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## Introductory Paper on Low Default Portfolios

### The IRB Approach for Low Default Portfolios (LDPs)

The Basel II approach to the management of credit risk relies heavily on the concept of using statistical techniques to evaluate risk. There are, however, a significant number of businesses for which sufficient default data are not available. The industry is concerned that financial institutions might not be permitted to apply internal ratings based approaches to such portfolios purely because of the inability to generate statistically significant model validations, and as a result be forced to use the standardised method instead. If that turns out to be the case, firms might end up with higher capital requirements for less risky portfolios, a result that is inconsistent with the spirit of the New Accord/European Directives. The following note seeks to avoid such unintended consequences by suggesting a methodology for the treatment of low default portfolios (LDPs).

#### Background

A joint BBA, LIBA, ISDA industry working group on Low Default Portfolios recently surveyed its members to establish the extent to which Low Default Portfolios (defined as portfolios where the firm has no or a very low level of defaults and is therefore unable to validate PD, LGD or EAD estimates on the basis of a proven statistical significance) represent a significant proportion of firms' total exposures.

The following table shows LDPs by the main asset types for which insufficient data exist to compute a statistically significant probability default. It is based on informal industry research with responses from seven UK firms having nearly US\$ 3 trillion in total gross assets. For full details please see the table as set out in Appendix 1 of the attached paper.

Asset Type	*Percent
<b>TOTAL WHOLESALE EXPOSURE</b>	<b>57</b>
Asset Class most impacted in Wholesale being exposure to Sovereigns	90
<b>TOTAL RETAIL EXPOSURES</b>	<b>3</b>
Asset Class most impacted in Retail being all other Retail Exposure	52

This research suggests that low default portfolios account for over 50% of the wholesale assets of seven UK firms (having total assets of nearly US\$ 3 trillion) and also that low default portfolios are a significant material proportion of their retail assets as well. This issue affects all three components of expected loss i.e. PD, LGD and EAD. In some cases there may be a sufficient level of defaults to enable a statistics based calibration and validation process of PD, however, actual losses are likely to be insufficient for calibration and validation of both LGD and EAD.

The Basel II framework puts a great deal of emphasis on data and relies heavily on the use of statistical techniques to evaluate risk. Given the extent of LDPs in firms that are likely to use internal ratings based (IRB) approaches, financial institutions are taking a great interest in the regulatory interpretation of the minimum requirements for IRB approaches and the qualification of LDPs for the more advanced techniques. The absence from the Accord, and from the European Union's Directives, of any references to the unique challenges and widespread existence of LDPs is therefore a source of continuing concern to the financial services industry.

As a result, the joint industry-working group approached the Basel Committee and the EU Commission with recommended text that would help regulators assess these portfolios for IRB approval. Whilst neither the Basel text in the recently published Convergence document, nor the European Directives, included this recommendation, the Basel Accord Implementation Group has acknowledged the importance of this issue and is committed to doing further work on the subject.

#### Regulatory Text and the Minimum Requirements

As the following extracts from the "Revised Framework" (International Convergence of Capital Measurement and Capital Standards) illustrate, the Basel II approach to the management of credit risk centres on the use of statistical techniques to evaluate risk: -

##### ***Rating System design***

*417. Testing of model outputs against outcomes is a validation requirement*

*420. Establish a rigorous statistical process (including out-of-time and out-of sample performance tests) for validating the model (for statistical models only)*

*447. For corporate, sovereign and bank exposures, banks that do not meet the requirements for own-estimates of EAD or LGD, above, must use the supervisory estimates of these parameters*

##### ***Validation of internal estimates***

*501. Banks must regularly compare realised default rates with estimated PDs for each grade and be able to demonstrate that the realised default rates are within the expected range for that grade. Banks using the advanced IRB approach must complete such analysis for their estimates of LGDs and EADs. Such comparisons must make use of historical data that are over as long a period as possible. The methods and data used in such comparisons by the bank must be clearly documented by the bank. This analysis and documentation must be updated at least annually.*

Extracts from the US ANPR Document ("*Document 1: Draft supervisory guidance on Internal Ratings-Based Systems for Corporate Credit*") further reinforce the reliance on statistical techniques, and exacerbate the problems for LDPs: -

## ***II. Ratings for IRB Systems***

### *Back Testing*

*S. Banks must develop statistical tests to back-test their IRB ratings systems.*

*S. Banks must establish internal tolerance limits for differences between expected and actual outcomes*

*S. Banks must have a policy that requires remedial actions be taken when policy tolerances are exceeded.*

## ***III Quantification of IRB Systems***

### *Validation (Section F)*

*"Effective validation must compare actual results with predictions..."*

*"Realizations should be compared with expected ranges based on estimates..."*

The joint-industry group agrees that a statistical approach is suitable for a wide variety of different types of portfolio, typically those where firms can derive sufficient default and loss information to construct predictive models based on historical experience.

### The Key Concern

There are a significant number of business types where sufficient default information is not available. These can be relatively new businesses, but they can also be mature portfolios where the firm has wide experience but very few, if any, default observations. Examples include: -

- Sovereign debt;
- Banks, particularly in developed countries;
- Large corporates;
- Repo style business;
- Niche counterparties such as train operating companies, housing associations, NHS Trust hospitals, UK local authorities etc;
- Private banking exposures;
- Residential mortgage portfolios.

Such portfolios—which form a significant proportion of assets at major financial institutions—do not have, and may never have, sufficient default or loss data to support the statistical analysis of credit risk. It seems inconsistent with the spirit of the New Accord, however, to exclude these portfolios from the IRB treatment on the grounds that they have suffered so few defaults. The industry therefore would like to suggest an approach that recognizes the nature of LDPs in a way that is consistent with the Basel II approach.

Our Recommendation

The joint industry-working group strongly believes that LDPs should be considered under the IRB approach and recommends the following regulatory framework for the assessment and approval of LDPs.

The attached paper discusses issues surrounding LDPs and provides a framework for assessment, for both firms and regulators to demonstrate and approve these portfolios meet the minimum requirements for the IRB approaches.

We would be happy to discuss these recommendations in more detail in the near future, please contact John Phipps (director at BBA contact 0207 216 8862), Katharine Seal (director at LIBA contact 0207 367 5504) or Ed Duncan (policy director at ISDA, on 0207 330 3574).

Yours sincerely,

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