<u>**List of Open Issues**</u>: Staff believes that the issues below are mechanical in nature and their solutions should not be controversial or delay the process.

Issue	SSG Comment
Reinvestment Assumptions. More detail on the assumed mechanism - including type (bond/loan) and WAL.	<u>Medium term issue.</u> Will provide clarification.
Detail on Caa default vectors. We have been asked to provide more detail on this vector, given its outsized impact on some deals.	<u>Medium term issue.</u> Caa default data is not as historically common and tends to bump to 100% in stress scenarios. Will provide.
Initial conditions. Dealing with current amount in Int/Defaults. That is, how to deal with current amounts reported in the trustee report. Additionally, how to deal with currently held equity securities and other not-debt.	<u>Long term issue</u>. Initial conditions of model. Need to firm up the disclosure of the mechanics of Interest Proceeds estimation (Current Bucket + projected remaining in period). Defaulted bucket is currently recovered after 6 months.
Use of Issuer rating. Most of the deals we have modeled have the Moody's Issuer rating populated and, as a result, we did not have to make any changes. We have learned through this process that this is not the case for other platforms.	<u>Longer term issue</u> -- we will work on an arrangement where the mapping of the loan ratings is consistent and transparent.
Recovery Categories. Similar to above, but with respect to recovery categories.	<u>Longer term issue</u>. Will work on mapping other Moody's and non-Moody's categories. Goal here Is simplicity and a small number of categories.
Ramp up	

NAIC Collateralized Loan Obligation (CLO) Stress Tests Methodology

Scope

- We will model all tranches of broadly syndicated loan CLOs held by U.S. insurance companies.
- At this stage we will exclude:
  - Commercial real estate (CRE) CLOs – The risk is commercial real estate, and different assumptions are required.
  - Re-securitizations, asset-backed securities (ABS), collateralized debt obligations (CDOs) and trust preferred securities (TruPS) CDOs – They are out of scope.

- Middle market CLOs – They are temporarily excluded, as the asset class requires specialized assumptions. We hope to return to these assets shortly.
- Another limitation is the availability of the specific CLO via our third-party software vendor.

Givens

- These will be determined via the "Scenario" portion of the process following the setting of the methodology.
- Assume that the inputs are periodic "partial" default rates for each loan based on the current rating.
- In addition, assume each loan has a recovery rate, based on its seniority, for that period.

Assigning Ratings to Underlying Assets

- Historical default rates are reported at the **issuer** level, while the debt instrument typically has an **issue** rating, which may be different. The issuer rating is used to calibrate the default rate, while the issue rating influences the recovery rate.
- We propose the following logic:
    - If an asset has an **Issuer** rating available within our third-party software (generally those reported by Moody, Standard & Poor's (S&P) or Fitch), that rating will be used to set the applicable default rating.
    - Otherwise, if an asset has an **Issue** rating available within our third-party software (generally those reported by Moody, S&P or Fitch) that rating will be adjusted to set the applicable default rating as follows:
        - Asset is reported as Senior Secured Loan or Senior Unsecured Bond: default rating = **Issue** rating + 1 notch (i.e. higher default probability)
        - Otherwise: default rating = **Issue** rating
        - This is different from our stress tests
    - If the Securities Valuation Office has assigned an NAIC Designation Category to the Issue, that NAIC Designation Category will be used, unadjusted.
- Once a default rating has been established, the loan will be assumed to "partially default" until its maturity.

Recovery Rate

- Principal is recovered 6 months (2 periods) after default

Cash Flow Assumptions

- **Interest Rates / Proceeds**
    - Forward Secured Overnight Financing Rate (SOFR) curve as of evaluation date

- Interest Proceeds for each period are based on the weighted average current portfolio spread plus the applicable base rate times the non-defaulting principal.

- **Maturities and prepayments**
  - Non-defaulting portions of each loan mature based on the legal maturity
  - No prepayments assumed

- **Reinvestment**
  - No post-reinvestment period reinvestment
  - Reinvestment collateral is purchased at par
  - Reinvestment occurs before payment date – i.e., there are no principal proceeds in the waterfall that can be used to pay interest or satisfy overcollateralization (O/C) tests. Reinvestment occurs on a monthly basis.
  - Reinvestment is assumed to have a rating equal to the transaction's weighted average rating factor (WARF). If the WARF is not reported, then it is assumed to be 4.C (B3) and is defaulted as stated above.
  - Reinvested collateral is tracked per reinvestment bucket (e.g., all reinvested collateral in one time period is tracked separately from collateral reinvested in another time period).

- **Event timing**
  - Periodic payment on identified collateral – as per loan terms
  - Periodic payment on reinvested collateral – quarterly
  - Collateral defaults on its interest payment date (prior to paying interest or principal)