MORTGAGE CREDIT RISK INDEX
&
MORTGAGE REDTAIL RISK INDEX

2024 Q1

Mortgage Credit Risk Monitor -- 2024Q1

	Level	Direction
Mortgage Credit Risk Index (MCRI)	**Score = 547** *Low Overall Credit Risk*	*Stable*
Mortgage Redtail Risk Index (MRRI)	*Low Risk Layering*	*Stable*

Highlights

- Credit risk of GSE-eligible mortgages remains low with a SERC MCRI score of 547 in 2024Q1 compared with the long-term average SERC MCRI score of 556 (higher MCRI = higher credit risk).
- Credit risk overall has deteriorated by about 30 score points since bottoming out in 2021Q1 but has remained stable in recent quarters.
- Year-over-year, credit risk improved slightly (2 MCRI score points) due largely to changes in key risk factors such as credit score and CLTV.
- The percentage of loans considered to be highest credit risk according to SERC MRRI remained at historically low levels, suggesting limited evidence of excessive concentrations of adverse risk attributes among borrowers.
- Credit risk of loans sold by the largest GSE originators declined slightly while credit risk increased slightly for other lenders in 2024Q1 relative to the previous quarter.
- Similar results for credit risk of loans serviced by the largest GSE mortgage servicers relative to other servicers were observed in 2024Q1.

Mortgage Credit Risk Index (MCRI)

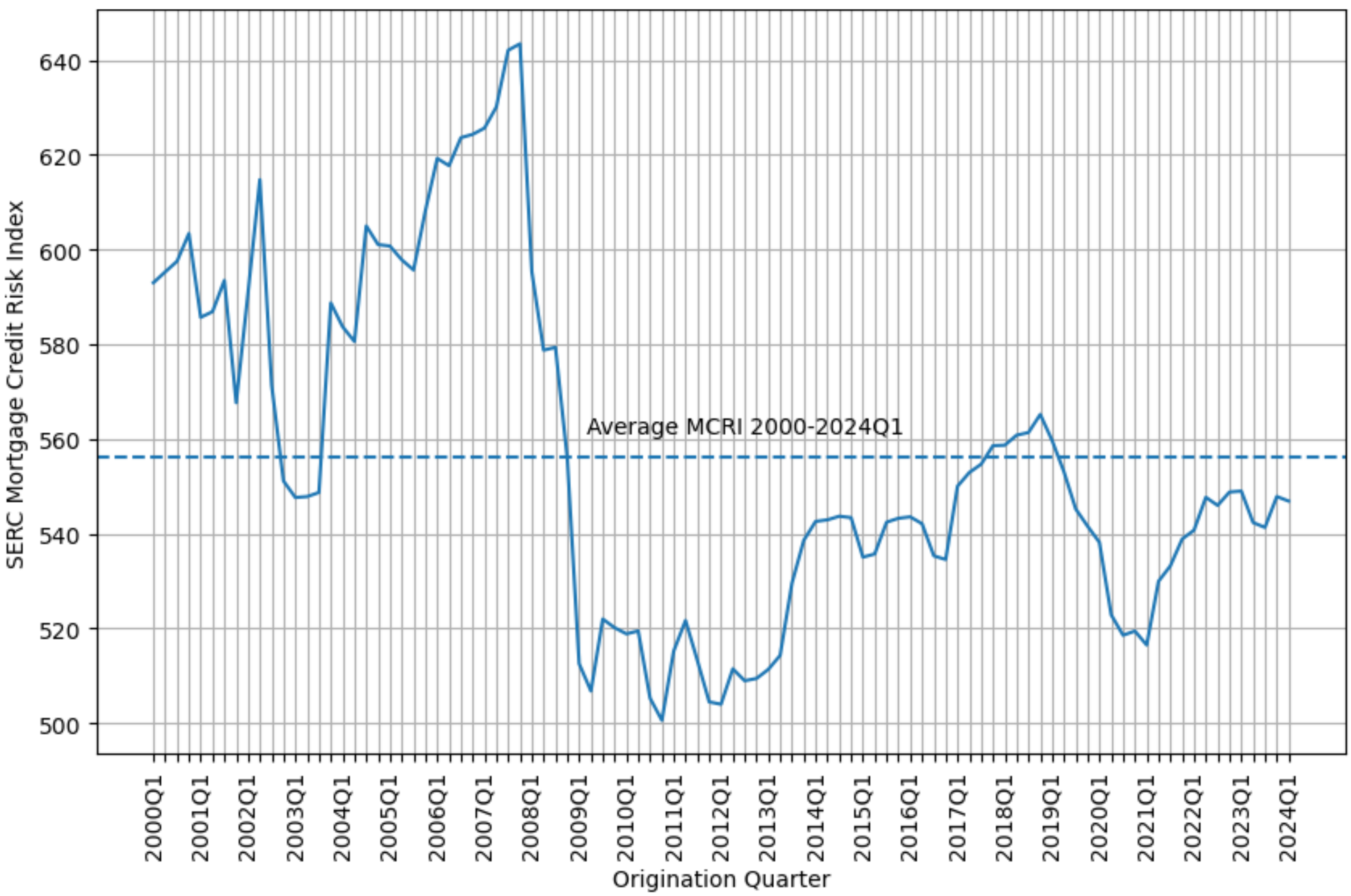
- Proprietary score using multivariate, supervised machine learning technology to predict mortgage serious delinquency for new loans from number of borrowers, properties, loans and other risk attributes.
- Higher scores signify greater credit risk.
- Odds of serious delinquency double every 40 points.
- MCRI ranges from 300-900.

Mortgage Redtail Risk Index (MRRI)

- Proprietary score assessing percentage of mortgage originations qualifying as high-risk relative to benchmark.
- Benchmark score is 100 at 2000Q1.
- High-risk loans have scores >= 2 standard deviations above scores reflecting expected serious delinquency rate.
- Loans with lower credit scores and higher DTIs and CLTVs in conjunction with other adverse risk attributes indicate loan-level credit risk concentration known as risk layering.

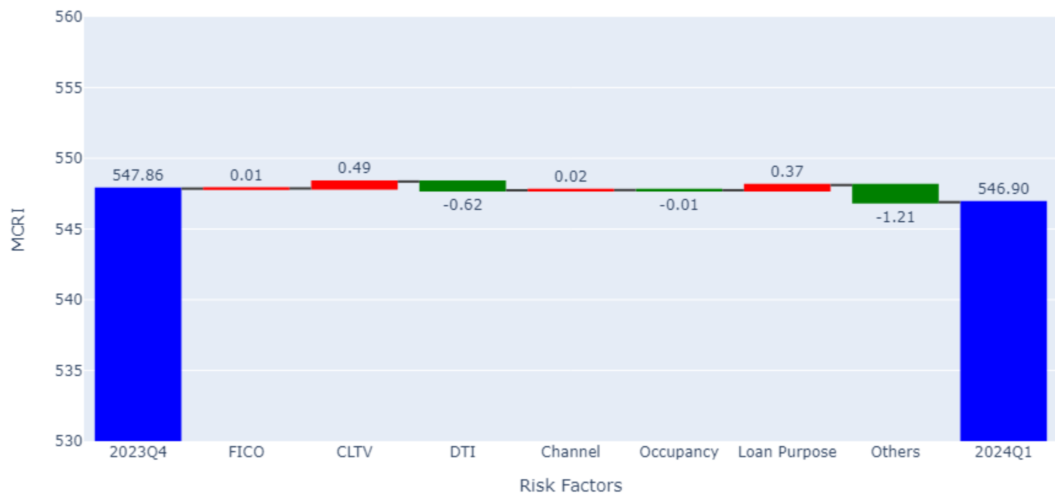
Key Takeaway: Although credit risk overall for GSE-eligible mortgages remains relatively low compared to historical credit performance, it has risen by 30+ score points since 2021Q1.

Figure 1: SERC Mortgage Credit Risk Index



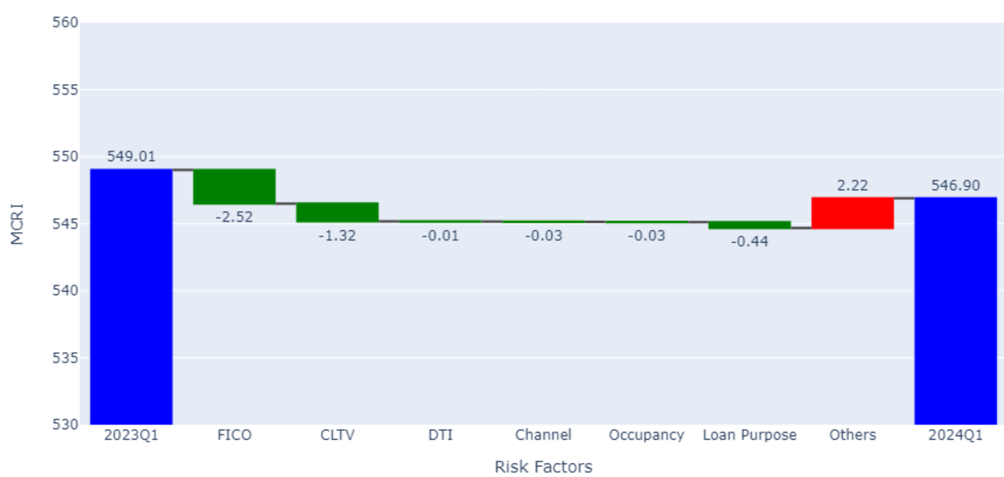
Key Takeaway: Quarter-over-quarter changes in credit risk were negligible where slight increases in credit risk from CLTV and loan purpose mix were offset by slight improvement in the mix of other factors such as occupancy status, number of borrowers and fixed-rate loan term.

Figure 2a -- MCRI Decomposition: 2023Q4 to 2024Q1



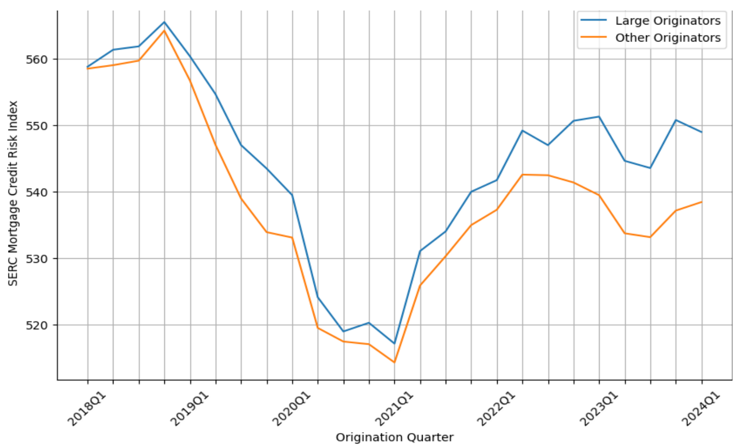
Key Takeaway: Credit risk remained relatively stable year-over-year as slight improvement in the 3C's of underwriting [**C**ollateral (CLTV), **C**redit (creditworthiness) and **C**apacity (DTI)] was offset by changes in other risk factors such as mix shifts in the number of borrowers and fixed-rate loan term.

Figure 2b -- MCRI Decomposition: YoY 2023Q1-2024Q1



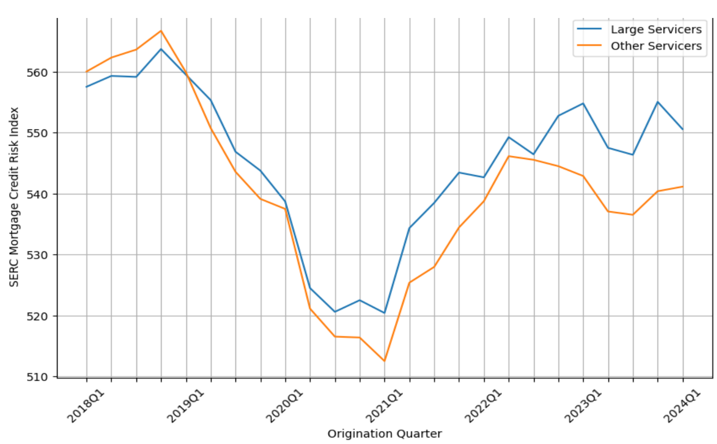
Key Takeaway: Large originator credit risk profile declined slightly between 2023Q4 and 2024Q1 while rising for other originators at a muted pace though the relative credit risk of loans sold by large originators remains higher than for other lenders.

Figure 3a: SERC Mortgage Credit Risk Index (Large Originators vs. Others)



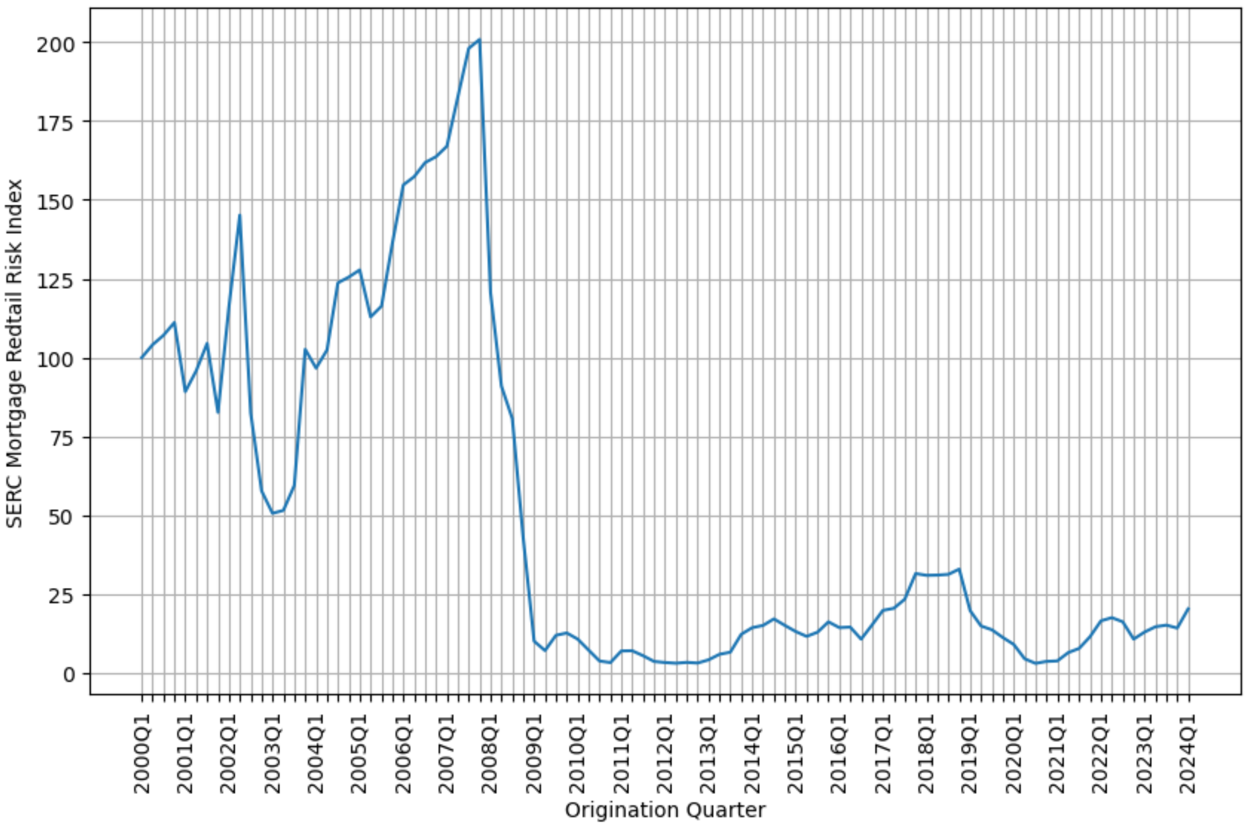
Key Takeaway: Large servicer credit risk profile decreased slightly between 2023Q4 and 2024Q1 while rising marginally for other servicers. Credit risk of loans serviced by larger servicers remains elevated compared to smaller servicers.

Figure 3b: SERC Mortgage Credit Risk Index (Large Servicers vs. Others)



Key Takeaway: Loans with combinations of riskiest attributes as a percentage of 2024Q1 originations remained at historically low levels compared to the 2000Q1 benchmark (= 100), indicating that concentrations of adverse risk attributes remain at relatively muted levels.

Figure 4: SERC Mortgage Redtail Risk Index



For More Information

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Glossary

Mortgage Credit Risk Index (MCRI): A proprietary score developed using multivariate, supervised machine learning technology to predict mortgage serious delinquency of new loans from a number of borrower, property, loan and other risk attributes. Higher scores signify greater credit risk. MCRI ranges from 300-900. Scores were designed so that every 40 points doubles the odds of serious delinquency.

Mortgage Redtail Risk Index (MRRI): A proprietary score assessing the percentage of mortgage originations qualifying as high risk based where high-risk is defined as a loan having a score over an established cutoff using benchmark loans from 2000Q1. That cutoff was determined to be loans with scores >= 2 standard deviations over scores approximating the expected serious delinquency rate. Loans with lower credit scores and higher DTIs and CLTVs in conjunction with other adverse risk attributes would indicate risk layering, a sign of loan-level credit risk concentration.

CLTV: Combined Origination Loan-to-Value ratio (%)

Channel: Refers to the channel (e.g., retail, correspondent, broker) through which the loan was originated.

DTI: Debt-to-Income Ratio (%)

Large Originators and Servicers: Refer to definitions Freddie Mac and Fannie Mae use in their public credit performance data.

Others: Risk attributes featured in the “Others” category in Figures 2a and 2b include several property, loan and borrower characteristics not otherwise highlighted in those figures.

Data Sources & Related Information

Both the MCRI and MRRI are developed and validated on nearly 4 million publicly available GSE-eligible loans from Freddie Mac and Fannie Mae originated between 2000Q1 and 2017Q4 with performance on each loan tracked on a quarterly basis since origination. Any loan that reached 90 days past due or worse (90DPD+) was designated as serious delinquency in constructing the target variable for the MCRI model. The MCRI model was validated against a different loan-level sample than was used in the model’s development. Discriminatory power and error rates were assessed on the overall validation sample and along categories of major risk attributes and indicate strong model performance.