

GCD's new comprehensive approach to Banks' PD Needs

Although still in the consultation phase, the new proposal of the Basel committee on the future of the AIRB approach (BCBS 362) will undoubtedly shift the focus of risk modelers to PD modelling. Modelers may be interested to know how their PD models differ from those of peers, but other functions and processes in the bank (economic capital, stress testing, CCAR and CECL) will demand a clear understanding of whether and where the bank's PD models are conservative or not.

The answer to this question requires a multi-layer and comprehensive benchmarking:

- ✓ Comparing observed default frequencies (ODFs) at portfolio level to match portfolios
- ✓ Comparing PD Master Scales
- ✓ Analyzing PD variation on name level ("hypothetical portfolio")

While the first two elements are already part of our PD/ODF data collection (see page 3), the Board has approved a fast track project startup in the third area as well. Regular service is expected to be established in H2/2016. As GCD has already done this twice, we are in a great position to extend the service to a regular delivery customised to member needs.

What are the next steps?

- Survey of interest and requirements on name-by-name comparison during May 2016
- Fast setup of template, test deliveries and pilot scheduled for Q3/2016

Please put your PD people in touch with GCD now. You will hear more from that initiative through our AGORA emails in coming weeks and of course at the next General Meeting in Utrecht in June 2016.

Is our data fit-for-purpose for Impairment modeling? - IFRS9 and CECL

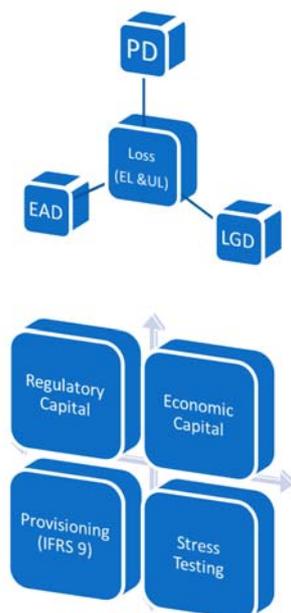
January 1st, 2018—the date when IFRS 9 needs to be implemented—is coming closer and all of our non-US members are busy in building new PD, LGD or EaD models or updating their existing AIRB models in order to meet the requirements of the new standard (US banks will get their turn when CECL rules are announced soon).

GCD data can be used for all three elements (PD, LGD and EaD) and member are discussing in the working groups what changes need to be applied and/or which further analytics and collections need to be performed for the most valuable data use.

In the second quarter of 2016, we put a special focus on "life-time LGD" and "life-time EaD", elements which are not part of the Basel regulations and therefore of special interest to our members:

- A two-day workshop was held in April 2016 to discuss the details of lifetime LGD and EaD modelling under IFRS 9. Ten members took part in the interactive workshop.
- 3 WEBEX calls are scheduled during May 2016 to inform our global community.
- More analytics on a "term structure of LGD" and "point in time EaD modelling" will be presented on our next General Meeting in Utrecht in June.

Please contact any of the executives for further information.



Example of name benchmarking: comparing the PD level per individual counterparty (red = your bank, green = external rating, grey = selected peer banks)

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Dates to note:

20 and 21 June 2016 —General meeting in Utrecht, NL

In the Spotlight: North America Meeting April 2016 in New York

The future of AIRB - Review of the expected changes



No doubt you have read the Basel Committee's latest proposals for changes to the IRB approach (<http://www.bis.org/bcbs/publ/d362.htm>). Combining this with the revisions proposed to the Standardised Approach last year, it will make important changes for banks' capital calculations.

At the North American Conference in April 2016, Matthew Ekberg from the IIF gave some further background on the changes and explored the other regulatory initiatives (Basel IV, ...) currently waiting in the pipeline.

Thanks to our members' support last year, GCD has been working with industry associations, primarily IIF, AFME and ICC to provide analytical support for their comments and counter-proposals as well as directly providing volumetrics to the Basel Committee's Risk Measurement Group (RMG). We will continue with this analytical work in the coming months and hope that the industry can propose some softening of the proposals. The proposed work will be discussed in the Model Benchmarking Working Group, which all members are welcome to join (contact Fred Beauvais or Philip Winckle).

*A plenary session at the North American Conference, April 2016
- GCD's largest ever conference over 100 people attending over the 2 days*

Modellers' Club: Dealing to use in CECL / IFRS 9

The Modellers' club break-out sessions have become one of the highlights of each conference. In small groups risk practitioners have the possibility to interact and challenge each other on various topics. This time, Richard Crecel from Societe Generale chaired the session on dealing with conservatism and the required margin of prudence in the banks' PD, LGD and EaD estimations.

It is well known that Margin of Prudence (MoP) levels applied to the calibration of the Basel risk parameters are a key contributor to RWA diversity across institutions. Most banks and regulators regard this as an unwanted point of difference. There is little guidance from the regulators about the correct quantification of the margins of prudence. Further, in the context of the new accounting standards CECL/IFRS9, the additional challenge is how to reverse this process and develop risk parameters that are unadjusted for conservatism. As usual there are many roads leading to Rome and credit risk practitioners came together to discuss the reasons for margins of prudence (data-, model- or cycle-related) and challenges in quantifying and removing those layers.



One of the many breakout groups at the North American Conference, April 2016

Panel Discussion: Organizing around Expected Loss

Modelling is not a stand-alone activity but is usually embedded in the organization. At our conferences, credit risk modelers learn from peers and share approaches. Next to our breakout session, the panel discussion is therefore usually the second highlight.

This time, representatives from 3 major US banks (PNC, JP Morgan and MUFG Union Bank) held a spirited discussion on how, in their banks, the various groups interact for CCAR, Basel Capital, Economic Capital/Loan Pricing, CECL/ALLL. What are the greatest challenges they face? How do they deal with the seemingly endless lists of audit and regulator action demands?

The last question was: How can GCD help? The surprising answer to this last question was not "better data" or "model assistance" but "shared experience".

A special thank you to JPMorgan

What is a great conference without a unique location? The North American Conference was now held for the second time by JP Morgan in New York — right in the middle of New York in the JP Morgan offices on Madison Avenue. A special thank you to our board member Michael El Hadj who made this possible.



Michael El Hadj, Board member and Host of the North American Conference, April 2016

Insights from the Methodology & Member support team

What drives the LGD variability between banks?

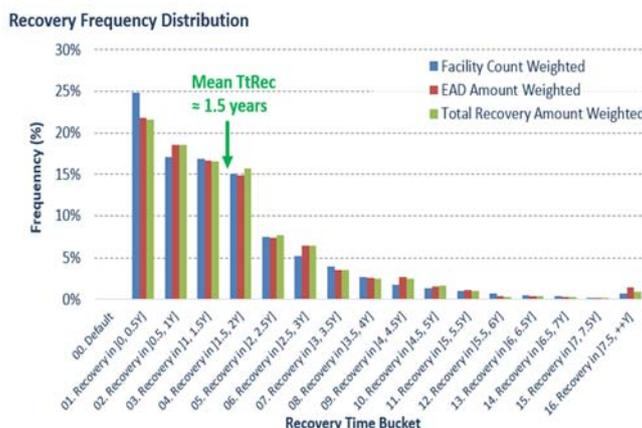
Benchmarking “Time to Recovery” is one of many answers

“Benchmarking model outcomes” is becoming truly a third pillar in GCD’s service list. In recent years members have decided to increase the focus on activities which help to explain the differences in model outcomes.

“Time to recovery (TtRec)” measures how fast a bank recovers its Exposure at default (or at least a percentage of it) during the workout period. Different banks do have different restructuring processes for different portfolios and therefore consequently experience different TtRec. Note: “Time to Resolution” (a calculated field returned to members) is a different measure and is the time difference from default moment to the final closure of the workout case.

In the North American meeting in April, we presented our approach on TtRec. Our LGD database shows a mean TtRec of 1.5 years and in general higher LGDs for a longer

TtRec, but also a variation by lender. Individual benchmark reports will be sent out to all member banks soon. Of course, we will present more background at the General Meeting in Utrecht in June 2016.



Please contact Fred Beauvais for more information.

Do you know your member support team?

In 2015, given more GCD executive resources, we introduced a so-called member teams concept for each of our new and current member banks. The teams consist of one Methodology & Membership Executive and one Data Operations Executive who are available to assist on all issues and questions banks have around GCD.

We aim to visit each member as time permits to get to know our colleagues personally, to present upcoming relevant initiatives, insights from the data and/or to get new colleagues up and running with what GCD is all about. Of course, we also have an open ear for any issues arising. If a visit is not possible, then a long webex call will be scheduled.

Please continue your contact with any or all GCD executives but we want to make sure that 2 people are helping each member to get the most out of their membership. Please contact Riëtte Dijkstra if you have not yet had contact with your member support team.

How “point in time” is your rating process? What migration can I expect in low default portfolio’s?

Migration matrices and multi-year ODFs to become new GCD deliverable: First results presented at the next General Meeting

Migration matrices and multi-year observed default frequencies (ODFs) can be used for various analyses in a bank, but are certainly a key element for stress testing. Many banks are using internal data as well as data from external agencies to calculate transition matrices linked to scenarios. In the second half of 2015, the working group ODF has focused on rolling out a new tool, the so-called “ODF desktop tool”, to give banks the possibility to

submit their migrations anonymously to GCD and in return get back the migrations of the total pool. First results will be presented at the General Meeting in Utrecht. In order to give all member banks the opportunity to take part, we will also have in 2016 a “summer submission window”. Please don’t hesitate to contact Daniela Thakkar with further questions.

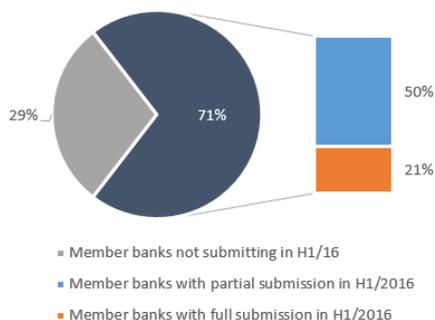


PD and ODF submission calendar 2016

Insights from the Data Operations team

Full re-submissions in full swing

Memberbanks submitting LGD data in H1/2016



Members are pushing towards more transparency and tougher controls on data quality. In line with that, the General Meeting has decided last December in Rotterdam that each member bank

defaults need to be submitted through the portal to GCD—we regard this as the most effective way to bring old data up to current standards. If resubmitted data cannot meet all changed rules

Following the motto “by banks for banks”, member banks are making enormous efforts to bring older data up to date with today’s tighter validations and latest template fields.

must make a “full resubmission” every 3 years. The Methodology Committee (METHCOM) has furthermore required that every bank should do a full submission in 2016. A full submission means that all historical data as well as the new

then it can still be accepted if it results in some improvement overall.

In the last months, executives and member banks have worked hard together on the first batch of full re-submissions.

Did you know that you can submit data through the portal any time of the year?

Since the start of 2015 the data portal has been open even outside of the official submission window. Members can test individual borrower submissions or whole portfolios against the latest validation rules.

Any data can be submitted without danger of affecting the official database. You can even ask for a no-obligations review by the Data Operations executives.

- ✓ The executives have helped the member banks by providing a “full submission package” which standardized queries on the data set to spot the issues.
- ✓ In H1/2016, 10 member banks have done a full submission. Thank you to all member banks employees who have dug into their historical files and made this happen!

If your bank is scheduled for a full submission in H2 2016, you will receive an analytics pack before the start of the H2 2016 submission cycle.

What is a field-based “give-to-get” rule? How will it impact your bank?

GCD members have always been generous about sharing their data—after all that is the whole point of a data pooling association. Now that the pool of data is becoming even larger and richer, members want to make sure that everyone is “paying” for their data return with good data input.

Currently, data is returned based on the Facility Asset Classes and actual years of defaults contributed. In the last General Meeting in December 2015 in Rotterdam, members have decided to make the “give to get” rules more granular (field level) as an incentive to deliver interesting but hard to provide fields. The power to decide on new “give to get” restrictions is given to the METHCOM, however the first set of “field-level give-to-get” rules will be presented to the next General Meeting (in Utrecht, see last page of this newsletter) so that all members get a chance to review.

Make sure you vote on this, in person or by email —your voice is important.

Delivering high-quality data is key to us all

Standardization of validation rules and update of our documentation is scheduled for 2016

Executives will work in 2016 on updating the documentation package in order to make it more user friendly. Standardization as well as more alignment is key to us.

With the H1/2016 submission, the documentation of the LGD database consists of 3 documents which will be subsequently renewed in the course of 2016:

- Data Input Structure (including information now from the former Data dictionary)
- Data Model User Guide
- Specific examples / notes (for Real Estate Finance, Project Finance,...)

Further, we will also update our scoring tool —the proposal is already approved by the Data quality working group and the METHCOM. The scoring tool is the best way for you to see where your bank is standing with respect to all data quality elements (correctness, completeness, coherence). If you don’t have your report available, ask any of our executives.

Nevertheless, the best way for us to detect data quality issues has always been to perform analytics. And as you could see from the earlier pages in this newsletter, there are plenty of opportunities for useful analytics in 2016

Discount Rate White Paper

Have you read it yet?

The banking industry has long struggled to find the “correct” interest rate with which to discount future cashflows for calculation of historical LGDs. Because GCD has always collected detailed cash flows from members, not LGDs, our members are able to use their own view on the correct discount rate to create a unique LGD from a common data set. Members, led by Stephan Jortzik of ANZ Bank in Australia decided to dig deep into the theory behind discounting the cash flows and were helped by academic expert Dr Harald Scheule of UTS Sydney. The group started from member Iain Maclachlan’s seminal work on this subject from 2004 and moved on to examine all reasonably possible methods and rates.

The result is a satisfying read of over 40 pages, which should allow members to judge for themselves what is the correct discount rate or method. Fans of contract rates and equilibrium methods will both find plenty to think about. Regulators have already made pronouncements in this area and we hope this paper will allow them to consider both practical and theoretical views before writing the final regulations. Get your copy of the paper on the member website now.

North American issues in focus (groups)

North American members at our recent New York conference gave the Board and executives plenty of feedback on what is important to them, and it ranges far beyond Basel 2 or 3.

- Being able to segment PD, LGD and EAD data to match CCAR modelling needs is critical and will be reviewed at template level.
- CECL provisioning is coming and GCD data and method discussions need to be ready to help members
- Extreme low default areas of Oil and Gas and Sub-sovereigns (e.g. Munis) need data and methods.

Active Working Groups & Focus Groups

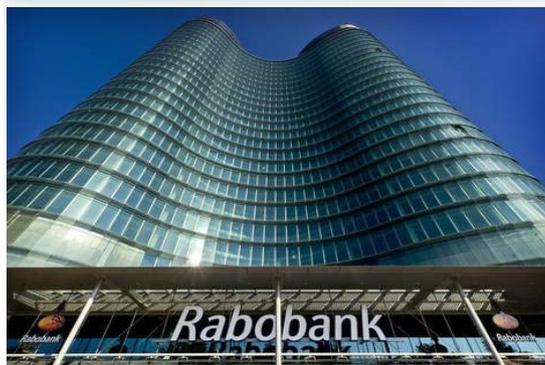
2016 started with new working groups in response to further member demands—adding to our list of active working groups (see table below). All working groups aim to create a platform for our member banks to share and discuss the latest developments and have concrete deliverables.

The groups are chaired by members and supported by executives (see contact column).

Smaller groups or those in start-up are referred to as “Focus Group”. If they have longer term needs then they can be converted to Working Groups.

Name	Purpose / Deliverable	Contact
Data Quality (DQ)	Formulate methods in order to ensure better data quality. Deliverables: validation rules, scorings, examples, data dictionary updates, procedures/principles	Christine Kersten
Observed Default Frequency (ODF)	Overseeing the project to build a completely new ODF collection tool. Current data collection (with new tool) is in progress now. New analytics and more fields are	Daniela Thakkar
Model Benchmarking (including RACG)	Umbrella committee for controlling all of the various surveys, benchmarking collections and analytics. Current main activity is controlling analytics for the IIF impact analysis work on IRBA and Revised Standardised	Fred Beauvais
Trade and Commodities Finance (TCF)	Supports the “Commodity Finance Capital Treatment Initiative” led by HSBC and supported by ICC, AFME and GCD. Also covers the ICC Trade Register alignment work and oversees data quality and analytics developments for Trade and Commodities Finance	Martial de Bienassis
Discount Rates in LGD calculation	Exploration of methods in finding and supporting an appropriate rate to discount future cash flows in LGD modelling. Now closed after finalising the White Paper.	Philip Winckle
IFRS 9 impairment models	Knowledge exchange, discussion & documentation on modelling approaches for impairments based on lifetime expected loss	Daniela Thakkar
Stress Testing	Discussion of overall Credit Risk Stress Testing methods, Deliverables: A detailed survey and potentially a paper about practices	Daniela Thakkar
Segmentation Focus Group	Data model and documentation review to ensure that the LGD data set can be used for US product segments: <ul style="list-style-type: none"> • New documentation and guidance • revising data templates for specialised areas of financing in ABL and equipment financing and industries • Small changes to data model already made. New documentation being built • Now considering specific segmentation needs for CCAR and whether this needs larger changes to 	Fred Beauvais
CCAR Focus Group	Now in recess during CCAR delivery period. Last delivery was detailed survey response document	Steve Bennett
Member website Focus Group	Reference group for development of the new member website	Daniela Thakkar

Book now for the next GCD Meeting in Utrecht (June 2016)



Invited by board member Claire Kouwenhoven-Gentil, Global Credit Data is having its next General Meeting in the premises of RABOBANK in Utrecht, the Netherlands. On **June 20th and 21st** we will be meeting as usual with a interesting agenda mix of plenary and breakout sessions, regulatory updates and member presentations. You can get an invitation from the member website or from executives and then just register to ensure your place.

Our Hot Topics will be the proposed Basel IRB changes, data needs and methodologies in IFRS 9 provisioning / stress testing, the use of GCD data by members and the our new benchmarking activities around PD, LGD and EaD.

About Global Credit Data:

Started: in 2004, now having collected more than 10 years of defaults and recoveries from over 50 banks, comprising over 120,000 loans. Formerly named PECDC.

Mission: to pool credit loss data, especially for low default portfolios.

Goal: to help banks understand and model their credit risks.

Credo: "By banks for banks".

Features:

- ◆ World's largest bank loan LGD database
- ◆ Growing bank loan default frequency database
- ◆ Data used for modelling, validation and benchmarking
- ◆ Not-for-profit company owned by the member banks
- ◆ Banks in the driver's seat
- ◆ Banks own the data
- ◆ Active participation by member banks
- ◆ Confidentiality
- ◆ Reciprocity of data sharing
- ◆ Model Benchmarking
- ◆ A venue for best practice sharing
- ◆ Toolbox of data and resources
- ◆ Focus on data quality

Members as at 31 March 2016

Europe:

- ABN-AMRO
- Banco SANTANDER
- BARCLAYS
- BNP-PARIBAS
- CAIXA GERAL de DEPOSITOS
- CREDIT AGRICOLE CIB
- CREDIT SUISSE SECURITIES
- DANSKE BANK
- DNB BANK
- HSBC Trinkaus & Burkhardt
- KFW BANKENGRUPPE
- NATIXIS
- NIBC BANK
- RAIFFEISENBANK INTERNAT.
- NORDEA
- NORDIC INVESTMENT BANK
- NYKREDIT
- RABOBANK
- ROYAL BANK OF SCOTLAND
- SKANDINAVISKA ENSKILDA BANKEN

- SOCIÉTÉ GÉNÉRALE
- SVENSKA HANDELSBANKEN
- SWEDBANK
- UBS
- UNICREDIT BANK AUSTRIA
- UNICREDIT GROUP

- NATIONAL AUSTRALIA BANK
- WESTPAC

North America:

- BANK OF AMERICA
- BANK OF NOVA SCOTIA
- CAPITAL ONE
- CIBC
- CITIBANK
- COMERICA BANK
- DESJARDINS Group
- J.P.MORGAN
- M&T BANK
- NATIONAL BANK OF CANADA
- NORTHERN TRUST
- PNC
- ROYAL BANK OF CANADA
- UNION BANK
- WELLS FARGO

South Africa:

- ABSA
- FIRST RAND BANK
- INVESTEC BANK
- STANDARD BANK OF SOUTH AFRICA

Asia Pacific:

- ANZ
- BANK OF EAST ASIA (HK)
- COMMONWEALTH BANK OF AUSTRALIA

Data Collection Calendar

- LGD:** twice a year in April/May and October/November
- PD/ODF:** twice a year in April/May and October/November
—> In order to give all the members the chance to contribute to this new submission, we have will also have a extra-ordinary "summer window" in July/August 2016
- Name Benchmarking:** Ad hoc, next delivery under discussion in Model Benchmarking Working Group for Low Default Portfolios
- Surveys:** Ad hoc, decided by Model Benchmarking WG. Check with the executives for more details

FOR MORE INFORMATION?

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