February 17, 2023

PineBridge® INVESTMENTS

# Response to the NAIC VOSTF regarding Proposed Methodology for Modelling CLOs and CLO Stress Test Methodology

Dear Mr. Therriault, Ms. Mears & members of the Valuation of Securities Task Force ("VOSTF"):

We appreciate the opportunity to provide a response to the questions that were posed in the memorandum, dated December 12, 2022 regarding the Proposed Methodology for Modelling CLOs. We support the mission of promoting transparency and enhancing risk assessment for statutory solvency purposes. We would like to share the following thoughts with respect to the NAIC's CLO Stress Test Methodology and offer the following suggestions to improve upon the analysis. We understand that you are not currently looking for feedback on default and recovery rate assumptions, but because these assumptions are so fundamental to the overall methodology our thoughts and suggestions also touch on these topics.

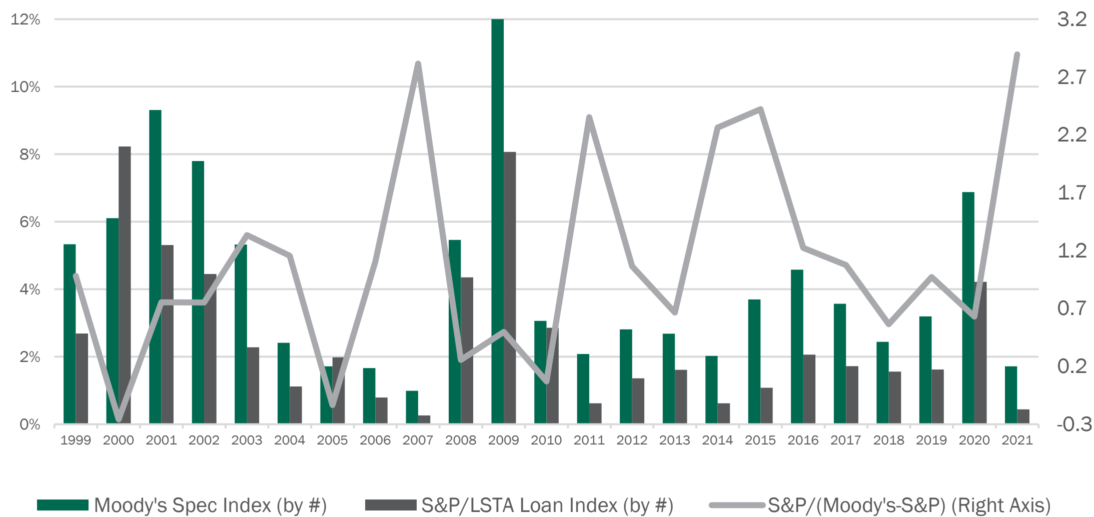
**Data from the 1970's and 1980's is not representative of the current market**

The NAIC's methodology derives its loan default and loss assumptions based on Moody's 10-year cohort corporate default data, which goes back to 1970. Given the significant changes that took place in the leveraged loan market in recent decades, the default and loss experiences before 2000 do not reflect today's market dynamics for the reasons described below.

- The earliest vintage of CLOs, often referred to as "CLO 1.0", was issued in the mid- to late-1990s, and less than 1% of "CLO 1.0" vintage remains outstanding. The market evolved to "CLO 2.0" in 2010 and to "CLO 3.0" in the mid-2010s. These newer vintages have better structural protections, such as greater subordination and tighter portfolio constraints. Given that less than 1% of currently outstanding CLOs are from the "CLO 1.0" era (and even fewer reside on insurance balance sheets), appropriate assumptions for CLO 2.0 and 3.0 (i.e., those issued on or after 2010) should be the focus.

- Regarding which data to use, high yield ("HY"), leveraged loan, and CLO markets were in their infancy in the 1970s and 1980s, and were still nascent in the 1990s. The leverage loan market had few issuers prior to 2000 but grew quickly, from $100 billion in 2000, to $500 billion in 2010 and $1.4 trillion in August 2022, with increasingly established leverage loan issuers who might have otherwise raised capital by selling bonds. Over the last two decades, the deepening and broadening of the leverage loan market has allowed CLO portfolio managers to create more diversified portfolios and enhance their ability to manage the portfolios dynamically to reduce losses and build par. Given the significant changing landscapes of the leverage loan and CLO markets over time, we believe pre-2000 data are not relevant for inclusion in the data set for testing.

- The NAIC uses Moody's default data, which is comprised of the historical experience of HY, leveraged loan, and other issuers. However, leverage loan data is more directly applicable for CLOs since the underlying collateral of CLOs is primarily leverage loans. The Morningstar LSTA US Leveraged Loan Index, previously known as the S&P/LSTA Loan Index, exhibited consistently lower default rates than Moody's default data, (i.e., the Moody's Spec Index in the graph below). The differential in default rates is as much as 3x for certain years, as shown below.




Source: Moody's, Morningstar LSTA US Leveraged Loan Index (or S&P/LSTA loan index).

**Using outlier historical experiences in a base case can skew results**

The purpose of a base case is often to reflect the average experience. The hyper-inflationary periods of the 1970s and 1980s, with nearly 20% interest rates are not an average scenario, and a repeat of such high inflation seems unlikely under today's monetary, fiscal, and regulatory frameworks. A more reasonable base case default rate for NAIC's Scenarios A and B would be derived from post-2000 data (e.g., a 27% 10-year cumulative default rate for single-B rated assets based on Moody's corporate default study or a default rate based on the post-2000 Morningstar LSTA US Leveraged Loan Index data). For Scenario C, it would be more appropriate to apply a stress factor to the base case. For example, increasing a base case 27% default rate by a factor of 25% would lead to a 34% default rate.

**The stepdown to a 40% leverage loan recovery rate in Scenarios B and C overstates the risk**

While the 64% base case leverage loan recovery rate used in Scenario A is consistent with historical data, the 40% rate assumed in Scenarios B and C is not justified. Since the average historical HY bond recovery rate is around 40%, the stepdown is analogous to the NAIC assuming CLOs are comprised of 100% senior unsecured bonds. This is of course unrealistic since CLOs are primarily backed by senior secured loans. It would be more appropriate to apply a stress factor to the base case. For example, lowering the base case 64% recovery rate by a factor of 25% would lead to a stepdown rate of 48%.

**The transparency of CLOs allows for a "sum of the parts equaling the whole" concept to be applied which may disadvantage CLOs compared to other securitized products that don't have the same transparency**

CLOs offer greater transparency as compared to other securitized products because, unlike most other securitized products, there is a great deal of information available about the underlying collateral in CLOs (e.g., credit profile, loan pricing). This availability of information and the increased transparency that it provides should not be used as a tool to penalize CLOs simply because more analysis and testing is possible as compared to other securitized products.

We would also like to reiterate the position that we took in our letter to the NAIC VOSTF dated July 2022, where we indicated that increasing risk-based capital charges on CLO investments understates some key strengths of

CLOs. We would like to highlight CLOs' favorable through-the-cycle credit performance relative to other asset classes, in part thanks to CLOs' structural protection, manager value generation, and investor diligence, collectively.

Sincerely yours,

PineBridge Insurance Solutions and Strategies, CLO team, Leveraged Finance team

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