



MORTGAGE MONITOR



APRIL 2023 REPORT



MORTGAGE MONITOR

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APRIL 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 April 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 origination data and explore credit characteristics. We consider credit scores, LTVs, DTIs and down payments across products. Finally, we look at recent changes in home prices and inventory levels across the country and which markets have seen the strongest reaction to rising interest rates.

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's data assets, please call 844-474-2537 or email Mortgage.Monitor@bkfs.com.



Black Knight's [First Look at April 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.

APRIL OVERVIEW STATS



DELINQUENCY RATE

April's 13.3% increase was driven primarily by new delinquencies

.....
Serious delinquencies (90+ days past due) fell in 45 states and were down 10K nationally



FORECLOSURE STARTS

April starts fell to 25K, the lowest level since September 2022

.....
Foreclosure actions began on 4.9% of serious delinquencies in April



PREPAYMENT ACTIVITY

Prepayment activity fell as spring buying faltered on rising rates

.....
At 0.44%, the current single-month mortality remains near record lows

The number of borrowers 30-days late increased by 200K, as a Sunday month end amplified the usual April rise

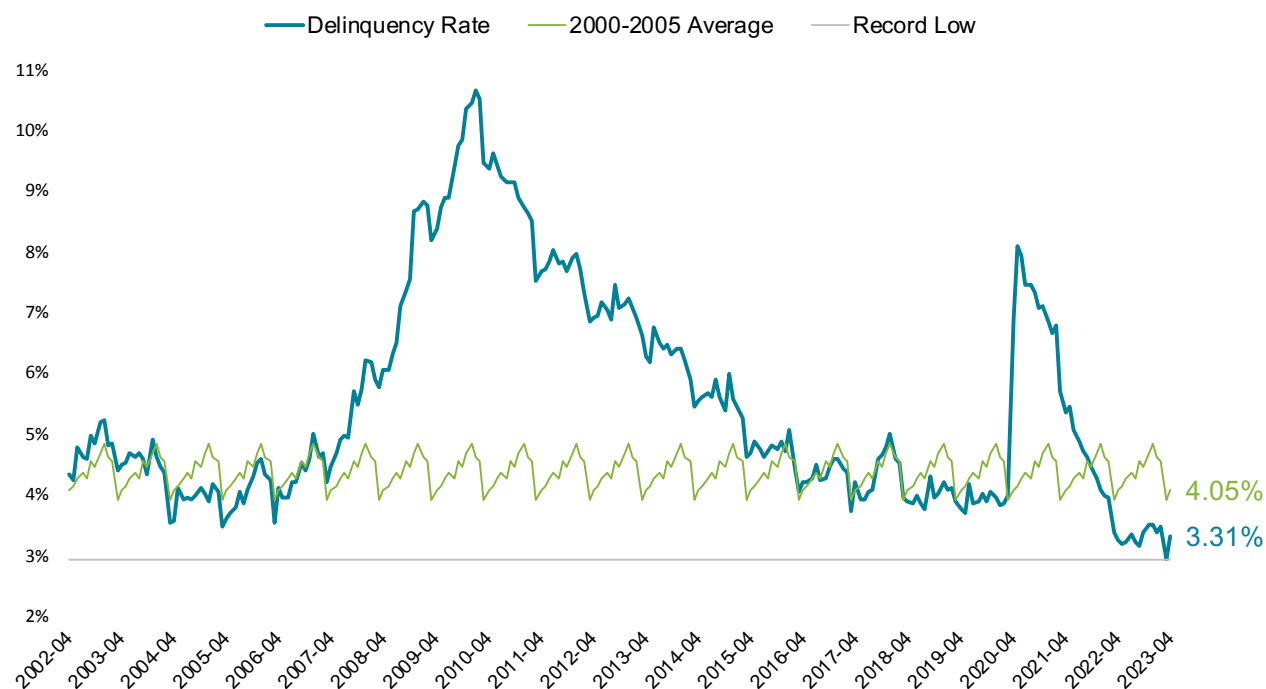


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APRIL 2023 MORTGAGE PERFORMANCE HIGHLIGHTS

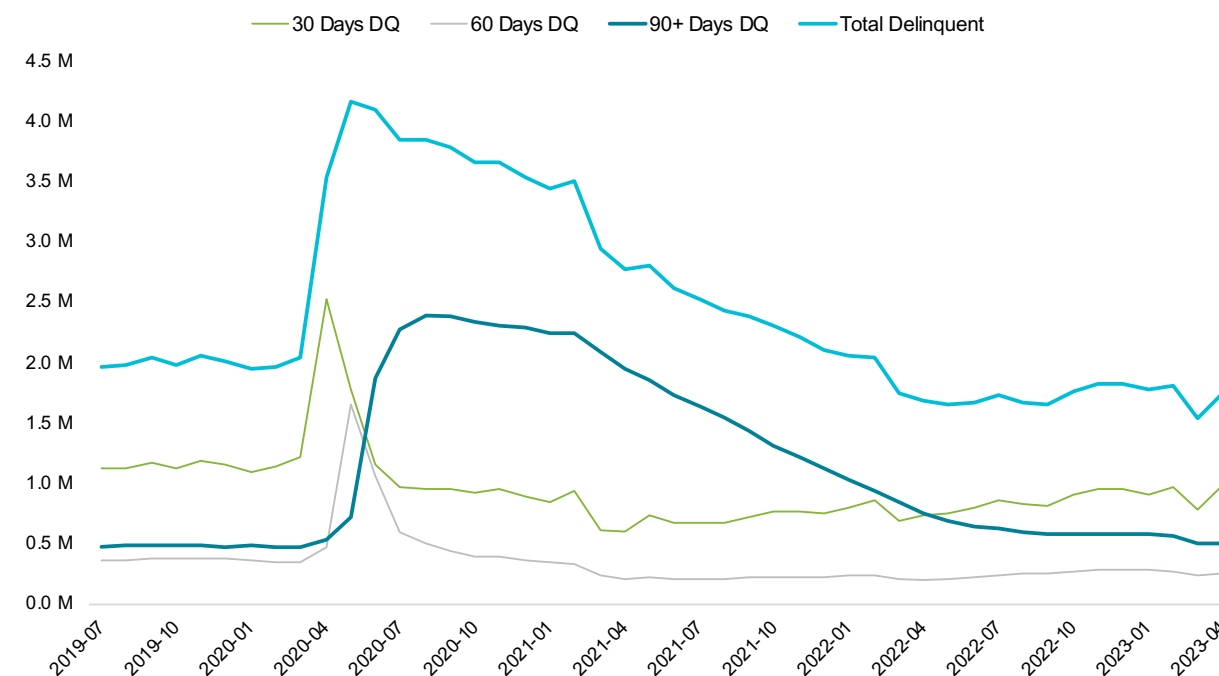
The Black Knight [McDash](#) loan-level mortgage performance database provides key performance metrics for a clearer picture of the delinquency landscape, including new inflow and roll rates. Click on each chart to view its contents in high resolution.

NATIONAL DELINQUENCY RATE – FIRST LIEN MORTGAGES



Source: Black Knight, McDash

MORTGAGE DELINQUENCIES BY SEVERITY



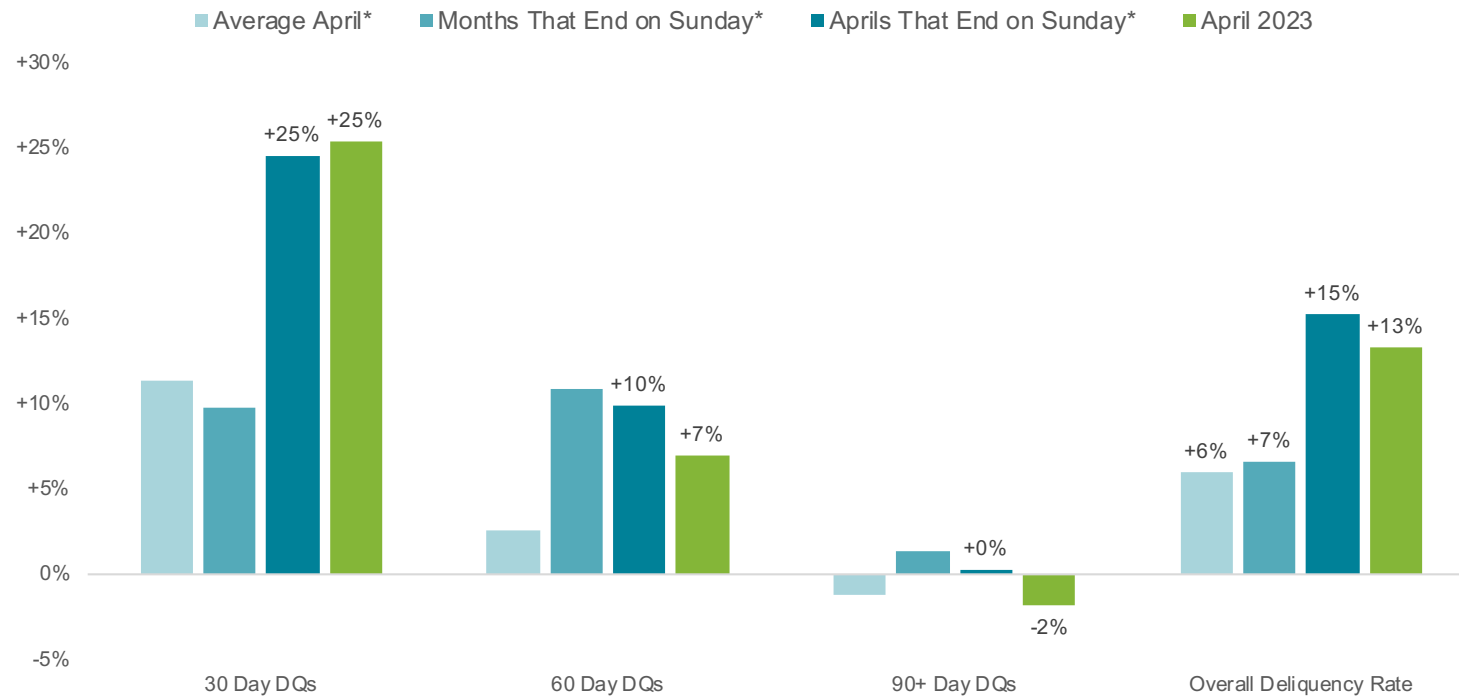
Source: Black Knight, McDash

- » At 3.31%, the national delinquency rate increased 39 bps in April, up 2.1% year over year
- » Delinquencies were driven primarily by a 200K increase in the number of borrowers 30-days late, consistent with an average 25% bump in 30-day delinquencies for previous Aprils that have ended on a Sunday

- » Serious delinquencies – those 90+ days past due – showed continued improvement nationally, falling by 10K, with volumes in 45 states and the District of Columbia falling in the month
- » Serious delinquencies are now 6% below the level of April 2020, as the pandemic had started taking effect, and only 5% above where they were in March 2020



1-MONTH CHANGE IN DELINQUENCY RATE



Source: Black Knight, McDash
*Historical Averages from 2000 - 2023

Delinquency rate increases in April are common, in fact the national delinquency rate has risen by an average of 6% in April over the past 24 years

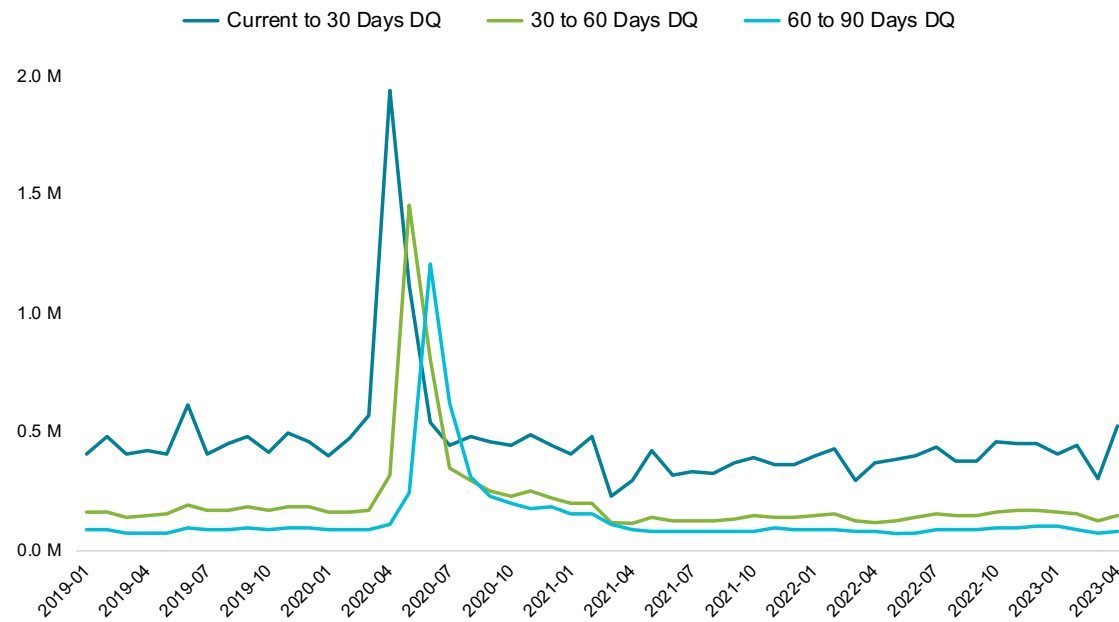
- » In addition, April 2023 ended on a Sunday, which impacts payment processing among borrowers who time their mortgage payments to hit near month end
- » Of the 39 months ending on a Sunday since January 2000, all but seven have shown delinquency rate increases, with an average rise of 7%
- » For Apriks that ended on Sunday, the impacts have been more severe, with delinquencies rising 15% on average, and 30-day delinquencies (the share of mortgages a single payment behind) rising 25%
- » In that context, April 2023 delinquencies were on par with, and in some cases less severe than, what we've seen in the past
- » In the month following previous instances of Sunday-ending Apriks, delinquency rates have improved by 5%, on average, with 30-day delinquencies pulling back by an average of 8%



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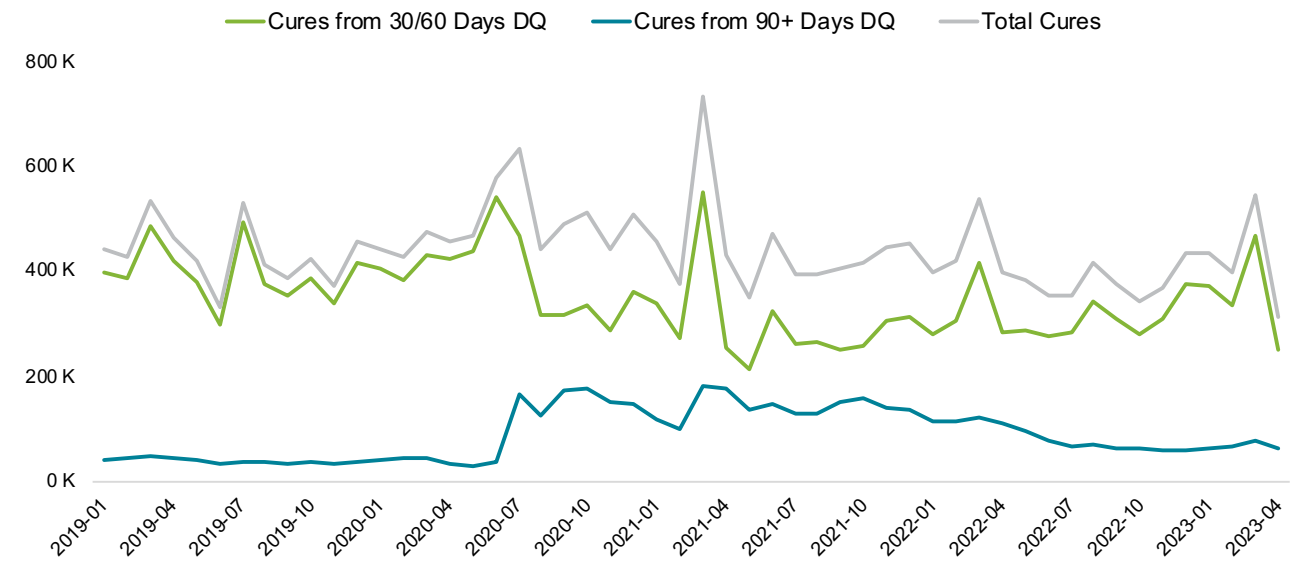
APRIL 2023 MORTGAGE PERFORMANCE HIGHLIGHTS

LOANS ROLLING TO A MORE DELINQUENT STATUS



Source: Black Knight, McDash

CURES TO CURRENT BY PREVIOUS DQ BUCKET



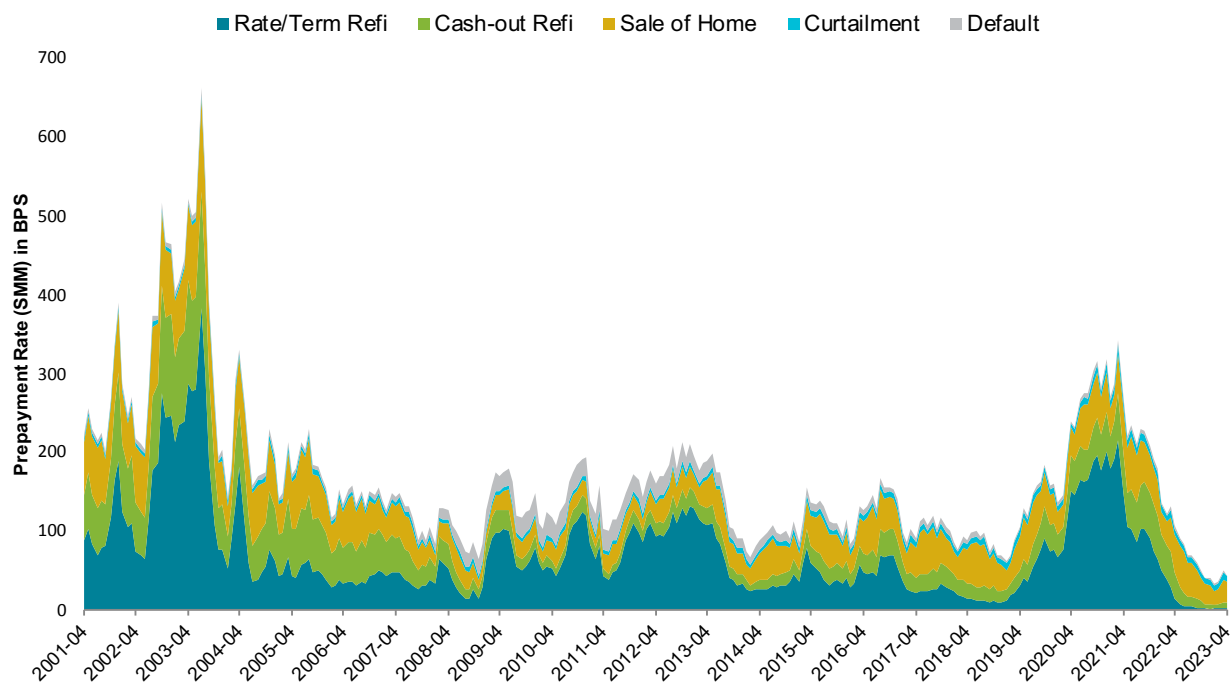
Source: Black Knight, McDash

- » April new delinquency inflows – those rolling from current to 30 days delinquent, compounding the typical April spike with the Sunday month-end payment delays – increased 227K (+75%) from March to 529K, a level not seen since June 2020
- » New 60- and 90-day delinquency inflows both rose more modestly, with 30- to 60-day rolls up 27K (22%) and 60- to 90-day rolls up 8K (11%) in the month, both still below pre-pandemic levels

- » Cures worsened across the board, again as a typical decline in April was compounded by the Sunday month end, with total cures falling by 233K (43%), down 21% year over year
- » Cures from 90 days late retreated to January levels, down 14K (19%) and remain down 44% year over year
- » Early-stage cures (from 30 and 60 days late to current) fell by 219K (47%) from March, and are now down 34K (12%) year over year

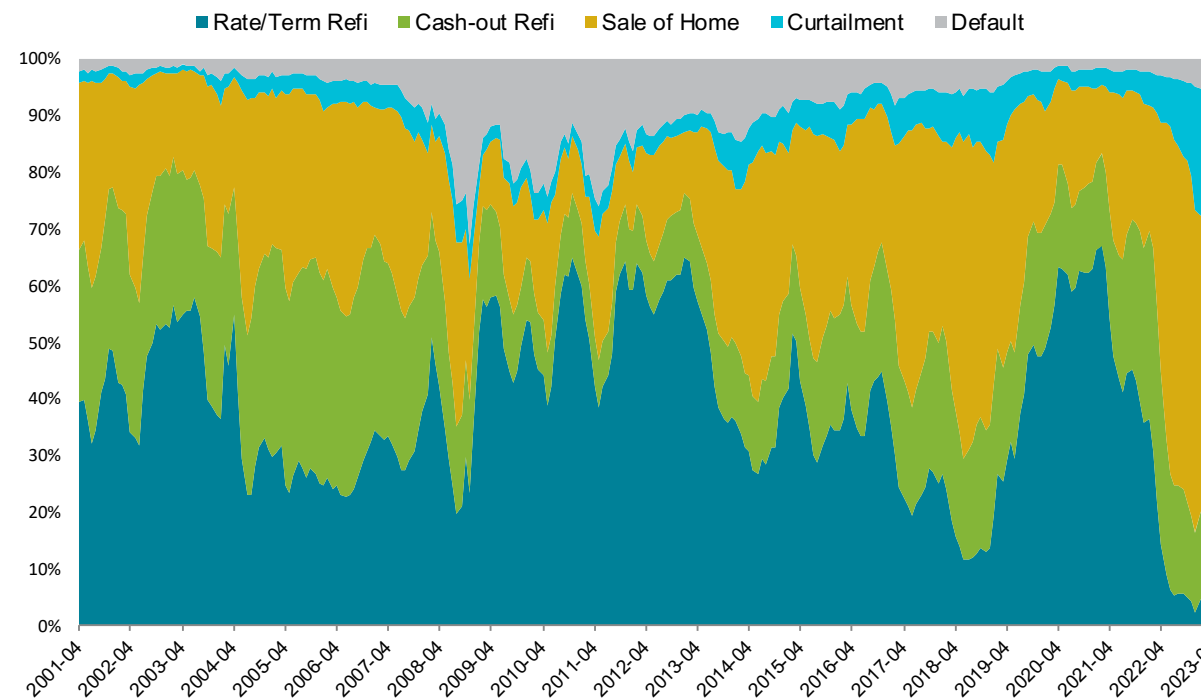


PREPAY ACTIVITY (SMM) CAUSE OF PREPAYMENT



Source: Black Knight, McDash Property Module

DISTRIBUTION OF PREPAY ACTIVITY BY REASON



Source: Black Knight, McDash Property Module

- » Prepayment activity slowed by 13% in April to 0.44% of single month mortality (SMM) after rising in both February and March
- » Declines were seen across all prepayment drivers with the most acute in curtailment activity, which was down 31% from March
- » While curtailments spiked to a 16-month high in March, they've been broadly trending lower as paying down principal on lower-rate mortgages has become less attractive amid rising interest rates

- » That said, the 6.8 bps of SMM driven by curtailment activity in April remains slightly above the 6.4% 20-year average
- » Month-over-month declines were also seen among rate/term (-10%), cash-out (-11%), home sale (-7%) and default (-15%) prepayments from March to April
- » In today's low refinance volume environment, home-sales once again drove more than 60% of all prepayment activity in April

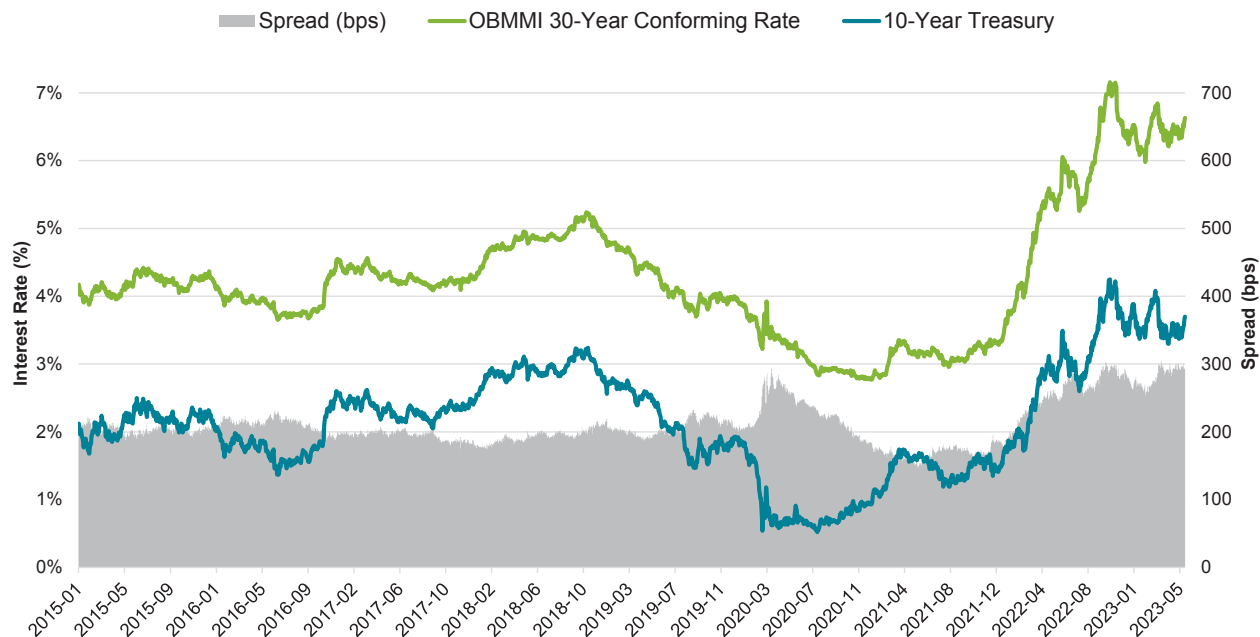


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APRIL 2023 RATE LOCK INSIGHTS

Here we look at recent origination data and explore credit characteristics. We consider credit scores, LTVs, DTIs and down payments across products. Click on each chart to view its contents in high resolution.

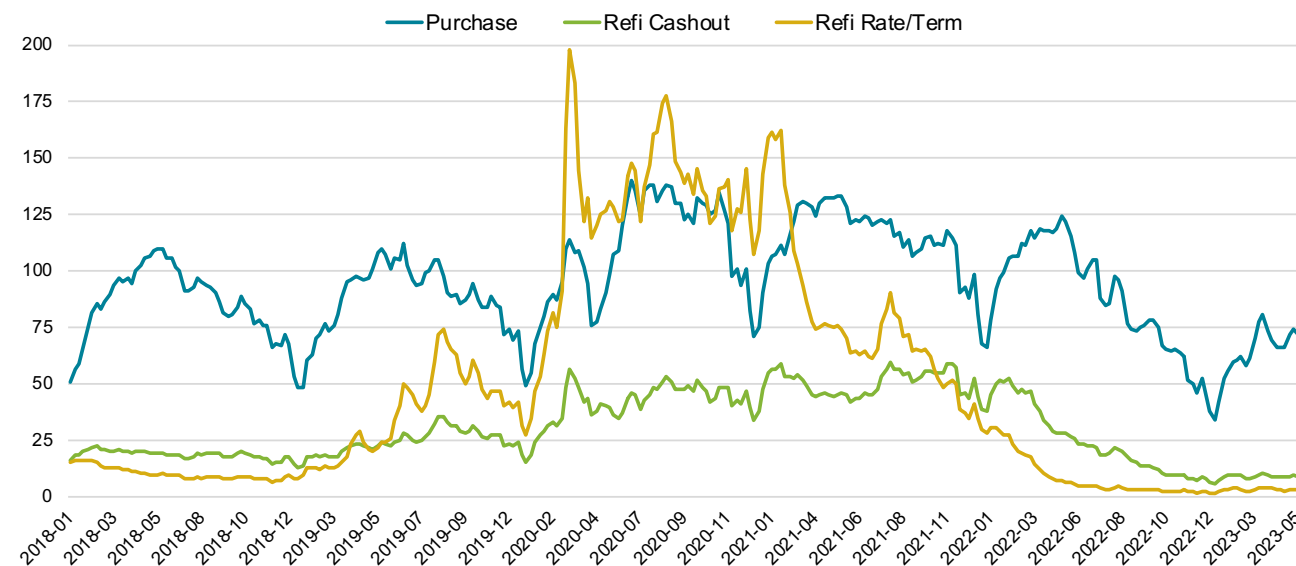
30-YEAR MORTGAGE TO 10-YEAR TREASURY SPREAD



Source: Black Knight, Freddie Mac PMMS, Federal Reserve Bank of St. Louis (FRED)

RATE LOCK COUNT BY WEEK

(INDEXED TO 100 = WEEK ENDING 1/13/2018 – 3-WEEK MOVING AVERAGE)



Source: Black Knight, Optimal Blue
Data through week ending 5/20-2023
Total lock count indexed to 100 in week ending 1/13/2018

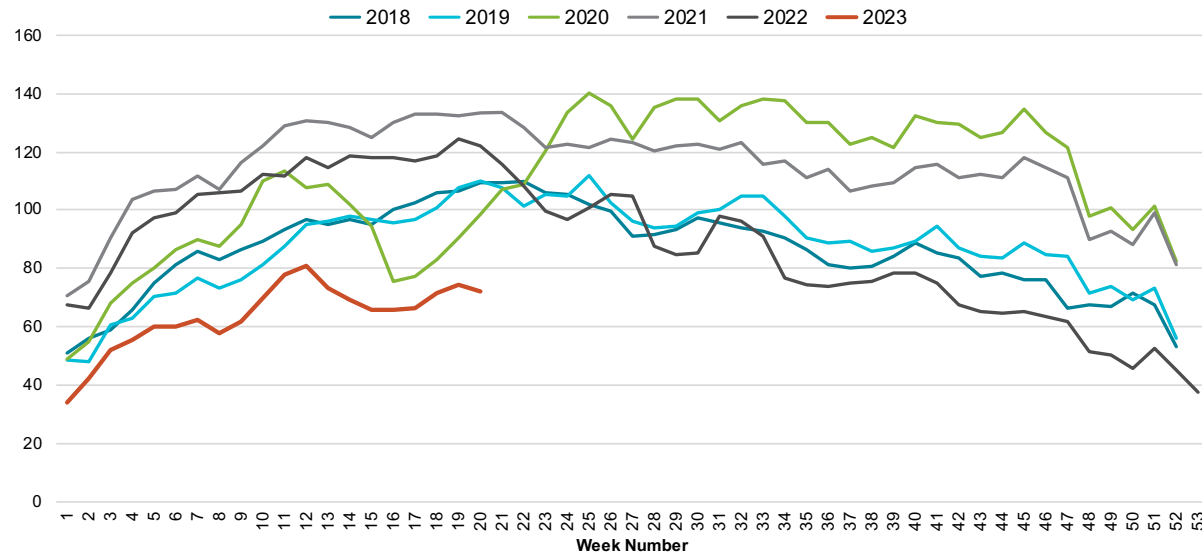
- » Mortgage rates remained volatile through April and early May, hitting a low of 6.21% on April 6, then rising to 6.74% on May 24
- » The spread between 10-year Treasuries and 30-year fixed mortgage rates remains historically wide, hovering around 300 bps for much of April and early May, more than a full percentage point above its long-run average
- » Questions remain in terms of the ultimate path of 30-year rates toward the tail end of 2023 as the projected Fed rate path has once again turned higher in recent weeks

- » The pullback in purchase rate lock volume has continued, dropping 11% from a high the week ending March 25 to the week ending May 20, in what is typically the heart of the spring buying season
- » Likewise, refinance volumes have remained lackluster, with total refinance locks rarely registering above 40% of the average volume of the same weeks in 2018-2019, dropping to only 27% in the week ending May 20



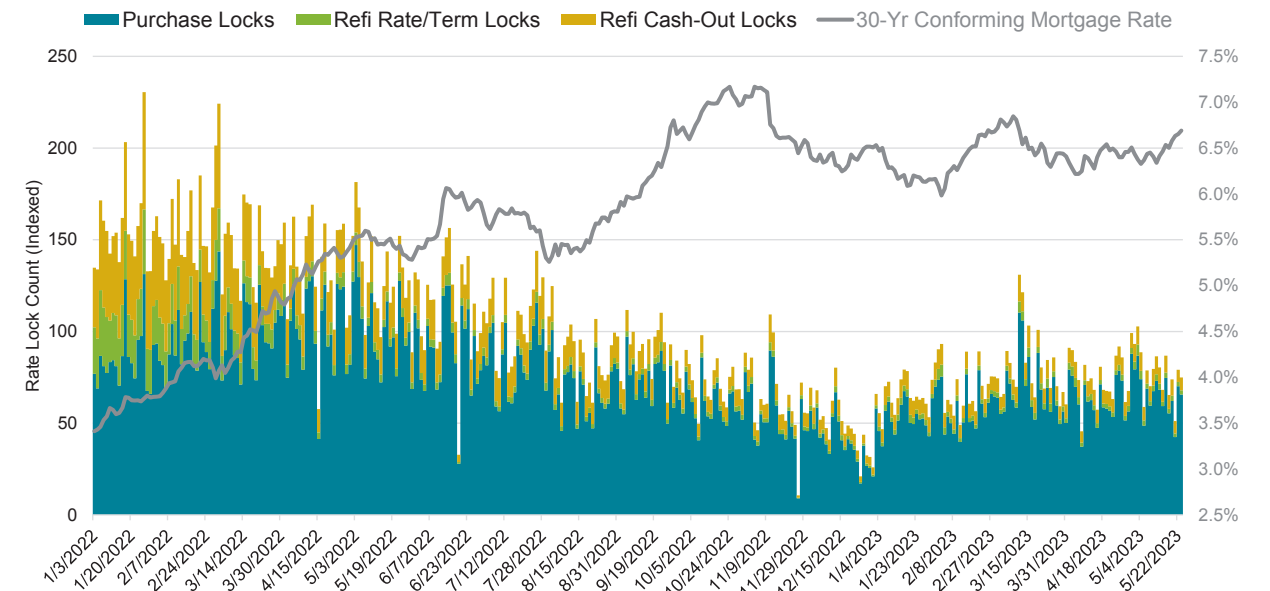
PURCHASE RATE LOCK COUNTS BY YEAR AND WEEK

(TRAILING 3-WEEK MOVING AVERAGE)



Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023
Total lock count indexed to 100 in week ending 1/13/2018

DAILY RATE LOCK COUNT VS INTEREST RATE



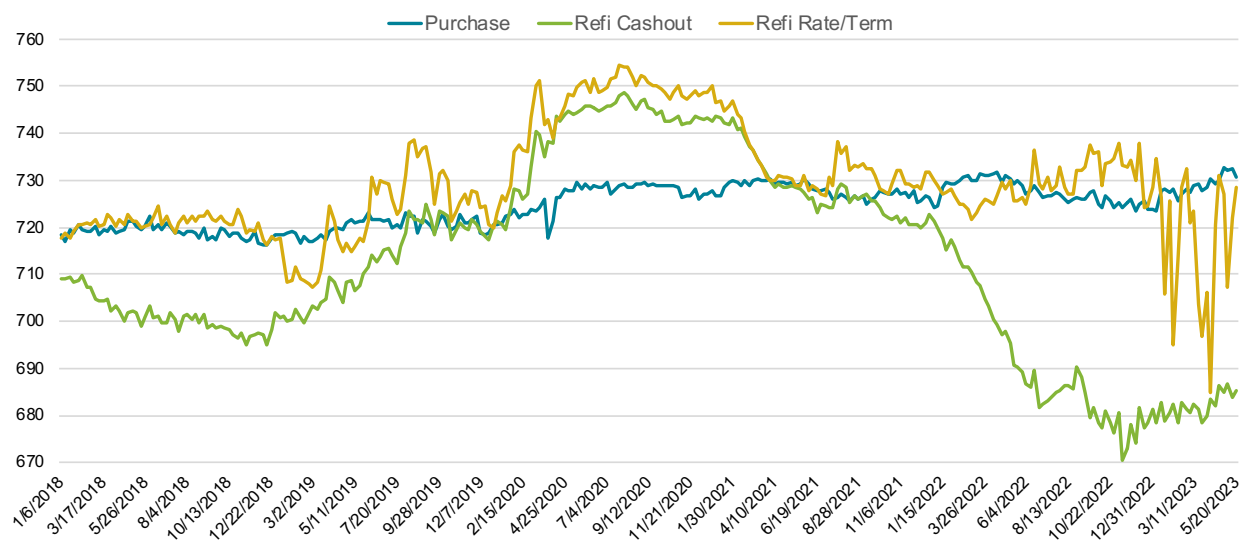
Source: Black Knight, Optimal Blue;
Data through 5/22/2023. Interest rates
are daily averages (Optimal Blue)

- » After purchase rate locks pulled to within 15% of pre-pandemic levels in mid-January and again in mid-March on easing rates, the deficit eclipsed 30% again in recent weeks on a pullback in purchase demand
- » While lock volumes ebbed and flowed with 30-year rates through the first three months of the year, the recent pullback appears oversized compared with recent rate trends
- » The trailing 3-week average for purchase rate locks has remained below the peak reached in the week ending March 25 on an unadjusted basis and is now down 34% from the comparable week in 2018/2019 and 38% from the same time last year

- » While the drop in rates in late March caused significant spikes in daily purchase locks, dips in the lower but relatively stable rates in April resulted in much smaller spikes
- » With rates rising through early May to 6.74% on May 24, both purchase and refinance rate lock activity has remained muted

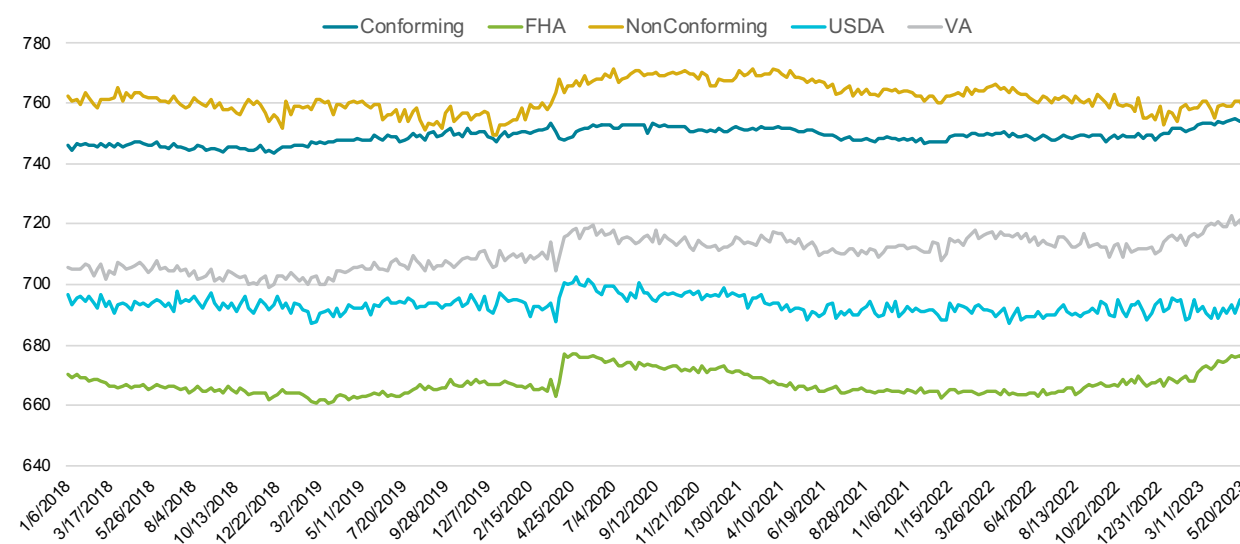


AVERAGE CREDIT SCORE OF RATE LOCKS BY PURPOSE (PRIMARY RESIDENCES)



Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

AVG. CREDIT SCORE OF PURCHASE LOCKS BY INVESTOR (PRIMARY RESIDENCES)



Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

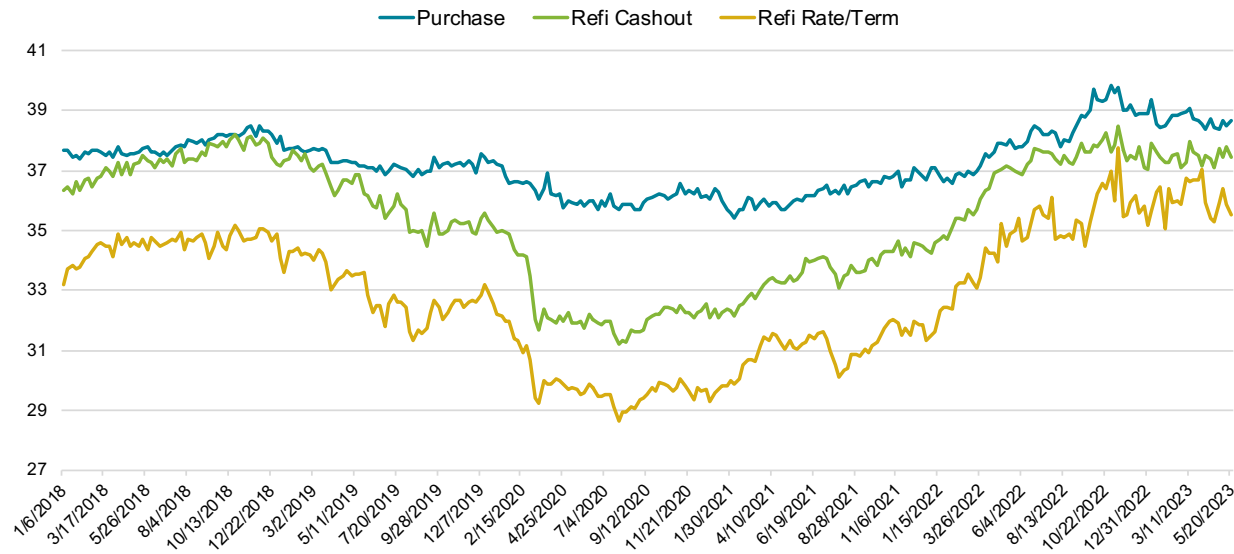
- » Average credit scores have risen 7 points for purchase locks from December lows, according to Black Knight's Optimal Blue rate lock data, with Black Knight's McDash data showing that the average credit score on April purchase closings was the highest since at least 2000, when it began publicly reporting the metric, suggesting continued credit tightening, while scores for cash-out refinances have increased nearly 15 points from November
- » Credit scores for rate/term refi locks vary significantly due to the low volume, but scores have moved up more than 30 points from levels seen in March-April

- » Conforming, FHA and VA purchase mortgages all show scores moving steadily higher in recent months, with only non-conforming loan products moving lower
- » Scores for conforming, FHA and VA mortgages are reminiscent of those seen in mid-April 2020 as the pandemic took effect, though the recent shift has been more gradual



AVERAGE DTI OF RATE LOCKS BY LOAN PURPOSE

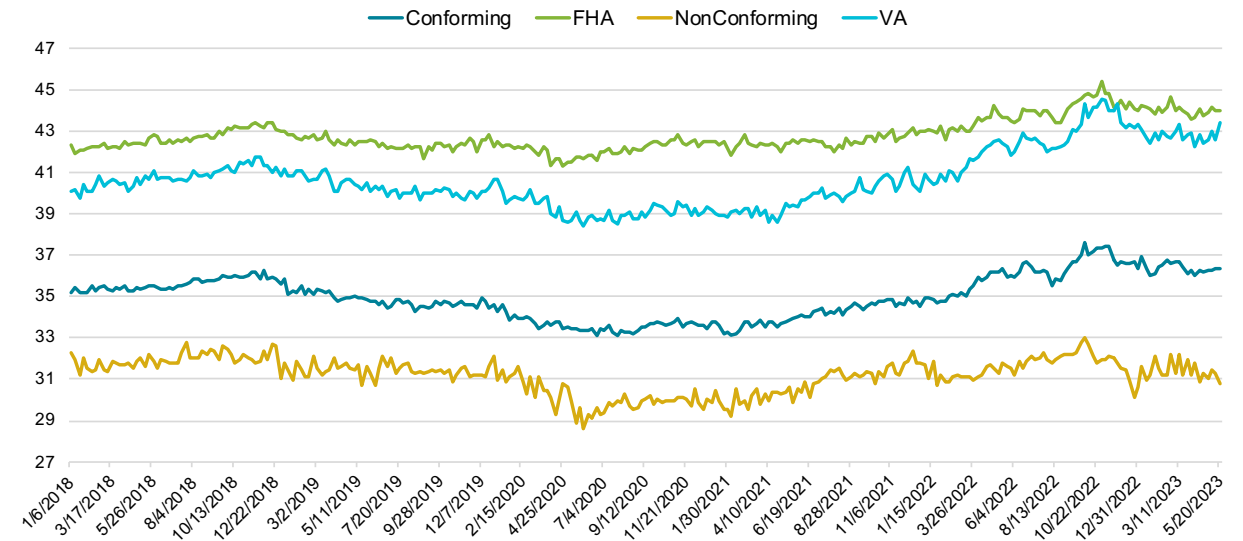
(PRIMARY RESIDENCES)



Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

AVERAGE DTI OF PURCHASE RATE LOCKS

(PRIMARY RESIDENCE PURCHASES)



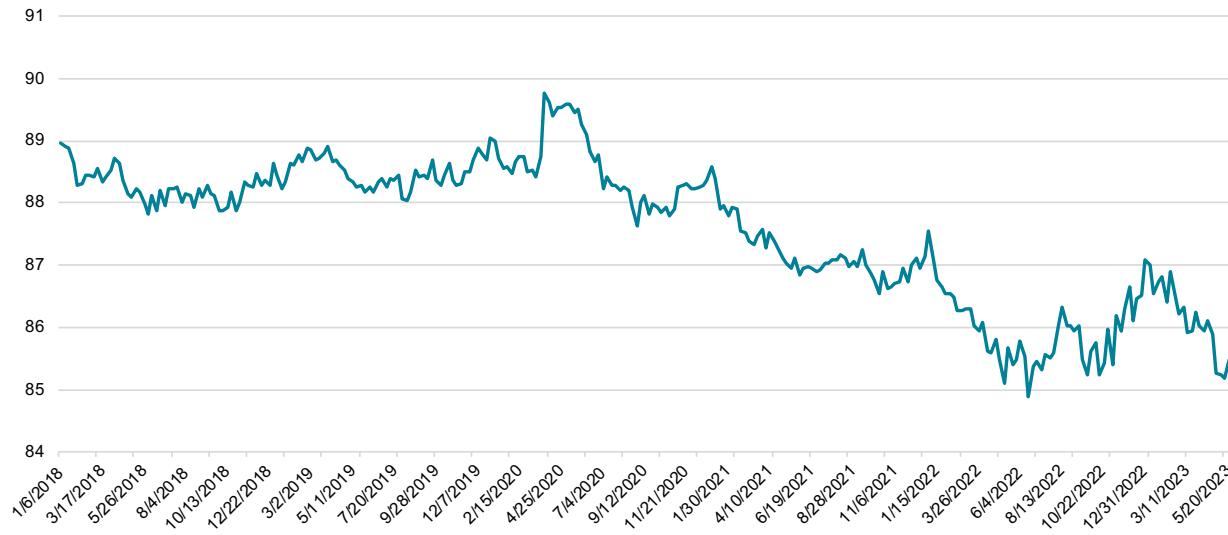
Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

- » Credit tightening comes as affordability is already presenting significant challenges to mortgage origination
- » While easing rates, softening prices and rising incomes allowed the average debt-to-income ratio (DTI) for purchase mortgages to fall nearly a full percentage point since November, average purchase DTIs have hovered above 38.3% for the last year

- » DTIs for refinances remain high, with the average for cash-out refinances at 37.5% and rate/term refinances at 35.5%
- » DTIs have come down for all loan types since they peaked in October/November of last year, but remain above what they were a year ago for all but non-conforming loans



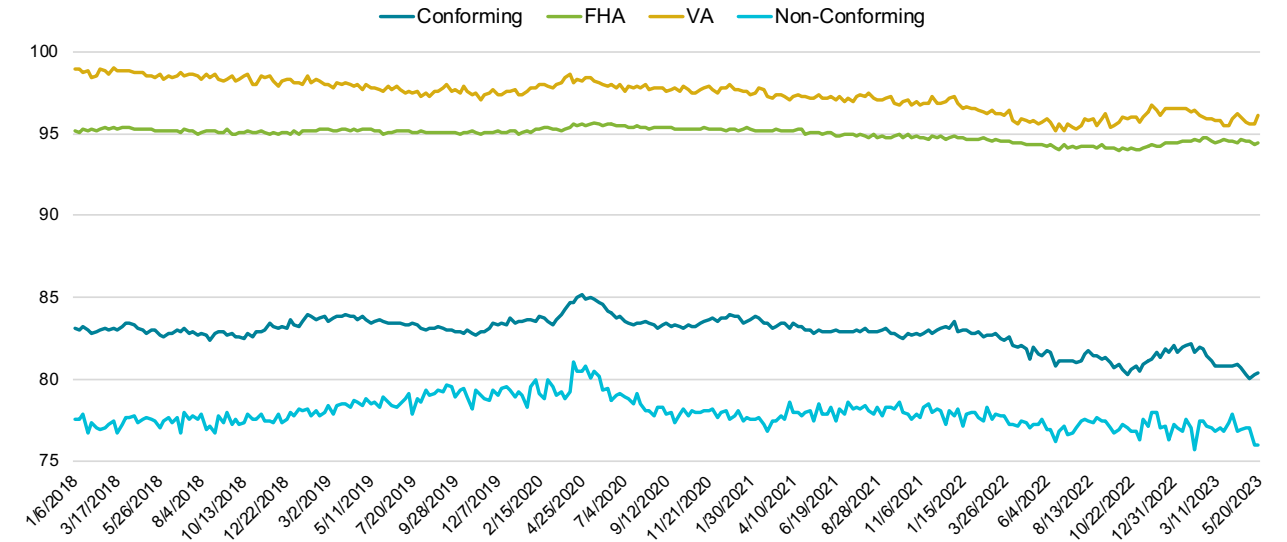
AVERAGE LTV OF PURCHASE RATE LOCKS (PRIMARY RESIDENCE PURCHASES)



Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

- » The average loan-to-value (LTV) ratio for purchase rate locks stood at 85.5% in the week ending May 20, down from 87% in early January after reaching as high as 89.7% in April 2020 at the start of the pandemic
- » While the rise in LTV between June 2022 and January 2023 was partly driven by an increase in FHA market share from around 20% in June to 25% in January, that share has remained stable since and stands at 24.2% as of the week ending May 20

AVERAGE LTV OF PURCHASE RATE LOCKS (PRIMARY RESIDENCE PURCHASES)

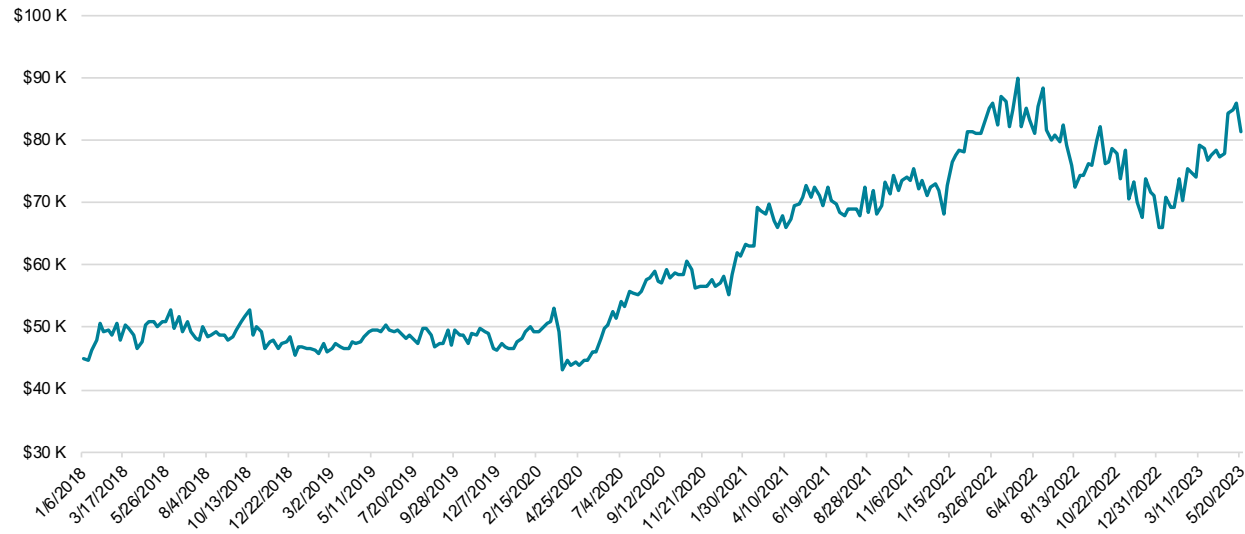


Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

- » With FHAVA market share and LTV requirements relatively stable in recent weeks, the main driver behind the recent decrease in LTV appears to be stricter credit standards or overlays imposed by lenders on conforming loans
- » This is consistent over time, looking at LTV changes during the loosening of credit between June 2022 and January 2023 and the more recent tightening between January and May of this year

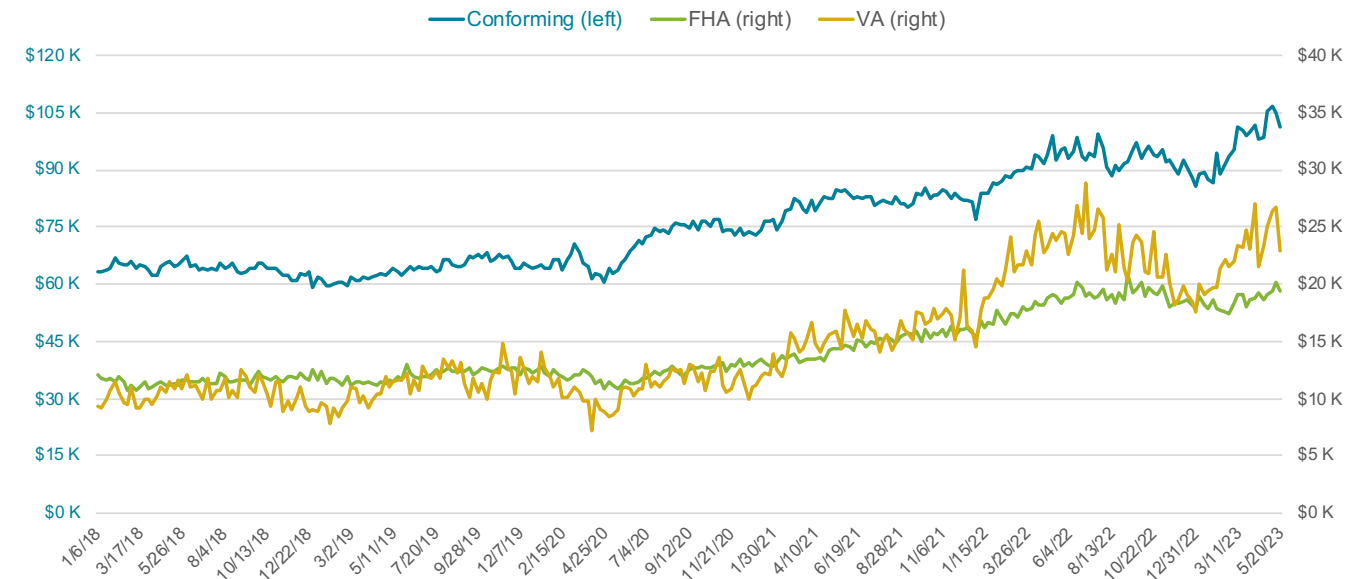


AVERAGE DOWN PAYMENT ON PURCHASE RATE LOCKS (PRIMARY RESIDENCE PURCHASES)



Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

AVERAGE DOWN PAYMENT ON PURCHASE LOCKS BY INVESTOR



Source: Black Knight, Optimal Blue
Data through week ending 5/20/2023

- » The change in LTVs is also manifested in an increase in the size of purchase down payments, which averaged over \$81,500 in mid-May, up from around \$50,000 before the pandemic
- » Despite investor mix holding relatively steady near 60% conforming, 24% FHA and 5% VA, down payments have been rising for all product types
- » The average down payment for conforming mortgages topped \$100,000 for the first time, with the conforming purchase-mortgage down payment reaching \$101,200 in the week ending May 20

- » While FHA and VA down payments tend to be smaller, both due to the higher LTV ratios and the smaller loan sizes, in the week ending May 20, purchase rate locks had an average down payment of \$19,400 for FHA and \$22,900 for VA mortgages
- » Since late April 2020, shortly after the start of the pandemic, the size of down payments has risen 68% for conforming mortgages, 78% for FHA mortgages and 158% for VA mortgages

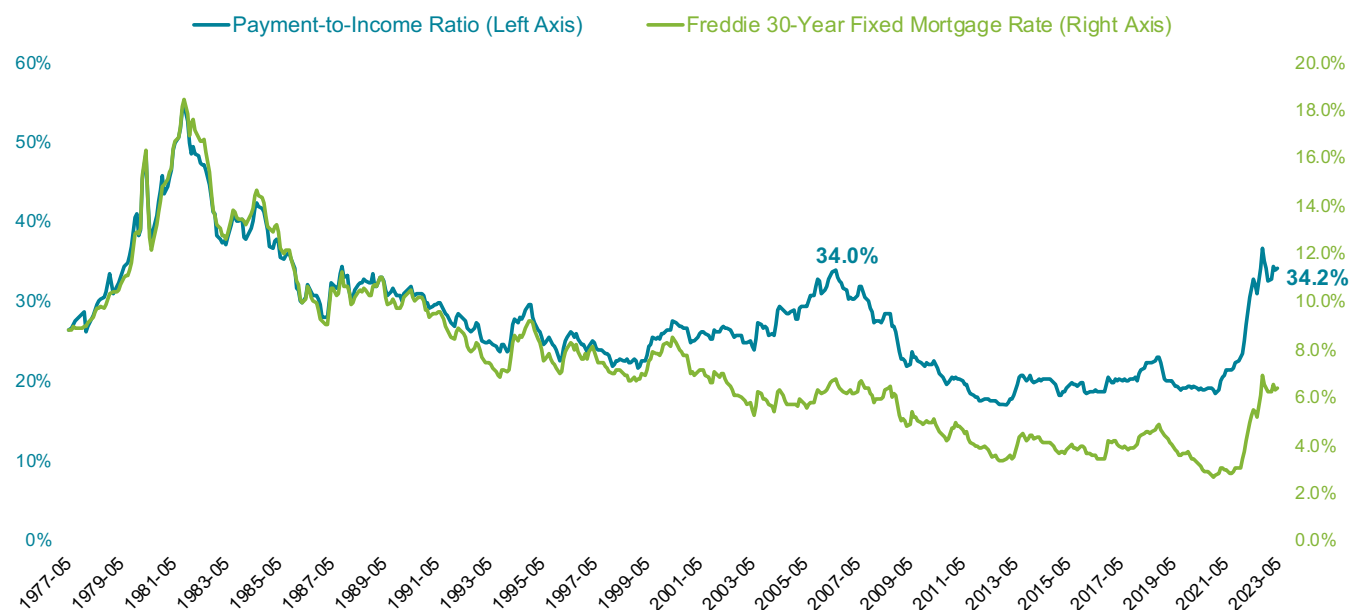


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APRIL 2023 HOUSING MARKET TRENDS

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.

PAYMENT-TO-INCOME RATIO VS. 30-YEAR RATES



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

MOST AFFORDABLE MARKETS				
Rank	Geography (CBSA)	Payment-to-Income Ratio	Payment-to-Income 1995-2003 Avg	Difference
1	Cleveland, OH	21.7%	21.7%	+0.0%
2	Pittsburgh, PA	23.1%	21.7%	+1.5%
3	Hartford, CT	23.5%	19.5%	+4.1%
4	St. Louis, MO	23.8%	19.5%	+4.3%
5	Cincinnati, OH	23.9%	21.3%	+2.6%
6	Oklahoma City, OK	24.1%	21.3%	+2.8%
7	Detroit, MI	24.2%	21.8%	+2.4%
8	Chicago, IL	24.8%	23.5%	+1.3%
9	Kansas City, MO	25.2%	19.2%	+6.0%
10	Minneapolis, MN	25.5%	20.4%	+5.1%

LEAST AFFORDABLE MARKETS				
Rank	Geography (CBSA)	Payment-to-Income Ratio	Payment-to-Income 1995-2003 Avg	Difference
41	Sacramento, CA	38.4%	27.2%	+11.2%
42	Nashville, TN	38.8%	22.9%	+15.9%
43	Riverside, CA	41.2%	25.8%	+15.5%
44	Seattle, WA	42.1%	27.3%	+14.8%
45	New York-Newark, NY-NJ	44.5%	28.2%	+16.3%
46	Miami, FL	46.0%	24.4%	+21.6%
47	San Francisco, CA	53.9%	35.0%	+18.8%
48	San Jose, CA	55.2%	34.3%	+20.9%
49	San Diego, CA	57.4%	34.2%	+23.2%
50	Los Angeles, CA	65.0%	35.6%	+29.4%

- » Affordability remains a significant challenge, currently requiring 34.2% of the median household income to make principal and interest (P&I) payments on the median-priced home nationwide
- » That's effectively flat over the past 3 months, and only modestly better than the 36.8% hit last fall when 30-year rates were at 7%

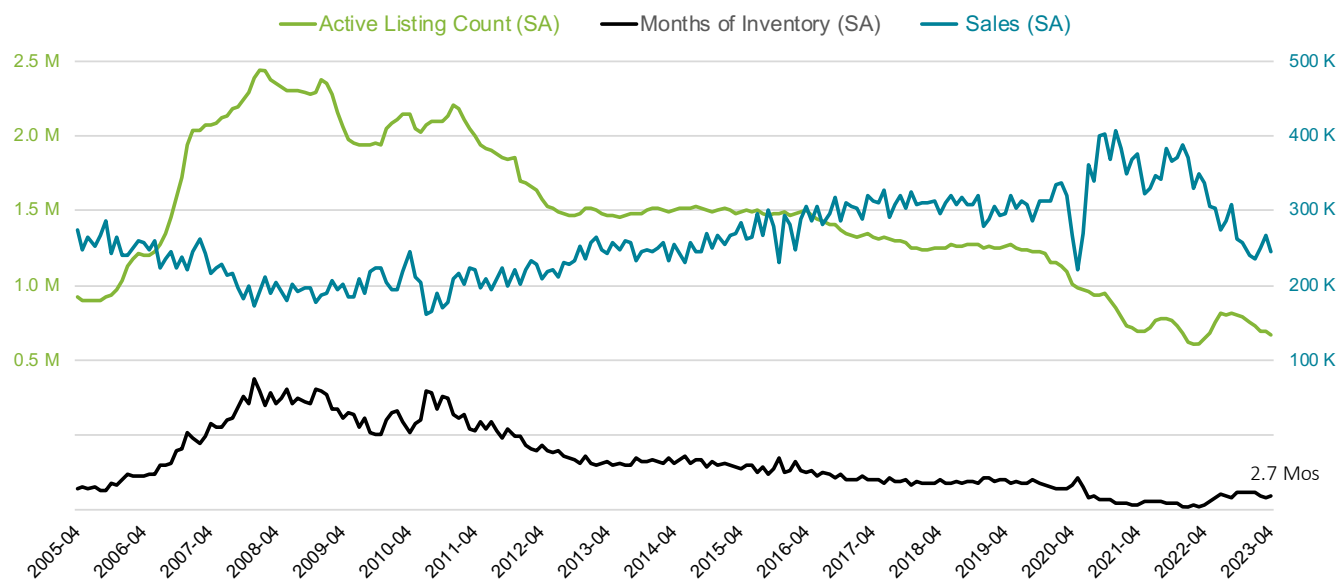
- » Each of the 100 largest markets is now once again less affordable than long-run averages, ranging from 0.05pp more of the median income than average to afford the average home in Cleveland, to 29pp in Los Angeles
- » Given continued affordability constraints across the U.S. it's no surprise purchase demand continues to run well below pre-pandemic levels



MORTGAGE MONITOR

SALES, ACTIVE LISTINGS AND MONTHS OF INVENTORY

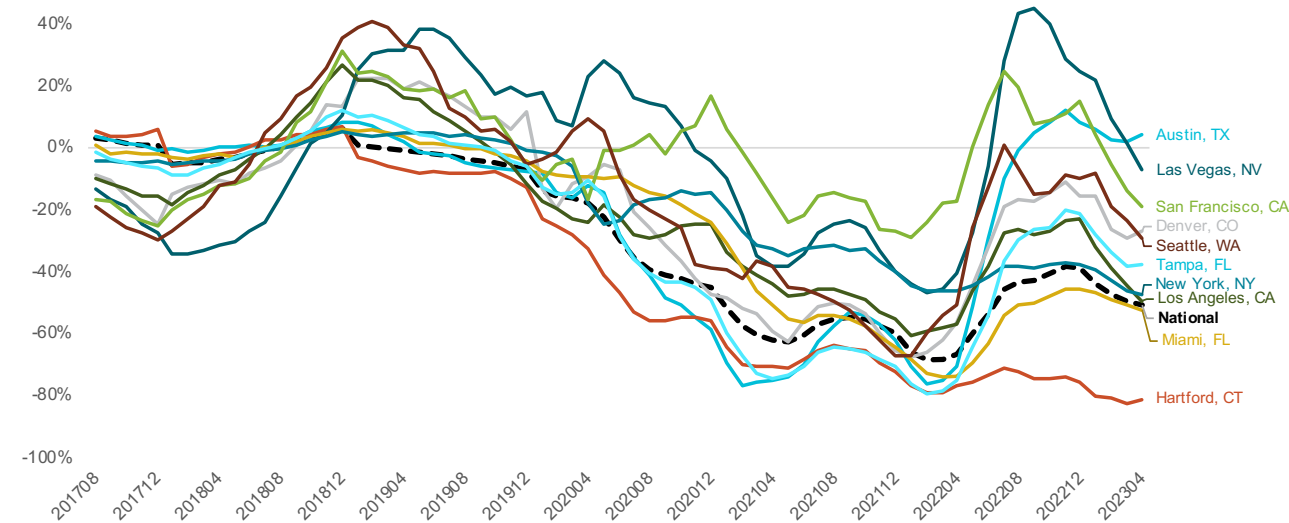
(SEASONALLY ADJUSTED - SINGLE FAMILY RESIDENCES AND CONDOS)



Source: Black Knight, Collateral Analytics

INVENTORY OF HOMES LISTED FOR SALE

(% CHANGE FROM 2017-2019 SAME MONTH AVERAGE)



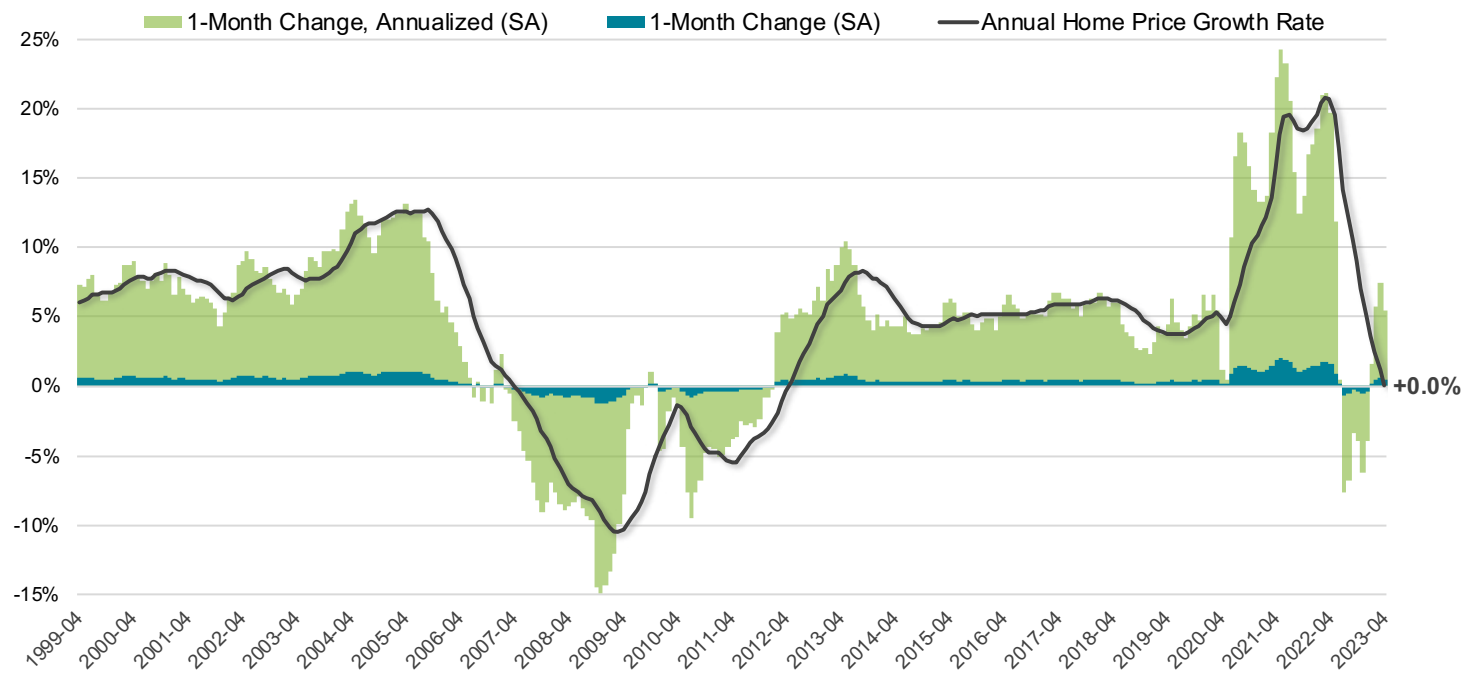
Source: Black Knight, Realtor.com

- » Home sale volumes fell in April according to Black Knight's Collateral Analytics data, following modest rises in both February and March, as both a lack of affordability and a lack of inventory continue to create headwinds for the market
- » Sales volumes are now only 4% above their January lows on a seasonally adjusted basis and are expected to remain relatively low in coming months given the relatively muted purchase rate lock volumes in recent weeks
- » For-sale inventory has now worsened in eight of the past nine months on a seasonally adjusted basis, and has fallen to its lowest level since April of last year, and is back to within 11% of the record low reached last March

- » Inventory deficits have worsened across 95% of major markets through the first four months of 2022 causing home prices to firm up
- » Markets with the largest shift in inventory – Phoenix, San Francisco and Las Vegas have experienced more than 30pp deterioration to date this year – are those that moved into oversupply late last year as sales volumes dried up
- » Other major movers include San Jose, Sacramento, Los Angeles, Salt Lake City, Raleigh and San Diego, as well as smaller West Coast markets, which have also seen 25pp increases in inventory deficits
- » Hartford remains the market with the most severe inventory shortage – and correspondingly the largest year-over-year home price gain – with an 81% deficit of for-sale listings compared with pre-pandemic levels, as of the end of April



BLACK KNIGHT HOME PRICE INDEX



Source: Black Knight Home Price Index (HPI)

Tightening inventory continues to put upward pressure on prices this spring, with home prices rising in April for the fourth consecutive month, on a seasonally adjusted basis

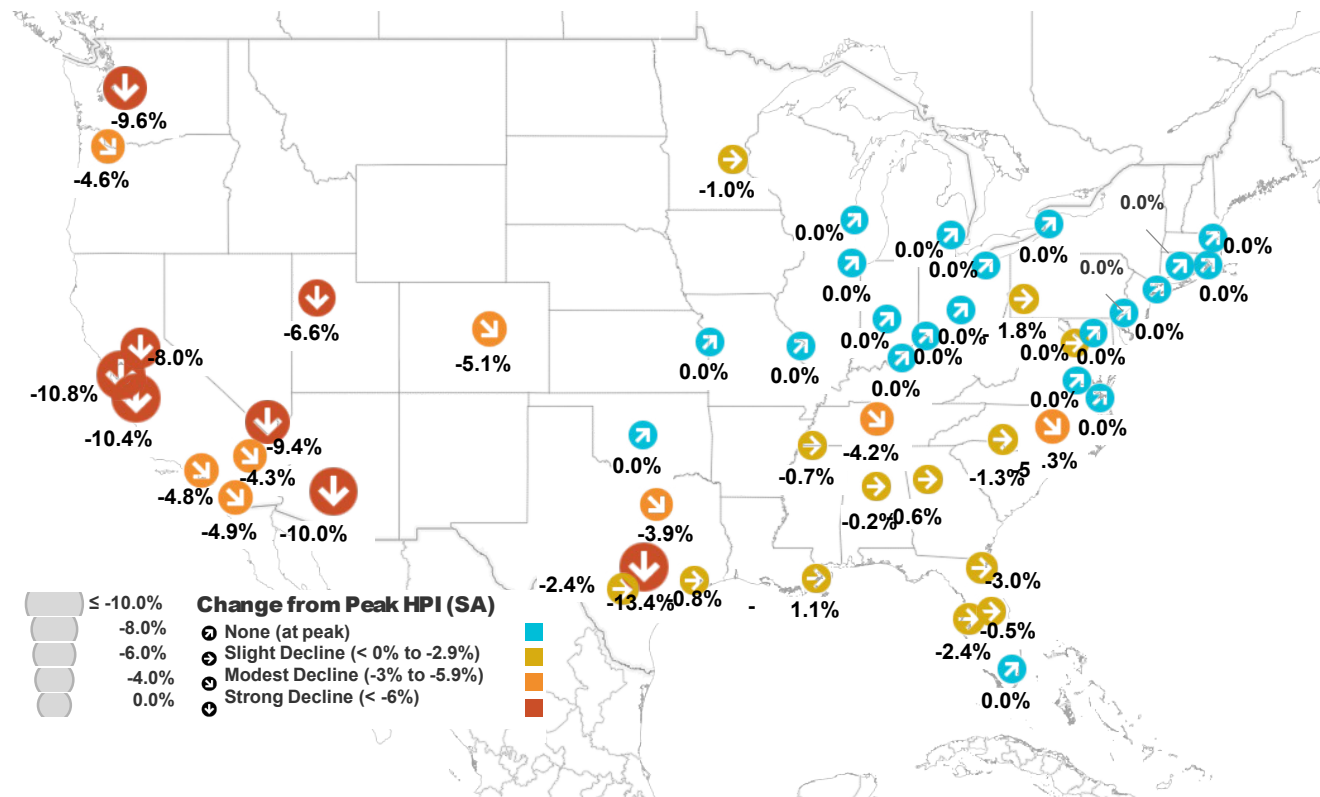
- » April's 0.46% seasonally adjusted rise was down from March's revised +0.62% and roughly on par with the 0.49% rise in February
- » April's seasonally adjusted increase was near the 30-year average of 0.48% for the month – 5.5% annualized
- » Despite prices firming up this spring, the annual home price growth rate slipped to 0% in April, the first-time prices have been flat year over year since the rebound from the Great Financial Crisis began in 2012
- » At its current trajectory, the annual home price growth rate would only fall modestly below 0% for a very short time before pulling back above water by late Q2/early Q3
- » Firming prices nationally have erased more than 60% of the price declines from late last year, and are on track to fully recover by midyear
- » That doesn't mean we're out of the woods, given that home prices remain 25% above what underlying incomes would traditionally support at today's interest rate



MORTGAGE MONITOR

APRIL 2023 HOUSING MARKET TRENDS

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

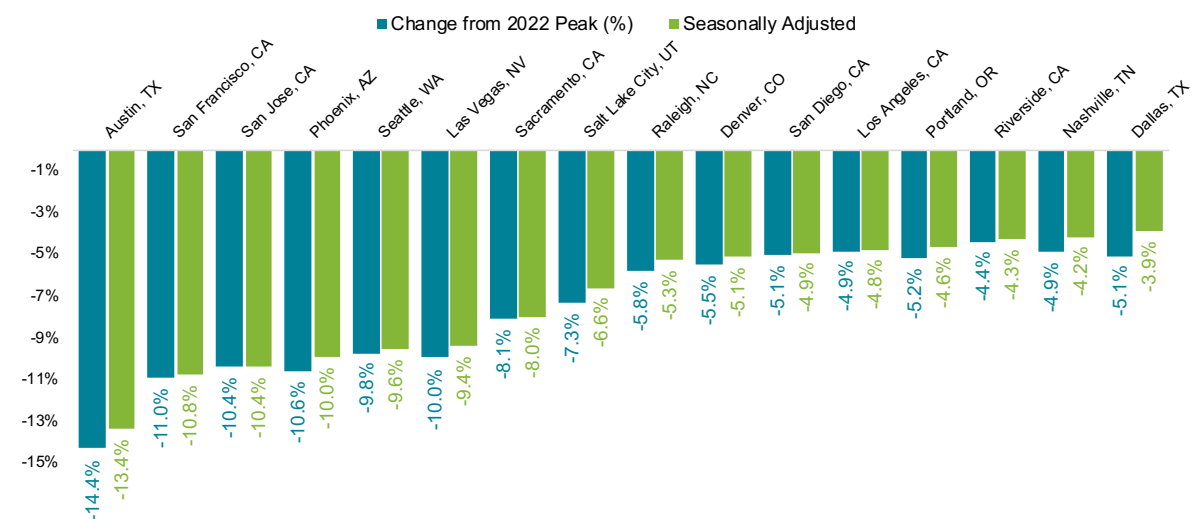


Source: Black Knight Home Price Index (HPI)
April 2023

- » Prices are currently 1% off their June 2022 peaks on a seasonally adjusted basis nationally after being down as much as 2.6% entering 2023
- » 23 of the 50 largest markets – primarily in the Midwest and Northeast have returned to, or reset, new home price peaks this spring
- » Prices remain well below peak levels across the West and in pandemic boom towns, but hardening prices this spring have eaten into the deficits in many of those markets
- » Austin is the notable exception, where prices remain soft and the deficit continues to grow, reaching 13.4% in April, the largest of any market

CHANGE IN MEDIAN HOME PRICE

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

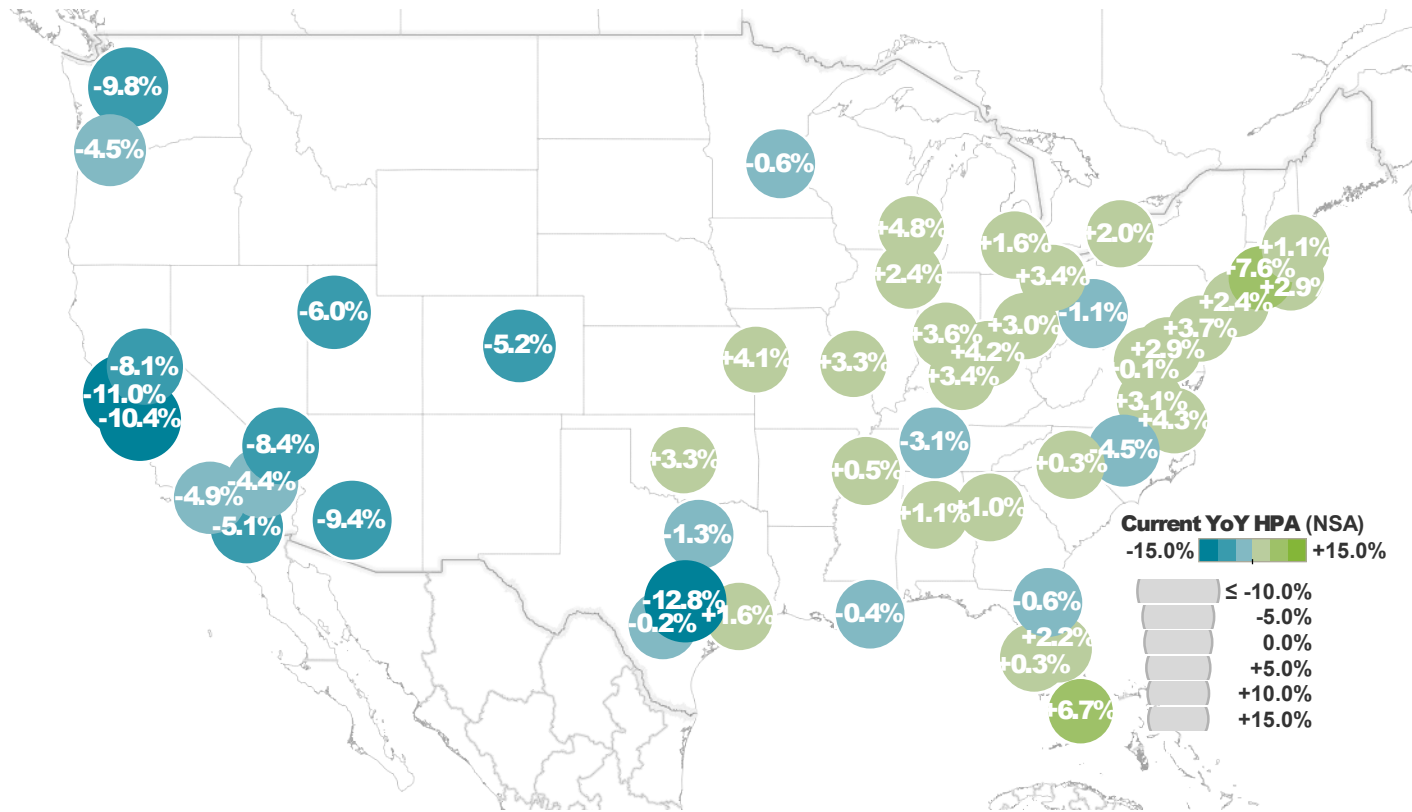


Source: Black Knight Home Price Index (HPI)
April 2023



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ANNUAL HOME PRICE GROWTH RATE BY CBSA



After ranking first in the country in annual home price growth rate for eight consecutive months, Miami has been displaced by Hartford (+7.6%)

- » Hartford also had the strongest single month gains in April as the 81% deficit in for-sale inventory continues to be met by relatively strong home affordability compared to what's being seen in other parts of the country
- » While 47 of the 50 largest markets saw their annual home price growth rates fall in April, that trend may begin to shift in coming months, as spring price gains begin to offset the declines seen late last year
- » Home price growth rates in San Jose, Seattle and San Diego appear to have bottomed in March and slightly improved – although they remain negative – in April
- » Overall, 21 of 50 major markets showed prices down from the same time last year as of April

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

MARKETS WITH HIGHEST HOME PRICE GROWTH RATES		
Rank	Geography (CBSA)	Annual Home Price Growth Rate
1	Hartford, CT	+7.6%
2	Miami, FL	+6.7%
3	Milwaukee, WI	+4.8%
4	Virginia Beach, VA	+4.3%
5	Cincinnati, OH	+4.2%
6	Kansas City, MO	+4.1%
7	Philadelphia, PA	+3.7%
8	Indianapolis, IN	+3.6%
9	Cleveland, OH	+3.4%
10	Louisville, KY	+3.4%

MARKETS WITH LOWEST HOME PRICE GROWTH RATES		
Rank	Geography (CBSA)	Annual Home Price Growth Rate
41	San Diego, CA	-5.1%
42	Denver, CO	-5.2%
43	Salt Lake City, UT	-6.0%
44	Sacramento, CA	-8.1%
45	Las Vegas, NV	-8.4%
46	Phoenix, AZ	-9.4%
47	Seattle, WA	-9.8%
48	San Jose, CA	-10.4%
49	San Francisco, CA	-11.0%
50	Austin, TX	-12.8%



MORTGAGE MONITOR

APRIL 2023 DATA SUMMARY

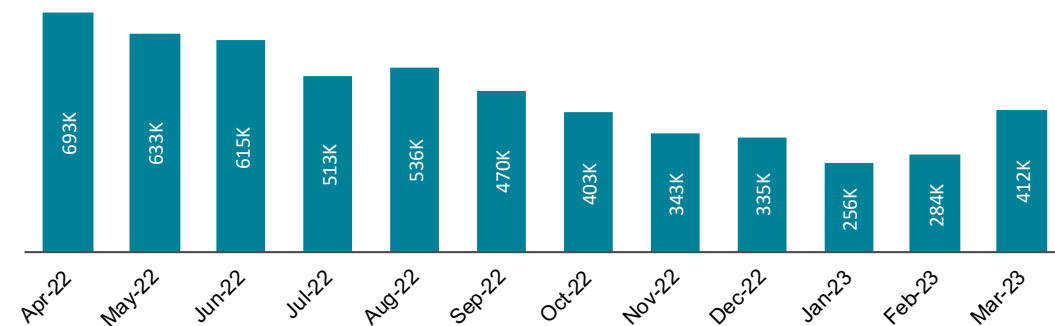
	Apr-23	Monthly Change	YTD Change	Yearly Change
Delinquencies	3.31%	13.32%	-2.06%	2.11%
Foreclosure	0.44%	-2.60%	-2.02%	4.90%
Foreclosure Starts	24,800	-22.98%	-23.69%	-32.24%
Seriously Delinquent (90+) or in Foreclosure	1.40%	-2.19%	-10.35%	-25.41%
New Originations (data as of Mar-23)	412K	44.8%	23.0%	-48.4%

	Apr-23	Mar-23	Feb-23	Jan-23	Dec-22	Nov-22	Oct-22	Sep-22	Aug-22	Jul-22	Jun-22	May-22	Apr-22
Delinquencies	3.31%	2.92%	3.45%	3.38%	3.48%	3.49%	3.35%	3.16%	3.20%	3.33%	3.21%	3.19%	3.24%
Foreclosure	0.44%	0.46%	0.46%	0.45%	0.44%	0.44%	0.43%	0.43%	0.44%	0.43%	0.44%	0.43%	0.42%
Foreclosure Starts	24,800	32,200	29,500	32,500	28,200	27,300	24,900	24,200	28,800	22,900	31,500	26,500	36,600
Seriously Delinquent (90+) or in Foreclosure	1.40%	1.43%	1.53%	1.56%	1.55%	1.55%	1.55%	1.56%	1.58%	1.63%	1.68%	1.74%	1.87%
New Originations		412K	284K	256K	335K	343K	403K	470K	536K	513K	615K	633K	693K

TOTAL DELINQUENCIES



NEW ORIGINATIONS



MORTGAGE MONITOR

APRIL 2023 APPENDIX

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%



MORTGAGE MONITOR

APRIL 2023 APPENDIX

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
4/30/21	51,651,000	602,000	215,000	1,946,000	202,000	2,966,000	6,500	4,100	326	1,343	5.4%	-6.2%	-22.2%	0.4%	-3.0%	-22.9%
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%



DELINQUENCY AND FORECLOSURE FIGURES BY STATE

State	Del %	FC %	NC %	Yr/Yr Change in NC%
National	3.3%	0.4%	3.8%	2.4%
MS	7.0%	0.6%	7.6%	4.1%
LA*	6.4%	0.9%	7.2%	3.3%
AL	5.3%	0.4%	5.7%	3.4%
WV	4.6%	0.5%	5.1%	1.2%
PA*	4.3%	0.8%	5.1%	5.6%
IN*	4.3%	0.6%	4.9%	5.1%
AR	4.4%	0.4%	4.8%	-0.6%
OK*	4.0%	0.7%	4.8%	-2.3%
GA	4.4%	0.3%	4.7%	9.0%
OH*	3.9%	0.7%	4.6%	2.6%
IL*	3.8%	0.8%	4.6%	1.5%
TX	4.2%	0.4%	4.6%	7.0%
MD*	4.0%	0.5%	4.5%	3.7%
NY*	3.2%	1.3%	4.5%	-8.5%
DE*	3.9%	0.5%	4.5%	5.9%
KY*	3.8%	0.7%	4.4%	2.3%
SC*	3.7%	0.5%	4.2%	0.0%

State	Del %	FC %	NC %	Yr/Yr Change in NC%
National	3.3%	0.4%	3.8%	2.4%
FL*	3.5%	0.5%	4.1%	8.1%
CT*	3.3%	0.6%	3.9%	-10.3%
MO	3.6%	0.3%	3.9%	3.9%
RI	3.4%	0.5%	3.9%	1.5%
IA*	3.3%	0.6%	3.8%	2.9%
MI	3.6%	0.2%	3.8%	10.0%
NJ*	3.2%	0.6%	3.8%	-6.5%
WI*	3.3%	0.5%	3.7%	5.1%
ME*	2.8%	0.8%	3.6%	1.0%
KS*	3.2%	0.4%	3.6%	0.7%
TN	3.4%	0.2%	3.6%	-4.8%
NM*	3.0%	0.6%	3.6%	-4.6%
NC	3.1%	0.3%	3.4%	-3.9%
VA	3.1%	0.3%	3.4%	0.5%
NE*	3.1%	0.3%	3.3%	-1.5%
AK	2.8%	0.5%	3.3%	-17.6%
VT*	2.6%	0.6%	3.2%	-14.4%

State	Del %	FC %	NC %	Yr/Yr Change in NC%
National	3.3%	0.4%	3.8%	2.4%
MA	2.8%	0.3%	3.1%	0.7%
NH	2.8%	0.2%	3.1%	4.4%
MN	2.8%	0.3%	3.1%	2.1%
NV	2.6%	0.4%	3.0%	4.4%
WY	2.7%	0.3%	3.0%	3.5%
ND*	2.4%	0.6%	2.9%	-5.8%
DC	2.2%	0.7%	2.9%	-6.5%
UT	2.7%	0.2%	2.9%	13.5%
SD*	2.4%	0.4%	2.8%	14.0%
AZ	2.6%	0.2%	2.7%	11.6%
HI*	1.8%	0.9%	2.6%	-9.1%
CA	2.1%	0.2%	2.3%	2.8%
OR	2.0%	0.3%	2.2%	-0.9%
MT	1.9%	0.3%	2.2%	3.9%
ID	2.0%	0.2%	2.2%	19.0%
WA	1.8%	0.2%	2.0%	0.0%
CO	1.9%	0.2%	2.0%	5.7%

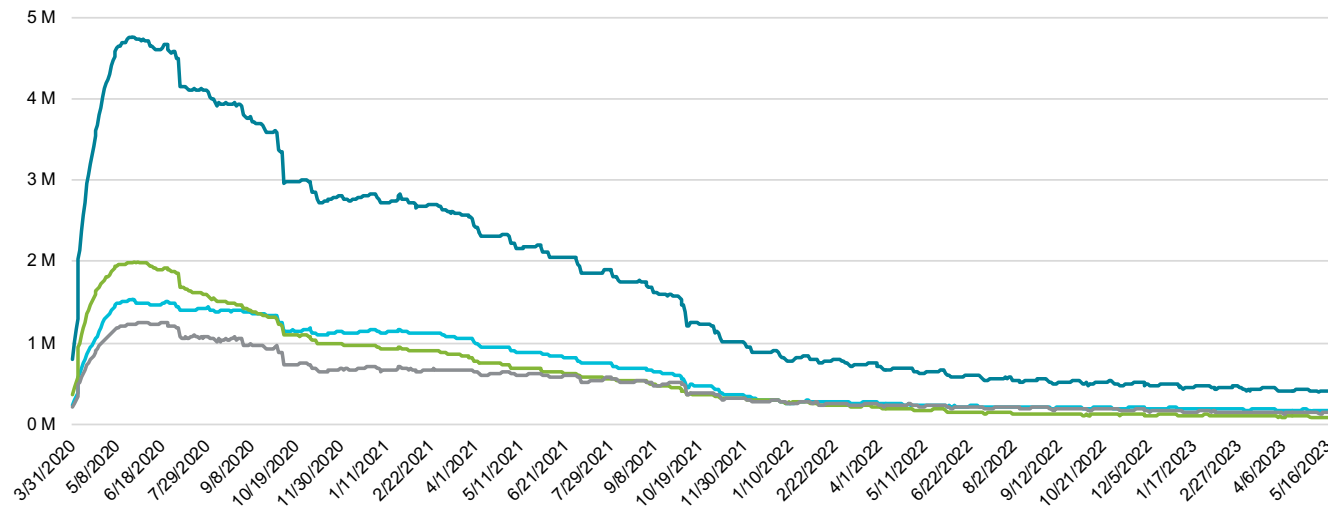
* Indicates Judicial State



MORTGAGE MONITOR

ACTIVE FORBEARANCE PLANS

FHAVA Fannie/Freddie Other Total



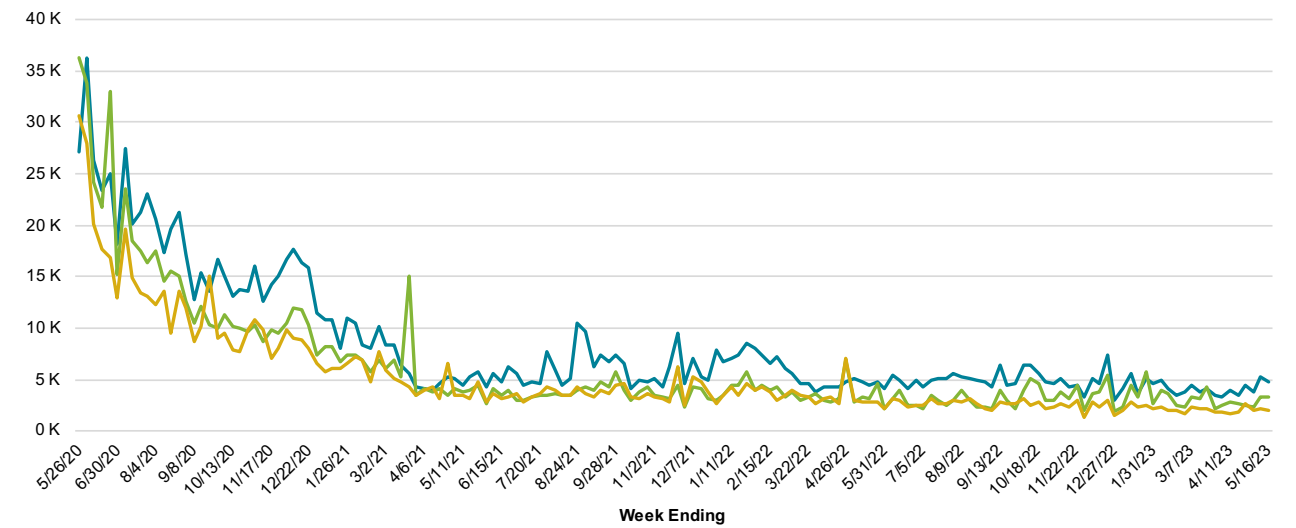
Source: McDash Flash
Data as of May 16, 2023

	Fannie & Freddie	FHA & VA	Other**	Total
Loans in Forbearance*	93,000	176,000	142,000	412,000
UPB of Loans in Forbearance (\$Bil)*	\$20	\$34	\$24	\$78
Share of Loans in Forbearance*	0.3%	1.5%	1.1%	0.8%

Source: McDash Flash
Data as of May 16, 2023

NEW FORBEARANCE PLAN STARTS BY INVESTOR

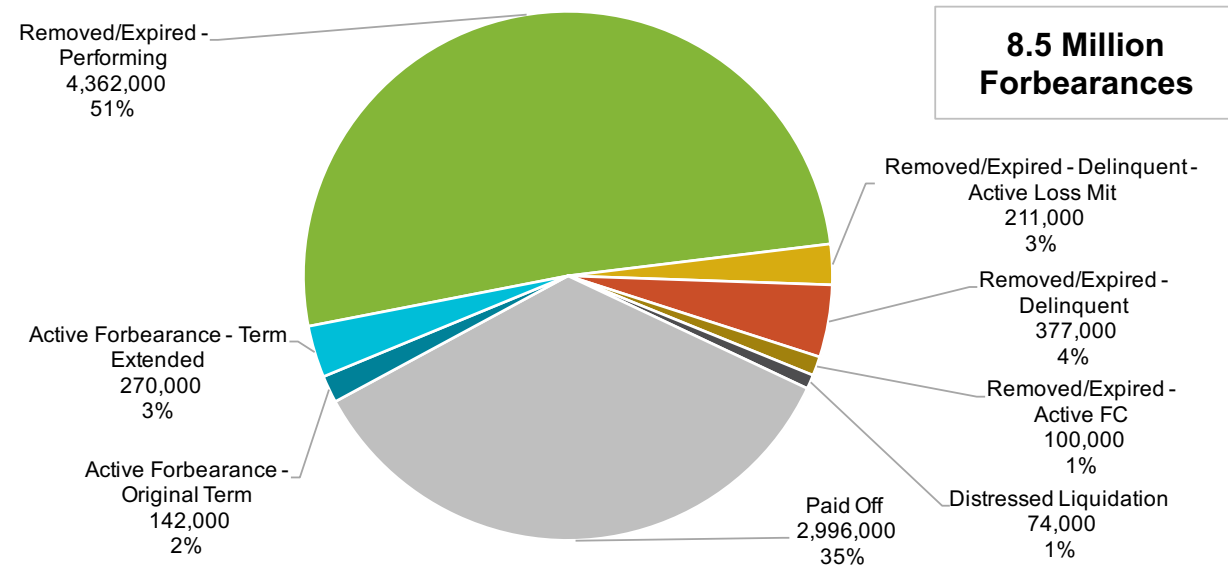
FHA / VA GSE Portfolio / PLS



Source: McDash Flash

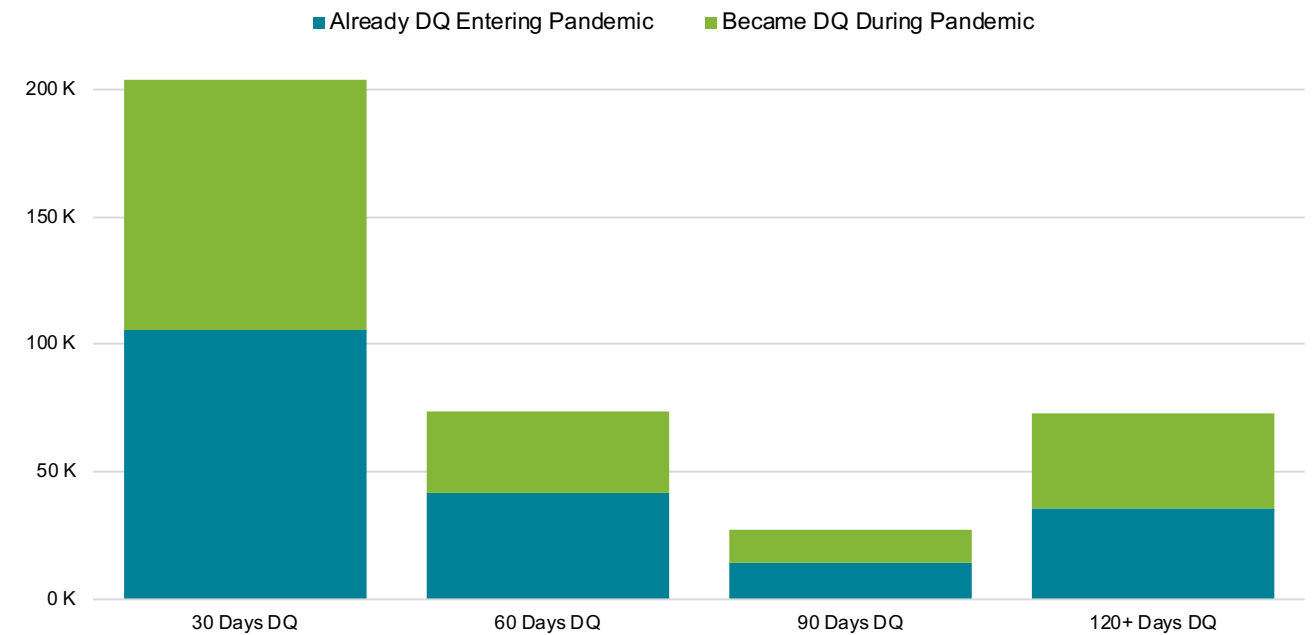


CURRENT STATUS OF COVID-19 RELATED FORBEARANCES



Source: McDash Flash
As of May 16, 2023

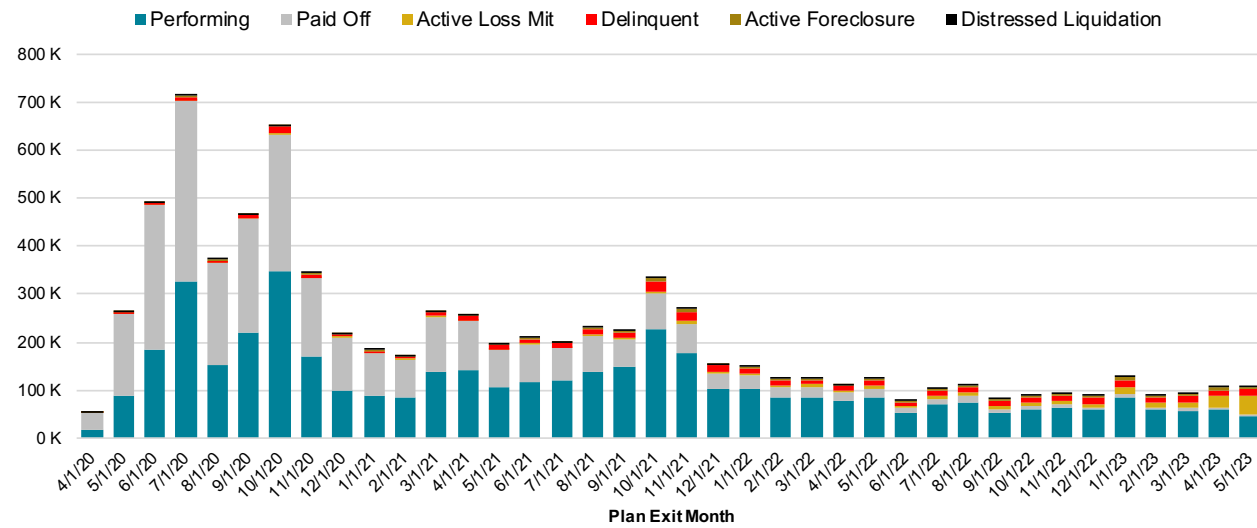
BREAKDOWN OF LOANS THAT REMAIN DELINQUENT FOLLOWING FORBEARANCE PLAN EXIT (EXCLUDING LOANS IN ACTIVE LOSS MITIGATION OR FORECLOSURE)



Source: McDash Flash

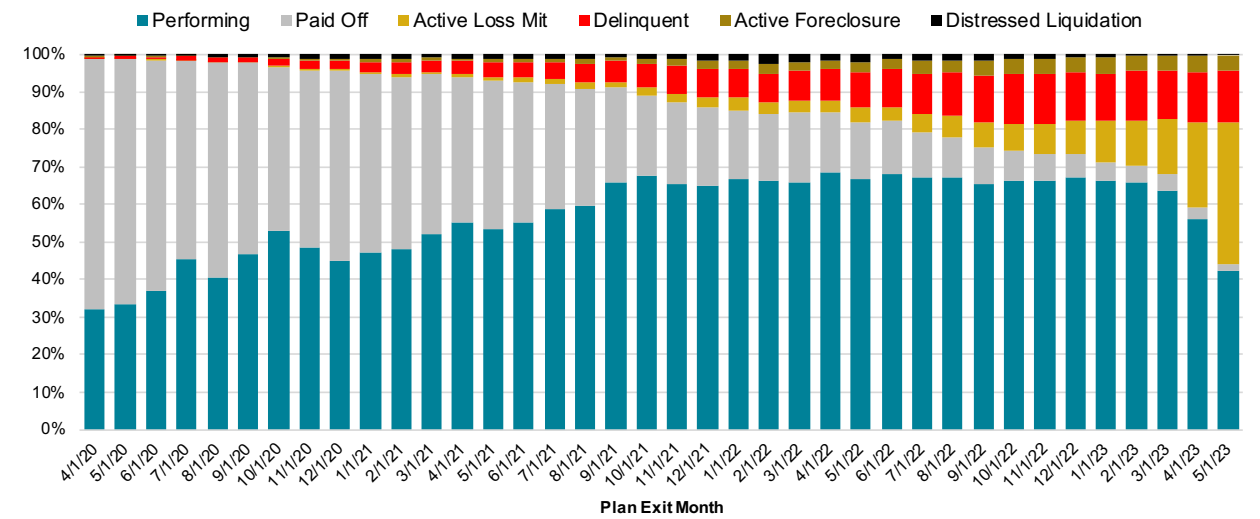


CURRENT STATUS OF LOANS THAT HAVE LEFT COVID-19 FORBEARANCE PLANS



Source: McDash Flash
 May 2023 represents partial data through the 16th of the month

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



Source: McDash Flash



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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.

