

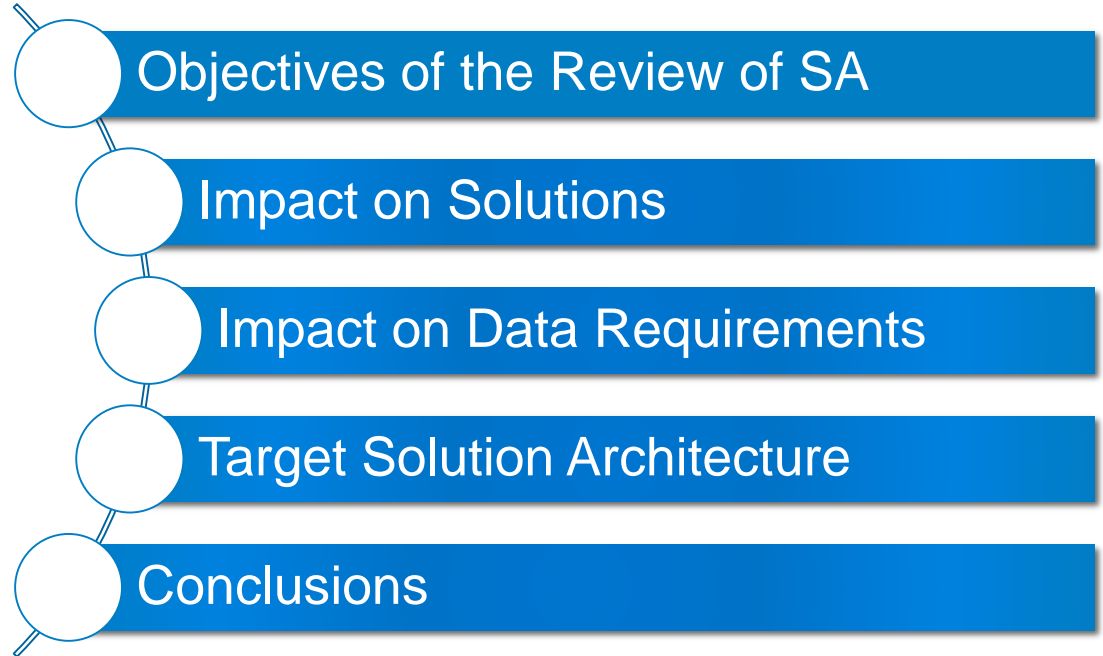
DATA AND SYSTEMS CHALLENGES AND SOLUTIONS  
THE NEW CREDIT RISK APPROACH  
A CASE STUDY USING SAS



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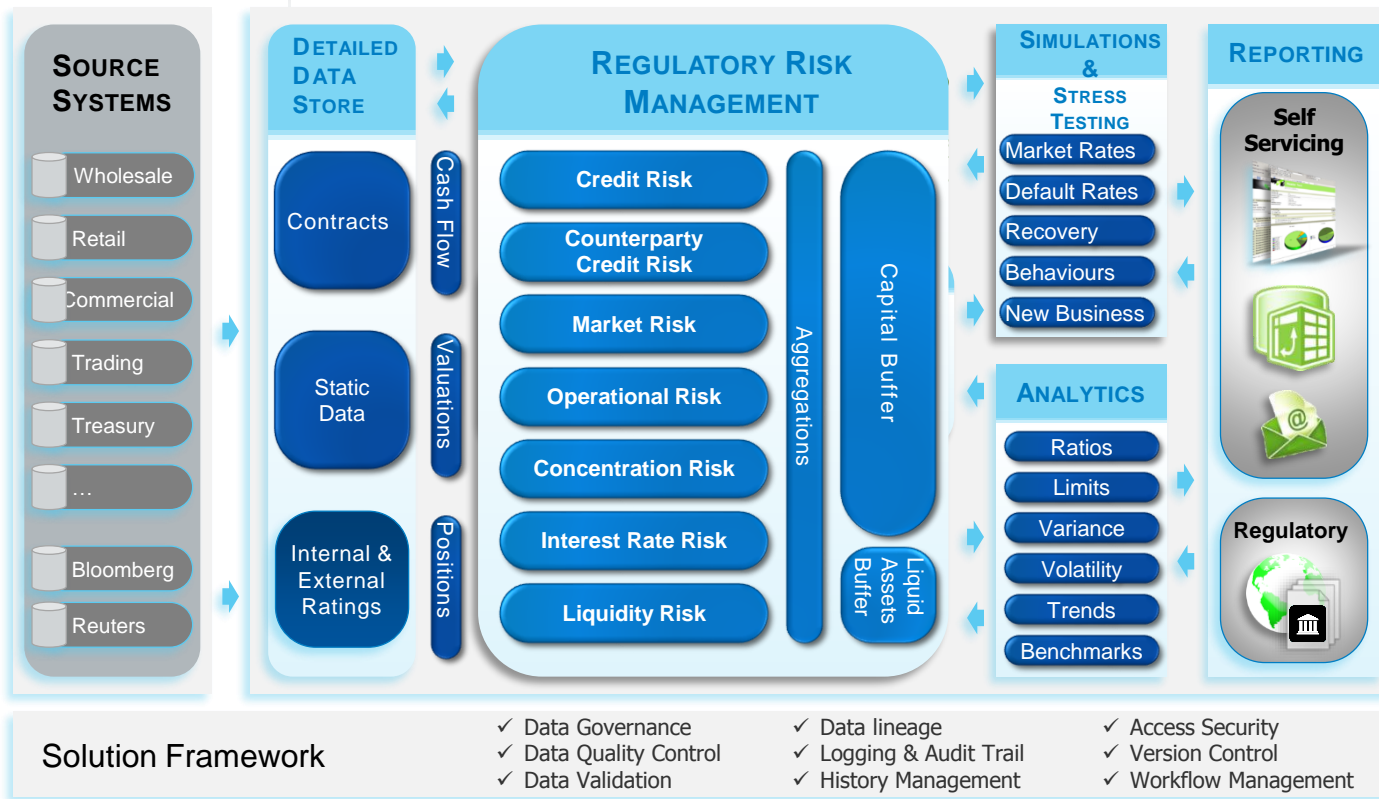
# AGENDA

## Data and Systems Challenges and Solutions



Addressing and mitigating the weaknesses of the current SA

- Reconsider the design of the SA to ensure its suitability for calculating capital requirements for credit risk exposures
- Improve granularity and risk sensitivity of the SA approach
- Increase comparability of capital requirements under SA and IRB approach
  - by reducing national discretion
  - by aligning definitions and taxonomy
- Reduce reliance on external ratings by providing alternative measures for risk assessment



- New exposure subclasses to identify
- New risk weights to allocate per exposure class
- Perform a due diligence on external rating used for banks and corporates
- Assign bank exposures to SCRA grades A, B, C for unrated banks
- New definition of SMEs
- Use of issue-specific external ratings for specialised lending to corporates
- Introduction of new subclasses for Real estate exposures: IPRE, ADC
- Use of LTV as main driver for Real Estate exposures
- Assessment of borrower's ability to pay for Residential Real Estate exposures
- Add-ons for currency mismatch (loan vs borrowers income)
- Unconditionally cancellable commitments get risk weight higher than 0%
- No impact anymore of specific provisions on risk weights of past due exposures
- Revised credit risk mitigation and methodology of repo-style transactions

### New **exposure classes**

- Data to map exposure characteristics to new classes

### Perform a **Due Diligence** on external rating used for banks and corporates

The primary objective of the FSB Principles is to discourage banks from relying *mechanistically* on external ratings for the assessment of an asset's creditworthiness. Banks should be able to conduct their own assessment of the creditworthiness of, and other risks relating to, the financial instruments to which they are exposed, and satisfy their supervisors of that capability. As long as banks continue to have SA capital requirements based on external ratings, banks should also put in place processes to ensure that they have an appropriate understanding of the uses and limitations of external ratings.

- Data needed to assess the credit worthiness of banks and corporates
  - Risk drivers, business model, entity operating market, entity group and affiliates, data to compare with industry and peers, micro and macro economical factors
- Prove to supervisor a Due Diligence process is in place

Assign bank exposures to **SCRA grades** A, B, C for unrated banks

- Data needed about Capital, Leverage and Liquidity ratios and buffers to be able to assign grades

New definition of **SMEs**

- Turnover data

**Specialised lending** to corporates

- Data about Issue-specific external ratings

**Real estate** exposures incl. IPRE, ADC

- Capture LTV as main driver
- Data to be able to perform assessment of borrower's ability to pay
- Data to check Operational requirements for preferential risk weight,  
like Quality of collateral, collateral legal enforceability, seniority of lien, documentation

Align 'past due' to '**defaulted**' exposures

- Adjustment of flag 'defaulted' to the definition as in IRB approach

Add-ons for **currency mismatch** (loan vs borrowers income)

- Data about currency of income

**Unconditionally cancellable commitments** get risk weight higher than 0%

- Data to classify UCC in different classes to determine risk weight

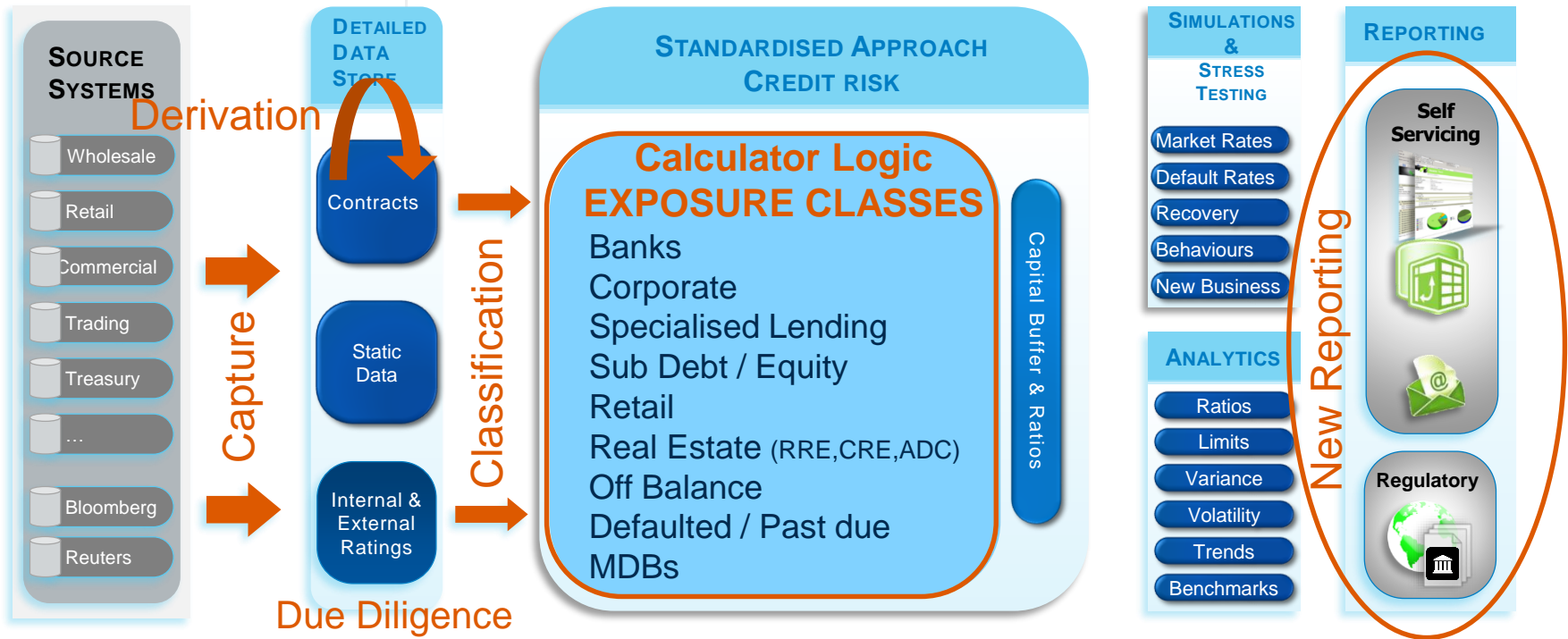
Revised **Credit Risk Mitigation** framework

- Data to define changing eligibility criteria for collaterals and guarantees



# IMPACT OF NEW SA

# IMPACT OF THE REVISION ON DATA, CALCULATION, REPORTING



- |                    |                        |                         |                              |
|--------------------|------------------------|-------------------------|------------------------------|
| Solution Framework | ✓ Data Governance      | ✓ Data lineage          | ✓ Access Security            |
|                    | ✓ Data Quality Control | ✓ Logging & Audit Trail | ✓ Version Control            |
|                    | ✓ Data Validation      | ✓ History Management    | ✓ <b>Workflow Management</b> |

- Risk data mart, acting as single version of the truth for all Risk & Finance solutions, and providing data management functionalities
- Rule based classification of exposure into classes
- Each exposure class processed by calculators, embedding specific exposure class logic, and storing detailed results
- High performance risk calculators, based on in-memory processing, shortening calculation time
- Flexible internal & regulatory reporting, with self servicing reporting capabilities
- Workflow capabilities supporting data and process management (e.g. Due diligence for external ratings)



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**THE  
POWER  
TO KNOW.**