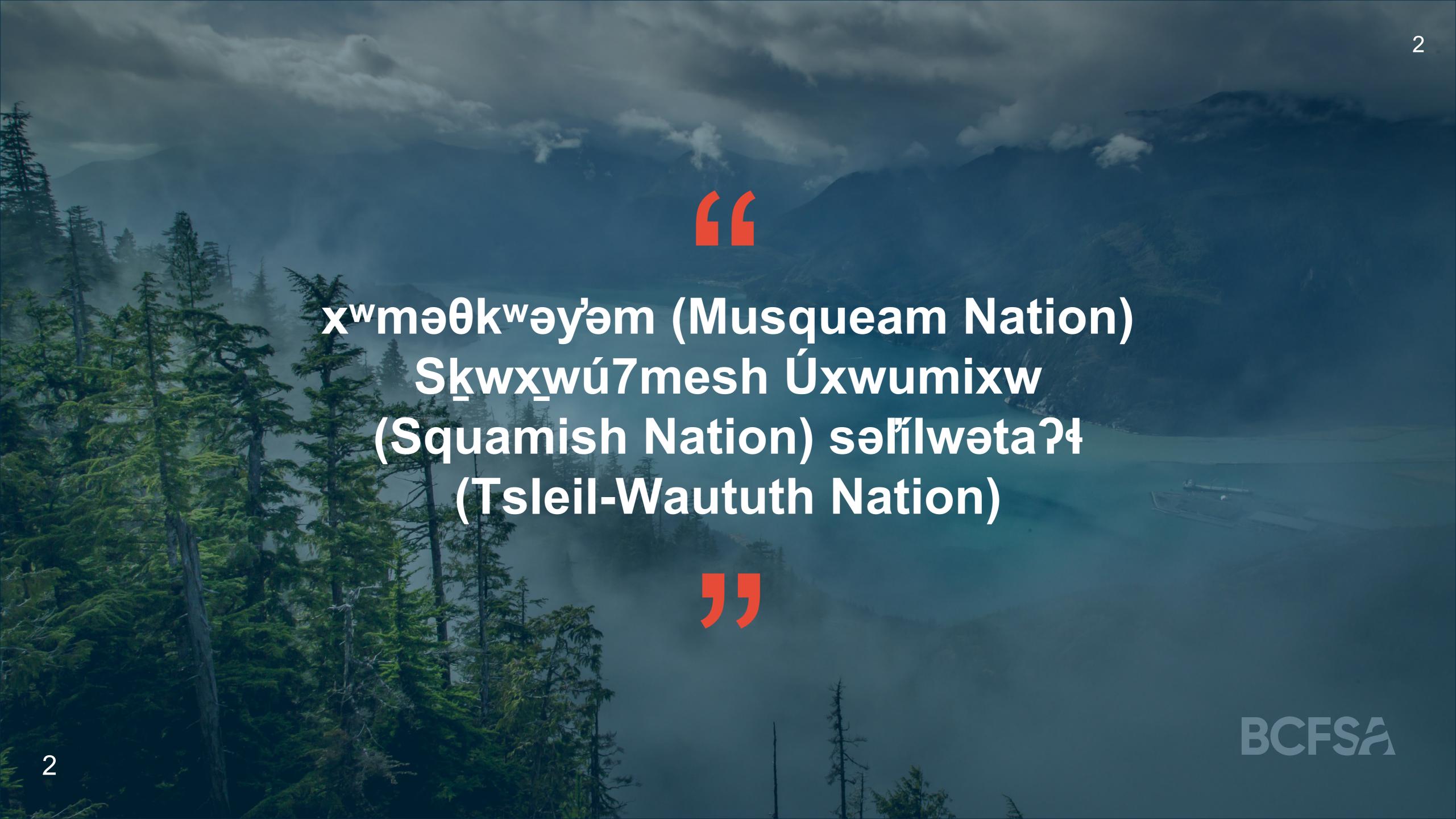
# Market Risk Banking Book Quantitative Impact Study

#### Information Session

September 18, 2024







### Speakers

#### DERRICK LAU

Vice President,
Supervision &
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Director,
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Standards

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Senior Analyst, Risk Surveillance & Analytics



#### Agenda

- 1. Introduction Market Risk Under Capital Modernization
- 2. Interest Rate Risk in Banking Book (IRRBB)
- 3. Quantitative Impact Study ("QIS")
  - Methodology for QIS
  - Reporting for QIS
- 4. QIS Timeline & Next Steps
- 5. Question and Answer

BCFSA

#### Introduction

## Market Risk Under Capital Modernization



#### Introduction

- Market risk is the risk of losses in positions arising from movements in market variables like prices and volatility
- A key component in modernizing the capital framework for B.C. credit union segment
- BCFSA seeks to better understand credit union exposures to market risk and ensure capital adequacy for unforeseen losses



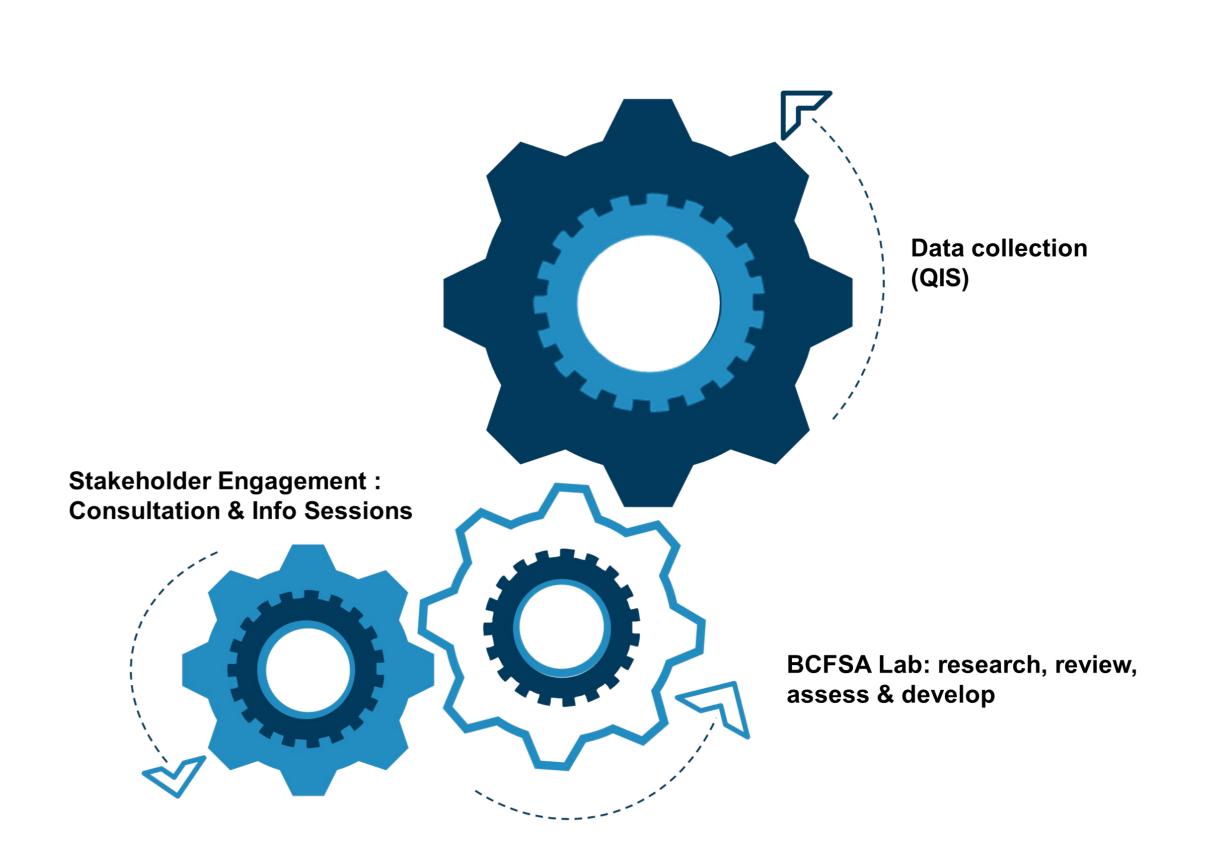
# How is Market Risk addressed under the Capital Modernization Project?

- BCFSA gathered information about market risk exposures during the general consultation
- Proposed Capital Rule (effective Jan 1, 2026) does not include market risk. BCFSA plans to address market risk in future amendments of the Capital Rule
- Updating the ICAAP, Supervisory Review Process and reporting requirements
- BCFSA is committed to further consultation with stakeholders



#### BCFSA's Approach for Market Risk

- Gather information and data with a Quantitative Impact Study and perform an independent impact assessment
- ICAAP update to ICAAP Guideline, consultation in Spring 2025
- Final decision on approach will be based on the QIS findings, and consultation with credit unions
- BCFSA plans to release consultation paper on market risk approach in early 2026





# Interest Rate Risk in Banking Book (IRRBB)



## Interest Rate Risk in the Banking Book (IRRBB)

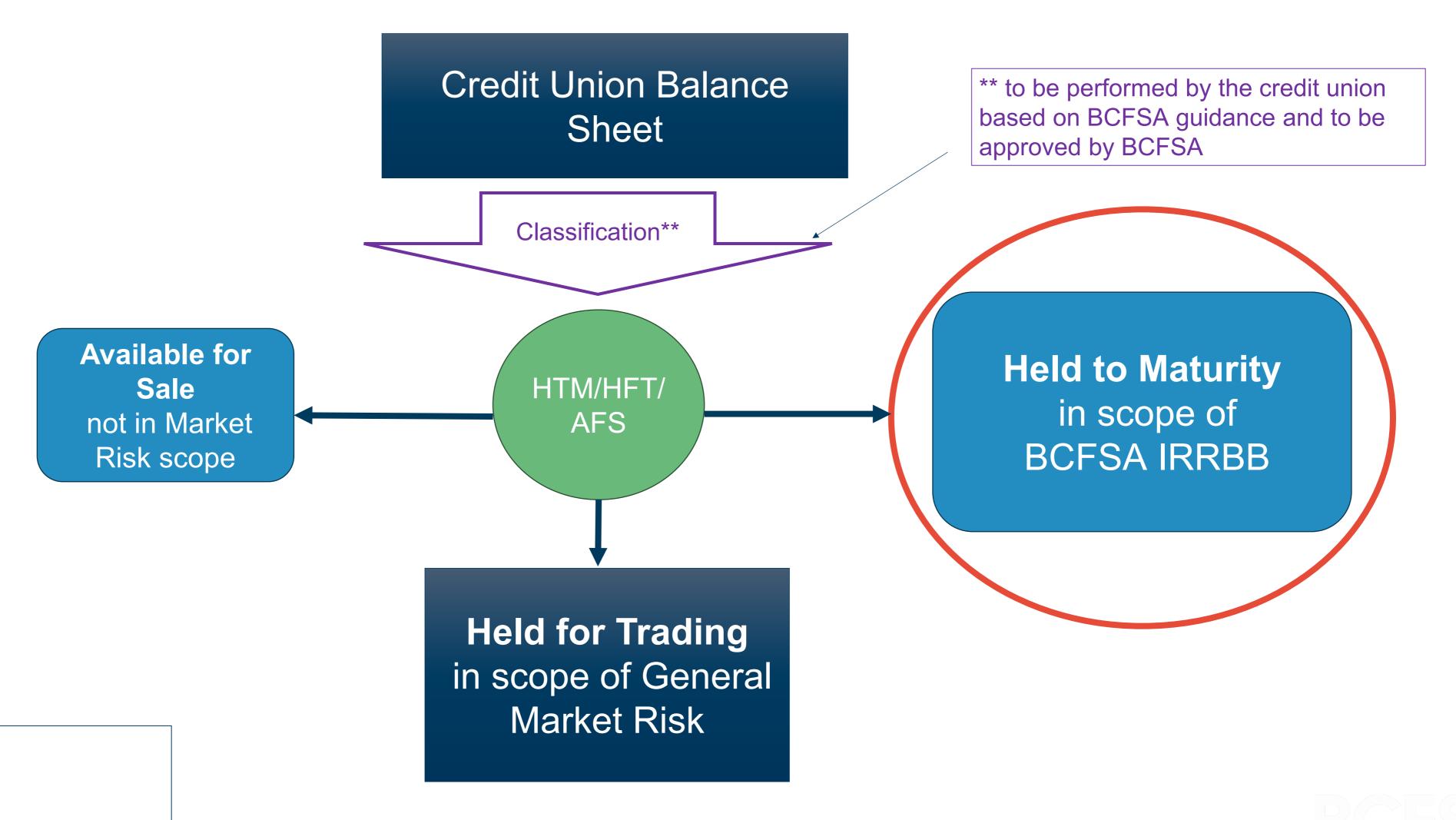
#### INTEREST RATE RISK IS ONE OF THE PRIMARY RISKS WHICH THE B.C. CREDIT UNION SYSTEM IS EXPOSED TO

- Exacerbated by:
  - present volatility in market;
  - rapid shift in interest rate regime; and
  - shifting macroeconomic environment
- Identification, measurement, and control requires standardization across the B.C. credit union system

#### Rationale

Protecting the B.C. credit union system from unexpected rate shocks is BCFSA's main rationale for the IRRBB methodology

#### **Market Risk Process Flow**



**HTM**: Held to Maturity **HFT**: Held for Trading **AFS**: Available for Sale

IRRBB: Interest Rate Risk in Banking Book

## Interest Rate Risk in the Banking Book (IRRB)

- Focus only on all credit unions' banking books
- Positions held to maturity (HTM) and hedges of such positions

#### **NOT IN SCOPE**

 Mandatory Liquidity Pool ("MLP") instruments not in scope of proposed BCFSA Market Risk regulations



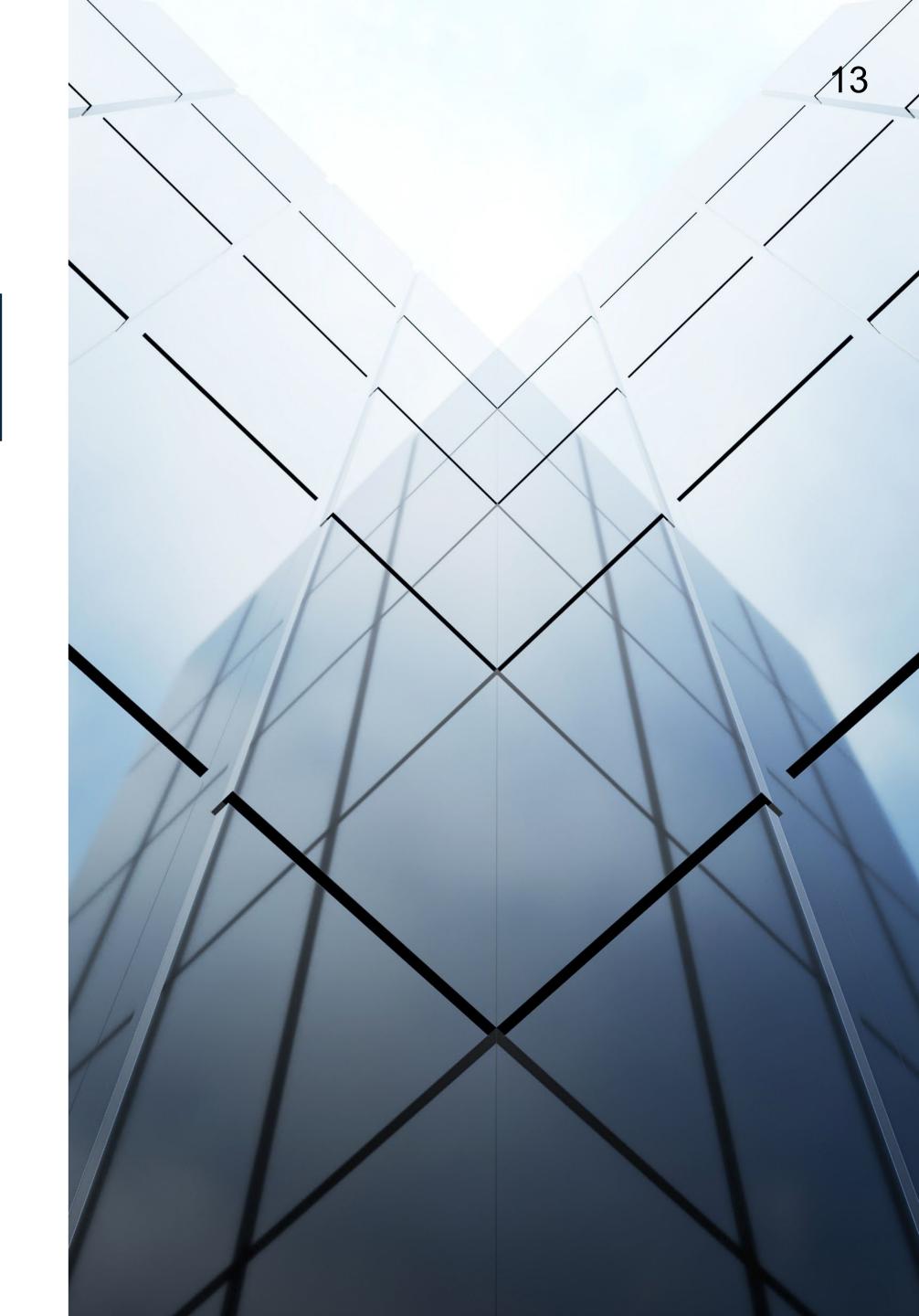
#### IRRBB Methodology

#### REFINEMENT/DIVERGENCE

#### General alignment with Basel Committee on Banking Supervision ("BCBS") /OSFI IRRBB methodology.

- Risk-free interest rate to be used for discounting cash flows
- Treatment of variable interest rate positions
- Treatment of non-maturity deposits (NMDs)
- Treatment of embedded automatic interest rate options

Changes added to BCFSA's proposed IRRBB methodology to reflect credit unions' business models and operational constraints.



# Quantitative Impact Study (QIS) Overview



#### Quantitative Impact Study

IT IS A DATA COLLECTION, SCENARIO ANALYSIS, AND PROPOSED METHODOLOGY DRY RUN EXERCISE THAT WILL ALLOW US TO:

- Quantify capital impact vis-a-vis existing methodologies;
- Calibrate methodology parameters; and
- Incorporate any necessary modifications based on the QIS results
- → BCFSA Interest Rate Risk in Banking Book regulations



## QIS Reporting – all Credit Unions & C1

- Split Balance sheet classification of exposures into:
  - 1. Banking Book; or
  - 2. Trading Book

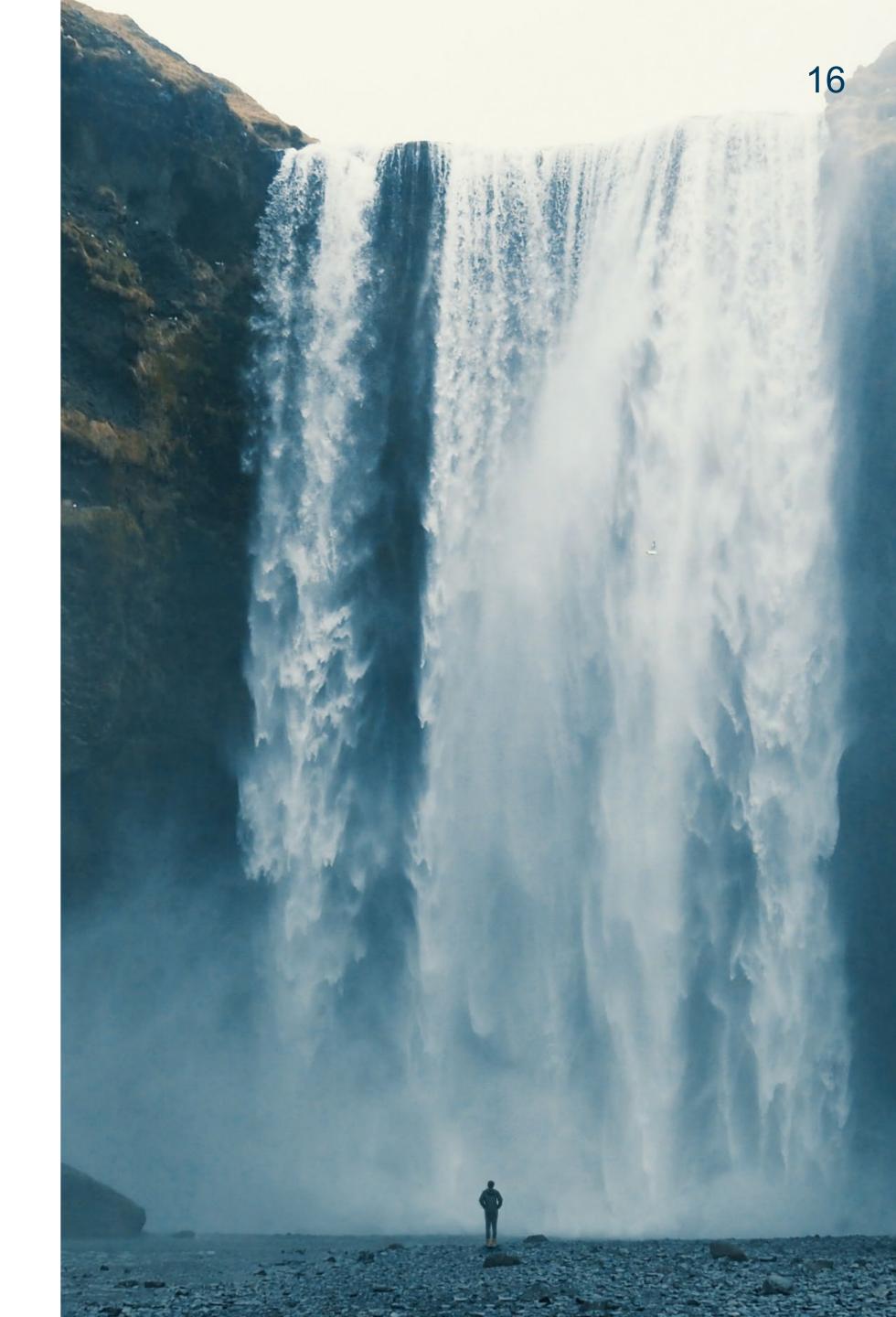
#### **Key metrics:**

Economic Value of Equity ("EVE"): measures the theoretical change in the net present value of the balance sheet excluding equity due to yield-curve perturbations

**Net Interest Income ("NII"):** the difference between total interest income and total interest expense, taking into account hedging activity (e.g. derivatives)

Reporting  $\triangle EVE$  and  $\triangle NII$  metrics under:

- 1. Proposed approach; and
- Existing methodology used by all credit unions at present.



#### Existing ALM Reporting

#### **ALL CREDIT UNIONS AND CENTRAL 1**

- Balance sheet analysis at a minimum quarterly
- In-house or through third party providers
- Calculation of EVE or NII or both metrics based on CU specific scenarios and methodology
- Select credit unions perform stochastic projection of yield curves to calculate Earnings at Risk ("EaR")



#### QIS – IRRBB Reporting

#### **ALL CREDIT UNIONS AND CENTRAL 1**

- Calculation of both EVE and NII for defined scenarios and under standardized methodology
- Articulate classification of NMDs into Basel defined categories and back-testing of assumptions against realized data
- Articulate prepayment assumptions and back test them
- No calculation of Earnings at Risk (EaR) or Economic Value at Risk (EVaR)

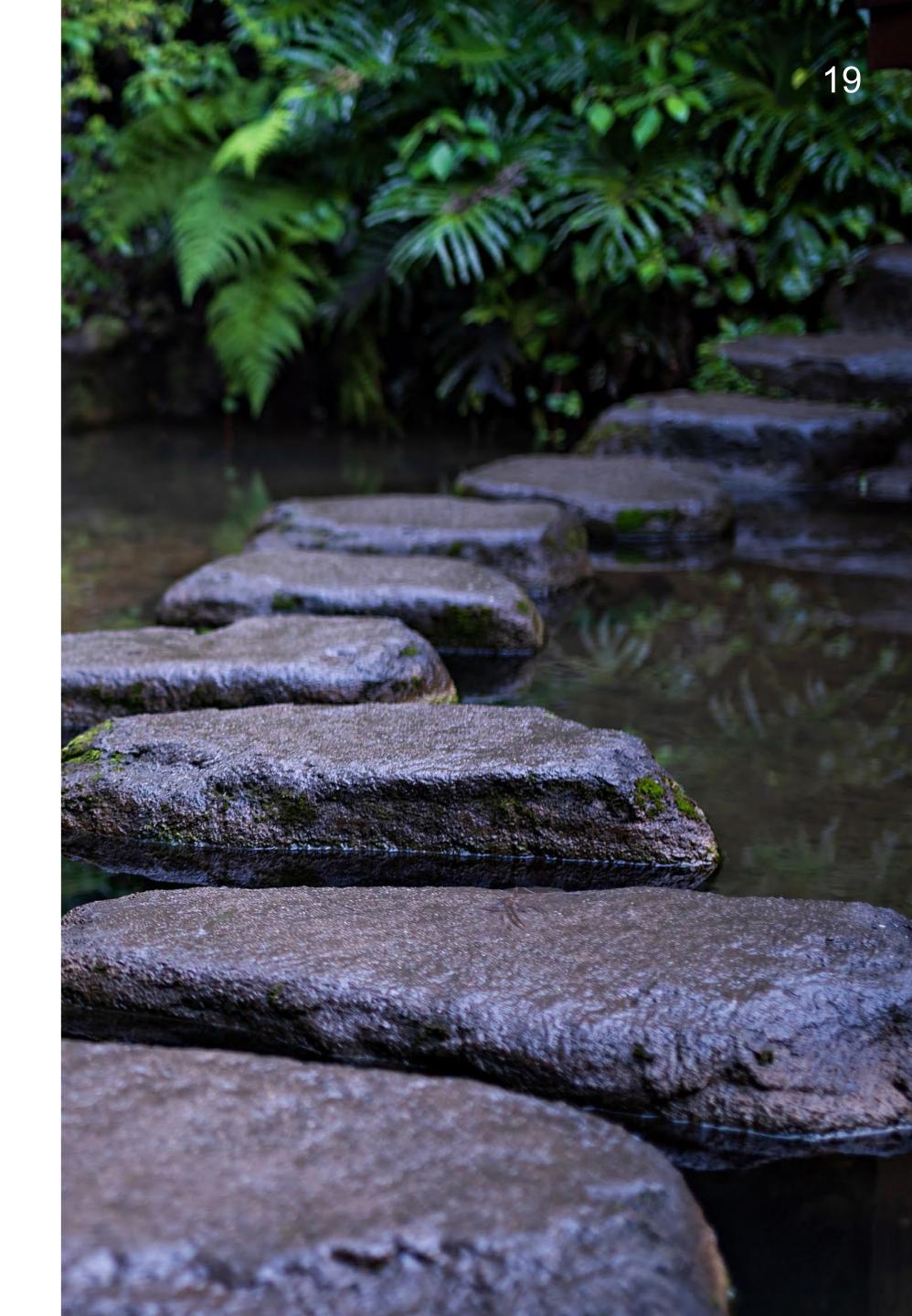
#### QIS Reporting Requirements

#### Standardization of:

- Calculation methodology
- Interest rate shocks
- Position treatment
- Reporting

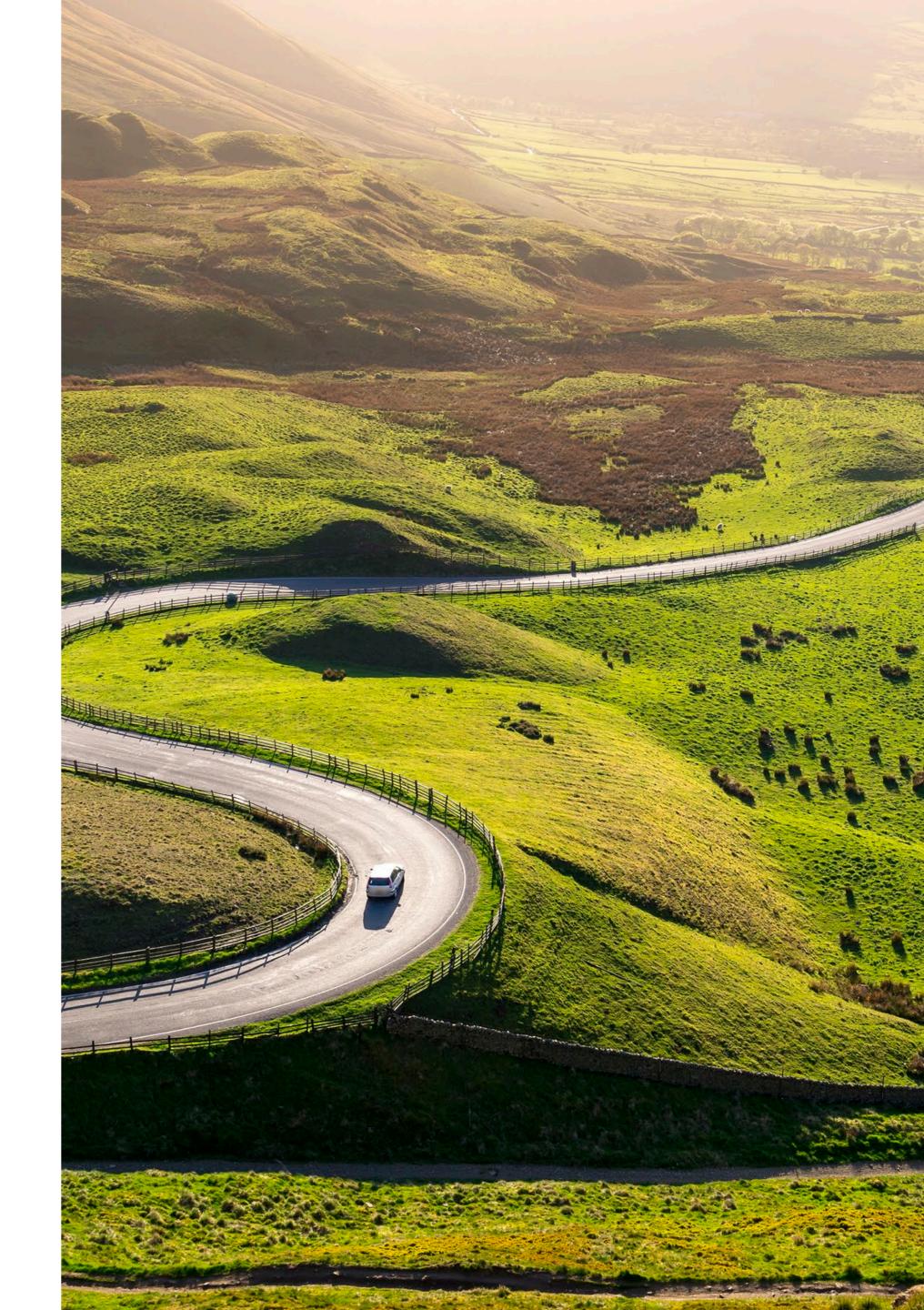
## IRRBB Quantitative Impact Study Timeline

- First submission: November 15, 2024
- Submission via IRIS
- Quarterly submission for five consecutive quarters:
  - September 2024 (submit by November 15, 2024);
  - December 2024 (submit by February 10, 2025);
  - March 2025 (submit by April 30, 2025);
  - June 2025 (submit by July 31, 2025); and
  - September 2025 (submit by October 31, 2025)



#### Next Steps

- BCFSA will host the next Information Session on October 3rd
  - Focus on the QIS and completing the Excel template
  - Please pass on the invitation and materials to your Treasury Staff or service providers who will be working on the QIS reporting
- BCFSA will send QIS materials to all credit unions:
  - Introduction to BCFSA Interest Rate Risk in Banking Book Methodology
  - BCFSA Interest Rate Risk in Banking Book Quantitative Impact Study (QIS)
  - Excel Reporting Template
- Final decision on approach will be based on the QIS findings, and consultation with credit unions
- BCFSA plans to release consultation paper on market risk approach in early 2026



### Questions?

Contact: CUCapital@bcfsa.ca

Please reach out to <a href="CUCapital@bcfsa.ca">CUCapital@bcfsa.ca</a> if you have detailed questions following the session

# Thank you.

