MORTGAGE MONITOR

MAY 2023 REPORT

BLACK KNIGHT®

MORTGAGE MONITOR

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MAY 2023 OVERVIEW

Each month, the Black Knight Mortgage Monitor looks at a variety of issues related to the mortgage finance and housing industries.

We begin with a review of some of the high-level mortgage performance statistics reported in our most recent First Look report. From there, we dive deeper into key May mortgage performance metrics to get a clearer sense of the current delinquency landscape, including roll and cure rates, and take a closer look at specific investors and products.

This month we look at recent interest rate trends, how they affect affordability and recent developments in origination activity. We also examine how unusually but persistently low for-sale inventories are contributing to home prices firming essentially nationwide, despite rising rates and falling demand.

In producing the Mortgage Monitor, the Black Knight Data & Analytics division aggregates, analyzes and reports on the most recently available data from the company's vast mortgage and housing-related data assets. Information is gathered from the McDash and McDash Flash loan-level mortgage performance data sets; Collateral Analytics home price and sales trends data; origination and secondary market metrics from the Optimal Blue division; eMBS agency securities data; and the company's robust public records database covering 99.99% of the U.S. population. For more information on gaining access to Black Knight data assets, please call 844-474-2537 or email Mortgage.Monitor@bkfs.com.

MORTGAGE MONITOR

MAY 2023 FIRST LOOK

Black Knight's First Look at May mortgage performance provides a high-level overview compiled from the Black Knight McDash loan-level database. Click on the chart to view its content in high resolution.

MAY OVERVIEW STATS

-11 BPS

DELINQUENCY RATE

May's delinquency rate returned to near-record lows, reversing much of April's calendar-driven spike

Serious delinquencies (90+ days past due) continued to improve and are now down nearly 30% from the same month a year ago

+2.2%

FORECLOSURE STARTS

May starts increased to 25.4K, but remain 41% below pre-pandemic levels

Foreclosure actions began on 5.1% of serious delinquencies in May

+23.1%

PREPAYMENT ACTIVITY

Prepayment activity rose in May despite interest rates hovering near 6.7%

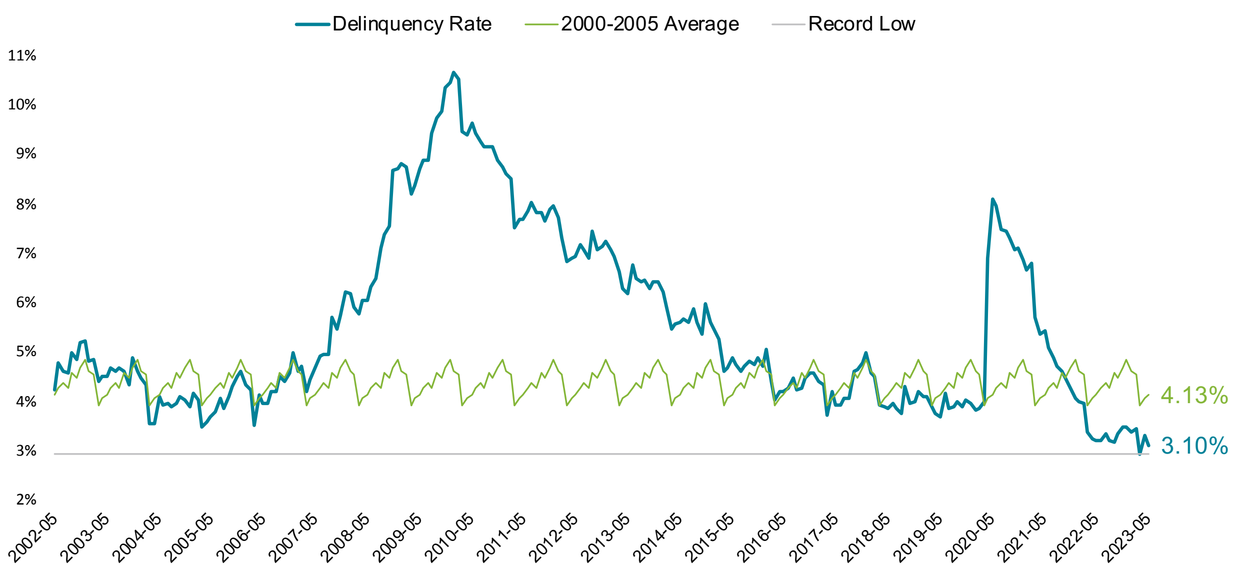
May's 54% single-month mortality rate is the highest since September, but still down 40% year over year

Though foreclosure starts increased to 25.4K for the month (+2.2%), they remain near a six-month low and 41% below pre-pandemic levels

MAY 2023 MORTGAGE PERFORMANCE HIGHLIGHTS

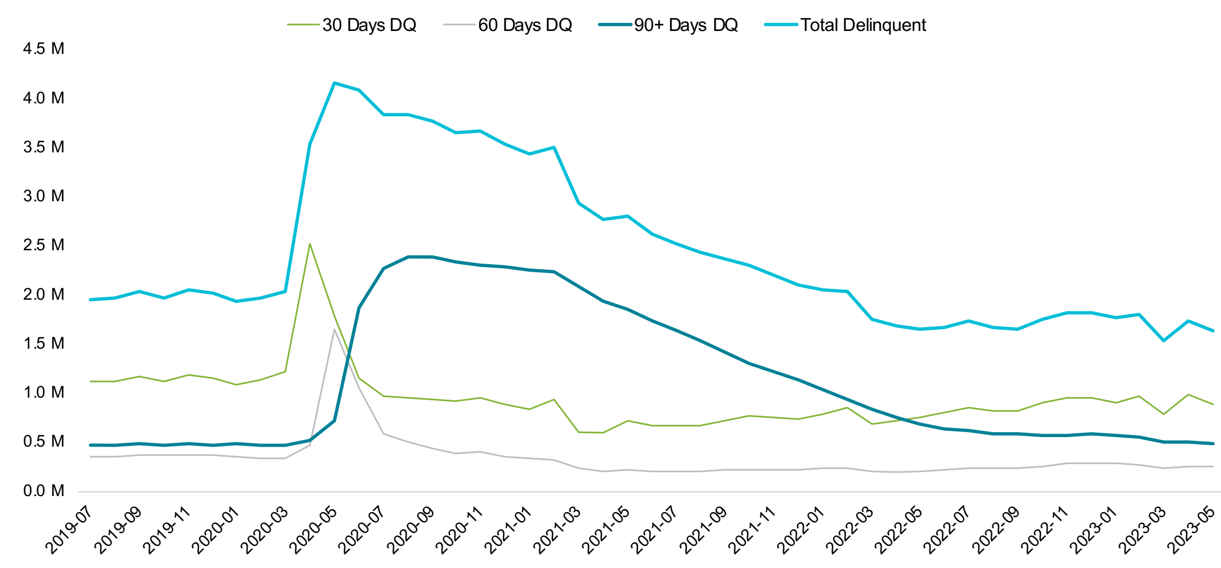
The Black Knight McDash loan-level mortgage performance database provides key performance metrics for a clearer picture of the delinquency landscape, including new inflow and roll rates. Click on each chart to view its contents in high resolution.

NATIONAL DELINQUENCY RATE – FIRST LIEN MORTGAGES



Source: Black Knight, McDash

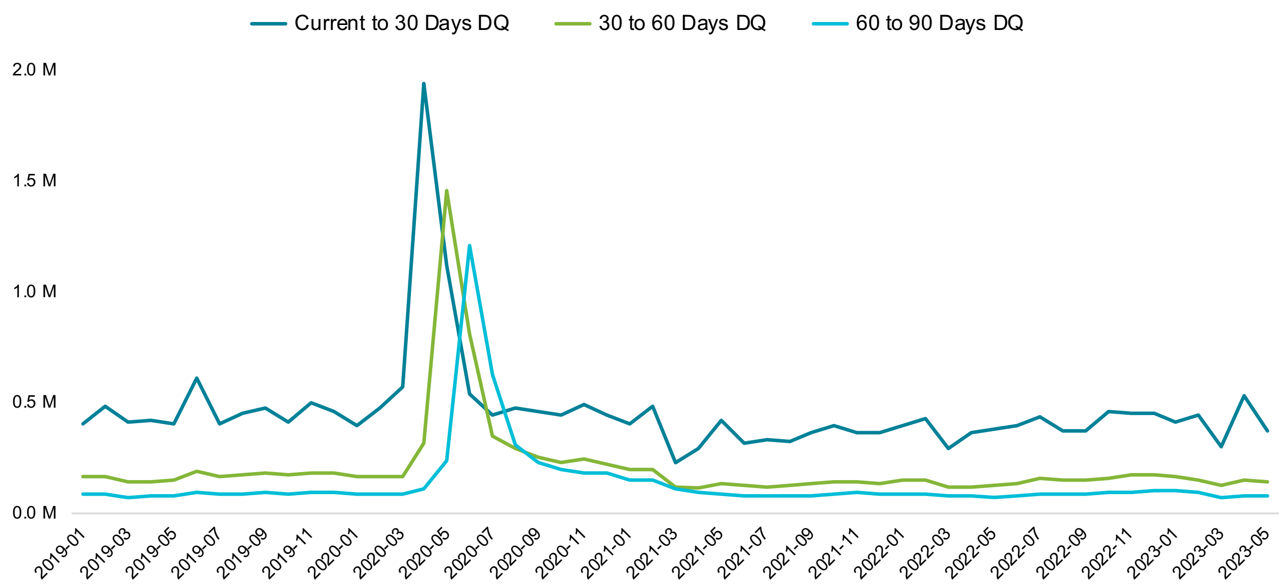
MORTGAGE DELINQUENCIES BY SEVERITY



Source: Black Knight, McDash

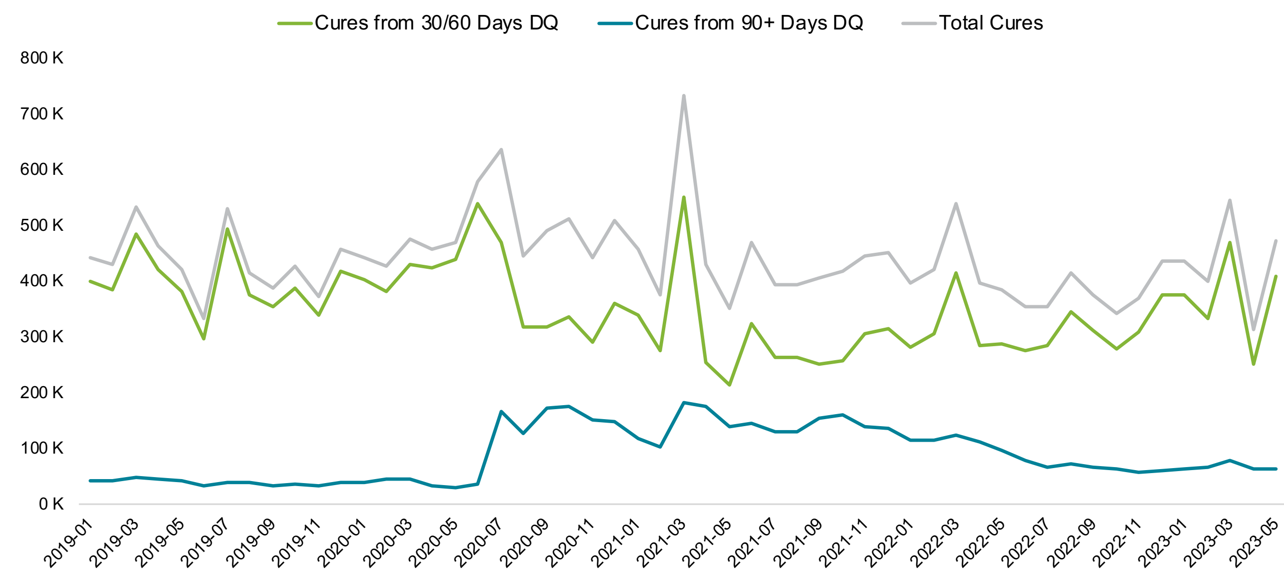
- » The national delinquency rate fell 11 basis points (bps) in May to 3.10%, returning to a near-record low after a calendar-driven spike in the prior month
- » Borrowers a single payment past due improved by 94K (9.5%), erasing nearly half of the prior month's increase
- » Serious delinquencies – those 90+ days past due – showed continued improvement nationally, falling by 18K from April and are now 30% below the level of May 2022 and within 1% of their post Great Financial Crisis low point in 2019
- » On average, delinquencies spike 6.4% in months ending on Sundays, as April did this year, but the effect is often reversed the following month – largely explaining the 6.3% decline in May delinquencies (which tends to see a 1.1% increase)
- » On average (since 2000), May 30-day delinquencies rise 0.5% following a typical 11.3% rise in April (totaling 11.9% over two months) – this year, May 30-day delinquencies declined by -9.6%, following the 25.3% rise in April (a 13.3% two-month increase)

CURES TO CURRENT BY PREVIOUS DQ BUCKET



Source: Black Knight, McDash

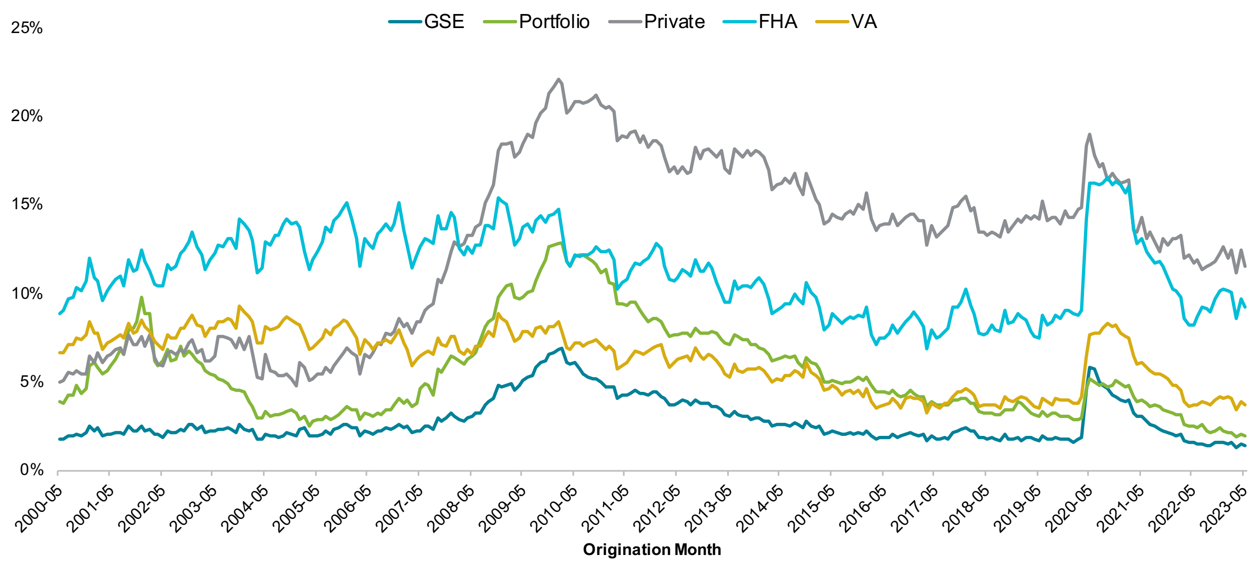
LOANS ROLLING TO A MORE DELINQUENT STATUS



Source: Black Knight, McDash

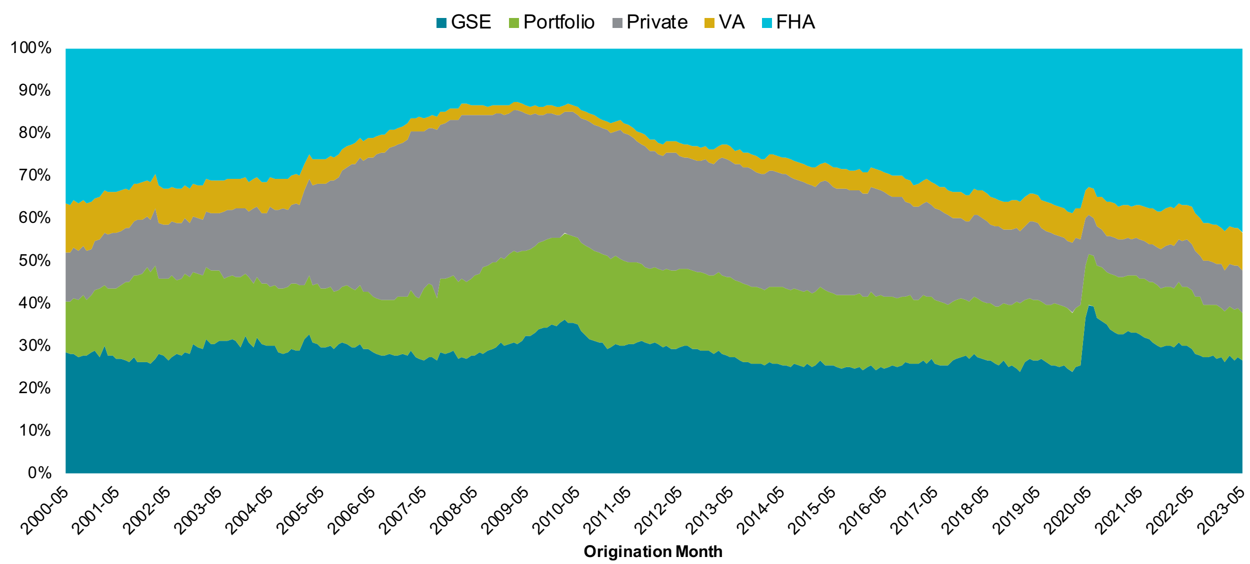
- May new delinquency inflows – those rolling from current to 30-days delinquent – decreased 152K (29%) from April to 377K – reversing two thirds of the prior month's increase
- New 60- and 90-day delinquency inflows both declined modestly, with 30- to 60-day rolls down 3.7K (2.5%) and 60- to 90-day rolls down 4.2K (5.1%) in the month, both still below pre-pandemic levels
- Cures improved across the board, with total cures rising by 160K (50%), up 23% year over year
- Cures from 90-days late inched up 1.4K (2.2%) but remain down 33% year over year as the volume of serious delinquencies drop and remaining cases become harder to cure
- Early-stage cures (from 30- and 60- days late to current) rebounded by 158K (63%) from April, and are now up 42% year over year

DELINQUENCY RATE BY PRODUCT / INVESTOR



Source: Black Knight, McDash Property Module

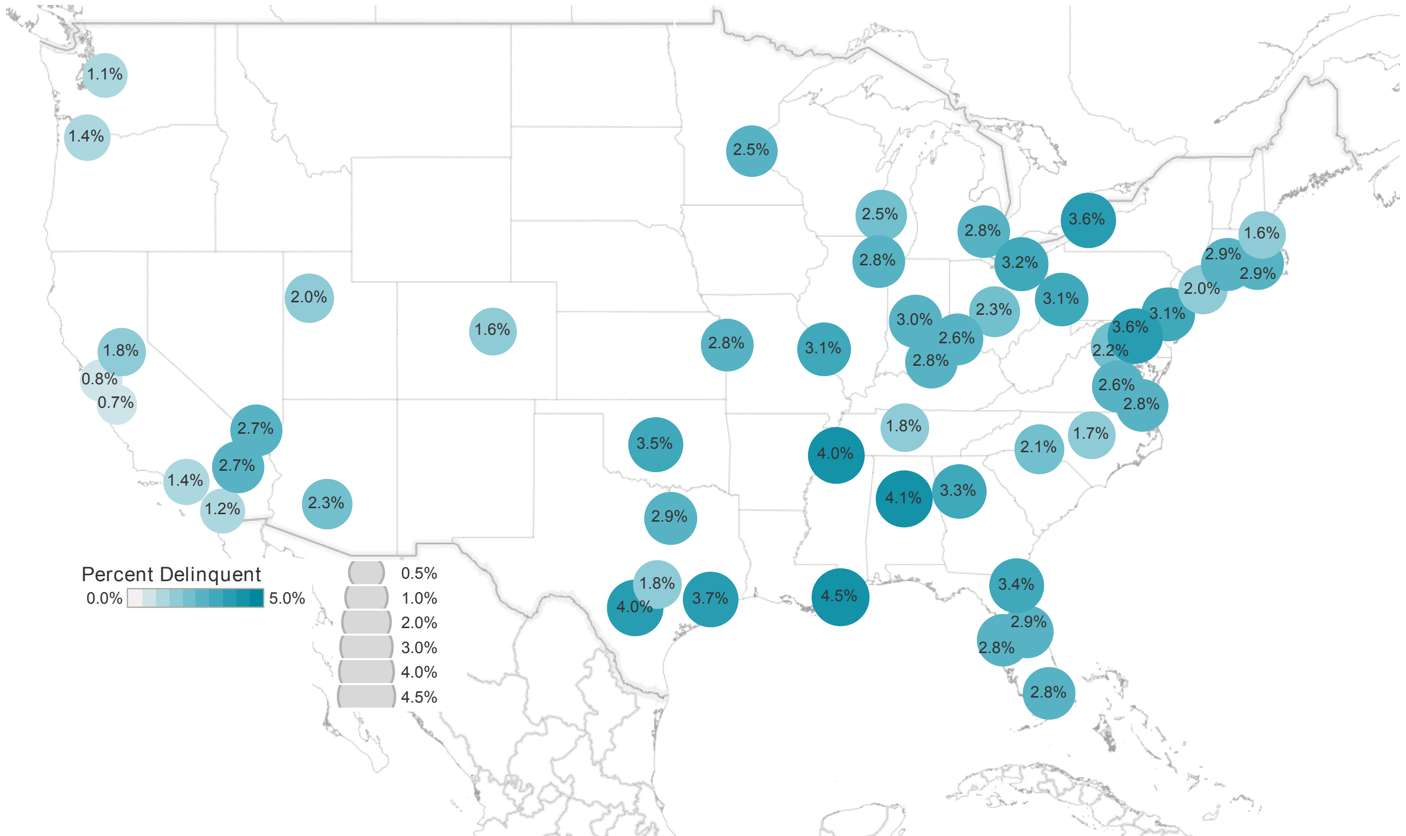
SHARE OF DELINQUENT LOANS BY PRODUCT / INVESTOR



Source: Black Knight, McDash Property Module

- Delinquency rates for both GSE and portfolio-held mortgages have hit record lows in recent months, while private-label mortgage delinquency is down 2.66 percentage points (pp) from May 2019
- FHA delinquency rates, conversely, are up 1.68 pp from the same time in 2019, after a strong initial post-pandemic rebound and now account for 43% of all delinquencies
- That's the largest share on record dating back to 2000, which means borrower assistance programs and loss mitigation solutions for FHA borrowers will likely be a focal point in coming quarters
- VA loan delinquency rates are also marginally above pre-pandemic levels, but to a lesser degree (+0.19 pp), accounting for roughly 9% of delinquent mortgages in recent months, the highest such share in more than 21 years

DELINQUENCY RATE BY CBSA



MARKETS WITH LOWEST DELINQUENCY RATES		
Rank	Geography (CBSA)	Delinquency %
1	San Jose, CA	0.7%
2	San Francisco, CA	0.8%
3	Seattle, WA	1.1%
4	San Diego, CA	1.2%
5	Los Angeles, CA	1.4%
6	Portland, OR	1.4%
7	Boston, MA	1.6%
8	Denver, CO	1.6%
9	Raleigh, NC	1.7%
10	Sacramento, CA	1.8%

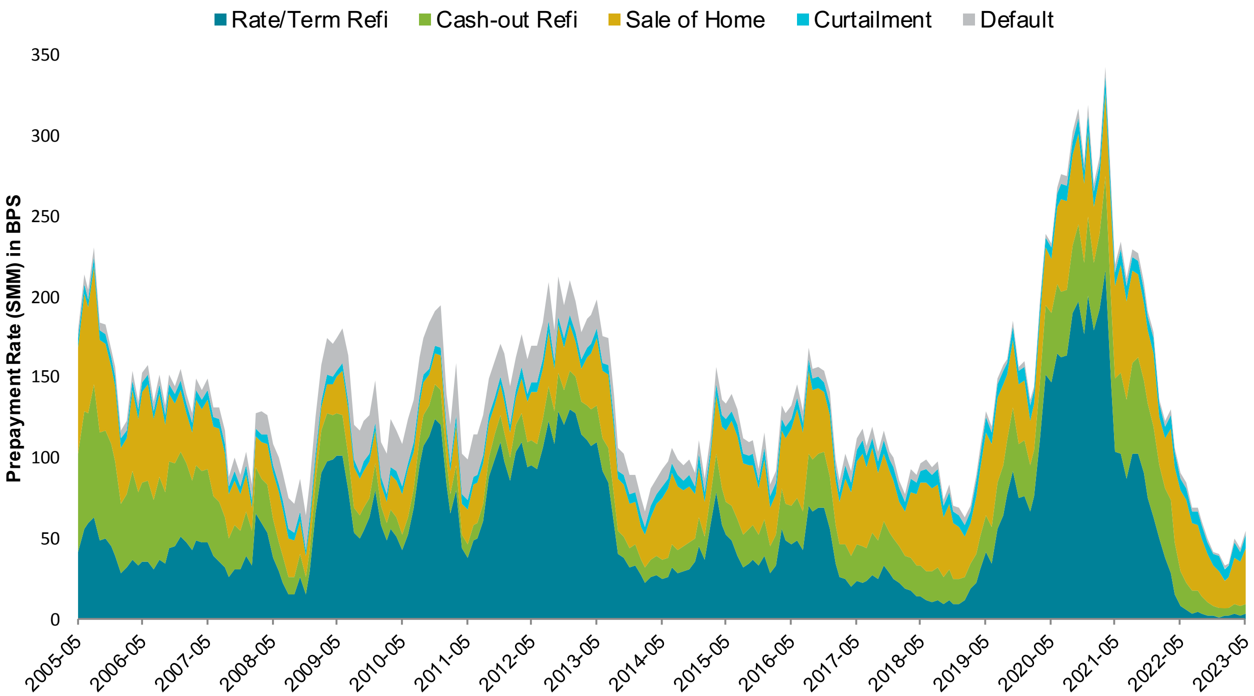
MARKETS WITH HIGHEST DELINQUENCY RATES		
Rank	Geography (CBSA)	Delinquency %
41	Atlanta, GA	3.3%
42	Jacksonville, FL	3.4%
43	Oklahoma City, OK	3.5%
44	Buffalo, NY	3.6%
45	Baltimore, MD	3.6%
46	Houston, TX	3.7%
47	San Antonio, TX	4.0%
48	Memphis, TN	4.0%
49	Birmingham, AL	4.1%
50	New Orleans, LA	4.5%

Mortgage delinquency rates remain low across the U.S. with over half of major markets hitting new record lows over the past three months

- The lowest delinquency rates are along the West Coast, with fewer than 1% of borrowers delinquent on mortgage payments in San Jose and San Francisco, and every major market west of Denver seeing delinquency rates below the national average
- The highest delinquency rates are in the South, with more than 4% of mortgage holders past due in New Orleans, Birmingham and Memphis
- Even so, delinquency rates in every major market are running 29% or more below their long run averages, with rates as much as 69% below their long run averages along the West Coast
- Even in historically high-delinquency areas like New Orleans (-45%), Birmingham (-43%) and Memphis (-54%) delinquencies are running far below their long run averages as well

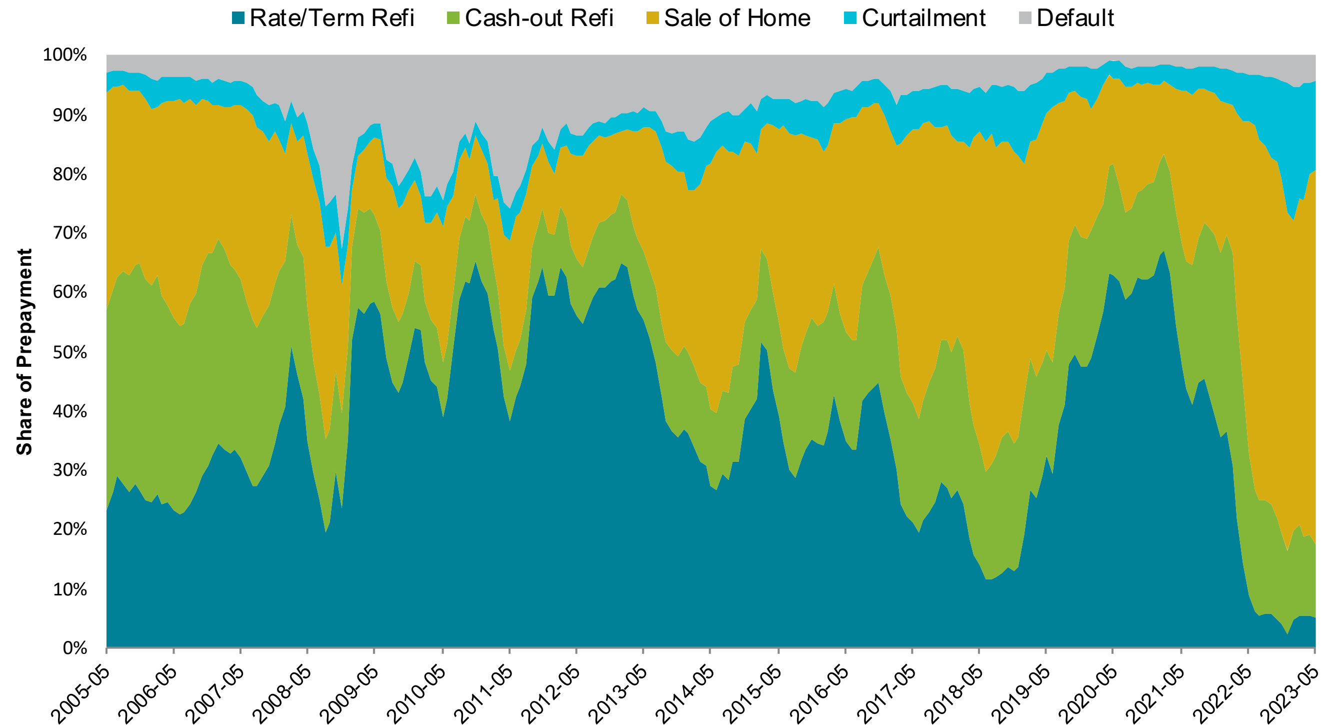
Source: Black Knight, McDash

PREPAY ACTIVITY (SMM) BY CAUSE OF PREPAYMENT



Source: Black Knight, McDash Property Module

DISTRIBUTION OF PREPAY ACTIVITY BY REASON



Source: Black Knight, McDash Property Module

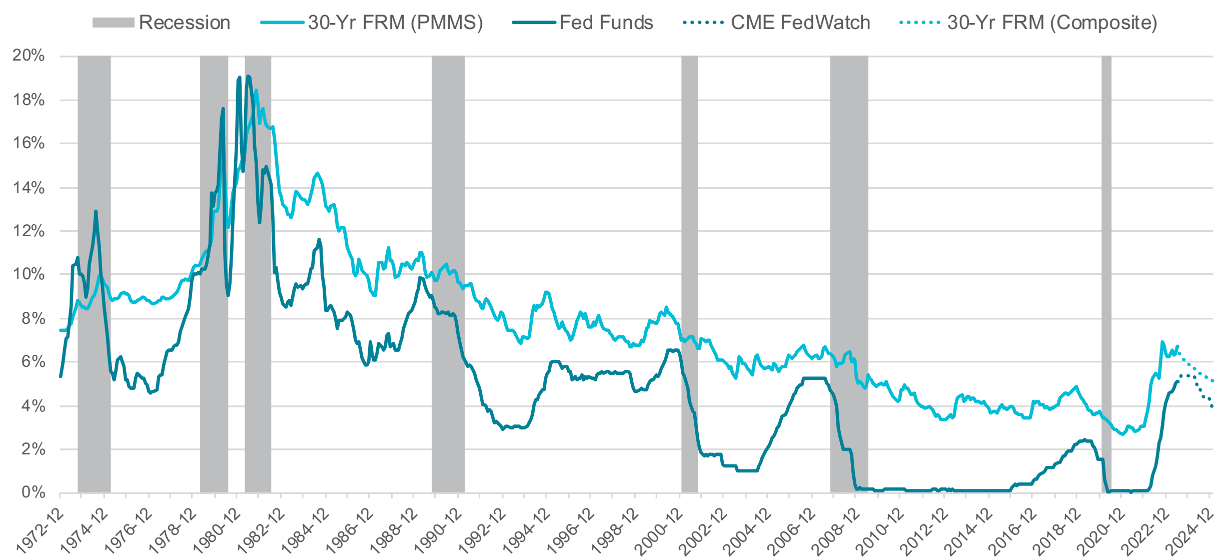
- Prepayment activity, expressed as single-month mortality (SMM), rose by 23% in May to 0.54%, the highest level since September, despite interest rates hovering around 6.7%
- Led by a 28% rise related to home sales, prepayments were up for all drivers, but also rose in part due to May's 22 business days vs. April's 20 – accounting for roughly a 10% increase
- In addition to home sales, rate/term (+16%), cash-out (+12%), curtailment (+14%) and default (+14%) related prepayments all increased by double digits
- Prepayments are still down 40% from May of 2022
- In today's low refinance volume environment, home sales drove 63% of prepayments in May, with curtailments making up the second largest share at 15%

MORTGAGE MONITOR

MAY 2023 INTEREST RATES AND AFFORDABILITY

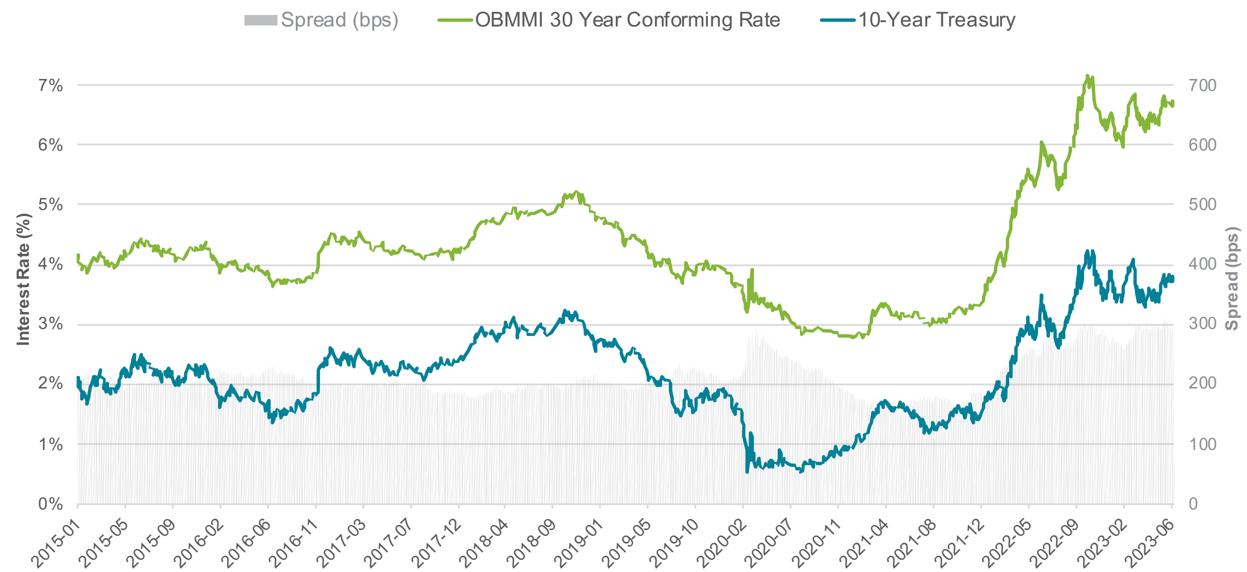
Here we look at recent developments in interest rates, how they impact affordability, and recent developments in origination activity. Click on each chart to view its contents in high resolution.

FED FUNDS RATE VS. 30-YEAR FRM CONFORMING



Source: Black Knight, Freddie Mac (PMMS), Federal Reserve Bank of St. Louis (FRED) CME FedWatch Projections as of 6/27/2023; Fannie Mae Housing Forecast May 2023; MBA Mortgage Forecast June 20, 2023

30-YEAR MORTGAGE TO 10-YEAR TREASURY SPREAD

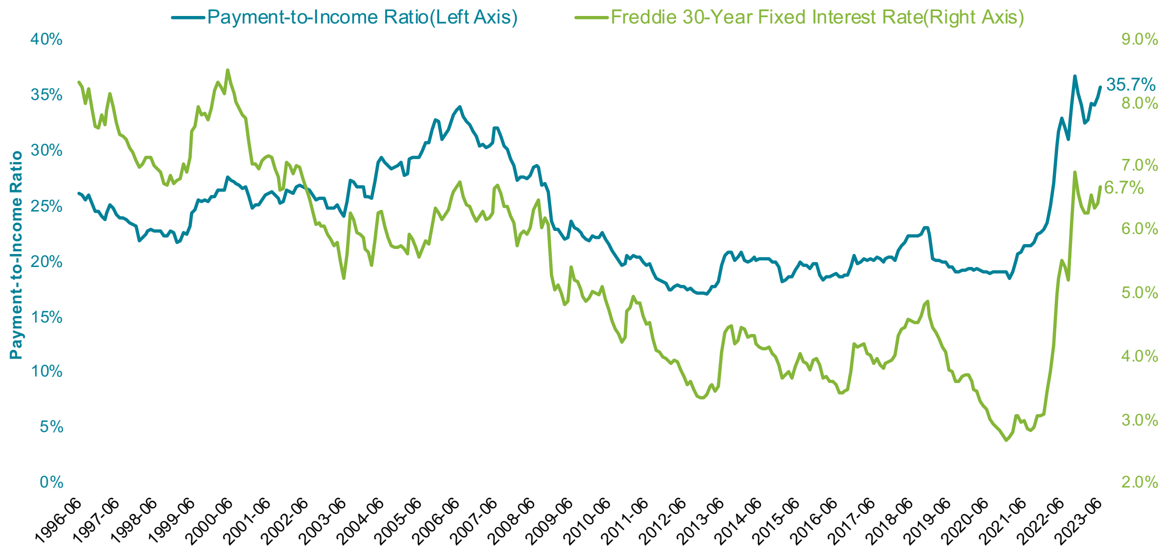


Source: Black Knight, Optimal Blue, Federal Reserve Bank of St. Louis (FRED)

- The Federal Reserve Federal Open Market Committee (FOMC) forward guidance of a likely rate hike in July and persistent inflation concerns have the market expecting the federal funds rates to remain higher for 2023 in the 5.25% - 5.50% with rate cuts not starting until March 2024
- Consensus estimates have rates ending 2024 in the 3.75% - 4.00% range
- Mortgage rates climbed back to 6.63% by May 19, and have remained near 6.7% into June, as spreads have remained wide

- The spread between 10-year Treasurys and 30-year fixed mortgage rates remains historically wide, staying above 290 bps for all of May and June to date, peaking at 311 bps late May, and staying more than a full percentage point above its long run average
- Composite forecasts still indicate that 30-year rates will ease somewhat later this year on reduced volatility and tightening spreads
- In the past, 30-year mortgage rates have tended to decline prior to the FOMC easing rates, often during the plateau period

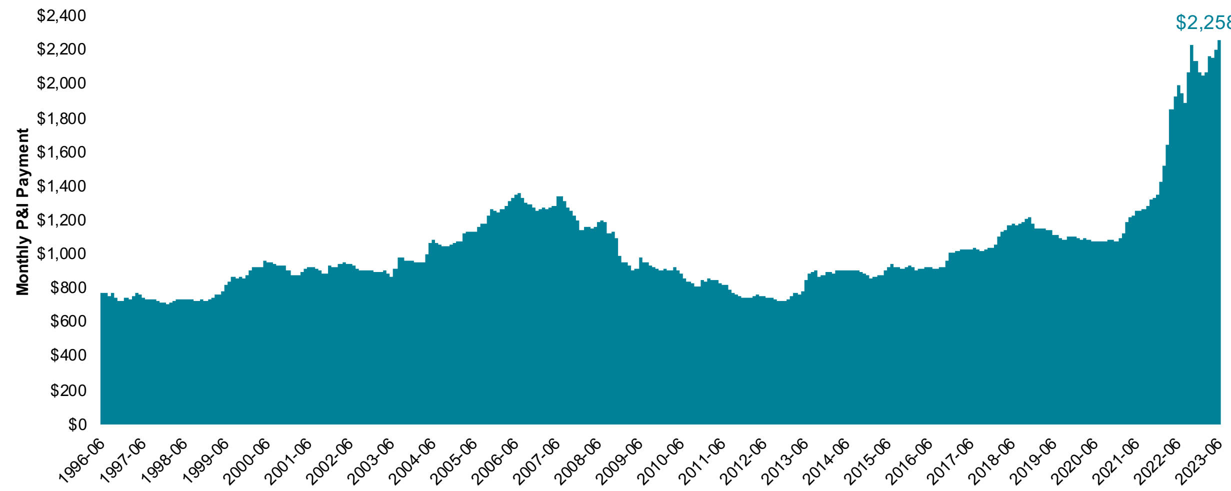
NATIONAL PAYMENT-TO-INCOME RATIO*



Source: Black Knight Home Price Index, FHLMC PMMS, Census Bureau
*The national payment-to-income ratio is the share of median income needed to make the monthly principal and interest payment on the purchase of the average-priced home using a 20% down 30-year fixed rate mortgage at the prevailing interest rate

MONTHLY P&I PAYMENT TO PURCHASE AVERAGE PRICED HOME

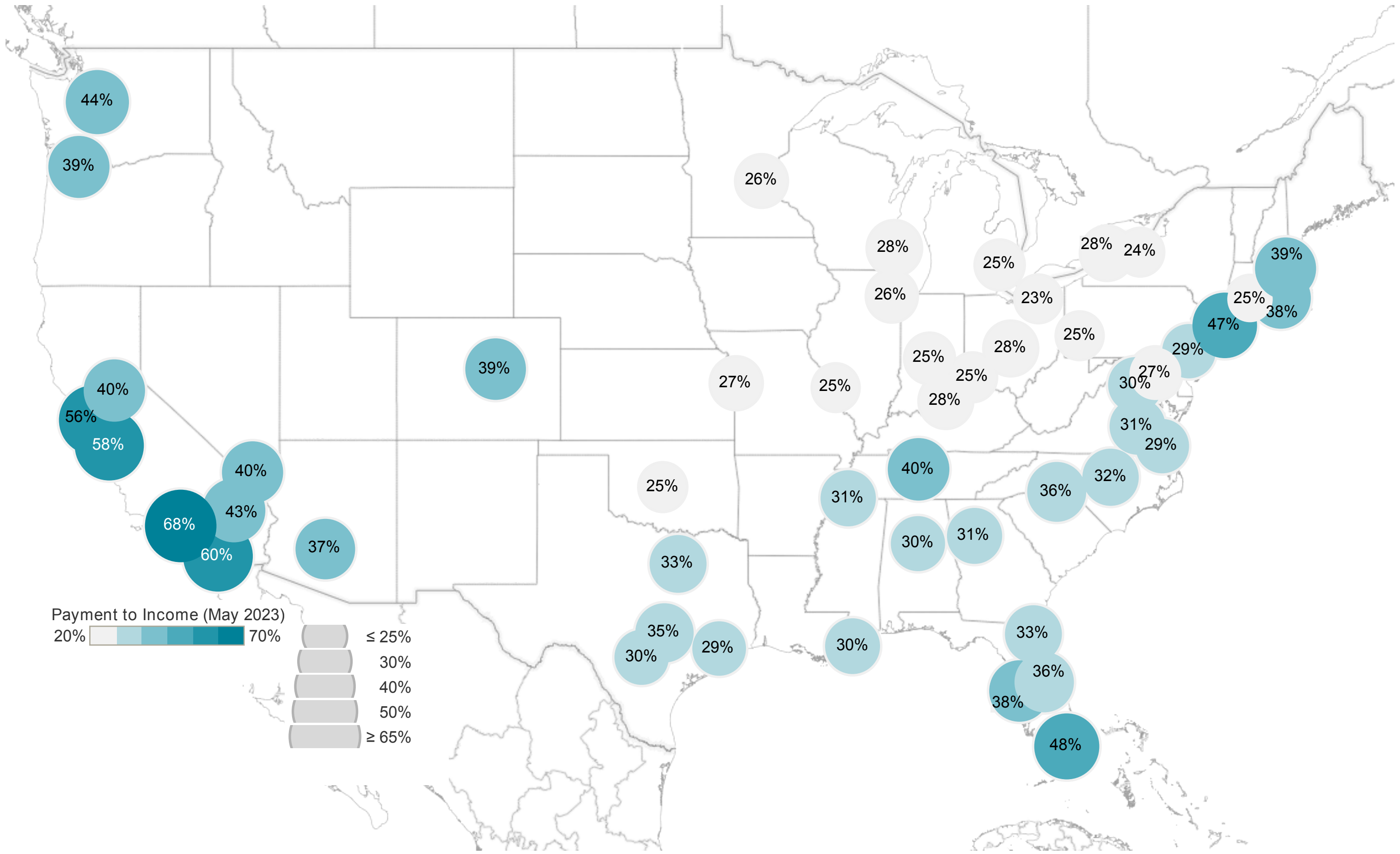
(WITH 20% DOWNPAYMENT AT PREVAILING 30-YEAR INTEREST RATE)



Source: Black Knight HPI, Freddie Mac PMMS
Assumes a 20% down payment and utilization of a 30-year fixed rate mortgage at the prevailing interest rate

- After a modest improvement in early 2023, home affordability has worsened in recent months fueled by both rising home prices and rising interest rates
- As of June 22, with 30-year rates at 6.67%, it required $2,258 per month in principal and interest to make the monthly payment on a median-priced home with 20% down and a 30-year mortgage, the highest such payment on record, marginally higher than the $2,234 required back in October
- Factoring in current income levels, that means 35.7% of the median household income would need to be allocated to the monthly payment of a median-priced home, making June the second least affordable month in the past 37 years
- It would take a 30% drop in home prices to get back to normal affordability, or, alternatively, if prices stayed the same and rates fell to 5%, it would take 19% income growth to get us back to normal

CURRENT PAYMENT-TO-INCOME RATIO

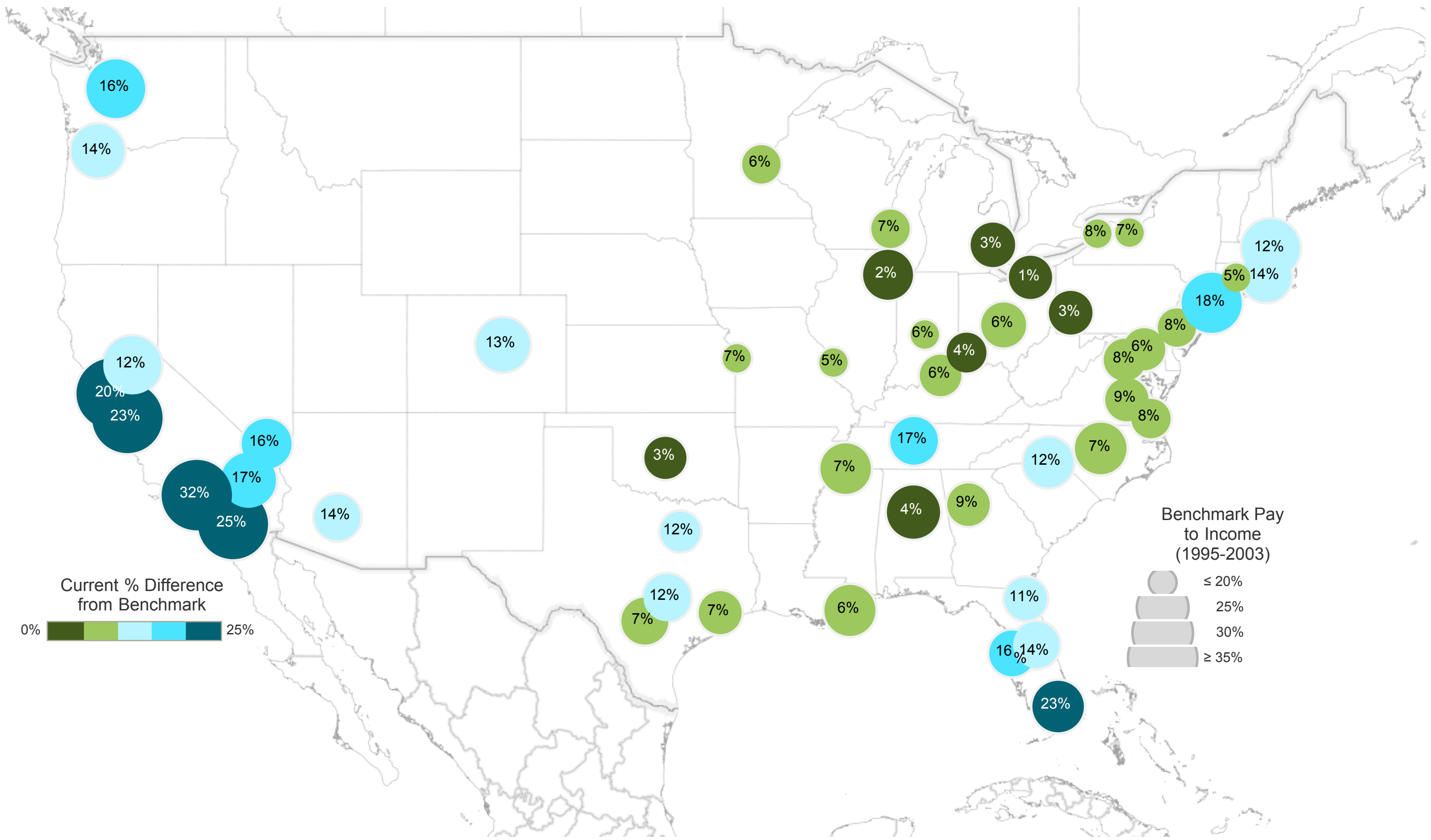


Source: Black Knight Home Price Index (HPI), Freddie Mac PMMS, Census Bureau, Moody's Analytics

Affordability pressures are being felt across the U.S., with all 100 of the largest markets being less affordable than their long-run averages, although the degree to which markets are stretched varies significantly

- In Los Angeles, it now takes 68% of the local median income to afford the average home (assuming a 20% down payment on a mortgage at the prevailing 30-year rate)
- Cleveland – the most affordable market, a current payment-to-income ratio of 23% – is up only 1 pp from its long-term trend
- Many other Midwest markets remain affordable, such as Chicago, Detroit, Cleveland and Pittsburgh, that have seen their payment-to-income ratios rise 3 pp or less

PAYMENT TO INCOME RATIO DIFFERENCE FROM BENCHMARK



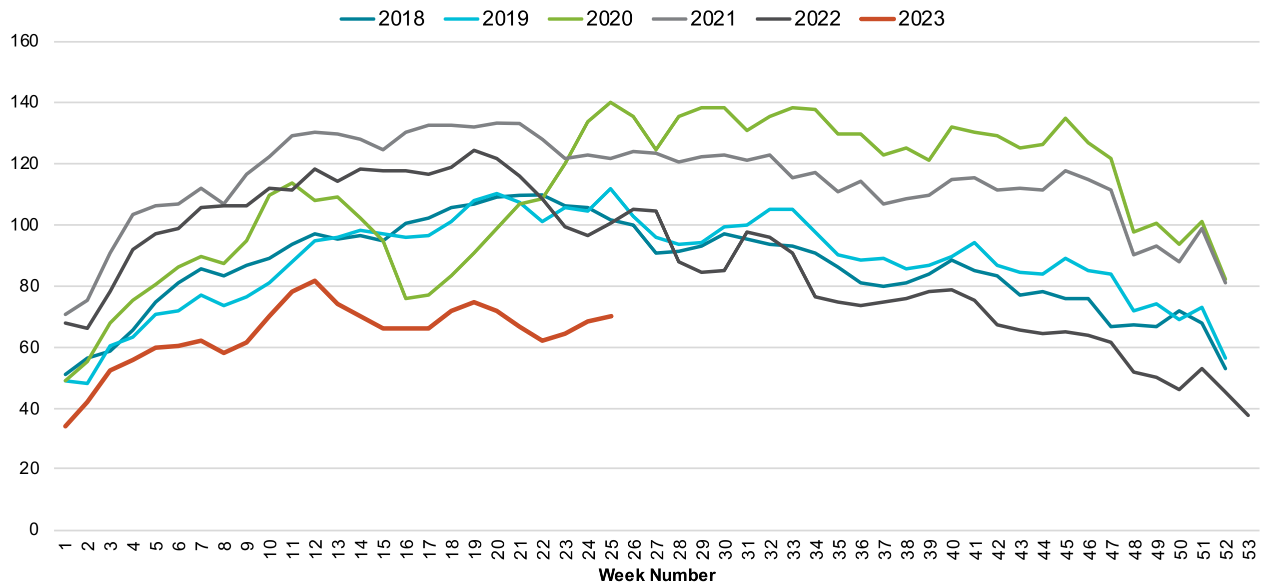
Source: Black Knight Home Price Index (HPI), Freddie Mac PMMS, Census Bureau, Moody's Analytics

In Los Angeles, where the benchmark ratio is a high 36%, it now takes a staggering 32 pp more of the median income than its long-run average to afford the median-priced home

- Markets like San Diego, Los Angeles, San Jose and San Francisco, with average payment-to-income ratios near 35% from 1995-2003, now require an additional 20 pp to 32 pp of income to purchase the median-priced home
- Outside the West Coast, Miami has seen the steepest increase, with its payment to income ratio 23 pp above its long run average
- New York (+18 pp), Nashville (+17 pp), Riverside (+17 pp), Tampa, Seattle and Las Vegas (all +16 pp) follow among metros that have seen payment-to-income ratios climb more than 15 pp
- Even many traditionally affordable metros with benchmark payment-to-income ratios near 20%, such as Kansas City (+7 pp), St. Louis (+5 pp), Indianapolis (+6 pp) and Hartford (+5 pp) are feeling the pinch

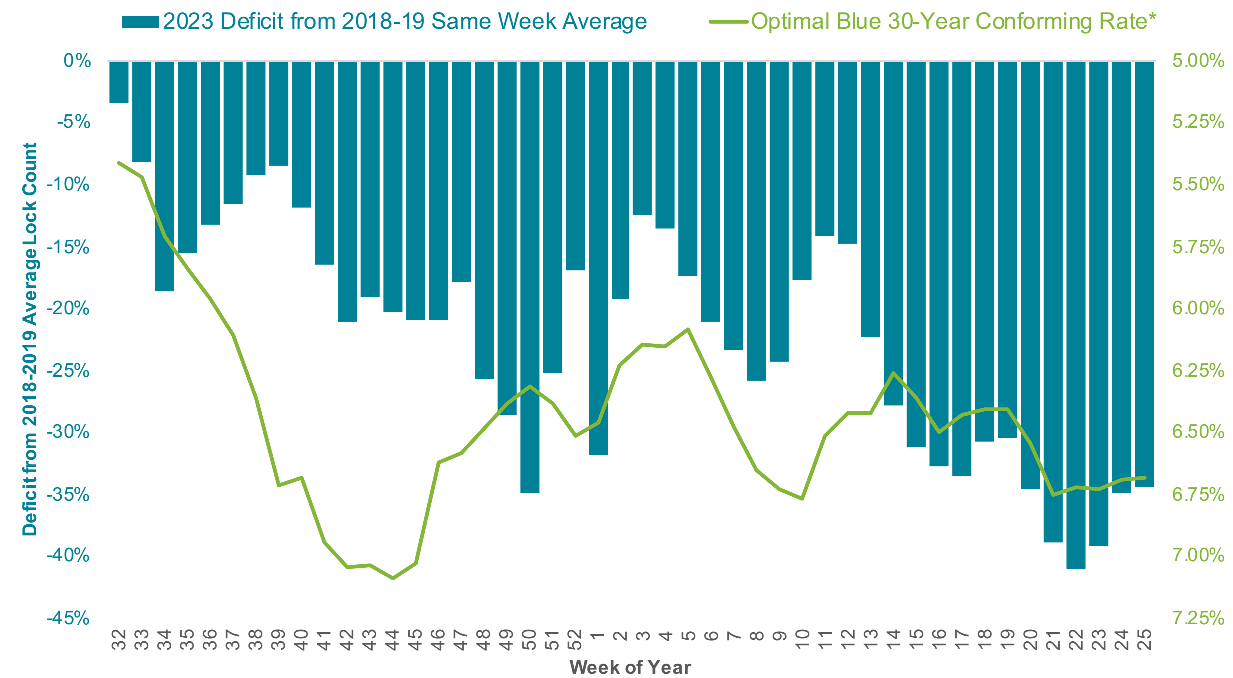
PURCHASE RATE LOCK COUNTS BY YEAR AND WEEK

(TRAILING 3-WEEK MOVING AVERAGE)



Source: Black Knight, Optimal Blue
Data through week ending 6/24/2023
Total lock count indexed to 100 in week ending 1/13/2018

PURCHASE LOCK COUNT DEFICIT VS. INTEREST RATE



Source: Black Knight, Optimal Blue;
Data through week ending 6/24/2023
Interest rates are weekly averages (Optimal Blue)

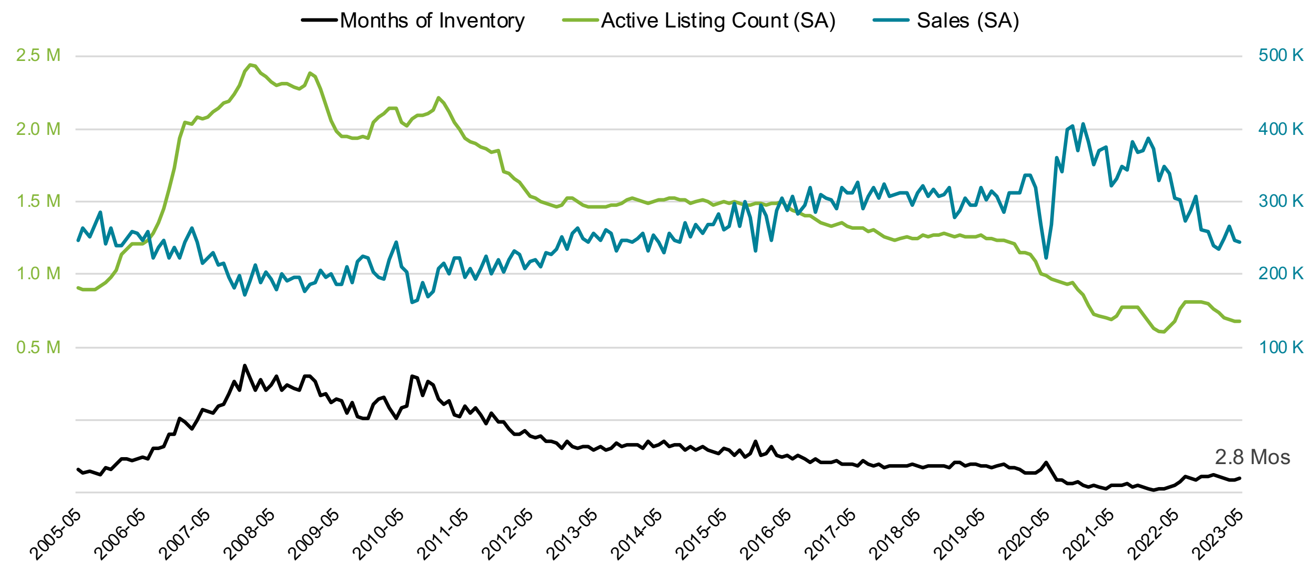
- After purchase rate locks pulled to within 15% of pre-pandemic levels in mid-January and again in mid-March on easing 30-year rates, the deficit reached 41% to start June, but retreated to 34% the week ending June 24, despite interest rates staying largely flat
- While volume shifts ebbed and flowed with 30-year rates through the first three months of the year, purchase demand has been less responsive to shifts in 30-year rates recently
- Credit tightening has also continued, with credit scores continuing their upward trajectory and loan-to-value ratios falling across all product types and purposes
- The trailing three-week average for purchase rate locks has remained below the most recent peak of the week ending March 25 (on an unadjusted basis), down 34% from the same week average in 2018/2019
- The 30-year mortgage rate was already flirting with 6% a year ago, depressing volumes, such that the deficit the week ending June 24, 2023, has shrunk 30% relative to the week ending June 25, 2022

MAY 2023 HOUSING MARKET METRICS

Here we examine recent changes in home prices, affordability and inventory levels across the country, with a closer look at which markets have seen the strongest reaction to the rising interest rate environment. This information has been compiled from the Black Knight Home Price Index, Collateral Analytics data, the McDash loan-level mortgage performance database and other public and proprietary data sets. Click on each chart to view its contents in high resolution.

SALES, ACTIVE LISTINGS AND MONTHS OF INVENTORY

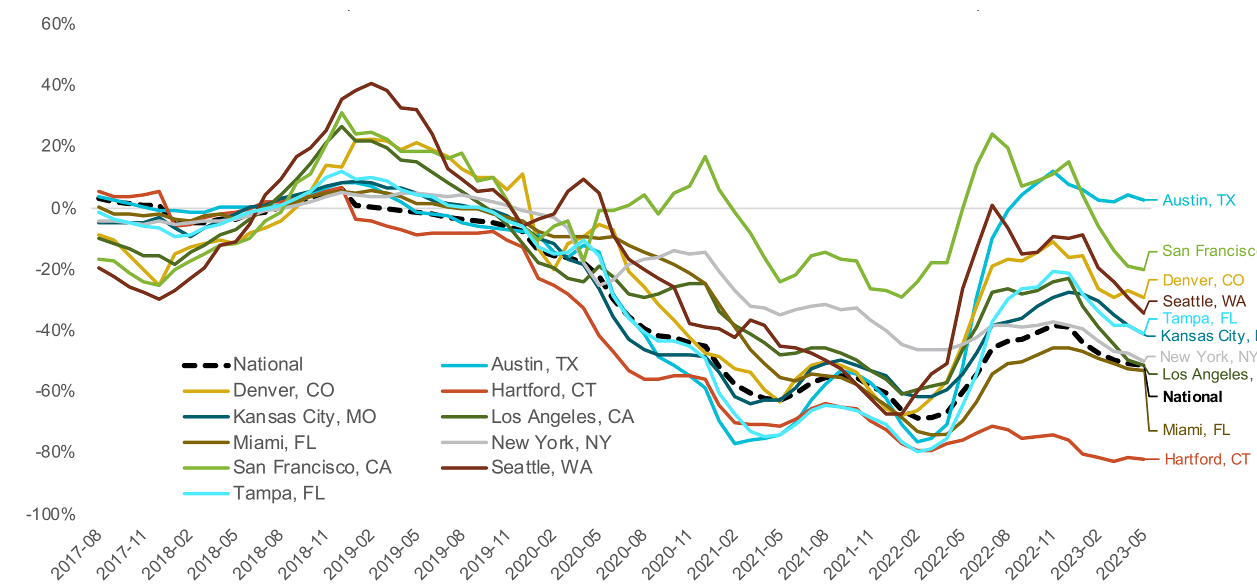
(SEASONALLY ADJUSTED – SINGLE FAMILY RESIDENCES AND CONDOS)



Source: Black Knight, Collateral Analytics

INVENTORY OF HOMES LISTED FOR SALE

(% CHANGE FROM 2017-2019 SAME MONTH AVERAGE)

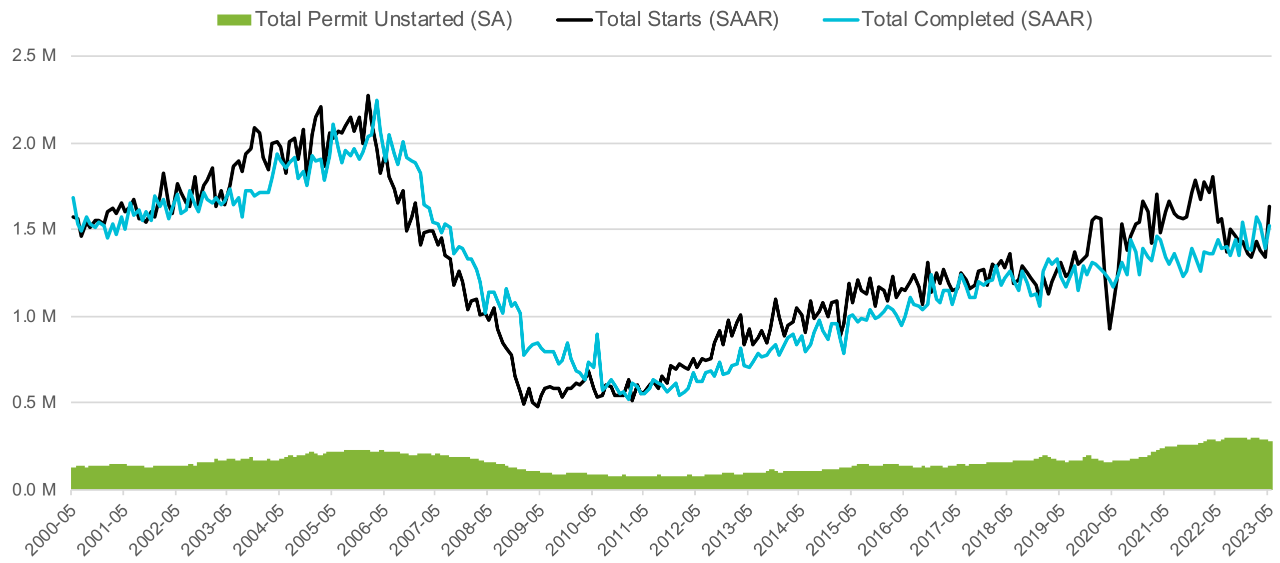


Source: Black Knight, Realtor.com

- Home sale volumes fell again in May on a seasonally adjusted basis according to Black Knight's Collateral Analytics data, dipping to within 3% of January's lows as both a lack of inventory and constrained affordability continue to weigh on the market
- Subdued purchase rate lock activity suggests transaction volumes are likely to remain weak in coming months
- For-sale inventory improved modestly but, still 51% off pre-pandemic levels, remains a massive challenge, putting upward pressure on home prices despite Fed attempts to cool the market via higher rates
- Inventory levels have decreased in 95% of major markets this year, with the largest swings in western locales such as Phoenix, Boise, Ogden, San Francisco and Colorado Springs
- Each of these metros had moved into inventory oversupply late last year as sales dried up, but have since swung back more than 30 pp year-to-date as compared to pre-pandemic level
- Other major movers include San Jose, Stockton, Sacramento, Los Angeles, Salt Lake City, Raleigh and San Diego
- The only major market with for-sale inventory above pre-pandemic averages is Austin, which is also the only major market with significant month-over-month price declines this spring

NEW PRIVATE HOUSING BY STAGE OF CONSTRUCTION

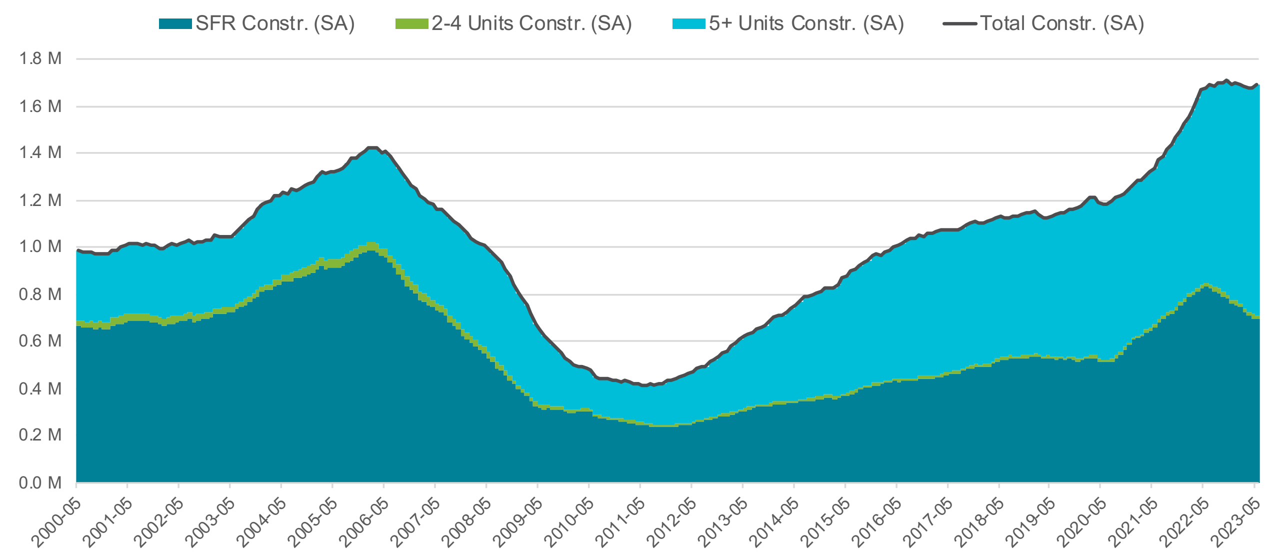
(SEASONALLY ADJUSTED – STARTS, PERMITS, COMPLETIONS ANNUALIZED)



Source: Black Knight; U.S. Census Bureau; U.S. Department of Housing and Urban Development (HUD); St. Louis Federal Reserve Bank (FRED)

NEW PRIVATE HOUSING UNDER CONSTRUCTION BY TYPE

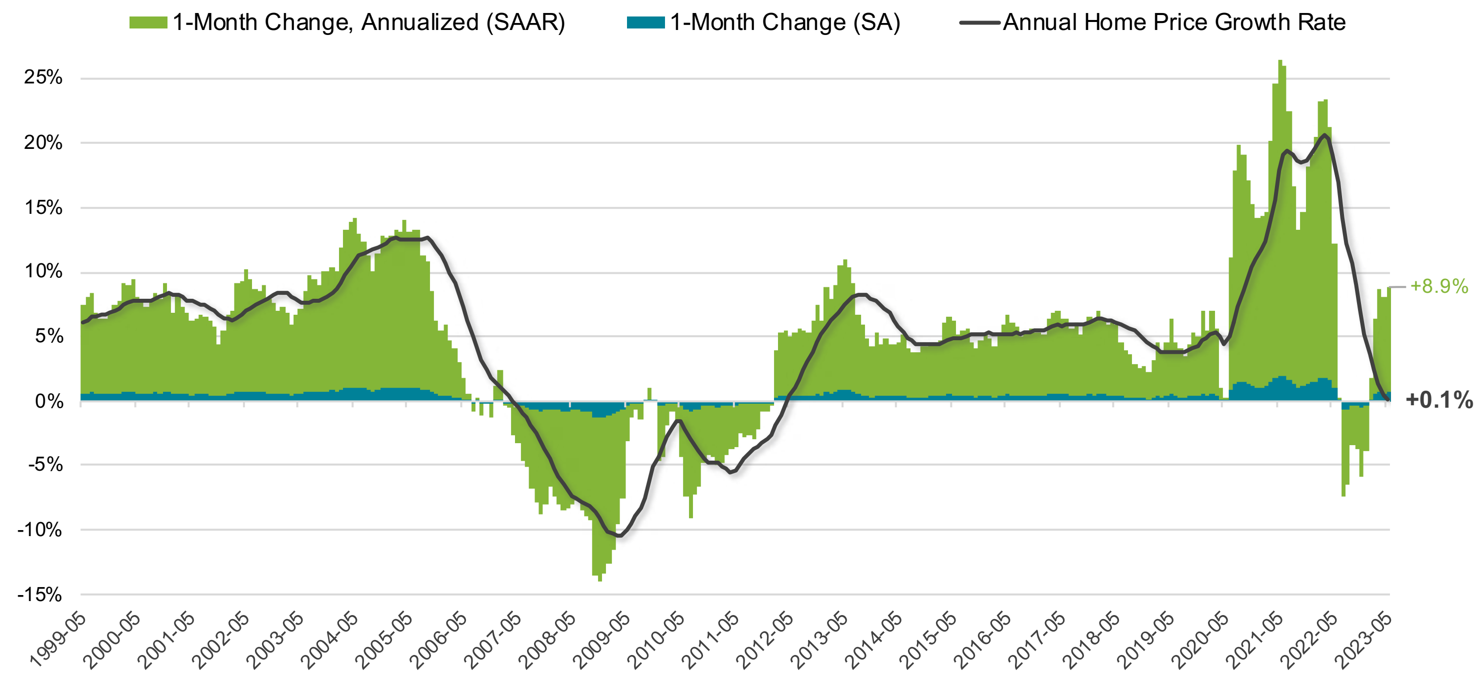
(SEASONALLY ADJUSTED)



Source: Black Knight; U.S. Census Bureau; U.S. Department of Housing and Urban Development (HUD); St. Louis Federal Reserve Bank (FRED)

- » New construction is emerging as a bright spot in an otherwise relatively bleak inventory landscape
- » Housing starts significantly outpaced expectations in May, hitting their highest level in more than a year, with homebuilder sentiment on the rise
- » Completions also tended higher in May, after seeing a pullback in April
- » While the total number of units under construction is now 20% above its 2005 peak, providing some optimism for upcoming completions, single-family residential (SFR) construction lags at 30% below the 2005 peak
- » 58% of new housing under construction in May was 5+ units, with just 41% being SFR
- » With existing homeowners still listing their homes for sale at a 27% lower pace than normal, new homes are expected to make up a growing share of overall sale activity in the market

BLACK KNIGHT HOME PRICE INDEX



Source: Black Knight Home Price Index (HPI)

Tightening inventory is putting upward pressure on prices as we move toward the traditional end of the home buying season

» On a seasonally adjusted basis, Black Knight's Home Price Index hit a new record high in May, having now fully reversed the correction in home prices seen late last year

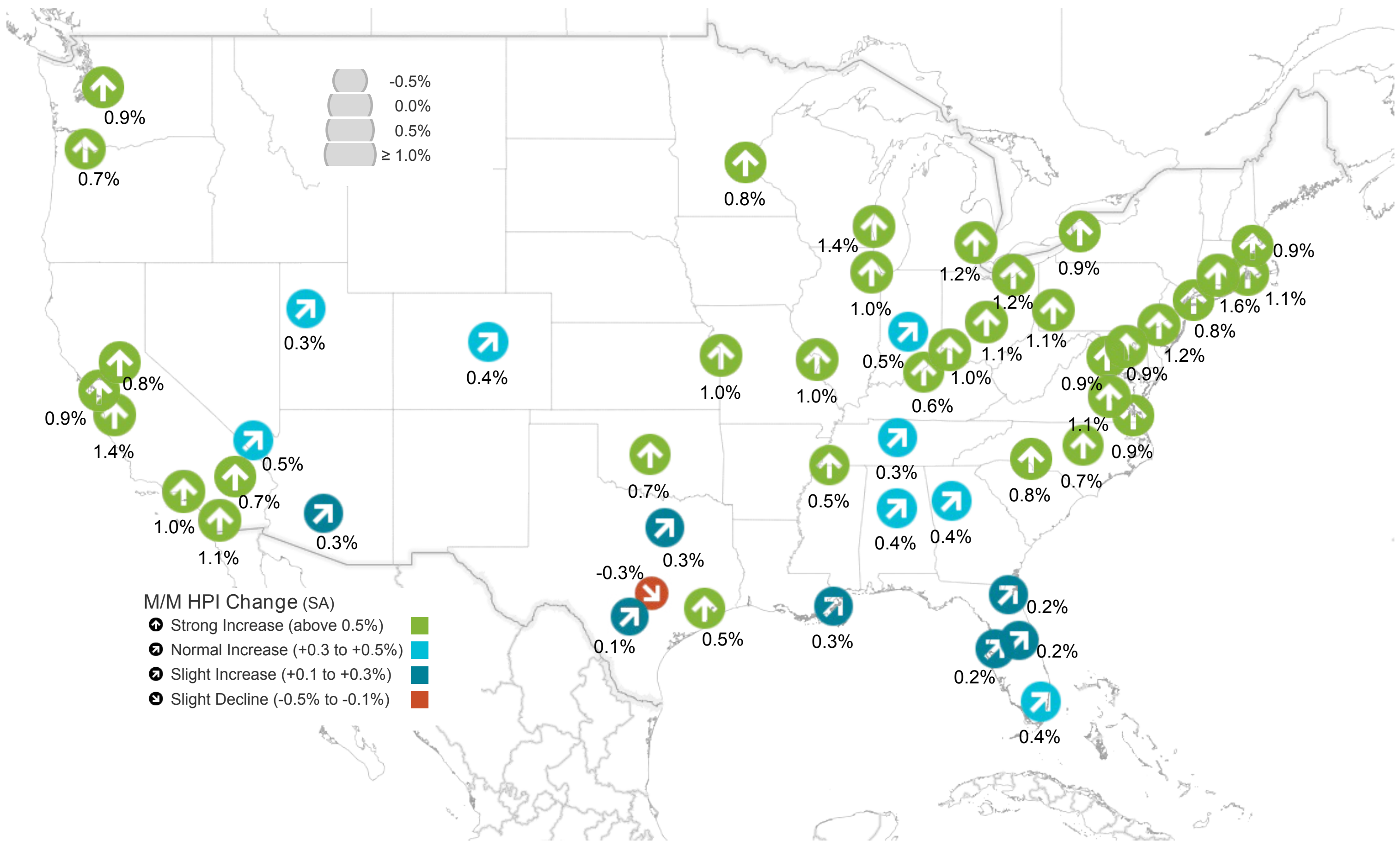
» May's +0.70% seasonally adjusted month-over-month gain is equivalent to an annualized growth rate of 8.9%, suggesting an upcoming inflection (reheating) in the annual home price growth rate

» Despite the annual home price growth rate – a backward looking metric – sitting at just 0.1%, home price growth was exceptionally strong in May with prices rising for the fifth consecutive month

» If recent trends hold true, that annual home price growth rate would remain at or near 0% for a very small handful of months before trending sharply higher

MONTH-OVER-MONTH CHANGE IN HPI

(SEASONALLY ADJUSTED)



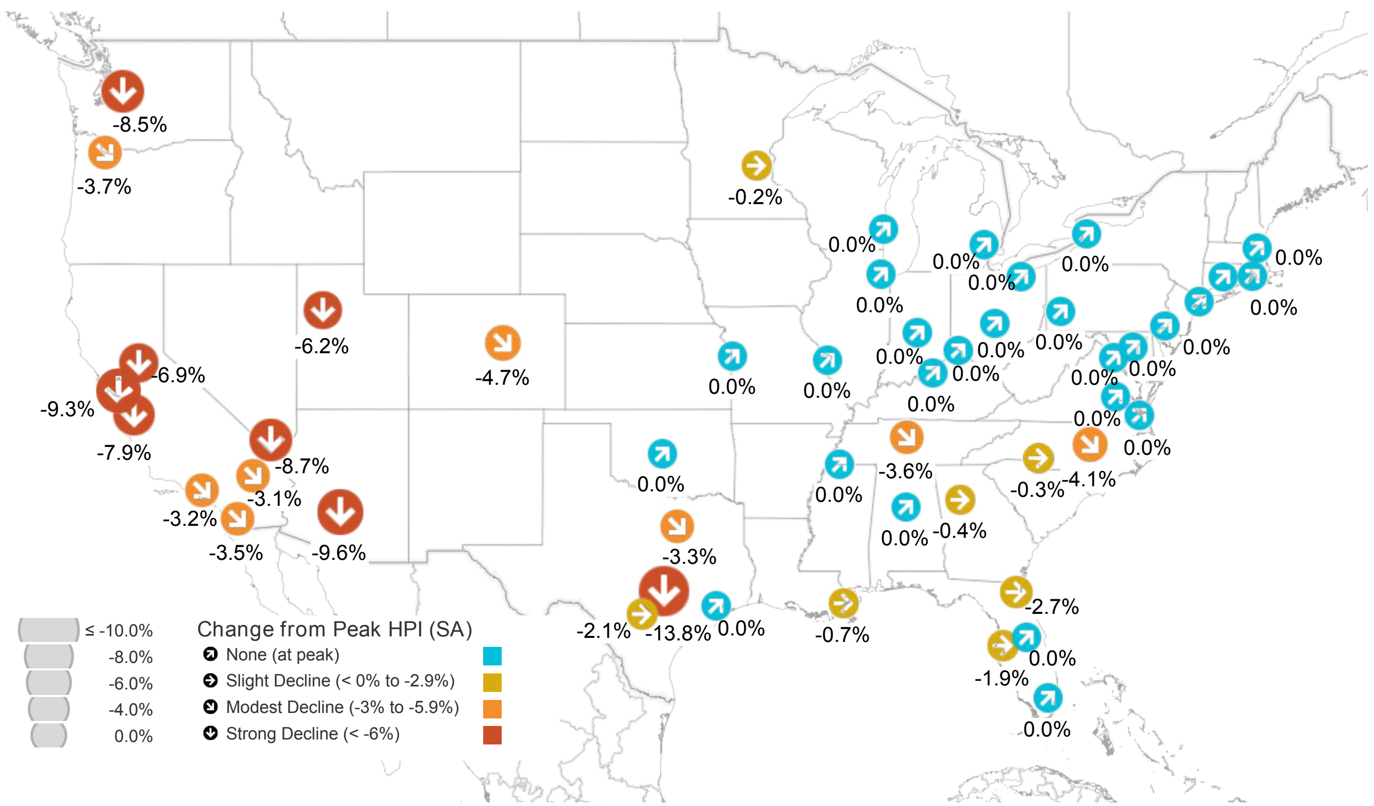
Source: Black Knight Home Price Index (HPI)
May 2023

Prices are now almost universally rising again on a seasonally adjusted basis, with the exception of Austin – the only market with for-sale inventory back above pre-pandemic levels – which has faced significant price corrections continuing into spring

- Along the West Coast, where inventory levels pulled back earlier this year, prices have begun to rise again, reversing some of the setbacks from late in 2022
- In fact, San Jose – the market with the largest price corrections in 2022 – ranked second of markets in terms of single-month seasonally adjusted price gains in May at 1.4% month over month, with San Diego (+1.1%), Los Angeles, (+1.0), San Francisco (+0.9%), Seattle(+0.9%) and Sacramento (+0.8%) all seeing exceptional home price growth in May as well
- Hartford (+1.6%) continues to lead price growth in the Northeast, together with New York (+1.2%); Milwaukee (+1.4%), Detroit (+1.2%) and Cleveland (+1.2%) lead the Midwest
- Home prices in markets in north and central Florida (Tampa, Orlando, Jacksonville), as well as New Orleans, San Antonio, Dallas and Phoenix are seeing slight increases in the 0.1% to 0.3% month-over-month range, in line with annual growth below 4%
- 23 of 50 markets saw monthly gains equivalent to an annualized home price growth rate of 10% or higher

MAY 2023 HOUSING MARKET METRICS

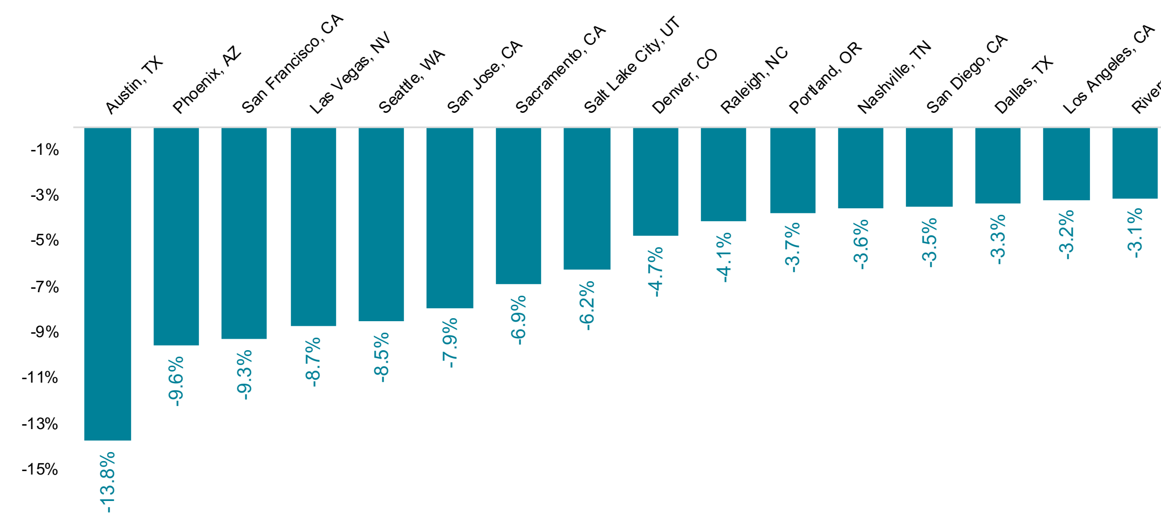
CHANGE IN HOME PRICE INDEX FROM 2022 PEAK
(SEASONALLY ADJUSTED)



Source: Black Knight Home Price Index (HPI)
May 2023

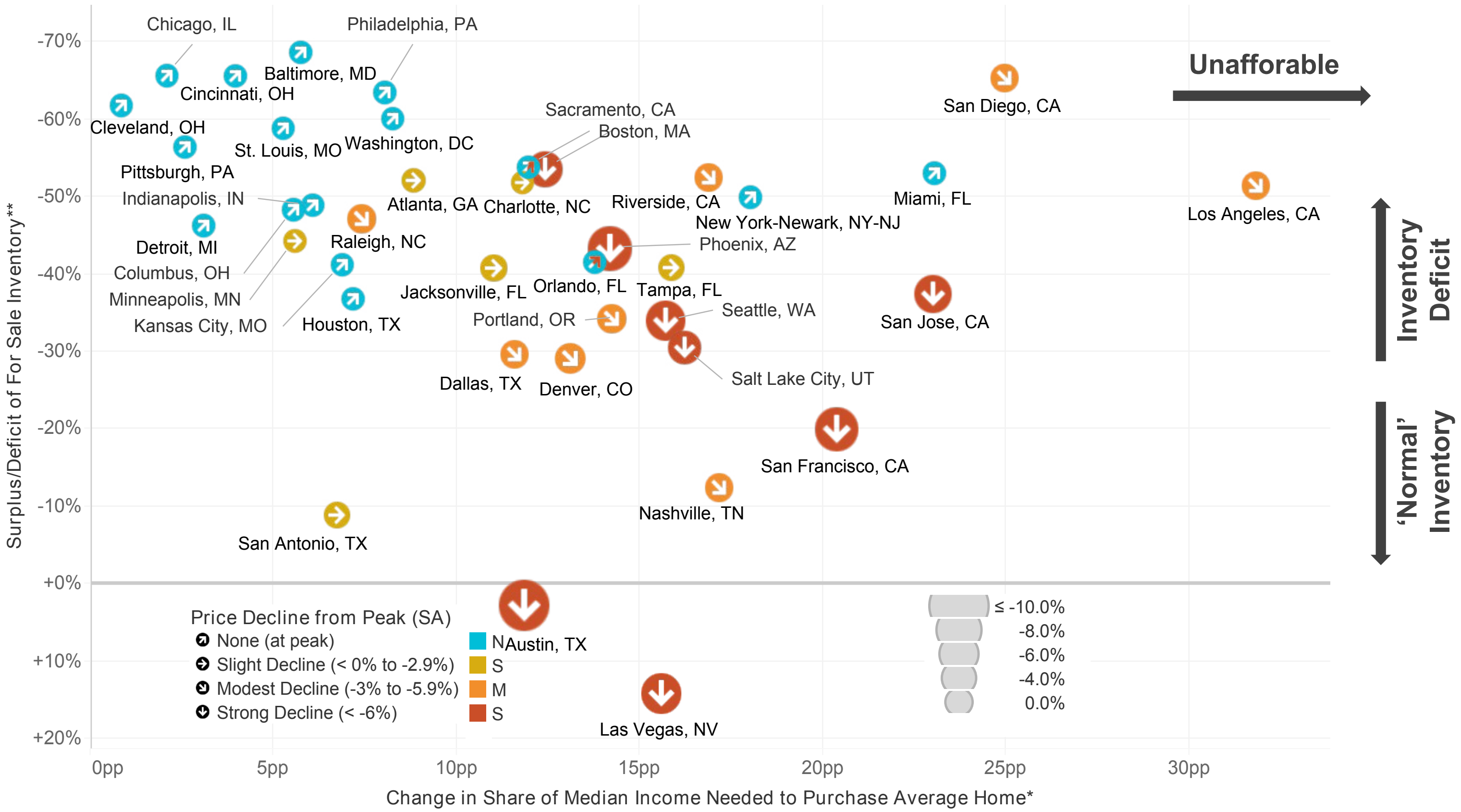
- » Along with the nation as a whole, 27 of the 50 largest markets (primarily in the Midwest and Northeast) have returned to, or set new, home price peaks
- » As of May, at the national level on a seasonally adjusted basis, firming prices have fully erased monthly declines seen since the June 2022 peak, with six months of drops having been followed by five months of gains
- » Prices remain well below peak levels across the West and still slightly short of peak in many pandemic boom towns, but firming prices continue to close those gaps
- » Austin is the notable exception, where prices remain soft and the deficit from peak continues to grow, reaching -13.8% in May, the largest of any market
- » Phoenix, while it has overtaken San Francisco and San Jose as the market with the second largest decline, went from -11% off peak in April to only -9.6% off peak in May
- » Only 8 of 50 markets are now more than -5% off their peak, seasonally adjusted

CHANGE IN MEDIAN HOME PRICE
(BLACK KNIGHT HOME PRICE INDEX - MARKETS W/ LARGEST DECLINES)



Source: Black Knight Home Price Index (HPI)
May 2023

HOME PRICE DECLINES VS. AFFORDABILITY AND INVENTORY LEVELS BY MARKET



Sources: Black Knight, Census Bureau, Realtor.com, FHLMC PMMS, Moody's

Markets experiencing the largest price corrections are those with larger affordability challenges and smaller inventory deficits

- » The nearly universal worsening of such inventory deficits in 2023 is leading to fewer markets in a corrective price environment
- » The challenge for the Federal Reserve now is how to chart a path to a soft landing without reheating the housing market and reigniting inflation
- » The same lever being used to reduce demand (rising rates), which has made housing almost universally unaffordable, has also resulted in significant supply shortages
- » If rates were to decline overnight, without stimulating an increase in homeowners' willingness to sell their homes, it could risk a widespread reheating of home prices across the U.S.

MAY 2023 DATA SUMMARY

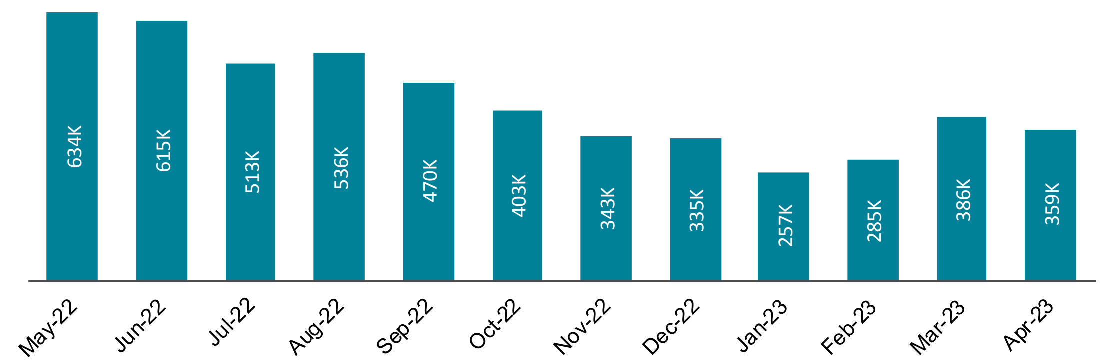
MAY 2023 DATA SUMMARY

	May-23	Monthly Change	YTD Change	Yearly Change
Delinquencies	3.10%	-6.25%	-8.18%	-2.62%
Foreclosure	0.43%	-2.03%	-4.00%	2.02%
Foreclosure Starts	25,400	2.42%	-21.85%	-4.15%
Seriously Delinquent (90+) or in Foreclosure	1.35%	-3.23%	-13.25%	-22.62%
New Originations (data as of Apr-23)	359K	-7.0%	7.2%	-48.2%

	May-23	Apr-23	Mar-23	Feb-23	Jan-23	Dec-22	Nov-22	Oct-22	Sep-22	Aug-22	Jul-22	Jun-22	May-22
Delinquencies	3.10%	3.31%	2.92%	3.45%	3.38%	3.48%	3.49%	3.35%	3.16%	3.20%	3.33%	3.21%	3.19%
Foreclosure	0.43%	0.44%	0.46%	0.46%	0.45%	0.44%	0.44%	0.43%	0.43%	0.44%	0.43%	0.44%	0.43%
Foreclosure Starts	25,400	24,800	32,200	29,500	32,500	28,200	27,300	24,900	24,200	28,800	22,900	31,500	26,500
Seriously Delinquent (90+) or in Foreclosure	1.35%	1.40%	1.43%	1.53%	1.56%	1.55%	1.55%	1.55%	1.56%	1.58%	1.63%	1.68%	1.74%
New Originations		359K	386K	285K	257K	335K	343K	403K	470K	536K	513K	615K	634K

TOTAL DELINQUENCIES

NEW ORIGINATIONS



Please note: Data has been revised since the initial production version of this table; impacted fields have been updated above.

LOAN COUNTS AND AVERAGE DAYS DELINQUENT

Month	Total Active Count	30 Days	60 Days	90+ Days	FC	Total Non-Current	FC Starts	FC Sales (Completions)	Average Days Delinquent for 90+	Average Days Delinquent for FC	DQ%	Monthly Change	Yearly Change	FC%	Monthly Change	Yearly Change
12/31/00	41,340,000	1,403,000	332,000	378,000	190,000	2,302,000	32,800	16,200	210	305	5.1%	15.6%		0.5%	-2.7%	
12/31/01	42,676,000	1,471,000	373,000	548,000	309,000	2,701,000	76,100	21,400	211	282	5.6%	10.3%	9.7%	0.7%	3.7%	58.1%
12/31/02	43,421,000	1,425,000	364,000	483,000	317,000	2,587,000	76,400	23,200	237	298	5.2%	0.8%	-6.7%	0.7%	0.1%	0.5%
12/31/03	43,833,000	1,204,000	336,000	474,000	321,000	2,335,000	83,100	24,300	275	345	4.6%	-6.0%	-12.1%	0.7%	6.7%	0.4%
12/31/04	46,586,000	1,077,000	300,000	424,000	268,000	2,070,000	70,000	23,200	248	340	3.9%	-3.4%	-15.8%	0.6%	0.0%	-21.3%
12/31/05	49,764,000	1,332,000	412,000	538,000	247,000	2,528,000	74,700	21,600	202	306	4.6%	1.7%	18.5%	0.5%	6.1%	-13.7%
12/31/06	52,667,000	1,602,000	483,000	538,000	383,000	3,006,000	106,800	32,300	203	272	5.0%	9.1%	8.6%	0.7%	6.4%	46.3%
12/31/07	54,156,000	1,792,000	663,000	904,000	729,000	4,088,000	168,800	51,500	188	258	6.2%	8.3%	24.6%	1.3%	10.8%	85.3%
12/31/08	54,448,000	2,032,000	953,000	1,755,000	1,242,000	5,982,000	229,800	59,600	192	318	8.7%	0.6%	40.3%	2.3%	5.9%	69.5%
12/31/09	54,131,000	1,840,000	896,000	2,909,000	2,043,000	7,689,000	230,000	99,400	247	415	10.4%	0.7%	19.8%	3.8%	0.0%	65.4%
12/31/10	53,070,000	1,739,000	753,000	2,136,000	2,314,000	6,943,000	285,400	79,600	331	520	8.7%	-1.7%	-16.4%	4.4%	3.2%	15.5%
12/31/11	51,973,000	1,639,000	660,000	1,834,000	2,204,000	6,337,000	185,100	76,200	394	667	8.0%	0.8%	-8.8%	4.2%	-0.1%	-2.7%
12/31/12	50,867,000	1,500,000	594,000	1,587,000	1,751,000	5,433,000	144,300	58,700	463	802	7.2%	1.3%	-9.0%	3.4%	-1.5%	-18.8%
12/31/13	49,779,000	1,393,000	534,000	1,260,000	1,246,000	4,433,000	110,000	43,600	498	908	6.4%	-0.1%	-11.5%	2.5%	-0.7%	-27.3%
12/31/14	49,618,000	1,235,000	466,000	1,066,000	863,000	3,631,000	88,500	28,700	507	1,026	5.6%	-6.7%	-12.9%	1.7%	-0.5%	-30.6%
12/31/15	49,662,000	1,138,000	412,000	793,000	676,000	3,019,000	76,800	27,600	493	1,055	4.7%	-3.2%	-15.4%	1.4%	-1.1%	-21.7%
12/31/16	49,796,000	1,186,000	403,000	689,000	497,000	2,774,000	59,400	20,700	449	1,024	4.6%	-0.1%	-3.1%	1.0%	-2.5%	-26.7%
12/31/17	50,091,000	1,297,000	451,000	750,000	354,000	2,853,000	44,500	13,000	351	923	5.0%	4.8%	9.1%	0.7%	-0.1%	-29.1%
12/31/18	50,458,000	1,202,000	384,000	536,000	308,000	2,430,000	48,300	12,200	398	829	4.2%	5.2%	-15.7%	0.6%	1.4%	-13.6%
12/31/19	51,144,000	1,158,000	378,000	480,000	288,000	2,304,000	51,800	11,400	348	764	3.9%	-2.1%	-6.2%	0.6%	-0.3%	-7.9%
12/31/20	51,663,000	888,000	366,000	2,283,000	214,000	3,751,000	8,200	2,900	260	1,169	6.8%	-3.4%	73.6%	0.4%	0.2%	-26.4%
12/31/21	51,822,000	745,000	225,000	1,132,000	167,000	2,270,000	9,000	4,800	414	1,560	4.1%	-4.9%	-40.7%	0.3%	-1.7%	-22.1%
12/31/22	52,450,000	954,000	290,000	583,000	232,000	2,058,000	28,200	6,100	353	1,112	3.5%	-0.1%	-14.2%	0.4%	-0.2%	36.9%
1/31/23	52,492,000	908,000	288,000	579,000	238,000	2,012,000	32,500	7,000	348	1,075	3.4%	-2.9%	-15.1%	0.5%	2.4%	23.3%
2/28/23	52,522,000	973,000	276,000	562,000	240,000	2,050,000	29,500	7,100	345	1,057	3.4%	2.0%	-12.6%	0.5%	0.8%	15.2%
3/31/23	52,657,000	786,000	242,000	511,000	240,000	1,779,000	32,200	7,500	356	1,045	2.9%	-15.2%	-13.2%	0.5%	-0.2%	13.2%
4/30/23	52,728,000	986,000	259,000	502,000	234,000	1,980,000	24,800	6,400	358	1,034	3.3%	13.3%	2.1%	0.4%	-2.6%	4.9%
5/31/23	52,789,000	892,000	264,000	483,000	229,000	1,868,000	25,400	6,800	363	1,035	3.1%	-6.3%	-2.6%	0.4%	-2.0%	2.0%

LOAN COUNTS AND AVERAGE DAYS DELINQUENT – RECENT YEARS

Month	Total Active Count	30 Days	60 Days	90+ Days	FC	Total Non-Current	FC Starts	FC Sales (Completions)	Average Days Delinquent for 90+	Average Days Delinquent for FC	DQ%	Monthly Change	Yearly Change	FC%	Monthly Change	Yearly Change
5/31/21	51,715,000	732,000	226,000	1,851,000	197,000	3,005,000	5,600	3,600	345	1,372	5.4%	1.5%	-32.9%	0.4%	-2.8%	-22.2%
6/30/21	51,766,000	672,000	216,000	1,733,000	190,000	2,811,000	6,500	3,400	361	1,403	5.1%	-6.8%	-36.2%	0.4%	-3.6%	-21.6%
7/31/21	51,768,000	673,000	210,000	1,642,000	185,000	2,709,000	6,500	4,000	377	1,436	4.9%	-3.7%	-34.6%	0.4%	-2.7%	-22.0%
8/31/21	51,762,000	675,000	215,000	1,541,000	181,000	2,613,000	8,200	4,200	389	1,477	4.7%	-3.7%	-36.9%	0.4%	-1.8%	-21.4%
9/30/21	51,785,000	728,000	221,000	1,431,000	172,000	2,552,000	5,000	5,300	402	1,523	4.6%	-2.1%	-37.2%	0.3%	-5.1%	-23.8%
10/31/21	51,796,000	775,000	232,000	1,305,000	173,000	2,486,000	6,700	4,900	408	1,533	4.5%	-2.8%	-36.9%	0.3%	0.7%	-20.8%
11/30/21	51,787,000	765,000	230,000	1,216,000	170,000	2,380,000	8,600	4,500	410	1,547	4.3%	-4.4%	-39.8%	0.3%	-1.9%	-20.6%
12/31/21	51,822,000	745,000	225,000	1,132,000	167,000	2,270,000	9,000	4,800	414	1,560	4.1%	-4.9%	-40.7%	0.3%	-1.7%	-22.1%
1/31/22	51,843,000	792,000	237,000	1,034,000	190,000	2,254,000	39,300	5,500	414	1,396	4.0%	-1.9%	-40.1%	0.4%	13.7%	-11.5%
2/28/22	51,872,000	856,000	244,000	945,000	205,000	2,251,000	30,800	5,000	409	1,322	3.9%	-0.9%	-41.9%	0.4%	7.9%	-2.7%
3/31/22	51,905,000	691,000	215,000	842,000	209,000	1,957,000	34,100	6,000	409	1,282	3.4%	-14.6%	-41.0%	0.4%	1.5%	-0.4%
4/30/22	51,970,000	731,000	202,000	752,000	220,000	1,905,000	36,600	5,600	408	1,238	3.2%	-3.7%	-39.4%	0.4%	5.2%	8.1%
5/31/22	52,042,000	760,000	213,000	686,000	222,000	1,881,000	26,500	5,700	408	1,213	3.2%	-1.7%	-41.3%	0.4%	0.7%	12.0%
6/30/22	52,128,000	800,000	227,000	648,000	229,000	1,903,000	31,500	6,000	407	1,175	3.2%	0.7%	-36.6%	0.4%	3.2%	19.9%
7/31/22	52,190,000	862,000	247,000	629,000	224,000	1,962,000	22,900	7,500	390	1,171	3.3%	3.7%	-31.7%	0.4%	-2.4%	20.2%
8/31/22	52,281,000	825,000	249,000	598,000	229,000	1,901,000	28,800	6,700	396	1,172	3.2%	-4.0%	-31.9%	0.4%	2.0%	24.8%
9/30/22	52,356,000	816,000	249,000	587,000	228,000	1,880,000	24,200	6,900	388	1,158	3.2%	-1.3%	-31.3%	0.4%	-0.7%	30.7%
10/31/22	52,359,000	910,000	264,000	582,000	228,000	1,983,000	24,900	6,400	379	1,148	3.4%	6.2%	-24.9%	0.4%	0.0%	29.9%
11/30/22	52,399,000	958,000	288,000	582,000	232,000	2,059,000	27,300	6,300	371	1,129	3.5%	4.0%	-18.3%	0.4%	1.8%	34.8%
12/31/22	52,450,000	954,000	290,000	583,000	232,000	2,058,000	28,200	6,100	353	1,112	3.5%	-0.1%	-14.2%	0.4%	-0.2%	36.9%
1/31/23	52,492,000	908,000	288,000	579,000	238,000	2,012,000	32,500	7,000	348	1,075	3.4%	-2.9%	-15.1%	0.5%	2.4%	23.3%
2/28/23	52,522,000	973,000	276,000	562,000	240,000	2,050,000	29,500	7,100	345	1,057	3.4%	2.0%	-12.6%	0.5%	0.8%	15.2%
3/31/23	52,657,000	786,000	242,000	511,000	240,000	1,779,000	32,200	7,500	356	1,045	2.9%	-15.2%	-13.2%	0.5%	-0.2%	13.2%
4/30/23	52,728,000	986,000	259,000	502,000	234,000	1,980,000	24,800	6,400	358	1,034	3.3%	13.3%	2.1%	0.4%	-2.6%	4.9%
5/31/23	52,789,000	892,000	264,000	483,000	229,000	1,868,000	25,400	6,800	363	1,035	3.1%	-6.3%	-2.6%	0.4%	-2.0%	2.0%

DELINQUENCY AND FORECLOSURE FIGURES BY STATE

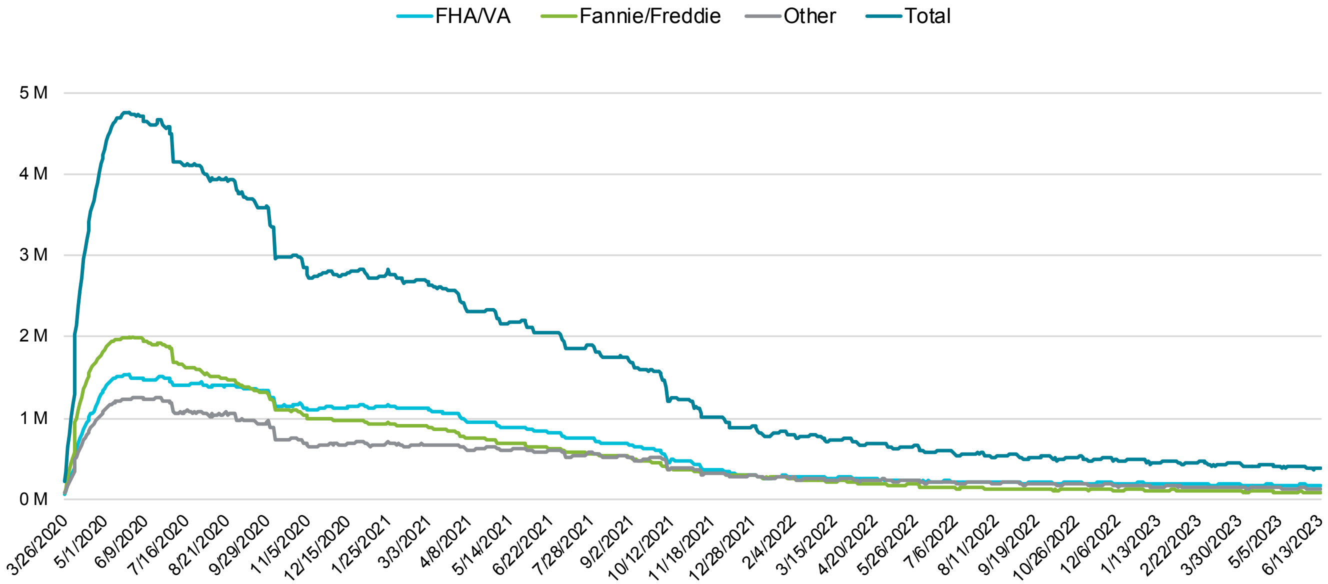
State	Del %	FC %	NC %	Yr/Yr Change in NC%
National	3.1%	0.4%	3.5%	-2.1%
MS	6.8%	0.6%	7.3%	0.9%
LA*	5.9%	0.9%	6.8%	-0.3%
AL	5.0%	0.3%	5.3%	-1.3%
WV	4.4%	0.5%	4.9%	-3.7%
PA*	4.1%	0.8%	4.8%	0.8%
IN*	4.2%	0.6%	4.8%	0.6%
AR	4.2%	0.4%	4.6%	-3.9%
OK*	3.8%	0.7%	4.5%	-6.2%
OH*	3.8%	0.7%	4.5%	-1.5%
TX	4.0%	0.4%	4.4%	2.3%
IL*	3.6%	0.8%	4.4%	-3.4%
GA	4.1%	0.3%	4.4%	3.4%
DE*	3.7%	0.5%	4.2%	2.0%
NY*	2.9%	1.3%	4.2%	-11.9%
KY*	3.6%	0.6%	4.2%	-0.7%
MD*	3.7%	0.5%	4.2%	-1.8%
SC*	3.5%	0.4%	3.9%	-5.3%

State	Del %	FC %	NC %	Yr/Yr Change in NC%
National	3.1%	0.4%	3.5%	-2.1%
FL*	3.3%	0.5%	3.8%	3.2%
MO	3.5%	0.3%	3.8%	-0.7%
CT*	3.1%	0.6%	3.7%	-15.2%
MI	3.5%	0.2%	3.7%	5.6%
IA*	3.1%	0.6%	3.7%	-0.8%
WI*	3.1%	0.5%	3.6%	2.0%
NJ*	3.0%	0.6%	3.6%	-10.2%
RI	3.1%	0.5%	3.5%	-7.9%
ME*	2.7%	0.8%	3.5%	-5.7%
KS*	3.1%	0.3%	3.4%	-4.4%
TN	3.2%	0.2%	3.4%	-7.7%
NM*	2.7%	0.6%	3.3%	-7.8%
NE*	2.9%	0.3%	3.2%	-5.4%
VT*	2.6%	0.6%	3.2%	-12.4%
NC	2.9%	0.3%	3.1%	-9.1%
VA	2.8%	0.3%	3.1%	-7.4%
AK	2.5%	0.5%	3.0%	-24.3%

State	Del %	FC %	NC %	Yr/Yr Change in NC%
National	3.1%	0.4%	3.5%	-2.1%
MN	2.7%	0.2%	2.9%	-1.0%
MA	2.5%	0.3%	2.9%	-6.8%
NV	2.5%	0.3%	2.8%	0.9%
WY	2.5%	0.3%	2.8%	-2.7%
NH	2.5%	0.2%	2.7%	-4.2%
ND*	2.1%	0.6%	2.7%	-10.7%
SD*	2.3%	0.4%	2.7%	-0.1%
UT	2.5%	0.2%	2.7%	6.1%
DC	1.9%	0.7%	2.6%	-10.6%
AZ	2.4%	0.1%	2.5%	6.0%
HI*	1.7%	0.9%	2.5%	-9.2%
CA	2.0%	0.2%	2.1%	-0.9%
OR	1.8%	0.3%	2.1%	-3.1%
MT	1.8%	0.2%	2.0%	-6.3%
ID	1.8%	0.2%	2.0%	14.4%
CO	1.8%	0.1%	2.0%	1.7%
WA	1.7%	0.2%	1.9%	-2.5%

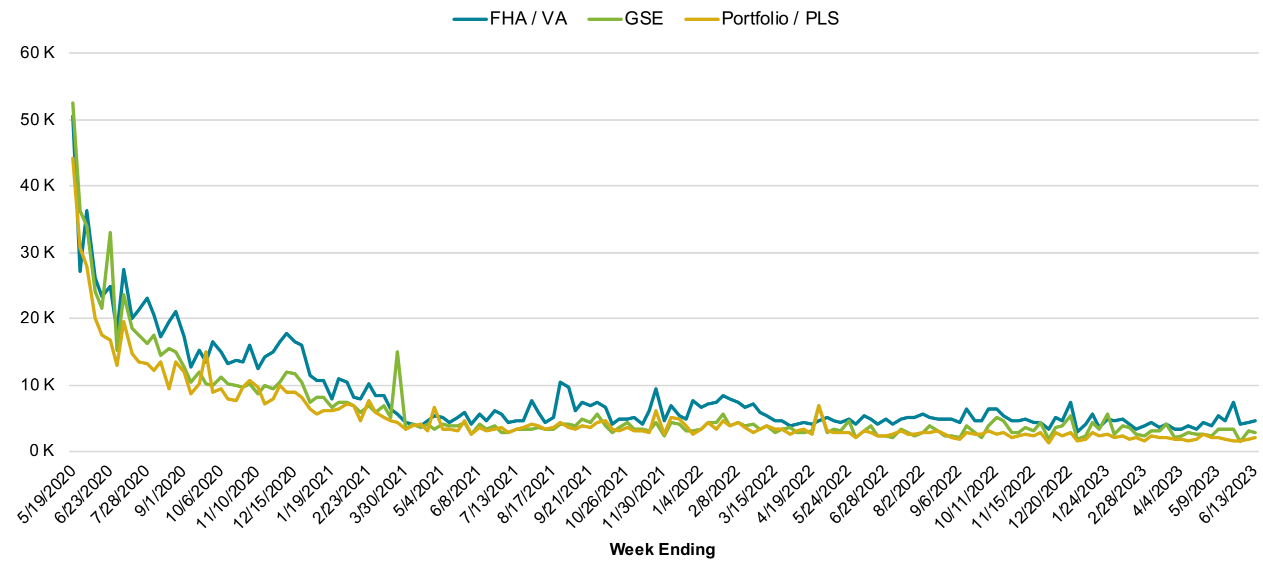
* Indicates Judicial State

ACTIVE FORBEARANCE PLANS



Source: McDash Flash
Data as of June 13, 2023

NEW FORBEARANCE PLAN STARTS BY INVESTOR

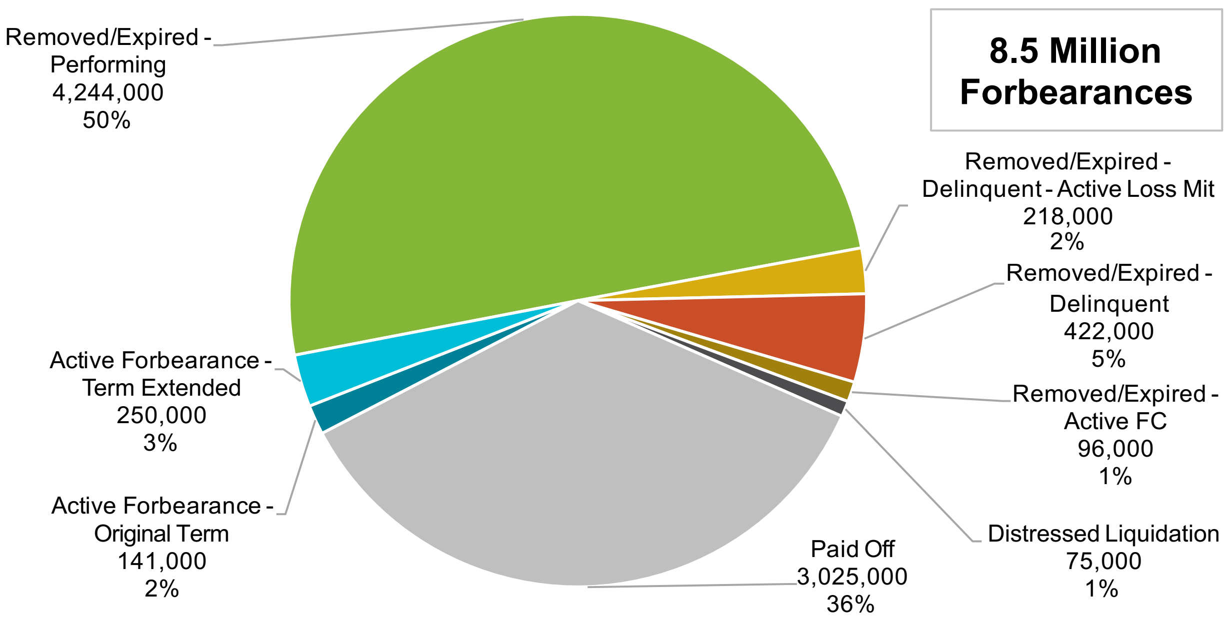


Source: McDash Flash

	Fannie & Freddie	FHA & VA	Other**	Total
Loans in Forbearance*	90,000	178,000	123,000	391,000
UPB of Loans in Forbearance ($Bil)*	$19	$35	$21	$75
Share of Loans in Forbearance*	0.3%	1.5%	0.9%	0.7%

Source: McDash Flash
Data as of June 13, 2023

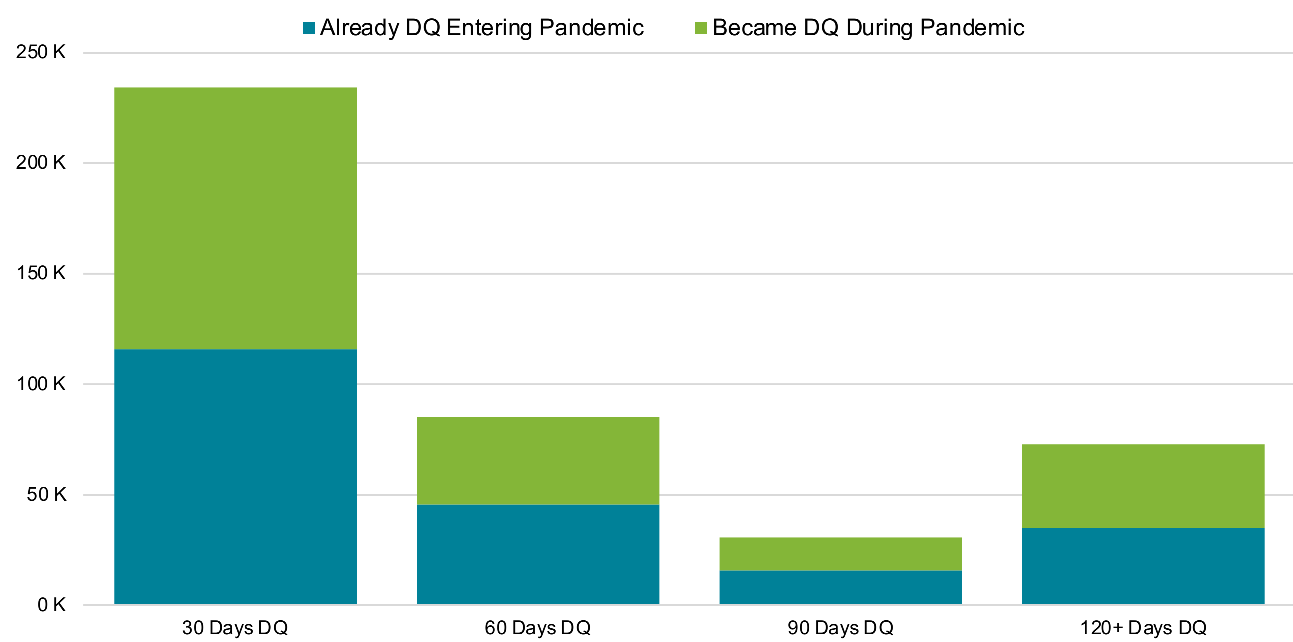
CURRENT STATUS OF COVID-19 RELATED FORBEARANCES



Source: McDash Flash
As of June 13, 2023

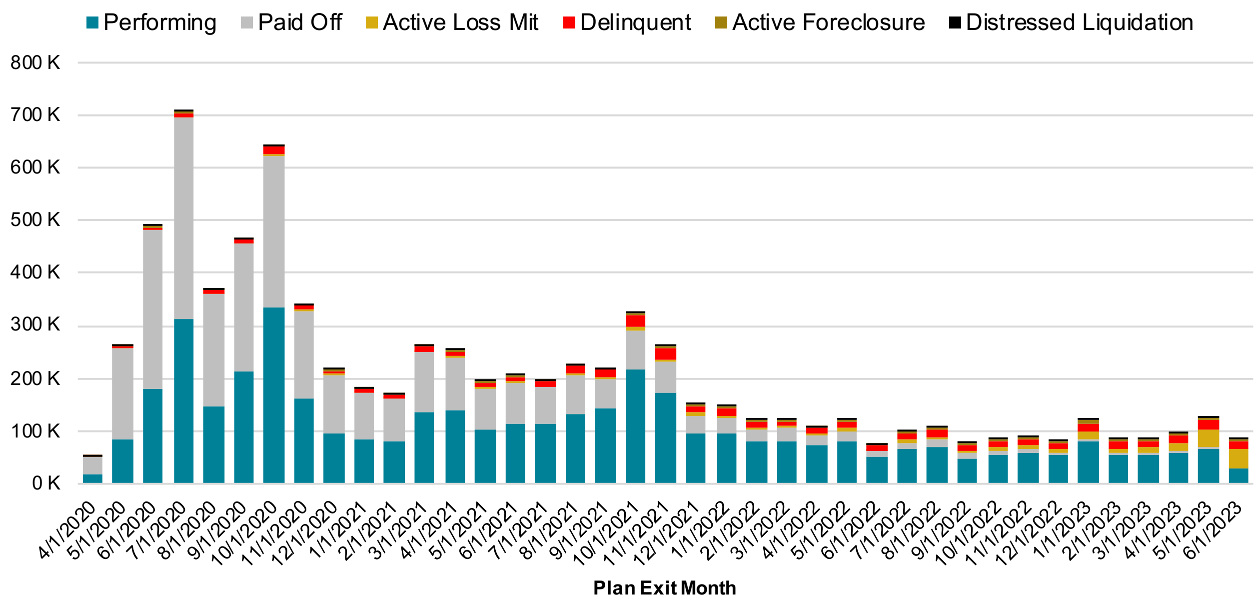
BREAKDOWN OF LOANS THAT REMAIN DELINQUENT FOLLOWING FORBEARANCE PLAN EXIT

(EXCLUDING LOANS IN ACTIVE LOSS MITIGATION OR FORECLOSURE)



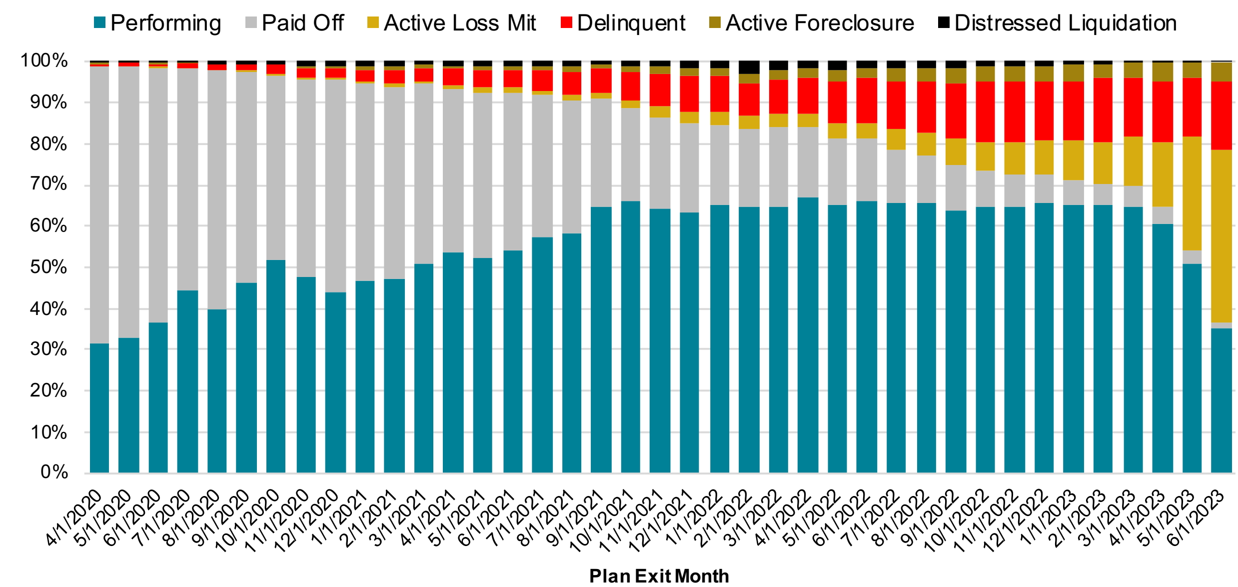
Source: McDash Flash

CURRENT STATUS OF LOANS THAT HAVE LEFT COVID-19 FORBEARANCE PLANS



Source: McDash Flash
May 2023 represents partial data through the 13th of the month

CURRENT STATUS OF LOANS THAT HAVE LEFT COVID-19 FORBEARANCE PLANS



Source: McDash Flash

Mortgage Monitor Disclosures

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MAY 2023 DEFINITIONS

TOTAL ACTIVE COUNT	All active loans as of month-end, including loans in any state of delinquency or foreclosure. Post-sale loans and loans in REO are excluded from the total active count.
DELINQUENCY STATUSES (30, 60, 90+, ETC.)	All delinquency statuses are calculated using the MBA methodology based on the payment due date provided by the servicer. Loans in foreclosure are reported separately and are not included in the MBA days delinquent.
90-DAY DEFAULTS	Loans that were less than 90 days delinquent in the prior month and were 90 days delinquent, but not in foreclosure, in the current month.
FORECLOSURE INVENTORY	The servicer has referred the loan to an attorney for foreclosure. Loans remain in foreclosure inventory from referral to sale.
FORECLOSURE STARTS	Any active loan that was not in foreclosure in the prior month that moves into foreclosure inventory in the current month.
NON-CURRENT	Loans in any stage of delinquency or foreclosure.
FORECLOSURE SALE / NEW REO	Any loan that was in foreclosure in the prior month that moves into post-sale status or is flagged as a foreclosure liquidation.
REO	The loan is in post-sale foreclosure status. Listing status is not a consideration; this includes all properties on and off the market.
DETERIORATION RATIO	The ratio of the percentage of loans deteriorating in delinquency status vs. those improving.