

12 May 2021

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NPL Portfolio Transactions - Data Requirements

Overview

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We report on recent developments regarding the data requirements for non-performing loan (NPL) transactions and aim at identifying the most important data sets and fields for investors. We comment on the revised NPL data templates that EBA published on May 4th which saw the number of proposed fields reduced by half. We explore whether such a far reaching simplification is justified. The EBA NPL template is expected to be used between buyers and sellers and could also be the template to disclose loan-level data publicly to a central Data Hub that was recently proposed by the European Commission. For banks, the management of recovery cash flow data is important even if they do not want to sell. The recent report from the ECB on credit model reviews revealed numerous shortcomings regarding loan recovery data. We share some experience with analysing many loan portfolios across different asset classes and European jurisdictions. Data providers currently face different data requirements from investors, bank supervisors, the newly revised EBA NPL templates, and the ESMA templates for securitisation disclosures, respectively. In this article we aim to provide guidance on which data is most important for executing transactions, valuation and reporting.

“Everything should be made as simple as possible, but no simpler.” Albert Einstein

Recent developments for NPL data requirements

According to the European Commission’s action plan for NPL, the market for distressed assets in Europe suffers from low transparency, information asymmetries, illiquidity and high bid-offer spreads (EC 2020). Investors find it difficult to value distressed assets because they have a high degree of heterogeneity and because information on transaction prices of comparable assets is not publicly available. Not all market participants agree with this assessment and current NPL sales often attract strong investor interest with a high degree of competition. There is broad agreement, however, that the level of transparency is low. Increased transparency improves the information basis of both sellers and buyers, can

help decrease the bid-offer spread and can enable market participants to make better informed trade decisions. In this article we summarize recent developments regarding the Data Hub transparency initiative from the European Commission and the newly revised and simplified data template for NPL transactions from EBA. We explain the most important data field for different types of NPL and the shortcomings of the proposed templates with regards to the reporting of ongoing workout cash flows.

Recovery cash flow data are relevant to all banks not just for selling NPL

Creating high-quality detailed workout data sets is important for banks not only if they want to sell their NPL. Banks using the internal ratings based (IRB) approach for regulatory capital calculations must estimate certain loss given default (LGD) parameters from discounting future recovery cash flows less workout expenses. Also, when calculating loan loss provisions and expected credit losses under IFRS 9 banks often use methods based on discounting net recovery cash flows. The ECB in their recent project report on the Targeted Review of Internal Models (TRIM, ECB 2021) observed significant shortcomings with regards to the bank's ability to use recovery cash flows for credit risk modelling. The TRIM process revealed that for retail and SME loans:

- 40% of large European IRB banks did not observe recovery cash flows directly when estimating LGD.
- One third of banks were not able to connect a new facility after restructuring to the facility prior to restructuring.
- 71% of institutions did not consider the diminished value of cash flows after restructuring in the definition of loss.
- A wide variety of different discount rates were observed despite the guidance of the ECB to discount recovery cash flows at Euribor+5%.
- In 53% of cases banks treated repossessed collateral as a recovery cash flow despite the collateral not having been sold.
- 32% of institutions did not explicitly take incomplete recovery processes into account despite regulatory guidance to include all defaults, complete and incomplete.
- 41% of institutions did not have a definition for time-to-workout.

For low-default portfolios (e.g. large corporate loans, commercial real estate or project finance) building statistical models for recovery has always been challenging due to a lack of observable workout events. The TRIM process revealed that two-third of banks did not have a time-to-recovery definition and 30% did not have a treatment for incomplete recoveries. TRIM included a review of data quality and IT management systems. Shortcomings in this part of the review were the most widespread.

The NPL action plan and Data Hub idea from the European Commission

The European Commission (EC 2020) action plan proposes a central Data Hub to disclose NPL market transaction data and prices on an anonymous basis. The Data Hub will act as a repository of different NPL related data sets and allow market participants to gain insights into the actual market values. Academic theory and empirical research provide strong arguments in favor of such a central data hub (e.g. Kasinger et al 2021). In April 2021, the EC established an advisory panel to discuss the Data Hub and other measures to make the

market for NPL more efficient. The advisory panel includes representatives from EBA and the ECB as well as representatives from banks, investors, transaction platforms and other stakeholders. While many details have yet to be worked out, there was broad support among panel members for the Data Hub as a means of improving market transparency in support of better liquidity and wider investor participation. Consistent and comparable data will support more objective valuations. The proposed Data Hub could be repository for a number of different data sets (Figure 1):

1. **Transaction data** including transfer prices reported under the EBA NPL template at loan level,
2. **Post-trade performance data** of workout cash flows ideally with a breakdown by workout strategy,
3. **Aggregated NPL related data** from bank supervisory reports or judicial benchmark studies, and
4. **ABS performance data** of all public and private NPL securitisations under the existing ESMA disclosure templates especially if backed by government guarantees.

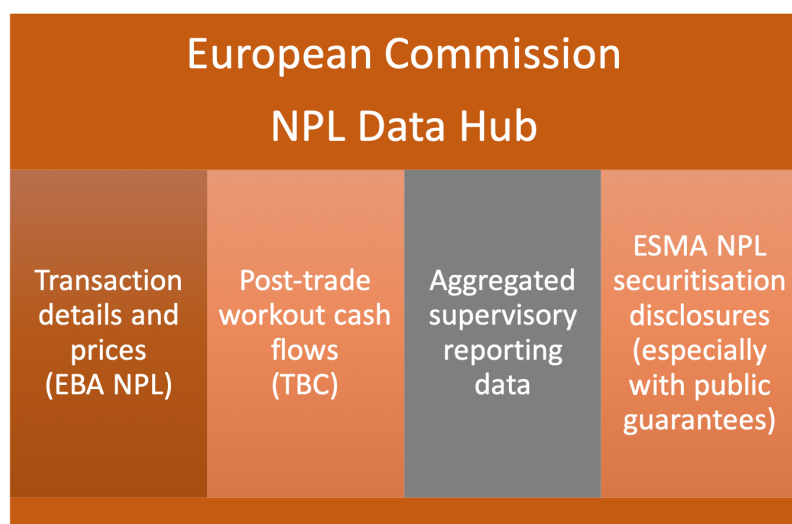


Figure 1: Data sets under discussion for the Data Hub of the European Commission

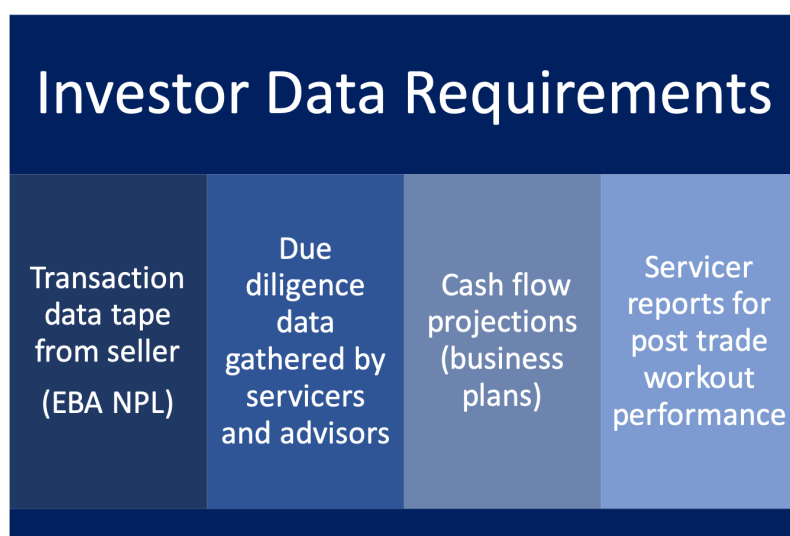
Transparency was deemed particularly important for portfolios where public entities are risk takers such as the government guaranteed NPL securitisation tranches under the GACS and Hercules programmes in Italy and Greece, respectively, as well as portfolios acquired by public sector asset management companies.

Investor data requirements for NPL

Standardised loan-level data for NPL transactions are an important component of increased transparency and the EBA NPL template is expected to provide such a data standard for transactions and potential reports to the Data Hub. Before we look at the revised EBA NPL template in more detail we discuss all data that investors currently work with when buying and managing NPL (Figure 2). First, investors receive a transaction loan data tape from the seller with details about the loans, borrowers, collaterals and stage of the workout process.

Second, for complex NPL (e.g. corporate secured loans) the investor together with their loan servicing partners and advisors will conduct a detailed due diligence which may include a

legal analysis and revaluation of a simple or all collaterals. The investor will request due diligence data tapes and reports from their advisors. The result of the due diligence exercise will be a business plan by loan or borrower i.e. a projection of amounts and timing of future recovery cash flows and expenses. Business plans are created manually for each large exposure or statistically for granular exposures. Recovery cash flows are distinguished by workout strategy e.g. judicial enforcement, voluntary agreements for payment plans or discounted payoffs or real estate owned strategies where the investor (through special purpose vehicles) first takes possession of the underlying real estate collateral before selling it to the market. Fees and expenses are typically distinguished by court/administrator



expenses, legal and other operational workout expenses, acquisition and due diligence costs as well as fees for the ongoing servicing of the loans. Once the projected cash flows are available the investor can discount them at the expected rate of return taking into account any leverage from senior debt from banks or securitisation transactions.

Figure 2: Data sets required by investors for investments in NPL

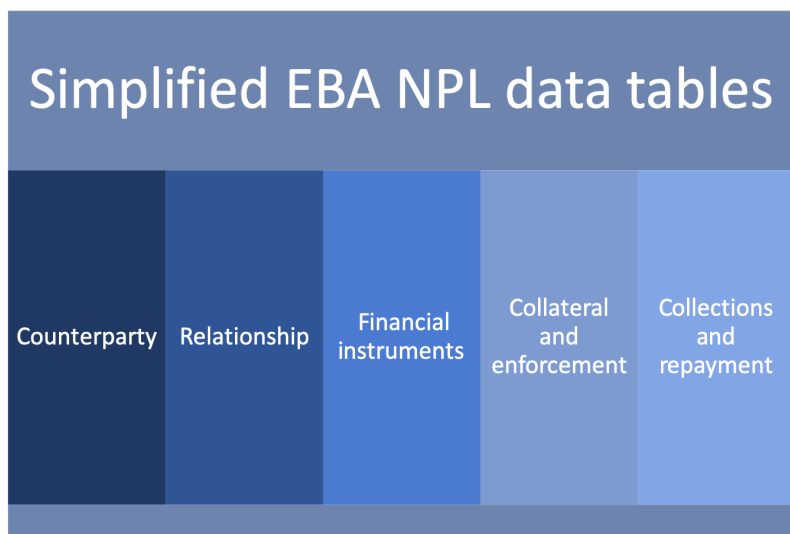
Third, after acquisition of the NPL the investor will receive on an ongoing basis detailed performance reports from the servicer to monitor the workout progress of each loan. Those servicer reports have several components: updated loan data tapes, updated business plans, and monthly collection reports with a list of all collection and expense payments. The servicer reports are intended to help investors monitor the performance and compare the predicted performance from the original or updated business plans with the actual cash flows received.

For complex NPL, the data on which the investor makes the final investment and pricing decision is often much enriched compared to the data received from the seller. To price the NPL, the investor will use all data sets, the data provided by the seller, the enrichments made during due diligence and the actual historical experience from working out similar loans acquired in the past. Hence, for market participants to benefit from full transparency, the transaction data would not only include the loan tape from the seller with loan by loan pricing, but also see how those prices relate to expected workout cash flows. Moreover, an NPL transaction and due diligence data template not only needs to capture data commonly provided by the seller, but also those data fields gathered during due diligence. The purpose of the due diligence is to estimate the expected cash flows and their timing as accurately as possible. In other words, we make a case for an NPL data template not only to include factual data, but also data summarising forward looking expectations i.e. data describing the business plans and their cash flow projections. Note that for performing loans, sellers

are commonly providing risk parameters describing forward-looking expectations such as internal or external ratings (probability of default), expected loss given default or expected credit losses.

The new simpler NPL data template from the EBA

We now discuss which of the data required by investors are covered by the newly revised NPL transactions templates from EBA. In 2017 and 2018 EBA published data templates for NPL transactions to enhance standardization, to reduce information asymmetries between purchasers and sellers of NPL portfolios, and to facilitate due diligence and valuation of NPL. On May 4, EBA published a discussion paper including a simplified data template to start a consultation on the importance and availability of data fields to be included in a revised version of the template. The deadline for comments on the discussion paper is 31 August 2021. EBA will then prepare a revised version of the data templates by December 2021. Unlike the ESMA templates for NPL securitisations, the EBA NPL templates are not a supervisory reporting requirement, but are intended to be used by banks on a voluntary basis for NPL transactions. The EBA templates may become mandatory as part of the



European directive on credit servicers and credit purchasers. The final version of that directive may mandate EBA to develop the EBA NPL templates into Implementing Technical Standards for the provision of information from NPL sellers to purchasers.

Figure 3: The tables in the simplified EBA NPL template proposed in the consultation paper on May 4.

The EBA NPL template aims to cover most bank loans including residential and commercial mortgages, corporate loans and SME, unsecured consumer loans, leasing and asset-based finance as well as specialized finance. Across all asset classes, in the 2018 template version 1.1. EBA defined 441 fields of which 155 fields were deemed critical plus 11 identifiers across 17 data tables (NPLM 2019). The newly published template aims to significantly reduce the complexity and to remove fields that are either not considered critical or important or are generally unavailable.

The May 2021 templates reduces the total number of data fields to 230 with 7 main identifiers spread across 5 tables only (Figure 3):

T1 Counterparty, that no longer includes the personally identifiable information for private individuals

T2 Relationship, which replaces all prior relationship tables and no longer include a mortgage identifier or mortgage amount

T3 Financial instrument, which combines the former Loan, Lease and Forbearance tables

T4 Collateral and enforcement, which combines the former Property Collateral, Non-Property Collateral, Enforcement Property and Enforcement Non-Property tables

T5 Collections and repayment, formerly known as Historical Collections and Repayments and combined with the former External Collections table.

In form, the revised template is a very material update and simplification. In substance, we agree with most changes and deleting a large number of non-essential fields will not actually make a material difference in practice as many of these fields have rarely been provided by sellers. However, we think that the template still includes data fields that may not be important for an NPL transaction and thus it would be wrong to consider all remaining fields in the proposed template as critical. Moreover, in our view, some important fields have been proposed for deletion that are required by investors. Other important fields have always been missing from the templates. The EBA NPL templates are designed to facilitate NPL transactions and due diligence, but are not explicitly designed and intended to be used as an ongoing reporting template. We noted that the data about ongoing workout cash flows are similarly important for investors. We discuss the following questions: Are the simplified EBA templates still fit for purpose to serve as a transaction and due diligence template? What changes would be required to use the templates for ongoing reporting as well?

Key data fields in the simplified EBA NPL template and beyond

In the following we summarize our view of the most important fields depending on the type of the underlying assets and highlight where we think that important data fields are missing. Data requirements vary depending on whether a loan is a true NPL i.e. the original loan contract has been terminated by the lender or whether the loan is still performing but classified as high risk watchlist, IFRS9 Stage 2, forboren, unlikely to pay, or reperforming (subsequently referred to as PL/UtP). Secured NPL portfolios may also include repossessed collaterals, especially real estate that is owned outright (REO). Hence, we identify the most important data fields for NPL, PL/UtP, and REO, respectively (see Annex 1 for a full list).

Not all data fields currently defined by EBA are commonly provided to investors. Investors will often accept incomplete data sets, but the increased uncertainty will be reflected in a more conservative price resulting in less efficient transaction processes and outcomes. Much of the information required in the 2018 EBA NPL template is not readily available in bank loan source systems as confirmed by an analysis of the technical working group for the EBA NPL template in 2019. Even with the currently proposed simplification, it can be expected that not all data defined are readily available by sellers to deliver.

Unsecured performing loans and unlikely-to-pay

The most important fields for performing loans in the Financial Instrument (Loan) table are the fields defining the scheduled cash flows like principal balance, interest rate (including

base rate index and margin, fees, step-ups margins, interest reset periods, base rate floors and caps, etc), amortisation type, loan type, seniority, number of days in arrears and number of prior arrears events. Call protection features are important for valuation purposes, but are not covered by the EBA NPL template in sufficient detail.

The Counterparty table includes the fields about the borrowers, tenants and guarantors. For corporate loans the most important fields are the borrower name, the legal type of the counterparty, the country and geographical region of incorporation, the company size and industry sector and any available rating information. For consumer loans, the name, address and identification number (passport/tax/social security number) are important but sensitive data points, the transfer of which is subject to personal data protection legislation like GDPR. The age of the borrower, employment status, income, and credit score are also important. The deletion of personally identifiable information (PII) in the current template version is problematic and should be reconsidered. For instance, for consumer loans it is price sensitive if the current address and phone number of the borrower is known or whether the borrower has moved to an unknown location possibly abroad.

Unsecured NPL

Additional important data fields for non-performing unsecured loans are the total legal balance and the date of default in the Financial Instrument table and the name and stage of the legal procedure in the Counterparty table. Data on contracted interest rates and loan maturity are less important if the loan has already been terminated whereas the question whether the loan is still accruing interest and at which penalty interest rate is important. The date of last contact and a flag indicating that the borrower is deceased is important, but was deleted from the 2018 EBA template.

Financial guarantees

Loans subject to financial guarantees require the amount of the guarantee, the type of guarantee and similar information about the guarantor then was requested for the borrower. Financial guarantees are part of T4 Collateral and enforcement with guarantor information identified in T1 Counterparty through the field Counterparty Role “Guarantor” and linked through T2 Relationship via the Contract, Instruments, Counterparty and Protection Identifiers, respectively. The EBA NPL template captures co-borrowers and co-guarantors in a similar manner.

In practice, we find that many sellers report guarantees separately from property and other non-property collateral. Similarly, information about legal processes and enforcement are often reported separately from the tables describing the collateral. The revised EBA template combines property collateral, non-property collateral and guarantees and their respective enforcement tables into one table making for a very compact reporting structure which we do not currently observe in the market. Existing data extraction methods are likely to require significant reshaping to meet the new compact reporting format.

Secured loans

Secured loans require additional information on the collateral and the relationship between the loans and the collaterals. For property secured loans, critical fields are the property details in the T4 Collateral and enforcement such as property type, property address, size, year of construction and completion status, and the latest valuation amount, date and type of valuation. Sometimes the borrower does not own the collateral/property fully. In this case the percentage of ownership needs to be reported which is lacking from the current template. The simplified EBA template has deleted the mortgage identifier and mortgage amount which we consider critical and expect to be reinstated during the consultation. The lien and higher ranking loans are critical fields. Loans with non-property collateral require details about the non-property collateral type and latest collateral valuation amount, date and valuation type. Non-performing secured loans require additional information detailing the different stages of the legal foreclosure or insolvency processes like details about past and future auctions (dates and reserve prices, court valuations - CTU) or gross sale proceeds where the collateral has already been sold, but the cash has not yet been distributed to the creditors. In practice, we sometimes see multiple legal processes for a borrower or collateral e.g. a foreclosure as part of an insolvency process. The template provides description fields that help cover such situations in an unstructured manner, but does not tackle this particular complexity in a structured way.

Restructured and forbore exposures

Restructured and forbore exposures have traditionally constituted a relatively small percentage of bank loans. To date only small volumes of such loans have been traded with the exception of the growing unlikely-to-pay market segment in Italy. The public support measures to combat the Covid-19 crisis have increased loans under payment moratoria dramatically. For the year end 2020 EBA reports that EUR 320bn of loans are under payment moratoria having reduced by nearly half from Q3 2020. Loans still under moratoria are expected to show an increased risk of default looking forward. Loans subject to forbearance require additional information which was formerly covered by the Forbearance table that is now part of T3 Financial Instruments. Payment plans are reported in T5 Collections and repayment. Important fields are the amount and timing of payment plans or discounted pay-offs that have been agreed upon. A flag whether a borrower is performing under the current forbearance measure or repayment plan is important but is missing in the template.

Historical collections and scheduled payments

As mentioned for performing loans or loans subject to payment plans the detailed future cash flows must be determined by the investor. Either the details about interest rates and installments are described in T3 Financial Instruments or month-on-month schedules are provided in T5 Collections and repayment. The former table External Collections has now been subsumed in T5, but the roles and relevance of “external” collections as opposed to any other cost and collection cash flow is not clear to us. In practice, we see the reporting of historical collections but not of external collections. For non-performing loans, detailed historical collection and expense cash flows are important as they show the willingness and

ability of borrowers to make partial payments as well as money already spent in working out the loans. Unfortunately, we consider the proposed T5 Collections and repayments not fit for purpose. The reason is that the format is too restrictive and excludes the provision of different collection and expense cash flow types.

The EBA and ESMA templates for NPL transactions require historical collections to be reported on a monthly basis for the past 36 months using a wide format in which each month for each collection measure represents one data field. In practice, this wide data format is sometimes used, however, we do not consider it suitable neither as part of a transaction template (EBA) nor for the reporting of ongoing workout performance (ESMA). The main reason is that investors need to see different cash flow types and a larger number of cash flow types would make the wide format inconvenient. In T5, EBA defines a number of fields covering historical data for Legal Unpaid Balances, Past-Due Balances, Total Repayments, Total Repayments - From Asset Sales, and Total Repayments - Not from Asset Sales. In practice, we rarely see these histories other than for Total Repayments. However, we do observe workout cash flows broken out by collections versus expenses and workout strategies. A breakdown of historical recovery cash flows is important to assess the effectiveness of different workout strategies with their respective costs involved. As such we would like to see the template to better reflect the market practice of showing collections by workout strategy (e.g. judicial, voluntary/DPO, REO) or security (from property collateral, from other collateral, unsecured) or a combination of both. Importantly, costs are a material percentage of workout cash flows and should be reported separately (e.g. court/administrator costs, legal costs, other expenses). A simple long table format would accommodate those additional breakouts using the fields Cash Flow Date, Cash Flow Amount, Cash Flow Type where Cash Flow Type can be a long list of different recovery collection and expense types depending on relevance and availability.

Annex 1 shows our selection of most important fields. The list is neither exhaustive nor do we claim that investors cannot work with less information. The purpose of this list is to answer the question from data providers which information we generally consider most important whereas information demands can vary by deal and individual assets.

Templates for the ongoing reporting of NPL workouts

Having discussed the most important data for loan portfolio sales we now focus on the data requirements for the ongoing reporting of workout performance. The Data Hub initiative of the European Commission is considering the collection of post-transaction workout cash flow data. However, it is not clear yet how to incentivize investors on providing such data. Large investors and loan servicers consider their performance data a competitive advantage and disclosing such data to a data hub could actually deter investors from investing in the asset class. The bank association Global Credit Data has pooled detailed workout cash flows from large international banks over the last 15 years on a voluntary basis for banks to have better data for their loss given default models for wholesale loans and low default portfolios. GCD is an example of a data hub and evidence that the collection of workout data with good quality and comparability is feasible. Bank members of GCD are incentivised through a give-to-get data sharing principle and the data are not publicly

available. The (non-public) GCD data template includes more detail about the underlying recovery and expense cash flows than are currently proposed by EBA. For the European Data Hub several alternative methods of collections can be considered. Only a mandatory delivery of data will ensure broad participation. It is not clear yet whether the Data Hub should be based on existing private sector platforms like GCD or the European DataWarehouse or supervisory entities like EBA or the ECB. A give-to-get principle could still be introduced for detailed loan-level cash flow data whereas users not delivering data could receive aggregated information only.

For loans underlying a European securitisation transaction issued after 1 January 2019 ongoing loan-level cash flow data are reported to investors under the ESMA templates (NPL Markets 2020) and it is conceivable that for NPL ABS those reports will also be collected by the European Data Hub. The ESMA reporting started in September 2020 and for the first time investors in NPL ABS receive standardized data on a quarterly basis including collection cash flow data and updated loan tapes. In the few quarters of the new disclosure regime, in our experience, the ESMA templates have not replaced the traditional servicer reports for two main reasons. First, the traditional reports provide not only collection cash flows but also detailed costs and expenses plus servicing fees which all have a material impact on investor returns. Second, the traditional investor reports include a comparison of the actual collections with the projected collections according to the original business plan that investor and servicer agreed upon acquisition of the portfolio. This performance assessment is critically important but is not covered by the ESMA NPL template. Reporting performance at loan-level has many advantages as it allows investors to assess performance by cluster down to the single loan level and thus discovering any cluster specific performance discrepancies (NPL Markets 2020). Also, given the heterogeneous nature of many NPL portfolios, when standard loan level performance data are available the performance can be benchmarked for similar clusters.

Compared to the EBA NPL template, the ESMA template for NPL securitisation is lacking in detail. While the differences for unsecured portfolios are not material, for NPL with complex collateral and guarantee arrangements, the ESMA template is not equipped to reflect this complexity in as much detail as the EBA template. While the revised EBA data is structured across the 5 tables listed in Figure 3 above, the reporting in ESMA is at loan/exposure and collateral level only plus a table for historical collections similar to the one in EBA.

As explained above, neither the EBA NPL nor the ESMA NPL securitisation templates we consider currently suitable for the reporting of ongoing workout cash flows as both lack sufficient granularity in the reported workout cash flow types. We propose a simple solution by adjusting T5 Collection and repayments to include the cash flow amount, date and type in a long table format. In addition, investors want to receive and compare updated cash flow projections (business plans) which none of the existing standard templates provide. Extending the templates with business plan information is straightforward. One solution in the new EBA template would be to add data fields in T3 Financial instruments for gross recoveries, expected expenses and the weighted average life of all future cash flows, respectively. Alternatively, the table T5 Collection and repayments could be extended by future cash flows for recoveries and expenses each with its own time stamp. T5 allows to

report business plan cash flows at borrower or loan level, respectively, both approaches are used in practice. In the long table format that we prefer, the business plan information could be included through additional cash flow types which can be more granular than just breaking out collections and expenses.

Conclusion

In summary, the benefit of standardized transaction data templates is that sellers better understand the information needs of investors and investors can more efficiently process and assess a transaction. Data validation and loan valuation can be automated with standardized data reducing transaction times and due diligence costs. The comprehensive data dictionary of EBA has been criticised for being unnecessarily burdensome containing too many data fields that are not readily available and expensive to collect. The revised simplified template addresses those concerns. We have used the EBA NPL template for the last two years both as a transaction template and a reporting template and found it very useful in practice having made certain adjustments as explained in this note.

Overall we consider the EBA NPL template a well-designed fit-for-purpose reference defining most of the relevant fields. No data template will be able to capture all conceivable data points and hence there should be a process of extending the template over time either through regular template updates or by users defining a limited number of bespoke non-standard data fields. We explain which data fields are most important to investors for performing and non-performing loans of different asset classes when analysing and pricing a new transaction and after acquisition to monitor the performance of the ongoing workout. The Data Hub proposed by the European Commission is an exciting new initiative that could be a game changer for bringing more transparency to the market for NPL. Detailed standardized transaction data and prices will help stakeholders transact more efficiently. We see great benefits for collecting and sharing workout cash flow data as well.

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Annex 1: Overview of key data fields

Table 1 below shows our selection of the most important data fields in the revised EBA NPL data template.

NPL indicates data fields important for terminated non-performing loans.

PL/UtP indicates that data fields are important for performing/reperforming or unlikely-to-pay loans

REO indicates that data fields are important for real estate owned assets or workout strategies

T1 Counterparty		T2 Relationship		T3 Financial Instruments		T4 Collateral		T5 Collections		NPLM Most Important
Field		Field		Field		Field		Field		
1.04	Counterparty Identifier	2.00	Counterparty Identifier	3.00	Cut-off Date	4.00	Protection Identifier	5.02	Type of Identifier	PI/UP/NPL
1.05	Counterparty Role	2.01	Contract Identifier	3.01	Contract Identifier	4.02	Type of Property collateral	5.03	Institution's internal Identifier for the Loan / Counterparty	PI/UP/NPL
1.06	Legal Type of Counterparty	2.03	Lease Identifier	3.03	Protection Identifier	4.03	Type of non-property collateral	5.05	Cash Recoveries	NPL
1.07	Postcode of Residence	2.04	Protection Identifier	3.07	Amortisation type	4.04	Lien position	5.06	Costs Accrued	NPL
1.08	Country of Residence			3.09	Current Maturity Date	4.05	Higher Ranking Loan	5.08	Repayment Plan	PI/UP/NPL
1.12	Employment Status			3.10	Loan Currency	4.09	Condition of Property	5.09	Repayment Plan Description	PI/UP/NPL
1.18	Current Internal Credit Rating			3.11	Principal Balance	4.10	Address of Property	5.15	History of Total Repayments	NPL
1.26	Geographic Region of Registered Location			3.12	Total Balance	4.11	City of Property	5.16	History of Repayments - Not From Asset Sales	NPL
1.27	Postcode of Registered Location			3.13	Accrued Interest Balance (Off book)	4.12	Geographic Region of Property	5.17	History of Repayments - From Asset Sales	NPL
1.28	Country of Registered Location			3.14	Legal Balance	4.13	Property Postcode			
1.33	Industry Segment			3.17	Current Interest Rate	4.15	Year of Construction			
1.49	Name of Insolvency/Restructuring Proceedings			3.18	Current Interest Rate Type	4.17	Building Area (M2)			
1.53	Stage Reached in Insolvency/Restructuring procedure			3.20	Current Interest Base Rate	4.21	Land Area (M2)			
				3.21	Current Interest Margin	4.24	Latest Valuation Amount			
				3.22	Current Interest Rate Reference	4.25	Date of Latest Valuation			
				3.26	End Date of Current Fixed Interest Period	4.27	Type of Latest Valuation			
				3.29	Interest Cap Rate	4.29	Current Annual Passing Rent			
				3.30	Interest Floor Rate	4.31	Completion of Property			
				3.37	Interest Payment Frequency	4.32	Percentage complete			
				3.38	Principal Payment Frequency	4.34	Enforcement Status			
				3.40	Days in Past-Due	4.36	Guarantee Amount			
				3.42	Number of Past-Due Events	4.38	Latest Residual Value			
				3.43	Non-Performing Reason	4.39	Date of the Latest Residual Valuation			
				3.44	Date of Default	4.52	Court Appraisal Amount			
				3.45	Balance at default	4.53	Date of Court Appraisal			
				3.53	Current Internal Credit Rating	4.54	Current Market Status			
				3.54	Current External Credit Rating	4.56	Sale Agreed Price			
				3.55	Source of Current External Credit Rating	4.57	Gross Sale Proceeds			
				3.61	Lease Identifier	4.60	Collateral Repossessed Date			
				3.63	End Date of Lease	4.61	Sold Date			
				3.67	Type of Lease	4.62	Next Auction Date			
				3.68	Type of Forbearance	4.63	Court Auction Reserve Price for Next Auction			
				3.73	Repayment Amount Under Forbearance	4.64	Last Auction Date			
				3.74	Repayment Frequency Under Forbearance	4.65	Court Auction Reserve Price for Last Auction			
						4.66	Number of Failed Auctions			

About NPL Markets

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

With the help of its proprietary data mapping and transformation tool NPL Markets helps financial institutions to map their data to the data formats defined by EBA for NPL transactions, EBA for the valuation in resolution, and by ESMA for securitisation disclosures. Once standardized and validated the loan-level data can be uploaded to the NPL Markets valuation tool to conduct a detailed discounted cash flow analysis using pre-populated pricing parameters in different macroeconomic scenarios across all major asset classes.

Disclaimer

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