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Mrs. Danièle Nouy
Secretary General
Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel
Switzerland

Monaco, 31 July 2003

Re: Request for Comments on the New Basel Capital Accord – Third Consultative Paper (April 2003)

Dear Mrs. Nouy,

Experian-Scorex are pleased to submit comments on the Third Consultative Paper, published in April 2003, more specifically, on the treatment of Retail and SMEs portfolios within the internal-rating based approach for credit risk.

As introduction, Experian-Scorex have been providing risk management solutions to the financial sector for more than 25 years. Throughout that time we have worked particularly closely with banks to help them manage the customer life cycle of their retail and SME portfolios.

We have followed with great interest the developments of the New Basel Accord since January 2001 and we appreciate the enormous efforts made by the various working groups and the dialogue with the financial industry. Herewith we submit our comments from a global perspective with offices in 19 regions world-wide.

Experian-Scorex have conducted research regarding the impact on the minimum capital requirements of three risk-weight curves provided by the Basel Committee for the retail portfolios. We discovered that for residential mortgages, the risk-weight curve is uniformly convex while for the other two retail sub-portfolios (revolving credits and “other retail”), the curves exhibit local non-convexity. As a result, while

for residential mortgages, a higher discrimination for the PD scorecard leads to an important reduction in minimum capital requirements, for the revolving and “other retail” sub-portfolios, the scorecard discrimination has a marginal influence on the capital requirements for commonly observed portfolio bad rates. This contradicts the risk-sensitivity objective of the New Accord, and therefore reduces banks’ incentive to move towards better retail credit risk management via highly discriminative scorecards.

To provide explanations on the previous statement, we first detail the property of convex risk-weight curves, and we then continue by presenting the unwanted consequences of the non-uniformly convex shape of the revolving and “other retail” risk-curves.

The uniform convexity of the risk-weight function ensures that the higher the discrimination of a PD scorecard, the lower the minimum capital requirements as explained hereafter.

We reformulate the minimum capital requirements (MCR) as:

$$\text{MCR} = \text{EAD} * \text{LGD} * \text{PD}_{99.9\%} \quad \text{for residential mortgages and other retail}$$

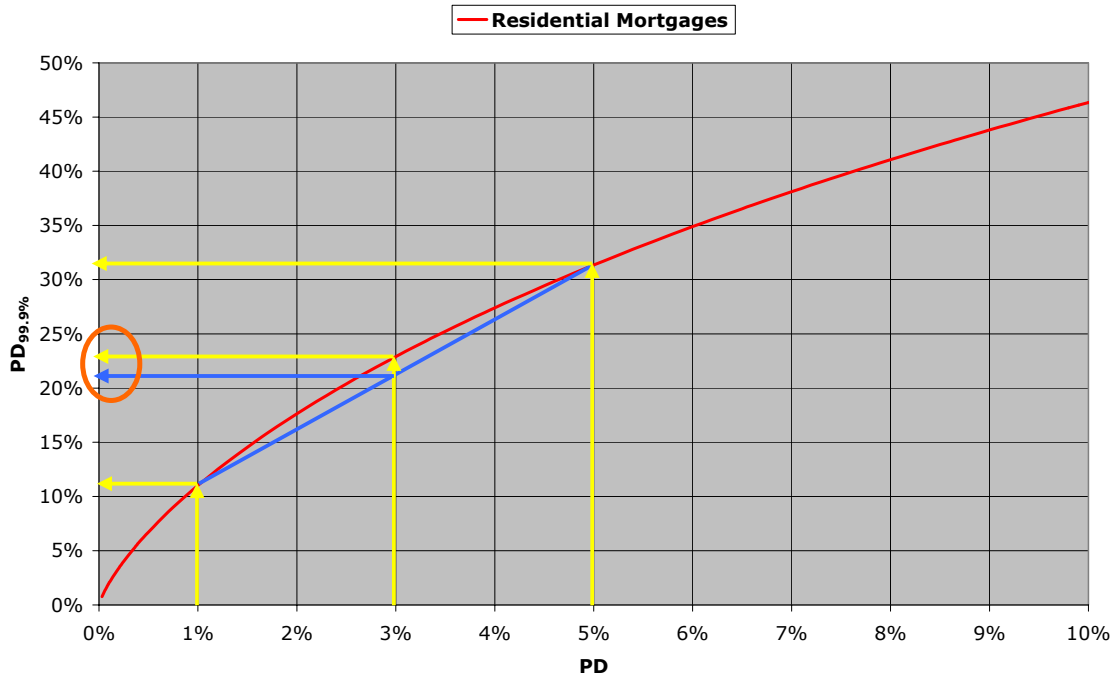
$$\text{MCR} = \text{EAD} * \text{LGD} * (\text{PD}_{99.9\%} - 0.75 * \text{PD}) \quad \text{for revolving exposures}$$

Where

$$\text{PD}_{99.9\%} = N[(1-R)^{-0.5} * G(\text{PD}) + (R / (1-R)^{0.5} * G(0.999))] \quad \text{is a function of PD only.}$$

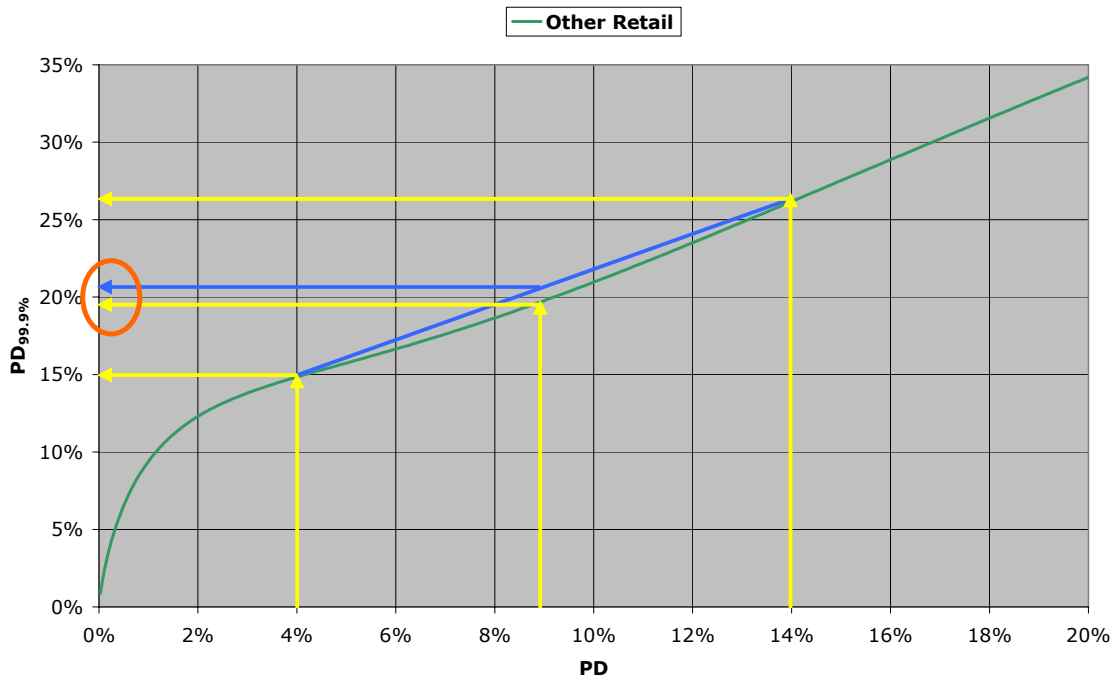
The example presented below illustrates that with a uniform convex function for $\text{PD}_{99.9\%}$, the average $\text{PD}_{99.9\%}$ resulting from a distribution of PD is lower than the $\text{PD}_{99.9\%}$ obtained using the average PD. As a result, a higher scorecard discrimination will lower the capital requirements, thus favouring better retail credit risk management.

Example 1: Two residential mortgage exposures with a PD of 3% will have a $\text{PD}_{99.9\%}$ of **22.91%** (see graph on next page), while two exposures with PD of respectively 1% and 5% (for the same portfolio bad rate of 3%) will have an average $\text{PD}_{99.9\%}$ of $(11.03\% + 31.35\%) / 2 = \mathbf{21.19\%}$, a lower figure than the former one.

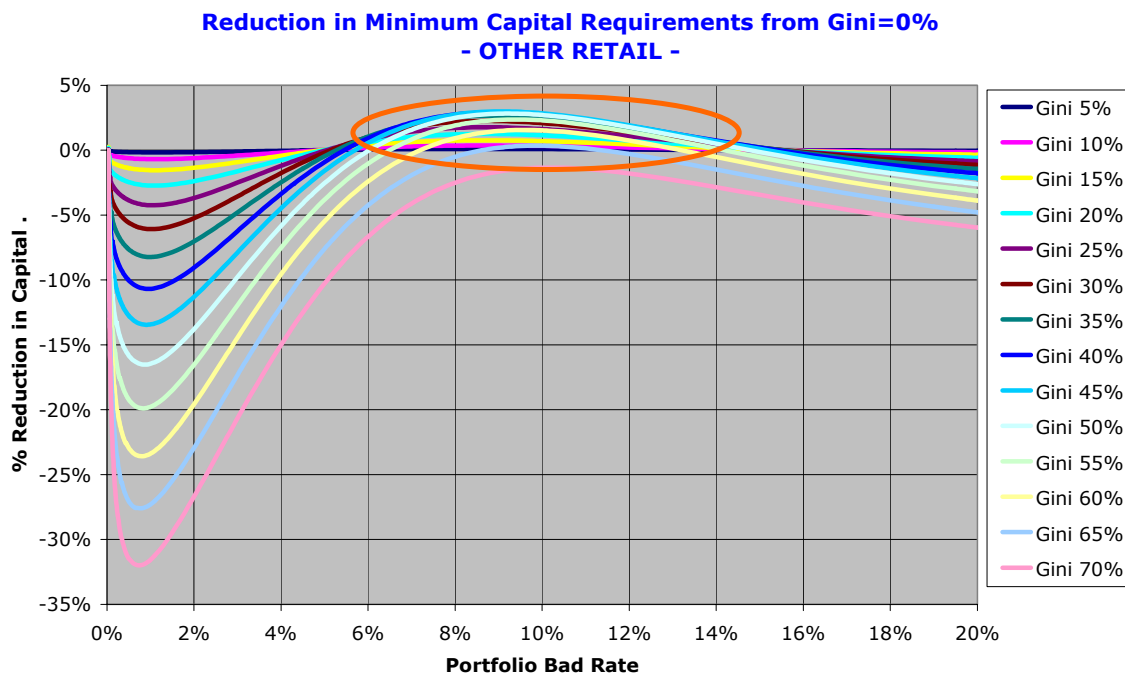


For revolving exposures and “other retail” exposures, the risk-weight curves exhibit local non-convexity (around the 6% bad rate for revolving exposures and 9% bad rate for other retail exposures). As illustrated below, this local non-convexity increases the minimum capital requirements.

Example 2: Two “other retail” exposures with a PD of 9% give an average $PD_{99.9\%} = 19.77\%$, while two exposures of PD of respectively 4% and 14% (for the same portfolio bad rate of 9%) give an average $PD_{99.9\%}$ of $(14.84\%+26.17\%)/2 = 20.01\%$, a higher figure than the former one.



In June this year, Experian-Scorex conducted research to measure the impact of the non-uniform convexity of the revolving and “other retail” risk-weight curves on the minimum capital requirements for different levels of discrimination. To simulate these discrimination levels, we used a parameterised Gini coefficient. We compared the capital requirements obtained for different Ginis to the ones for Gini 0% (i.e. all exposures have the portfolio bad rate). The results for “other retail” sub-portfolio are displayed on the graph hereafter.



We can see that for portfolio bad rates within the 5% to 15% range, the minimum capital requirements obtained increase with respect to Gini 0% (shown in the area covered by the orange oval on the graph above). However, in practice, 0% Ginis do not occur; yet we observe that in this 5% to 15% portfolio bad rate range, an increase in Gini has an insignificant impact on the capital requirements (shown by the fact that the risk-weight curves are very close to each other on the graph). Therefore, there is little incentive to improve the discrimination of the scorecards as it will only marginally decrease the minimum capital requirements. Experian-Scorex believe this contradicts the Committee’s sensitivity objective for the risk-weight curves.

From a more general perspective, in collecting feedback from our contacts with the banks, we were consistently presented with a key issue which requires clarification. Under the IRB approach, it is unclear whether for SMEs exposures treated as retail, banks have to use only the risk-weight curve provided for “other retail” exposures or they should use all three risk curves depending on the SMEs product type. For

example, if a bank provides credit cards (limits up to 100,000 euros) to its SMEs customers, should they be treated as revolving or as “other retail” exposures?

Experian-Scorex thank you for the opportunity to provide comments on these important issues, and would be happy to discuss them in greater detail at your convenience.

Yours sincerely,

Paul Randall

Associate Director
Experian-Scorex