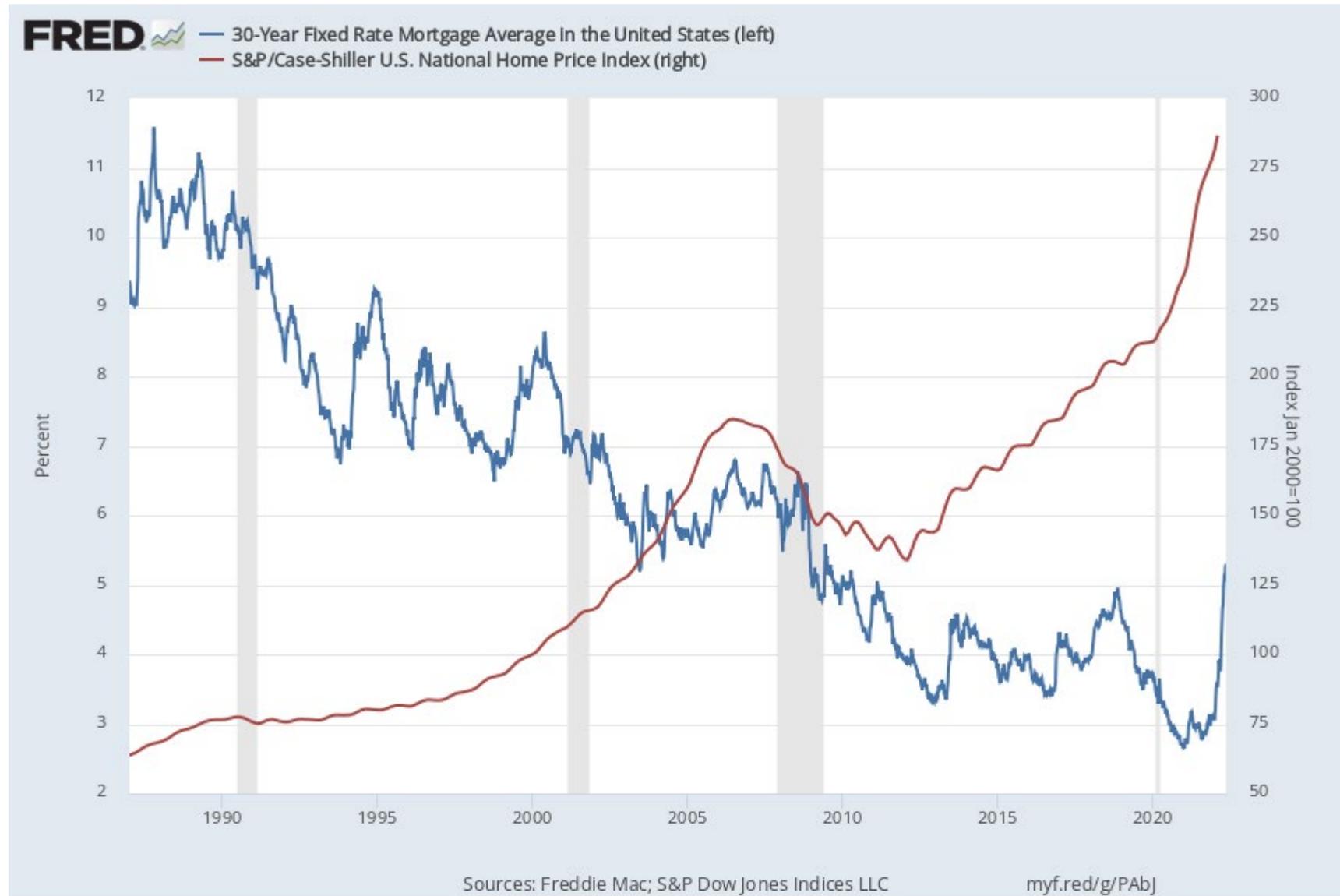


Risks in Housing and Credit

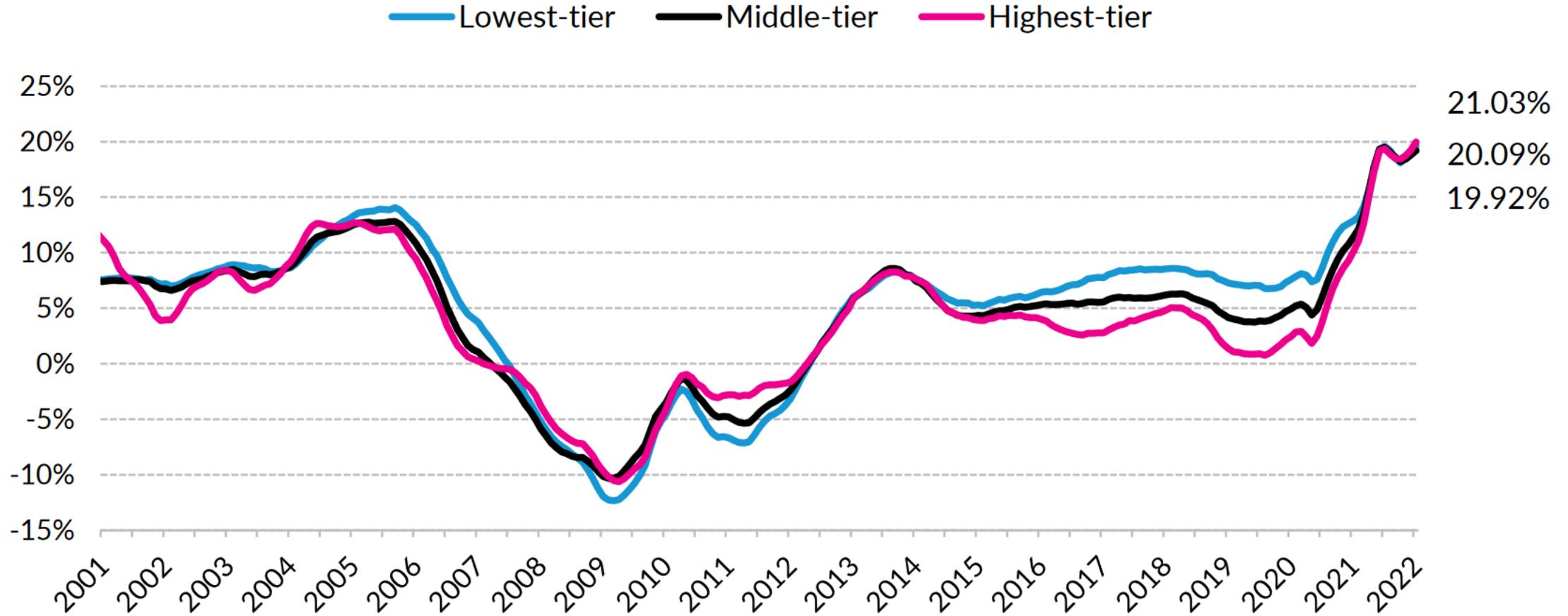
May 2022

Case-Shiller National Index +30% since 2020; Mortgage rates from



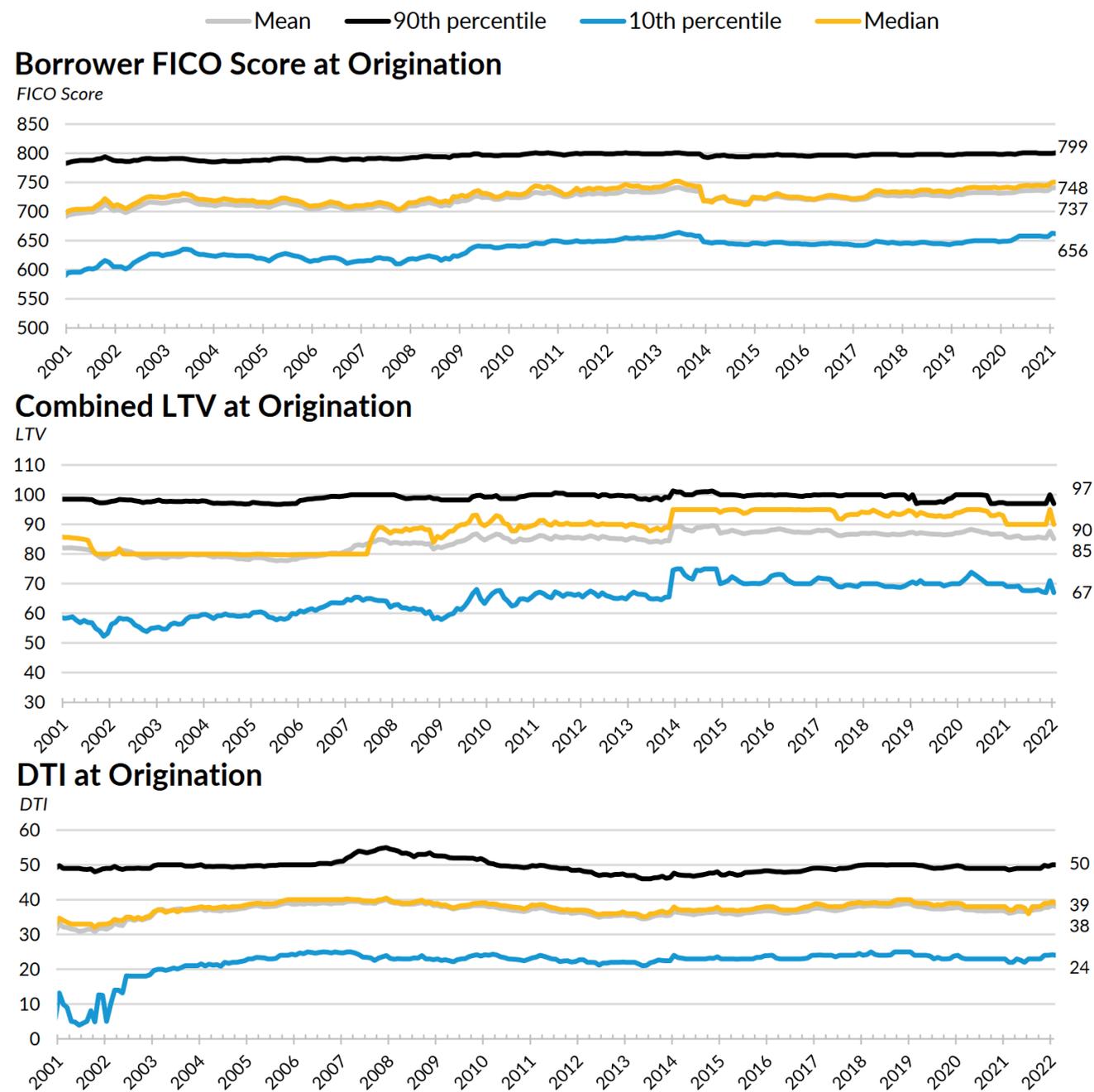
National Year-Over-Year HPI Growth by Price Tier

House prices escalated significantly in the second half of 2020 and into 2021 across all price tiers. Before the pandemic, lower priced homes appreciated much more than higher priced homes. With higher priced homes also experiencing steep appreciation last year, the gap has disappeared.



Sources: Black Knight and Urban Institute. **Note:** Black Knight modified the methodology behind their HPI in February 2021, resulting in changes to historic price estimates. Data as of February 2022.

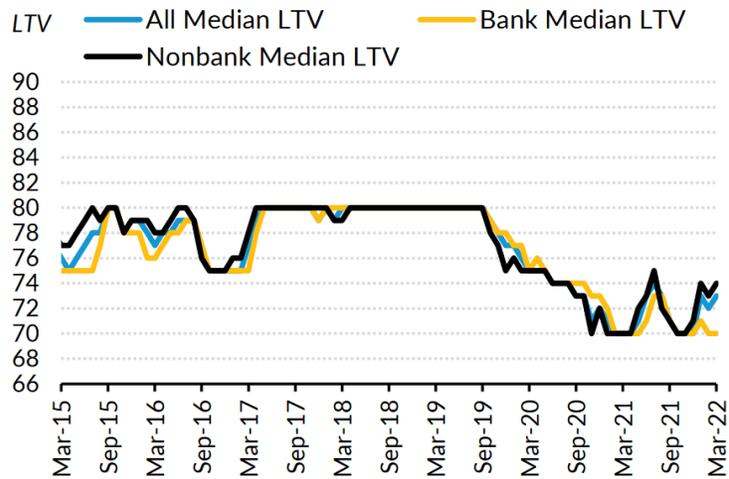
- FICO scores at origination remain high across the distribution
- LTVs at origination are high and remain so at the top (97%) and for the median (90%).
- DTIs crept up – 50% at the top
- ... more on the last two below.



Sources: Black Knight, eMBS, HMDA, SIFMA, CoreLogic and Urban Institute.

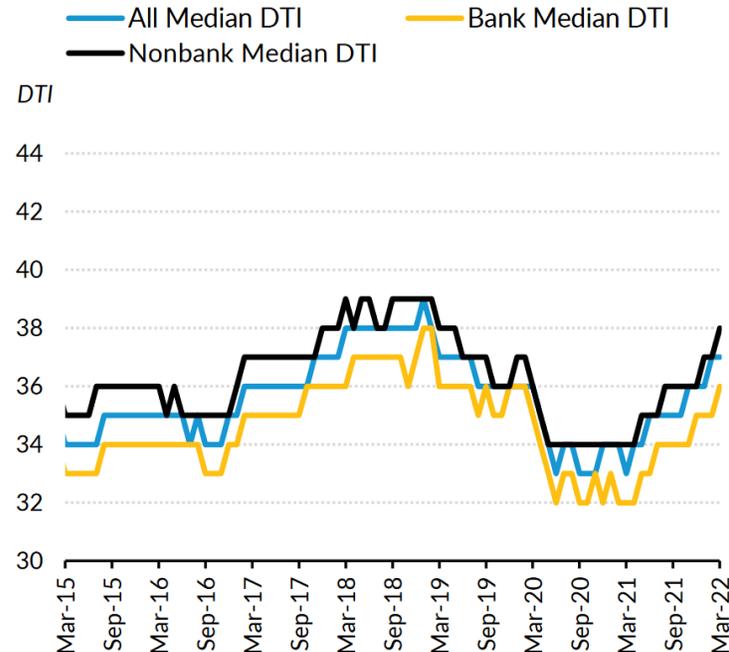
Note: Includes owner-occupied purchase loans only. DTI data prior to April 2018 is from CoreLogic; after that date, it is from Black Knight. A back-update to the Black Knight historical series was made in September 2021 for data starting from 2001 onward. Data as of February 2022.

GSE LTV: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

GSE DTI: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

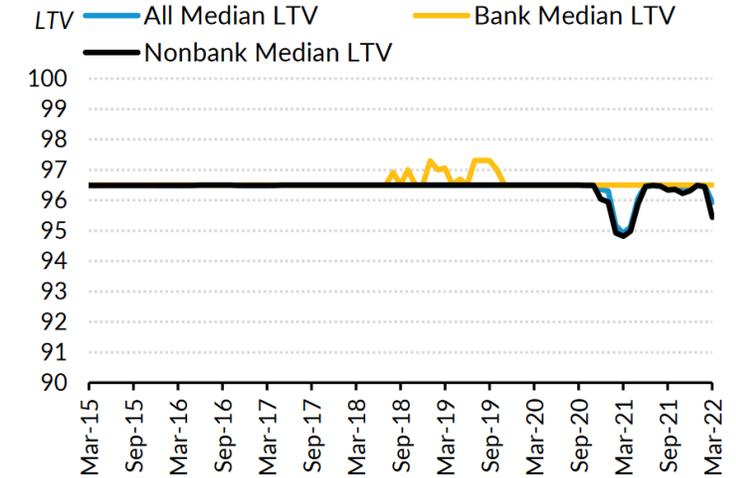
GSEs

- LTVs have fallen as home prices rise
- DTI rose as mortgages amounts have risen → higher payments.
- Still less than 40 DTI

Ginnie Mae (FHA loans)

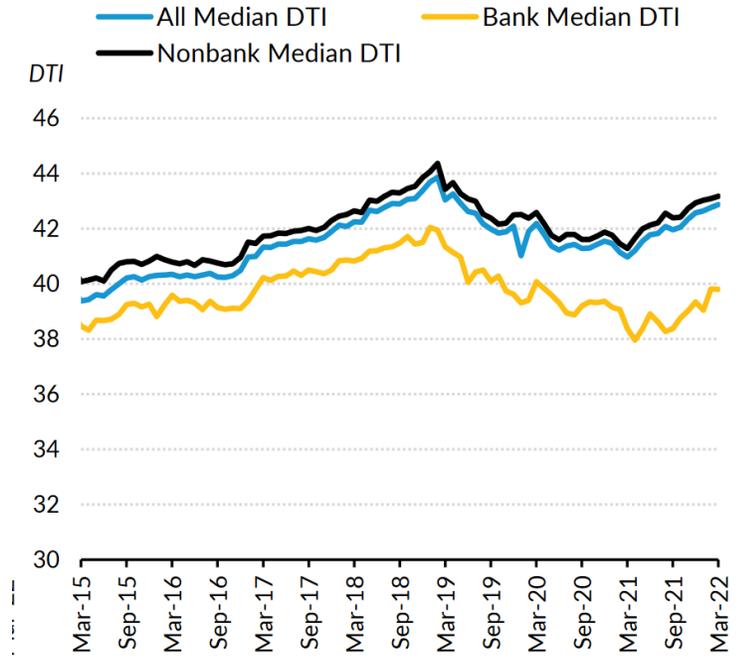
- LTV remains very high > 95%
- DTI fell in 2019 and early COVID
 - Rose again starting in 2021
 - Higher overall > 40, up to 43
- Especially in nonbanks, which is most

Ginnie Mae LTV: Bank vs. Nonbank



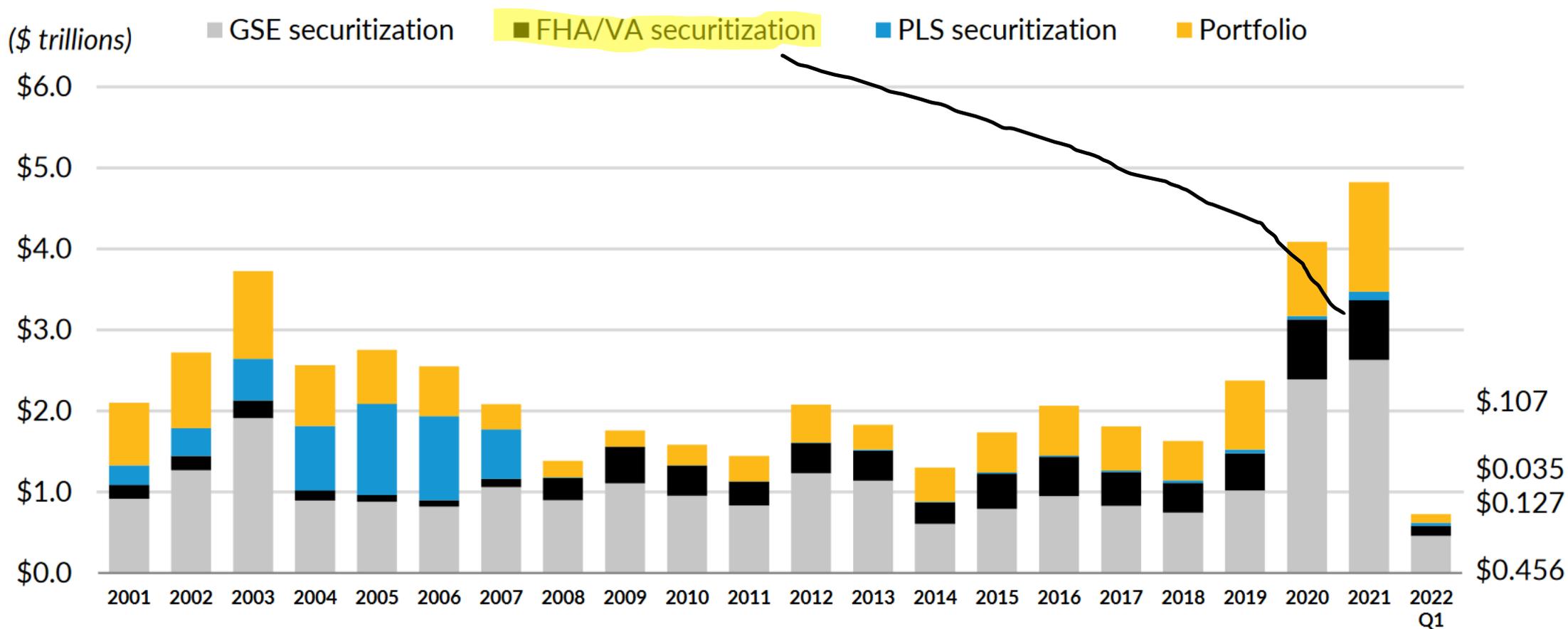
Sources: eMBS and Urban Institute.

Ginnie Mae DTI: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

Mortgage origination volume in Q1 2022 totaled \$.73 trillion, far lower than the \$1.35 trillion total in Q1 2021. The share of portfolio originations was 14.8 percent in Q1 2022, a decrease compared to the 25.6 percent share in Q1 2021. The GSE share was higher in Q1 2022 at 63.0 percent, compared to 57.4 percent in Q1 2021. The higher GSE share largely reflects the reduction in portfolio lending which had increased but since pulled back during the pandemic. The FHA/VA share in Q1 2022 stood at 17.5 percent, up from 15.9 percent in Q1 2021. The PLS share was also higher in Q1 2022 at 4.8 percent, compared to 1.1 percent in Q1 2021 but remains a fraction of its share pre-2008.

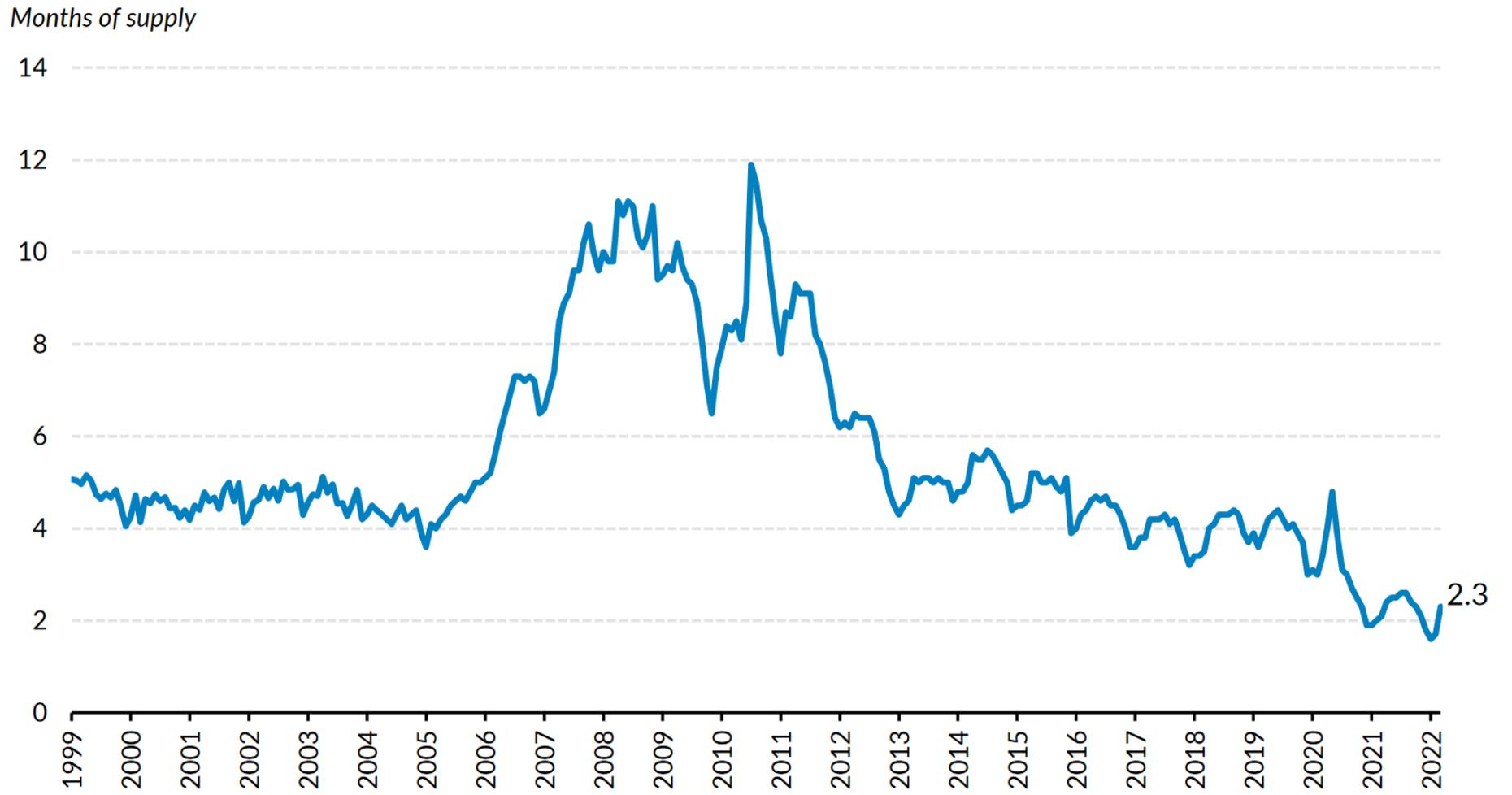


Sources: Inside Mortgage Finance and Urban Institute. Last updated April 2022.

Supply highly constrained, measured by homes on the market relative to sales.

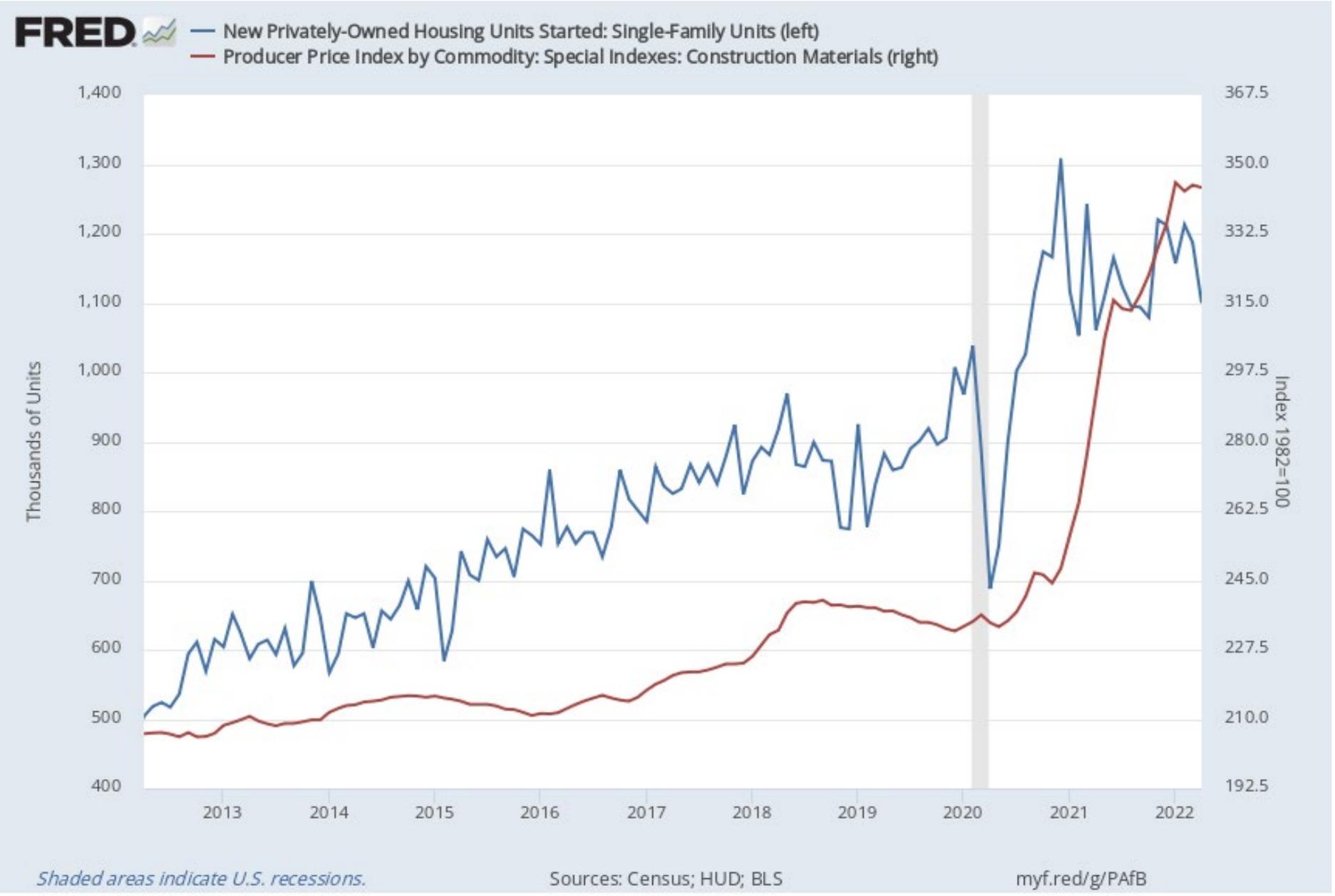
Months of supply in March 2022 rose to 2.3, up from a near record low of 1.7 the previous month. Strong demand for housing in recent years, fueled by low mortgage rates, has kept the months supply limited. Fannie Mae, the MBA, and the NAHB forecast 2022 housing starts to be between 1.61 and 1.71 million units; these 2022 forecasts are above 2021 levels. Fannie Mae, Freddie Mac, the MBA, and the NAHB predict total home sales of 6.10 to 6.93 million units in 2022. Fannie, Freddie, and NAHB project fewer sales in 2022 compared to 2021, while MBA projects higher sales.

Months of Supply

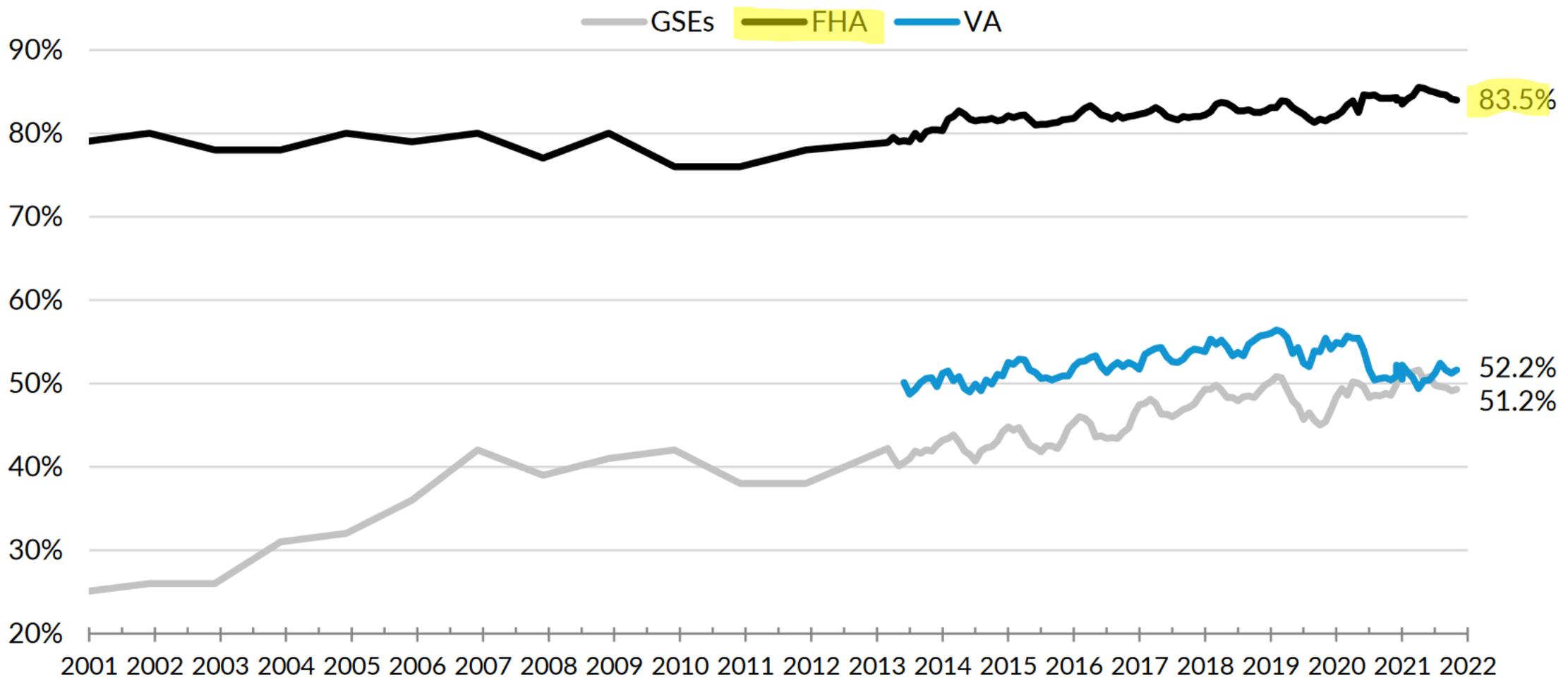


Source: National Association of Realtors and Urban Institute. Data as of March 2022.

March 2022



First time homebuyers: 83.5 percent of FHA loans, more than 50% of GSEs



Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.

February 2022

Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

Comparison of First-Time and Repeat Homebuyers, GSE and FHA Originations

Characteristics	GSEs		FHA		GSEs and FHA	
	First-time	Repeat	First-time	Repeat	First-time	Repeat
Loan Amount (\$)	321,505	339,532	262,770	276,185	305,527	340,263
Credit Score	744	754	670	668	719	741
LTV (%)	87	79	95	93	91	83
DTI (%)	36	36	44	45	39	38
Loan Rate (%)	3.25	3.18	3.36	3.28	3.26	3.16

Sources: eMBS and Urban Institute.

Note: Based on owner-occupied purchase mortgages originated in February 2022.

Macro risks?

- **Supply** remains limited
 - Construction costs
 - Fewer moving-related sales
 - Aging in place
 - Low rate lock-in?
- **Demand** strong
 - High share of first-time buyers
 - High quality in GSEs
 - Lower quality in FHA (20% of originations)
 - High DTI
 - High LTV
- Riskier FHA population
 - Low fixed rates => low payments
 - Still consumption commitments
 - Many new homeowners here (83.7%)
 - Income, inflation, or expenditure shock?
 - Savings elevated in general
 - But high LTV for this population
 - Can sell to generate cash as long as LTV<100%; currently 97%
- Wealth effects more generally if prices fall (along with other assets)

Jumbo premium has reversed sign



