October 2023 Market Snapshot





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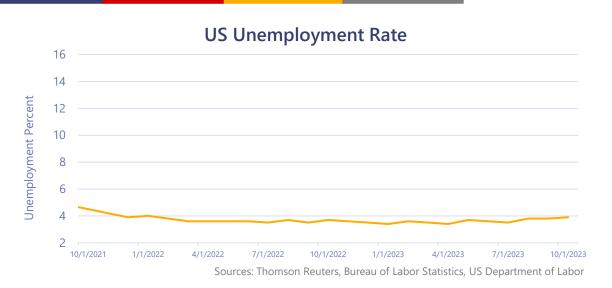


Macro-Economic Indicators

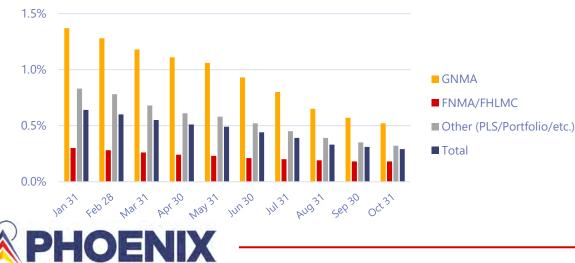
Summary

- Nonfarm payroll employment increased by 150,000, and the unemployment rate increased slightly to 3.90%.
- The Federal Reserve held the federal funds rate steady at a range of 5.25% to 5.50% in October.
- The MBA Mortgage Refinance Application Index's weekly readings decreased in October with a reading of 342, which is down from 385 recorded in the last week of September.
- Preliminary US housing starts are estimated to be higher month-over-month with 1,372,000 housing starts estimated in October.
- The total number of loans in forbearance, tracked by the MBA's Monthly Loan Monitoring Survey, decreased by 2 bps month-over-month to 0.29%.

Macro-Economic Indicators

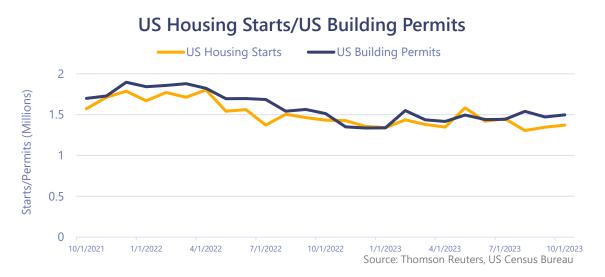


Loans in Forbearance



TRADING

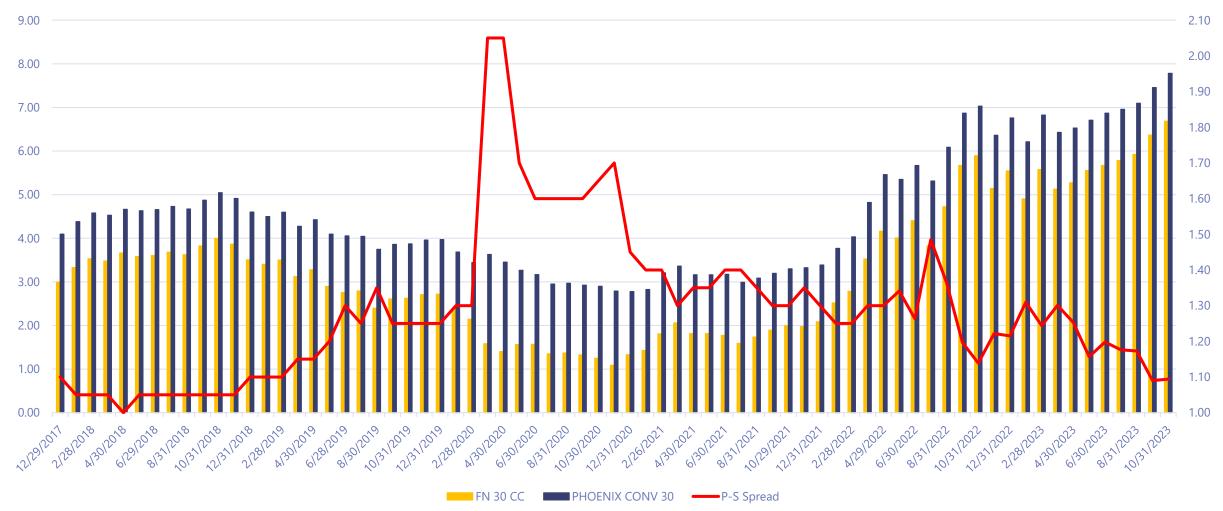
MORTGAGE SERVICES







Primary Secondary Spread Tracking





Rate History

Summary

- PHOENIX primary mortgage rates increased from September to October. The fixed 30-year CONV rate increased by 32.50 bps, the GOVT product also increased by 20.70 bps, and the 15-year rates climbed by 23.10 bps.
- Short-term SWAP rates decreased in October while longer-term rates increased with the SOFR5YR increasing by 15.90 bps compared to September month-end.
- Treasuries continued an upward trend this month.
- Volatilities moved in the opposite to direction as SWAP's with short-term Vols increasing and long-term structures declining month-over-month.

Rate History

12/31/2022

2/28/2023

9.0

8.0

7.0 6.0

5.0

4.0

3.0

2.0

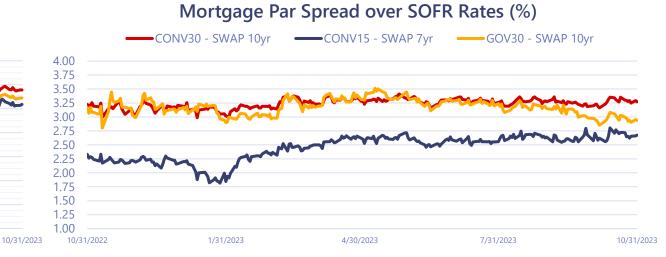
10/31/2022

PHOENIX Mortgage Par Rates (%)

4/30/2023

6/30/2023

8/31/2023



Yield Curve Comparison



Rate History (cont.)

	Primary Rates as of 10/31/2023												
Rate	10/31/2022	7/31/2023	9/29/2023	10/31/2023									
CONV30	7.033	6.959	7.457	7.782									
CONV15	6.217	6.361	6.949	7.180									
GOV30	6.982	6.937	7.245	7.452									
ARM 5/1	5.250	6.000	6.250	6.500									

Rate	10/31/2022	8/31/2023	9/29/2023	10/31/2023
FNMA 30	5.894	5.923	6.367	6.688
FNMA 15	5.199	5.624	6.304	5.868
GNMA II 30	5.715	5.894	6.304	6.582
GNMA II 15	4.770	5.227	5.377	5.497
ARM 5/1	5.520	6.050	6.640	7.120

SOFR Rates as of 10/31/2023

Rate	7/31/2023	8/31/2023	9/29/2023	10/31/2023
3 MO ED	5.295	5.295	5.295	5.295
6 MO ED	5.472	5.472	5.472	5.472
12 MO ED	4.976	4.976	4.976	4.976
2 YR SOFR	4.799	4.755	4.970	4.954
3 YR SOFR	4.385	4.367	4.637	4.699
5 YR SOFR	3.975	4.018	4.373	4.532
10 YR SOFR	3.697	3.808	4.267	4.513
15 YR SOFR	3.653	3.796	4.273	4.544
20 YR SOFR	3.590	3.746	4.226	4.504
30 YR SOFR	3.362	3.530	4.014	4.299



Source: Thomson Reuters and PHOENIX

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Prepayment Speed Trends

Summary

- Quarter-over-quarter, national CPR speeds decreased to 4.98% in October from July's 5.81%.
- Average prepayment speeds for fixed-rate GNMA and GSE loans were 4.98% in October, a 24-bps decrease from September's rate of 5.22%.
- Over the month, the CONV 30-year and 15-year CPR decreased by 0.20% and 0.35%, respectively. FHA and VA speeds decreased by 0.27% and 0.21%.
- Prepayment speeds have been variable since the beginning of the year.

CPR Summary

SUMMARY TABLES - October 2023

	Loan Characteristics										
Investor	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%				
CONV Fixed 30	\$264,946	3.88	754	74	43	4.70%	-4.04%				
CONV Fixed 15	\$207,680	2.98	762	61	45	5.40%	-6.15%				
GNMA Fixed 30	\$223,673	4.00	698	93	45	5.45%	-5.12%				
GNMA Fixed 15	\$144,268	3.34	718	77	56	8.82%	-0.60%				

Vintage	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
2006	\$136,967	5.42	681	78	170	6.74%	2.68%
2007	\$145,270	5.31	677	80	160	6.10%	-3.71%
2008	\$145,310	5.18	679	83	155	6.15%	-0.47%
2009	\$158,000	4.85	722	80	159	6.77%	-1.73%
2010	\$164,196	4.64	732	80	150	6.90%	-1.64%
2011	\$162,826	4.43	736	79	141	6.83%	-4.25%
2012	\$188,868	3.77	747	80	131	6.02%	-4.77%
2013	\$181,335	3.80	742	79	122	6.10%	-2.76%
2014	\$163,156	4.25	729	81	106	6.87%	-3.40%
2015	\$185,827	3.94	734	79	96	6.35%	-5.67%
2016	\$203,629	3.69	737	78	83	5.98%	-5.67%
2017	\$191,822	4.08	727	80	71	6.72%	-4.60%
2018	\$184,767	4.60	719	81	59	7.42%	0.64%
2019	\$219,061	3.98	732	81	47	6.48%	-4.31%
2020	\$278,580	3.01	757	74	37	4.43%	-7.52%

Tranche	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
0.0000 - 2.4999	\$293,169	2.25	762	69	30	4.12%	-7.18%
2.5000 - 2.9999	\$291,126	2.79	758	72	32	3.90%	-8.98%
3.0000 - 3.4999	\$259,363	3.21	744	77	39	4.73%	-6.53%
3.5000 - 3.9999	\$221,177	3.71	736	78	62	5.47%	-4.70%
4.0000 - 4.4999	\$195,564	4.19	730	80	75	6.00%	-4.61%
4.5000 - 4.9999	\$199,711	4.71	727	81	64	5.87%	-3.80%
5.0000 - 5.4999	\$213,261	5.21	727	82	51	5.52%	3.06%
5.5000 - 5.9999	\$241,964	5.72	729	82	31	5.17%	3.61%
6.0000 - 6.4999	\$242,516	6.21	731	83	26	5.48%	9.09%
6.5000 or more	\$241,665	6.93	730	83	17	6.99%	-2.51%

GSE and GNMA fixed rate product only

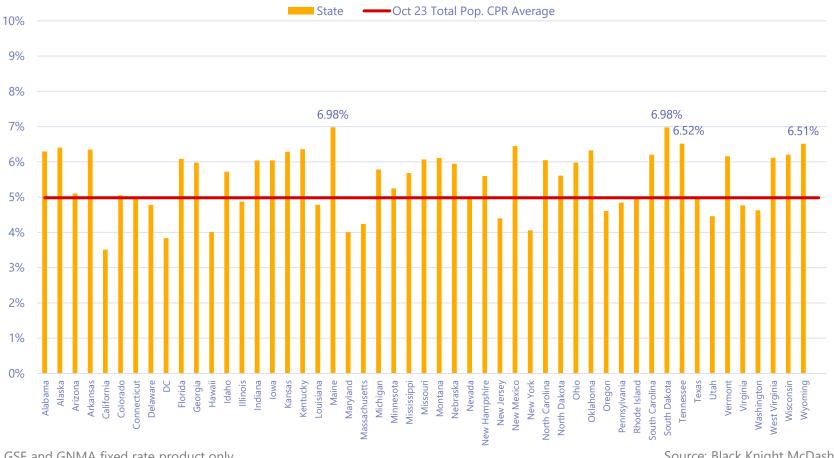


Source: Black Knight McDash

Confidential. PHOENIX use only.

Prepayment Speed Trends

Average CPR by State - October 2023



Analysis

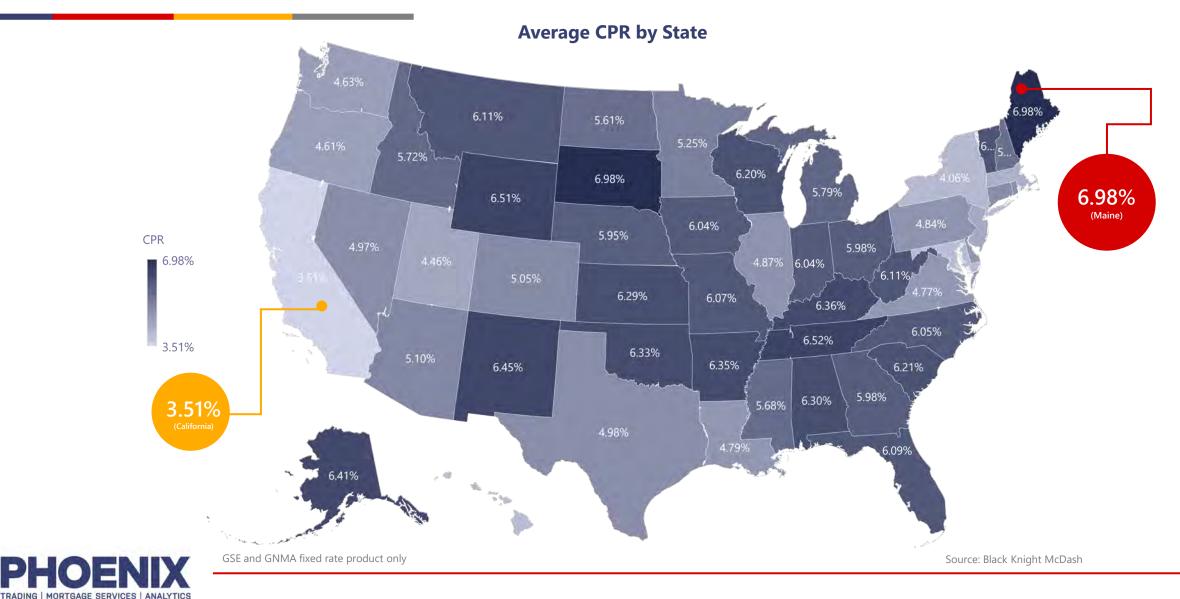
- Maine was the fastest prepaying state at 6.979%, closely followed by South Dakota (6.978%), Tennessee (6.52%), and Wyoming (6.51%).
- In October, the slowest prepaying state was California at 3.51%.
- The Middle Atlantic region showed the lowest prepayment speeds on average with a rate of 4.39% among PA, NY, and NJ.
- The East South Central region had the highest prepayment speed on average with a rate of 6.12% among the states of KY, TN, MS, and AL.

GSE and GNMA fixed rate product only

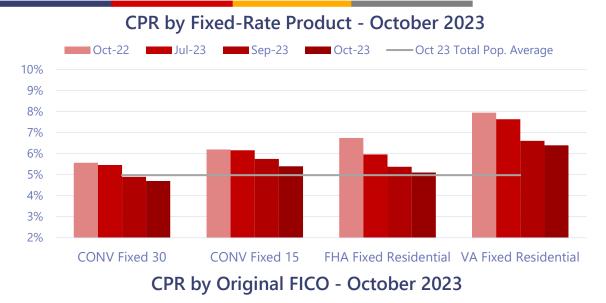


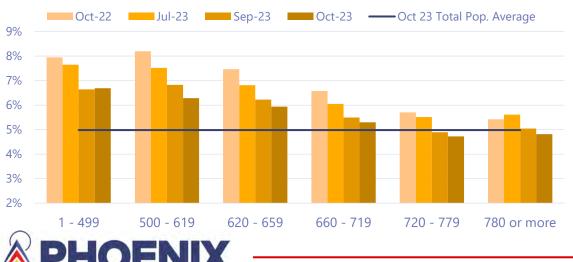
Source: Black Knight McDash

Prepayment Speed Trends (cont.)

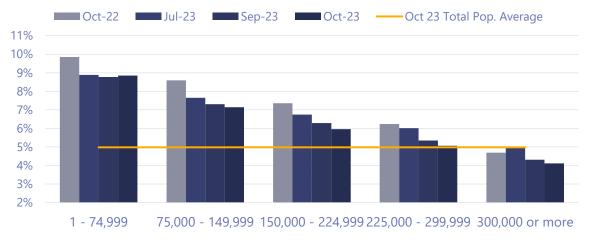


Prepayment Speed Trends (cont.)

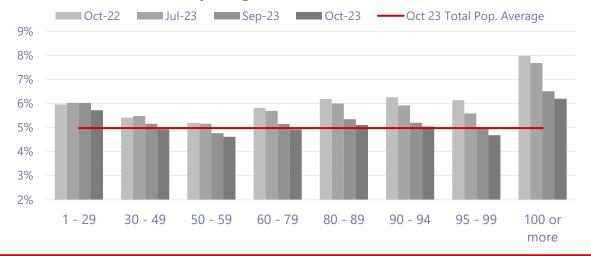




CPR by Original Loan Balance - October 2023



CPR by Original LTV - October 2023



All graphs use GSE and GNMA fixed rate product only. Source: Black Knight McDash

Delinquency Trends

Summary

- The national delinquency and foreclosure rate went up to 2.83%, an increase of 3 bps compared to last month. This new value is 13 bps higher than the 2.70% national average delinquency and foreclosure rate from October 2022.
- CONV 30-year loans' delinquency and foreclosure rates decreased by
 2 bps since September 2023. CONV 15-year loans' delinquency and foreclosure rates increased by 1 bp since September 2023.
- On a month-over-month basis, national average delinquency and foreclosure rates for fixed-rate FHA decreased by 3 bps and VA loans increased by 14 bps.
- NOTE: non-paying loans in forbearance are counted as delinquent in our data source.

Total delinquencies up **3 bps**

Delinquency Summary

SUMMARY TABLES - October 2023

	Lo	oan Charactei	istics			Delinquencies							
Investor	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%		
CONV Fixed 30	\$264,946	3.88	754	74	43	0.88%	0.23%	0.41%	0.12%	1.63%	-1.21%		
CONV Fixed 15	\$207,680	2.98	762	61	45	0.40%	0.08%	0.13%	0.03%	0.64%	-1.23%		
GNMA Fixed 30	\$223,673	4.00	698	93	45	3.81%	1.24%	1.68%	0.49%	7.23%	1.25%		
GNMA Fixed 15	\$144,268	3.34	718	77	56	1.36%	0.34%	0.40%	0.12%	2.22%	1.70%		

Vintage	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%
2006	\$136,967	5.42	681	78	170	4.47%	1.42%	1.95%	1.92%	9.76%	-3.19%
2007	\$145,270	5.31	677	80	160	4.78%	1.54%	2.06%	2.25%	10.63%	-3.22%
2008	\$145,310	5.18	679	83	155	5.10%	1.57%	1.95%	1.71%	10.33%	-4.46%
2009	\$158,000	4.85	722	80	159	2.93%	0.87%	0.96%	0.54%	5.29%	-4.82%
2010	\$164,196	4.64	732	80	150	2.25%	0.61%	0.73%	0.37%	3.96%	-3.13%
2011	\$162,826	4.43	736	79	141	1.94%	0.57%	0.63%	0.32%	3.46%	-2.07%
2012	\$188,868	3.77	747	80	131	1.18%	0.30%	0.37%	0.18%	2.02%	-1.71%
2013	\$181,335	3.80	742	79	122	1.32%	0.36%	0.46%	0.22%	2.37%	-2.79%
2014	\$163,156	4.25	729	81	106	2.28%	0.68%	0.89%	0.43%	4.28%	-1.81%
2015	\$185,827	3.94	734	79	96	2.12%	0.61%	0.78%	0.35%	3.86%	0.13%
2016	\$203,629	3.69	737	78	83	1.89%	0.55%	0.76%	0.33%	3.52%	-0.84%
2017	\$191,822	4.08	727	80	71	2.72%	0.83%	1.14%	0.47%	5.17%	1.29%
2018	\$184,767	4.60	719	81	59	3.73%	1.24%	1.78%	0.68%	7.43%	1.31%
2019	\$219,061	3.98	732	81	47	2.46%	0.78%	1.09%	0.40%	4.73%	2.74%
2020	\$278,580	3.01	757	74	37	0.90%	0.24%	0.38%	0.10%	1.62%	1.00%

Tranche	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%
0.0000 - 2.4999	\$293,169	2.25	762	69	30	0.59%	0.15%	0.25%	0.09%	1.07%	2.30%
2.5000 - 2.9999	\$291,126	2.79	758	72	32	0.81%	0.22%	0.35%	0.08%	1.47%	1.45%
3.0000 - 3.4999	\$259,363	3.21	744	77	39	1.54%	0.46%	0.73%	0.18%	2.91%	0.59%
3.5000 - 3.9999	\$221,177	3.71	736	78	62	1.76%	0.50%	0.77%	0.24%	3.27%	0.34%
4.0000 - 4.4999	\$195,564	4.19	730	80	75	2.18%	0.64%	0.94%	0.36%	4.12%	-0.22%
4.5000 - 4.9999	\$199,711	4.71	727	81	64	2.30%	0.68%	1.04%	0.36%	4.38%	-0.27%
5.0000 - 5.4999	\$213,261	5.21	727	82	51	2.41%	0.78%	1.16%	0.37%	4.72%	0.64%
5.5000 - 5.9999	\$241,964	5.72	729	82	31	1.97%	0.62%	0.93%	0.25%	3.77%	2.67%
6.0000 - 6.4999	\$242,516	6.21	731	83	26	1.77%	0.57%	0.78%	0.22%	3.33%	3.19%
6.5000 or more	\$241,665	6.93	730	83	17	1.70%	0.53%	0.59%	0.19%	3.00%	0.98%

GSE and GNMA fixed rate product only

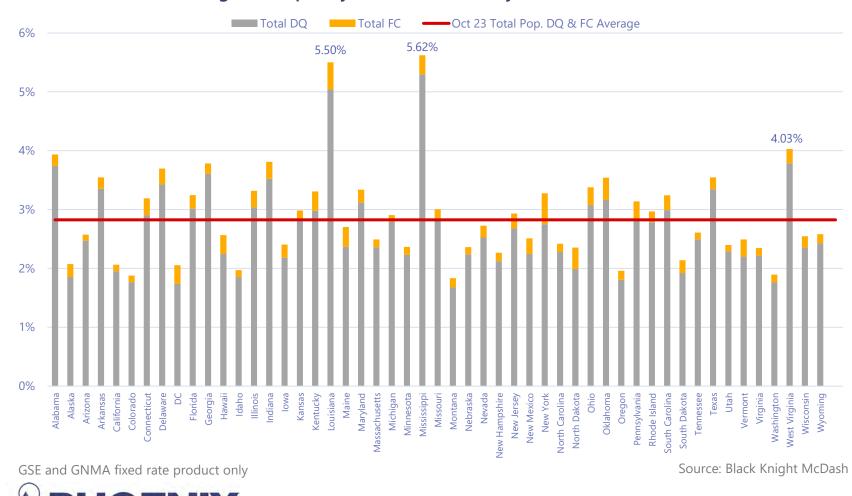


Source: Black Knight McDash

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Delinquency Trends

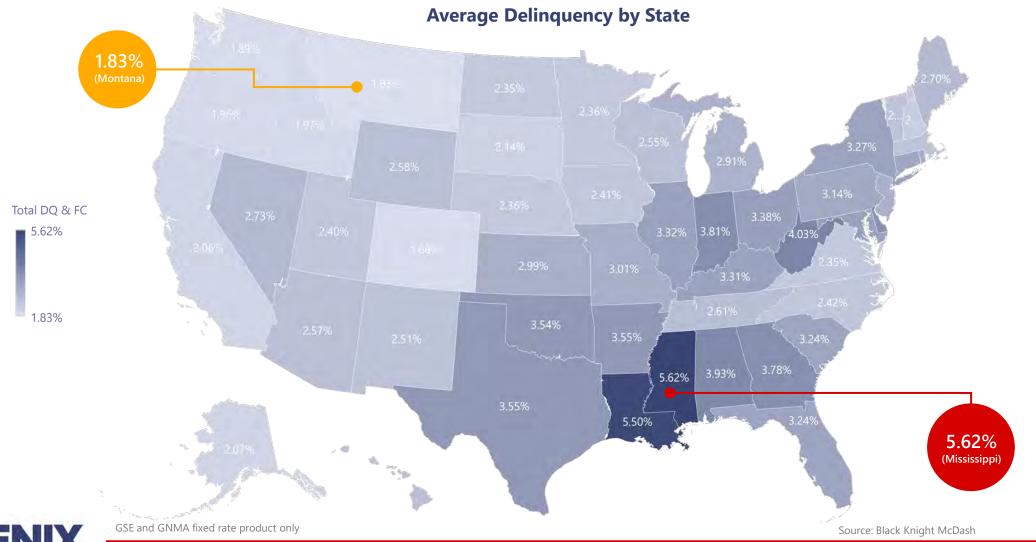
Average Delinquency and Foreclosure by State - October 2023



Analysis

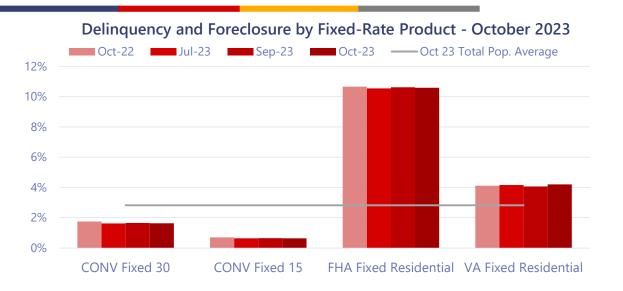
- Montana was the best-performing state, where delinquency and foreclosure rates came in at 1.83%.
- The nation's most delinquent state was Mississippi with a 5.62% delinquency and foreclosure rate.
- Compared to October 2022, Louisiana had the nation's largest increase, moving from 4.74% to 5.50% (+77 bps).
- Regionally, the West South-Central region of TX, OK, AR, and LA had the highest delinquency rate (4.04%), and the East South-Central states of KY, TN, MS, and AL were close behind at 3.80%.

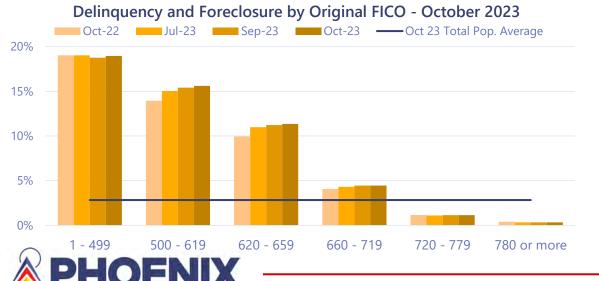
Delinquency Trends (cont.)

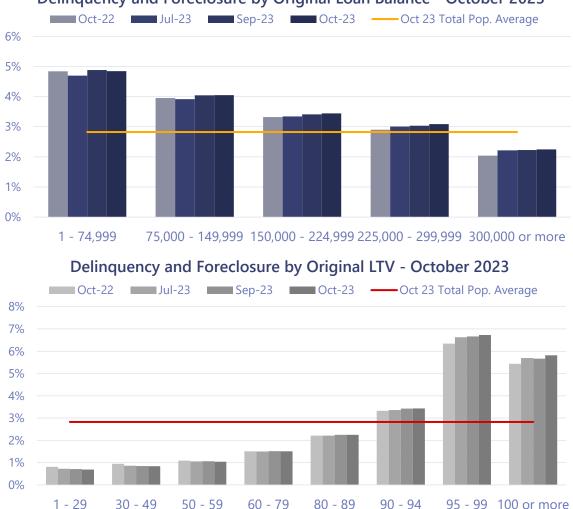




Delinquency Trends (cont.)







Delinquency and Foreclosure by Original Loan Balance - October 2023

All graphs use GSE and GNMA fixed rate product only. Source: Black Knight McDash

Tables

State Summary Prepayment and Delinquency

SUMMARY TABLES - October 2023

	Loan Characteristics					Prepayments					Delinquencies					
State	WAvg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%	CPR Factor	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%	DQ Factor	
National	\$243,660	3.80	743	77	44	4.98%	-4.54%	100.00%	1.51%	0.45%	0.67%	0.20%	2.83%	0.86%	100.00%	
Alabama	\$189,140	3.95	732	83	45	6.30%	-2.99%	126.41%	2.17%	0.64%	0.94%	0.19%	3.93%	-0.38%	139.26%	
Alaska	\$275,759	3.72	739	84	48	6.41%	-8.09%	128.63%	1.03%	0.33%	0.49%	0.22%	2.07%	-10.76%	73.42%	
Arizona	\$246,792	3.83	743	76	37	5.10%	-6.21%	102.47%	1.46%	0.42%	0.60%	0.11%	2.57%	4.34%	91.12%	
Arkansas	\$169,632	3.94	732	83	46	6.35%	-4.04%	127.49%	1.97%	0.55%	0.84%	0.19%	3.55%	2.37%	125.52%	
California	\$350,261	3.55	752	68	43	3.51%	-2.82%	70.46%	1.11%	0.31%	0.53%	0.11%	2.06%	0.98%	73.03%	
Colorado	\$307,616	3.66	753	74	37	5.05%	-9.13%	101.49%	1.01%	0.30%	0.46%	0.11%	1.88%	-0.32%	66.41%	
Connecticut	\$240,709	3.80	741	79	52	4.99%	-2.27%	100.12%	1.76%	0.50%	0.65%	0.29%	3.19%	0.35%	112.96%	
Delaware	\$235,497	3.85	738	80	47	4.78%	-4.15%	95.96%	2.04%	0.62%	0.77%	0.27%	3.70%	3.85%	130.83%	
DC	\$384,377	3.58	760	72	47	3.84%	5.18%	77.01%	0.97%	0.27%	0.49%	0.32%	2.05%	2.24%	72.71%	
Florida	\$235,241	4.01	737	80	40	6.09%	-2.23%	122.27%	1.67%	0.53%	0.82%	0.23%	3.24%	2.27%	114.83%	
Georgia	\$219,832	3.94	733	81	42	5.98%	-4.41%	120.08%	1.97%	0.62%	1.02%	0.18%	3.78%	1.23%	133.88%	
Hawaii	\$409,043	3.59	753	73	50	4.01%	-5.00%	80.52%	1.00%	0.69%	0.55%	0.32%	2.57%	-1.12%	90.83%	
Idaho	\$251,792	3.75	747	73	37	5.72%	-9.79%	114.86%	1.14%	0.29%	0.42%	0.12%	1.97%	1.97%	69.73%	
Illinois	\$206,137	3.83	742	80	47	4.87%	-7.89%	97.81%	1.66%	0.55%	0.82%	0.28%	3.32%	0.76%	117.45%	
Indiana	\$168,819	4.04	733	82	43	6.04%	-4.81%	121.27%	2.11%	0.60%	0.81%	0.29%	3.81%	1.14%	134.90%	
Iowa	\$171,065	3.71	743	80	46	6.04%	-2.28%	121.29%	1.29%	0.38%	0.51%	0.23%	2.41%	-2.43%	85.17%	
Kansas	\$181,405	3.86	740	82	44	6.29%	-6.57%	126.22%	1.66%	0.44%	0.70%	0.19%	2.99%	-0.96%	105.66%	
Kentucky	\$175,512	3.93	733	81	45	6.36%	-4.03%	127.71%	1.76%	0.51%	0.70%	0.33%	3.31%	1.04%	117.03%	
Louisiana	\$192,501	3.94	725	83	48	4.79%	-5.81%	96.10%	2.84%	0.89%	1.31%	0.46%	5.50%	1.55%	194.76%	
Maine	\$211,588	3.79	740	77	47	6.98%	3.65%	140.14%	1.54%	0.36%	0.46%	0.34%	2.70%	3.01%	95.68%	
Maryland	\$283,036	3.69	741	80	47	4.00%	-10.43%	80.40%	1.76%	0.51%	0.85%	0.22%	3.34%	0.18%	118.12%	
Massachusetts	\$310,076	3.58	748	72	46	4.24%	5.11%	85.16%	1.41%	0.37%	0.58%	0.14%	2.49%	-0.60%	88.25%	
Michigan	\$174,522	3.84	741	79	45	5.79%	-4.74%	116.16%	1.60%	0.50%	0.69%	0.12%	2.91%	0.55%	102.83%	
Minnesota	\$226,650	3.76	750	80	45	5.25%	-2.40%	105.38%	1.26%	0.37%	0.60%	0.13%	2.36%	-1.79%	83.65%	
Mississippi	\$174,906	4.00	721	84	46	5.68%	-14.97%	114.14%	2.92%	0.91%	1.47%	0.32%	5.62%	0.88%	198.97%	
Missouri	\$177,319	3.92	738	81	44	6.07%	-11.00%	121.91%	1.68%	0.49%	0.68%	0.15%	3.01%	-0.86%	106.37%	
Montana	\$236,741	3.79	749	75	45	6.11%	-2.00%	122.71%	1.04%	0.29%	0.35%	0.16%	1.83%	-0.54%	64.92%	
Nebraska	\$179,266	3.77	745	80	44	5.95%	-4.51%	119.38%	1.32%	0.40%	0.52%	0.12%	2.36%	-0.04%	83.58%	
Nevada	\$261,023	3.85	739	79	38	4.97%	-0.64%	99.88%	1.36%	0.43%	0.74%	0.20%	2.73%	-0.44%	96.46%	
New Hampshire	\$244,345	3.74	743	76	46	5.60%	-10.32%	112.41%	1.29%	0.38%	0.46%	0.14%	2.27%	-0.31%	80.21%	
New Jersey	\$286,030	3.72	743	76	47	4.40%	-4.31%	88.37%	1.52%	0.44%	0.72%	0.25%	2.93%	-0.64%	103.79%	
New Mexico	\$199,187	3.95	738	80	49	6.45%	-3.57%	129.56%	1.39%	0.38%	0.48%	0.27%	2.51%	3.12%	88.85%	
New York	\$274,907	3.88	743	74	56	4.06%	-1.81%	81.53%	1.60%	0.44%	0.72%	0.53%	3.27%	-2.47%	115.89%	
North Carolina	\$218,818	3.87	743	79	42	6.05%	-1.87%	121.41%	1.37%	0.39%	0.52%	0.14%	2.42%	1.43%	85.63%	
North Dakota	\$210,876	3.63	747	82	44	5.61%	-10.40%	112.63%	1.22%	0.30%	0.47%	0.37%	2.35%	-2.08%	83.33%	
Ohio	\$163,787	3.98	734	82	47	5.98%	-3.81%	120.04%	1.81%	0.54%	0.73%	0.30%	3.38%	0.63%	119.58%	
Oklahoma	\$174,809	4.08	732	84	46	6.33%	-5.92%	127.05%	1.86%	0.54%	0.76%	0.38%	3.54%	0.57%	125.35%	
Oregon	\$273,693	3.74	752	74	43	4.61%	-7.45%	92.57%	1.00%	0.29%	0.52%	0.15%	1.96%	1.24%	69.31%	
Pennsylvania	\$197,471	3.84	741	80	50	4.84%	-3.72%	97.25%	1.68%	0.50%	0.67%	0.29%	3.14%	-0.73%	111.12%	
Rhode Island	\$242,850	3.78	740	77	47	4.95%	-5.74%	99.30%	1.65%	0.47%	0.66%	0.19%	2.97%	0.75%	105.06%	
South Carolina	\$210,694	3.93	737	80	41	6.21%	-6.62%	124.62%	1.70%	0.53%	0.76%	0.25%	3.24%	1.47%	114.73%	
South Dakota	\$200,883	3.67	749	79	43	6.98%	6.88%	140.12%	1.18%	0.31%	0.43%	0.22%	2.14%	-2.46%	75.65%	
Tennessee	\$218,123	3.92	739	79	40	6.52%	-2.16%	130.92%	1.47%	0.41%	0.62%	0.12%	2.61%	0.97%	92.35%	
Texas	\$230,877	4.00	735	81	40	4.98%	-8.92%	99.90%	1.93%	0.60%	0.82%	0.20%	3.55%	2.25%	125.52%	
Utah	\$293,734	3.69	746	75	35	4.46%	-7.70%	89.54%	1.28%	0.39%	0.62%	0.11%	2.40%	-2.60%	84.81%	
Vermont	\$211,411	3.87	745	77	51	6.16%	12.06%	123.71%	1.24%	0.37%	0.59%	0.29%	2.49%	-2.66%	88.25%	
Virginia	\$280,318	3.66	747	80	45	4.77%	-1.45%	95.70%	1.35%	0.37%	0.50%	0.13%	2.35%	1.82%	83.01%	
Washington	\$317,826	3.67	750	74	40	4.63%	-6.35%	92.91%	1.00%	0.27%	0.48%	0.14%	1.89%	2.16%	67.04%	
West Virginia	\$164,542	3.97	724	84	48	6.11%	-2.92%	122.73%	2.37%	0.64%	0.77%	0.24%	4.03%	-0.20%	142.62%	
Wisconsin	\$190,214	3.82	742	80	46	6.20%	-3.17%	124.56%	1.41%	0.38%	0.56%	0.19%	2.55%	-0.27%	90.09%	
Wyoming	\$227,911	3.75	743	79	44	6.51%	-6.81%	130.76%	1.51%	0.39%	0.52%	0.16%	2.58%	2.54%	91.36%	
GSF and GNMA fixed ra	te product only													Source: Black Kr	hight McDash	

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