# Enterprise Risk Management Tools

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CU ACREDIT UNION SERVICE ORGANIZATION

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# Introduction

From the credit union industry perspective, Enterprise Risk Management ("ERM") is the process of protecting the safety and soundness of the financial institution through the supervision of uncertainty. To have a successful ERM program, the credit union must show data and the associated analytics from which decisions are made and policies are derived. This documentation should demonstrate that the potential risks to capital and earnings are appropriately managed, monitored, and reported to the Board of Directors and Committees. Before developing an ERM program, a credit union should study the NCUA Examiner's Guide, which lays out the expectations for sufficient risk management processes.

CU\*BASE has several tools that can assist credit unions of any size with their ERM program. For example, CU\*BASE can review the credit scores of members and help a credit union determine if underwriting standards need to be tightened. CU\*BASE also has a multitude of tools that can help protect the institution against member or employee fraud.

No credit union should be forced to purchase an ancillary system for ERM. With these tools, any credit union of any size can review the key risk factors for their institution and adjust their strategy as needed. To make it even easier to stay up to date on your risk management needs, CU\*BASE undergoes constant refinement and upgrades.

To make your data analysis experience more user-friendly, all CU\*BASE Credit Unions can sign up for Analytics Booth to easily analyze their data through its elegant interface. Analytics Booth uses current data to display the most accurate trends. Data from CU\*BASE is uploaded to Analytics Booth every day, giving you the best picture of your credit union's vitals. Several Analytics Booth tools can be helpful to quickly view up-to-date data and trends relevant to your risk management. If you are not already currently utilizing this service, visit <u>https://store.cuanswers.com/product/analytics-booth/</u> to learn more and sign up.

This document was designed to help you fully utilize your CU\*BASE tools to support your credit union's ERM program. It explains each of eight risk areas to monitor, in accordance with the NCUA, and provides a robust list of CU\*BASE tools, as well as Analytics Booth tools, that will be beneficial for your risk management program. Additionally, there is a sample ERM report checklist your credit union can use as a guide when creating your report to verify you address some of the examiners' most requested information. ERM is vital for all financial institutions. CU\*Answers is here to support all our credit unions' ERM programs with our extensive CU\*BASE tool options and Analytics Booth tools.

# Four Elements of Risk Management Programs

A credit union's risk management program should include four elements:

- **1. Risk identification**. Proper risk identification focuses on recognizing and understanding existing risks or risks that may arise from new business initiatives. Risk identification should be a continuous process and should occur at both the micro (transaction) and macro (overall portfolio) levels.
- 2. **Risk measurement**. Accurate and timely measurement of risks is a critical component of effective risk management. A credit union with no risk measurement capabilities has limited ability to monitor or control risk levels. Further, the sophistication of the risk measurement tools should reflect the complexity of the operation and levels of risk assumed. The credit union should periodically verify the integrity of the measurement tools it uses. Good risk measurement systems assess both individual transactions and overall portfolios.

- **3. Risk control**. The credit union should establish and communicate control limits through policies, standards, and procedures that define responsibility and authority. The credit union should adjust these management tools if conditions or risk tolerances change. Further, the credit union should implement a process to authorize exceptions or changes to risk limits, if warranted.
- **4. Risk monitoring**. Credit unions should monitor risk levels regularly to ensure well-timed reviews of risk positions and exceptions. Prompt distribution of frequent, accurate, and informative monitoring reports to staff and the appropriate management enables them to take needed actions.

CU\*BASE offers a plethora of tools useful for identifying, measuring, and monitoring risk. Although they are not a complete substitute for your ERM program, CU\*BASE tools can supplement your program by providing necessary data and reports to monitor and manage risk at no extra cost.

# **Eight Primary Risk Areas**

Based on the Examiner's Guide and the NCUA Letter to Credit Unions 10-CU-03, there are seven primary risks, along with concentration risk, that a credit union is expected to manage. These risks can be broken down into two four risk categories.

### **Market Risks**

The key to understanding a market risk is the ability to show examiners quantifiable management; that is, numbers must support the risk findings. The four market risk categories are:

Market Risk	Definition	
Credit Risk	The risk that loans or investments will not be repaid.	
Interest Rate Risk	The risk that changes in market rates will adversely affect a credit union's capital and earnings.	
Liquidity Risk	The current and prospective risk to earnings or capital arising from a credit union's inability to meet its obligations when necessary.	
Concentration Risk	The risk to the safety and soundness of the institution due to over-concentration in a single segment, member, or type of security in the loan or investment portfolio with the potential to produce large losses.	

For the most part, market risks are evaluated by ALCO and then subsequently reported to the Board of Directors. Each of these risks should be summarized and compared to prior periods along with an analysis of developing rends that will equire additional monitoring and management.

### **Institution Risks**

Institution risks, by contrast, do not require numbers to demonstrate the institution is managing risk. Instead, institution risks must be managed through documentation and policy enforcement. The four institution risk categories are:

Institution Risk	Definition
Transaction Risk	The risk to earnings or capital arising from fraud or error resulting in an inability to deliver products or services and manage information.
Compliance Risk	The risk to earnings or capital arising from nonconformity to laws, rules, regulations, internal policies and procedures, prescribed practices, or ethical standards. This risk revolves around the levying of fines, penalties, and payment of damages.
Strategic Risk	The risk to earnings or capital arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes.
Reputation Risk	The risk to earnings or capital arising from negative public opinion or perception leading to the loss of confidence or severance of relationships.

# **Sample ERM Report Checklist**

ERM reports will vary depending on the size and complexity of the institution developing the report. Some credit unions will need to make monthly reports, while others will need to file only quarterly or semiannually. The content from report to report may also differ. Therefore, the sample checklist below should be considered a guide and not a requirement. These are items that management, the board, and examiners, are likely to have high interest in.

## **Credit Risk**

- What are the credit risk scores in each portfolio segment?
- □ Is there an obvious link between charge-offs and risk scores?
- □ How much of the portfolio is delinquent and for how long?
- □ Do valuation reports show a healthy portfolio?
- □ What is the return on investments?
- Do ALLL and LTV assumptions need to be challenged?

# **Transaction Risk**

Does the credit union have evidence that members and employees are regularly monitored for fraud?

# **Compliance Risk**

Does the credit union have evidence that key regulatory and contractual obligations are being met?

# **Reputation Risk**

- Does the credit union have evidence of a disaster recovery/business resumption plan, and does the credit union regularly test it?
- Does the credit union have a regularly updated IS&T audit?
- Does the credit union make note of member complaints and have an effective remedy for outstanding issues?

## **Interest Rate Risk**

- □ What is the effect on net income when the portfolio is shocked?
- What is the effect on NEV when the portfolio is shocked?
- □ Can the credit union pass the 17/4 test, and if not, is the credit union capable of justifying its position?
- □ Is the credit union aware of the effect that maturity rates have?

# **Liquidity Risk**

- □ Has the credit union run the liquidity tests?
- □ Can the credit union justify its liquidity risk even if the tests are not passed?

# **Concentration Risk**

- Does the credit union know of any single borrowers who could threaten the safety and soundness of the institution if the borrower defaulted?
- Does the credit union know the concentrations in various portfolio segments, and is the credit union aware of the loss history surrounding each?
- Does the credit union have risk limits and become aware when they have been reached?

# **Strategic Risk**

□ Are the changes made by management and the board as a result of risk findings reflected in new ERM reports?

# **Market Risks**

# **Credit Risk**

To successfully manage credit risk, the credit union should be able to demonstrate the following:

- 1. The ability to group portfolio segments by risk score. For example, how much of the credit union's indirect lending is in D or E paper?
- 2. The ability to link risk score performance to charge-offs, as well as identification of characteristics in charged-off loans focusing on the applicant's financial condition and credit report at the time of origination. There should be proof of implementation of changes in underwriting and/or collection processes as warranted by the findings. This includes identification and monitoring of market conditions, which could have an impact on existing loan underwriting guidelines, and modification of policies accordingly.
- 3. Evidence that the loan portfolio is well diversified and an understanding of the value of asset-backed securities, including the value of collateral and the implications interest rate fluctuations have on the overall value salability of the security.
- 4. Evidence the collection department is adequately informing management of significant trends in delinquencies and that those findings are translated into the underwriting guidelines. Furthermore, the collection department should monitor the net charge-off percentage (charge-off amount/loan balance at the time of charge-off) for collateralized loans as a barometer for determining LTV ratios.
- 5. Evidence the ALLL methodology accurately reflects historical loss ratios and current economic conditions.

## Managing Credit Risk With CU\*BASE Tools

#### Tool #679 Print Risk Score Analysis Report

Compare the performance of your risk-based pricing with your loan performance to see if your risk matches your reimbursement or if you need to adjust your credit score ranges. This report must be run monthly and evaluated.

This report groups portfolio segments by risk score, helping you see if adjustments to your risk-based pricing are needed to better manage credit risk.

#### Learn more about this tool.

#### Tool #473 Loan Risk Score Analysis

This analysis dashboard is similar to Tool #679 Print Risk Score Analysis Report; however, you can view your delinquencies over time.

You can select your delinquency day ranges, compare two months' data side-by-side, and trend data across ten months for specific credit scores and other data.

#### **Tool #637 Print Collection Delinquency Report**

This report displays a summary of your delinquent loans by credit union defined levels for you to view the impact your loans' purpose, security, branch, and loan officer have on your loan portfolio, loan delinquency, and trends.

This comprehensive view of your delinquent loan portfolio helps you see where adjustments might be needed to better manage the credit risk from your delinquent loans.

Learn more about this tool.

#### **Tool #982 Work Collections**

With this tool, you can inquire about and work with collections data, including overdrawn lines of credit, delinquent and written-off loans, and negative balance share accounts.

This tool allows you to view and analyze areas of credit risk.

Learn more about this tool.

#### Tool #229 Collections Dashboard Summary

You can manage your delinquent loans using this complete collections dashboard that displays your delinquency pipeline, with breakdowns according to the NCUA time frame, and the graphical representations of these delinquencies. On this dashboard, you can sort your delinquent loans by category, collector, and dealer.

This tool allows you to analyze your collections data as it relates to your credit risk.

The "Web Version" and "Power Line" button options launch your data in Analytics Booth with more tools to analyze, trend, and understand your data.



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Learn more about this tool.

#### Tool #477 Loan to Value Analysis Report

This report provides valuation report information based on a loan's current and original balance.

This tool can be used to evaluate your loan-to-risk ratio.

Learn more about this tool.

#### **Tool #319 Credit Score History Dashboard**

In an overview, this dashboard gives you the opportunity to create a segment of the population to contact based on credit score history and to analyze your entire credit report portfolio to see what percentage is improving their scores, worsening, and more.

Using this tool, you can add accounts with low and worsening credit scores to a watch list.

#### Tool #1670 Loan Productivity Dashboard

As one of our most powerful lending dashboards, this tool makes it easier to know who worked on the loan, including the interviewer, approver, collector, and opener. At a glance, see who did what over a selected month, making it easy to work monthly commissions.

This tool allows you to view the areas of your loan portfolio that are growing or shrinking and act accordingly.

The "Power Line" button launches your data in an Analytics Booth trend line chart to help you better understand your data.

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Learn more about this tool.

ANALYTICS BOOTH

#### Tool #460 Loan Concentration Risk Report by Member

This report summarizes and lists all members and non-members according to their outstanding loan balance and allows your credit union to review the "top" borrowers for regulatory purposes.

Learn more about this tool.

#### **Tool #592 Portfolio Analysis – Concentration Risk**

With this tool, you can identify potential concentrations within different segments of your credit union to help you defend and manage your lending practices.

This tool helps you view your entire portfolio concentration to ensure that it is well-balanced.

Learn more about this tool.

#### Tool #476 Loan Write-off/Charge-off History Dashbd.

This dashboard shows all your written-off/charged-off loans with options to sort and filter by date, WO/CO reason, loan purpose, loan category, loan officers approving WO/CO, and more.

You can select any loan on the dashboard and view the loan's history, including the interest accrued since it was written off.

Learn more about this tool.

### **Managing Credit Risk With Analytics Booth**

#### **Static Pool Analysis Dashboard**

You can use this dashboard to view the historic performance of various segments of your loan portfolio. With the built-in visualization tools, understanding the historical trends of your loan portfolio has never been easier. You can filter your data by one of five different categories, including loan category, G/L account, and purpose code, to view the impact those categories have on your portfolio. With or without filters applied, view graphical representations of your total average credit score, current loan balance, total average weighted rate, and more. You can also utilize tools to forecast pool payoff or analyze pool performance compared to a previous year. This unique dashboard is especially useful for its segmentation features relative to charge-offs, credit score, average yield, etc.

Test Credit Union							H	ome Alerts	Trends 🔻	Dashboards 🔻
Static Pool Analysis - Loan Category 🛩 🏼 p	ool year 2013 🗸	reporting Yearly	~				<b>⊽</b> Filter A	II Pools Analyze	Pool Performance	Forecast Pool Pay
Showing Loan Category(s): All										
Copy CSV Excel PDF									Search:	
Measurement III Pool Total Avg Credit Score	2013 Pool 669	12/2014 664	12/2015 664	12/2016 666	12/2017 669	12/2018 673	12/2019 675	12/2020 687	12/202	.2
Open Loan Avg Credit Score	674	679	682	686	690	696	703	724	73	32
🗊 Closed Loan Avg Credit Score	637	641	650	658	664	671	674	686	69	13
🔊 W/O Loan Avg Credit Score	552	550	556	569	584	590	593	594	60	)1
■ C/O Loan Avg Credit Score	0	571	554	565	568	587	585	585	58	33
III Pool Total Avg Weighted Rate	1.216%	1.158%	1.896%	1.735%	1.654%	1.589%	1.519%	1.948%	2.162	%
Open Loan Avg Weighted Rate	4.774%	4.543%	4.340%	4.202%	4.124%	3.996%	3.906%	4.781%	5.157	%
I Closed Loan Avg Weighted Rate	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000	%
II W/O Loan Avg Weighted Rate	0.090%	0.050%	3.197%	2.676%	2.414%	2.264%	2.058%	3.011%	3.491	%
J C/O Loan Avg Weighted Rate	0.000%	0.038%	0.048%	0.062%	0.078%	0.095%	0.113%	0.000%	0.000	%
间 Pool Total Avg Loan Term	87	87	87	87	87	87	87	87	٤	6
🗊 Open Loan Avg Loan Term	94	112	124	139	155	178	197	205	21	10
I Closed Loan Avg Loan Term	39	43	50	55	59	61	64	67		/2
🗊 W/O Loan Avg Loan Term	11	48	49	50	51	51	52	51		<b>i</b> 0
J C/O Loan Avg Loan Term	0	37	22	22	22	22	22	22	i	22
💷 Pool Total Avg Minimum Payment Amount	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$28	15
Showing 1 to 50 of 50 entries										-

#### **Alerts**

One of the defining features of Analytics Booth is the alerts system. You can customize numerous alerts and get notified of changes to any of the over 90 data points tracked in Analytics Booth. Alerts help you stay aware of changes, so you can manage potential exposure points, without having to manually monitor your data. Customize your alerts to track your data according to your committee's ERM thresholds.

Simply choose to set up an alert for a single branch or the entire CU; then, choose one data point to track, define the comparison date range and criteria you want to be notified of, and save your alert. Analytics Booth will start monitoring this data point daily, and you'll receive alerts if the criteria is met.

	Point Step 2 -	Define Criteria				
Data Point: <b>Delinquent B</b>	alance - Level 6					
Yesterday	30 Day Avg	90 Day Avg	180 Day Avg	1 Year Avg		
1,509,636	1,367,581	1,605,809	1,531,868	1,205,298		
What would you like to eva Evaluate against: Prior day	aluate against?			~		
Trigger an alert when the s	pecified criteria are satisfied:					
Event: Increases by	✓ Comp	are: Amount	✓ \$ 10000			
				Evaluate criteria		

Historical Data: Y	ou would have received 6 alert(s) in the past 30 days.			
Date	Value	Compare Value	Change	Change %
Mon Nov 20, 2023	\$1,509,636	\$1,509,636	0	0.00%
Sun Nov 19, 2023	\$1,509,636	\$1,509,636	0	0.00%
Sat Nov 18, 2023	\$1,509,636	\$1,479,025	30,611	2.07%



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Using CU\*BASE To Assist with ERM

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## **Interest Rate Risk**

As part of ALM, all credit unions are required to show the effect on the institution's net worth and net interest margin if interest rates fluctuate. Typically, an examiner will want to see at minimum the following tests:

1. The effect on net interest income if the portfolio is shocked anywhere between -50 and +500 basis points over three to five years. This comparison generally is a static view of the credit union as it stands at the time the shocks are performed, and the forecast does not take into consideration expected changes to the structure of the balance sheet.

A more detailed analysis can be performed based on the potential changes to the yield curve. These yield curves are then used to run income simulations, and the net interest margin can be compared to a multitude of potential scenarios. This generally provides the institution with a more realistic range of potential outcomes to base future decisions.

2. The effect on NEV based on the same portfolio shock. NEV is the present value of assets minus the present value of liabilities discounted at current or shocked market rates. NEV Ratio is Net Worth/Total Assets, where net worth has been adjusted based upon the revaluation of both assets and liabilities in comparison to equivalent market products.

Duration analysis also plays a vital role in the calculation of the comparative value for member nonterm share accounts. CU\*Answers developed CU\*BASE **Tool #509** *Member Retention by Year Opened* to give credit unions the retention data necessary to prove the duration of member savings accounts. This has been a constant requirement from regulators, and without the data, the institution is required to place a zero duration on these account types, giving them no additional economic value in the NEV calculation.

3. The 17/4 test is currently used by the NCUA to approximate IRR exposure. The 17/4 analysis uses call report data and takes fixed-rate real estate loans (firsts and seconds) regardless of their remaining maturity or term to re-pricing and devalues those assets by 17%. It takes all the variable-rate real estate and devalues those assets by 4%. Then, for federal credit unions, the effect that rising rates have on complex securities holdings is factored in. The analysis then measures how these devaluations might change the credit union's capital position. If the devaluation causes the adjusted book capital to drop below 4% and causes more than a 50% decline in book capital, then the ALM review will be a rigorous analysis of the credit union's exposure using the NCUA's Office of Investment Services (OIS) pricing tables. After more detailed modeling using the OIS pricing tables, adjusted capital is again examined. If adjusted book capital drops below 4% or declines more than 50%, the credit union will be subjected to a total ALM review.

### Managing Interest Rate Risk With CU\*BASE Tools

Although CU\*BASE does not run ALM modeling simulations at this time, a credit union can use these tools to assist with interest rate risk management:

#### Tool #509 Member Retention by Year Opened

This dashboard shows the number of memberships opened in a year and how many of those members remained at your credit union over a series of five years (or any interval you select).

This tool can assist the credit union in determining the non-term duration assumptions in your ALM model.

#### Tool #127 ALM — Create/Download CD Information

With this tool, you can export certificate account data from your CU\*BASE files and create a downloadable file on the iSeries in the appropriate format for your ALM provider.

#### Learn more about this tool.

#### Tool #128 ALM — Create/Download G/L Information

This tool exports data from your CU\*BASE general ledger files and creates a downloadable file on the iSeries in the appropriate format for your ALM provider.

#### Learn more about this tool.

#### Tool #129 ALM — Create/Download Loan Information

This tool exports loan account data from your CU\*BASE files and creates a downloadable file on the iSeries in the appropriate format for your ALM provider.

#### Learn more about this tool.

#### Tool #343 Div/Int Base Rate Forecasting

This tool allows you to perform a "what if" analysis, using actual member data, to calculate the results of changes to dividend rates.

#### Learn more about this tool.

#### Tool #344 Div/Int Split Rate Forecasting

Similarly, this tool allows you to perform a "what if" analysis, using actual member data, to show the results of changes to dividend rates while grouping accounts based on average minimum balance.

#### Learn more about this tool.

#### **Tool #196 Certificate Repricing Forecast**

With this tool, you can calculate the results of maturing certificates within a specified date range combined with "what if" rate scenarios, using actual member data.

#### Learn more about this tool.

#### Tool #467 Loan Maturity Analysis Report

You can use this report to monitor your credit union's loan portfolio by G/L until the loans mature and monitor the loan income as it matures.

#### Learn more about this tool.

#### Tool #190 CD Maturity Analysis Report

This report displays the number of certificates and the certificate balance totals in five different maturity ranges. This report is helpful when filling out the 5300 Call Report.

You can use this tool to view when your CDs are maturing and forecast your repricing.

#### **Tool #466 Loan Interest Analysis Report**

You can use this report to review/verify the total portfolio for any exceptions, evaluate the interest rate direction of the total loan portfolio, or break out Participation Lending loans from the rest of the loan portfolio.

#### Learn more about this tool.

#### **Tool #407 Investment Maturity Report**

This report allows the investment manager to configure a maturity schedule that fits the investment team's format for how your credit union views maturity and review dates.

You can use this tool to forecast the yield of your investments.

Learn more about this tool.

### **Managing Interest Rate Risk With Analytics Booth**

#### **Loan Portfolio Analysis Dashboard**

The Loan Portfolio Dashboard is useful to get a quick overview of your loans, with options to sort the data by balance, percentage of loan portfolio, number of loans per category, average rate, and more. The dashboard displays the weighted average rate at the portfolio and product level and offers five drop-down options for categorizing data, including loan categories and purpose codes, and the data can be filtered by categories for each option. You can even view each drop-down option's monthly changes in balance, members, and loans over two years. You can trend high rate, low rate, average rate, and weighted average rate daily over the years.

Test C Loan P Tot # Loa	redit Union Portfolio Analysis Loan Categories ans: 53,878 Tot Bal: \$1,586,013,048 CU Bal: \$997,779,772	Sun Nov 19, 2023     Investor Bal: \$588,23	₩ 3,276 WAVG:	5.096% 대								Home /	Alerts Trends - Filter Graph Top 10	Dashboards • Help
Showing:	ALL													
Date Ra	nge 🗸 🦳 WAVG 🗸													×
WAVC Min: 4.9 5.15	S Loan Categories for 90 Days 126 Max: 5.096 Avg: 5													🛓 Export
5.1											*****			*****
5.05 Devi														
4.95	****	*****			*****									
4.9 At	ug 21, 2023 Aug 31, 2023	Sep 10, 2023		Sep 20, 2023	Sep	30, 2023	Oc	t 10, 2023	Oct 20,	2023	Oct 30, 2023	Oct 30, 2023 Nov 9, 2023		Nov 19, 2023
Сору	Excel CSV												Search:	
Code	11 Description 11	Balance	Bal %t⊥	# Loans:	Loans %1	Avg Bal:	Mbrs	WAVG	Avg Rate:	Low Rate:	High Rate:	# Rates:	CU Balance:	Invest Bal
əl 60	FIRST MORTGAGE FANNIE MAE	\$569,759,061	35.9%	4,758	8.8%	\$119,748	4,613	3.499	3.454	1.750	8.250	53	\$446,098	\$569,312,963
JI 15	USED VEHICLES	\$161,025,645	10.2%	10,628	19.7%	\$15,151	9,737	6.427	6.161	1.740	21.990	258	\$161,025,645	\$0
G CR	COMMERCIAL REAL ESTATE FIXED	\$146,922,070	9.3%	423	0.8%	\$347,333	298	4.764	5.187	3.000	10.000	55	\$138,620,387	\$8,301,683
al 08	FIX MORT 30 YEAR FULLY AMORT	\$102,520,452	6.5%	429	0.8%	\$238,975	427	3.620	3.722	2.125	7.500	37	\$102,520,452	\$0

#### **Interest Accruals Loans and Dividend Accruals CDs Dashboards**

\*\*These dashboards do not include 360 mortgages or average daily balance deposit products.\*\*

The Interest Accruals Loans and Dividend Accruals CDs dashboards display interest or dividends accrued daily over a range of dates you define. The data on these dashboards can be filtered by branch or G/L to narrow the focus.

You can use the Interest Accruals Loans Dashboard to filter your fixed rate loans and view average interest rates and changes in your average yield, annualized value, and daily balance over time. The Dividend Accruals CDs Dashboard can be helpful to view average interest rates and changes to your daily dividend accruals and annualized expense over time.

#### CD Dividend Accrual Dashboard



#### Loan Interest Accrual Analysis Page

Test Credit Uni	ion							Home	e Alerts	Trends •	Dashboards • Help
Analysis of Int	erest Accru	ed between Oct 20, 2023 and Nov 20, 202	23								<b>T</b> ilter
Loan Accruals / Analysis											
		Averages Per Day		G/L Averag	es Per Day			Loan Averag	es Per Day		
Accrued		135,135	Accrued			3	,071	Accrued Interest			4.53
Principal		849,558,107	Principal			19,308	,139	Principal			28,459.45
Annualized Value	e	49,324,361	Annualized Value			1,121	,008	Annualized Value			1,652.32
Interest Rate		5.806	Interest Rate			5	.806	Interest Rate			5.806
Days Accrued		32	Unique G/Ls				44	Loans Accrued			29,852
Top 10 Accrued					Top 10 Principal						
GL	Loan Cat	Loan Cat Desc		Amount	GL	Loan Cat	Loan C	Cat Desc			Amount
751.34	15	USED VEHICLES		\$28,243	751.34	15	USED V	VEHICLES			\$161,238,604
751.68	CR	COMMERCIAL REAL ESTATE FIXED		\$18,943	751.68	CR	сомм	IERCIAL REAL ESTATE FIXED			\$146,035,595

751.68	CR	COMMERCIAL REAL ESTATE FIXED	\$18,943	751.68	CR	COMMERCIAL REAL ESTATE FIXED	\$146,035,595
751.35	16	RECREATIONAL VEHICLES	\$12,252	751.10	08	FIX MORT 30 YEAR FULLY AMORT	\$102,425,012
751.10	08	FIX MORT 30 YEAR FULLY AMORT	\$10,150	751.35	16	RECREATIONAL VEHICLES	\$77,934,102
751.60	FI	CDFI MORTGAGE/MI HOME 2022	\$7,290	751.60	FI	CDFI MORTGAGE/MI HOME 2022	\$50,652,872
751.75	FL	FIRST LIEN HOME EQUITY	\$7,267	751.21	09	CLOSED END HOME EQUITY	\$37,839,012
751.21	09	CLOSED END HOME EQUITY	\$6,661	751.69	CN	COMMERCIAL LOAN	\$37,283,870
751.04	04	SIGNATURE LOAN	\$6,572	751.75	FL	FIRST LIEN HOME EQUITY	\$37,228,228
751.69	CN	COMMERCIAL LOAN	\$5,342	751.33	14	NEW VEHICLES	\$32,789,116



# Quickly identify key data points using simple visualization features, customize alerts for key changes in any data point, and schedule daily, weekly, or monthly summary reports.

User-Friendly Data Analytics Checking your credit union's vitals has never been easier with Analytics Booth. View 12 full dashboards and trends for nearly 100 data points using your current CU\*BASE data, with options to view graphical representations of your data and filter your trends by branch, date range, and days of the week.

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Using CU\*BASE To Assist with ERM

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# **Liquidity Risk**

Liquidity risk relates to a financial institution's inability to convert assets into cash to meet short-term financial obligations without incurring substantial loss.

The NCUA uses several tests to evaluate credit union liquidity. Some of the basic tests are as follows:

Formula	Purpose
Loans/Assets	A high Loans to Assets ratio (80%+) will cause concern that the credit union cannot meet liquidity and member loan needs.
Borrowings & Non-member Deposits/Total Shares & Liabilities	Borrowings and non-member shares over 5% of the total may indicate potentially volatile funding sources.
Cash & ST Investments/ Assets	A ratio below 15% may indicate the credit union cannot meet near- term obligations.
Loans/Shares	A ratio over 100% may indicate liquidity risk.
Contingent Liabilities/Cash & Investments	A ratio over 200% may indicate liquidity risk.
Net Liquid Assets/Total Liabilities & Shares	The lower the ratio, the greater the probability the credit union will need to use market sources of funding (i.e. borrowing) to meet obligations.
Volatile Liabilities/Cash & Short-Term Investments	A ratio over 600% may indicate liquidity risk.
Growth in Volatile Liabilities/ Assets	Rapid growth (over 15%) where the funds are invested in long-term assets may cause liquidity risk.
Investment Loss Ratio	Investments with significant unrealized losses (3%+) may not get sold when liquidity pressures mount.
Estimated Loan Maturity	When the estimated maturity is greater than 48 months, the credit union may be receiving reduced cash flows from the loan principal.

## Managing Liquidity Risk With CU\*BASE Tools

#### Tool #280 Contingent Liability Analysis Report

This report lists all places where your credit union has made a commitment to members to extend credit along with the contingent liability of the commitments.

#### Learn more about this tool.

#### Tool #281 Contingent Liability Trends Dashboard

This dashboard displays how the contingent balances are flowing from one month to the next, identifies the areas where members are not utilizing their credit limits, and helps teams formulate plans to get active on loan disbursements. This is useful for expanding opportunities and tracking loan disbursement progress.

The Power Line button launches the trend line graph in Analytics Booth for an easier understanding of the data.



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#### Learn more about this tool.

#### Tool #478 Loan/Share Trial Balance Review

You can use this tool to analyze the Member Trial Balance for key components, beginning with an overview of the main CU\*BASE product applications, a calculation of the Loan-to-Share ratio, and finally a detailed breakdown of the Dividend Application, Certificate Type, and Loan Category levels.

This tool can be used to help you determine the movement of your liquidity.

#### Learn more about this tool.

#### Tool #467 Loan Maturity Analysis Report

With this tool, you can monitor your credit union's loan portfolio by G/L and loan income until the loans mature.

#### Learn more about this tool.

#### **Tool #536 Money Movement Analysis**

You can use this tool to compare account status for any group of members or accounts, from any point in time to another, highlighting the members who need your attention most.

This tool allows you to view where your money is moving between products organically and inorganically.

Learn more about this tool.

#### **Tool #592 Portfolio Analysis – Concentration Risk**

With this tool, you can easily identify potential concentrations within different segments of your credit union to help you defend and manage your lending practices.

This tool helps you view your entire portfolio concentration to ensure that it is well-balanced.

Learn more about this tool.

Using CU\*BASE To Assist with ERM Page 16 of 30

#### **Tool #405 Investment Activity Report**

If your investments are recorded in CU\*BASE, this tool breaks down each investment by its independent subsidiary history for the month (principal, income, etc.). Then, it details each subsidiary for each debit and credit entry by general ledger account, including the investment transaction description.

You can use this tool to help determine your short-term investment ratio.

#### Learn more about this tool.

#### **Tool #408 Investment Trial Balance Report**

If your investments are recorded in CU\*BASE, this tool reports key balances and dates for all investments in a single detailed report, including summary totals by the general ledger accounts represented in your credit union's balance sheet and income statements. This summary page is used monthly to balance the investment subsidiary to the balance sheet.

You can use this tool to help determine your short-term investment ratio.

Learn more about this tool.

#### **Tool #460 Loan Concentration Risk Report by Member**

This tool summarizes and lists all members and non-members according to their outstanding loan balance and allows your credit union to review the "top" borrowers for regulatory purposes.

Learn more about this tool.

#### Tool #937 Vault G/L Verification

You can use this tool to easily verify everything that happened in teller processing hit the G/L with the right location.

Learn more about this tool.

### **Managing Liquidity Risk With Analytics Booth**

#### **Balance Data Trends**

View numerical and graphical trends of your balance, accounts, and average balance of your shares, checking, certificates, escrow, and loans. All Analytics Booth trend lines may be filtered by branch, date range, or days of the week to include.

These trends can be useful for monitoring each product's balance and finding areas of liquidity risk that might need your attention.

Balance Data Trends Loans Balance: \$ 1,622,775,506 Savings Bala	ince: \$ 1,184,313,624 LDR: 137.0%					Credit Union	Combined Total 🗸 🗸	2023-11-19	#
Trends / Balance Data									
Shares					Checking				
	Sun Nov 19, 2023	90 Days Ago	Difference	% Diff		Sun Nov 19, 2023	90 Days Ago	Difference	% Diff
Balance 🗠	\$ 632,751,822	\$ 620,070,090	\$ 12,681,732	2.0%	Balance 🗠	\$ 297,361,608	\$ 292,830,456	\$ 4,531,152	1.5%
Accounts 🗠	113,378	111,317	2,061	1.9%	Accounts 🗠	51,741	50,733	1,008	2.0%
Avg Balance 🗠	\$ 5,581	\$ 5,570	\$ 11	0.2%	Avg Balance 🗠	\$ 5,747	\$ 5,772	\$ -25	-0.4%
Certificates					Escrow				
	Sun Nov 19, 2023	90 Days Ago	Difference	% Diff		Sun Nov 19, 2023	90 Days Ago	Difference	% Diff
Balance 🗠	\$ 245,961,781	\$ 245,709,547	\$ 252,234	0.1%	Balance 🗠	\$ 8,238,413	\$ 5,215,941	\$ 3,022,472	57.9%
Accounts 🗠	6,221	6,123	98	1.6%	Accounts 🗠	5,330	5,286	44	0.8%
Avg Balance 🗠	\$ 39,537	\$ 40,129	\$ -592	-1.5%	Avg Balance 🗠	\$ 1,546	\$ 987	\$ 559	56.6%

Using CU\*BASE To Assist with ERM

#### **3-Year Balance Comparison and 10-Year Trends Dashboards**

With Analytics Booth, you can compare your credit unions' asset, liability, income, or expense balances over a 3-year or 10-year period. These balance comparison dashboards can be filtered by branch and G/L.

These trend dashboards can be useful to view your G/L balances for anomalies or increases/decreases not previously predicted.

On the 10-Year Trends dashboard, you can view your net and percent change on a monthly and yearly basis and view trend graphs of the yearly changes.





On the 3-year Balance Comparison dashboard, any 3 years can be chosen for comparison. This dashboard also offers an analysis feature to analyze average balances as well as high and low points.

#### 3-Year Balance Comparison Dashboard

2 Veer Assesset Pelense (	omporison Aut. v. G	L A securite								
3-fear Account Balance C		L'Accounts	·							Y Filter Analysis
Copy Excel CSV	Choose asset, liability, income, or expense									
			2020			2021			2022	
	Beginning Balance ->>		\$742,911,476			\$897,874,576			\$1,061,659,280	
Month	1.	Change \$	11 Balance	11 Change % 11	Change \$ 1	Balance	11 Change % 11	Change \$	Balance 1	Change % 🛛
January		5,655,963	748,567,439	0.76	22,159,569	920,034,144	2.47	12,391,577	1,074,050,857	1.17
February		16,601,334	765,168,773	2.22	20,404,313	941,873,925	2.21	16,248,499	1,090,299,356	1.51
March		5,076,355	770,245,128	0.66	36,948,975	978,822,900	3.92	11,970,752	1,102,270,108	1.10
April		54,398,411	824,643,539	7.06	24,802,485	1,003,625,385	2.53	16,979,178	1,119,242,864	1.54
May		30,731,298	839,616,669	3.80	-9,467,520	994,157,865	-0.94	5,895,193	1,125,138,058	0.53
June		10,130,710	849,747,379	1.21	8,305,034	1,003,473,770	0.83	-7,760,638	1,117,378,049	-0.69
July		8,513,207	858,260,586	1.00	11,210,427	1,014,684,197	1.12	18,498,724	1,135,876,143	1.66
August		-10,472,817	847,787,768	-1.22	-1,150,440	1,013,533,757	-0.11	15,213,421	1,154,418,027	1.34
September		3,663,979	851,451,747	0.43	3,421,631	1,016,955,388	0.34	17,488,031	1,171,906,058	1.51
October		30,475,949	881,927,696	3.58	32,174,948	1,049,130,336	3.16	5,009,065	1,176,913,873	0.43
November		2,462,207	888,169,634	0.28	13,217,656	1,062,347,992	1.26	-501,811	1,176,445,420	-0.04
December		9,704,941	897,874,576	1.09	-1,279,899	1,061,659,280	-0.12	14,988,982	1,191,434,402	1.27
Ani	nual Change & Ending Balance ->>	166,941,536	897,874,576		160,747,178	1,061,659,280		126,420,973	1,191,434,402	
	Annual Growth ->>		20.9%			18.2%			12.2%	



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Using CU\*BASE To Assist with ERM

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## **Concentration Risk**

Although it is not part of the "seven pillars of risk" in the NCUA Examiners Guide, concentration risk, the fourth element of market risk, will still be analyzed by examiners as it poses a major threat. Credit unions should analyze all concentrated areas of investment as these propose a major risk considering the possibility the market conditions change unfavorably. The credit union must establish acceptable risk limits and a plan of action for all concentrated areas of investment in the event market conditions change adversely.

### **Managing Concentration Risk With CU\*BASE Tools**

#### Tool #460 Loan Concentration Risk Report by Member

This tool summarizes and lists all members and non-members according to their outstanding loan balance and allows your credit union to review the "top" borrowers for regulatory purposes.

#### Learn more about this tool.

#### **Tool #788 Selective Loan Information Report**

This report helps you monitor delinquent loans by loan officer, display new loans by loan category, and display booked or denied loans.

With this tool, you can determine your delinquent loan concentration ratio.

Learn more about this tool.

#### Tool #592 Portfolio Analysis – Concentration Risk

You can use this tool to identify potential concentrations within different segments of your credit union to help you defend and manage your lending practices.

This tool helps you view your entire portfolio concentration to ensure that it is well-balanced.

Learn more about this tool.

### **Managing Concentration Risk With Analytics Booth**

#### **Savings Portfolio Dashboard**

This dashboard displays an overview of your savings portfolio and can help identify concentration risk by sorting your savings portfolio data by shares percentage or balance percentage to view the most concentrated dividend applications and application types of your portfolio.

Savings Portfol	lio Analysis Divid	dend Applications	✓ Sun Nov 19, 2023	曲							<b>T</b> Filter	Graph Top 10	Change Over Time
Tot # Shares: 170,44													
Showing: ALL													
Copy Excel CS\	v						Sort by balance	e/share %				Search:	
GL Acct 11	Арр Туре	Div App	11 Description	tL	Balance	Bal %11	Avg Bal/Acct	Shares #11	Shares %1	Mbrs #:	Mbrs %	Rate 11	Qual Div 11
901.00	SH	II SH	REGULAR SAVINGS		\$158,381,962	16.9%	\$2,031	77,971	45.7%	77,971	46.3%	<u>Split</u>	
902.02	SD	FE FE	SAFE N EASY CHECKING		\$45,709,819	4.9%	\$1,813	25,217	14.8%	24,760	14.7%	0.00%	
902.39	SH	WB WB	WEALTH BUILDER		\$69,424,696	7.4%	\$8,374	8,291	4.9%	8,291	4.9%	Split	
902.92	SH	SP SP	PLUS SAVINGS		\$232,687,694	24.8%	\$47,672	4,881	2.9%	4,606	2.7%	Split	
902.01	SD	IP IP	INT PLUS CHECKING		\$20,713,361	2.2%	\$4,200	4,932	2.9%	4,849	2.9%	0.01%	
901.10	SH	BS BS	BUSINESS/ORG SAVINGS		\$17,127,679	1.8%	\$3,739	4,581	2.7%	4,581	2.7%	Split	
902.12	SD	a 25	TWO STAR CHECKING		\$50,491,752	5.4%	\$12,812	3,941	2.3%	3,697	2.2%	0.00%	
901.70	SH	a Al	ALL-IN SAVINGS		\$39,383,279	4.2%	\$10,208	3,858	2.3%	3,644	2.2%	0.99%	
902.46	SH	II KY	KASASA CSHBK SAVER		\$14,835,390	1.6%	\$4,105	3,614	2.1%	3,614	2.1%	0.01%	B
901.64	тх	FA FA	ESCROW FANNIE MAE		\$5,684,786	0.6%	\$1,617	3,515	2.1%	3,475	2.1%	0.00%	
902.26	SD	KX KX	KASASA CSHBK PLUS		\$5,433,666	0.6%	\$1,504	3,613	2.1%	3,613	2.1%	0.00%	B
902.27	SD	KZ	KASASA CASH BACK		\$4,043,243	0.4%	\$1,246	3,246	1.9%	3,245	1.9%	0.00%	
902.00	SD	СК СК	REGULAR CHECKING		\$13,293,850	1.496	\$5,088	2,613	1.5%	2,576	1.5%	0.00%	

#### **Certificate Portfolio Dashboard**

This dashboard displays an overview of your certificate portfolio and can help identify concentration risk by sorting your certificate portfolio data by CD percentage or balance percentage to view the most concentrated certificate types and CD application types of your portfolio.

Certificate	Portfolio Analy	<b>Isis</b> Certificate Ty	pes 🗸 Sun Nov	19, 2023 🗰								(	▼ Filter Graph Top	10 Change Over Time
Total # CDs: 6,2			\$39,537 WAVG: 3.690% 💷											
Showing: ALL					Sort	w balance/								
Copy Excel	CSV					balance/							Search:	
GL Acct 👘	Арр Туре	CD Type	11 Description	11 \$ Balance11	% Tot Balt	# CDs∷	% Tot CDs 🛛	# Mbrs⊔	Avg Mbr Balt	WAVG 11	Avg Rate	11 Low Rate	11 High Rate	ti # Rates ti
908.02	CD	al 24	21 MONTH CERTIFICATE	\$68,445,107	27.8%	1,091	17.5%	783	\$87,414	3.757	3.227	0.430	4.890	31 1
908.02	CD	a 27	19 MONTH BUMP CD	\$22,652,364	9.2%	711	11.4%	543	\$41,717	4.167	4.045	0.336	5.030	31
908.02	CD	al 01	7 MONTH CERTIFICATE	\$21,415,985	8.7%	710	11.4%	609	\$35,166	5.090	5.075	3.250	5.160	4
908.02	CD	al 18	13 MONTH CERTIFICATE	\$25,144,015	10.2%	675	10.9%	525	\$47,893	3.497	3.343	2.110	5.130	74

#### Loan Portfolio Dashboard

This dashboard displays an overview of your loan portfolio and can help identify concentration risk by sorting your loan portfolio data by loan percentage or balance percentages to view the most concentrated loan categories and purpose codes of your portfolio. While using this dashboard, you can group several loan categories together to quickly evaluate their impact on your portfolio.

Loan	Portfolio Analysis Loan Categories	~	Sun Nov 19, 2023	曲										▼ Filter Graph Top 10	Change Over Time
Tot # L															
Showing: ALL Copy Excel CSV					by balance/lo	oan %								Search:	
Code	11 Description	†1	Balance	Bal %ti	# Loans	Loans %1	Avg Balti	Mbrst	WAVG	Avg Rate:	Low Rate:	High Rate:	# Rates	CU Balance	Invest Balt
JI 15	USED VEHICLES		\$161,025,645	10.2%	10,628	19.7%	\$15,151	9,737	6.427	6.161	1.740	21.990	258	\$161,025,645	\$0 Â
	DIAMOND CASHBACK CARD		\$23,119,549	1.5%	6,310	11.7%	\$3,664	6,290	7.874	8.519	0.000	17.000	11	\$23,119,549	\$0
JI 04	SIGNATURE LOAN		\$26,627,591	1.7%	5,431	10.1%	\$4,903	4,950	9.159	8.771	1.000	22.240	173	\$26,627,591	\$0
əi 60	FIRST MORTGAGE FANNIE MAE		\$569,759,061	35.9%	4,758	8.8%	\$119,748	4,613	3.499	3.454	1.750	8.250	53	\$446,098	\$569,312,963
<b>a</b> 16	RECREATIONAL VEHICLES		\$77,581,392	4.9%	3,512	6.5%	\$22,090	3,143	5.732	5.916	1.990	21.240	128	\$77,581,392	\$0

#### **Balance Data Trends**

Access your Balance Data Trends to view numerical and graphical trends of your balance, accounts, and average balance of your shares, checking, certificates, escrow, and loans. As always, all Analytics Booth trend lines may be filtered by branch, date range, or days of the week to include.

These trends can be useful to compare the balances and number of accounts across all areas of your financial portfolio.

Balance Data Trends									
Loans Balance: \$ 1,622,775,506 Savings Balan						Credit Union	Combined Total 🗸 🗸	2023-11-19	<b></b>
Trends / Balance Data									
Shares					Checking				
	Sun Nov 19, 2023	90 Days Ago	Difference	% Diff		Sun Nov 19, 2023	90 Days Ago	Difference	% Diff
Balance 🗠	\$ 632,751,822	\$ 620,070,090	\$ 12,681,732	2.0%	Balance 🗠	\$ 297,361,608	\$ 292,830,456	\$ 4,531,152	1.5%
Accounts 🗠	113,378	111,317	2,061	1.9%	Accounts 🗠	51,741	50,733	1,008	2.0%
Avg Balance 🗠	\$ 5,581	\$ 5,570	\$ 11	0.2%	Avg Balance 🗠	\$ 5,747	\$ 5,772	\$ -25	-0.496
Certificates					Escrow				
	Sun Nov 19, 2023	90 Days Ago	Difference	% Diff		Sun Nov 19, 2023	90 Days Ago	Difference	% Diff
Balance 🗠	\$ 245,961,781	\$ 245,709,547	\$ 252,234	0.1%	Balance 🗠	\$ 8,238,413	\$ 5,215,941	\$ 3,022,472	57.9%
Accounts 🗠	6,221	6,123	98	1.6%	Accounts 🗠	5,330	5,286	44	0.8%
Avg Balance 🗠	\$ 39,537	\$ 40,129	\$ -592	-1.5%	Avg Balance 🗠	\$ 1,546	\$ 987	\$ 559	56.6%
Closed End Loans					Open End Loans				
	Sun Nov 19, 2023	90 Days Ago	Difference	% Diff		Sun Nov 19, 2023	90 Days Ago	Difference	% Diff
Balance 🗠	\$ 1,510,943,328	\$ 1,487,648,396	\$ 23,294,932	1.6%	Balance 🗠	\$ 111,832,178	\$ 110,512,858	\$ 1,319,320	1.296
Accounts 🗠	37,475	37,026	449	1.2%	Accounts 🗠	26,825	26,493	332	1.3%
Avg Balance 🗠	\$ 40,319	\$ 40,178	\$ 140	0.3%	Avg Balance 🗠	\$ 4,169	\$ 4,171	\$ -2	-0.1%



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Using CU\*BASE To Assist with ERM

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# **Institution Risks**

## **Transaction Risk**

Transaction risk asks whether the credit union manages the risk to capital resulting from error or fraud. For practical purposes, credit unions primarily must know about and take action against suspected consumer or employee fraud.

### **Managing Transaction Risk With CU\*BASE Tools**

#### **Tool #774 Sample Checking Account Activity**

With this tool, you can compile transaction history for members that had checking account activity for the previous month, sort it by 13 different analysis methods, and look at a sampling of random accounts at the top and bottom ends of the spectrum.

#### Learn more about this tool.

#### **Tool #775 Sample Transactions by Delivery Channel**

This tool allows your credit union to look at members who maximize delivery channels and sample those members to look for trends and possible demographics that can be used to improve member services, increase revenues, or lower expenses.

You can use this tool to review the different delivery channels to help determine which areas of risk are most evident.

#### Learn more about this tool.

#### Tool #402 Insider Audit/Due Diligence Report

This tool generates five different reports – Teller Audit Key Review Report, Transaction Activity Review Report, File Maintenance Review Report, Negative Balance Report, and Account List Only Report.

These reports give you the ability to review high-risk accounts to determine the risk those members might impose on the credit union.

Learn more about this tool.

#### Tool #159 Audit CU File Maintenance (CUFMAINT)

With this tool, you can monitor file maintenance activity made by various programs throughout the CU\*BASE system.

This will allow you to review the critical fields that were adjusted by employee ID.

Learn more about this tool.

#### **Tool #537 Monitor Abnormal Transaction Activity**

This tool automatically sifts through member transactions to find those that are abnormal or high-risk according to the parameters set by your credit union.

Learn more about this tool.

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#### Tool #505 Member PIN/Password Change History

This dashboard displays an online report listing the reasons that PINs and passwords were changed in Online Banking, Audio Response, or Personal Internet Branch (PIB).

This tool can be useful in trending members with frequent password changes.

Learn more about this tool.

#### Tool #981 Wire Transfer Tracking (WIRET)

You can use this tool to mark a wire transfer that has already been posted to a member account as being completed (the actual wire processed through your FedLine terminal or other methods) and review wire transfers for potentially fraudulent activity.

Learn more about this tool.

#### Tool #644 Print File Maintenance Report

This tool prints an on-demand version of the CUFMAINT data useful for researching maintenance done on a specific member's account or over a specific period of time, monitoring employee activity, and watching for suspicious activity.

#### Learn more about this tool.

#### **Tool #357 Employee Security Audit Reports**

This tool allows you to create one of three reports, which can include information about employees' special security controls, account security controls, assigned tool controls, and password changes.

Learn more about this tool.

### **Managing Transaction Risk With Analytics Booth**

#### **Transaction Data Trends**

Quickly identify abnormal transaction activity using Analytics Booth Transaction Data Trends' easy-tounderstand trend charts. The Transaction Data Trends shows you numerical and graphical trends of the balance and number of deposits and withdrawals for your shares, checking, certificates, escrow, and loans. As always, trend line data can be easily filtered by branch, date range, and days of the week included to narrow your focus.



#### **Alerts**

One of the defining features of Analytics Booth is the alerts system. You can customize numerous alerts and get notified of changes to over 90 data points tracked in Analytics Booth. Alerts help you stay aware of changes, so you can manage potential exposure points, without having to manually monitor your data. Customize your alerts to track your transaction data and get notified of abnormal changes.

Simply choose to set up an alert for a single branch or the entire CU; then, choose one data point to track, define the comparison date range and criteria you want to be notified of, and save your alert. Analytics Booth will start monitoring this data point daily, and you'll receive alerts if the criteria is met.

#### Create A New Alert - Test Credit Union An email is dispatched whenever user-defined criteria align with credit union activity from the preceding day. Step 2 - Define Criteria Data Point: Shares (\$) Withdrawals 90 Day Avg Yesterday 180 Day Avg 1 Year Avg 30 Day Avg 803,106 5.215.245 5 590 977 6 109 729 6 070 771 What would you like to evaluate against? Evaluate against: Prior day $\sim$ Trigger an alert when the specified criteria are satisfied: Changes by (+/-) Compare: Amount 4700000 Event: Evaluate criteria You would have received 9 alert(s) in the past 30 days. Historical Data: Date Value **Compare Value** Change Change % \$1,482,777 Sun Nov 19, 2023 \$803 106 -679671-45.84%

\$1,482,777

\$6,245,283



Sat Nov 18, 2023

Fri Nov 17, 2023

# Quickly identify key data points using simple visualization features, customize alerts for key changes in any data point, and schedule daily, weekly, or monthly summary reports.

\$6,245,283

\$4,699,629

-4,762,506

1,545,654

-76.26%

32.89%

User-Friendly Data Analytics Checking your credit union's vitals has never been easier with Analytics Booth. View 12 full dashboards and trends for nearly 100 data points using your current CU\*BASE data, with options to view graphical representations of your data and filter your trends by branch, date range, and days of the week.

To sign up, visit https://store.cuanswers.com/product/analytics-booth/

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## **Compliance Risk**

Compliance risk reviews ask whether the credit union is aware of and abides by provisions within laws, regulations, contracts, and ethical standards. While not all rules and regulations can be managed within CU\*BASE, there are a substantial number of ways a credit union can evaluate compliance risk using CU\*BASE tools.

### Managing Compliance Risk With CU\*BASE Tools

### **BSA**

#### Tool #984 Work Daily BSA/CTR Activity

You can use this tool to verify transactions against the Currency Transaction Report (CTR) and/or Suspicious Activity Reports (SAR) your credit union is required to file.

Learn more about this tool.

#### Tool #1990 Print BSA/SAR Structuring Report

This report provides a more comprehensive and detailed analysis of smaller denomination cash transactions that would normally fall below the standard range for Bank Secrecy Act (BSA) monitoring, to help your auditors look for signs of structuring or other suspicious activity.

Learn more about this tool.

#### **Tool #946 View BSA Configuration**

This tool specifies the types of transactions, dollar limits, and calculation methods that will be used to flag activity for your credit union's BSA Monitoring responsibilities, including tools to assist with your CTR responsibilities.

Learn more about this tool.

### **OFAC**

#### Tool #312 Create Tracker Notes/Leads from File

You can use this tool to generate reports of OFAC trackers using a list of memberships in a database file to help you track and follow up with member responses. This is useful to show that you've been scanning your member database and point out any potential OFAC hits.

#### Learn more about this tool.

#### **Tool #664 Print Member Trackers**

With this tool, you can print a list of member trackers filtered by account number, tracker conversation date, tracker type, memo type, and employee ID. You can use this tool to print a report of all member accounts with an OFAC tracker.

#### Tool #559 OFAC Non-Member Scan History

This dashboard displays scans run on non-members for the last eighteen months, the range most commonly asked for by auditors, although you can choose any range you like.

Learn more about this tool.

#### Tool #778 Scan a Single Name Through OFAC

With this tool, you can run an OFAC scan on an individual or an organization.

Learn more about this tool.

#### **Tool #644 Print File Maintenance Report**

This tool prints an on-demand version of the CUFMAINT data useful for researching maintenance done on a specific member's account or over a specific period of time, monitoring employee activity, and watching for suspicious activity.

Learn more about this tool.

#### **FINCEN**

#### Tool #769 Run FinCEN 314(a) Scan

Using this tool, you can quickly run the credit union membership against a file downloaded from the FinCEN website and provide a printed report for reporting on the FinCEN website.

Learn more about this tool.

### <u>REG E</u>

#### Tool #961 View Reg E Triggers for Statements

This tool displays controls for how your credit union's monthly and quarterly member statement files will be produced. Self-processing credit unions can make configuration changes, but online credit unions must contact a CU\*BASE Client Service Representative to request configuration changes.

### **REG CC**

#### Tool #355 Electronic Deposit Hold Group Config

You can use this tool to view and configure Electronic Deposit Hold Groups, which are used to control the availability of funds from deposits made electronically through an ATM, configure holds on outside check deposits at the teller line, and manage batch deposits made via Direct/Mail Post (such as for RDC deposit batches) and deposits made by the member using RDC-IQ.

Learn more about this tool.

#### **Tool #849 Automated Holds Configuration**

Using this tool, you can configure the settings for Teller check holds, Mail/Deposit Holds, and for deposits made by the member using RDC-IQ.

Learn more about this tool.

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#### **Tool #499 Member In Good Standing Configuration**

This tool allows you to define and review parameters that evaluate a member's status and provide a way to automate the Electronic Deposit Holds system by assigning an Electronic Deposit Hold Group code accordingly based on the credit union's criteria, such as Tiered Service level, Marketing Club enrollment, or other general criteria (age, length of membership, aggregate balances).

Learn more about this tool.

### Red Flags Rule

#### Tool #750 Red Flag Controls

This tool allows your credit union to select which CU\*BASE options will display the red flag message, which indicates that changes have been made to a member's personal information, including the member's name, email address, any phone number (not including a change to just the extension), or mailing address (Address 1, Address 2, City, State, or any number in the ZIP Code) during the last 30 days.

Learn more about this tool.

### Privacy Rule (GLBA)

#### **Tool #272 Configure Privacy Controls**

You can use this tool to review or configure separate credit union employees', shared branching tellers', and call center employees' access to personal information as well as access to certain screens containing private information.

Learn more about this tool.

#### Credit Card Act

#### **Tool #953 View Loan Category Configuration**

You can use this tool to view loan category configurations, which define the type of loan and how it will be handled by the system.

Learn more about this tool.

#### **TISA & Credit Practices Rule**

#### Tool #261 Configure Misc. Member Account Forms

With this tool, you can review customized forms that can be used when new accounts are created, including membership cards, fee lists, TIS disclosures, and even specialized marketing pieces that can be printed from any CU\*BASE workstation.

# **Strategic Risk**

The reports in CU\*BASE complement the credit union's strategic risk planning. Using the CU\*BASE reports, management has the responsibility to work with the board of directors on the following:

- 1. Implementing the board's strategic direction.
- 2. Developing formal and informal policies compatible with the strategic goals defining the credit union's risk tolerance.
- 3. Overseeing the development and maintenance of timely, accurate, and informative management information systems.
- 4. Ensuring effective communication of, and adherence to, strategic direction and risk tolerances throughout the organization.
- 5. Reporting on the progress of each strategic initiative and changes in the environment that either have positive or negative impacts on each. Negative impacts should be brought to light as quickly as possible, which would then promote directional changes to avoid further risk to capital, earnings, or reputation.

### Managing Strategic Risk With CU\*BASE Tools

Although most strategic risk management deals with other reports created by the institution, there is one report that can also help with a credit union's strategic risk.

#### **Tool #640 Print CU Financials**

This tool prints financial reports (income statements and balance sheets) that have already been configured using the Financial Report Configuration feature. You can use this report to compare your credit union's performance to your strategic plan.

Learn more about this tool.

## Managing Strategic Risk With AuditLink Vendor Monitor

Available through AuditLink, the AuditLink Vendor Monitor makes your vendor management and due diligence painless. Save time and effort while ensuring your vendor management remains compliant with the ever-changing regulations. AuditLink has experienced staff managing your vendors daily through requesting, reviewing, and uploading your vendor's due diligence, easing the time-consuming burden from you. Maintaining relevant due diligence is vital to protecting your company's operations, reputation, and risk of doing business. Take advantage of the most robust and relative vendor management database in the country with AuditLink Vendor Monitor.



#### AuditLink offers a complete Vendor Management Service to help assess and manage your critical vendor relationships and their associated risks.

AuditLink has the most robust and relative vendor management database in the country. We set the standards for vendor due diligence for a national audience. AuditLink Vendor Management uses technology and a strategy that incorporates cooperation, scalability, and a deep knowledge of regulatory requirements.

To sign up, visit https://store.cuanswers.com/product/vendor-management/

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### **Managing Strategic Risk With Analytics Booth**

#### **Alerts**

If you are sensitive to any of the 90+ data points tracked in Analytics Booth, the Alerts feature can help you stay aware of significant changes. Alerts help you manage potential exposure points, without having to manually monitor your data. Customize your alerts to focus on the areas outlined in your strategic plan.

Simply choose to set up an alert for a single branch or the entire CU; then, choose one data point to track, define the comparison date range and criteria you want to be notified of, and save your alert. Analytics Booth will start monitoring this data point daily, and you'll receive alerts if the criteria is met.

Alerts & Repo	Switch Credit Union:		~									
MY SAVED REPORTS	+ New Report											
An email is sent with a link to comprehensive info about your credit union activity for the previous day. There are no reports setup.												
MY SAVED ALERTS +	lew Alert											
Category	Description	Evaluate	Distribution									
Balance Data	Certificates (\$) Balance reaches by 300,000,000 compared to 1 Day Previous	Credit Union	You		Û							
Delinquency Data	Total Delinquent Balance increases by 3,000,000 compared to 1 Day Previous	Credit Union	You		Û							
Executive Summary Data	Credit Union Total (#) Accounts decreases by 100 compared to 1 Day Previous	Credit Union	You		Û							
Member Data	Closed Members Today increases by 10 compared to 1 Day Previous	Credit Union	You		Û							
Transaction Data	Loans - Closed End (\$) Withdrawals changes by 2,000,000 compared to 1 Day Previous	Credit Union	You		Û							



Quickly identify key data points using simple visualization features, customize alerts for key changes in any data point, and schedule daily, weekly, or monthly summary reports.

User-Friendly Data Analytics Checking your credit union's vitals has never been easier with Analytics Booth. View 12 full dashboards and trends for nearly 100 data points using your current CU\*BASE data, with options to view graphical representations of your data and filter your trends by branch, date range, and days of the week.

To sign up, visit https://store.cuanswers.com/product/analytics-booth/

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# **Reputation Risk**

Generally speaking, reputation comes into play when the credit union fails to manage any of the seven risks mentioned above which, in turn, has an impact on the public's perception of the institution. There are a few ways for a credit union to show the institution is prepared for negative publicity and has a plan to mitigate the consequences of such occurrence. These include:

- 1. An updated and regularly tested disaster recovery/business continuity plan.
- 2. An appropriate IS&T audit policy describing the network infrastructure identifying areas containing member data, including management responsibilities to secure the data, audit the network, and train personnel on the responsibilities to keep it confidential.
- 3. A public relations plan and policy, including the public relations scripts associated with the different types of occurrences, a list of those responsible for speaking to the public in the event of a reputation-critical event, and the appropriate knowledge of the local and federal regulations regarding the responsibilities associated with a leak of non-public member information.
- 4. A member complaint management system that incorporates the Supervisory committee, including an escalation procedure when complaints begin to approach a critical stage.

The primary regulatory concern with reputation risk is when negative public opinion causes turmoil for the credit union which, in turn, puts the credit union at risk of failure and risks that the credit union will not react in accordance with member privacy laws, causing penalties and fines from regulatory bodies or damage awards from members themselves.

### Managing Reputation Risk With CU\*BASE Tools

#### Tool #312 Create Tracker Notes/Leads from File

You can use this tool to generate a batch of telemarketing trackers using a list of memberships in a database file to help you track and follow up with member responses.

#### Learn more about this tool.

#### Tool #671 Print Outstanding Follow-Ups

This tool displays any tracker conversation notes that have been flagged as requiring follow-up. You can use this tool as part of a system to manage member complaints.

#### Learn more about this tool.

### **Managing Reputation Risk With AuditLink Vendor Monitor**

Available through AuditLink, the AuditLink Vendor Monitor makes your vendor management and due diligence painless. Maintaining relevant due diligence is vital to protecting your company's operations, reputation, and risk of doing business. Take advantage of the most robust and relative vendor management database in the country with AuditLink Vendor Monitor.



#### Effortlessly assess and manage your critical vendor relationships.

To sign up, visit https://store.cuanswers.com/product/vendor-management/

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# Summary

All financial institutions are subject to eight primary risk areas: credit, interest rate, liquidity, concentration, transaction, compliance, strategic, and reputation risks. NCUA examiners expect all credit unions to monitor and mitigate these risks. You don't need to purchase an ancillary system to support your ERM program. With your CU\*BASE tools, collecting and monitoring your risk data is simple and accessible.

To complement your CU\*BASE tools, the Analytics Booth service offers several user-friendly tools to allow you to easily view your data and trends. Analytics Booth takes your current CU\*BASE data and converts it into easily understandable, visually aesthetic dashboards and trends for your convenience. The Analytics Booth service is available for all CU\*BASE credit unions. If you are not already utilizing this user-friendly service, visit <u>https://store.cuanswers.com/product/analytics-booth/</u> to learn more and sign up.

Additionally, AuditLink offers useful ERM services, including its complete vendor management service. AuditLink has the most robust and relative vendor management database in the country. The AuditLink Vendor Monitor uses technology and a strategy that incorporates cooperation, scalability, and a deep knowledge of regulatory requirements to help you manage your critical vendor relationships and meet regulatory expectations.

As a CU\*BASE credit union, your credit union has access to several resources valuable for your enterprise risk management program. Many of the CU\*BASE tools already available to you provide you with the information you need to manage the eight primary risks successfully. Take advantage of your CU\*BASE tools, and if you aren't already, consider enrolling in Analytics Booth and AuditLink Vendor Monitor to make risk management even easier.