BC Financial Services Authority

CUDIC Differential Premium System

2020 Assessment Year Calculation Manual

Classification: Public

Contents

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GLOSSARY

Outlined below is an alphabetical list of specialized terms used throughout this Calculation Manual.

Term	Definition
Assessment Category	Means the category assigned to a credit union based on its sum total Assessment Score. There are five categories: AA, A, BB, B, and C; where Assessment Category AA is the highest category while Assessment Category C is the lowest category. A higher Assessment Category corresponds with a higher Assessment Score and lower Assessment Rate, whereas a lower Assessment Category corresponds with a lower Assessment Score and high Assessment Rate.
Assessment Rate	Means the percentage of the Base Assessment Rate payable by a credit union corresponding to a particular Assessment Category and total Assessment Score.
Assessment Score	Means the sum of points assigned to a credit union based on its calculated Risk Metric value relative to the corresponding Scoring Range. A higher Assessment Score corresponds with a lower risk assessment relative to a lower Assessment Score which corresponds with a higher risk assessment.
Base Assessment Rate (BAR)	Means the rate of annual assessment that forms the basis of the differential Assessment Rates used to determine the annual assessment payable by each BC credit union. The BAR is established annually by the Board of the BC Financial Services Authority, and is expressed in basis points (bps) relative to BC credit union year end insured deposits and non-equity shares.
Calculator Tool	Means an Excel document (and accompanying User Guide) created by the BC Financial Services Authority for use by BC credit unions to estimate their potential deposit insurance assessment. The tool is located on the BCFSA website.
Deposit Insurance Assessment	Means an assessment as defined under section 260 (1) of the Financial Institutions Act ("FIA"). This is calculated as the product of fiscal year-end deposits and Assessment Rate.
Risk Category	Means the group of related qualitative and quantitative Risk Metrics assessed in order to differentiate the relative risk profile of BC credit unions. There are five Risk Categories: Capital, Asset Quality, Earnings, Liquidity & Funding, and Supervisory Ratings.
Risk Metric	Means a qualitative or quantitative indicator used to assess the degree of risk in different areas of activity of a BC credit union at a point in time.

Scoring Range	Means the range of values of a Risk Metric, bounded by an upper and a lower limit, for which a corresponding Assessment Score will be applied. A *fixed* Scoring Range means a Scoring Range that is determined based on statutory and regulatory requirements, as well as industry best practices. A *relative* Scoring Range means a Scoring Range is determined based on a statistical analysis of the historical performance of BC credit unions.

INTRODUCTION

The *Financial Institutions Act* (FIA) authorizes the Credit Union Deposit Insurance Corporation of British Columbia (CUDIC) to guarantee the deposits and non-equity shares of credit unions in British Columbia (BC). This guarantee provides confidence for credit union depositors knowing that they are protected by CUDIC in the event of a credit union failure. To fulfill its obligation to depositors, CUDIC maintains an ex-ante deposit insurance fund (CUDIC fund). Credible funding is determined based on the effectiveness of available regulatory and supervisory tools to mitigate losses to the CUDIC fund from credit union failures.

The Differential Premium System (DPS)[1]:

- provides financial incentives to credit unions to proactively manage risks that impact the likelihood and magnitude of losses to the CUDIC fund; and
- seeks fairness in the deposit insurance assessment process.

It does these by assessing annual premiums relative to the risks posed to the CUDIC fund.

The DPS aims to differentiate credit unions through risk metrics that are linked to the likelihood of loss (probability of default) and magnitude of loss (loss given default) in the event of a credit union failure. By providing financial incentives to proactively manage risks, the DPS is intended to mitigate risks to the CUDIC fund and maintain funding, at a minimum yet credible level, to cover the financial loss of reimbursing all the depositors of a non-viable credit union.

The DPS can be separated into two components:

- the *base methodology* (i.e., the method for determining the total assessment score based on specific quantitative and qualitative risk metrics), and
- the *premium structure* (i.e., the method for determining the assessment rate as a percentage of the Base Assessment Rate which is used to calculate the deposit insurance assessment).

The process for developing the DPS began in 2016 and involved consultation with credit unions as well as a Working Group of sector representatives.

This manual is intended to provide each credit union with information on the DPS – such as how each metric is calculated, with reference to the line numbers in the Financial and Statistical Return (FSR) and from data provided by the credit unions separate from FSR. This manual may be used in conjunction with the Calculator Tool on the secure website of the BC Financial Services Authority (BCFSA) to estimate potential credit union deposit insurance assessment.

The Total Assessment Score from all the various risk metrics will determine the particular Assessment Category that will be assigned to a credit union. The assessment categories and their corresponding assessment rates are described in more detail in the Premium Structure section of this manual.

[1] Formerly known as the Risk-Based Premium Assessment Methodology (Methodology)

Base Methodology – Summary of Risk Metrics and Scores

Risk Category	Risk Metric	Maximum Assessment Score
Capital	Capital Adequacy Ratio	20
	Leverage Ratio	10
	Total Capital Score	**30**
Asset Quality	Non-performing Loans to Total Loans	5
	Commercial 4/5 Rated Loans to Total Loans	5
	Total Assets Score	**10**
Earnings	Net Operating Income (excl. Assessments) to Average Assets	5
	Volatility of Net Operating Income to Average Assets	5
	Total Earnings Score	**10**
Liquidity & Funding	Liquidity Coverage Ratio	5
	Securitizations to Total Deposits	5
	Agent Deposits to Total Deposits	5
	Total Liquidity and Funding Score	**15**
	Total Quantitative Score	**65**
Qualitative	Lower of CRR and ISR	35
	Total Qualitative Score	**35**
	Total Assessment Score	**100**

Premium Structure – Summary of Assessment Categories, Assessment Scores, and Assessment Rates

Assessment Category	Total Assessment Score (*Points*)	Assessment Rate (*% of Base Assessment Rate*)
AA	≥ 85 Points	85
A	≥ 75 and < 85 Points	100
BB	≥ 65 and < 75 Points	120
B	≥ 50 and < 65 Points	180
C	< 50 Points	250

Base Methodology

Risk Metric Calculations and Scoring

Data Requirements

The *Financial Institutions Act* (FIA) Section 268(2) provides that deposit insurance assessments should be based on annual returns filed by the credit union with the superintendent. Accordingly, the annual deposit insurance assessment is determined based on financial data reported on the annual returns of the prior fiscal year. The effective qualitative rating used in the DPS is the rating effective for the prior calendar year-end.

The risk metric calculations, used by the DPS to determine a credit union's assessment score and corresponding assessment category, are based on data from the Credit Union Audited Year End Financial and Statistical Return (AFSR), Credit Union Quarterly Financial and Statistical Return (QFSR), Monthly Financial and Statistical Return (MFSR), Credit Union Capital Adequacy Return (CAR), Liquidity Coverage Ratio (LCR), and Non-Redeemable Agent Deposits with maturity of 12 months or greater submitted to BCFSA. Line numbers used in the risk metric calculation refer to the AFSR, QFSR, or MFSR except for those indicated with * which refer to the CAR and ** which refer to Non-Redeemable Agent Deposits with maturity of 12 months or greater.

For detailed descriptions on data to be reported on each line number, please refer to the Completion Guide for Credit Union Financial and Statistical Returns (January 2018), the Capital Adequacy Return Completion Guide (July 2018), and the BC Liquidity Coverage Ratio Reporting Guide (June 2017).

RISK METRICS

Quantitative Risk Metrics

Risk Category	Risk Metric	Code
Capital	**1.** Capital Adequacy Ratio **2.** Leverage Ratio	C1 C2
Assets	**1.** Non-performing Loans to Total Loans **2.** Commercial 4/5 Rated Loans to Total Loans	A1 A2
Earnings	**1.** Net Operating Income (excluding CUDIC Assessments) to Average Assets **2.** Volatility of Net Operating Income to Average Assets	E1 E2
Liquidity & Funding	**1.** Liquidity Coverage Ratio **2.** Securitizations to Total Deposits **3.** Agent Deposits to Total Deposits	L1 L2 L3

Qualitative Risk Metrics

Qualitative risk metrics are based on the Composite Risk Ratings and Intervention Stage Ratings:

Composite Risk Rating
Low
Moderate
Above Average
High

Intervention Stage Rating
0 – Normal
1 – Early Warning
2 – Risk to financial viability or solvency
3 – Future financial viability in serious doubt
4 – Non-viability/insolvency imminent

RISK METRICS SCORING

Fixed Scoring: C1, C2, L1

Fixed scoring ranges are determined based on statutory and regulatory requirements, as well as industry best practices. In certain instances, fixed scoring ranges are determined by firstly establishing ranges using the historical performance of BC credit unions and thereafter adjusting for better alignment with industry best practices.

The scoring ranges for the following risk metrics are established using fixed ranges:

- *Capital Adequacy Ratio (C1):* The fixed range for this risk metric was established based current regulatory requirements. For this metric, a higher value represents less risk posed to the CUDIC fund.
- *Leverage Ratio (C2):* The fixed range for this risk metric was established based on relative performance within the BC credit union system (see relative scoring for other metrics below) and adjusted downward to be consistent with industry best practice. For this metric, a higher value represents less risk posed to the CUDIC fund.
- *Liquidity Coverage Ratio (L1):* The fixed range for this risk metric was established based on supervisory expectations[2]. For this metric, a higher value represents less risk posed to the CUDIC fund.

Relative Scoring: A1, A2, E1, E2, L2, L3

Relative scoring ranges are determined based on a statistical analysis of the historical performance of BC credit unions. This involves calculating the system mean and standard deviation for each metric using five years of historical data (see Updates to Scoring Ranges).

The premise of the range-setting procedure is that all credit unions within a modest distance of the system average (either above or below) should receive a moderate score of 3 out of 5 possible points (or, in the case of the metrics assigned 10 points, 6 out of 10).

The scoring ranges for the following risk metrics are established using relative scoring:

- Non-performing Loans to Total Loans (A1)
- Commercial 4/5 Rated Loans to Total Loans (A2)
- Net Operating Income (excl. assessments) to Average Assets (E1)
- Volatility of Net Operating Income to Average Assets (E2)
- Securitizations to Total Deposits (L2)
- Agent Deposits to Total Deposits (L3)

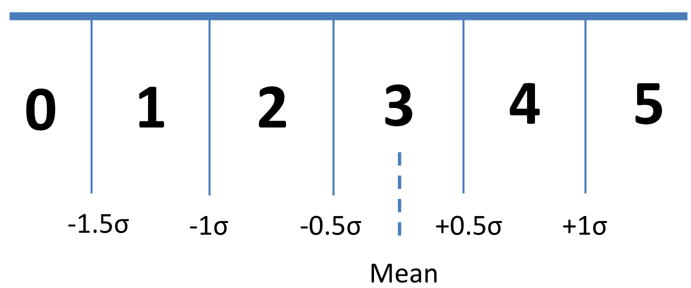
[2] This range will be further reviewed once the revised Liquidity Coverage Ratio Calculation Guidelines have been finalized, introduced and staff have sufficient data to analyse to ensure the metric is providing sufficient differentiation

Depending on the characteristic of the metric, the process of setting the range ceiling and floor varied as described in the following sections.

Scenario 1: Higher value is desirable (E1)

For this metric, a higher value represents less risk posed to the CUDIC fund. Credit unions within 0.5 standard deviations of the system mean (above or below) receive 3 out of 5 points (or 6 out of 10). Credit unions more than 0.5 standard deviations above the system mean, but less than 1.0 standard deviation above the mean, receive 4 out of 5 points. Credit unions more than 1.0 standard deviations above the mean receive the full 5 points.

Similarly, thresholds for scoring 2, 1, or 0 points were established, as illustrated below.



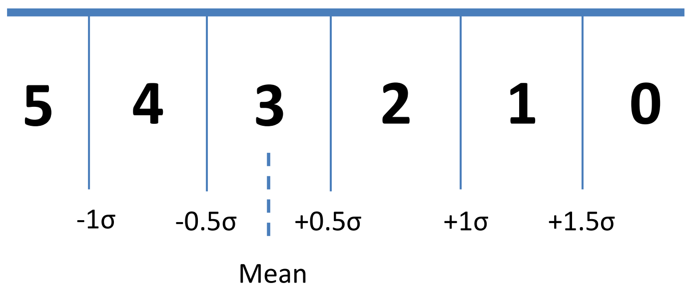
Scenario 2: Lower value is desirable (A1, A2, E2, L2, L3)

For these metrics, a lower value of each metric represents less risk posed to the CUDIC fund. Credit unions within 0.5 standard deviations of the system mean (above or below) receive 3 out of 5 points. Similar to the process of establishing thresholds for metrics where a higher value is desirable (see above), credit unions more than 0.5 standard deviations below the mean receive 4 or 5 points, and credit unions more than 0.5 standard deviations above the mean receive 2, 1, or 0 points. However, an adjustment was necessary for certain metrics bounded by zero (e.g., it would be impossible to have an agent deposits to total deposits of less than zero). E2 does not require an adjustment. However, A1, A2, and L3 require adjustments. See subsections below for further details.

No adjustment necessary (E2)

Credit unions more than 0.5 standard deviations below the mean, but less than 1.0 standard deviation below the mean, receive 4 out of 5 points. Credit unions more than 1.0 standard deviations below the mean receive the full 5 points.

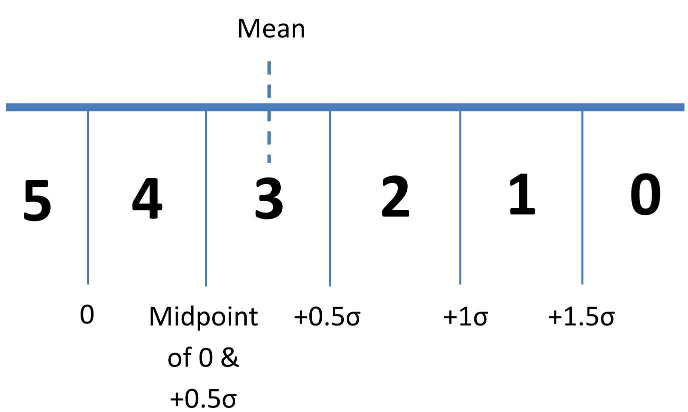
Similarly, thresholds for scoring 2, 1, or 0 points were established, as illustrated below.



Adjustment necessary (A1, A2)

To avoid an otherwise impossible score of 5, all credit unions with a value of exactly zero receive 5 points. The threshold for receiving 4 points was set by taking the midpoint (simple average) between zero and the threshold for receiving 3 points.

No adjustment was necessary for establishing thresholds for scoring 2, 1, or 0 points. Scoring thresholds for this metric are illustrated below.

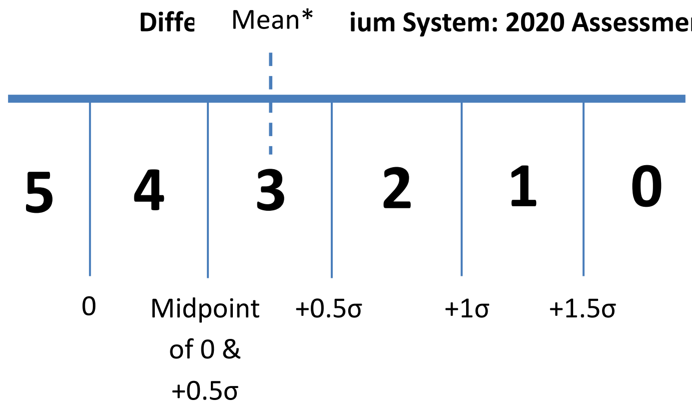


Adjustment necessary (L3)

For this metric, a lower value represents less risk posed to the CUDIC fund. Therefore, credit unions with a value of exactly zero receive 5 points.

The thresholds for receiving 4, 3, 2, 1, and 0 points were derived using the same process for establishing the thresholds for A1 (see above). However, the system mean and standard deviation are calculated differently by excluding all values equal to zero.

Scoring thresholds for this metric are illustrated below.



* Mean, as well as standard deviation, calculated by excluding zero values.

Updates to Scoring Ranges

Scoring ranges for *all* metrics (whether based on fixed scoring or relative scoring) will be static (i.e., not automatically recalculated and adjusted annually). This is intended to encourage all credit unions to more proactively manage their risks.

However, ongoing monitoring and periodic adjustment of ranges may be necessary to ensure ranges remain appropriate and reflect changes in circumstances (e.g., IFRS 9) and economic conditions.

Finalization of the scoring ranges for the various risk metrics will take place closer to the date of DPS implementation in 2023, thereby, allowing for the most current data to inform the appropriate ranges.

Fixed Scoring Range

Fixed scoring ranges will be reviewed when there is a material change in statutory requirements, regulatory requirements, or industry best practices. Consultation for input from BC credit unions may be solicited before obtaining approval from the Board of BCFSA on any fixed scoring range adjustment that may be necessary.

Relative Scoring Range

Relative scoring ranges will be reviewed annually and should there be excessive deviation from the distribution of credit unions amongst the risk metrics when the ranges were last established, then the ranges will be adjusted accordingly and notifications will be sent to the system.

For the 2020 CUDIC Assessment Year, relative scoring ranges have been established using BC credit union system data from 2014 to 2018.

CAPITAL

Capital Adequacy Ratio (C1)

$$\text{Capital Adequacy Ratio} = \frac{\text{Credit union capital base}}{\text{Risk Weighted Assets}}$$

Credit union capital base	The aggregate amount of capital items as specified by the Capital Requirements Regulation and calculated in the Capital Adequacy Return Line 132*
Risk Weighted Assets	The aggregate amount of on-balance and off-balance sheet risk-weighted assets calculated as sum of Lines 246*, 310* and 315*

Formula (per Capital Adequacy Return)

$$\frac{\text{Line 900*}}{\text{Line 901*}}$$

*The Capital Adequacy Ratio is the capital position confirmed in BCFSA's Annual Filing Requirements confirmation letter to credit unions.

Range
This metric uses a fixed scoring range established based on current regulatory requirements. A higher value represents less risk posed to the CUDIC fund.

Score

Range	Points
≥ 13.00%	20
< 13.00% and ≥ 12.69%	19
< 12.69% and ≥ 12.38%	18
< 12.38% and ≥ 12.06%	17
< 12.06% and ≥ 11.75%	16
< 11.75% and ≥ 11.44%	15
< 11.44% and ≥ 11.13%	14
< 11.13% and ≥ 10.81%	13
< 10.81% and ≥ 10.50%	12
< 10.50% and ≥ 10.19%	11
< 10.19% and ≥ 9.88%	10
< 9.88% and ≥ 9.56%	9
< 9.56% and ≥ 9.25%	8
< 9.25% and ≥ 8.94%	7
< 8.94% and ≥ 8.63%	6
< 8.63% and ≥ 8.31%	5
< 8.31% and ≥ 8.00%	4
< 8.00%	0

Leverage Ratio (C2)

$$\text{Leverage Ratio} = \frac{\text{Total Capital - Deductions to Capital}}{\text{Total Assets} + \text{Risk-weighted Off-Balance Sheet Exposures}}$$

Total Capital	Total primary and secondary capital
Deductions to Capital	Deductions from capital, as set out by the Capital Requirements Regulation, include Goodwill and Other Intangible Asset, Subsidiary and Other Equity Investments, Excess Investments in Prescribed Businesses, and Other
Total Assets	Total of cash, investments, loans and leases and other assets
Risk-weighted Off-Balance Sheet Exposures	Off Balance Sheet Exposures refer to business not reported on the balance sheet of the credit union and includes items such as credit commitments, transaction-related contingencies and interest rate hedges

Formula

$$\frac{\text{Line 2310 - Line 6340}}{\text{Line 1430 + Line 4510}}$$

Range

This metric uses a fixed scoring range established based on relative performance within the BC credit union system and adjusted downward to be consistent with industry best practice. For this metric, a higher value represents less risk posed to the CUDIC fund.

Score

Range	Points
≥ 7.00%	10
< 7.00% and ≥ 6.56%	9
< 6.56% and ≥ 6.11%	8
< 6.11% and ≥ 5.67%	7
< 5.67% and ≥ 5.22%	6
< 5.22% and ≥ 4.78%	5
< 4.78% and ≥ 4.33%	4
< 4.33% and ≥ 3.89%	3
< 3.89% and ≥ 3.44%	2
< 3.44% and ≥ 3.00%	1
< 3.00%	0

ASSET QUALITY

Non-performing Loans to Total Loans (A1)

$$\text{12-month average of Non-Performing Loans to Total Loans} = \frac{\text{Delinquent loans 91 days or more - Total allowance + Property acquired in settlement of loans}}{\text{Total Loans}}$$

Delinquent loans 91 days or more	Aggregate amount of personal and commercial loans and leases (including securitizations and lines of credit outstanding balances within authorized limits) in arrears 91 days or more – both principal and accrued interest
Total allowance	General and specific allowances for impairment on personal and commercial loans, leases and securitizations
Property acquired in settlement of loans	Property acquired in settlement of loans and leases and held for less than 7 years, net of any allowance for property losses and accumulated depreciation/amortization
Total loans	Gross commercial and personal loans, leases and securitizations

Formula

Average of monthly ratio:

$$\frac{\begin{array}{c}(4114+4115+4116+4124+4125+4126+4134+4135+4136+4144+4145+4146)\\ +\\ (4214+4215+4216+4224+4225+4226+4234+4235+4236+4244+4245+4246)\\ +(1300+1310+1350)\end{array}}{\begin{array}{c}(1150+1160+1170)+(1180+1187+1190)+1200\\ +(1210+1220+1230+1240)+(1250+1257+1260)\\ +(1270+1280)+(1284+1286+1288+1289)\end{array}}$$

Range

This metric uses a relative scoring range established based on a statistical analysis of the historical performance of BC credit unions. For this metric, a lower value represents less risk posed to the CUDIC fund.

Score

Range	Points
= 0.00%	5
> 0.00% and ≤ 0.29%	4
> 0.29% and ≤ 0.58%	3
> 0.58% and ≤ 0.90%	2
> 0.90% and ≤ 1.21%	1
> 1.21%	0

Commercial 4/5 Rated Loans to Total Loans (A2)

$$\text{Quarterly average of Commercial 4/5 Rated Loans to Total Loans} = \frac{\text{Total Commercial 4 and 5 Rated Loans}}{\text{Total Loans}}$$

Commercial 4/5 Rated Loans	Aggregate amount of commercial loans rated as 4 and 5
Total Loans	Gross commercial and personal loans, leases and securitizations

Formula

Average of quarterly ratio:

$$\frac{5090 + 5100}{(1150+1160+1170) + (1180+1187+1190) + 1200 + (1210+1220+1230+1240) + (1250+1257+1260) + (1270+1280) + (1284+1286+1288+1289)}$$

Range

This metric uses a relative scoring range established based on a statistical analysis of the historical performance of BC credit unions. For this metric, a lower value represents less risk posed to the CUDIC fund.

Score

Range	Points
= 0.00%	5
> 0.00% and ≤ 0.85%	4
> 0.85% and ≤ 1.69%	3
> 1.69% and ≤ 2.27%	2
> 2.27% and ≤ 2.84%	1
> 2.84%	0

EARNINGS

Net Operating Income (excluding CUDIC Assessments) to Average Assets (E1)

$$\text{Net Operating Income (excl. CUDIC Assessments) to Average Assets} = \frac{\text{Net Operating Income + CUDIC Assessment}}{\text{Average Assets}}$$

Net Operating Income	Income including income from subsidiary and other equity investment earnings
CUDIC Assessment	CUDIC Assessment paid in the reporting year
Average Assets	Thirteen-month average of Total Assets, beginning with prior fiscal year-end to current fiscal year end

Formula

$$\frac{\text{Line 3440 + CUDIC Assessment}}{(\text{Line } 1430_{\text{Month1}} + \text{Line } 1430_{\text{Month2}} \ldots + \text{Line } 1430_{\text{Month13}})/13}$$

Range

This metric uses a relative scoring range established based on a statistical analysis of the historical performance of BC credit unions. For this metric, a higher value represents less risk posed to the CUDIC fund.

Score

Range	Points
≥ 0.92%	5
< 0.92% and ≥ 0.74%	4
< 0.74% and ≥ 0.38%	3
< 0.38% and ≥ 0.20%	2
< 0.20% and ≥ 0.03%	1
< 0.03%	0

Volatility of Net Operating Income to Average Assets (E2)

$$\text{Volatility of Net Operating Income to Average Assets} = \text{Standard deviation of (for past 5 years)} \ \frac{\text{Net Operating Income}}{\text{Average Assets}}$$

Net Operating Income	Income including income from subsidiary and other equity investment earnings
Average Assets	Thirteen-month average of Total Assets, beginning with prior fiscal year-end to current fiscal year

Formula

$$\text{Standard deviation of (for past 5 years)} \quad \frac{\text{Line 3440}}{(\text{Line } 1430_{\text{Month1}} + \text{Line } 1430_{\text{Month2}} \ldots + \text{Line } 1430_{\text{Month13}})/13}$$

Standard deviation of ratio of net operating income to average assets

Determine the standard deviation of the ratio of net operating income to average assets using the following formula:

$$\frac{\sqrt{(R_1-\bar{R})^2+(R_2-R)^2+(R_3-R)^2+(R_4-R)^2+(R_5-\bar{R})^2}}{n-1}$$

Where

R_1 to R_5	denotes the ratio of net operating income to average assets for each of the last 5 fiscal years
$\bar{R}$	denotes the average ratio of net operating income to average assets of each of the last 5 fiscal years
n	is equal to 5

Range
This metric uses a relative scoring range established based on a statistical analysis of the historical performance of BC credit unions. For this metrics, a lower value represents less risk posed to the CUDIC fund.

Score

Range	Points
≤ 0.03%	5
> 0.03% and ≤ 0.11%	4
> 0.11% and ≤ 0.25%	3
> 0.25% and ≤ 0.33%	2
> 0.33% and ≤ 0.40%	1
> 0.40%	0

LIQUIDITY & FUNDING

This final score for Liquidity & Funding is determined by taking the sum total score for the Liquidity Coverage Ratio (L1), Securitizations to Total Deposits (L2), and Agent Deposits to Total Deposits (L3).

Liquidity Coverage Ratio (L1)

$$\text{Liquidity Coverage Ratio} = \frac{\text{Stock of Unencumbered Quality Liquid Assets}}{\text{Total Net Cash Outflows Over the Next 30 Calendar Days}}$$

Stock of Unencumbered Quality Liquid Assets	Level 1 + Level 2A + Level 2B – Adjustment for 40% Cap – Adjustment for 15% Cap (Refer to B.C. Liquidity Coverage Ratio Reporting Guide)
Total Net Cash Outflows Over the Next 30 Calendar Days	Total expected cash outflows – Min (total expected cash inflow, 75% of total expected cash outflows) (Refer to B.C. Liquidity Coverage Ratio Reporting Guide)

Formula

Average of the report ratio over the past 4 quarters to fiscal year end

Range

This metric uses a fixed scoring range established based on supervisory expectations and is subject to change pending finalization of the revised Liquidity Coverage Ratio Calculation Guidelines. For this metric, a higher value represents less risk posed to the CUDIC fund.

Score

Range	Points
≥ 200.00%	5
< 200.00% and ≥ 175.00%	4
< 175.00% and ≥ 150.00%	3
< 150.00% and ≥125.00%	2
< 125.00% and ≥ 100.00%	1
< 100.00%	0

Securitizations to Total Deposits (L2)

$$\text{Securitizations to Total Deposits} = \frac{\text{Securitizations}}{\text{Total Deposits}}$$

Securitizations	Borrowings for securitization transactions that have been determined to be a "financing" under IFRS
Total Deposits	Aggregate dollar amount of demand chequing, demand regular savings, high interest savings, registered plans, other demand deposits, redeemable, non-redeemable, registered plans, other term deposits, non-equity shares and accrued interest on deposits & dividends on non-equity shares

Formula

$$\frac{\text{Line 2027}}{\text{Line 2180}}$$

Range

This metric uses a relative scoring range established based on a statistical analysis of the historical performance of BC credit unions. For this metric, a lower value represents less risk posed to the CUDIC fund.

Score

Range	Points
= 0.00%	5
> 0.00% and ≤ 5.00%	4
> 5.00% and ≤ 10.00%	3
> 10.00% and ≤ 15.00%	2
> 15.00% and ≤ 20.00%	1
> 20.00%	0

Agent Deposits to Total Deposits (L3)

$$\text{Agent Deposits to Total Deposits} = \frac{\text{Agent Deposits}}{\text{Total Deposits}}$$

Agent Deposits	Aggregate dollar amount of outstanding deposits originated and acquired through deposit agents. Non-redeemable deposits with maturity dates of 12 months or greater are excluded.
Total Deposits	Aggregate dollar amount of demand chequing, demand regular savings, high interest savings, registered plans, other demand deposits, redeemable, non-redeemable, registered plans, other term deposits, non-equity shares and accrued interest on deposits & dividends on non-equity shares

Formula

$$\frac{\text{Line 6620 minus Non Redeemable Deposits with Maturity Dates of 12 Months or Greater**}}{\text{Line 2180}}$$

(**For the purposes of this calculation, the Non Redeemable Deposits with maturity dates of 12 months or greater is provided by credit unions separate from the FSR.)

Range
This metric uses a relative scoring range established based on a statistical analysis of the historical performance of BC credit unions. For this metric, a lower value represents less risk posed to the CUDIC fund.

Score

Range	Points
= 0.00%	5
> 0.00% and ≤ 4.92%	4
> 4.92% and ≤ 9.84%	3
> 9.84% and ≤ 13.54%	2
> 13.54% and ≤ 17.25%	1
> 17.25%	0

QUALITATIVE RISK METRICS

BCFSA Supervisory Risk Assessment[3]

<table>
<tr><td colspan="2">Supervisory Risk Assessment = Lower of the Composite Risk Rating and Intervention Stage Rating Score</td></tr>
<tr><td>Composite Risk Rating (CRR)</td><td>Assessment rating under BCFSA's Supervisory Framework, of a credit union's risk profile, after considering the assessments of its earnings and capital in relation to the overall net risk from its significant activities, and the assessment of its liquidity. The CRR is BCFSA's assessment of the safety and soundness of the credit union with respect to its depositors.
CRR are:
• Low
• Moderate
• Above Average
• High</td></tr>
<tr><td>Intervention Stage Rating (ISR)</td><td>Rating of the level and intensity of supervisory actions taken by BCFSA based on a credit union's risk assessment ISR are:
• 0 – Normal
• 1 – Early Warning
• 2 – Risk to financial viability or solvency
• 3 – Future financial viability in serious doubt
• 4 – Non-viability/insolvency imminent</td></tr>
</table>

Score

<u>Lower of the CRR and ISR Score:</u>

Composite Risk Rating:

CRR	Points
Low	35
Moderate	30
Above Average	18
High	0

Intervention Stage Rating:

ISR	Points
0 – Normal	35
1 – Early Warning	25
2 – Risk to financial viability or solvency	10
3 – Future financial viability in serious doubt	0
4 – Non-viability/insolvency imminent	0

[3] Enhancements to the BCFSA Supervisory Risk Assessment will be reflected in the Qualitative Risk Metrics upon implementation

ASSESSMENT CATEGORIES AND ASSESSMENT RATES

Assessment Category	Total Assessment Score (*Points*)	Assessment Rate (*% of Base Assessment Rate*)
AA	≥ 85 Points	85
A	≥ 75 and < 85 Points	100
BB	≥ 65 and < 75 Points	120
B	≥ 50 and < 65 Points	180
C	< 50 Points	250

The base category, Category A, will be assigned to credit unions with a Total Assessment Score greater than or equal to 75 points but less than 85 points. Credit unions in this category will pay an assessment rate equal to the Base Assessment Rate.

Credit unions with a Total Assessment Score equal to or above the threshold of 85 points will be placed in Category AA and will pay an assessment rate below the base assessment rate.

As the Total Assessment Score decreases through the categories, the assessment rate increases at an increasing rate. The intent is to provide credit unions with an incentive to maintain or improve their assessment category whilst not penalizing credit unions excessively for movement between categories in the lower levels.

Deposit Insurance Assessment Collection

Assessments will be collected by the end of September, 30 days after notifying credit unions. Credit unions' operating accounts with Central 1 will be debited the assessed amount on the assessment due date.

Confidentiality of CUDIC Assessments

Credit unions are prohibited from publicly disclosing their assessment category, assessment rate or assessment amounts. Assessment category and corresponding assessment amounts are determined based on data from FSR filed with Superintendent and supervisory ratings which are strictly confidential under the FIA.

Review Process

A request may be made to the Board of the BCFSA for a reassessment in the following circumstances:

- Data errors in the FSR, CAR, and LCR filed;
- Errors in the quantitative and qualitative risk metrics calculations;
- Error in the assessment categorization; and
- Error in the assessment amount.

Requests should be made in writing and mailed to:

BC Financial Services Authority
2800 - 555 West Hastings Street
Vancouver BC, V6B 4N6

or depositinsurance@bcfsa.ca

APPENDIX 1: Summary of Scoring Ranges

Quantitative Risk Metrics	Scoring Ranges	Points
C1: Capital Adequacy Ratio	≥ 13.00%	20
	< 13.00% and ≥ 12.69%	19
	< 12.69% and ≥ 12.38%	18
	< 12.38% and ≥ 12.06%	17
	< 12.06% and ≥ 11.75%	16
	< 11.75% and ≥ 11.44%	15
	< 11.44% and ≥ 11.13%	14
	< 11.13% and ≥ 10.81%	13
	< 10.81% and ≥ 10.50%	12
	< 10.50% and ≥ 10.19%	11
	< 10.19% and ≥ 9.88%	10
	< 9.88% and ≥ 9.56%	9
	< 9.56% and ≥ 9.25%	8
	< 9.25% and ≥ 8.94%	7
	< 8.94% and ≥ 8.63%	6
	< 8.63% and ≥ 8.31%	5
	< 8.31% and ≥ 8.00%	4
	< 8.00%	0
C2: Leverage Ratio	≥ 7.00%	10
	< 7.00% and ≥ 6.56%	9
	< 6.56% and ≥ 6.11%	8
	< 6.11% and ≥ 5.67%	7
	< 5.67% and ≥ 5.22%	6
	< 5.22% and ≥ 4.78%	5
	< 4.78% and ≥ 4.33%	4
	< 4.33% and ≥ 3.89%	3
	< 3.89% and ≥ 3.44%	2
	< 3.44% and ≥ 3.00%	1
	< 3.00%	0
A1: Non-performing Loans to Total Loans	≤ 0.00%	5
	> 0.00% and ≤ 0.29%	4
	> 0.29% and ≤ 0.58%	3
	> 0.58% and ≤ 0.90%	2
	> 0.90% and ≤ 1.21%	1
	> 1.21%	0

A2: Commercial 4/5 Rated Loans to Total Loans	≤ 0.00%	5
	> 0.00% and ≤ 0.85%	4
	> 0.85% and ≤ 1.69%	3
	> 1.69% and ≤ 2.27%	2
	> 2.27% and ≤ 2.84%	1
	> 2.84%	0
E1: Net Operating Income (excl. Assessments) to Average Assets	≥ 0.92%	5
	< 0.92% and ≥ 0.74%	4
	< 0.74% and ≥ 0.38%	3
	< 0.38% and ≥ 0.20%	2
	< 0.20% and ≥ 0.03%	1
	< 0.03%	0
E2: Volatility of Net Operating Income to Average Assets	≤ 0.03%	5
	> 0.03% and ≤ 0.11%	4
	> 0.11% and ≤ 0.25%	3
	> 0.25% and ≤ 0.33%	2
	> 0.33% and ≤ 0.40%	1
	> 0.40%	0
L1: Liquidity Coverage Ratio	≥ 200.00%	5
	< 200.00% and ≥175.00%	4
	< 175.00% and ≥150.00%	3
	< 150.00% and ≥ 125.00%	2
	< 125.00% and ≥ 100.00%	1
	< 100.00%	0
L2: Securitizations to Total Deposits	= 0.00%	5
	> 0.00% and ≤ 5.00%	4
	> 5.00% and ≤ 10.00%	3
	> 10.00% and ≤ 15.00%	2
	> 15.00% and ≤ 20.00%	1
	> 20.00%	0
L3: Agent Deposits to Total Deposits	= 0.00%	5
	> 0.00% and ≤ 4.92%	4
	> 4.92% and ≤ 9.84%	3
	> 9.84% and ≤ 13.54%	2
	> 13.54% and ≤ 17.25%	1
	> 17.25%	0

Qualitative Risk Metrics	Scoring Ranges	Points
Lower of Composite Risk Rating (CRR) and Intervention Stage Rating (ISR)	**CRR**	
	Low	35
	Moderate	30
	Above Average	18
	High	0
	ISR	
	0-Normal	35
	1-Early Warning	25
	2- Risk to financial viability or solvency	10
	3 - Future financial viability in serious doubt	0
	4 - Non-viability/insolvency imminent	0

APPENDIX 2: Timing & Computational Method

The following lists the time frame taken and a brief summary of the calculation method for the scoring of the suite of metrics presented previously:

Category	Metric	Timing & Computational Method
Capital	C1: Capital Adequacy Ratio	Fiscal year end
	C2: Leverage Ratio	Fiscal year end
Asset Quality	A1: Non-performing Loans to Total Loans	Average of monthly ratio for past 12 months leading to fiscal year end
	A2: Commercial 4/5 Rated Loans to Total Loans	Average of quarterly ratio for past 4 quarters leading to fiscal year end
Earnings	E1: Net Operating Income (excluding CUDIC Assessments) to Average Assets	Net Operating Income: fiscal year end; CUDIC Assessments: reporting year; Average Assets: 13-month average (1 month prior to fiscal year and 12 months of fiscal year)
	E2: Volatility of Net Operating Income to Average Assets	Standard deviation of ratio for past 5 years; Net Operating Income: fiscal year end; Average Assets: 13-month average (1 month prior to fiscal year and 12 months of fiscal year)
Liquidity & Funding	L1: Liquidity Coverage Ratio	Average of quarterly ratio for past 4 quarters leading to fiscal year end
	L2: Securitizations to Total Deposits	Fiscal year end
	L3: Agent Deposits to Total Deposits	Fiscal year end
Qualitative	Composite Risk Rating	Calendar year end
	Intervention Stage Rating	Calendar year end