Scoring
Credit Risk

FACT SHEET

FICO® Resilience Index Validation Best Practices

Four-point checklist to structure an effective analysis

Since FICO introduced the FICO® Resilience Index, many experienced analysts have pondered how the validation of a new analytic predicting latent risk should differ from that of a "traditional" credit risk score. Based on collaboration with clients who have shared results with us, we've seen a variety of approaches taken to validate FICO Resilience Index — including some that could lead to ambiguous or even inaccurate conclusions. Structuring effective FICO Resilience Index validations requires selecting performance windows and measures judiciously to ensure they correctly capture the impact of a stressed economy, as well as allowing sufficient time for consumer resilience behavior to fully reveal itself.

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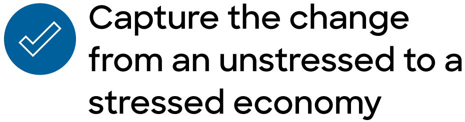
FICO® Resilience Index Validation Best Practices Checklist:

1. Capture the change from an unstressed to a stressed economy
2. Choose a performance window of 12–24 months
3. Select a performance measure of serious (not mild) delinquency
4. Evaluate FICO® Resilience Index paired with the FICO® Score from the same point in time

This fact sheet presents best practices for structuring meaningful validations of the FICO® Resilience Index (FRI), including illustrations of key validation concepts behind the four-point checklist.



Capture the change from an unstressed to a stressed economy

Why: The latent credit risk that FICO® Resilience Index predicts will only manifest — and therefore can only be observed — during a stressed period of the economy. Validating the FICO Resilience Index during an unstressed period will not yield conclusive results.

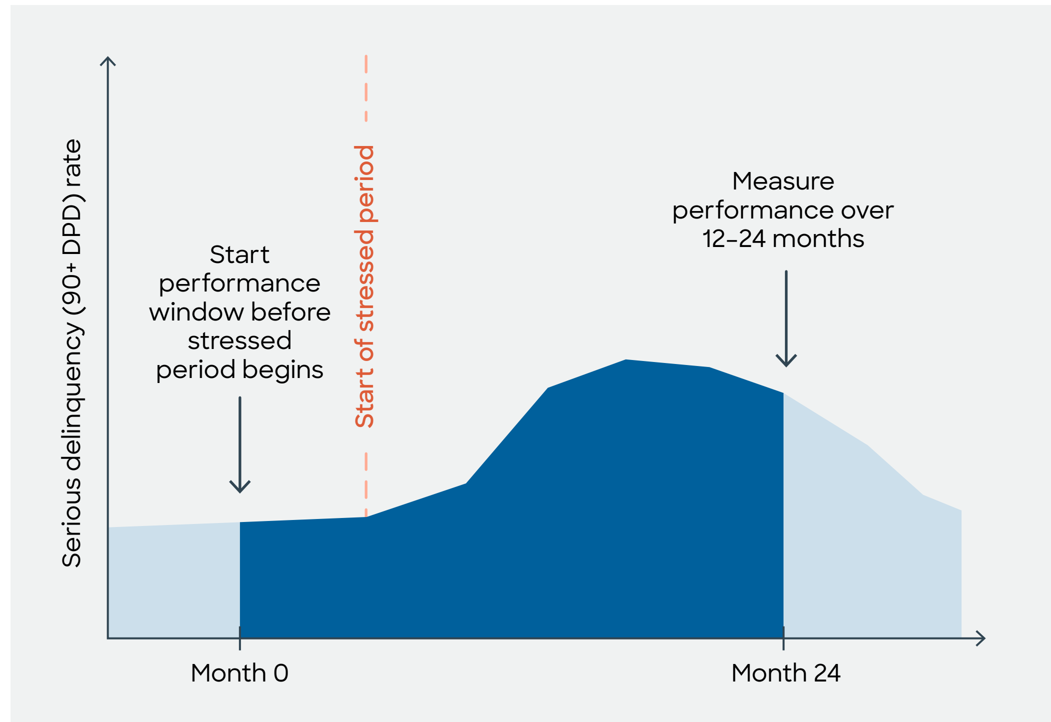
Recommendation: Validate the FICO® Resilience Index over a stressed economic period using a score date before the stressed period begins. For example, we frequently validate FICO Resilience Index performance during the Great Recession using a score date of October 2007, before the subsequent downturn began to broadly impact consumer payment performance.

Choose a performance window of 12–24 months

Why: It usually takes a year or more for an emerging period of economic stress to materially impact consumer payment behavior. Using a short performance window of less than a year does not allow sufficient time for latent risk to be observed.

Recommendation: Use a performance window of 12–24 months, long enough to allow the latent risk that existed at the score date to manifest.

Capture Change from Unstressed to Stressed Economy over a 12-24 Month Performance Window



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Select a performance measure of serious (not mild) delinquency

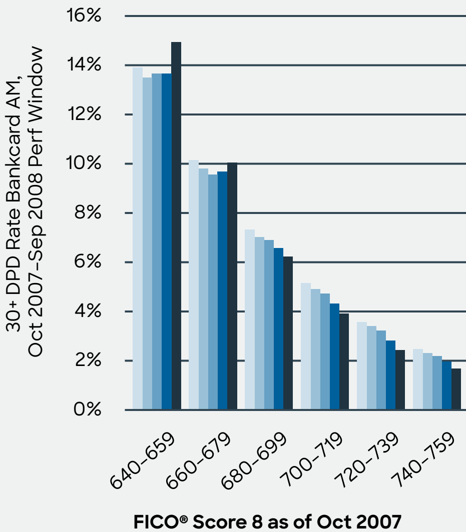
Why: FICO® Resilience Index is designed to rank-order serious delinquency within narrow FICO® Score bands during periods of economic stress. Using an early stage delinquency performance measure such as 30+ days past due, can confound validation results. Note that in some FICO Score bands, mild delinquency rates of more resilient consumers may actually exceed those of less resilient consumers.

Recommendation: Select a performance measure of serious delinquency, such as 90+ days past due.

Select Performance Measure of Serious Delinquency

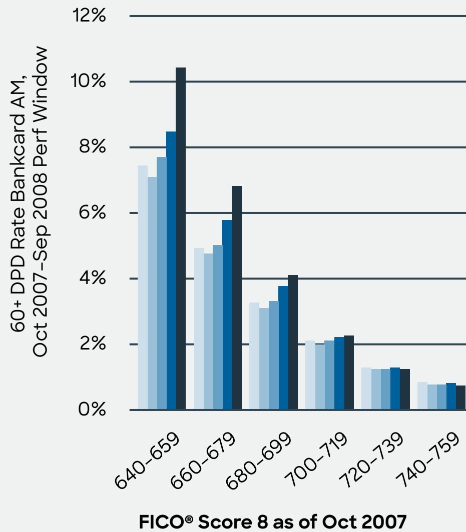
Too Mild

Performance Measure: 30+ Days Past Due
With 12-Month Performance Window (Min.)



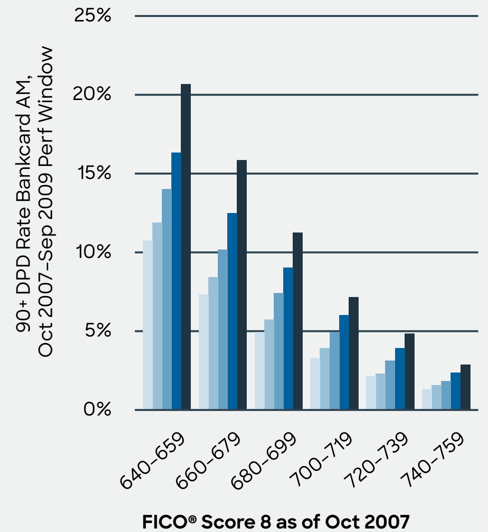
Better, But Not Ideal

Performance Measure: 60+ Days Past Due
With 12-Month Performance Window (Min.)



Correct Serious Delinquency Measure

Performance Measure: 90+ Days Past Due
With 24-Month Performance Window (Ideal)



FRI Quintile 1 (Most Resilient) | FRI Quintile 2 | FRI Quintile 3 | FRI Quintile 4 | FRI Quintile 5 (Least Resilient)

This three-part validation sequence on a nationally representative bankcard portfolio during the Great Recession illustrates the impact of selecting too mild of a delinquency measure when evaluating FICO® Resilience Index. FICO Resilience Index is designed to differentiate the likelihood of serious (not mild) delinquency within narrow FICO® Score bands. Note that while a 12-month performance window is sometimes sufficient, a longer performance window is preferred to allow the impact of economic stress to fully materialize.

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Evaluate FICO® Resilience Index paired with the FICO® Score from the same point in time

Why: FICO® Resilience Index should not be evaluated as a standalone analytic, because it's designed to differentiate credit risk within narrow FICO® Score bands during stressed economic periods. FICO Resilience Index is a complementary metric to employ in combination with the FICO Score, ideally pulled concurrently.

Recommendation: Structure your validation to assess the target performance measure by FICO® Score band and FICO® Resilience Index segment, as illustrated by the bar charts below. Be sure to pull FICO Resilience Index and FICO Score values from the same time period (ideally the same month) to ensure accurate binning of consumers into FICO Score bands and resilience quintiles or sub-populations.

What about validating through the pandemic economy?

The pandemic confounded our recommended validation approach: While the economy was clearly stressed, government and lender interventions averted (or at least postponed) typical consumer impacts on payment performance, especially in secured portfolios where lenders made more generous payment concessions widely available.

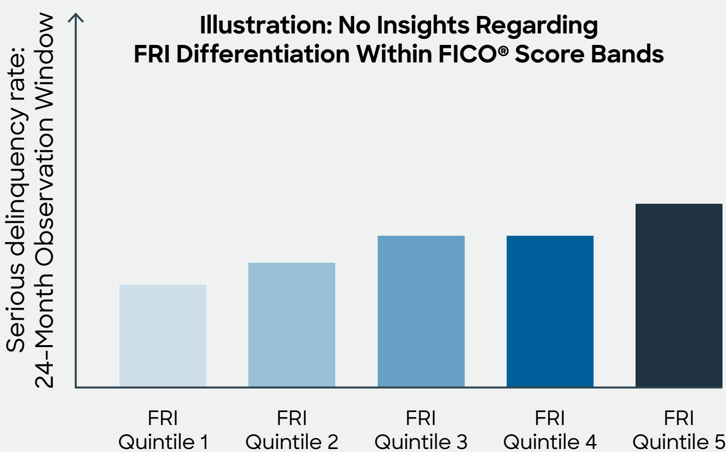
In periods of strained economic conditions where serious delinquencies do not increase significantly, how can you still perform a meaningful validation of FICO® Resilience Index?

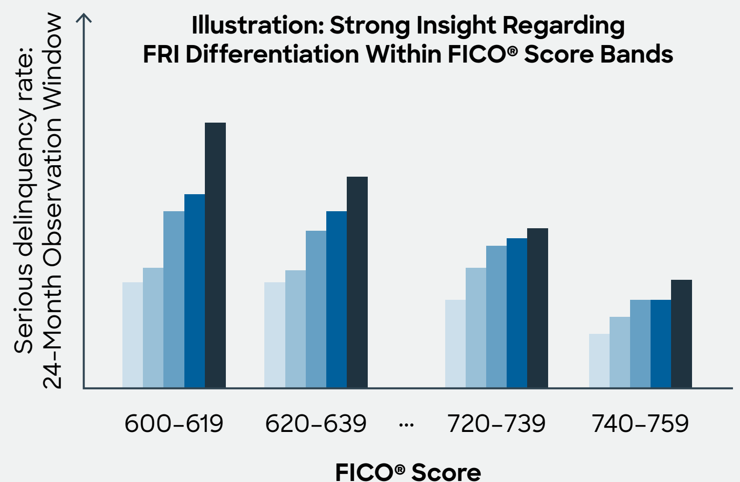
Recommendation: Consider using the presence of consumer-driven payment accommodations during the pandemic as an alternative performance measure, as they may be a direct indication of economic stress. Using this approach, a shorter outcome window of 6 to 12 months from the scoring date may be effective.

Additionally, FICO analysis of industry data showed compelling serious delinquency rank-ordering through the pandemic for unsecured portfolios such as bankcards and personal installment loans when performance is tracked for at least 18 months.

Using either approach, be sure to select a pre-pandemic scoring date such as January 2020.

Evaluate FICO® Resilience Index Paired with FICO® Score





FRI Quintile 1 | FRI Quintile 2 | FRI Quintile 3 | FRI Quintile 4 | FRI Quintile 5

FICO® SCORE

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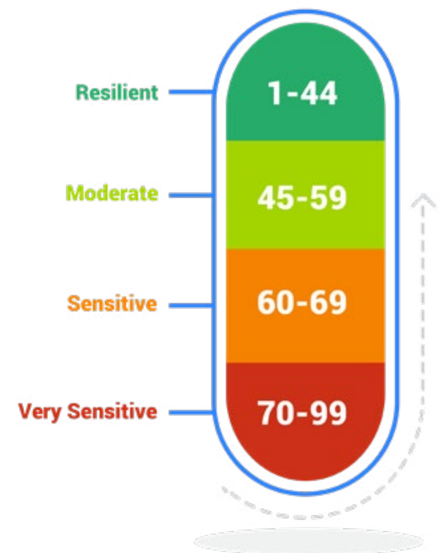
Other validation tips from FICO experts

- Aim to capture at least 50 counts of serious delinquency (or payment accommodations) within FICO® Score bands and FICO® Resilience Index sub-populations in your validation. This may be achievable for smaller and/or lower-risk portfolios by adjusting one or more parameters as follows:
  - Widen the size of FICO® Score bands, for example, from 20-point to 40-point bands
  - Segment each FICO® Score band by FICO® Resilience Index quartiles or terciles rather than quintiles
  - "Stack" multiple similar time periods (e.g., October 2007 to October 2009 plus June 2007 to June 2009 combined for "stressed period") to increase the population size for analysis
- Be sure to calculate FICO® Resilience Index quintile/sub-population boundaries within each FICO® Score band, rather than across the entire population. The distribution of FICO Resilience Index values will vary across FICO Score ranges, so tailoring FICO Resilience Index boundary definitions within each FICO Score band ensures adequate representation within each sub-population.
- Minimize the use of "point-in-time" or cross-sectional portfolio assessments to evaluate FICO® Resilience Index (for example, looking at average delinquency rates and FICO Resilience Index/FICO® Score values from the same point in time rather than creating a performance window). While such analyses may help develop consumer profiles, they will not confirm the ability of FICO Resilience Index to rank-order credit risk within FICO Score bands during periods of economic stress.
- If you wish to evaluate FICO® Resilience Index in conjunction with behavior scores or other custom risk scores, validate using the framework described here, replacing FICO® Score with the alternative risk score. Although FICO Resilience Index is designed to work with FICO Score for optimal performance, it can be validated in combination with — rather than in competition with — other credit risk scores. Again, it should not be evaluated as an independent metric.
- Remember that, as a latent risk measure, FICO® Resilience Index doesn't measure the amount of stress consumers are currently experiencing. FICO Resilience Index reflects consumers' resilience to economic stress, which is indicative of how much or little their credit risk is likely to deviate (under economic stress) from the level of risk associated with their current FICO® Score.



For more information about how to construct FICO® Resilience Index validations:

- **Review the FICO blog article, "How to avoid the 5 most common pitfalls when using the FICO Resilience Index"**
- **Visit FICO Resilience Index Learning Page**
- **Refer to the FICO Resilience Index User Guide in FICO® Score Support**

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