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Project overview

Derivation of swaption skews from cap/floor data and implementation of the methodology in a production environment utilising QuantLib

Client / sector	**Mortgage bank**
Project description	**Derivation of swaption skews from cap/floor data and implementation of the methodology in a production environment utilising QuantLib for a medium-sized bank** • Design and calibration of swaption skews from cap/floor volatility surfaces • Prototypic implementation • Comprehensive technical and function-specific testing of the prototypic implementation • Implementation of the methodology as a C#/.Net add-in for Excel using QuantLib • Creation of a calibration workflow based on Excel and the created add-in
Service	• Technical design and specification • Implementation of the prototypes in Excel/VBA • Implementation in the production environment in C#/.Net • Technical and function-specific tests • Documentation
Technology	Excel/VBA, C#/.Net, QuantLib, Excel-DNA
Professional input	Financial mathematical development of the calibration, technical validation and testing
Scope	Approx. 100 person days
Tags	swaption, skew, cap, floor, volatility surface, calibration, financial mathematics, QuantLib