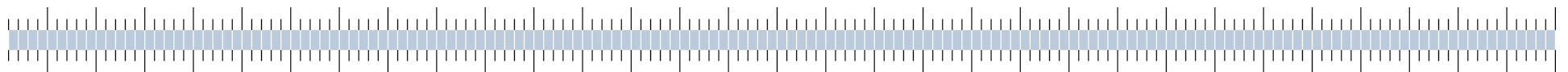


Requirements for IRB Approaches

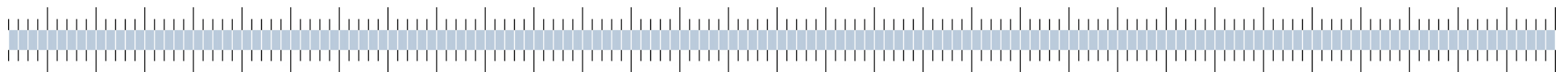
Qualitative Minimum Requirements

Jens Bruderhausen



On Request of the Super-Nervous

IN A NUTSHELL



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Qualitative Minimum Requirements

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Minimum requirements

Overarching
principle (Basel II)

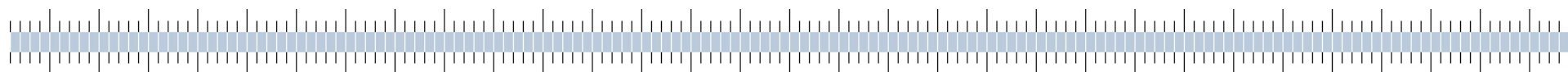
The institution's risk management and rating systems must be sound and their introduction must ensure system integrity.

- Rating systems provide for a **meaningful assessment** of obligor and transaction characteristics, a meaningful **differentiation** of risk and **accurate and consistent quantitative estimates** of risk.
- Internal ratings and default and loss estimates used in the calculation of capital requirements and associated systems and processes play an **essential role in the risk management and decision-making process**, and in the credit approval, internal capital allocation and corporate governance functions of the institution.
- The institution has a **counterparty risk control unit** responsible for its rating systems that is independent and free from undue influence.
- The institution collects and stores all **relevant data** to counterparty risk measurement and management processes.
- The institution **documents** its rating systems and its rating systems.

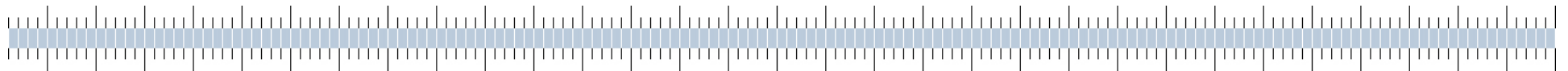
Basel II: There may be circumstances when a bank is **not in complete compliance with all the minimum requirements**. Where this is the case, the bank must produce a plan for a timely return to compliance, and seek approval from its supervisor, or the bank must demonstrate that the effect of such non-compliance is immaterial in terms of the risk posed to the institution.

Minimum requirements

- **Composition of minimum requirements (388 – 391)**
- **Compliance with minimum requirements (392 – 393)**
- **Rating system design (c.f. Monday, 2011/10/10) (394 – 421)**
- **Risk rating system operations (422 – 437)**
- **Corporate governance and oversight (438 – 443)**
- **Use of internal ratings (444 – 445)**
- **Risk quantification (446 – 449)**
- **Validation of internal estimates (500 – 505)**
- **Supervisory LGD and EAD estimates (506 – 522)**



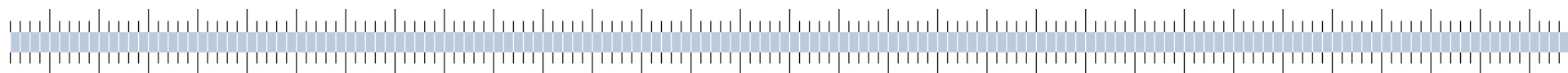
COMPOSITION OF AND COMPLIANCE WITH MINIMUM REQUIREMENTS



Composition of minimum requirements

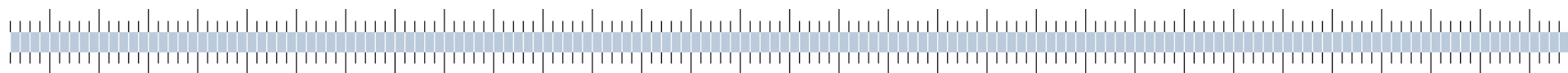


- 388. To be eligible for the IRB approach a bank must demonstrate to its supervisor that it meets certain minimum requirements at the outset and on an ongoing basis.**
- 389. The overarching principle behind these requirements is that rating and risk estimation systems and processes provide for a meaningful assessment of borrower and transaction characteristics; a meaningful differentiation of risk; and reasonably accurate and consistent quantitative estimates of risk. Furthermore, the systems and processes must be consistent with internal use of these estimates.**
- 391. Generally, all IRB banks must produce their own estimates of PD⁸⁶ and must adhere to the overall requirements for rating system design, operations, controls, and corporate governance, as well as the requisite requirements for estimation and validation of PD measures. Banks wishing to use their own estimates of LGD and EAD must also meet the incremental minimum requirements**

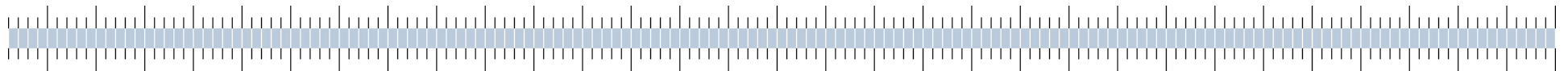


Compliance with minimum requirements

- 392. To be eligible for an IRB approach, a bank must demonstrate to its supervisor that it meets the IRB requirements in this document, at the outset and on an ongoing basis.**
- 392. Banks' overall credit risk management practices must also be consistent with the evolving sound practice guidelines issued by the Committee and national supervisors.**
- 393. There may be circumstances when a bank is not in complete compliance with all the minimum requirements. Where this is the case, the bank must produce a plan for a timely return to compliance, and seek approval from its supervisor, or the bank must demonstrate that the effect of such non-compliance is immaterial in terms of the risk posed to the institution. Failure to produce an acceptable plan or satisfactorily implement the plan or to demonstrate immateriality will lead supervisors to reconsider the bank's eligibility for the IRB approach. Furthermore, for the duration of any non-compliance, supervisors will consider the need for the bank to hold additional capital under Pillar 2 or take other appropriate supervisory action.**



CORPORATE GOVERNANCE AND OVERSIGHT

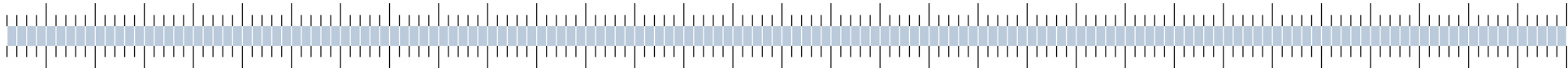
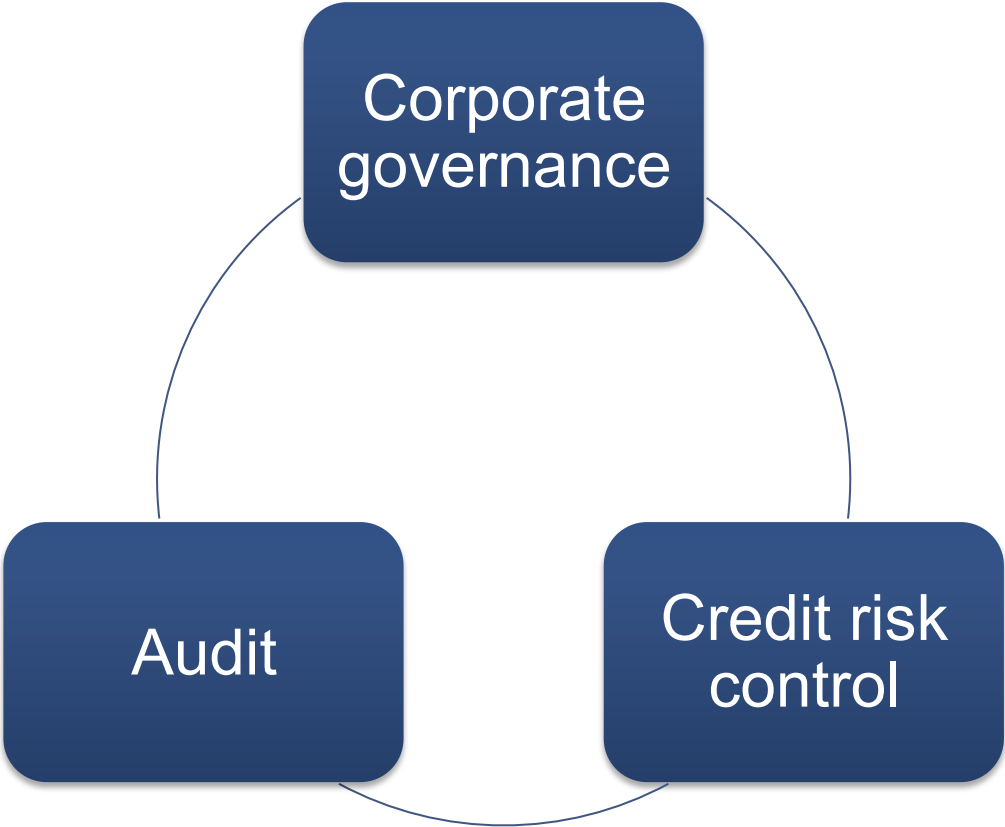


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Qualitative Minimum Requirements

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Corporate governance and oversight



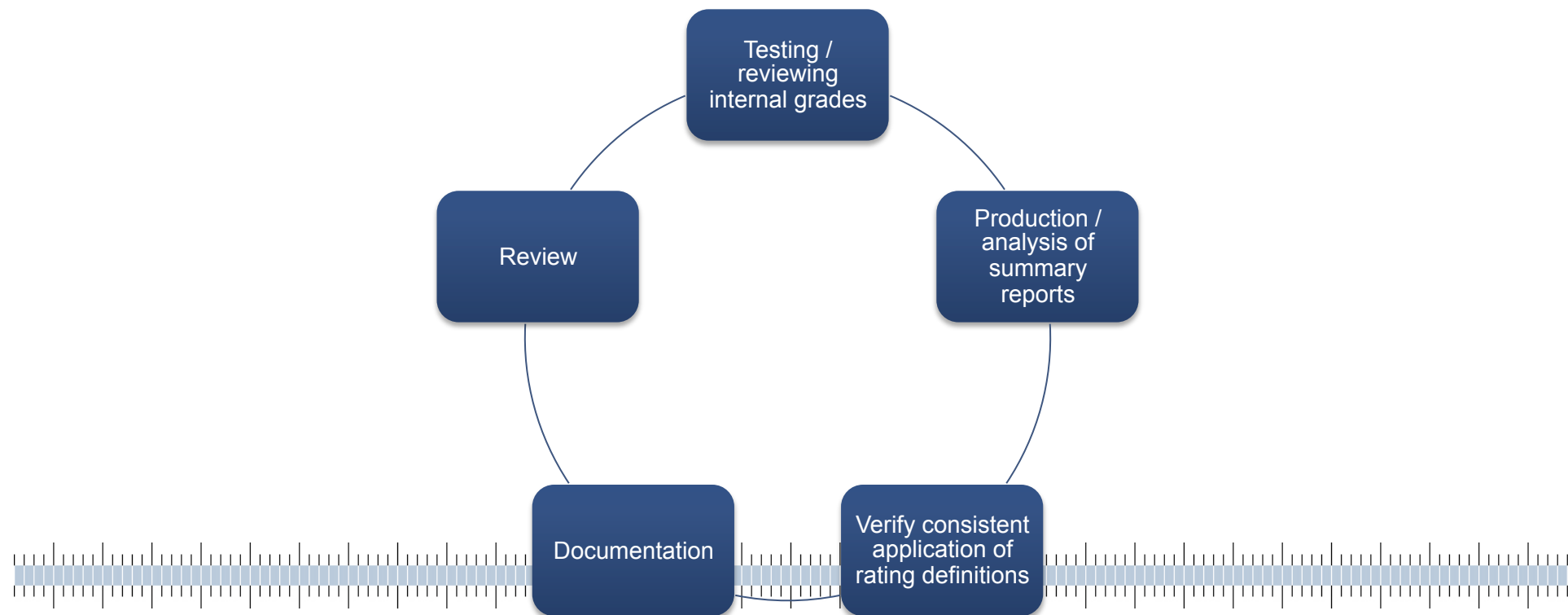
Corporate governance



- 438. All material aspects of the rating and estimation processes must be approved by the bank's board of directors or a designated committee thereof and senior management.**
- 438. These parties must possess a general understanding of the bank's risk rating system and detailed comprehension of its associated management reports.**
- 438. Senior management must provide notice to the board of directors or a designated committee thereof of material changes or exceptions from established policies that will materially impact the operations of the bank's rating system.**
- 439. Management and staff in the credit control function must meet regularly to discuss the performance of the rating process, areas needing improvement, and the status of efforts to improve previously identified deficiencies.**
- 440. Internal ratings must be an essential part of the reporting to these parties.**
- 440. Reporting frequencies may vary with the significance and type of information and the level of the recipient.**

Credit risk control

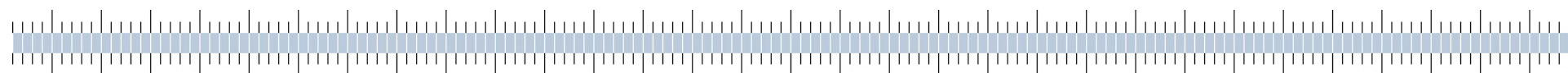
- **441. Banks must have independent credit risk control units that are responsible for the design or selection, implementation and performance of their internal rating systems.**
- **441. The unit(s) must be functionally independent from the personnel and management functions responsible for originating exposures.**



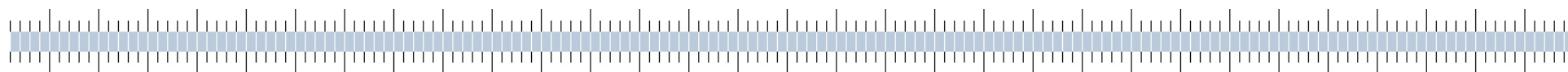
Audit



- 443. Internal audit or an equally independent function must review at least annually the bank's rating system and its operations, including the operations of the credit function and the estimation of PDs, LGDs and EADs.**
- 443. Areas of review include adherence to all applicable minimum requirements.**
- 443. Internal audit must document its findings.**



USE OF INTERNAL RATINGS



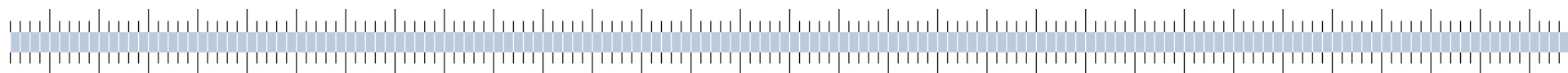
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Qualitative Minimum Requirements

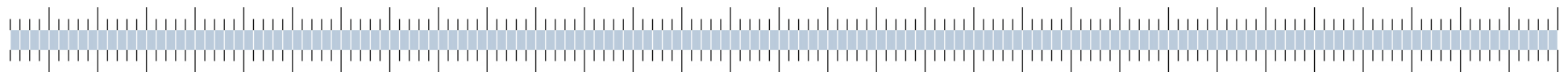
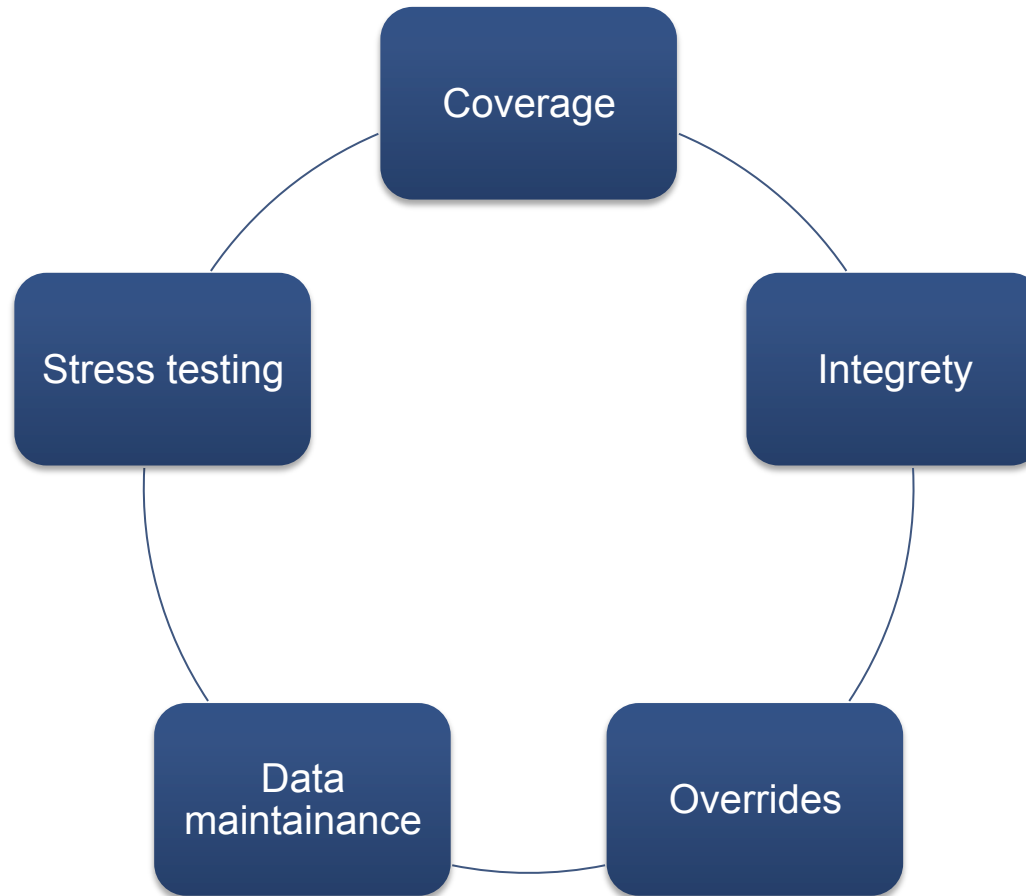
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Use Test

- | 444. Internal ratings and default and loss estimates must play an essential role in the credit approval, risk management, internal capital allocations, and corporate governance functions of banks using the IRB approach.**
- | 444. Ratings systems and estimates designed and implemented exclusively for the purpose of qualifying for the IRB approach and used only to provide IRB inputs are not acceptable.**
- | 445. Thus, the bank must demonstrate that it has been using a rating system that was broadly in line with the minimum requirements articulated in this document for at least the three years prior to qualification.**
 - | A bank using the advanced IRB approach must demonstrate that it has been estimating and employing LGDs and EADs in a manner that is broadly consistent with the minimum requirements for use of own estimates of LGDs and EADs for at least the three years prior to qualification.**
 - | Improvements to a bank's rating system will not render a bank non-compliant with the three-year requirement.**



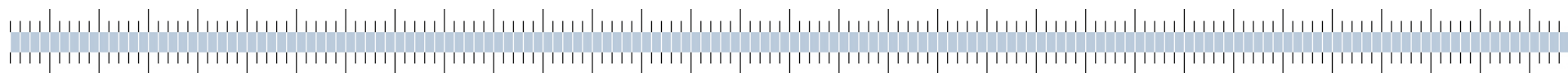
Rating System Operations



Comprehensive Rating Coverage



- | 422. For corporate, sovereign, and bank exposures, each borrower and all recognised guarantors must be assigned a rating and each exposure must be associated with a facility rating as part of the loan approval process.**
- | 422. Similarly, for retail, each exposure must be assigned to a pool as part of the loan approval process.**
- | 423. Each separate legal entity to which the bank is exposed must be separately rated.**
- | 423. A bank must have policies acceptable to its supervisor regarding the treatment of individual entities in a connected group including circumstances under which the same rating may or may not be assigned to some or all related entities.**

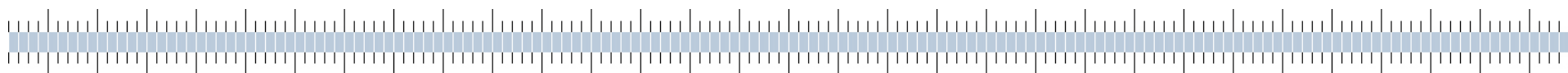


Integrity of the Rating Process

Corporate, sovereign, bank exposure



- 424. Rating assignments and periodic rating reviews must be completed or approved by a party that does not directly stand to benefit from the extension of credit. Independence of the rating assignment process can be achieved through a range of practices that will be carefully reviewed by supervisors.**
- 424. These operational processes must be documented in the bank's procedures and incorporated into bank policies.**
- 424. Credit policies and underwriting procedures must reinforce and foster the independence of the rating process.**
- 425. Borrowers and facilities must have their ratings refreshed at least on an annual basis. Certain credits, especially higher risk borrowers or problem exposures, must be subject to more frequent review. In addition, banks must initiate a new rating if material information on the borrower or facility comes to light.**
- 426. The bank must have an effective process to obtain and update relevant and material information on the borrower's financial condition, and on facility characteristics that affect LGDs and EADs.**

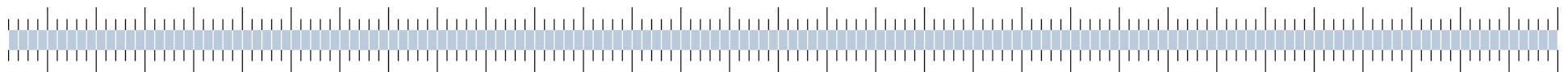


Integrity of the Rating Process

Retail exposures

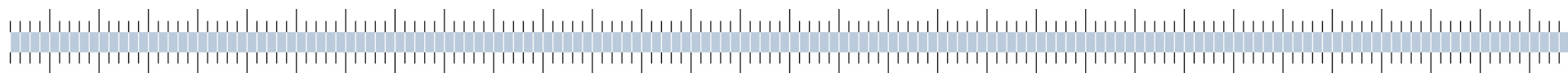


- 427. A bank must review the loss characteristics and delinquency status of each identified risk pool on at least an annual basis.**
- 427. It must also review the status of individual borrowers within each pool as a means of ensuring that exposures continue to be assigned to the correct pool.**
- 427. This requirement may be satisfied by review of a representative sample of exposures in the pool.**



Rating Overrides

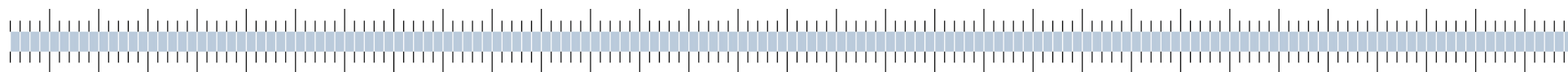
- 428. For rating assignments based on expert judgement, banks must clearly articulate the situations in which bank officers may override the outputs of the rating process, including how and to what extent such overrides can be used and by whom.**
- 428. For model-based ratings, the bank must have guidelines and processes for monitoring cases where human judgement has overridden the model's rating, variables were excluded or inputs were altered.**
- 428. These guidelines must include identifying personnel that are responsible for approving these overrides.**
- 428. Banks must identify overrides and separately track their performance.**



Integrity of Data



- 429. A bank must collect and store data on key borrower and facility characteristics to provide effective support to its internal credit risk measurement and management process, to enable the bank to meet the other requirements in this document, and to serve as a basis for supervisory reporting.**
- 429. These data should be sufficiently detailed to allow retrospective re-allocation of obligors and facilities to grades, for example if increasing sophistication of the internal rating system suggests that finer segregation of portfolios can be achieved.**

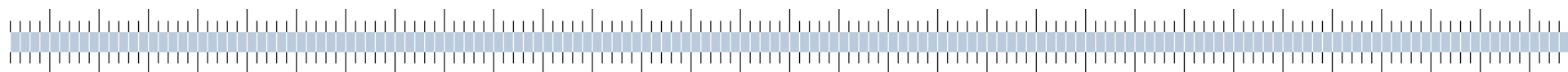


Integrity of data

Corporate, sovereign, bank exposures



- 430. Banks must maintain rating histories on borrowers and recognised guarantors, including the rating since the borrower/guarantor was assigned an internal grade, the dates the ratings were assigned, the methodology and key data used to derive the rating and the person/model responsible.**
- 430. The identity of borrowers and facilities that default, and the timing and circumstances of such defaults, must be retained.**
- 430. Banks must also retain data on the PDs and realised default rates associated with rating grades and ratings migration in order to track the predictive power of the borrower rating system.**
- 431. Banks using the advanced IRB approach must also collect and store a complete history of data on the LGD and EAD estimates associated with each facility and the key data used to derive the estimate and the person/model responsible.**
- 432. Banks under the foundation approach which utilise supervisory estimates are encouraged to retain the relevant data.**

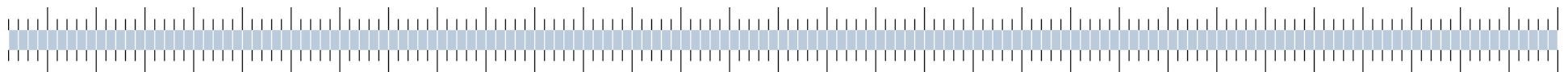


Integrity of data

Retail exposure

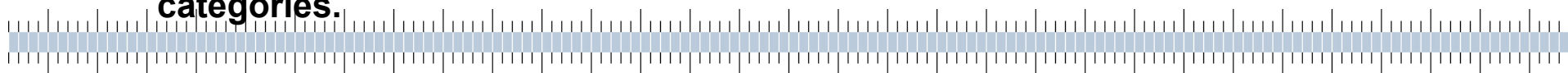


- 433. Banks must retain data used in the process of allocating exposures to pools, including data on borrower and transaction risk characteristics used either directly or through use of a model, as well as data on delinquency.**
- 433. Banks must also retain data on the estimated PDs, LGDs and EADs, associated with pools of exposures.**
- 433. For defaulted exposures, banks must retain the data on the pools to which the exposure was assigned over the year prior to default and the realised outcomes on LGD and EAD.**



Stress tests

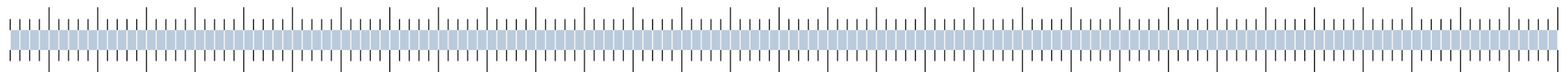
- | 434. An IRB bank must have in place sound stress testing processes for use in the assessment of capital adequacy.**
- | 434. Stress testing must involve identifying possible events or future changes in economic conditions that could have unfavourable effects on a bank's credit exposures and assessment of the bank's ability to withstand such changes.**
- | 435. In addition to the more general tests described above, the bank must perform a credit risk stress test to assess the effect of certain specific conditions on its IRB regulatory capital requirements.**
- | 435. A bank's own data should allow estimation of the ratings migration of at least some of its exposures.**
- | 435. Banks should consider information about the impact of smaller deterioration in the credit environment on a bank's ratings, giving some information on the likely effect of bigger, stress circumstances.**
- | 435. Banks should evaluate evidence of ratings migration in external ratings. This would include the bank broadly matching its buckets to rating categories.**



Proposal for discussion



- **Poor override governance,**
- **Weaknesses in written policies**
- **Procedures on rating assignment**



Q & A

