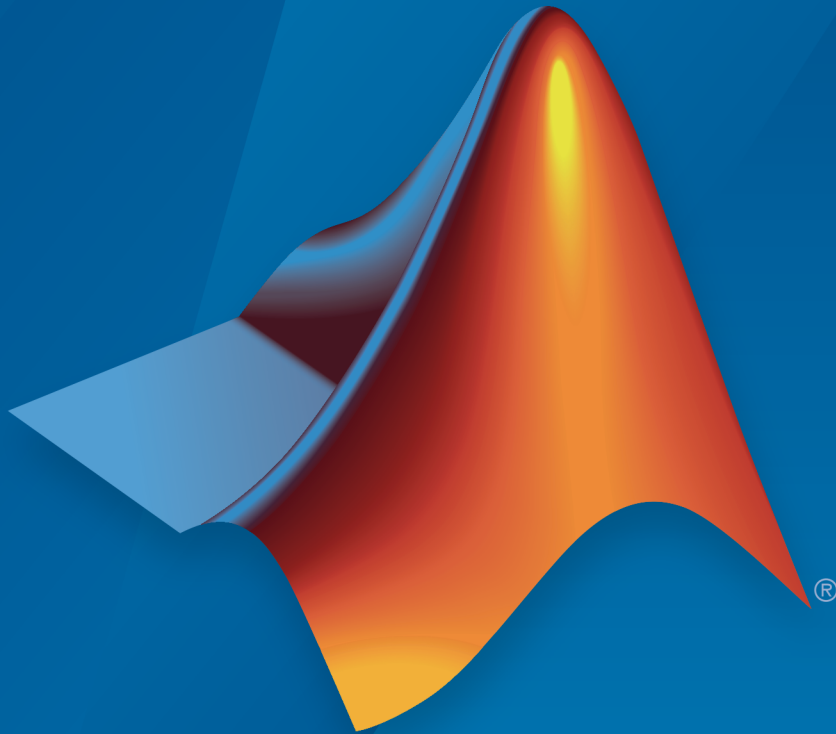


# Risk Management Toolbox™ Release Notes



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### *Risk Management Toolbox™ Release Notes*

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# R2017a

**Version: 1.1**

**New Features**

**Bug Fixes**

**Compatibility Considerations**

## **Corporate Credit Risk: Estimate the probability of credit rating migration based on multifactor copula model**

The following tools support corporate credit portfolio analysis for credit migration simulation using a `creditMigrationCopula` object for copula-based simulations:

- `creditMigrationCopula`
- `simulate`
- `portfolioRisk`
- `riskContribution`
- `confidenceBands`
- `getScenarios`

## **Corporate Credit Risk: Quantify credit concentration risk by Herfindahl index and other concentration measures**

The `concentrationIndices` function supports the following concentration indices:

- CR — Concentration ratio
- Deciles — Deciles of the portfolio weights distribution
- Gini — Gini coefficient
- HH — Herfindahl-Hirschman index
- HK — Hannah-Kay index
- HT — Hall-Tideman index
- TE — Theil entropy index

## **Corporate Credit Risk: Model corporate default risk using Merton model**

The `mertonmodel` and `mertonByTimeSeries` functions estimate the default probability using Merton's model.

## **`creditCopula` object renamed**

The `creditCopula` object is renamed to the `creditDefaultCopula` object.

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## Compatibility Considerations

Object Name	What Happens When You Use This Object	Use This Object Instead	Compatibility Considerations
creditCopul	Warns	creditDefaultCopula	<p>Replace all instances of <code>creditCopula</code> object with <code>creditDefaultCopula</code> object using the <code>creditDefaultCopula</code> constructor.</p> <hr/> <p><b>Note:</b> The <code>CounterpartyLosses</code> property of <code>creditCopula</code> object is removed in the <code>creditDefaultCopula</code> object. To obtain counterparty losses, use the <code>getScenarios</code> function.</p>





# R2016b

Version: 1.0

New Features

## Consumer Credit Risk: Binning Explorer for Credit Scorecards

**Binning Explorer** is an app for developing and modifying binning assignments for a `creditscorecard` object. For more information, see [Binning Explorer](#).

## Corporate Credit Risk: Copula-based simulation framework

The following tools support corporate credit portfolio analysis using a `creditCopula` object for copula-based simulations:

- `creditCopula` — Creates a `creditCopula` object.
- `simulate` — Simulates credit defaults using a `creditCopula` object.
- `portfolioRisk` — Generates portfolio-level risk measurements for a `creditCopula` object.
- `confidenceBands` — Generates confidence interval bands for a `creditCopula` object.
- `riskContribution` — Generates risk contributions for each counterparty in the `creditCopula` object.

## Market Risk: Value-at-Risk Backtesting Tools

Value-at-risk (VaR) is an important measure of financial risk. VaR is an estimate of how much value a portfolio can lose in a given time period with a given confidence level. VaR backtesting tools assess the accuracy of VaR models. The following VaR backtesting tools are supported:

- `varbacktest` — Creates a `varbacktest` object using portfolio outcomes data and corresponding value-at-risk (VaR) data.
- `bin` — Binomial test.
- `cc` — Christoffersen's conditional coverage mixed test.
- `cci` — Christoffersen's conditional coverage independence test.
- `pof` — Kupiec's proportion of failures test.
- `tbf` — Haas's time between exceptions independence test.
- `tbfi` — Haas's mixed time between exceptions (independence and frequency) test.
- `tl` — Traffic light test.
- `tuff` — Kupiec's time until the first failure test.

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- `summary` — Summary report on the given `varbacktest` data.
  - `runtests` — Runs all tests and reports the final test results.

