

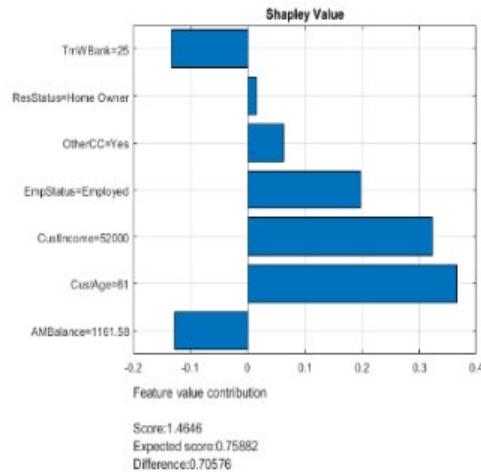
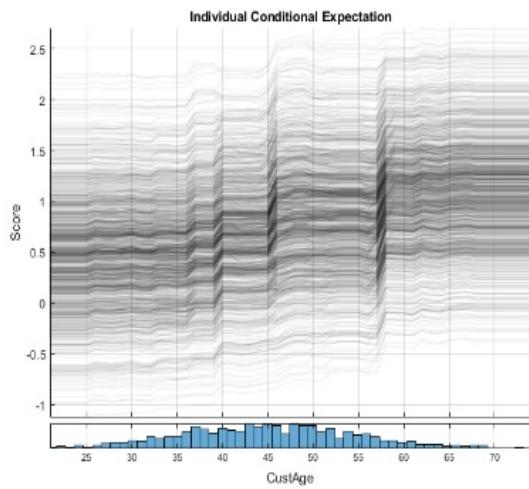
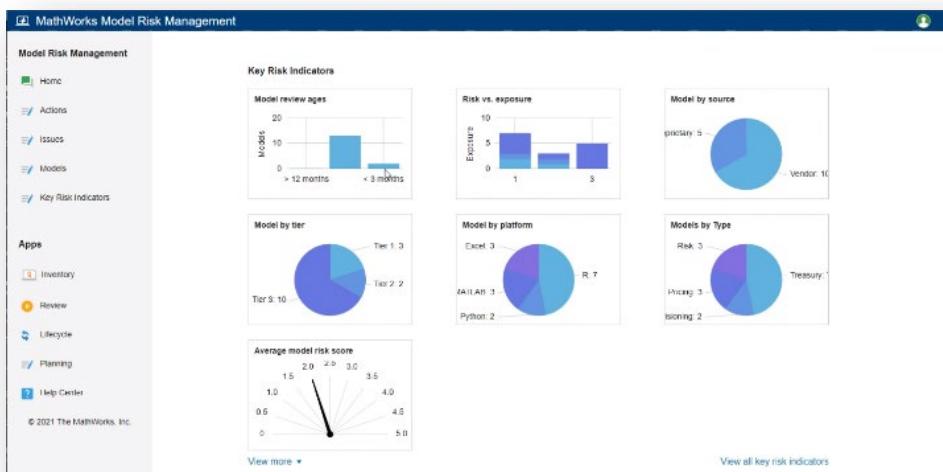


Recalibrating Regulated Financial Models

Mature models, already approved by the regulator, need to be regularly checked and recalibrated. This requires a robust model development, validation, and documentation process. The MathWorks model lifecycle solution enables this process with tools and a workflow for regularly monitoring, revalidating, and recalibrating models for data-drift and concept-drift.

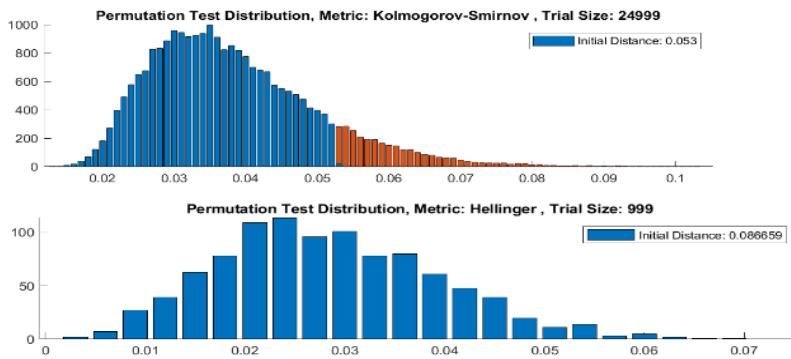
Model Monitoring

The Model Monitoring Dashboard displays the state of running models. You can drill down to the real-time performance of individual models and access up-to-date accuracy, sensitivity and explainability metrics on production data.

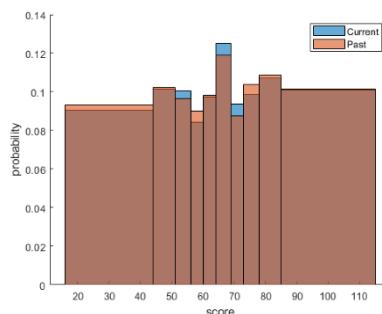


Monitoring explainability measures in real-time.

Dynamic Monitoring for Data and Concept Drift



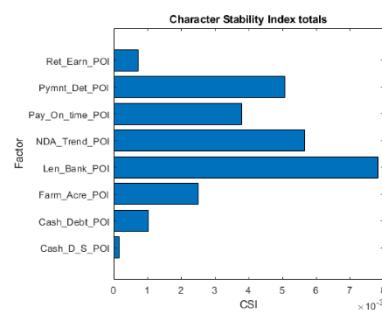
Monitoring model data drift with Population Stability Index and Character Stability Index.



You can dynamically estimate data, feature, and outcome distributions for any machine learning model.

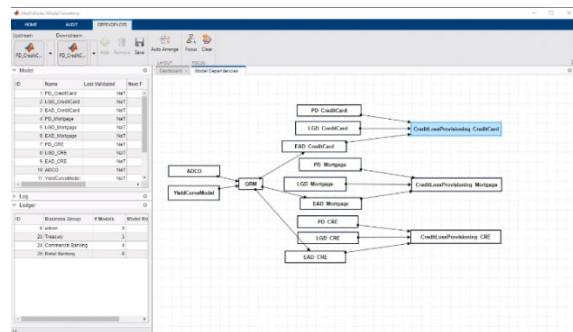
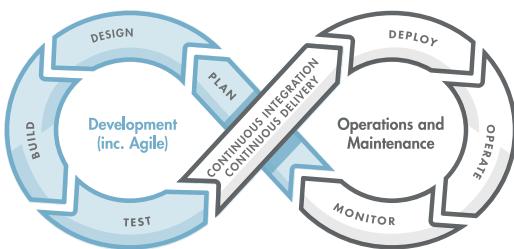
Set heuristic, adaptive, and automatic thresholds, and trigger monitoring alerts and the recalibration process.

Monitor key model input data for drift with KPIs like the Population Stability Index and spot key factor changes.



Recalibration Workflow

MathWorks automates recalibration as part of a standard model DevOps cycle, minimizing the time to test and deploy changes, and maximizing model uptime and operational stability. All model changes are run through the CI/CD pipeline and a full suite of automated validation and performance tests are performed.



Any triggers and alerts that are raised and used in recalibration are fed back into the model datasets for analysis during periodic development and validation activities. Recalibration changes trigger review actions down the hierarchy of dependent models as defined in the model inventory.

The workflow enables robust model governance with:

- Updates to model documentation
- Versioning and audit of parameter changes
- Sign-off procedures