Derivatives Addendum Model

Model Summary Document (MSD)

1. Model Purpose and Description

The Derivatives Addendum Model is used to provide quantitative backtesting for the foreign exchange and government bond advance rates as well as the swap volatility cushions set out in the *Structured Finance and Covered Bonds Counterparty Rating Criteria: Derivative Addendum*. The model takes input data from Haver Analytics, Data Marketplace and OracleDB, and outputs suggested advance rates and volatility cushions for a given percentile and observation window.

2. Model Assumptions

Acquiring data and generating output for every possible swap duration and currency would be impractical. Because of that the model was developed with the following assumptions:

- Maturities 2, 5, 10 and 30 years are sufficiently representative of all other possible swap durations
- Interest rate risk measured for currencies USD, EUR, GBP and AUD are sufficiently representative of other currencies for which interest risk is evaluated under the criteria.
- Sufficient data is available over a period of time to establish interest rate and foreign exchange risks, and that this data is indicative of future performance.
- Government bond data in referenced Eurozone countries is indictive of performance in eligible Eurozone countries whose data has not been incorporated.
- Foreign exchange data for the currency pairs used is indicative for other currencies that may feature in structured finance but are not included in the model.

3. Model Inputs

This model has two types of inputs: historic data used to generate model output, and model operation inputs used to control the generated output. The historical data includes Swap/FX/Bond data across various currencies, countries, and terms. The operational inputs include parameters like observation period, percentile of historic losses, and the inception date.

4. Model Development Data

Historic Swap/FX/Bond values are acquired from Haver Analytics and Data Marketplace. Series used have at least 15 years of available data, but often data is available from early 1980s. In most cases data is updated every business day, with occasional missing data around different holidays.

5. Model Limitations

This model has following limitations:

- Prior performance (for which data is taken) may not be indicative of future performance.
- Termination of a derivative contract may take longer than the specified observation period.
- The model references fixed percentiles, extreme events would not be covered by the suggested VC or advance rates.
- Some durations, currencies or interest rates may not be well correlated with those used in the model.

6. Material Changes

The current model version is 1.0.0. Any future material changes will be disclosed in this section.

Contact Information

model_disclosure@fitchratings.com