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RATING METHODOLOGY

Scheduled Amortisation UK Student Loan-Backed Securitisations Surveillance Methodology

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This rating methodology replaces *Scheduled Amortisation UK Student Loan-Backed Securitisations Surveillance Methodology* published in August 2020. We edited the "Cash Flow Model" section to provide more information on our modeling approach, and we added a section that mentions our approach to evaluating the risk from environmental, social and governance considerations. We also made limited editorial updates to enhance readability. These updates do not change our methodological approach.

Scope

This rating methodology applies to securities backed by scheduled amortisation UK student loans.

In this methodology, we explain our approach to monitoring credit risks on scheduled amortisation UK student loan-backed securitisations originated between 1990 and 1998, including quantitative and qualitative factors that are likely to affect rating outcomes in this sector.

The UK government largely discontinued the origination of scheduled amortisation student loans (SA loans) in 1998 and replaced them with income-contingent repayment loans. Income-contingent repayment loans are outside the scope of this methodology.

We discuss the asset and liability analysis, including associated modelling, as well as other considerations.

Rating Approach

In this section, we describe the key characteristics of the assets and we summarize our approach to assessing credit risks for securities backed by scheduled amortisation UK student loans, including quantitative and qualitative factors that are likely to affect rating outcomes in this sector.

The SA loan securitisations that we monitor have very bespoke structures, including subsidy and indemnity features provided by the UK government, which partially insulate investors in the securities from underlying borrower default risk and interest rate risk.

SA loans share many similarities with non-prime consumer loans, such as high delinquency levels and no credit checks performed on the applicant at origination; any eligible student can obtain a loan. However, they yield below-market rates and the SA loan terms provide that even borrowers in arrears may defer their payment obligations if they meet income-level criteria. The transactions refinancing those portfolios are also unique in that the UK government partially supports them.

SA loan transactions benefit from a cancellation indemnity from the UK government which covers any SA loans that remain in deferment because of lifetime low earnings past the legal maturity date of the transaction, or SA loans outstanding because of the borrower's death or permanent disability. As a result, investors are mainly exposed to the default of SA loans that are not in deferment and remain unpaid for more than 24 months. Our surveillance approach on the securitisations focuses on the performance of SA loans in repayment given the increasing proportion of SA loans in deferment over time.

Our review of the indemnity document is a central point in the credit analysis of such transactions. For SA loans covered by the cancellation indemnity, obligor credit risk is effectively substituted with the credit risk of the UK government as indemnity provider. A further point in our analysis is the bespoke swap between the issuer and the UK government. The review focuses on any subsidy features present in the documentation to compensate the issuer for lower-yielding assets versus higher-yielding securities, as well as any features in the swap that generate liquidity to the issuer.

The UK government indemnity does not cover SA loans in arrears for more than 24 months; therefore, our credit analysis of these SA loans resembles that of a more standard securitisation structure backed by a portfolio of diversified, non-guaranteed obligors. The main difference from a more standard consumer loan securitisation is that we apply the default rate derived from loan performance only to the SA loans in repayment that are not covered by the indemnity guarantee (i.e., excluding SA loans in deferment as the indemnity guarantee covers them).

The mechanics of SA loans are as follows: borrowers repay fixed monthly installments over a predetermined time horizon unless they are entitled to defer their repayment obligation for a 12-month period because their income is below the applicable threshold.

SA loans are regulated by the Consumer Credit Act 1974 as amended over time, most recently in 2006. Scheduled repayments are based on the principal amount borrowed. Furthermore, provided that the borrower has not been awarded a 12-month deferment, monthly payments are made via direct debit.

Students could obtain an SA loan for each year they attended a higher education institution, and these SA loans became due for repayment the April after the student graduated or discontinued studies. Typically, the SA loans amortise over 60 months unless the borrower took out more than five SA loans or became disabled, in which case the term could have been lengthened to 84 or 120 months, respectively.

As SA loans have scheduled principal repayment profiles with clearly defined due dates, borrowers must make an application to the servicer for deferment of interest and principal payments.

The servicer must verify the eligibility of the borrower's application under deferment criteria, and either:

» request more borrower information

» accept the request

» or decline the request

Borrowers may apply for a 12-month deferment during the repayment period. Typically, deferments are triggered by earnings falling below a certain fixed percentage of the national average (the deferment threshold) or upon the borrower entering further education. Once an SA loan has entered deferment, no payment of principal or interest is due for the next 12 months, but unpaid interest charged at the UK Retail Price Index (RPI) is capitalised.

Below, we highlight key aspects relating to the SA loans and selected structural features.

» **SA Loan Deferments**: The SA loan deferment feature is defined by applicable laws and regulations governing the scheduled amortisation student loan program. The feature enables borrowers to apply for a 12-month deferment of scheduled interest and principal payments.

  Before approving the application, the government authority will consider the borrower's gross income, and whether it is below a predefined income threshold (e.g., 85% of average national income). Also, the borrower may apply for deferment if they have started another course. Once a loan has entered deferment, no principal or interest payment is due for the next 12 months; however, unpaid interest is still due. The predefined deferment threshold is adjusted annually.

» **Continuous Loan Deferments**: When the 12-month deferment period ends, a borrower may again apply for a 12-month deferment period provided they meet the loan deferment criteria. There is no limit on the number of loan deferments granted as long as the criteria are met.

» **Indemnity Provided by the UK Government**: The SA loan transactions we monitor include an indemnity provided by the UK government to the issuer of the securities (the cancellation indemnity). Once a loan is successfully deferred – that is, the servicer has granted the 12-month interest and principal deferment – the UK government will bear the credit risk of the loan should the loan trigger a cancellation indemnification.

  Typically, under the cancellation indemnification, the UK government will indemnify the issuer for the outstanding principal (and capitalised interest amount) following: (1) the death or permanent disability of the borrower; (2) 25 years since the borrower contracted the loan; (3) the borrower reaching age 50 and having contracted the loan over 10 years; or (4) the borrower reaching age 60.

  However, the indemnity will not cover the credit risk of loans in arrears but not deferred (in other words, it will not cover loans that are 24 months or more in arrears).

» **Interest Subsidy Mechanism**: The transactions we monitor include an interest subsidy from the UK government under which the issuer benefits from monthly payments to cover for the yield difference between the assets and the securities. Interest payments to the issuer are defined as the commercial interest rate payable to the securities (e.g., a reference rate plus a fixed margin) minus the interest earned on the assets (RPI index). Hence, the interest subsidy mechanism performs a yield make-up function (compensating investors for lower-yielding assets) but also hedges against the interest rate risk resulting from the asset-liability mismatch (e.g., the RPI index vs. the applicable reference rate).

The interest subsidy is calculated over qualifying loans, which are most SA loans but excludes loans 24 months or more in arrears (and in line with the exclusion defined under the separate indemnity mechanism previously described).

Lastly, given that deferred loans are qualifying loans under the interest subsidy mechanism, the interest subsidy provided by the UK government generates liquidity, thereby enabling the issuer to make interest payments with respect to SA loans that may be enjoying interest and principal deferment at any given point. Our analysis also includes a review of any additional liquidity facilities benefiting the transaction other than the liquidity provided by the interest subsidy mechanism outlined above.

In monitoring ratings, we combine quantitative analyses with our assessments of numerous qualitative factors, including the macroeconomic environment, the operational and counterparty risks to the transaction, any special characteristics of the assets, idiosyncratic structural features of the transaction, and the transaction's legal risks. As a result, the rating assigned by a rating committee may differ from the model output.

Asset-level Analysis and Related Modelling

In this section, we explain how we analyse the underlying assets that back scheduled amortisation UK student loan securitisations and how we estimate potential losses on those assets.

The main drivers of our quantitative analysis of securities backed by SA loans are our projections of the future losses on the underlying assets, which depend, inter alia, on the asset default rate and the recovery rate on assets that default. In particular, we review the actual and forecasted portfolio breakdown between loans in repayment and those in deferment, and the historical level of arrears.

Limited Credit Risk for SA Loans in Deferment

SA loan portfolios include a combination of SA loans in repayment as well as loans in deferment. The proportion in deferment typically increases over time with the amortisation of loans entering repayment mode. Given that the UK government, as the indemnity provider, will guarantee the issuer for the full outstanding principal amount of loans in deferment, we use the UK government credit rating as the credit risk measure for these loans. We assess various scenarios of the proportion of loans that exit from deferment status based on historical cohort analysis.

Expected Default Rates for SA Loans in Repayment

As the UK government indemnity does not cover loans in arrears by more than 24 months, we apply a default rate scenario to SA loans in repayment. The credit analysis of the SA loans resembles that of a more standard securitisation structure backed by a portfolio of diversified, non-guaranteed obligors. The main difference from a more standard securitisation of consumer loans is that the default rate is applied to the proportion of loans in repayment, excluding loans in deferment.

We analyse the rate at which loans exit deferment and then how loans behave once in repayment. If cohort-level data is available, the deferment rates are typically modelled on a graduation cohort-by-cohort basis, which results in a set of repayment cohorts. We then apply a mean default rate to the balance in the repayment cohorts. The mean default rate assumption is based on, among other things, SA loans' historical data and the transaction performance since closing, and it is also benchmarked with similar transactions.

We derive a total amount of defaults as a percentage of the loans that enter into repayment during the life of the transaction. We derive a mean loss estimate after taking into account the expected recoveries based on historical data analysis.

Portfolio Loss Distribution Modelling

For other consumer loan portfolios, we assume that the portfolio loss distribution is lognormal. Based on our assumptions for the portfolio (as stated above, the default rate, recovery rate, but also the coefficient of variation), we determine the portfolio credit enhancement. We then assess the distance between such portfolio credit enhancement and actual portfolio losses and loss rate extrapolation. Such analysis may trigger a change of current portfolio assumptions depending on recent performance trends.

Structural Analysis and Liability Modelling

In this section, we explain how we analyse the structural features of a scheduled amortisation UK student loan securitisation, including how we model and allocate cash flows to different classes of securities, taking into account asset cash flows and available credit support.

Cash Flow Model

We assess the credit enhancement available to each security and benchmark it with the portfolio credit enhancement (updated if necessary as described above). Also, we use a comprehensive cash flow model, ABSROM™, to determine the loss for each security.[1] ABSROM enables us to model transaction cash flows derived from portfolios of SA loans. The model produces a series of loss scenarios, with outputs for each security that include the expected loss, weighted average life and default probability.

Loss Benchmarks

In monitoring ratings of scheduled amortisation UK student loan-backed securities, we evaluate the model output by selecting loss benchmarks referencing the Idealized Expected Loss table[2] using the Standard Asymmetric Range, in which the lower-bound of loss consistent with a given rating category is computed as an 80/20 weighted average on a logarithmic scale of the Idealized Expected Loss of the next higher rating category and the Idealized Expected Loss of the given rating category, respectively. For upgrade rating actions, the upper-bound of loss consistent with a given rating category is computed as an 80/20 weighted average on a logarithmic scale of the Idealized Expected Loss of the given rating category and the Idealized Expected Loss of the next lower rating category, respectively. When monitoring a rating for downgrade, the upper-bound of loss is computed as a 50/50 weighted average on a logarithmic scale. That is, the benchmark boundaries of loss appropriate for evaluating rating category R are given by:

1 For example, in methodologies where models are used, modelling is not relevant when it is determined that (1) a transaction is still revolving and performance has not changed from expectations, or (2) all tranches are at the highest achievable ratings and performance is at or better than expected performance, or (3) key model inputs are viewed as not having materially changed to the extent it would change outputs since the previous time a model was run, or (4) no new relevant information is available such that a model cannot be run in order to inform the rating, or (5) our analysis is limited to asset coverage ratios for transactions with undercollateralised tranches, or (6) a transaction has few remaining performing assets.

2 For more information, see the discussion of Idealized Probabilities of Default and Expected Losses in *Rating Symbols and Definitions.* A link can be found in the "Moody's Related Publications" section.

FORMULA 1

$$[1]\ Rating\ Lower\ Bound_R = exp\{0.8 \cdot log(Idealized\ Expected\ Loss_{R-1}) + 0.2 \cdot log(Idealized\ Expected\ Loss_R)\}$$

$$[2]\ Initial\ Rating\ Upper\ Bound_R = exp\{0.8 \cdot log(Idealized\ Expected\ Loss_R) + 0.2 \cdot log(Idealized\ Expected\ Loss_{R+1})\}$$

$$[3]\ Current\ Rating\ Upper\ Bound_R = exp\{0.5 \cdot log(Idealized\ Expected\ Loss_R) + 0.5 \cdot log(Idealized\ Expected\ Loss_{R+1})\}$$

Where:

» *Rating Lower Bound*$_R$ means the lowest Idealized Expected Loss associated with rating *R* and the expected loss range of rating *R* is inclusive of the *Rating Lower Bound*$_R$.

» *Initial Rating Upper Bound*$_R$ means the highest Idealized Expected Loss associated with rating *R* that is upgraded and the expected loss range of rating *R* is exclusive of the *Rating Upper Bound*$_R$.

» *Current Rating Upper Bound*$_R$ means the highest Idealized Expected Loss associated with rating *R* that is currently outstanding and the expected loss range of rating *R* is exclusive of the *Rating Upper Bound*$_R$.

» *R-1* means the rating just above *R*.

» *R+1* means the rating just below *R*.

» The Rating Lower Bound for Aaa is 0% and the Rating Upper Bound for C is 100%. These are not derived using the formula.

Source: Moody's Investors Service

Other Considerations

Along with our asset, structural and liability analysis, we consider other quantitative and qualitative factors in our credit analysis.

Credit Factors for Deferred Loans

Future Acceptance Rates

Since the indemnity of deferred loans only triggers a payout to the purchaser by the indemnity provider upon the occurrence of an indemnity event (typically when the borrower hits a maximum age or the loan has been outstanding for a certain number of years), the loans must remain in deferred status for many years. Hence, the likelihood that borrowers can qualify for future renewals is critical. For seasoned transactions with sufficient data, historical acceptance rates could inform us on future acceptance levels.

Servicing Risk

The renewal of deferred loans is subject to the servicer deferment request form review. Borrowers must reapply on an annual basis and the servicer must reassess annually. To some degree, the servicing levels may be linked to the acceptance rates. For example, higher (or lower) scrutiny and rigor during the assessment of applications may lead to lower (or higher) acceptance rates. Similarly, servicing disruptions may lead to lower acceptance rates.

Earnings Threshold Level

The program rules and regulations dictate the earnings threshold level. Programs with high (or low) earnings threshold levels would result in low (or high) acceptance rates. Hence, it is critical to determine the sponsor's discretion to change the earnings threshold in the future. We look to the undertakings made by the program sponsor as mitigating factors. Specifically, we determine whether the sponsor undertook to not make any material changes to the threshold or have the threshold rise following a pre-agreed formula (such as the tracking price of earnings inflation).

Credit Risk of Indemnity Provider

Given that the indemnity payment only occurs in the transaction's latter years, where a large percent of the portfolio is in deferred loan status, investors in the securitisation increasingly look toward the indemnity provider to cover any losses. As such, the credit linkage of the securities to the credit risk of the indemnity provider increases over time.

Deferment Status Dynamic

It is reasonable to assume that a borrower previously in a deferred loan status and now in repayment is generally weak financially.

It is also very probable that the average borrower financial strength will vary with time, as stronger borrowers leave the portfolio earlier as a result of possible prepayments coupled with low or no periods of loan deferment.

At the same time, borrowers with deteriorating credit quality may enter deferment status and may remain in that state.

Over time, borrower average credit quality will decline. However, credit risk to investors in the securities is mitigated by the above dynamics, namely that borrowers with declining credit quality are very likely to enter and remain in the deferred status and that the proportion of overall borrowers in deferment will likely increase over time.

Environmental, Social and Governance Considerations

Environmental, social and governance (ESG) considerations may affect the ratings of securities backed by SA UK student loans. We evaluate the risk following our cross-sector methodology that describes our general principles for assessing ESG issues[3] and may incorporate it in our analysis.

[3] A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Moody's Related Publications

Credit ratings are primarily determined through the application of sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. A list of sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings, please click here.

For further information, please refer to *Rating Symbols and Definitions*, which includes a discussion of Moody's Idealized Probabilities of Default and Expected Losses, and is available here.

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