

Market Snapshot





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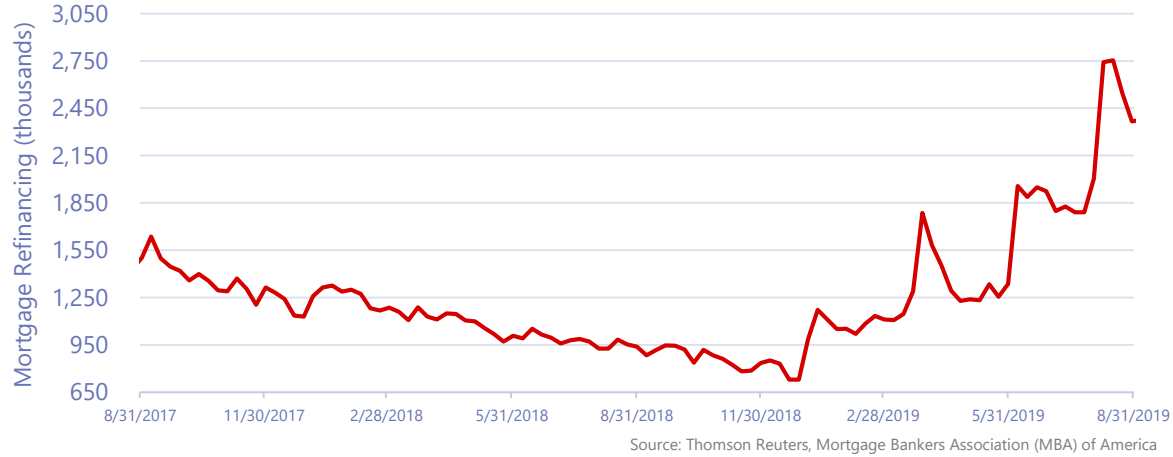
Macro- Economic Indicators

Summary

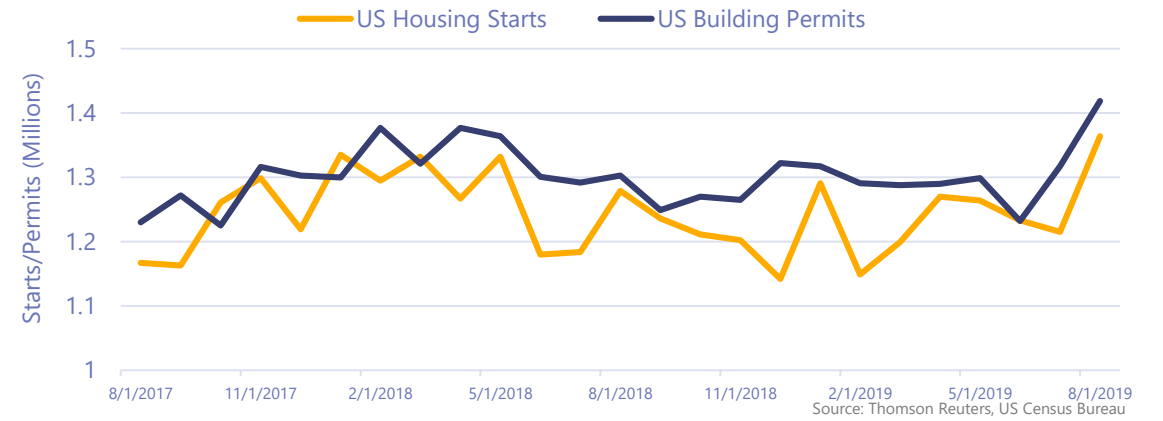
- The MBA Mortgage Refinance Application Index had a volatile August, reflecting the recent rate environment. The MBA Mortgage Refinance Application Index reached its peak mid-month, up 37.5% from the end of July, but finished the month up only 18.2%.
- Residential construction finished the summer strong with both US building permits and US housing starts seeing an uptick in activity. Building permits finished 7.7% above the July figures at a seasonally adjusted number of 1.42 million. August housing starts tallied a seasonally adjusted figure of 1.36 million, up 12.3% over the month.
- Job growth slowed in August as the US added 130,000 jobs, down 20.7% from July, and below consensus estimates of 150,000. Unemployment figures remained low; however, with the national unemployment rate holding steady at 3.7%.

Macro-Economic Indicators

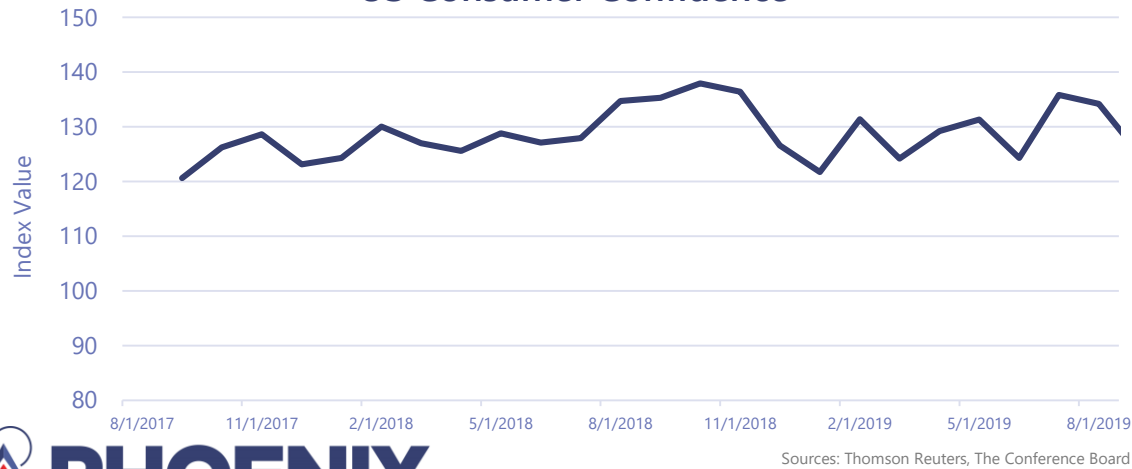
MBA Mortgage Refinance Application Index



US Housing Starts/US Building Permits



US Consumer Confidence



Unemployment Rate



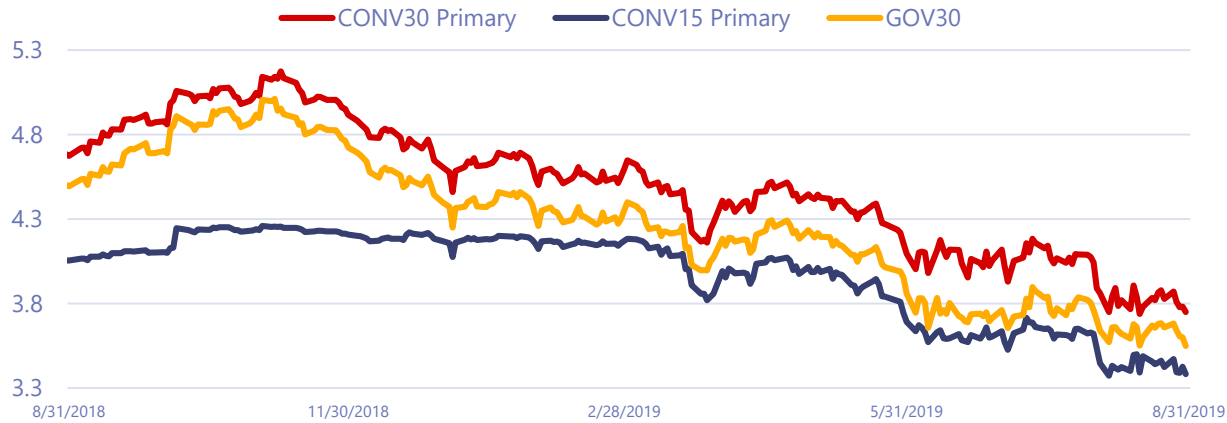
Rate History

Summary

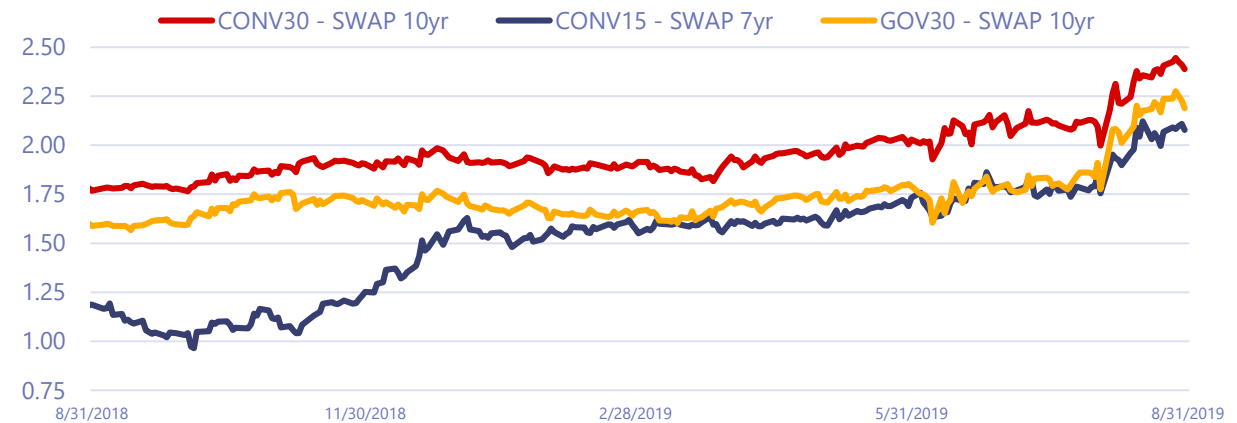
- The yield on the 2yr Treasury note fell to 1.52%, 5 basis points (bps) above the 10yr note yield of 1.47% for the month. The spread between the two rates averaged 6 bps throughout the month and was inverted at the close of 3 trading days in a row.
- PHOENIX primary mortgage rates were down 14 bps month over month. Primary/secondary spreads widened across all products due to decreased coupon yields.
- SWAP rates declined significantly with the 2yr decreasing 25 bps to 1.49% and the 10yr SWAP rate declining 43 bps to 1.36%.

Rate History

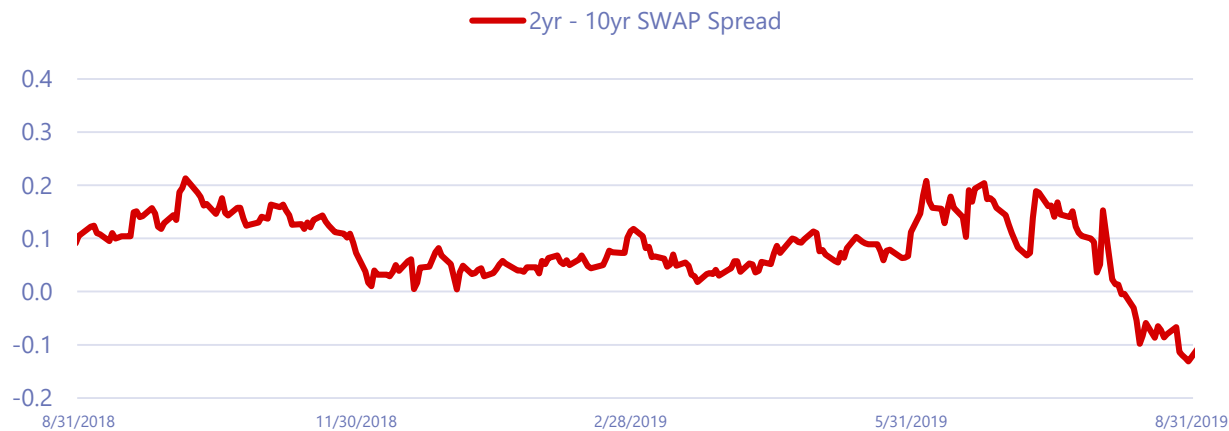
Mortgage Par Rates (%)



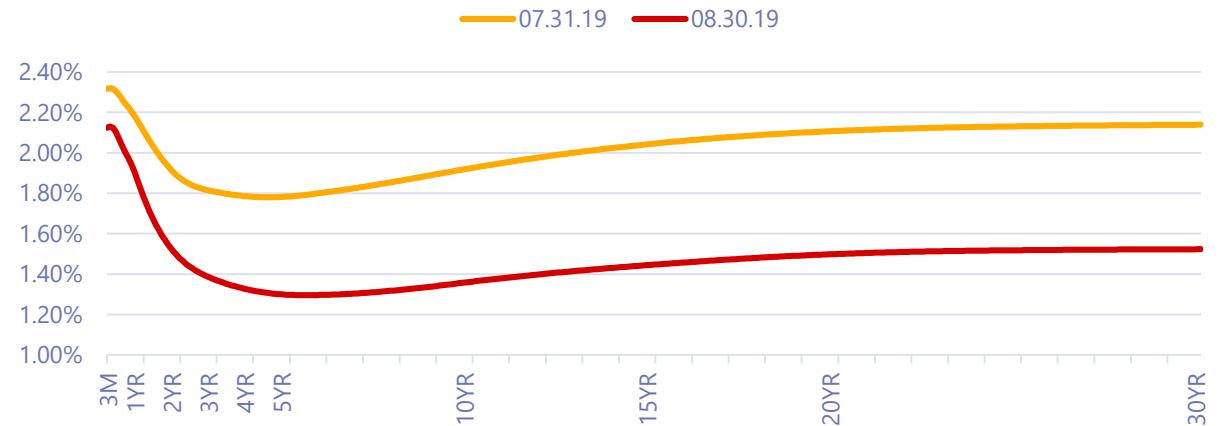
Mortgage Par Spread over SWAP Rates (%)



2yr and 10yr SWAP Spread



Yield Curve Comparison



Rate History (cont.)

Primary Rates as of 8/30/2019

Rate	8/30/2019	7/31/2019	5/31/2019	8/30/2018
CONV30	3.749	4.043	4.095	4.683
CONV15	3.382	3.620	3.691	4.055
GOV30	3.549	3.761	3.857	4.501
ARM 5/1	3.625	3.750	3.750	4.125

Secondary Rates as of 8/30/2019

Rate	8/30/2019	7/31/2019	5/31/2019	8/30/2018
FNMA 30	2.399	2.793	2.895	3.633
FNMA 15	2.082	2.370	2.491	3.055
GNMA II 30	2.199	2.511	2.657	3.451
GNMA II 15	2.082	2.370	2.491	2.971
ARM 5/1	3.890	3.970	3.830	4.130

Earnings Rates as of 8/30/2019

Rate	8/30/2019	7/31/2019	5/31/2019	8/31/2018
3 MO ED	2.124	2.318	2.529	2.321
6 MO ED	2.032	2.263	2.430	2.468
12 MO ED	1.821	2.133	2.235	2.684
2 YR SWAP	1.492	1.887	1.954	2.800
3 YR SWAP	1.375	1.809	1.880	2.839
5 YR SWAP	1.298	1.783	1.894	2.853
10 YR SWAP	1.361	1.923	2.066	2.905
15 YR SWAP	1.446	2.045	2.190	2.947
20 YR SWAP	1.499	2.108	2.245	2.955
30 YR SWAP	1.523	2.139	2.270	2.933

Source: Thomson Reuters and PHOENIX

Prepayment Speed Trends

Summary

- A combination of low rates and the seasonal trend of faster speeds throughout the summer caused an increase in prepayments speeds.
- VA product leads the pack with the quickest speeds nearly double that of FHA and driven primarily by streamline refi's as government product continues to outpace conventional.
- Utah, Colorado and Arizona all have experienced prepayment speeds over 20% for the past several months.

CPR Summary

SUMMARY TABLES - August 2019

Loan Characteristics						Prepayments	
Investor	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
CONV Fixed 30	\$215,677	4.37	749	77	55	16.18%	5.47%
CONV Fixed 15	\$171,034	3.65	756	66	56	13.47%	4.82%
GNMA Fixed 30	\$186,680	4.15	694	94	49	19.34%	7.63%
GNMA Fixed 15	\$141,724	3.66	710	83	57	14.68%	3.66%

Vintage	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
2005	\$138,901	5.35	694	77	143	11.54%	2.77%
2006	\$146,051	5.38	685	78	127	10.69%	2.44%
2007	\$155,901	5.26	681	80	116	10.76%	7.16%
2008	\$150,204	5.28	685	81	113	11.18%	-1.19%
2009	\$166,329	4.92	726	79	114	14.43%	5.10%
2010	\$174,279	4.65	738	79	104	14.78%	6.72%
2011	\$173,280	4.41	742	77	94	14.24%	5.70%
2012	\$201,019	3.78	749	80	83	12.84%	3.49%
2013	\$190,717	3.81	742	80	72	13.05%	1.53%
2014	\$183,193	4.25	732	81	58	16.35%	6.09%
2015	\$211,215	3.95	735	80	47	15.96%	3.78%
2016	\$230,908	3.70	735	80	35	14.99%	4.72%
2017	\$228,073	4.12	731	82	24	18.13%	8.91%
2018	\$229,901	4.71	729	83	13	34.04%	10.45%

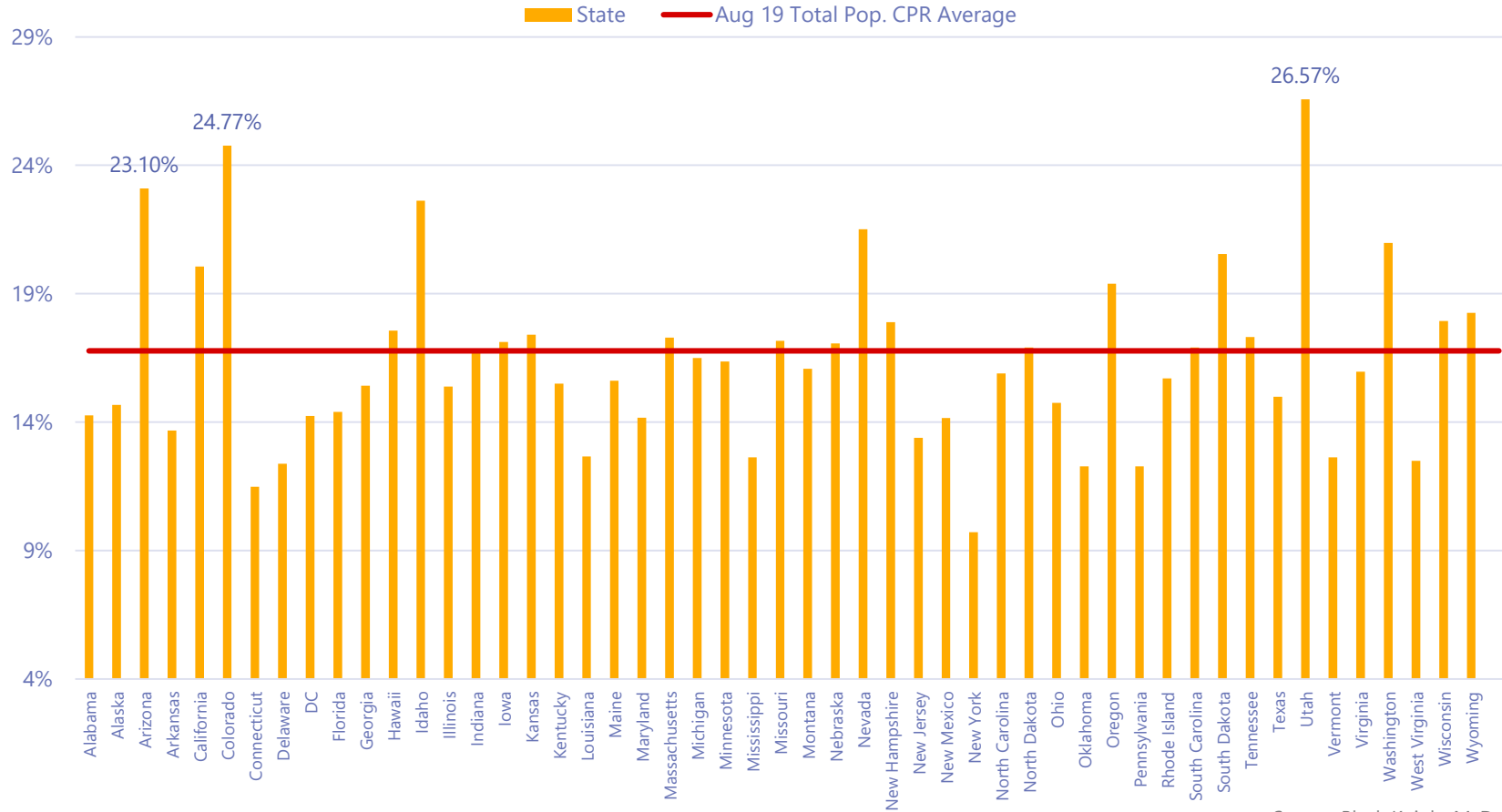
Tranche	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	CPR	1mo CPR Change%
0.0000 - 4.4999	\$215,892	3.83	741	80	49	14.53%	4.35%
4.5000 - 4.9999	\$196,867	4.68	727	82	44	21.68%	9.27%
5.0000 - 5.4999	\$173,080	5.16	710	84	59	23.71%	9.31%
5.5000 - 5.9999	\$145,949	5.66	697	81	92	19.60%	8.75%
6.0000 - 6.4999	\$122,042	6.16	694	78	140	14.08%	3.72%
6.5000 - 6.9999	\$106,366	6.66	687	79	158	12.21%	1.95%
7.0000 - 7.4999	\$87,346	7.14	675	81	179	11.30%	-0.70%
7.5000 - 7.9999	\$77,995	7.63	659	82	197	10.89%	-0.10%
8.0000 - 8.4999	\$71,015	8.14	647	82	216	10.19%	1.34%
8.5000 or more	\$64,642	8.89	638	82	223	12.44%	16.47%

GSE and GNMA fixed rate product only

Source: Black Knight McDash

Prepayment Speed Trends

Average CPR by State - August 2019



Source: Black Knight McDash

Analysis

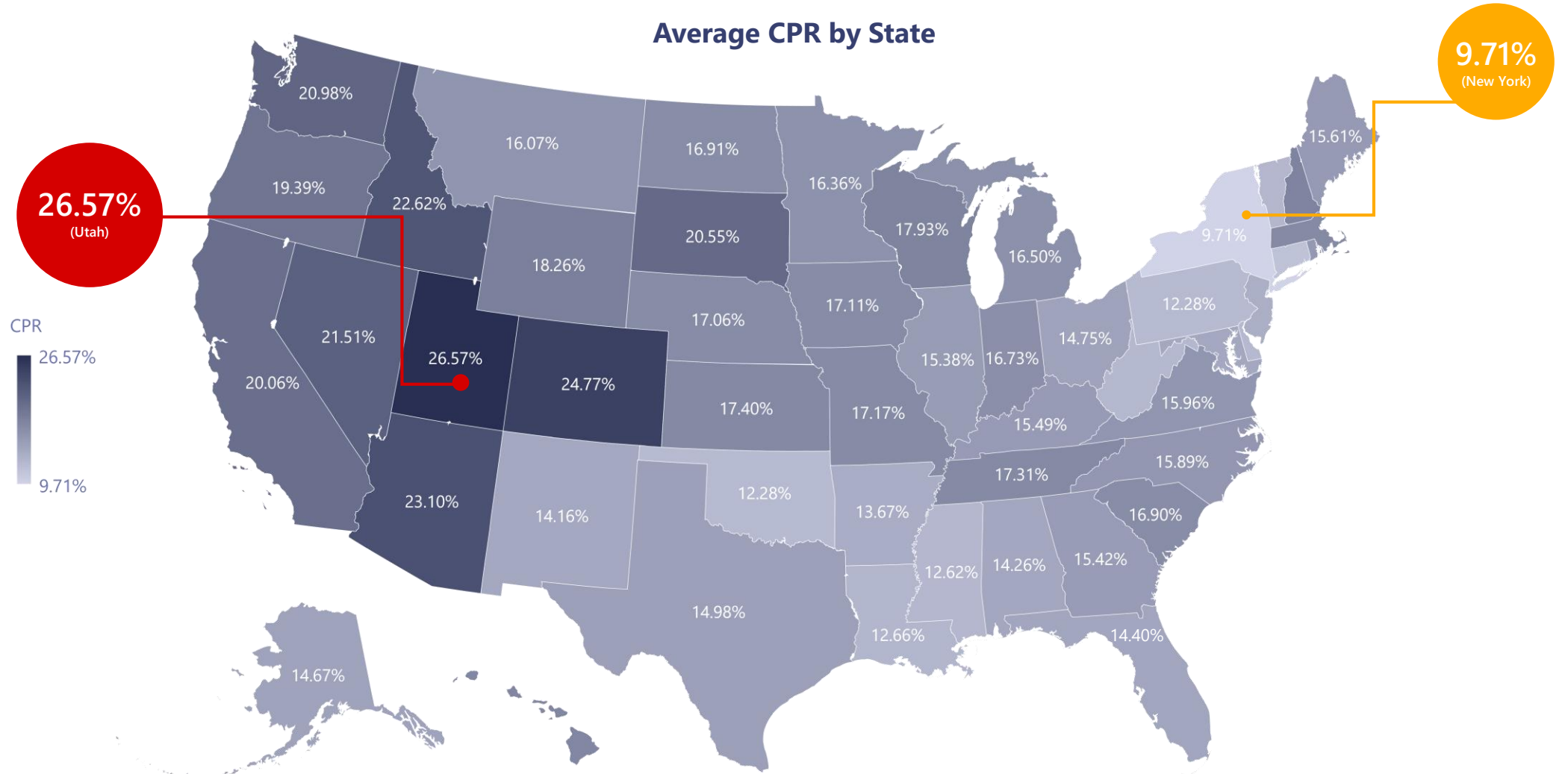
- Utah topped out as the fastest prepaying state for the month of August at 26.57%.
- New York was the slowest prepaying state but increased slightly from July to August and was 9.71% this past month.
- The majority of the states saw a month-over-month increase in prepayment speeds, with only 5 states seeing a decrease (AK, DC, GA, MT, and OK).
- The Mountain region (including UT, CO, ID, AZ, and NV) continues to be the fastest prepaying region with a weighted average CPR of 20.71%, nearly doubling the Middle Atlantic region (including PA, NY, and NJ) weighted average CPR of 11.85% for the month of August.

GSE and GNMA fixed rate product only



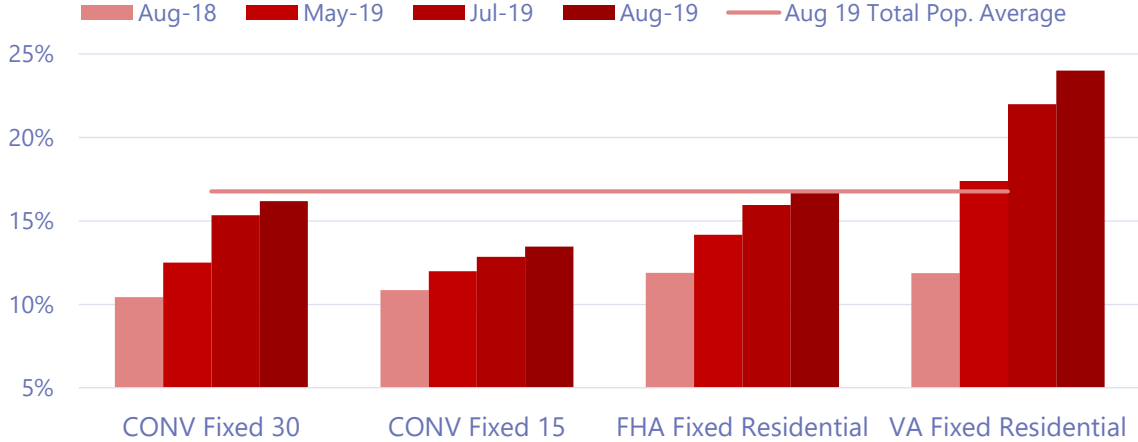
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Prepayment Speed Trends (cont.)

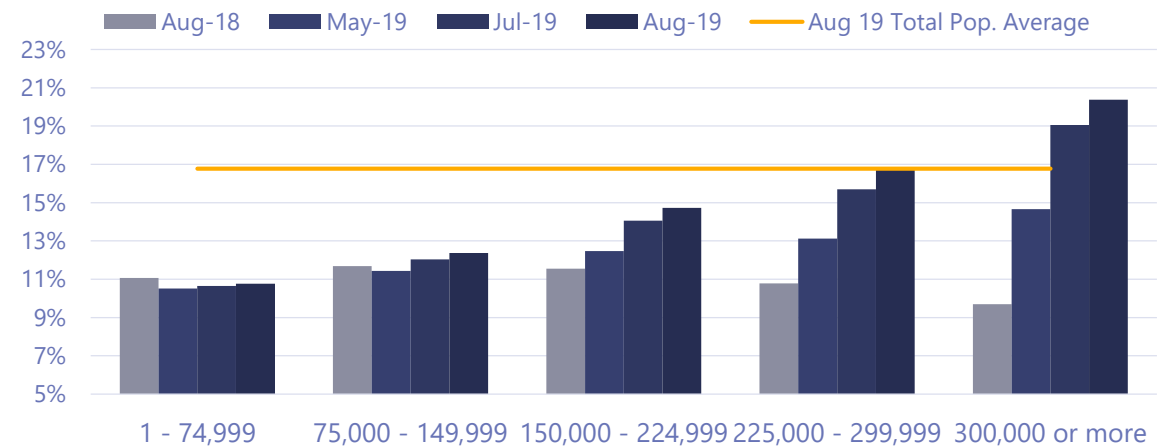


Prepayment Speed Trends (cont.)

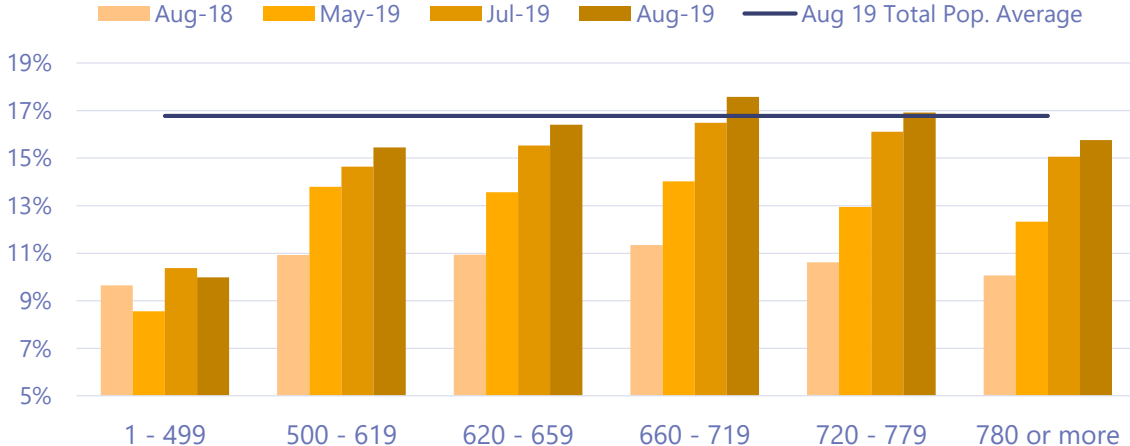
CPR by Fixed-Rate Product - August 2019



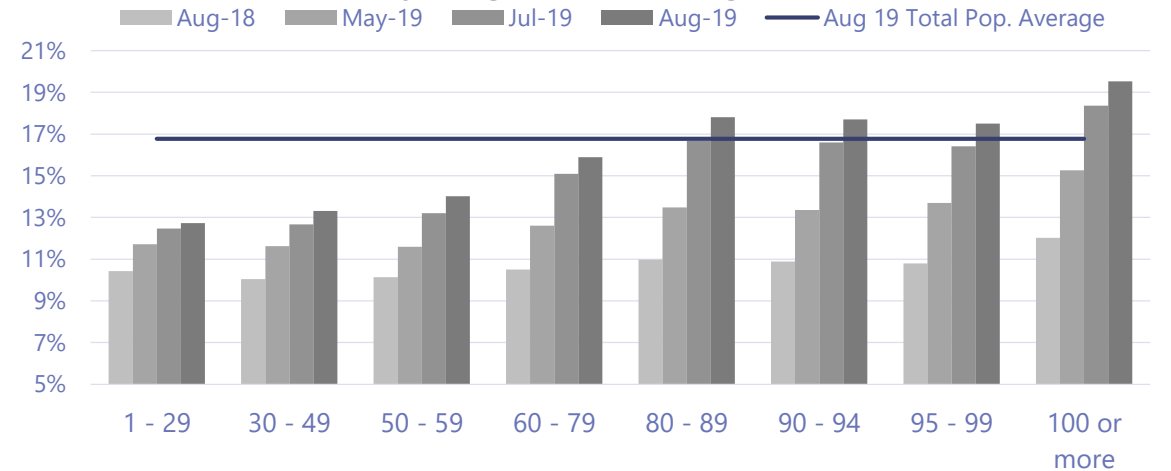
CPR by Original Loan Balance - August 2019



CPR by Original FICO - August 2019



CPR by Original LTV - August 2019



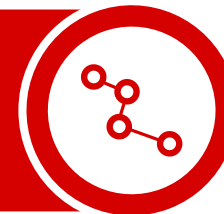
Delinquency Trends

Summary

- The national delinquency and foreclosure rate decreased marginally by 0.25% month-over-month, extending the downward trend from July 2019 month-end.
- Conventional 30-year delinquency and foreclosure rates decreased by 2.43% this month, while FHA delinquency and foreclosure rates increased 2.32%.

Total delinquencies down

0.25%



Delinquency Summary

SUMMARY TABLES - August 2019

Loan Characteristics

Investor	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age
CONV Fixed 30	\$215,677	4.37	749	77	55
CONV Fixed 15	\$171,034	3.65	756	66	56
GNMA Fixed 30	\$186,680	4.15	694	94	49
GNMA Fixed 15	\$141,724	3.66	710	83	57

Delinquencies

30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%
1.21%	0.33%	0.42%	0.26%	2.21%	-2.43%
0.48%	0.09%	0.09%	0.04%	0.69%	-3.35%
3.79%	1.06%	0.83%	0.47%	6.15%	0.84%
1.28%	0.28%	0.21%	0.11%	1.88%	-1.73%

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%
2005	\$138,901	5.35	694	77	143	5.59%	1.82%	2.06%	1.64%	11.11%	0.14%
2006	\$146,051	5.38	685	78	127	6.84%	2.32%	2.94%	2.43%	14.53%	-0.78%
2007	\$155,901	5.26	681	80	116	7.19%	2.56%	3.28%	2.70%	15.73%	-0.39%
2008	\$150,204	5.28	685	81	113	6.65%	2.16%	2.21%	1.87%	12.89%	0.24%
2009	\$166,329	4.92	726	79	114	3.18%	0.88%	0.74%	0.47%	5.28%	1.83%
2010	\$174,279	4.65	738	79	104	2.22%	0.59%	0.48%	0.26%	3.54%	2.43%
2011	\$173,280	4.41	742	77	94	1.79%	0.48%	0.39%	0.20%	2.86%	2.66%
2012	\$201,019	3.78	749	80	83	1.12%	0.27%	0.24%	0.12%	1.76%	0.80%
2013	\$190,717	3.81	742	80	72	1.37%	0.34%	0.32%	0.16%	2.20%	1.24%
2014	\$183,193	4.25	732	81	58	2.02%	0.54%	0.54%	0.27%	3.37%	0.96%
2015	\$211,215	3.95	735	80	47	1.76%	0.48%	0.49%	0.25%	2.98%	-1.36%
2016	\$230,908	3.70	735	80	35	1.59%	0.41%	0.44%	0.24%	2.68%	0.79%
2017	\$228,073	4.12	731	82	24	1.78%	0.47%	0.48%	0.24%	2.97%	1.19%
2018	\$229,901	4.71	729	83	13	1.69%	0.45%	0.38%	0.14%	2.65%	5.40%

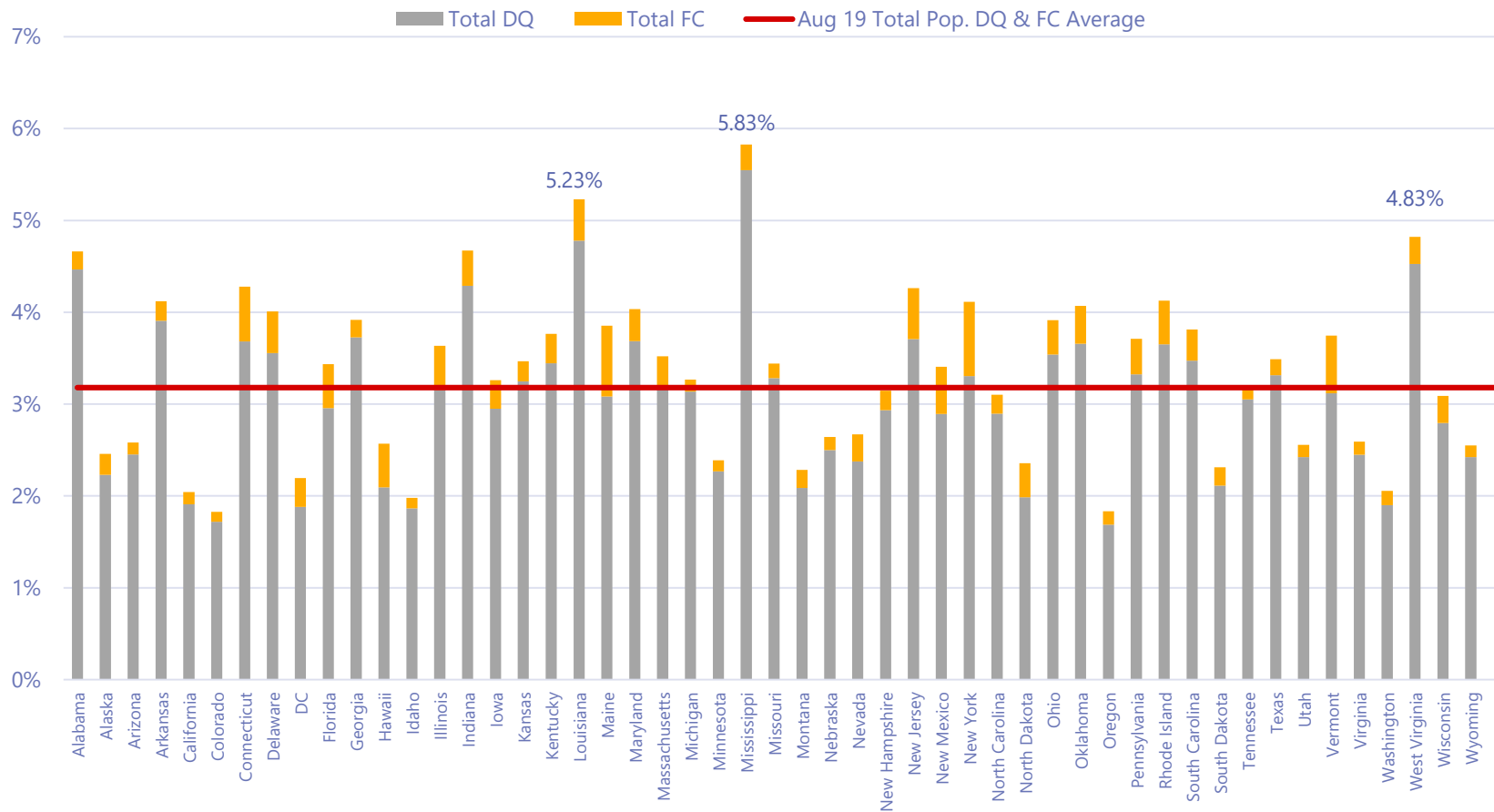
Tranche	Avg Orig Bal	WAC	WAvg Orig FICO	WAvg Orig LTV	WAvg Age	30d DQ	60d DQ	+90d DQ	Total FC	Total DQ & FC	1mo DQ & FC Change%
0.0000 - 4.4999	\$215,892	3.83	741	80	49	1.49%	0.41%	0.42%	0.25%	2.56%	-1.88%
4.5000 - 4.9999	\$196,867	4.68	727	82	44	2.07%	0.56%	0.53%	0.26%	3.41%	2.22%
5.0000 - 5.4999	\$173,080	5.16	710	84	59	2.98%	0.82%	0.72%	0.35%	4.87%	3.51%
5.5000 - 5.9999	\$145,949	5.66	697	81	92	3.71%	0.99%	0.90%	0.53%	6.13%	3.27%
6.0000 - 6.4999	\$122,042	6.16	694	78	140	4.56%	1.26%	1.23%	1.07%	8.11%	1.40%
6.5000 - 6.9999	\$106,366	6.66	687	79	158	5.25%	1.45%	1.51%	1.59%	9.80%	0.45%
7.0000 - 7.4999	\$87,346	7.14	675	81	179	5.92%	1.68%	1.83%	2.17%	11.60%	0.22%
7.5000 - 7.9999	\$77,995	7.63	659	82	197	6.09%	1.91%	2.20%	2.32%	12.52%	-0.73%
8.0000 - 8.4999	\$71,015	8.14	647	82	216	6.65%	2.00%	2.33%	2.57%	13.55%	-0.86%
8.5000 or more	\$64,642	8.89	638	82	223	6.91%	2.30%	2.64%	3.02%	14.87%	-0.30%

GSE and GNMA fixed rate product only

Source: Black Knight McDash

Delinquency Trends

Average Delinquency and Foreclosure by State - August 2019



Analysis

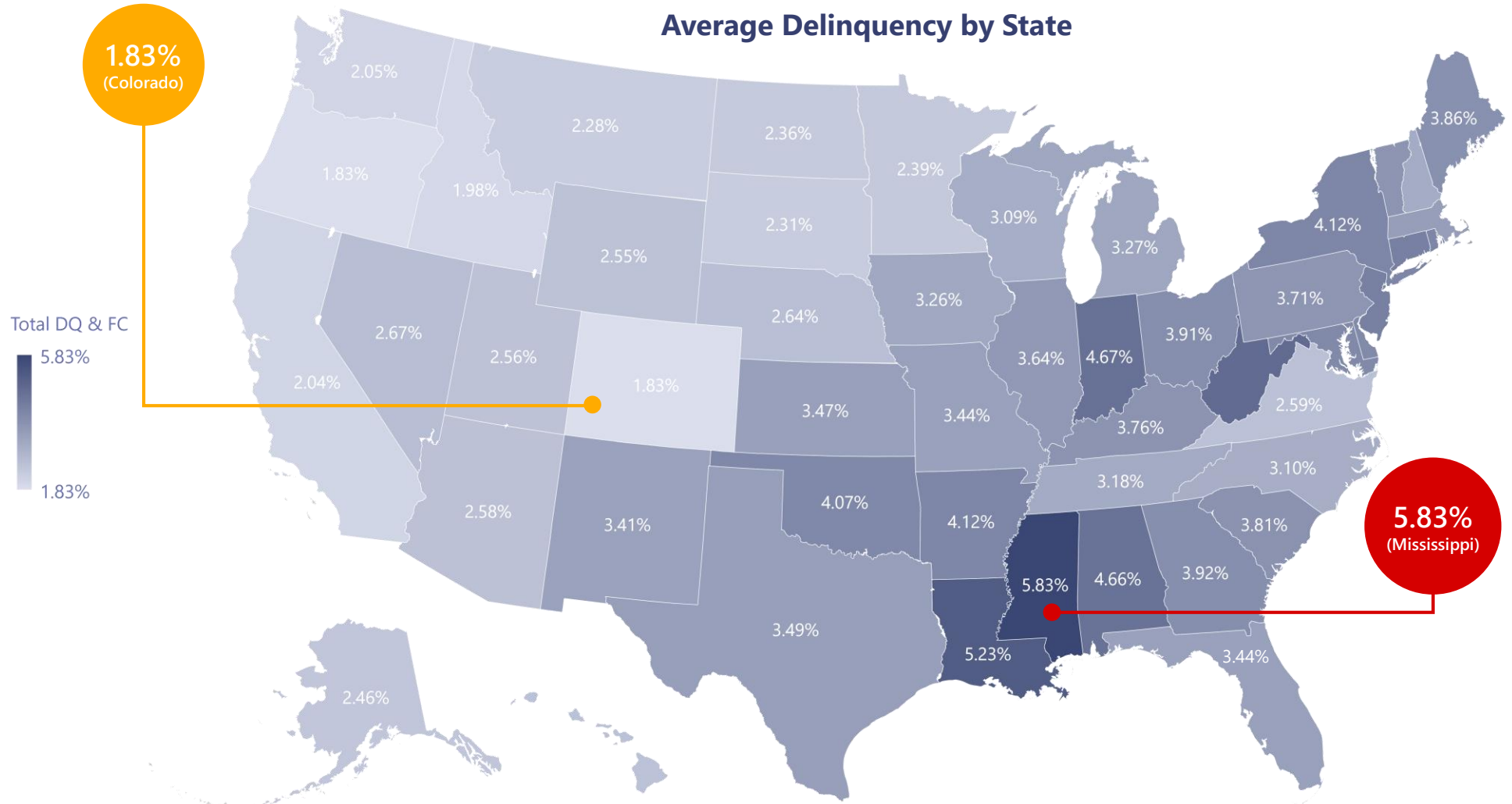
- Colorado continues to be the best-performing state, with delinquency and foreclosure rates at 1.83%.
- The Pacific region (CA, OR, WA, HI, and AK) holds steady as the region with the lowest delinquency and foreclosure rates at 2.23%, a decrease of 2.85% from last month.
- The East-South-Central region (KY, TN, MS, AL) remains the region with the highest delinquency and foreclosure rates at 4.32%, a decrease of 1.31% from last month.

GSE and GNMA fixed rate product only

Source: Black Knight McDash

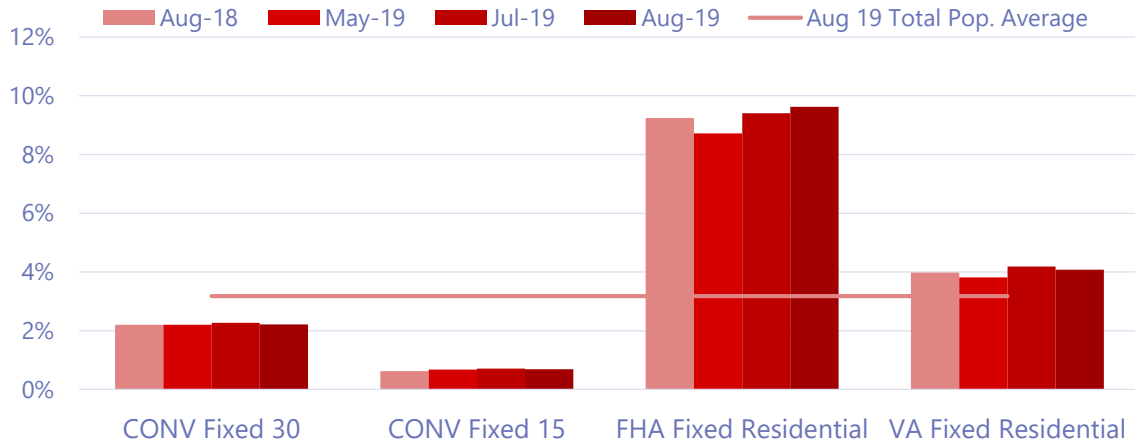


Delinquency Trends (cont.)

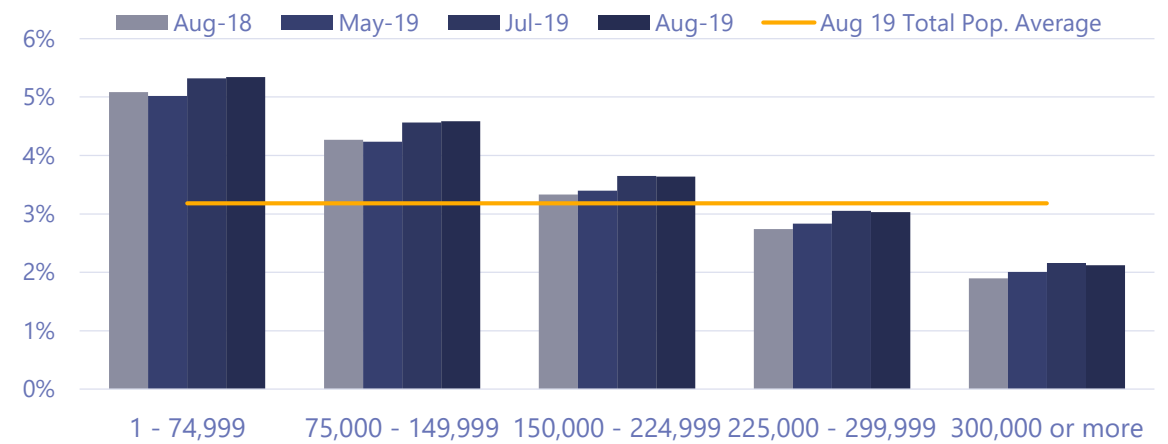


Delinquency Trends (cont.)

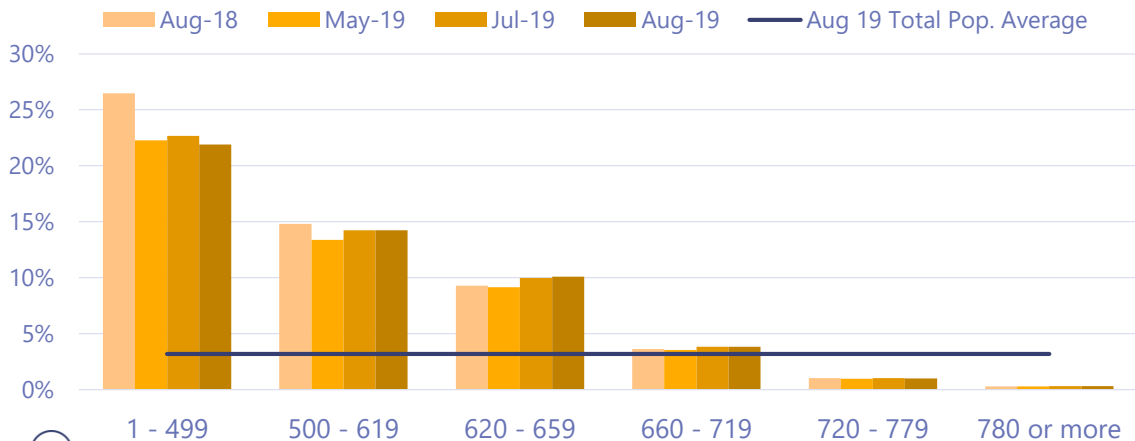
Delinquency and Foreclosure by Fixed-Rate Product - August 2019



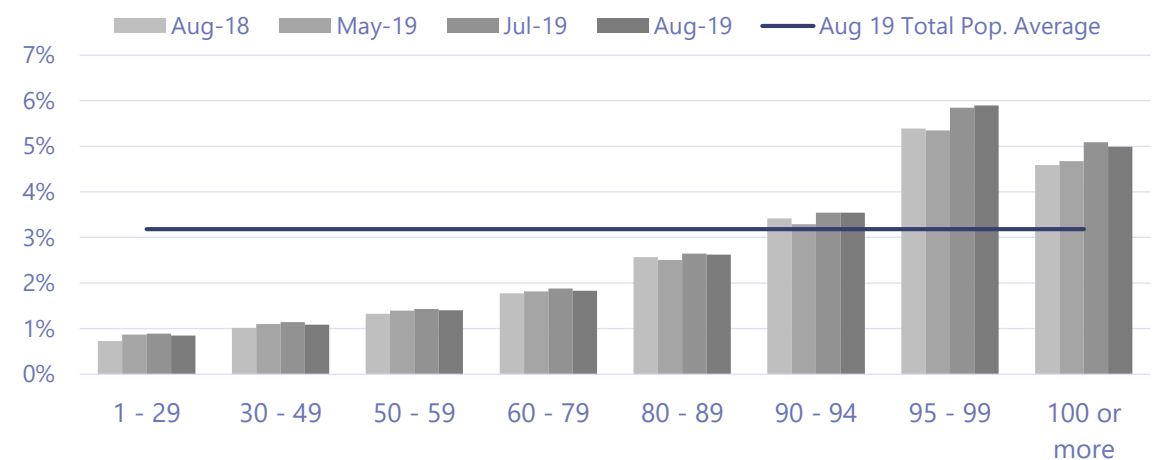
Delinquency and Foreclosure by Original Loan Balance - August 2019



Delinquency and Foreclosure by Original FICO - August 2019



Delinquency and Foreclosure by Original LTV - August 2019



Tables

State Summary

Prepayment and Delinquency

SUMMARY TABLES - August 2019

State	Loan Characteristics					Prepayments			Delinquencies						
	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	\$198,495	4.22	733	81	53	16.78%	6.16%	100.00%	1.87%	0.51%	0.50%	0.30%	3.18%	-0.25%	100.00%
Alabama	\$152,852	4.26	724	86	57	14.26%	0.93%	85.01%	2.82%	0.78%	0.87%	0.20%	4.66%	-1.65%	146.68%
Alaska	\$247,429	4.01	731	86	55	14.67%	-1.32%	87.46%	1.46%	0.44%	0.33%	0.23%	2.46%	-2.54%	77.32%
Arizona	\$185,232	4.31	732	84	46	23.10%	7.89%	137.67%	1.65%	0.43%	0.37%	0.13%	2.58%	-3.59%	81.19%
Arkansas	\$138,157	4.20	727	85	56	13.67%	7.67%	81.45%	2.50%	0.67%	0.74%	0.21%	4.12%	1.73%	129.57%
California	\$283,622	4.15	742	73	49	20.06%	8.93%	119.56%	1.29%	0.32%	0.30%	0.13%	2.04%	-3.13%	64.23%
Colorado	\$237,571	4.14	742	78	44	24.77%	4.05%	147.60%	1.17%	0.29%	0.27%	0.11%	1.83%	-3.44%	57.44%
Connecticut	\$213,644	4.22	734	80	62	11.48%	5.03%	68.43%	2.34%	0.66%	0.68%	0.60%	4.28%	0.94%	134.60%
Delaware	\$201,245	4.25	731	82	57	12.38%	7.78%	73.76%	2.29%	0.63%	0.64%	0.45%	4.01%	-3.19%	126.11%
DC	\$320,570	4.14	750	73	53	14.24%	-4.63%	84.88%	1.17%	0.31%	0.40%	0.31%	2.19%	-0.27%	69.02%
Florida	\$179,930	4.35	726	84	49	14.40%	3.88%	85.81%	1.91%	0.52%	0.52%	0.48%	3.44%	0.88%	108.05%
Georgia	\$171,701	4.25	725	85	54	15.42%	-0.03%	91.91%	2.38%	0.69%	0.66%	0.19%	3.92%	-3.31%	123.18%
Hawaii	\$355,456	4.11	744	77	55	17.56%	14.44%	104.67%	1.31%	0.37%	0.41%	0.47%	2.57%	-1.72%	80.78%
Idaho	\$179,026	4.23	738	82	48	22.62%	5.34%	134.84%	1.32%	0.30%	0.25%	0.11%	1.98%	-4.40%	62.22%
Illinois	\$180,356	4.21	734	83	57	15.38%	8.86%	91.66%	1.98%	0.58%	0.59%	0.48%	3.64%	0.39%	114.38%
Indiana	\$132,443	4.33	718	86	55	16.73%	3.49%	99.74%	2.81%	0.78%	0.70%	0.39%	4.67%	-0.09%	146.96%
Iowa	\$143,521	4.10	737	83	53	17.11%	9.78%	102.00%	1.98%	0.51%	0.46%	0.31%	3.26%	3.10%	102.52%
Kansas	\$146,891	4.19	731	85	54	17.40%	13.82%	103.70%	2.16%	0.56%	0.53%	0.22%	3.47%	-1.08%	109.09%
Kentucky	\$145,301	4.23	726	84	53	15.49%	0.25%	92.33%	2.27%	0.62%	0.56%	0.32%	3.76%	1.35%	118.40%
Louisiana	\$164,516	4.28	719	84	55	12.66%	3.10%	75.44%	3.04%	0.89%	0.86%	0.45%	5.23%	-1.73%	164.52%
Maine	\$178,427	4.23	730	82	53	15.61%	11.09%	93.06%	2.01%	0.52%	0.55%	0.77%	3.86%	-2.82%	121.26%
Maryland	\$244,871	4.15	730	83	55	14.17%	4.62%	84.44%	2.33%	0.67%	0.69%	0.35%	4.04%	1.23%	126.93%
Massachusetts	\$256,465	4.12	738	76	53	17.28%	6.76%	103.02%	2.10%	0.54%	0.56%	0.32%	3.52%	0.74%	110.73%
Michigan	\$142,891	4.29	731	84	57	16.50%	10.76%	98.33%	2.09%	0.56%	0.49%	0.13%	3.27%	0.25%	102.77%
Minnesota	\$188,781	4.14	744	83	53	16.36%	2.54%	97.50%	1.53%	0.39%	0.35%	0.12%	2.39%	1.27%	75.12%
Mississippi	\$145,976	4.28	715	86	55	12.62%	5.77%	75.24%	3.48%	1.01%	1.06%	0.28%	5.83%	-1.85%	183.30%
Missouri	\$146,493	4.22	731	84	53	17.17%	7.35%	102.31%	2.13%	0.60%	0.55%	0.16%	3.44%	-0.12%	108.21%
Montana	\$188,695	4.12	743	79	50	16.07%	-1.93%	95.80%	1.45%	0.31%	0.33%	0.20%	2.28%	1.20%	71.82%
Nebraska	\$147,590	4.07	740	84	50	17.06%	4.06%	101.69%	1.65%	0.44%	0.41%	0.14%	2.64%	2.21%	83.11%
Nevada	\$201,885	4.37	728	86	44	21.51%	8.65%	128.22%	1.50%	0.40%	0.47%	0.30%	2.67%	-0.45%	83.99%
New Hampshire	\$205,533	4.19	734	82	54	17.89%	9.05%	106.62%	1.99%	0.47%	0.48%	0.21%	3.15%	0.74%	98.96%
New Jersey	\$239,448	4.21	734	79	59	13.39%	6.52%	79.80%	2.21%	0.66%	0.83%	0.56%	4.26%	0.16%	134.07%
New Mexico	\$163,680	4.33	729	83	62	14.16%	7.73%	84.41%	2.01%	0.50%	0.38%	0.51%	3.41%	-1.48%	107.11%
New York	\$233,439	4.30	737	75	63	9.71%	3.87%	57.87%	2.12%	0.57%	0.61%	0.81%	4.12%	1.93%	129.44%
North Carolina	\$173,031	4.21	733	83	52	15.89%	5.85%	94.73%	1.87%	0.52%	0.51%	0.21%	3.10%	-0.99%	97.58%
North Dakota	\$182,108	3.98	741	82	48	16.91%	9.81%	100.76%	1.29%	0.34%	0.36%	0.37%	2.36%	3.65%	74.17%
Ohio	\$136,152	4.31	724	86	57	14.75%	7.67%	87.90%	2.30%	0.64%	0.60%	0.37%	3.91%	-1.19%	123.12%
Oklahoma	\$142,989	4.30	723	86	56	12.28%	-7.01%	73.18%	2.41%	0.64%	0.61%	0.41%	4.07%	2.08%	127.96%
Oregon	\$216,665	4.23	744	79	49	19.39%	9.50%	115.57%	1.11%	0.29%	0.28%	0.15%	1.83%	-3.52%	57.69%
Pennsylvania	\$168,847	4.22	733	82	58	12.28%	7.90%	73.17%	2.15%	0.62%	0.56%	0.39%	3.71%	-0.30%	116.70%
Rhode Island	\$203,662	4.23	732	82	55	15.70%	3.34%	93.57%	2.31%	0.65%	0.70%	0.48%	4.13%	3.75%	129.79%
South Carolina	\$168,143	4.26	727	84	51	16.90%	9.83%	100.74%	2.28%	0.62%	0.58%	0.34%	3.81%	-1.17%	119.94%
South Dakota	\$165,222	3.99	743	83	48	20.55%	9.48%	122.47%	1.39%	0.38%	0.34%	0.20%	2.31%	-0.94%	72.70%
Tennessee	\$167,174	4.21	729	84	49	17.31%	3.57%	103.17%	1.96%	0.55%	0.55%	0.13%	3.18%	-2.58%	99.97%
Texas	\$176,549	4.29	725	83	49	14.98%	3.70%	89.30%	2.22%	0.60%	0.50%	0.18%	3.49%	-0.48%	109.75%
Utah	\$220,960	4.20	734	83	42	26.57%	9.09%	158.37%	1.57%	0.42%	0.43%	0.14%	2.56%	-1.92%	80.43%
Vermont	\$179,818	4.24	739	79	61	12.63%	2.49%	75.29%	2.09%	0.52%	0.51%	0.63%	3.75%	3.51%	117.84%
Virginia	\$239,738	4.10	736	83	52	15.96%	2.99%	95.14%	1.57%	0.44%	0.44%	0.14%	2.59%	-2.19%	81.47%
Washington	\$240,017	4.20	738	80	48	20.98%	4.83%	125.03%	1.30%	0.29%	0.31%	0.15%	2.05%	-4.29%	64.61%
West Virginia	\$144,180	4.31	718	86	58	12.49%	20.24%	74.45%	3.11%	0.79%	0.62%	0.30%	4.82%	-1.55%	151.65%
Wisconsin	\$160,710	4.19	735	83	55	17.93%	2.94%	106.87%	1.84%	0.49%	0.46%	0.30%	3.09%	-0.71%	97.17%
Wyoming	\$195,352	4.10	734	83	50	18.26%	6.23%	108.80%	1.60%	0.44%	0.38%	0.13%	2.55%	-3.30%	80.18%

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