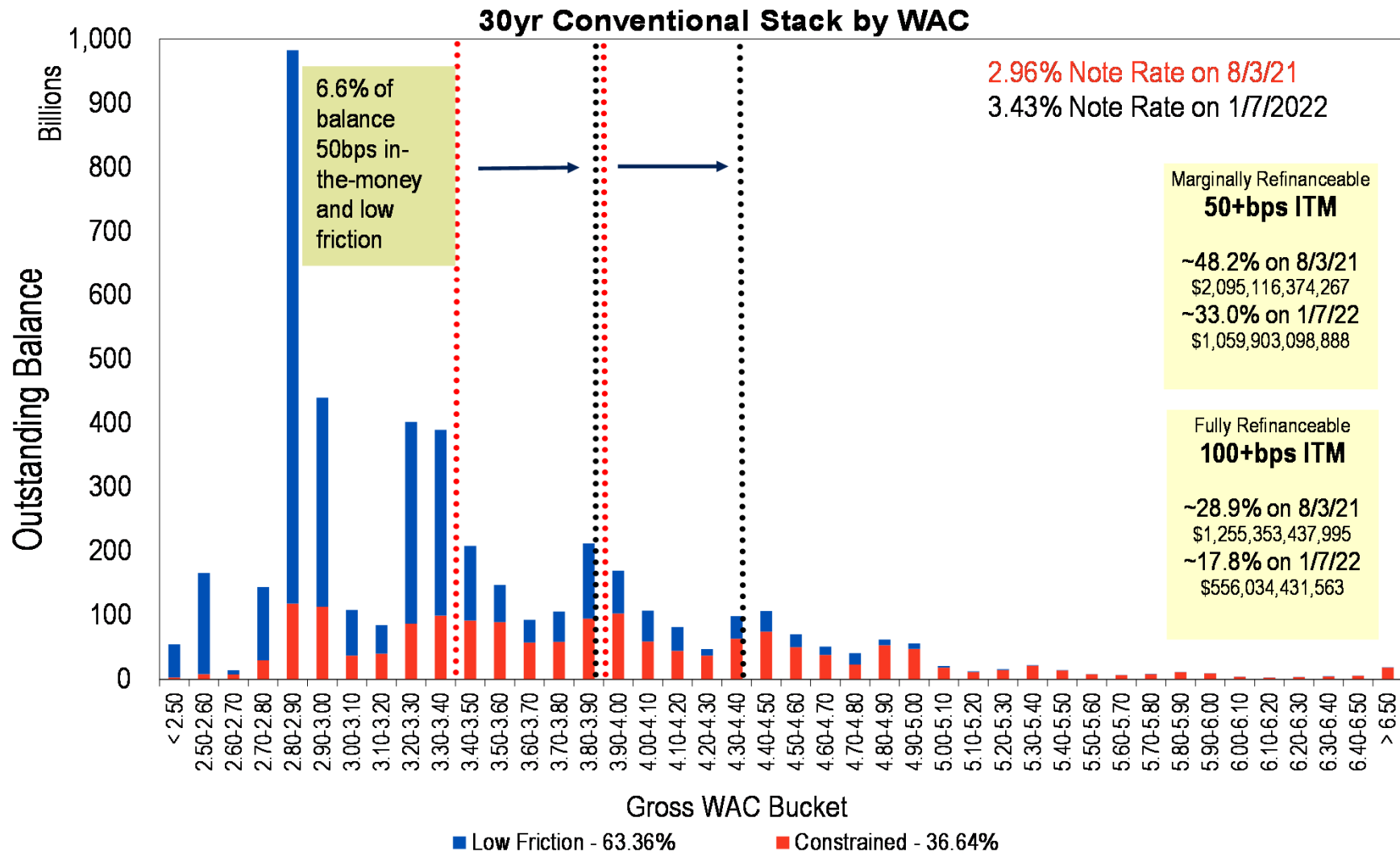
# Current Taper Looks More Like 2010 Than It Does 2013

MBS 30yr Current Coupon vs. 5/10 UST Blend  
Current QE4 Compared to QE1 and QE3



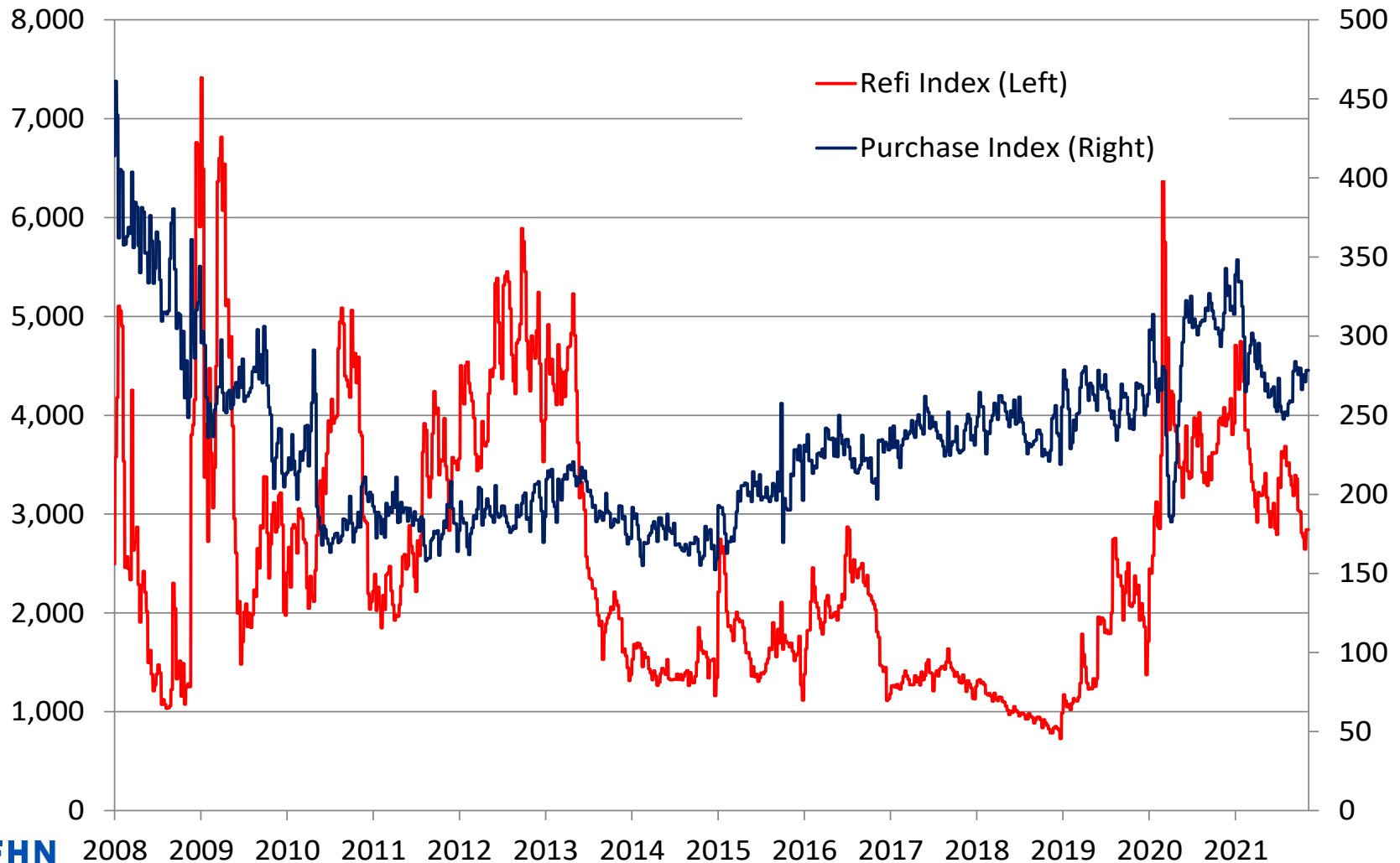
1. Background
- 2. Prepayments**
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# 48% of 30yr MBS Market Still ITM, But Only 6.6% ITM and Low-Friction



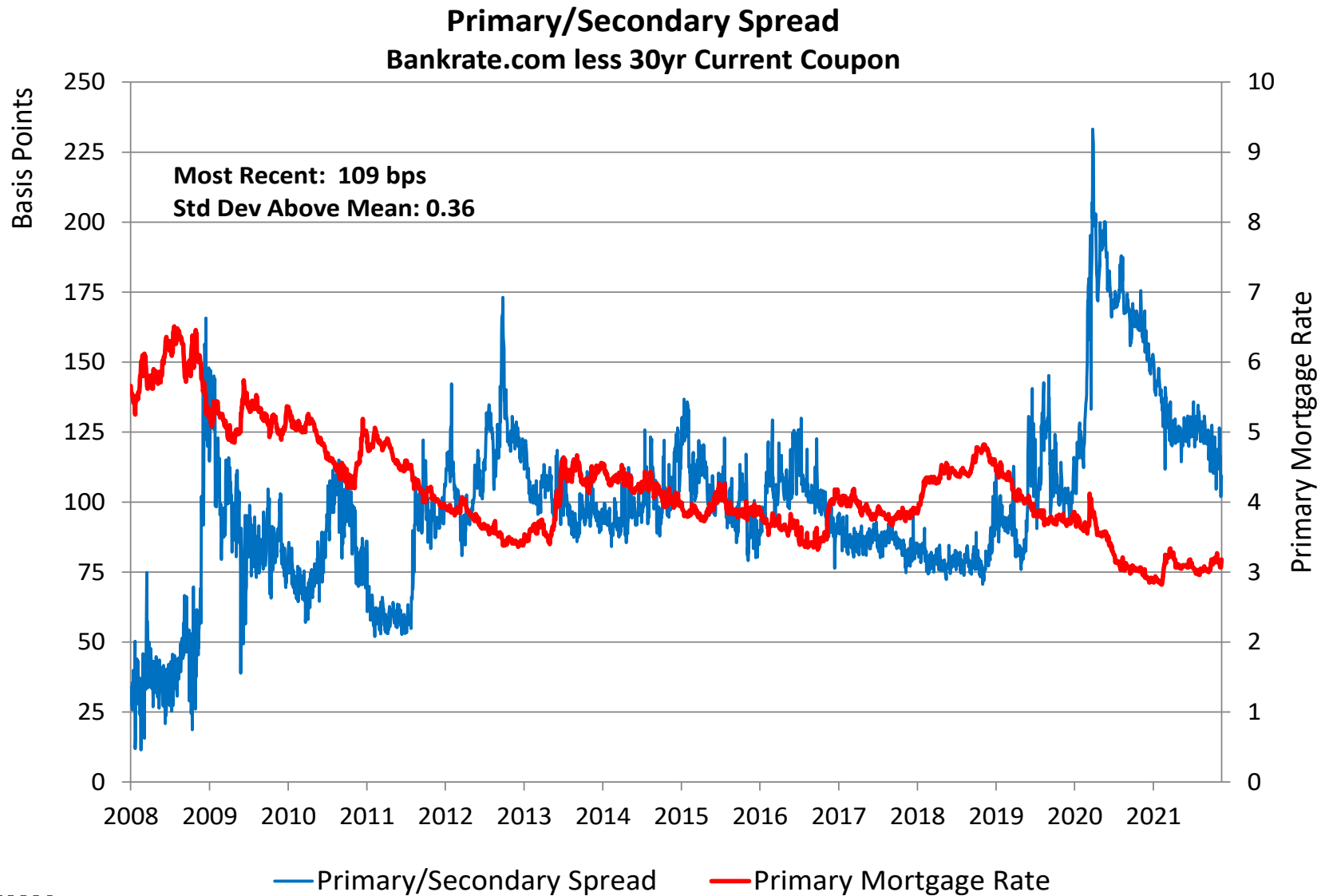
# Refi's Near LT Averages, Purchase Activity Still Higher

## MBA Applications Indices

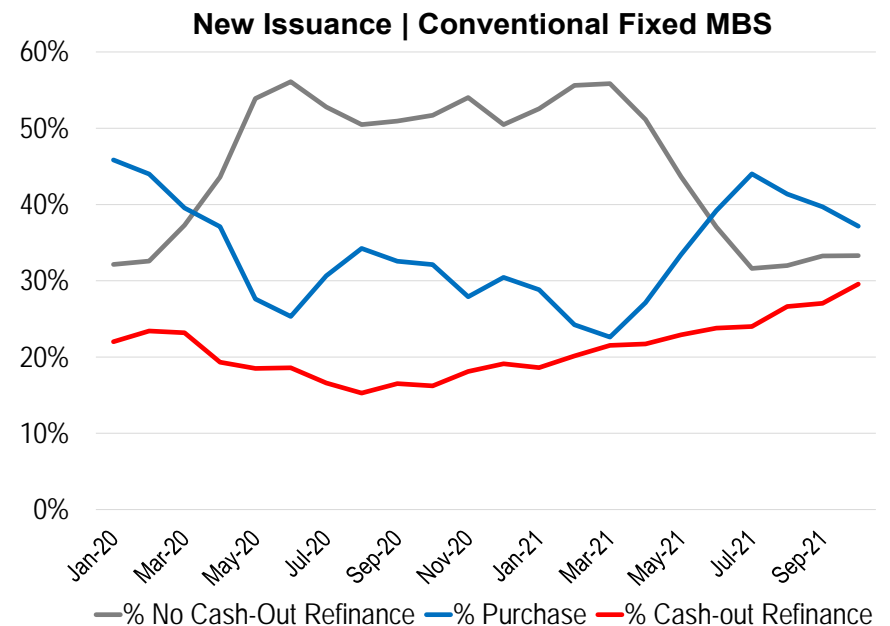
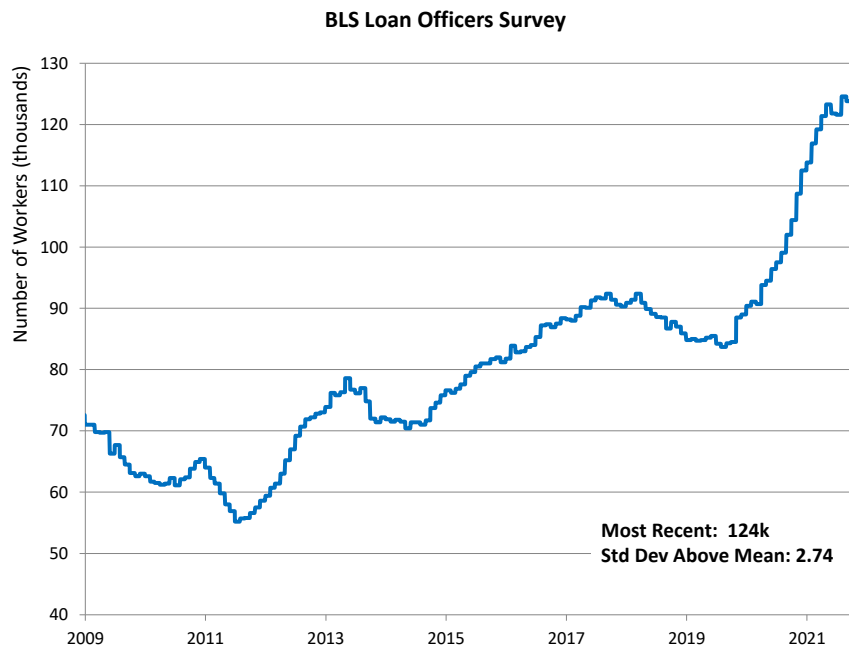




# Mortgage Rates Remain Near Lows



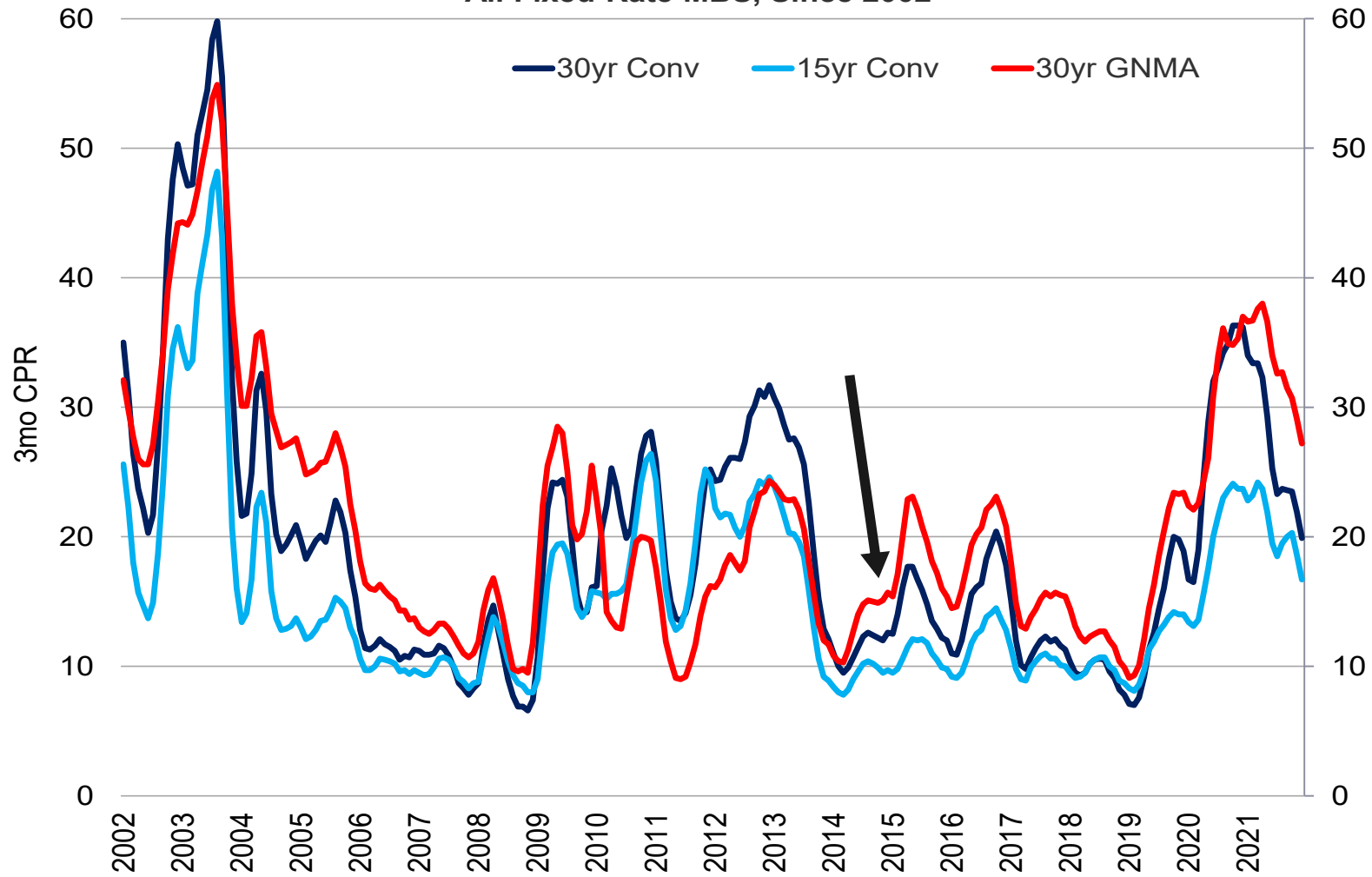
# Employment in Mortgage Industry Still High and Flat-Lining



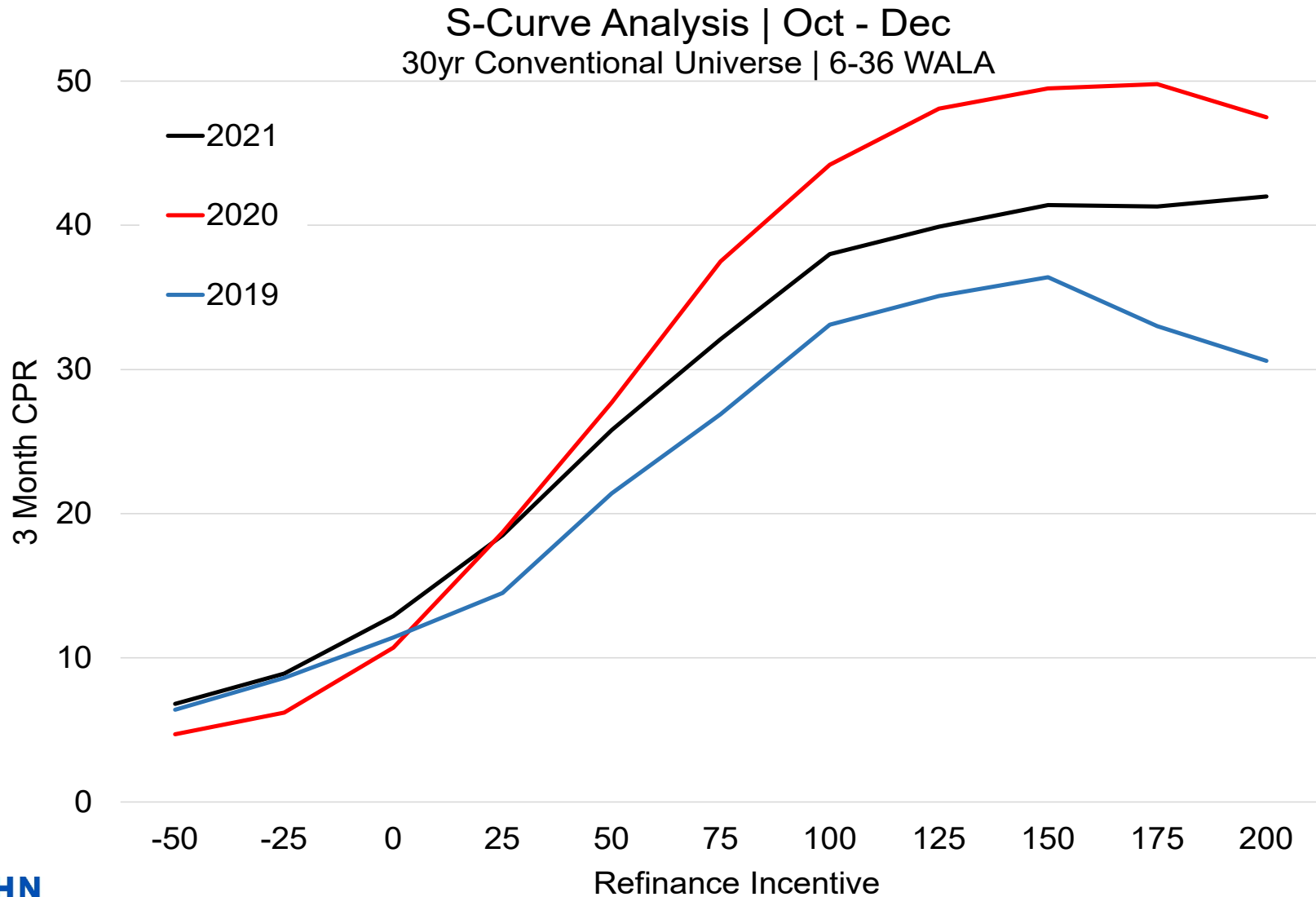
- Employment in the mortgage industry remains near all-time highs despite the recent pause in hiring.
- Refinance volume is down 30% since March. Lenders starting to redirect capacity to other areas.
- 42% of refi loans last month included a cash-out component compared to 26% in January 2021.

# Overall Speeds Are Now Average by Historical Standards

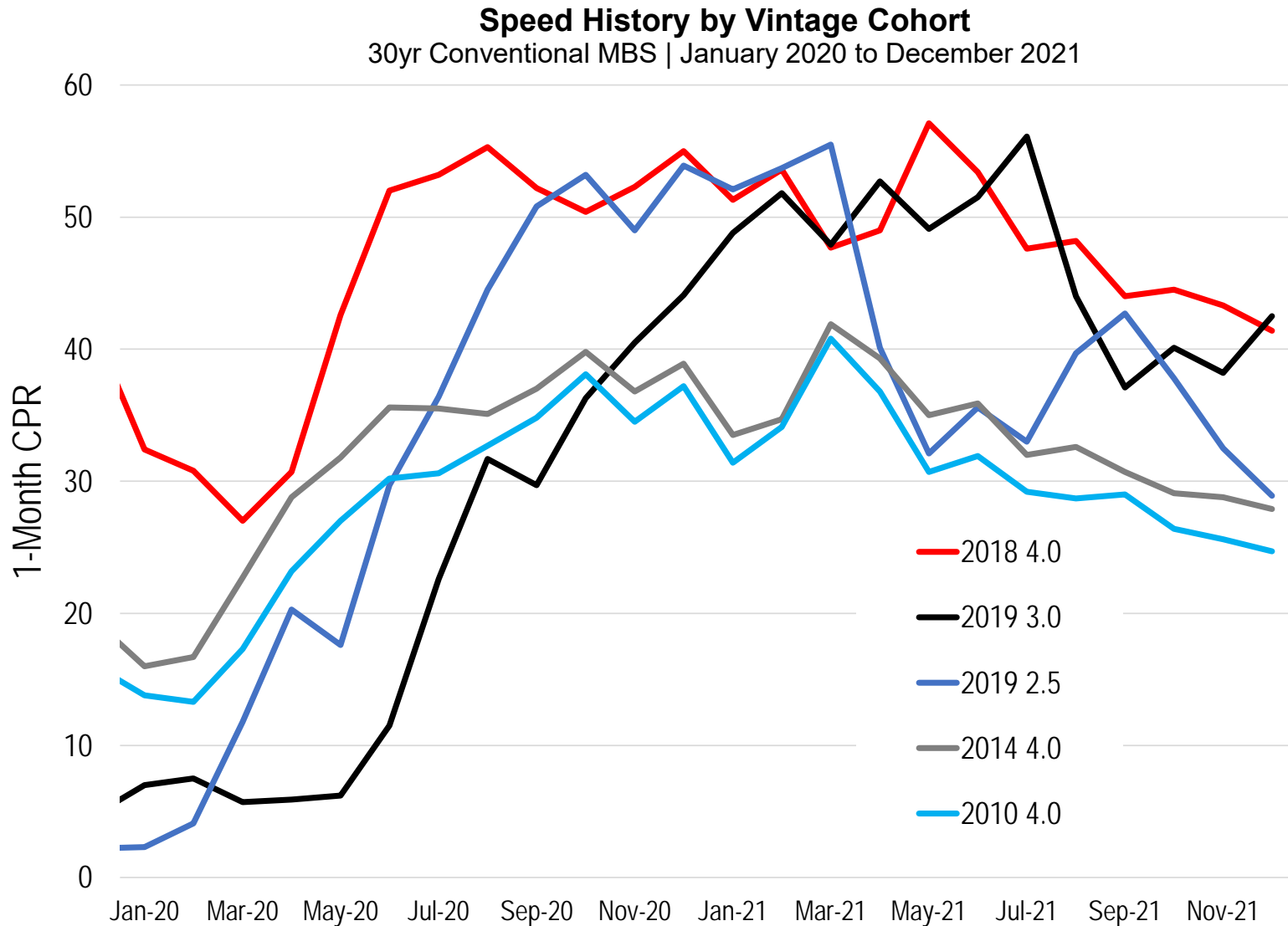
Time Series Analysis: 3mo CPR of Main Cohorts  
All Fixed-Rate MBS, Since 2002



# S-Curves Still Steeper Than Pre-Covid, But Flatter Than Peak

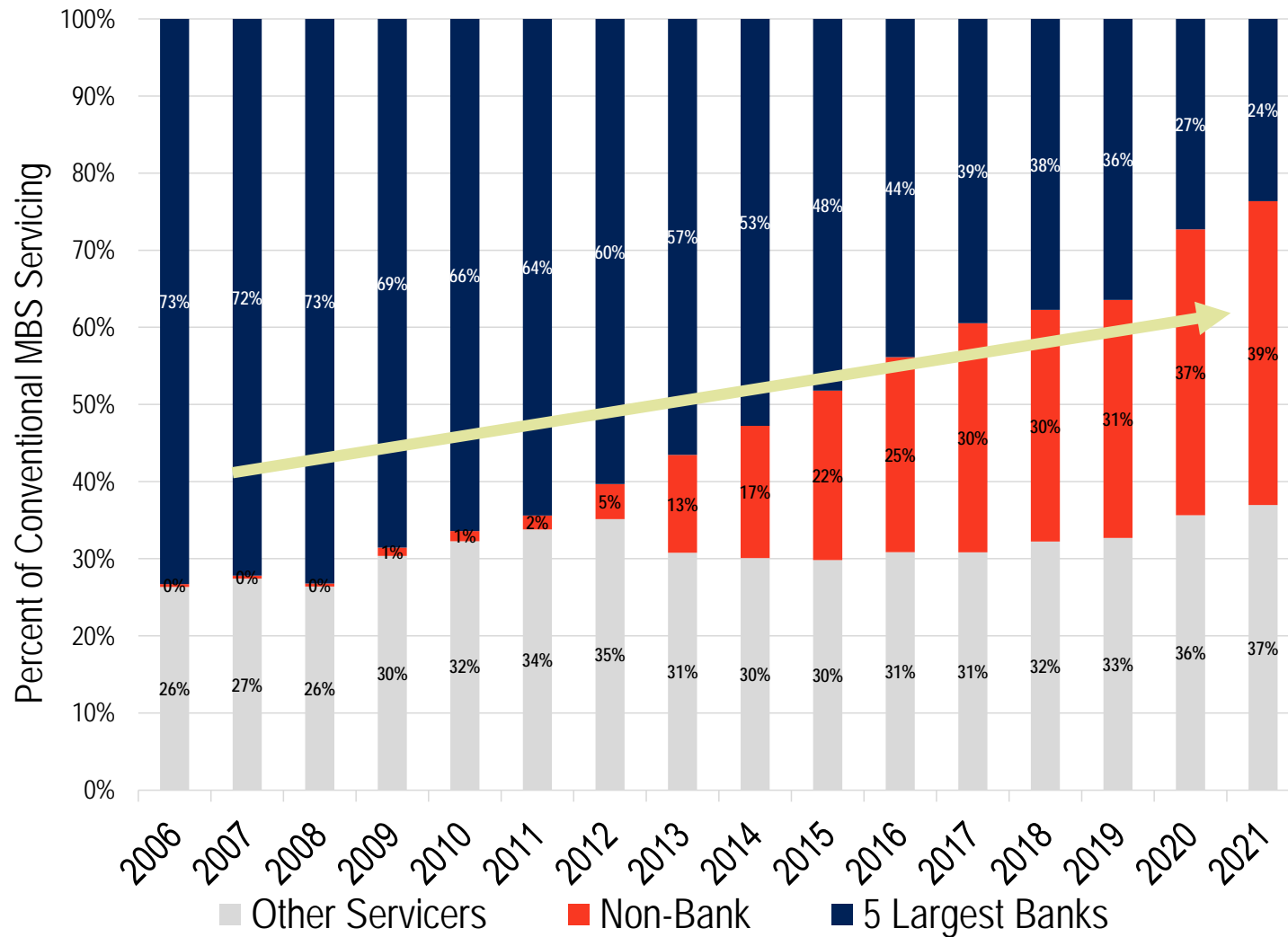


# Signs of Burnout Emerging



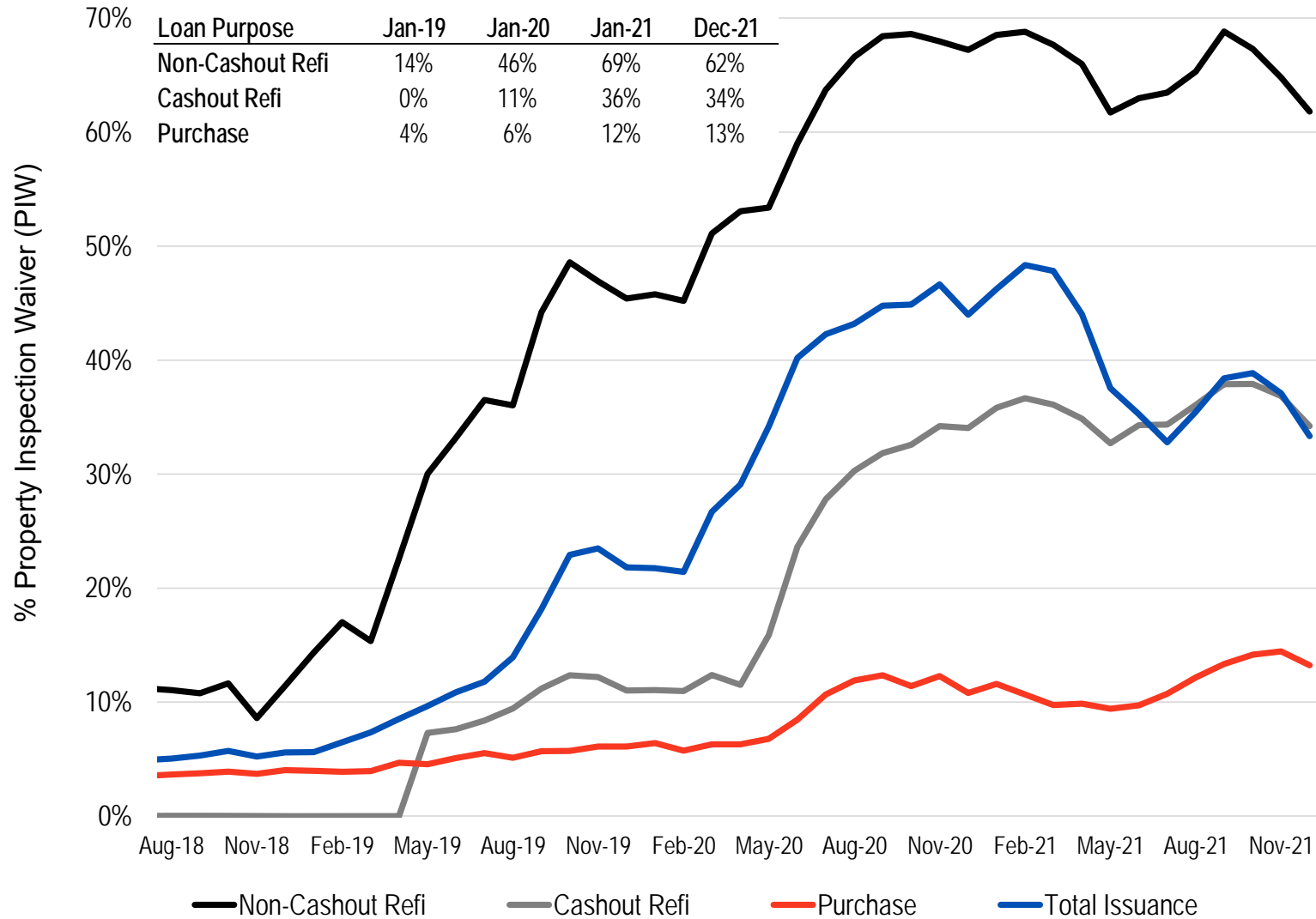
# Growing Non-Bank Market Share Remains the “Big” Trend

Servicing Market Share: FH Loan Level Data



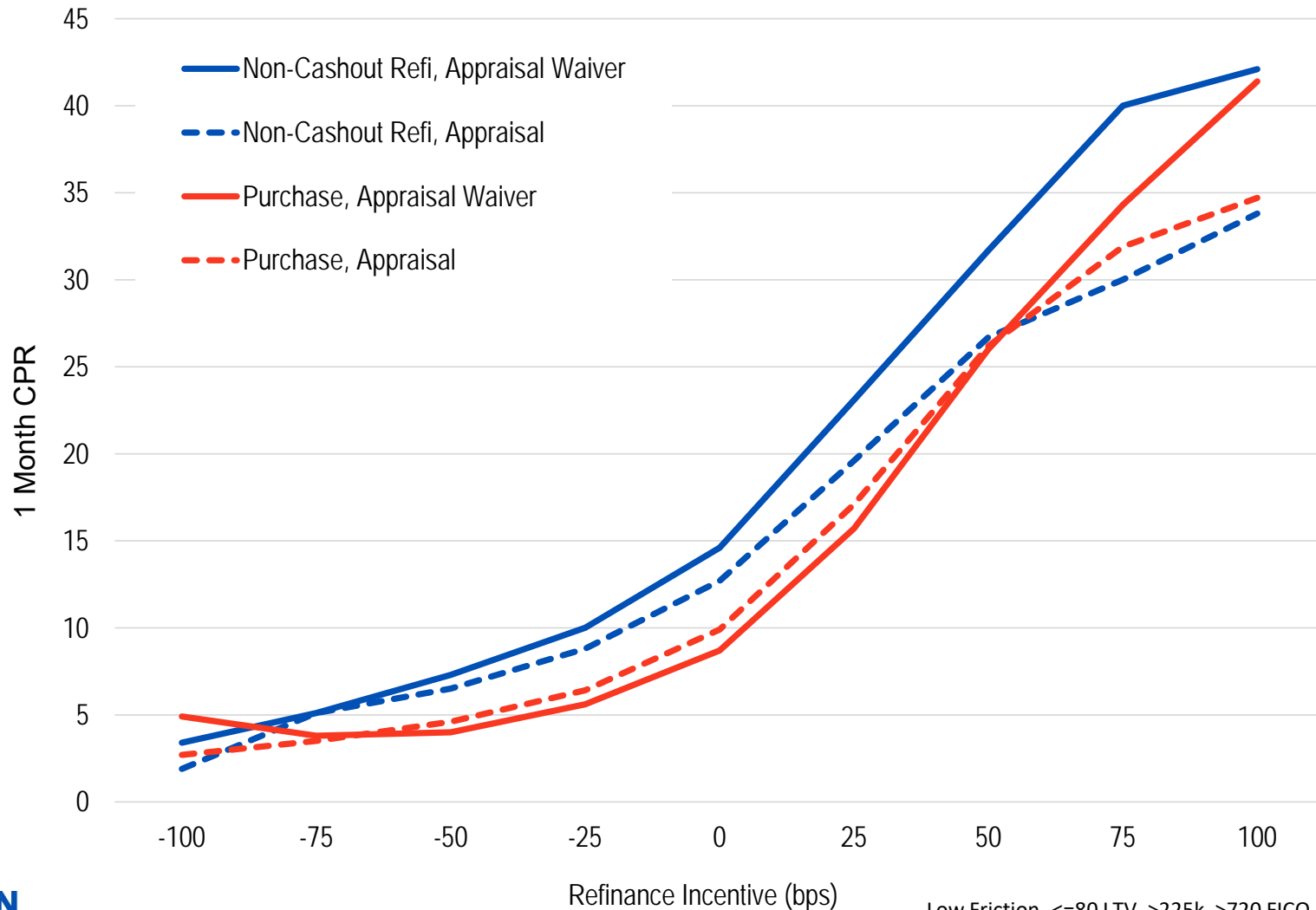
# Appraisal Waiver Share Plateaus

Loans Originated with an Inspection Waiver by Purpose | Single Family UMBS



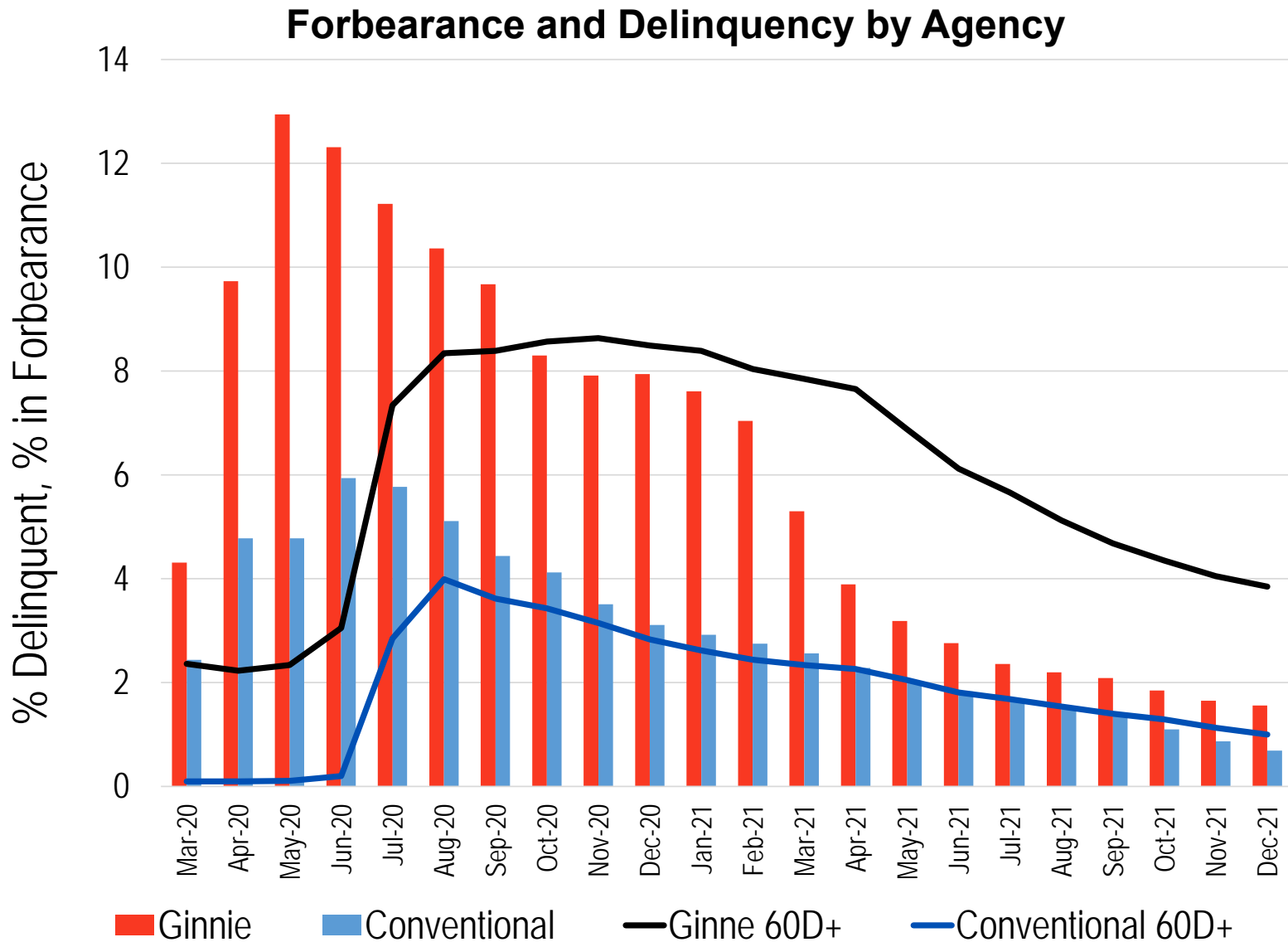
# Loans with Waivers Prepay Faster

**S-Curve Analysis | Last 6 Months**  
6-18 WALA | 30yr Low Friction Borrowers





# Forbearance Down from Peak

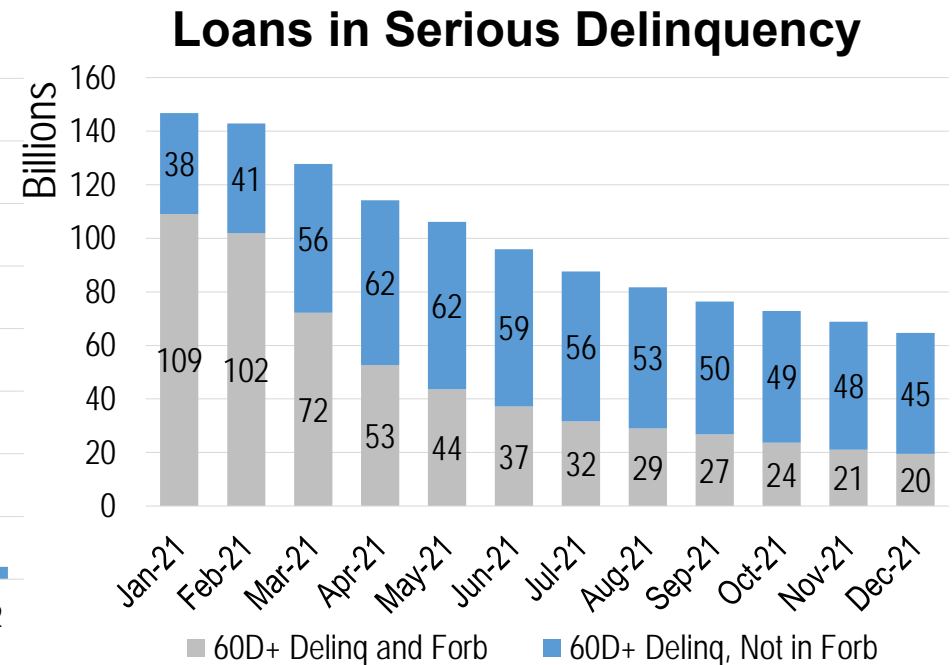
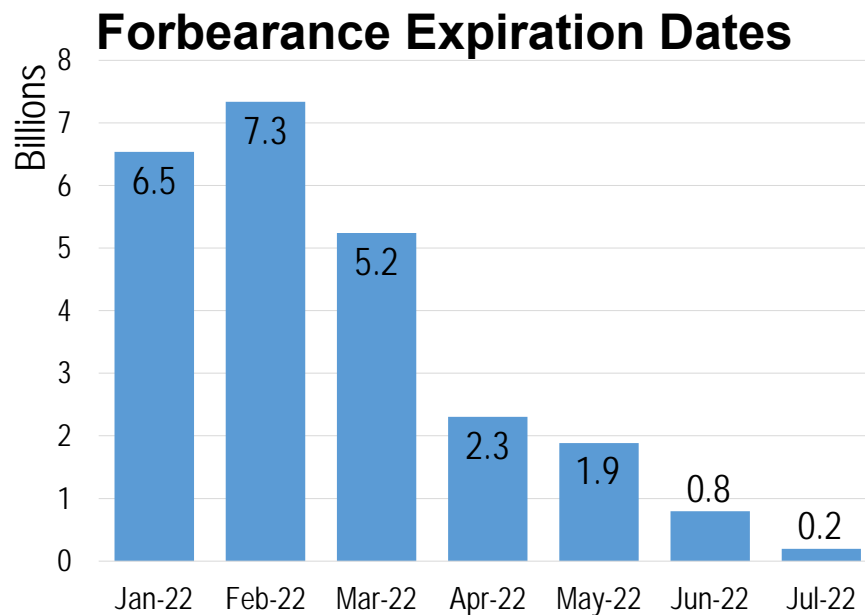


# Workout Options and Buyout Policies

	Conventional	FHA	VA
<b>Loss Mitigation Options</b>	Reinstatement Repayment COVID-19 Payment Deferral Flex Modification Short Sale/Foreclosure	Advance Loan Mod Recovery Partial Claim Recovery Modification Pre-Foreclosure Sale	Repayment VA Partial Claim Extend Modification Refund Modification
<b>Buyout Policy</b>	GSE servicers will not buy out a loan until 24 months of delinquency, unless there is a buyout event (ex. modification).	Ginnie servicers may buy out a loan as long as the loan is at least 90-day delinquent.	
<b>Current Statistics</b>	LESS than 1% in forbearance, 5.9% in June 2020  1.2% of loans 60D+ delinquent	1.56% in forbearance, 12.7% in May 2020  Majority of loans currently in forbearance scheduled to expire by end of 2Q22  3.85% in 60D+ delinquency  Freedom has over \$20 billion delinquent loans, which represents 25% of all outstanding Ginnie delinquent loans.	

***Buyout risk is higher in Ginnie Mae MBS.***

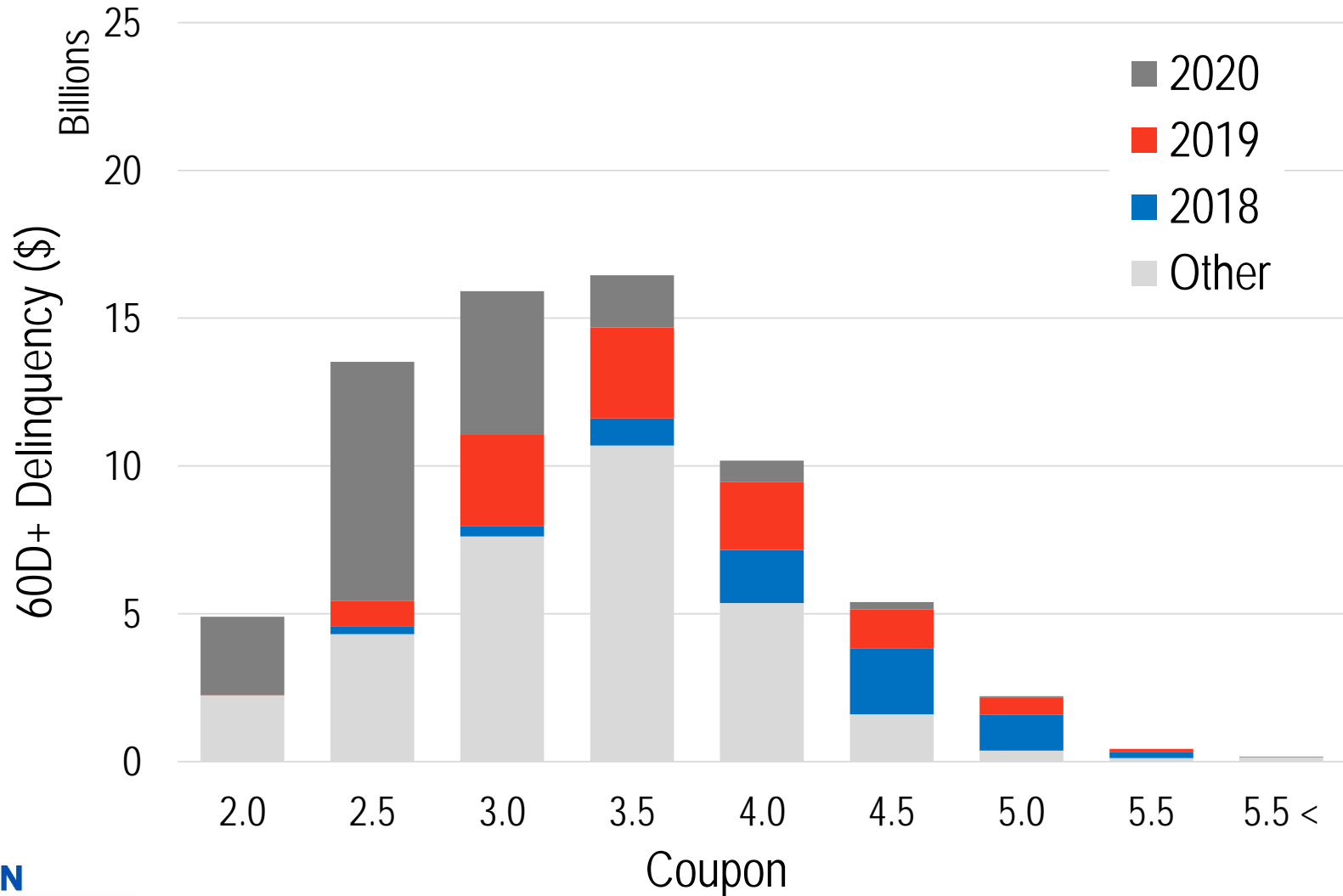
# Nearing the Forbearance Finish Line



- Majority of Ginnie borrowers in forbearance scheduled to exit by end of 1Q22.
- \$25b will exit forbearance by the end of the 2022.
- Loans in forbearance account for almost 30% of all seriously delinquent loans.

# Where is Buyout Risk Concentrated?

## Delinquency by Coupon and Vintage | G2 MBS



# Key Prepayment Takeaways

- ***Prepayment speeds are slower year-over-year but are still fast historically.*** The majority of the MBS universe has already taken advantage of lower rates. Over 60% of the current MBS market was originated in 2020 and 2021.
- ***S-curves remain steep.*** Drivers of the exceptionally fast prepayments last year are still impacting speeds today such as increased capacity, nonbank share, appraisal waivers, and media effect.
- ***Signs of burnout are emerging in seasoned, higher coupons.***
- ***Lenders are redirecting excess capacity towards purchases and cash out refinancing.***
- ***Buyout risk is higher and impending in Ginnie MBS vs. conventional MBS.*** Over 80% of GN loans in forbearance are scheduled to exit by the end of the year. Forbearance ending will also increase the issuance of RG pools this year. RG pools offer moderate call protection and may offer more as loans with larger partial claims exit forbearance.

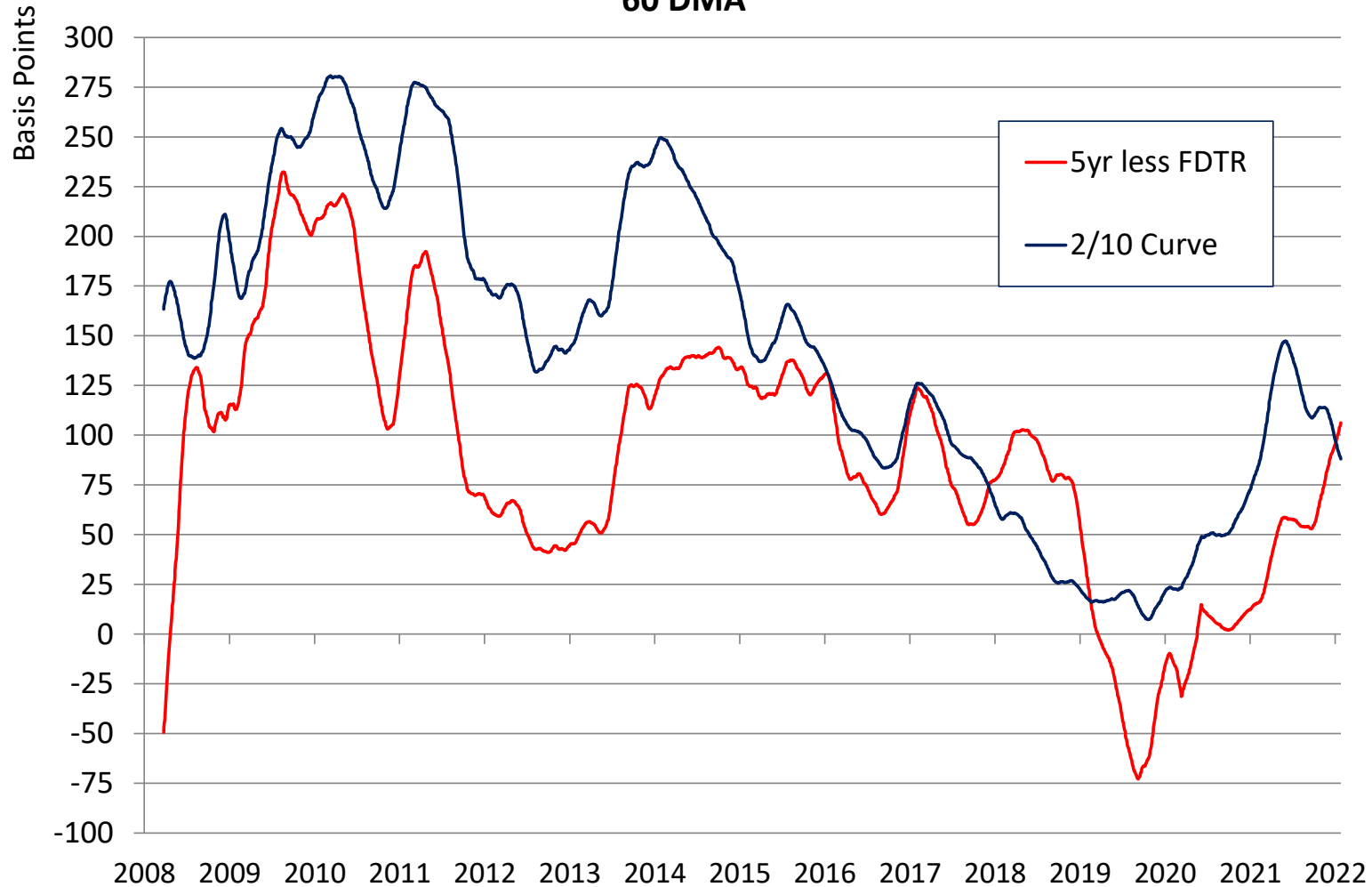
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# Three Basic Levers to Pull In Fixed Income

- **Duration:** Longer end of UST curve flatter, but out to five years quite steep right now.
- **Optionality:** The BofA MOVE index is right at the average going back to 2008. Higher, but not excessive.
- **Credit:** Bloomberg/Barclays High Grade Index OAS/Spread is approximately one standard deviation below mean from 2008.

# Longer-Term View of the Yield Curve Reveals Value in 5yr Area

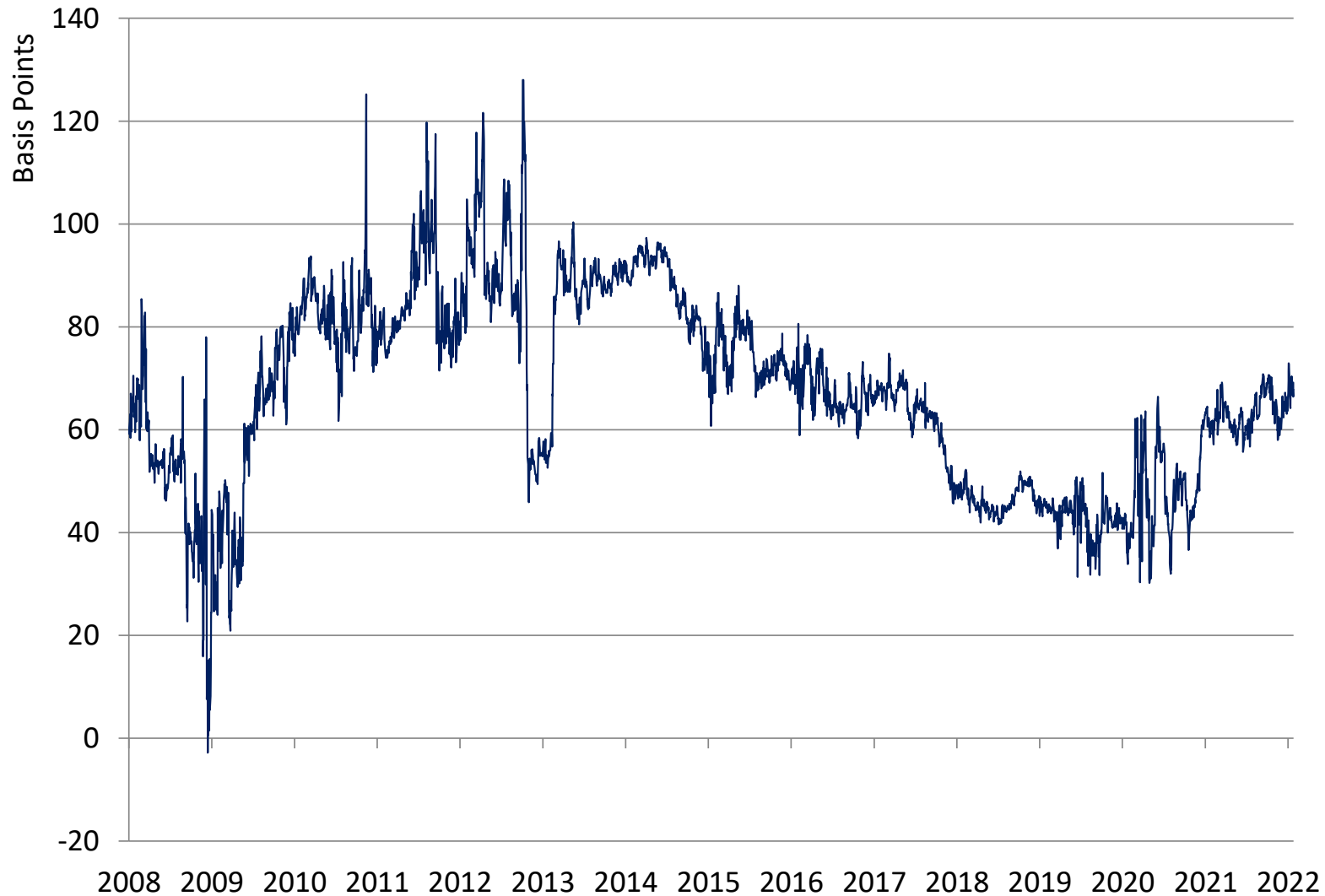
Shape of UST Yield Curve  
60 DMA





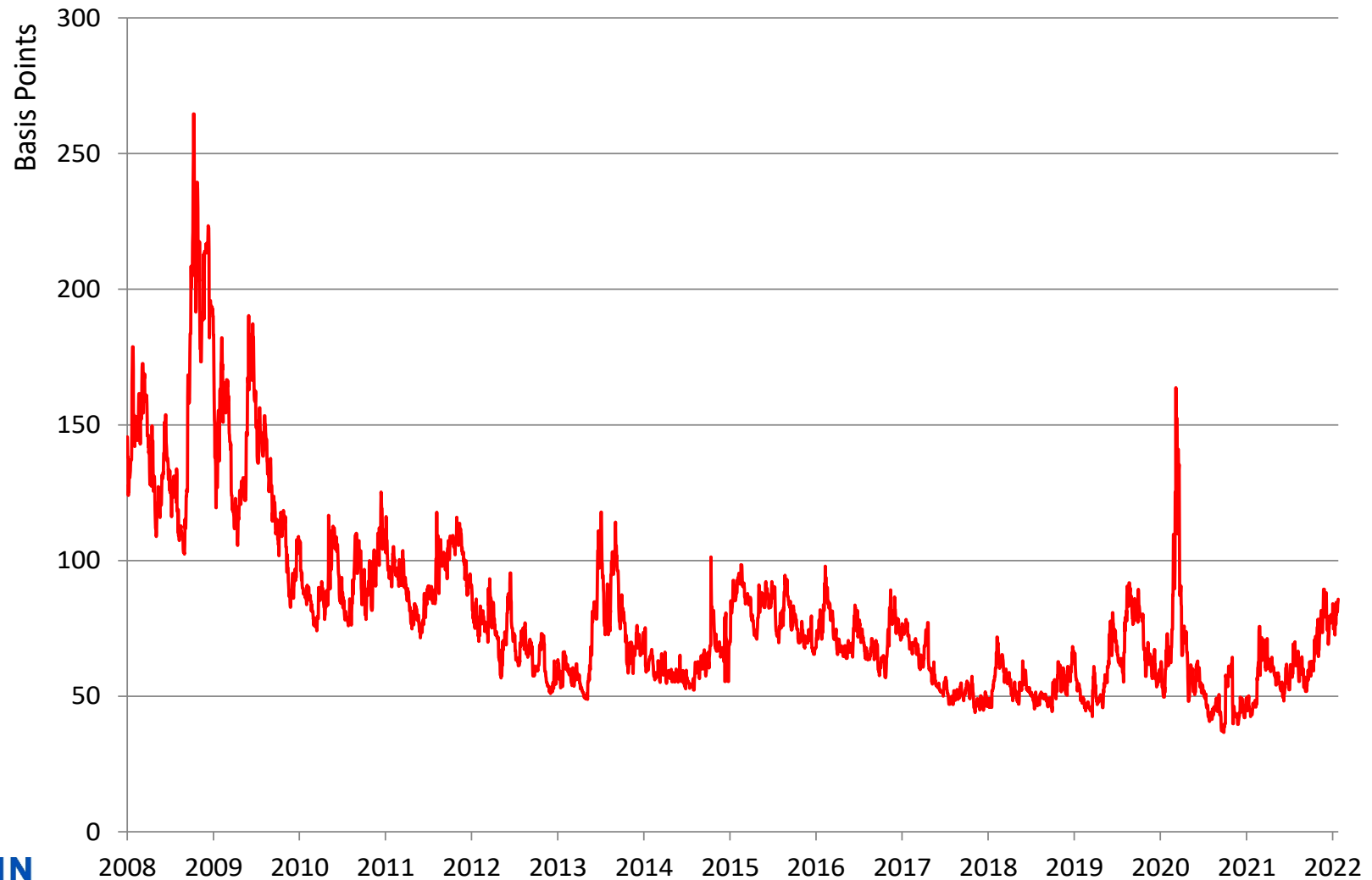
# Intra-Sector Favors 30yr vs. 15yr

MBS 30yr vs. 15yr Current Coupon



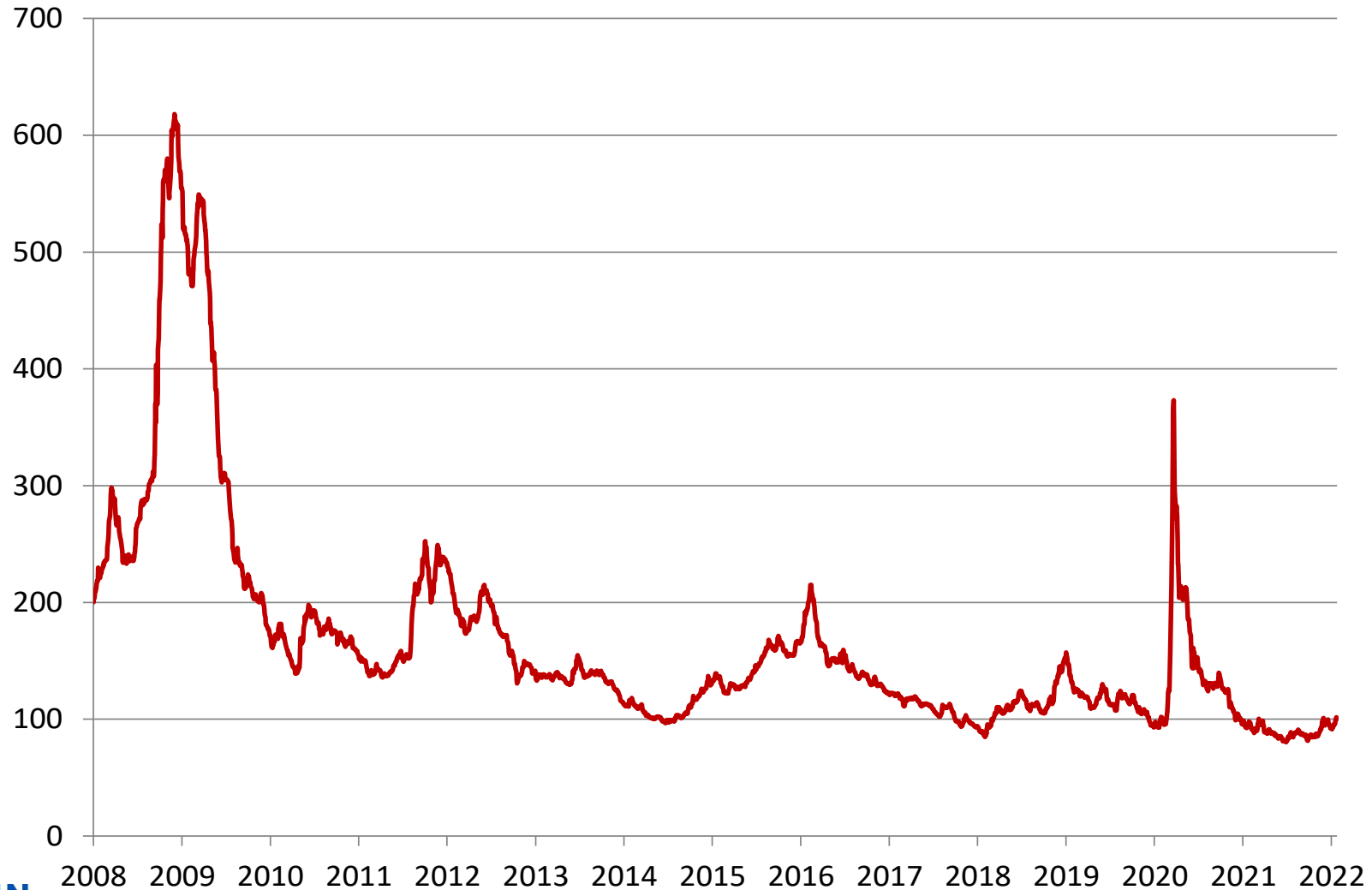
# Implied Volatility Approaching Higher End of QE Range

Implied Volatility - MOVE Index



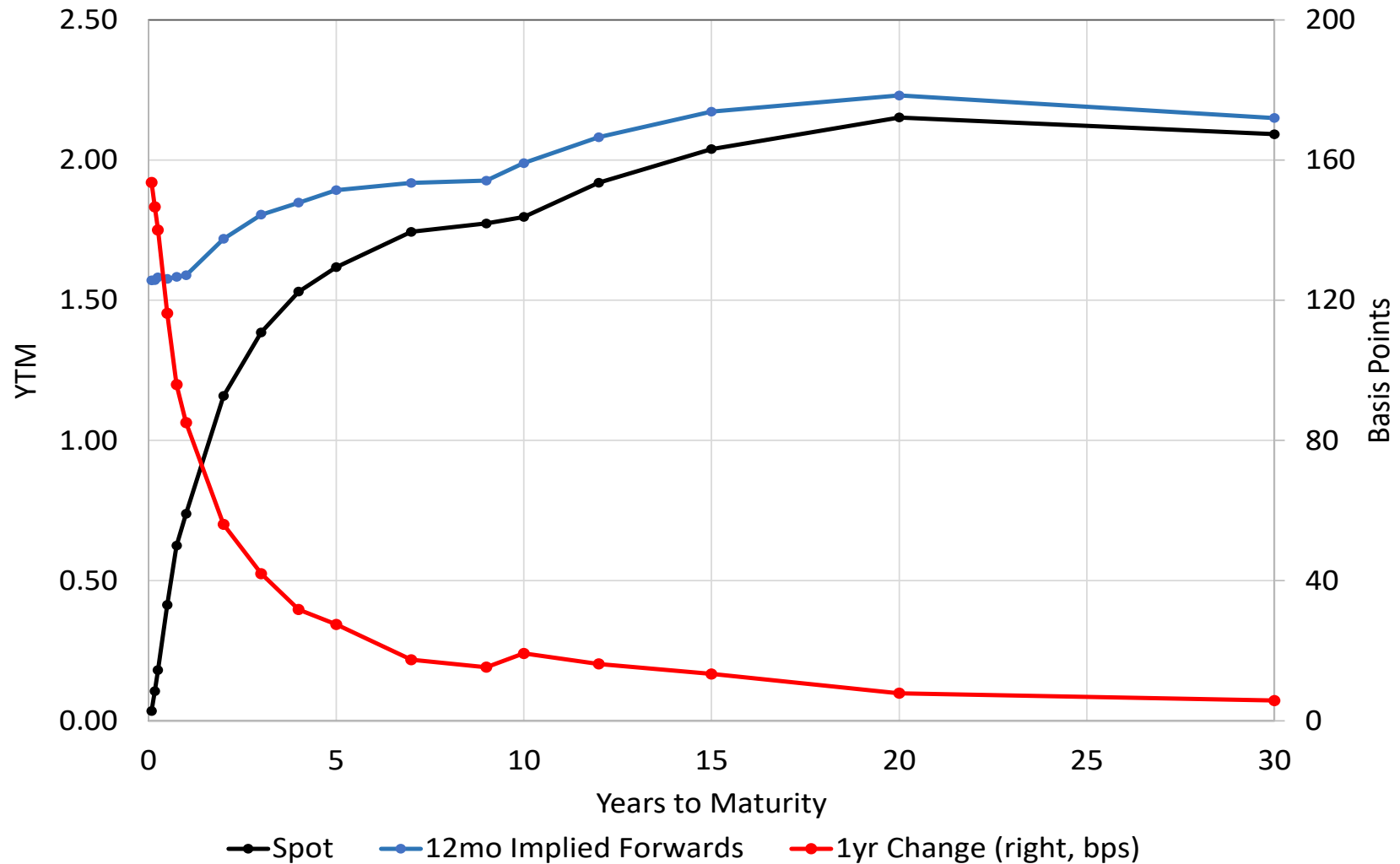
# Credit Slightly Cheaper Lately But Still Very Near Bottom of Range

Corporate Index OAS



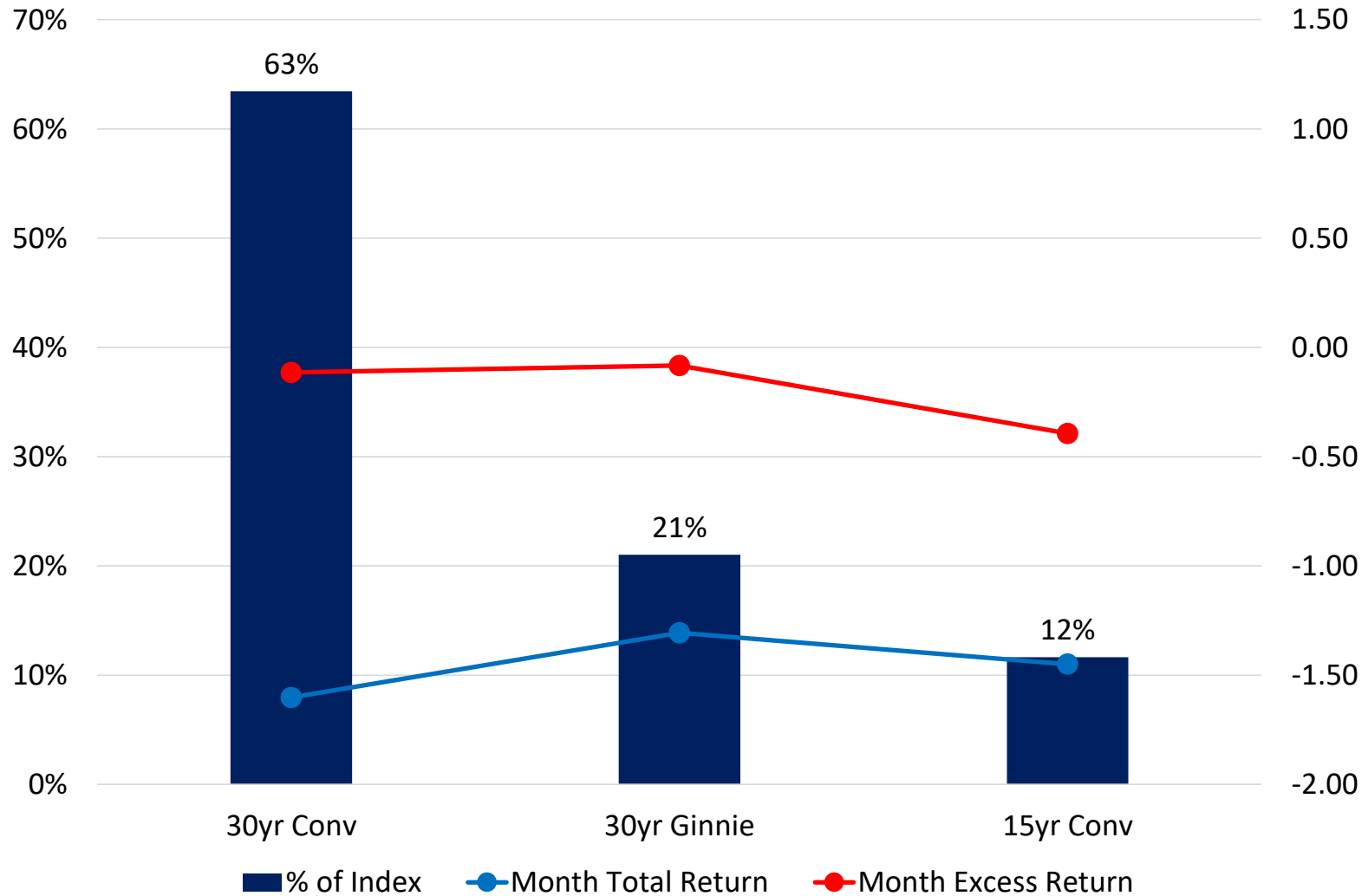
# Forward Curve is a Significant Bear Flattener

## UST Spot and 1yr Forward Yield Curves



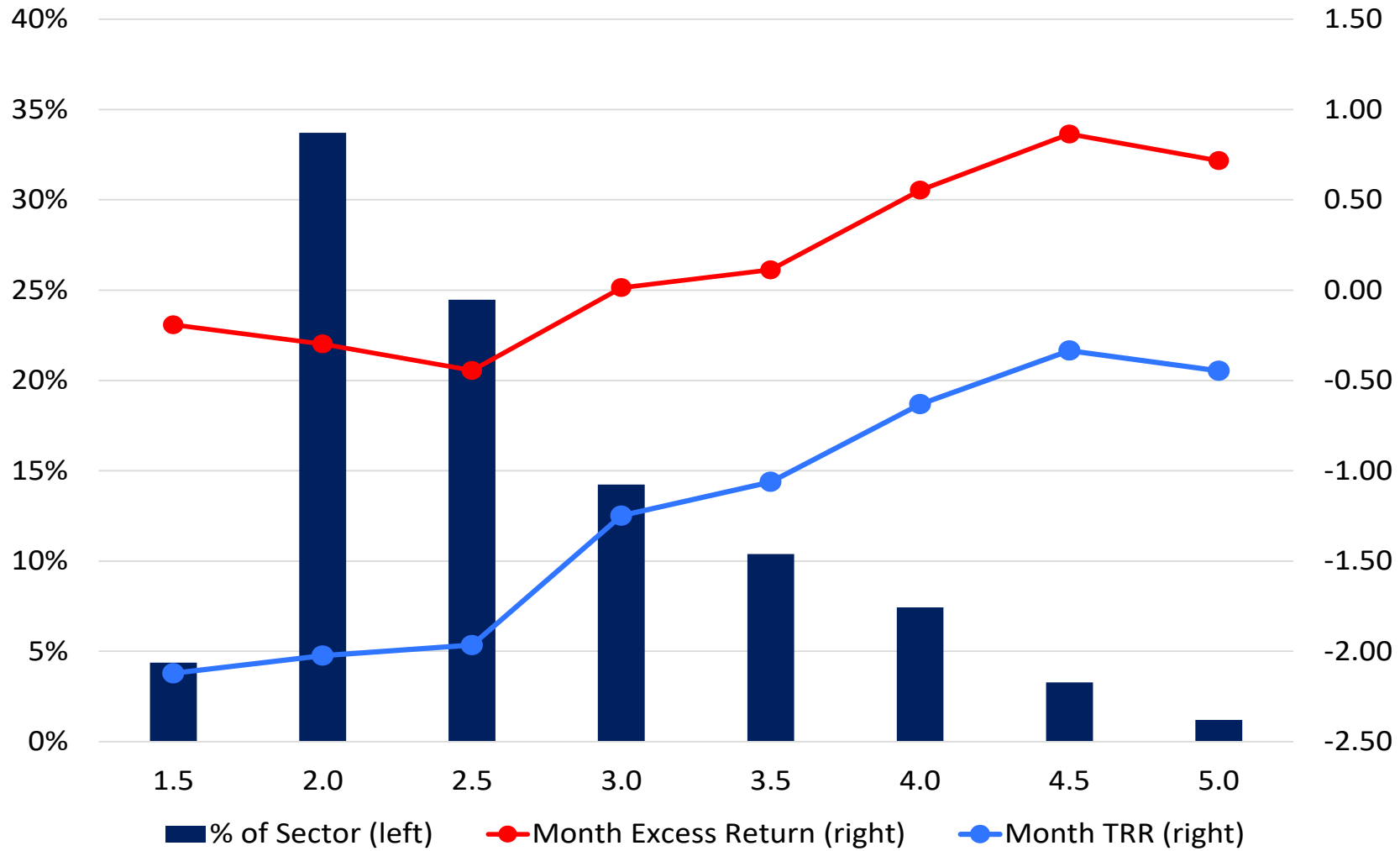
# With Current Market Outlook, 30yrs Have Outperformed in Jan.

MBS Index | MTD Performance by Broad Sector

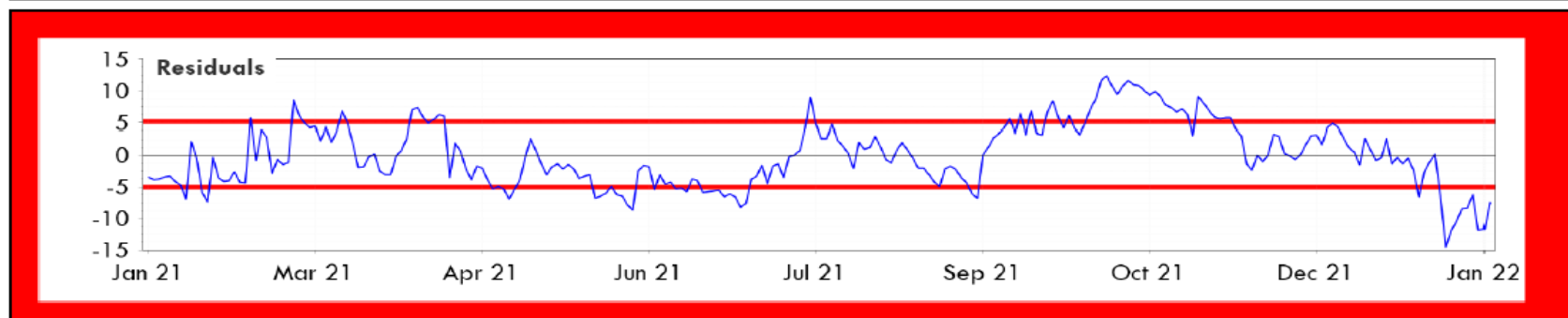


# Higher Coupons Outperformed, But Index Mostly Lower Coupons

MBS Index | 30yr Conventionals by Coupon



# 30yr 3.0/2.5 Swap Has Performed But Still Cheap on Technicals



$R^2 = 91.41\%$

\*\*High coupon CHEAP when negative, RICH when positive

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Source: FHN Financial, Tradeweb and Bloomberg 47

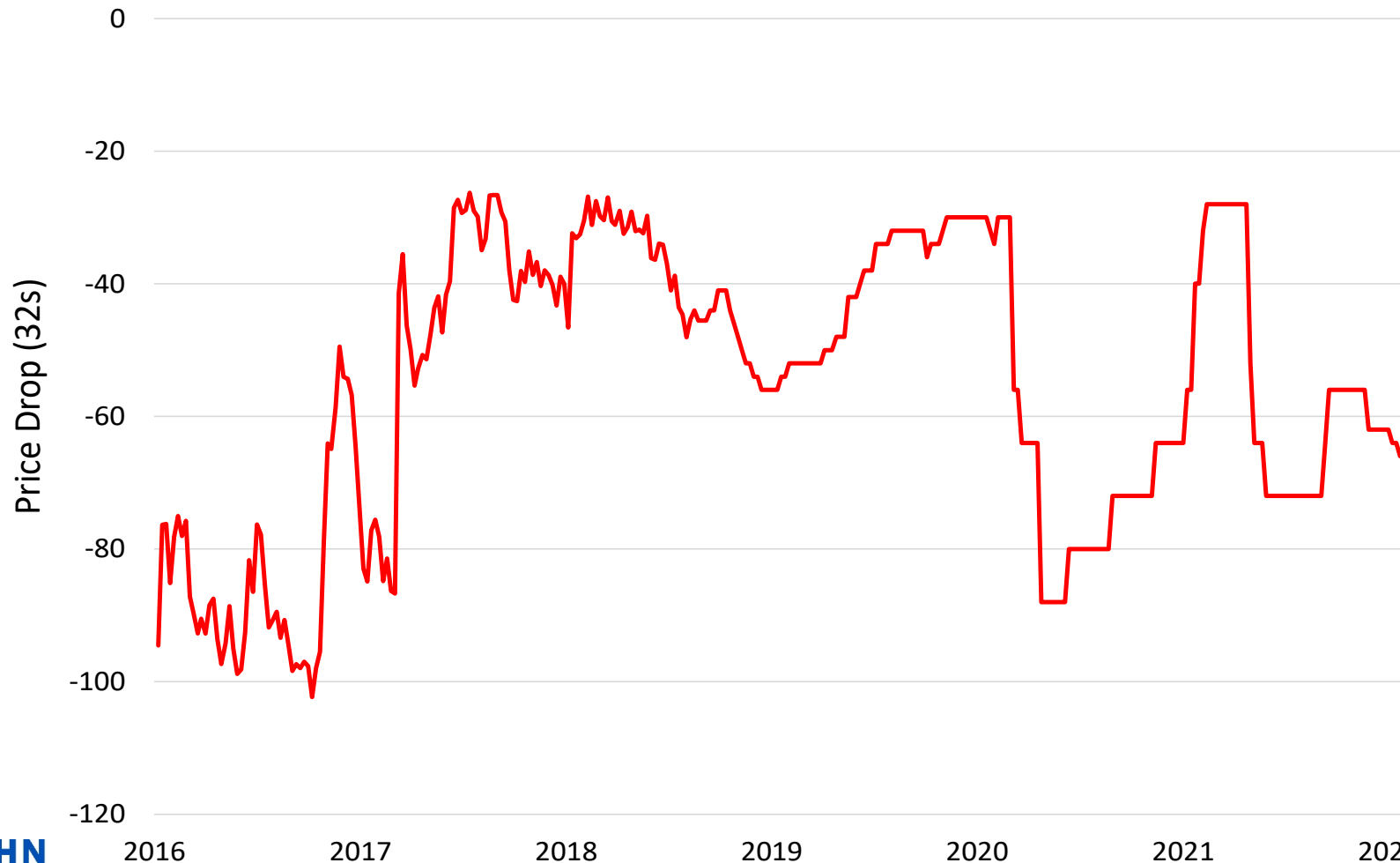
# “Wider” Coupon Stack Is a Much Healthier MBS Market





# Non-Agency RMBS 2.0 a Viable And Attractive Option for Investors

AAA Current Coupon RMBS 2.0 Price Drop to UMBS  
30yr MBS Estimate | Weekly Data



# Take Advantage of Opportunities, Face Challenges Head-On

- ***Static spreads already 25 bps wider in 30yrs based on change in Fed rhetoric:*** Probably another 10-20 bps more to go given talk of QT.
- ***The prepay landscape is softening, but it can re-ignite with another rally:*** Will be watching capacity measures VERY closely during next 3-6 months.
- ***Scenario analysis is critical:*** The “one bond fits all” approach is familiar, but the lack of diversification can handcuff the portfolio. Two key themes:  
**Diversification and Dollar-Cost Averaging.**

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# Important Themes That We Did Not Have Time to Cover

- ***LIBOR Transition:*** Agency ARMs and CMO Floaters are now SOFR-based and will likely continue to be.
- ***Disruptive GSE reform is off the table, for now:*** Current administration is attempting to “open the credit box” at the GSEs, which may produce more supply.
- ***Alternative Sectors Can Enhance Returns:*** ACMBS, SBA, RMBS 2.0, and RPLs can provide structure and/or carry in smaller doses to enhance portfolio performance.

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