

ALMA - Navigating The  
Maze: A Deep Dive Into  
Credit Spread Risk In The  
Banking Book (CSRBB)

March 2024 - Summary



**EY**

Building a better  
working world

# Welcome and introduction

## Today's Speakers



### Morven Campbell

Partner  
mcampbell2@uk.ey.com

- ▶ Morven leads EY's treasury service offering and has over 25 years treasury risk management advisory and assurance experience.
- ▶ Morven is an established governance, compliance, treasury and risk management specialist, leading a team of over 200 financial risk specialists with expertise across different aspects of risk assurance including: treasury risk management, prudential reporting assurance, IT and data assurance, business process and controls, conduct and behavioural assurance, project assurance and regulatory change.



### James Cartman

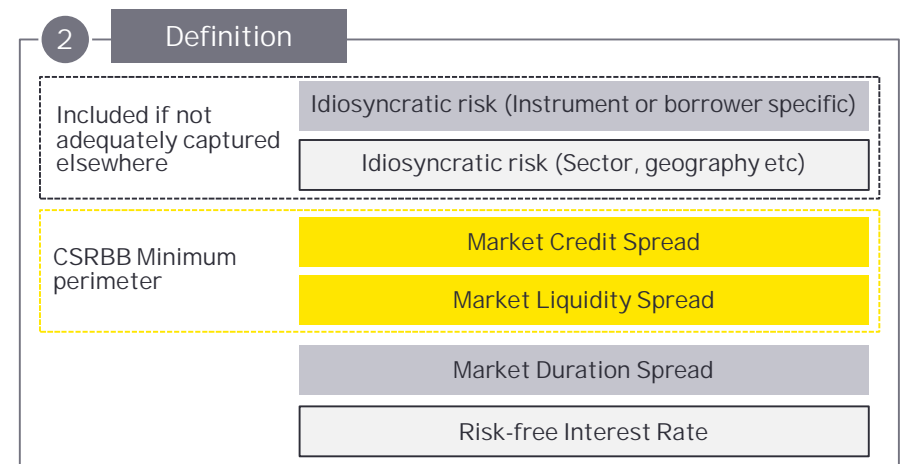
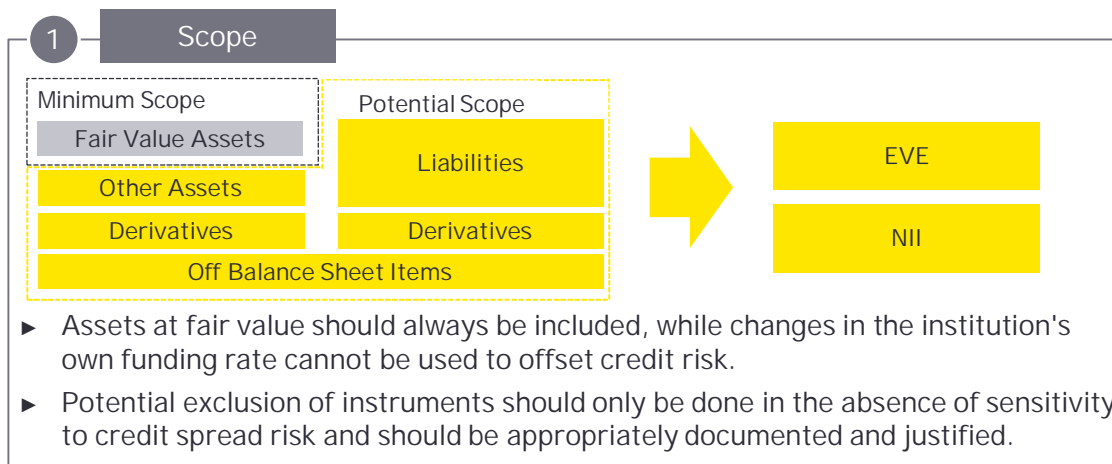
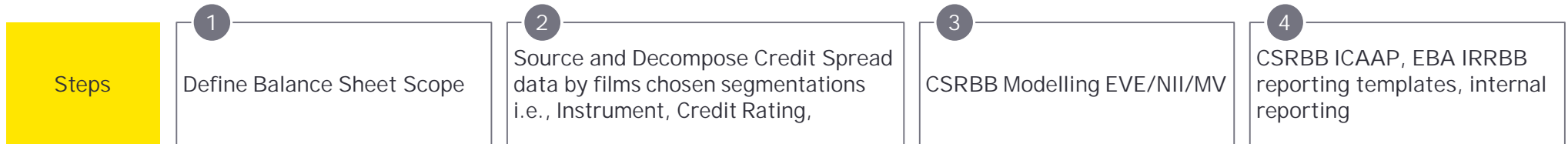
Senior Manager  
James.Cartman@uk.ey.com

- ▶ James is an Senior Manager in the Treasury and Prudential Assurance practice. He is a Treasury SMR with over 12 years experience and responsibility for leading teams in delivering Balance Sheet Optimisation, Development and Implementation of Treasury Operating Models, Treasury Risk Management including Interest Rate Risk Management, Funds Transfer Pricing (development and implementation), Liquidity Risk management and optimisation, Wholesale Credit Risk and Prudential Regulatory Compliance including Regulatory Reporting.
- ▶ James has practical IRRBB, Market Risk, Liquidity Risk, FTP, Wholesale Credit Risk, Capital Risk and Regulatory Reporting experience as part of the leadership team in the Treasury and Asset and Liability Management functions.
- ▶ James is also an ALMA - CertBALM alumnus

# CSRBB – Overview and definitions

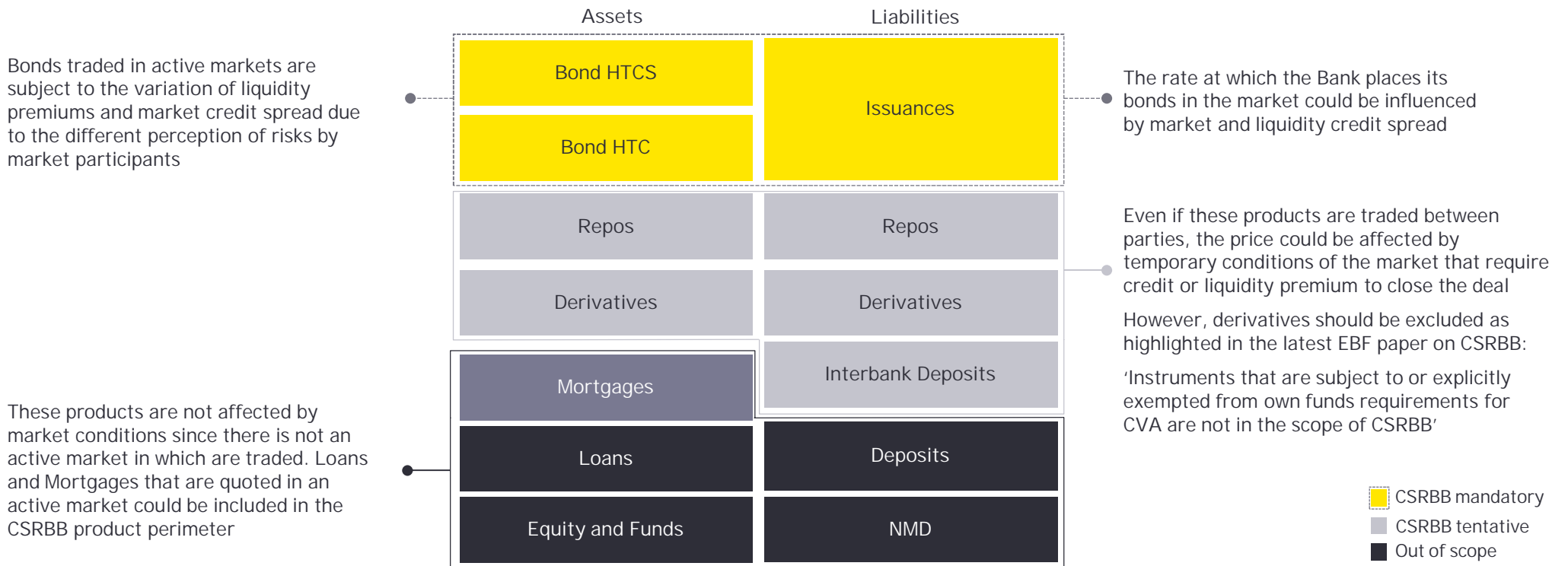
Our understanding of how CSRBB is defined, the balance sheet scope assessment and yield decomposition process ...

Overview	<ul style="list-style-type: none"> <li>▶ CSRBB is driven by changes of the market price for credit risk, for liquidity and for potentially other characteristics of credit-risky instruments, which is not captured by another existing prudential framework such as IRRBB or by expected credit/(jump-to-) default risk.</li> <li>▶ CSRBB captures the risk of an instrument's changing spread while assuming the same level of creditworthiness. Idiosyncratic spread changes are generally not considered:</li> </ul>
----------	--



# CSRBB – Product scope of application

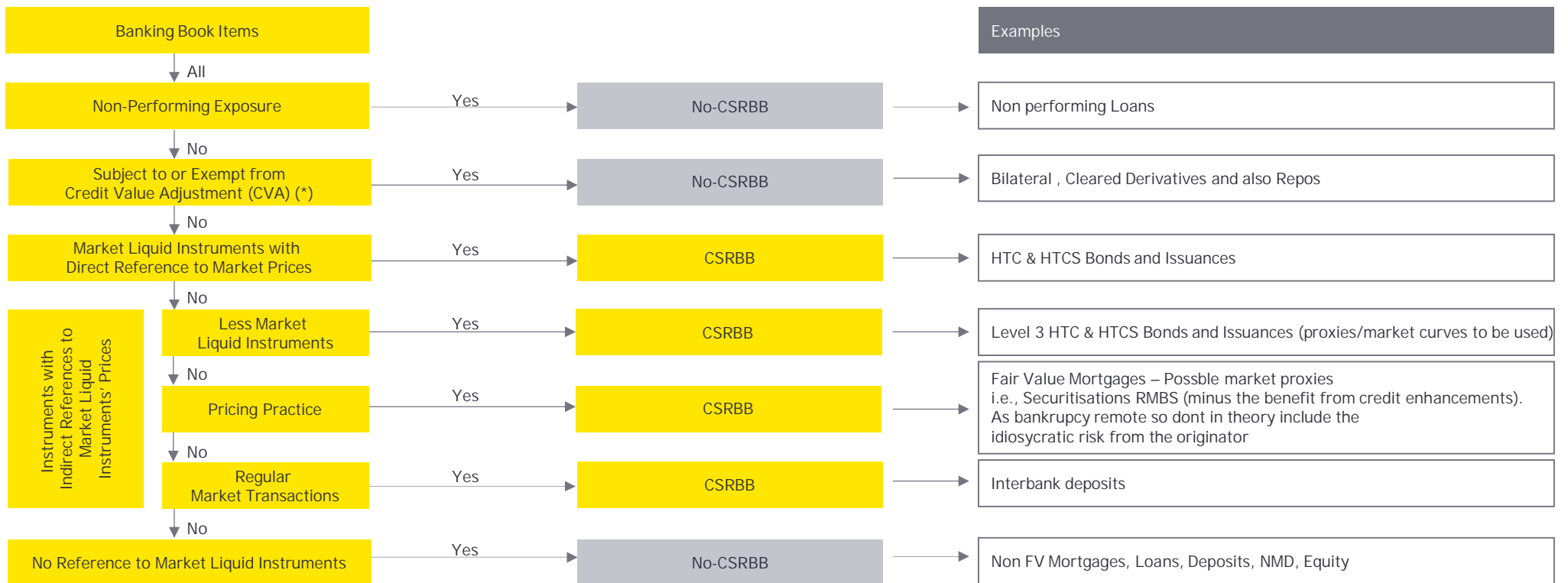
EBA/GL/2022/14- Art. 124 – Institutions **should not exclude any instrument** in the banking book from the perimeter of CSRBB ex ante, including assets, liabilities, derivatives and other off-balance sheet items such as loan commitments, **irrespective of their accounting treatment**. Any potential **exclusion** of instruments from the relevant perimeter should be done in the case of the absence of sensitivity to credit spread risk and should be **appropriately documented and justified**. In any case, institutions **should not exclude assets accounted at fair value**.



- CSRBB mandatory
- CSRBB tentative
- Out of scope

# CSRBB – Decision Tree to inform CSRBB Scope

To address the challenges and inconsistencies regarding the identification of the perimeter of CSRBB, the **European Banking Federation** released a paper in July 2023 with the below **decision tree** was proposed. This outlined all material Banking Book items being subject to the process described below, irrespective of their accounting mode:



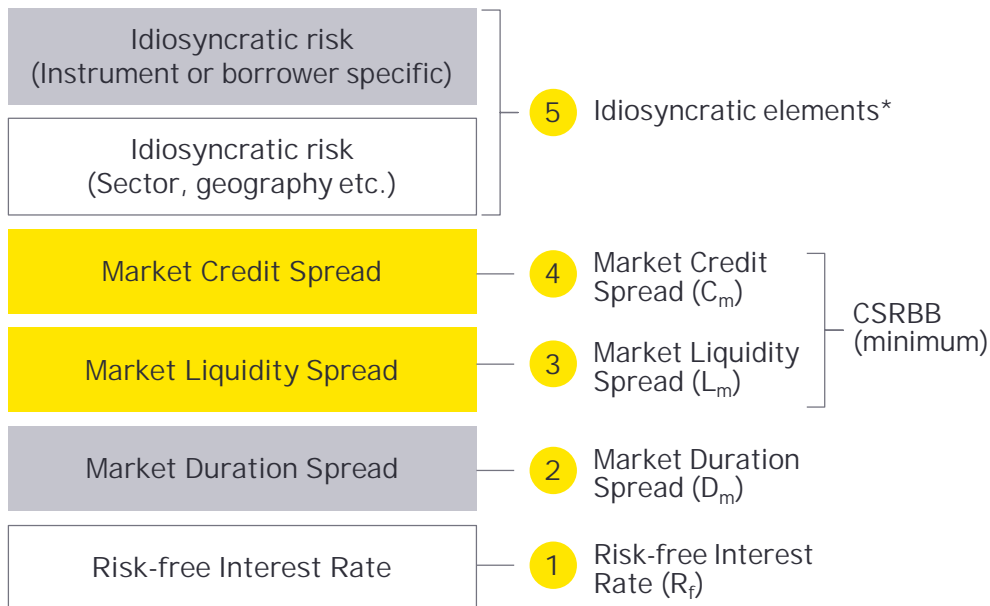
\* Instruments that are mitigating CSRBB are considered for CSRBB-measurement



# CSRBB – Source data and Yield decomposition

How to conceptually decompose market observed rates for CSRBB to use as historic reference data for stress testing i.e., Historic Simulation

Yield Components:



\*As an exception, in the practical implementation and for proportionality reasons, institutions may include idiosyncratic credit spread components for the monitoring of CSRBB, as long as it is ensured that the measures will yield more conservative results.

How to build a curve for each currency by speculating on EBA decomposition:

- 1 Risk-free Interest Rate ( $R_f$ ) – OIS curve reflects pure interest rate expectation
- 2 Market Duration Spread ( $D_m$ ) – The additional tenor spread in sovereign yield curve to risk-free
- 3 Market Liquidity Spread ( $L_m$ ) – Implied liquidity spread can be calculated using funding cost of the haircut on sovereign debt
- 4 Market Credit Spread ( $C_m$ ) – The additional spread on non-government curve to be calculated for each rating category to the sum of first three i.e.,

$$C_m(\text{AAA}) = Y(\text{AAA}) - (R_f + L_m + D_m)$$


$$C_m(\text{AA}) = Y(\text{AA}) - (R_f + L_m + D_m)$$

... $Y(\text{AAA})$ : Yield curve calculated averaging AAA only,  $Y(\text{AA})$ : Yield curve calculated averaging AA only,...

- 5 Idiosyncratic Credit Spread – Idiosyncratic credit spread derived from CDS spreads and Fitch's global cumulative default rates by rating. Credit Spread =  $PD * LGD$

# CSRBB Methodology – Measurement

The following slides focus on CSRBB measurement in terms of calculation of the metrics (by using CS01, VaR approach etc) and estimation of shock scenarios.

Possible Approaches	Main Advantages	Possible Limitations
 <p>1 CS01 or Sensitivity Based</p>	<ul style="list-style-type: none"> <li>▶ Computational simplicity</li> <li>▶ CS01 is a metric typically found in market risk systems</li> <li>▶ Measure cited in EBF position paper and recognized by industry</li> </ul>	<ul style="list-style-type: none"> <li>▶ In case of CS01, the magnitude of the shock, of 1bps, is not derived from observed market scenarios, therefore a methodology to estimate the shock is needed</li> </ul>
<p>2 Parametric Approach</p>	<ul style="list-style-type: none"> <li>▶ Easily interpretable approach</li> <li>▶ Limited computational complexity</li> </ul>	<ul style="list-style-type: none"> <li>▶ Need to define a distribution for the phenomenon</li> <li>▶ Need to define any differences in approach between EVE and NII</li> </ul>
<p>3 Historical Simulation</p>	<ul style="list-style-type: none"> <li>▶ Easily interpretable approach</li> <li>▶ Possibility of implementing a complex or simplified methodology</li> </ul>	<ul style="list-style-type: none"> <li>▶ Need to define any differences in approach between EVE and NII</li> </ul>

# CSRBB Methodology – Scenarios Calibration for $\Delta$ CSRBB

The following slides focus on CSRBB measurement in terms of calculation of the metrics (by using CS01, VaR approach etc.) and estimation of shock scenarios.

## Historical Scenarios

The STE template indicates the possibility of using historical scenarios, calibrated as follows:

- ▶ Historical scenarios observed over the past 10 years
- ▶ Historical scenarios observed over the past 20 years

Possible Advantages:

- ▶ Possibility of implementing a simple or complex methodology
- ▶ Simplicity in interpretation

Possible Limitations:

- ▶ Data Availability, with respect to 10/20Yr time series of market data
- ▶ Need to perform data quality checks
- ▶ Computational complexity depending on the simulation chosen

## Hypothetical Scenarios/Taylor made

Possibility of using stochastic or Taylor-made modeling to calculate stress scenarios.

Possible Advantages:

- ▶ Flexibility in what-if analyses and possibility of forecasting
- ▶ Scenarios can be linked to projections of market variables

Possible Limitations:

- ▶ Need to identify modeling for the phenomenon
- ▶ Computational complexity

EBF's July 2023 paper 'Credit Spread Risk in the Banking Book' indicates the possibility of using a parallel shock scenario of one basis point (CS01), not deriving the magnitude of the shock from historical or hypothetical scenarios



## EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via [ey.com/privacy](https://ey.com/privacy). EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit [ey.com](https://ey.com).

### Ernst & Young LLP

The UK firm Ernst & Young LLP is a limited liability partnership registered in England and Wales with registered number OC300001 and is a member firm of Ernst & Young Global Limited.

Ernst & Young LLP, 1 More London Place, London, SE1 2AF.

© 2024 Ernst & Young LLP. Published in the UK.  
All Rights Reserved.

UKC-032549 (UK) 02/24. Creative UK.

ED None

Information in this publication is intended to provide only a general outline of the subjects covered. It should neither be regarded as comprehensive nor sufficient for making decisions, nor should it be used in place of professional advice. Ernst & Young LLP accepts no responsibility for any loss arising from any action taken or not taken by anyone using this material.

[ey.com/uk](https://ey.com/uk)

