9 March 2020

Burkhard Heppe, PhD
Chief Technology Officer
NPL Markets Ltd.
burkhard.heppe@nplmarkets.com
+44 (0) 20 3984 6288

Heterogeneity matters: the benefits of loan-level investor reports for non-performing loans

Table of Contents

Overview

We comment on the relevance of detailed loan-level performance reports for investors in non-performing loan (NPL) portfolios. NPL sales come in different sizes ranging from single names to large portfolios. Larger NPL portfolios whether sold outright or securitised are typically heterogeneous in terms of default vintage, borrower type (corporates or individuals), collateral type (unsecured or secured by first or higher lien mortgages) and legal processes (e.g. bankruptcy, foreclosure or out-of-court procedures). Hence, investors monitoring the performance of these NPL portfolios benefit from granular performance reports which fully reflect the heterogeneity of the pool. Fortunately, with the recent disclosure regime for European securitisation transactions and the data template for NPL transactions published by the European Banking Authority (EBA) standardized reports at loan level are expected to become more readily available during the course of this year. For a recent discussion and comparison of the different data templates see NPL Markets (2020a).

Investor reporting of NPL transactions

The European Commission regularly reports on the progress made with tackling the elevated levels of NPLs of some European banks (European Commission 2019). The “Action Plan to Tackle NPLs in Europe” includes the development of an efficient secondary market for NPLs, improving loan tape information required from the seller, and strengthening the data infrastructure for NPLs including potential transaction platforms. In order to strengthen the data infrastructure with uniform and standardised data for NPLs, the EBA issued templates for loan tape monitoring (EBA NPL template) and the European Securities and Markets Authority published mandatory loan-level disclosure templates for securitisation transactions including NPL securitisations (ESMA templates). While the EBA NPL template helps investors to overcome the asymmetry of information between buyer and seller in the preparation of a sale transaction, the ESMA securitisation reports are provided at inception and on an ongoing basis to allow investors to conduct their initial due diligence and monitor the performance of the pools. Investors who buy single name or portfolios of NPL in untranched form require regular performance reports from the assigned special servicers. Such reports are currently not standardized and the format of the report is agreed bilaterally between investor and servicer.

NPL sale and securitisation transactions typically proceed as follows regarding the initial and ongoing data flows. During the transaction process, the seller/originator provides the investor(s) with a detailed data set showing loan, borrower and collateral level data often including historical collections. These data sets can be complex as they need to reflect complex multiple-to-multiple relationships between loans, borrowers, collaterals, guarantors and legal processes. When the data is not standardized, the investor must first understand and transform the sellers data template before running a detailed valuation and risk analysis. Upon execution of the sale, the investor assumes the servicing of the loans directly or appoints one or more special servicers with the workout of the loans. Often the special servicers get involved earlier during the acquisition due diligence and develop detailed workout strategies for each exposure individually or for portfolio segments on a statistical basis. The projected recovery cash flows and costs, the so called business plans or net recovery curves, are then discounted at the investor's expected internal rate of return to determine the purchase price. After acquisition, the investor or special servicer onboards the loans on its own management systems, starts the workout process and generates several reports for internal use and external stakeholders. Financial reports cover accounting, tax and funding aspects whereas supervisors may require ongoing regulatory disclosures. Here we focus on the so-called investor reports, i.e. those monitoring reports generated for internal investment management purposes or external investors. NPL securitisations often engage a master servicer with collecting the ongoing information from the special servicers and with providing a combined performance report to investors. Traditionally, these ongoing investor reports have not been standardized and often did not include a full and detailed loan-by-loan update of the portfolio. In addition, NPL investor reports often include an update to the business plans with repricing of the recovery curves and a comparison of actual versus expected recoveries.

Mandatory investor reports under the Securitisation Regulation

With the recent disclosure regime under the Securitisation Regulation, investor reports for public or private securitisations must be provided by the designated reporting entity in a standardized format including an update of the underlying exposures plus collateral and collection information. We recently explained the challenges and usefulness of the ESMA templates for securitisations and related EBA NPL template for untranched transactions in NPL Markets (2020a and 2020b). Original and updated business plan projections are not part of the ESMA disclosure regime of the Securitisation Regulation. Leaving out the business plan projections from the mandatory investor report templates creates additional work for the investor as those business plan updates are of great interest and will continue to be reported. Comparing actual versus expected recoveries for any loan or portfolio segment is an important part of the monitoring exercise, but requires bespoke work as the original or updated business plan data are not standardized.

Standardized reporting of the projected cash flows is possible, but an extension of the ESMA NPL add-on template (Annex 10) may interfere with the automated delivery of ESMA compliant XML files to securitisation repositories. We expect that a separate collection table will continue to be provided to investors which includes the projected future cash flows at loan or borrower level. The EBA NPL template provides some guidance on how such a table could be structured. It includes a data field Total Scheduled Repayments in the table for Historical Collections and Repayments (field index 8.002) which is meant to report scheduled repayment cash flows on a monthly basis for the next 36 months for each loan contract. For (unscheduled) expected recovery cash flows a similar field can be added to the collections table with expected gross recovery cash flows and one or more fields for expected workout costs and expenses. The monthly frequency and three year forecast horizon may be useful for unsecured claims to private individuals, but may not be suitable for expected recoveries from corporate borrowers or secured portfolios which may only be available from the servicer on a quarterly basis and depending on the jurisdiction should cover at least a 5 year horizon or longer.

When does a heterogenous portfolio perform in line with expectation?

For heterogeneous portfolios comparing expected versus actual pool-level aggregates like cumulative recoveries or ultimate recoveries on resolved loans can be deceptive. Heterogeneous portfolios, sometimes called bar-belled, are those that include loan portfolio segments with different risk characteristics and specifically with different recovery speeds and ultimate recovery percentages. At pool level the underperformance of some segments can be masked by the overperformance of other segments. In the extreme, portfolios may appear to be overperforming at the aggregate level when in fact they are underperforming. To get the full performance picture the regular monitoring of key cases and individual segments is essential.

Figure 1 shows a synthetic example to demonstrate this point. Assume the NPL portfolio is composed of three segments. Segment 1 contains loans backed by good collateral where borrowers are willing to sell the properties voluntarily and is characterized by relative high ultimate recoveries (say 40% of gross book value) and short times to resolution after default (say 3 years). Segment 2 contains loans backed by undesirable properties mainly in foreclosure processes with an expected 20% ultimate recovery and 6 year time to resolution. Segment 3 contains loans with zero recovery expectation. Assume further that the loans' seasoning since default is well spread out so that each segment is expected to recover the same amount in each period over 2 and 5 years after acquisition, respectively. This is the expected business plan of this example. The actual recovery experience is now assumed to show faster but not higher than expected recoveries for Segment 1 (higher recoveries in the first three quarters and lower recoveries later to be in line with the undiscounted expectation on average) and dramatic underperformance for Segment 2 with the same timing as expected but only half the recovery amounts. Figure 1 suggests that the total pool outperforms the business plan in the first 7 quarters caused by the early outperformance of Segment 1 in the first three quarters while its actual underperformance is only revealed in the medium to long term.

If the investor had received the performance chart by segment the underperformance would have become visible much earlier. Hence, a portfolio performs according to expectation if all heterogeneous portfolio segments perform close to expectation.

How relevant is our synthetic example? We think it is relevant as recent academic research on loan loss recovery data has demonstrated that time to resolution and ultimate recovery are strongly correlated with loans that are resolved early after default having much higher recoveries than those resolved later.

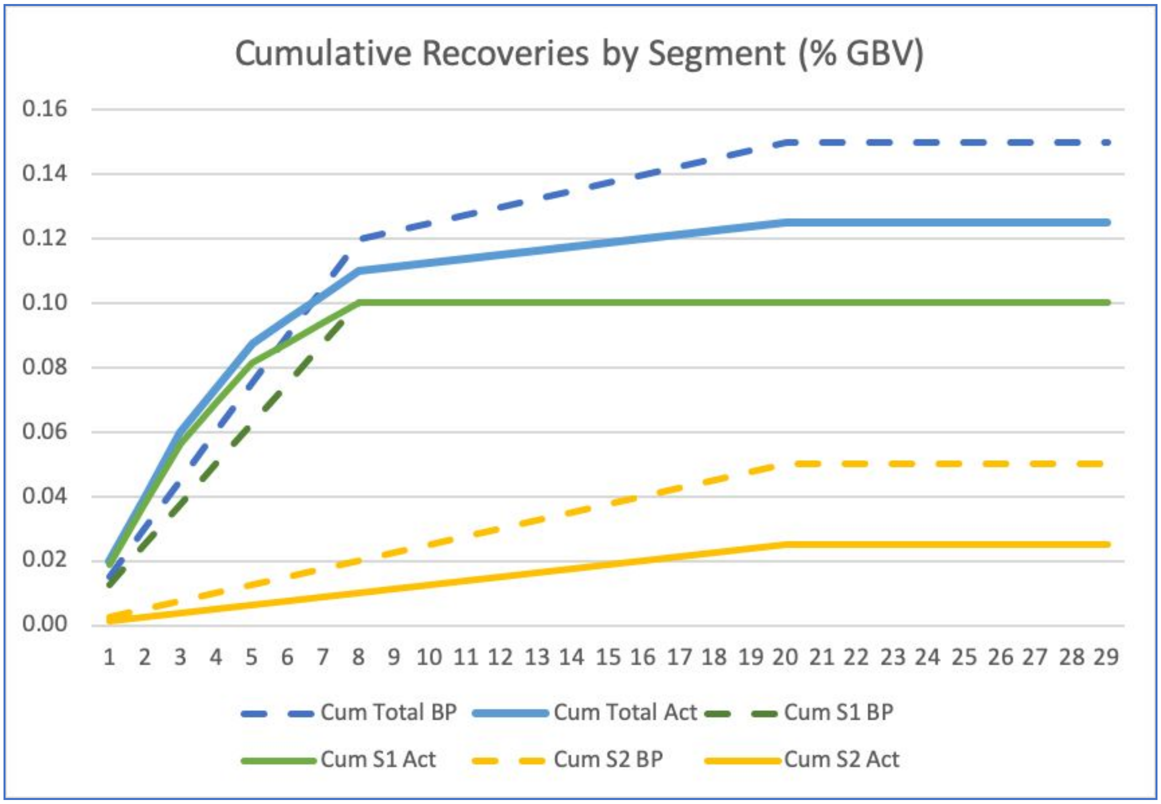

Figure 1: Synthetic example of a heterogenous NPL portfolio where the initial out-performance of one segment (S1) masked the underperformance of another segment (S2). Cumulative recoveries are plotted as percentage of total GBV in quarters after acquisition. The blue lines show the expected business plan (dashed) versus actual collections (solid) for the total pool.

Betz, Kellner and Rösch (2019) investigate the time to resolution and ultimate recovery rates of 38,165 loans to small and medium enterprise loans in 12 European countries from the bank association Global Credit Data (see globalcreditdata.org and NPL Markets 2020a for more information on the GCD loan loss data). The loans defaulted between 2004 and 2016. Figure 2 shows the distribution of undiscounted loss given default (LGD) by default resolution time (DRT) bucket. Loans that are fully resolved in the first two years after default show a median LGD of close to zero! This is in stark contrast with loans that only get resolved after three years which show a mean and median LGD close to 50%. As can be seen from Figure

2, the censoring effect is very strong i.e. loans that have recently defaulted will show some early resolutions (there may be only very few such loans) with much higher recoveries than the average of all resolved loans.

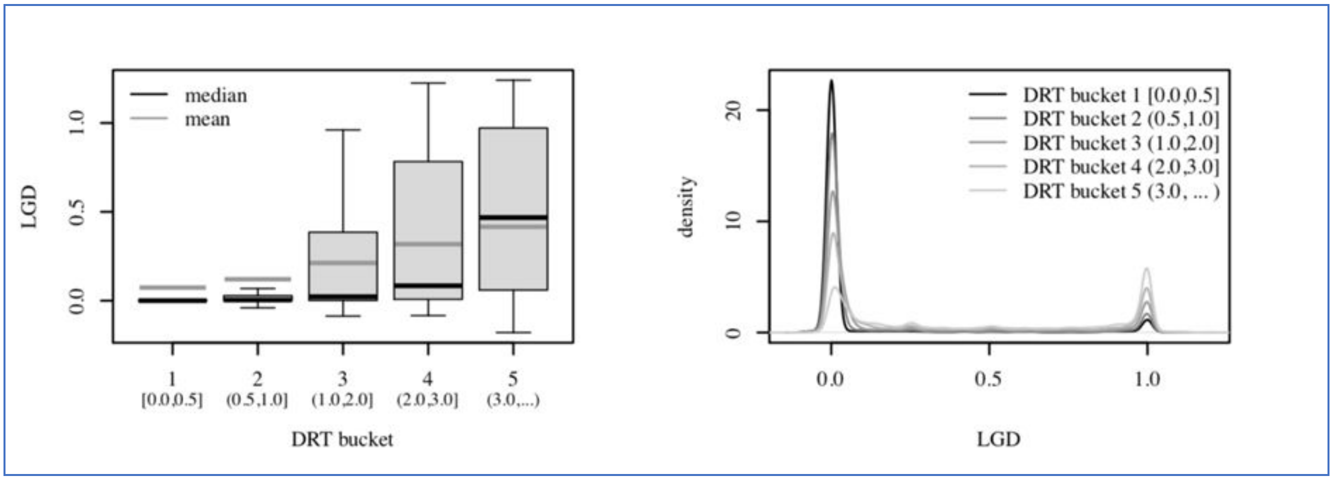

Figure 2. From Betz et al. (2019, their figure 3). DRT: Default resolution time in years. LGD: Loss given default. The thick black lines mark the median, grey lines the medium.

Reported performance of Italian NPL securitisations

Recently, the rating agency Scope Ratings has investigated the performance of 19 NPL securitisations in Italy which mostly benefited from a GACS guarantee by the Italian government (Scope Ratings 2020). Most NPL deals investigated where issued in 2018 and 2019. Note that although these deals were issued in the last two years, the average seasoning after default of these pools is several years longer. Overall the performance picture is mixed with around half of the transactions underperforming as measured by the ultimate recovery of resolved loans (the Net Present Value Profitability Ratio referred to by Scope) and the cumulative recoveries (referred to as Cumulative Collection Ratio). Scope does not see a correlation between the two ratios, as high profitability on resolved borrowers is not necessarily associated with a strong performance on collection volumes. If these pools were freshly defaulted on the issue date we would expect an extreme censoring bias towards high recoveries and even some mild underperformance compared to long-term average profitability rates would be very concerning. Given the pool's relatively high average seasoning after default, the bias should be reduced but may still warrant further investigation.

Sometimes pools of legacy NPL are sold which have been neglected by the original bank lender so the actual seasoning may overestimate the effort in working out the loan. Another concerning indicator reported by Scope is that servicers revised their original projections for more than one third of transactions and always downwards. Scope reports that 15 out of 19 transactions are over-performing in terms of profitability of closed borrowers. Closed/resolved borrowers represent a small proportion of total borrowers in the early life of transactions. Therefore, the profitability ratio is only a partial indicator of overall performance and may suffer from a bias towards higher than average profitability for early resolutions as explained above.

In summary, as large NPL portfolios tend to be heterogeneous the monitoring of the pool's performance on a total aggregated basis may not be adequate. Investors need to drill into the individual exposures and portfolio segments for a more accurate picture of performance comparing actual collections versus their original and updated projections on a segment by segment basis. We highlight two performance pitfalls. First, the masking of actual underperformance overall due to the early outperformance by one segment. This effect is well-known also for heterogeneous performing loan portfolios. Second, we highlight the upwards bias in the profitability of loans that are resolved within one or two years after default. The ESMA disclosures of underlying exposures will provide investors with standardized granular information on NPL securitisation transaction. However, we expect data providers to make widespread use of the No Data Options (NPL Markets 2020b) as many data fields will not be readily available in the short term. The reporting of updated business plans is not part of the ESMA disclosure template, but will continue in non-standard form and at different levels of granularity. Overall we expect investor reports to change and improve substantially as the new disclosure templates are phased in. Investors should watch out for missing information in the ESMA NPL add-on disclosure annex which currently allows the use of the No Data Option for most fields. In addition, investors should check the scope and granularity of the information available regarding historical and projected collection cash flows to ensure the monitoring of each heterogeneous portfolio segment.

References

Betz, Kellner, Rösch 2019. Time matters: How default resolution times impact final loss rate.
https://acpr.banque-france.fr/sites/default/files/medias/documents/roesch.pdf

European Commission 2019. Fourth progress report on the reduction of non-performing loans and further risk reduction in the Banking Union.
https://ec.europa.eu/info/publications/190612-non-performing-loans-progress-report_en

NPL Markets 2020a. The importance of collecting historical recovery data for NPL transactions.
https://www.nplmarkets.com/news/article/the-importance-of-collecting-historical-recovery-data-for-npl-transactions

NPL Markets 2020b. The No Data Option in Securitisation Disclosures.
https://www.nplmarkets.com/news/article/the-no-data-option-in-securitisation-disclosures

Scope Ratings 2020. Italian NPL ABS Performance: profitability solid but half of transaction behind expected timing.
https://www.scoperatings.com/ScopeRatingsApi/api/downloadstudy?id=b470e72b-fe46-490e-b452-f3f05ca088e0

Acknowledgment

The author wishes to thank Frank Nosek for valuable comments and discussions.

About NPL Markets

NPL Markets is an innovative marketplace for illiquid loan trading operating throughout Europe that is based on the four pillars: Data preparation, Marketplace execution and investor reach, Valuation and Reporting. NPL Markets helps sellers to prepare and standardize transaction data and select the optimal transaction portfolio based on balance sheet impact, supports investors with deal screening and initial valuation and provides online revaluation and reporting tools.

Disclaimer

This paper contains confidential information about NPL Markets, current at the date hereof. This presentation is not intended to provide the sole basis for evaluating NPL Markets and should not be considered as a recommendation with respect to it or any other matter.
This document and the information contained herein are not an offer of securities for sale in the United States and are not for publication or distribution to persons in the United States (within the meaning of Regulation S under the United States Securities Act of 1933, as amended).
This presentation and the information contained herein does not constitute or form part of any (i) offer or invitation or inducement to sell or issue, or any solicitation of any offer to purchase or subscribe for, any securities or (ii) invitation or inducement to engage in investment activity within the meaning of Section 21 of the United Kingdom Financial Services and Markets Act 2000, as amended, nor shall any part of this presentation nor the fact of its distribution form part of or be relied on in connection with any contract or investment decision relating thereto.