

Article Title: Guidance | Criteria | Structured Finance | General: Foreign Exchange Risk In Structured Finance Data: (EDITOR'S NOTE: —We updated this guidance article on July 19, 2023. See the "Revisions And Updates" section for details.) Overview And Scope This guidance document provides additional information and guidance relating to "Foreign Exchange Risk In Structured Finance--Methodology And Assumptions," published April 21, 2017. This report should be read in conjunction with those criteria. S&P; Global Ratings' foreign exchange (FX) risk criteria provide rating-specific asset depreciation stress assumptions for the behavior of FX rates in global structured finance transactions with unhedged or partially hedged currency exposures. FX risk arises when there is a currency mismatch in a transaction in which the asset cash flows and liabilities are denominated in different currencies. We assume that the asset cash flows will depreciate over time if no currency hedges mitigate the currency risk exposure. In our analytical approach for FX exposure risk, we estimate and incorporate monthly currency depreciation stress curves as inputs into the relevant cash flow analysis to evaluate a transaction's potential currency exposure risk. Key Publication Information Original publication date: June 5, 2018 This guidance article is related to "Foreign Exchange Risk In Structured Finance--Methodology And Assumptions," April 21, 2017. We may revise this guidance from time to time to update our FX stress assumptions, in order to reflect additional data and developments, such as changes in market conditions and performance trends, issuer- or issue-specific factors, or new empirical evidence affecting our analytical judgement. Guidance Our Foreign Exchange Risk Model (FERM), under the criteria, generates the monthly currency depreciation FX stress curves (one month to 180 months) for each pair of asset-liability currencies in a transaction. As an example, table 1 (reproduced from table 1 of the FX criteria) provides the 60-month currency depreciation percentages calculated by using the FERM model for exposure to FX risk among major currencies at various rating levels. Table 1 Sample Currency Asset Depreciation Percentages Against Currency Liabilities (60-MONTH TIME HORIZON EXAMPLE) RATING LEVEL(I)(II) Currency combinations AAA (%) AA (%) A (%) BBB (%) BB (%) B (%) USD assets versus EURO liabilities 58 49 41 32 23 14 EURO assets versus USD liabilities 65 56 46 36 24 11 USD assets versus GBP liabilities 43 37 30 24 17 11 GBP assets versus USD liabilities 62 53 43 34 26 17 USD assets versus JPY liabilities 61 52 43 34 24 14 JPY assets versus USD liabilities 51 43 36 28 20 11 EURO assets versus GBP liabilities 35 30 25 20 14 8 GBP assets versus EURO liabilities 48 41 34 27 22 17 (i)The depreciation percentages apply to foreign exchange rates quoted in terms of liability currencies. This means a quote of x units of the liability currency for each unit of the asset currency. (ii)We use the currency exchange data since 1971 for most currency pairs to calculate the depreciation percentages. However, we use the data since 1990 for the USD-JPY currency combination after the elimination of the periods of structural changes in the currency markets. USD--U.S. dollar-denominated. EURO--Euro-denominated. GBP--British pound-denominated. JPY--Japanese yen-denominated. The 'AAA' stress assumption for U.S. dollar (USD) assets versus euro liabilities is 58%. This means that, for a transaction with USD-denominated assets and euro liabilities, these criteria assume the USD assets depreciate by 58% over 60 months from the starting value, or the amount of pledged assets without overcollateralization or undercollateralization is able to support only 42% of the liability in terms of the liability currency at closing. In other words, the stressed USD/euro (expressed as number of euro per one USD) rate in 60 months would be today's exchange rate (e.g., 0.80) multiplied by (1 - 58%). That is, if one USD of asset is worth 0.80 euros in terms of liabilities on day one, it would be able to repay only about  $0.80 * 42\% = 0.34$  euros within five years. In addition, we are providing the following link to our latest FX stress assumptions covering key developed market currency combinations: [Click here REVISIONS AND UPDATES](#) In June 2021, we republished this guidance to update the downloadable spreadsheet of foreign exchange stress assumptions, which contained two mislabeled tabs; the labels on the tabs depicting (1) euro asset depreciation against yen liabilities and (2) yen asset depreciation against euro liabilities were inadvertently reversed. We also fixed the hyperlink to the spreadsheet, which was not working properly. On July 19, 2023, we added FX stress assumptions for the following currency combinations: SEK-USD, SEK-EUR, NOK-USD, NOK-EUR. We also updated our FX stress assumptions for JPY assets versus USD liabilities and for AUD assets versus USD liabilities. As a result, we updated the downloadable spreadsheet of foreign exchange stress assumptions and table 1 accordingly and removed from it content that is no longer relevant. Finally, we updated criteria

references and related research. Related Criteria Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019 Foreign Exchange Risk In Structured Finance--Methodology And Assumptions, April 21, 2017 Principles Of Credit Ratings, Feb. 16, 2011 Related Research S&P; Global Ratings Definitions, updated from time to time Credit Rating Model: Foreign Exchange Rate Model, April 24, 2017 This article is a guidance document for Criteria (Guidance Document). Guidance Documents are not Criteria, as they do not establish a methodological framework for determining Credit Ratings. Guidance Documents provide guidance on various matters, including: articulating how we may apply specific aspects of Criteria; describing variables or considerations related to Criteria that may change over time; providing additional information on non-fundamental factors that our analysts may consider in the application of Criteria; and/or providing additional guidance on the exercise of analytical judgment under our Criteria. Our analysts consider Guidance Documents as they apply Criteria and exercise analytical judgment in the analysis and determination of Credit Ratings. However, in applying Criteria and the exercise of analytic judgment to a specific issuer or issue, analysts may determine that it is suitable to follow an approach that differs from one described in the Guidance Document. Where appropriate, the rating rationale will highlight that a different approach was taken. This article does not constitute a rating action.