

Assumptions

1. All cash flows are assumed to be paid back over a period of 30 months. Following this assumption, the last cash flow for the July 2020 vintage will be collected in December 2022 and thus there are 24 months that need to be forecasted (from January 2021 until December 2022).
2. Let p_i denote the expected repayment percentage as a share of the origination amount. For the portfolio valuation, assume that the expected repayment percentages are calculated as follows:

For the origination month, $i = 1$, the value is already known and fed in. The same holds true for the following month, $i = 2$, except for the last vintage, December 2020, where p_2 has not yet been observed. For this vintage, assume that the expected repayment percentage for $i = 2$ will be twice the repayment of the first period ($p_2 = 2p_1$ for the December 2020 vintage).

From the third month until the forecast horizon, $3 \leq i \leq 30$:

$$p_i = \max \left\{ p_2 * \ln \left(1 + \left(1 - \frac{i-1}{30} \right) \left(1 - \sum_{j=1}^{i-1} p_j \right) \right); 0 \right\}$$

3. Assume that the forecasted cash flows are discounted with an annual rate of 2.5%.

