

# Risk

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## Banks reject Basel's IRB data shortage claim

Internal models remain more accurate than standardised approaches, say industry responses to the Basel Committee's proposed limits on credit risk modelling. Philip Alexander reports

**B**anking industry lobbyists will challenge proposed limits on credit risk capital modelling in comments to the Basel Committee on Banking Supervision this week, claiming there is enough data to measure the risk of many large corporates and financial institutions. Forcing banks to use standardised models for these borrowers would make capital less sensitive to risk, and would not make the resulting numbers easier to understand, they argue.

"The way Basel has defined these so-called low-default portfolios is arbitrary," says Jacqueline Mills, a London-based director in the prudential regulation division of the Association for Financial Markets in Europe (Afme). "Our

position is that modelling should be retained for all corporates – regardless of size – if there is sufficient data out there."

Afme and the Institute of International Finance (IIF) suggest alternative ways of reducing variation in modelled numbers – a key regulatory goal – while retaining risk sensitivity. They also want clear guidance on the use of pooled data. A separate response from one data-pooling initiative claims variation in modelled probabilities of default (PDs) has dropped in the past five years. PD is one of the key inputs for the internal ratings-based (IRB) approach to calculating credit risk capital.

"The relative standard deviation per unit of PD has come down quite significantly. I think a

lot of that has to do with banks' models becoming more sophisticated. Given access to the same information, they are already beginning to iron out some of the difficulties," says David Carruthers, head of research at Credit Benchmark, a start-up credit data pool.

These are technical issues with huge real-world implications. Credit risk represents the lion's share of the capital held by the banking industry, and at a conference in Poland last week, some senior European officials signalled concerns that changes in methodology would translate into increased borrowing costs for some sectors, or a reduced willingness to lend.

The Basel Committee's consultation on reducing variation in credit risk-weighted assets

(RWAs), published on March 24, proposed removing the IRB approach for exposures to all financial institutions, and to corporates with assets of more than €50 billion (\$56 billion). Its reasoning was that: “The low-default nature of the assessed portfolios, and the consequent lack of appropriate data for risk parameter estimation, was likely one of the key factors leading to differences across banks.”

The consultation closes on June 24. The IIF submitted its response three weeks early, to give regulators more time to digest its counter-proposals ahead of what lobbyists expect will be a crunch meeting of the Basel Committee in September; regulators have pledged to finish their work on capital modelling this year. The IIF response directly challenges the Basel Committee’s plan to move exposures to large corporates onto the standardised approach.

“We see the standardised approach as resembling the Basel I conditions that applied in the lead-up to the crisis, and as such, our focus has moved onto coming up with what we think are quite constructive alternatives, that can mitigate some of the committee’s concerns about RWA variance and the challenge of modelling where you have limited default data, but nevertheless still manage to preserve a greater role for risk sensitivity in the capital framework,” says Brad Carr, deputy director of regulatory affairs at the IIF.

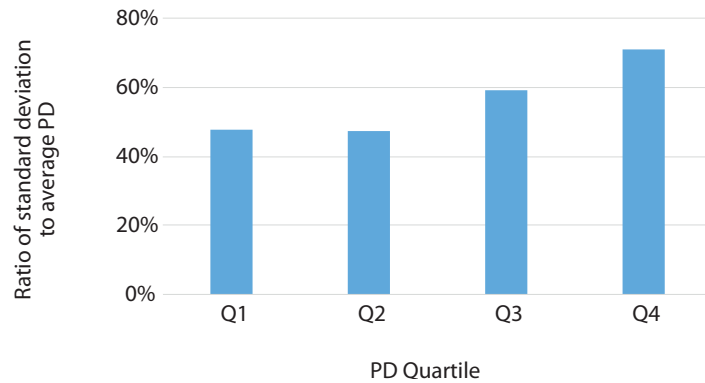
The IIF has proposed a more stringent model-approval process, and a threshold of €100 billion in assets – double that proposed by regulators – to move corporate exposures onto the standardised approach only if bank models fail to gain approval. The lobby group has also called for Basel to make better use of its own distinction between capital-regulated financial institutions – essentially banks and insurers – and other financial institutions. In the existing proposal, all financial institution exposures would be moved to the standardised approach.

“The Basel Committee does have a legitimate concern about the lack of historical defaults in those regulated financials, but that is different from other areas of finance, particularly leasing companies, where there would be a lot more data available. So it makes sense to discern the different types of financial and have appropriate treatment for each of those,” says Carr.

Afme does not make the distinction between different types of financial institution. It will instead ask Basel to retain internal modelling for all financial institutions, subject to prescribed PD and loss-given-default (LGD) inputs set by supervisors if appropriate.

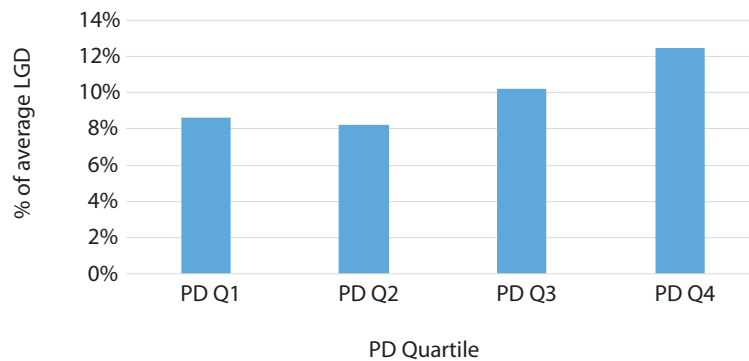
The IIF accepts there may be difficulties

### 1. Standard deviation of probability of default estimates



Source: Credit Benchmark

### 2. Standard deviation of loss-given-default estimates



Source: Credit Benchmark

deriving LGD data on exposures in low-default portfolios. LGD can theoretically range from 0% to 100% depending on recovery expectations for individual loans, whereas PD estimates are likely to cluster within a narrow range. Hence, LGD uncertainty is likely to have a larger impact on RWA variation.

“There are some cases where the limitations of default data mean you should still be able to come up with an estimate for PD, but you have limited defaults to model LGD. In that case it makes sense to put constraints on LGD rather than throwing the baby out with the bathwater for all parts of the calculation,” Carr says.

However, Credit Benchmark, which aggregates PD and LGD estimates from banks’ internal models, is submitting a response to the consultation that calls into question the entire notion that estimates are less reliable for low-default portfolios.

Credit Benchmark has examined the range of estimates for PD on around 4,000 obligors for which it has data from three or more banks, together with LGD estimates on the obligors’ senior unsecured obligations. This data shows the range of estimates as a proportion of PD and

LGD is lowest for obligors with the lowest probability of default (see charts), which most likely correlates with the large corporates and financial institutions for which defaults are rarest.

“The Basel Committee has zeroed in on actual default histories as being the only data source in understanding default risk. Proportionately, there is no evidence that there is a bigger uncertainty of estimates in the higher-quality names. Equally, in the higher-risk names, the proportionate uncertainty is getting bigger, so having lots of defaults does not help banks reduce the uncertainty,” says Carruthers.

He suggests there are alternative model inputs to large amounts of default data. For instance, banks can analyse in depth each individual default by a high-quality name and compare it with other obligors in the low-default portfolio to see which characteristics are shared with the defaulting borrower.

#### Pooled data

Industry bodies are also urging Basel to clarify the use of pooled external data as a way to improve the accuracy of PD and LGD estimates. In addition to Credit Benchmark,

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data on low-default portfolios is also collected by Global Credit Data, which has 50 bank members. The IIF’s Carr says supervisory practices currently range from regulators that insist banks use pooled data to those that insist no external data is used. The IIF is advocating a consistent approach, which would most likely allow the use of external data to model large corporate and financial institution exposures, but not small business or retail exposures.

“For segments like large corporates and financials, if there is a default, individual creditors probably have fairly limited scope to influence the outcome of that. It would be a broader industry wind-up scenario in which you have a range of counterparties all ranking *pari passu*, so your personal strategies or risk management policies have fairly limited scope to influence the outcome,” says Carr.

By contrast, he notes, each bank’s origination and collection strategies will influence recoveries for small business and retail loans, so LGD experiences could vary widely for similar retail portfolios.

Afme is also advocating the explicit authorisation of pooled data use, combined with better Pillar 3 disclosure on the performance of PD and LGD estimates to enhance market discipline.

“What banks could do is disclose some kind of measure of the performance of their models; for instance they could disclose an *ex post* margin of prudence, showing within their Pillar 3

disclosures that their modelled parameters are sufficiently conservative and perform well. This is effectively like sharing the outcome of back-testing exercises. With that kind of discipline, retaining risk models is really the best kind of solution for risk sensitivity,” Mills says.

She believes this would make capital requirements more transparent and comparable than the Basel proposals centred on the removal of models and use of standardised floors.

“The massive removal and restriction of models gets you to a system where people will not be able to understand what the resulting capital number relates to, and that will not improve comparability between firms. You are removing risk sensitivity, making things more complex with this mix of approaches and constraints, and obscuring the relationship between the capital requirement and risk levels,” says Mills.

### External rating limitations

The revised standardised approach to credit risk proposed by the Basel Committee in December 2015 would place heavy reliance on the use of external credit rating agencies instead of internal models. But Credit Benchmark’s response suggests existing PD and LGD estimates by banks are generally more conservative than those implied by external ratings. Moreover, an aggregate benchmark of internal estimates moves more smoothly than external credit ratings.

“Individual banks may not change their risk



estimates very often, but when you put a large number of banks together, you get individual changes coming through at different time points, so you get a smoother trend and there is not much in the way of static data. That gives you an early warning that is smoother than the outlook changes of a credit rating agency,” says Carruthers.

Banks are also concerned that external ratings are less widespread than the Basel Committee might have believed. Around half the 4,000 corporates for which Credit Benchmark is able to provide average PD and LGD numbers do not have external ratings. Moreover, the €50 billion asset threshold for using the standardised approach would apply to all subsidiaries within the large group, regardless of the subsidiary size or whether it is rated. For unrated exposures, the standardised risk weight would be 100%.

“The majority of corporates are not rated, so we would go to an extremely blunt measure using the standardised approach. The proposals also introduce these really strange effects for corporates, so depending on whether a mid-sized corporate belongs to a large group, a mid-sized group or is a standalone entity, it could have exactly the same credit quality but three completely different risk weights,” says Afme’s Mills.

The IIF’s Carr says the application of the asset threshold to subsidiary companies would only be appropriate where the subsidiary is wholly owned, fully controlled, and has a parental guarantee. Otherwise, companies should be treated on a case-by-case basis.

“That is very similar to what banks already do in the way they do credit risk assessments today. If you are lending to a subsidiary, you would be asking questions around the level of parental support, management control and explicit or implicit guarantee within your transactional credit committee,” says Carr. ■

### Need to know

- In its March consultation on credit risk capital requirements, the Basel Committee suggested moving all exposures to large corporates and financial institutions onto the standardised approach, owing to a shortage of data for internal modelling.
- Industry responses this week seek to refute the claim that probabilities of default (PD) and loss-given-default (LGD) cannot be accurately estimated for low default portfolios.
- Banks are also keen for Basel to explicitly authorise the use of pooled external default data to offset data shortages at individual banks.
- Research by one data aggregator suggests uncertainty around PD and LGD estimates is actually less for lower-risk obligors.
- The research also showed that aggregated bank estimates are more conservative and move more smoothly than external credit ratings that are the basis of Basel’s proposed revised standardised approach.
- Lobbyists also warn that many corporates are unrated, including the subsidiaries of large groups, which would result in punitive capital requirements with no risk sensitivity.