

## Chapter 3

---

# TOTAL ANALYSIS PROCESS

### TABLE OF CONTENTS

TOTAL ANALYSIS PROCESS.....	3-1
Examination Objectives.....	3-1
Overview.....	3-1
Collecting Data.....	3-2
Reviewing Data.....	3-2
Levels of Analysis.....	3-3
Structural Analysis.....	3-3
Trend Analysis.....	3-6
Reasonableness Analysis.....	3-6
Variable Data Analysis.....	3-7
Qualitative Data Analysis.....	3-8
Interpreting Data.....	3-9
Reaching Conclusions.....	3-9
Making Recommendations.....	3-10
Developing Plans for Action.....	3-10
Testing the Results.....	3-11
Workpapers and References.....	3-11

---

## Chapter 3

---

### TOTAL ANALYSIS PROCESS

#### Examination Objectives

- Evaluate the components of CAMEL
- Review quantitative measurements
- Review qualitative considerations
- Interpret examination results and reach conclusions
- Recommend and help develop action plans

#### Overview

The CAMEL Rating System provides an accurate and consistent assessment of a credit union's financial condition and operations in the areas of Capital Adequacy, Asset Quality, Management, Earnings, and Asset/Liability Management. This internal tool measures risk and allocates resources for supervision purposes. Examiners can access NCUA's most recent Letter to Credit Unions regarding the CAMEL Rating System in the Letters to Credit Union section of Reference Information on the NCUA website ([www.ncua.gov](http://www.ncua.gov)).

The CAMEL rating culminates the examination process. Key ratios alone do not automatically determine the rating. Examiners should look behind the numbers to determine the significance of supporting ratios and trends. When evaluating the components of CAMEL, examiners look at the seven risks discussed in the Risk-Focused Program Chapter and the quantitative measurements and the qualitative considerations outlined in the Letter to Credit Unions discussed above before determining a final rating. Examiners have the discretion to increase or decrease any rating they deem necessary using their professional judgment. They should support increases or decreases in the examination report.

The total analysis process includes:

- Collecting data;
- Reviewing data;
- Interpreting data;
- Reaching conclusions;

- Making recommendations; and
- Developing plans for action.

### **Collecting Data**

The examiner collects statistical data during the planning phase of the examination. Some financial data appears on the 5300 Risk Parameters tab of the Scope Workbook, with more detail on the various AIREs work papers including the Financial History and Key Ratio forms. Examiners obtain qualitative data by observation (e.g., reading the minutes, policies, recent correspondence, prior examination reports, watching as staff performs their duties) and by discussion with officials and employees. Several examination work papers (e.g., Loan Exceptions, Examiner Findings, Informal Discussion Items) document qualitative and quantitative data. The Examination Overview summarizes the data in a narrative form.

The Financial History, a key form for performing the total analysis process, compiles examination data for computing ratios on the Key Ratio Analysis form. For periods other than those on the Key Ratios form, examiners may collect and analyze data using optional AIREs work papers or alternative analysis tools like the Consolidated Balance Sheet or Cycle-to-Cycle programs.

### **Reviewing Data**

The imported data automatically carries forward to Financial History, Key Ratios and various investment, loan, and share reports. The prior year-end and current quarter-end 5300 information flows from the Calculated 5300 Accounts spreadsheet to the appropriate forms. Examiners should verify the integrity of the 5300 data. If the examiner finds errors on the 5300, they should upload corrected data through the host system and make corrections during the current examination. The examiner should also consider requiring that the credit union restate the appropriate financial statements.

In this portion of the total analysis process, the examiner (1) breaks down and reassembles the data, relating individual parts to the whole; (2) notes the trends; and (3) evaluates the data. This complex evaluation of the examination data requires examiners to use their professional judgment.

## **Levels of Analysis**

Examiner judgment affects the overall analytical process. The examiner sets the tone for the data review process by asking management appropriate questions, and reviewing and completing the Preliminary Risk Assessment tab of the Scope Workbook. The review of data takes place in varying levels of analysis, including:

- Structural analysis,
- Trend analysis,
- Reasonableness analysis,
- Variable data analysis, and
- Qualitative data analysis.

Numerous ratios measuring a variety of credit union functions provide the basis for analysis. Examiners must understand these ratios both individually and as a group, depending on the type of analysis being performed. For example, some individual ratios may not provide an accurate picture without a review of the related trends. Analyzed as a group, however, the ratios may depict important trends not seen when reviewing individual measures.

## **Structural Analysis**

Structural analysis includes the review of the component parts of a financial statement in relation to the whole. The examiner analyzes financial data and the ratios developed from that data. For example, the return on average assets is a structural analysis ratio developed from the income and assets.

The examiner should first develop expectations of the relationships of these financial components or ratios to each other and as a whole. In developing expectations, the examiner may refer to comparable prior periods, budgets, industry trends, etc.

The examiner then compares the anticipated results with the relationships actually taking place among financial elements within the period. This highlights two important aspects of structural analysis: (1) structural analysis is static in the sense that the examiner reviews the composition of the financial statement as of a specific date or as of a particular cut-off date; and (2) the credit union's resulting financial ratios should fall within reasonable parameters or the examiner's

expectations. Examiners may use the Reasonableness worksheet in the ExamOptional workbook to assist in making this determination.

One or more ratios outside those reasonable parameters can indicate an at-risk, misstated, or otherwise suspect financial condition. For example, consider the close relationship between asset composition and gross income. If loans comprise 90 percent of a credit union's assets and those loans have a 15 percent annual percentage rate (APR) and nominal loan delinquency, the examiner would expect relatively high gross income. However, if gross income as a percentage of average assets equals only 6.9 percent, the results fall outside the examiner's reasonable parameters or expectations and should raise questions that warrant further review.

Additionally, the examination process, while not designed to detect fraud, may warrant expanded procedures when red flags exist (the Management and General Ledger chapters and the appendix to the Share Structure chapter contain red flags.)

When analyzing the financial and operational structure, examiners should:

- Step back from examination details and individual ratios (and often from the computer);
- Think about the big picture, how the various aspects of the examination interact and the individual ratios relate to each other; and
- Assess management's ability to identify, measure and control current and future risk.

The risk-focused examination provides examiners flexibility in the examination scope (i.e., examiners should expand procedures when they note high related risks.) For example, if management has a poor process for managing credit risk, examiners should expand the loan review. The structural analysis process enables examiners to (1) analyze internal controls, (2) judge how much reliance they can place on those controls, and (3) persuade the officials to identify and correct weaknesses and other conditions conducive to fraud and embezzlement.

During structural analysis, the examiner reviews the statistical data on the AIRES Financial History form and the 5300 Risk Parameters tab of the Scope Workbook and calculates structural ratios on the Key Ratio work paper in AIRES. Generally, the examiner uses the key ratios to evaluate and appraise the credit union's overall financial condition as of the examination date. However, examiners may require other structural ratios to complete the analysis or to corroborate the tentative conclusions reached after reviewing the required key structural ratios. The analysis of management's financial vision includes reviewing key ratios against the credit union's projected ratios in the budget or business plan. Examiners should expand a review when they identify risk indicators.

To determine the level of risk, examiners review structural ratios individually and in relation to each other. For example, if a credit union has a lower than normal net income level, but strong and stable capital ratios, the examiner may initially suspect that the credit union has an earnings problem. However, in reality, management may reward the members with higher dividend rates that do not threaten the credit union's strength. In any case, if the credit union has negative year-to-date return on average assets, the examiner should determine whether earnings pose a potentially serious problem.

During the structural ratio review, the examiner may carefully compare the credit union's ratios to the same ratios of similar size credit unions. Economic, geographic and other differences between one credit union and another preclude indiscriminate comparisons. Peer ratios do not represent standards or goals for the credit union to attain; they serve only as benchmarks. As such, examiners should use peer ratios as analysis points only, and should not carry this type of comparison to the Overview. Examiners should keep in mind a basic tenet of ratio analysis: ratios never answer questions; they only raise them.

Examiners should not recommend specific action either orally or in the examination report when the only reason offered is that the credit union should meet a peer or national average. Pursuing the reasons for the adverse ratios often allows the examiner to distinguish between unacceptable risks and appropriate trends for the particular credit union.

Structural analysis enables examiners to identify potential risks; however, examiners need trend analysis, in addition to the structural approach, to reach appropriate conclusions and make sound recommendations to management. Trend analysis helps determine the level and direction of the risk.

**Trend Analysis**

Trend analysis involves comparing the component parts of a structural ratio to itself over several time periods. Seasonal fluctuations may warrant the examiner using other than annual trend analysis periods. While trend analysis often requires looking back at prior ratios, it also serves as a valuable forecasting tool that allows the examiner or credit union to project outcomes if the credit union chooses another solution or resists making needed corrections.

Trend analysis enables identifying, questioning, and evaluating the changes in results of operations. For example, assume a credit union has a ratio of delinquent loans to total loans of 10 percent. If the structural ratio were 5 percent at the previous examination, the examiner would determine the reasons for the increase by reviewing the trends of each component, total loans and total delinquent loans. The increase may result from (1) delinquent loans increasing while total loans decrease or remain unchanged; (2) both delinquent loans and total loans increasing, but delinquent loans increase at a faster rate; (3) both delinquent loans and total loans decreasing, but total loans decrease at a faster rate; or (4) delinquent loans remaining unchanged while total loans decrease.

Determining which situation applies provides a basis for expanding the depth of analysis needed to fully assess the potential risk. During the total analysis process, examiners should:

- Determine whether material negative trends exist;
- Ascertain the action needed to reverse unfavorable trends; and
- Formulate, with management, recommendations and plans to ensure implementation of these actions.

**Reasonable-ness Analysis**

As needed, the examiner performs necessary reasonableness tests to ensure accuracy of financial performance ratios. For example, if the

cost of funds exceeds the average stated rates, the yield on loans in a highly loaned out credit union with no reported delinquency equals less than half the stated rate, or the yield on investments falls well below market in comparison to the balance, the examiner should determine the cause. AIRES has the capability (optional) to compute share costs and loan yields within the Critical worksheets for shares and loans. AIRES also calculates reasonableness ratios on the optional worksheet, Reasonableness Ratios.

By performing reasonableness tests, the examiner might identify transaction risks such as (1) unauthorized disbursements, (2) out-of-balance conditions, (3) negative share accounts (overdrafts), (4) payment of personal expenses from credit union funds, and (5) fictitious loan or share accounts (or other fictitious records). The existence of fraud or embezzlement often causes the financial performance ratios to fail tests of reasonableness, which may serve as a red flag indicating the need for more in-depth review by the examiner.

Most individual balance sheet items provide limited usable information that examiners can retrieve to analyze the credit union's financial condition. If examiners decide to perform an account analysis, they must understand what entries make up the whole account.

**Variable Data Analysis**

Examiners can often analyze an examination area in many different ways. For example, during the loan review, a variety of options exist by which examiners may analyze loans, including:

- The amount current and the amount delinquent (the amount delinquent can be further broken down into length of delinquency);
- The amount collectible or uncollectible;
- The number of loans involved;
- The average unpaid balance of each loan;
- The loan turnover rate;
- The percentage of high risk loans (may require profiling loans);
- The amount allocated to a new loan program (e.g., risk-based lending);
- The amount unsecured and secured;

- The types of security and the amount secured by each type (e.g., co-makers, automobiles, real estate, etc.); and
- The appraised or market value of the security compared with the unpaid balances of the secured loans.

Ascertaining any one of the above remaining items may provide a basic understanding. Obtaining additional items may allow the examiner to perform a more meaningful analysis. Rather than categorizing each loan, examiners can determine the appraised or market value of the security using a sampling process.

Likewise, examiners can break down other examination areas (e.g., investments, shares, etc.) to facilitate the analysis. The total analysis process enables examiners to look beyond the "static" balance sheet figures to more accurately assess the financial condition, quality of service, and risk potential.

**Qualitative  
Data Analysis**

Qualitative data includes information and conditions that are not measurable in dollars and cents, percentages, numbers, etc. Nevertheless, they have an important bearing on the credit union's current condition, and will undoubtedly affect its future. Examples of qualitative data include lending policies and practices, internal controls, attitude and ability of the officials, risk measurement tools, risk management, economic conditions within the general economy and of the sponsoring organization, and attitude of the sponsoring organization.

In an effective examination, qualitative analysis requires the examiner to go beyond merely identifying trends and to look for causes behind the quantitative performance. When events beyond management's control adversely affect the credit union (e.g., loss of the sponsor, strike at the sponsor, natural disaster, etc.), the examiner should work with the officials to develop policies or procedures that will counteract or lessen unfavorable influences, both internal and external.

The main purposes for reviewing qualitative data are to (1) help project the credit union's future, and (2) determine the control environment surrounding various operations. The credit union's future heavily depends on management's ability to identify, monitor,

measure, and manage risks. The total analysis process requires the examiner to perform varying levels of analysis (structural, trend, reasonableness, variable data, and qualitative) before interpreting the results of the review.

### **Interpreting Data**

Interpreting the data involves the most complex phase of the total analysis process. The examiner's ability, judgment, experience and skill all come into play in this process of questioning the data. If examiners place too much emphasis on inconsequential facts or underplay or ignore significant facts, they may arrive at erroneous conclusions that could harm the credit union. For example, individuals often charter a credit union primarily to provide loans to members. Lending programs require that the credit union take a reasonable business risk, which results in earnings sufficient to maintain or build net worth. However, by emphasizing zero delinquency and loan losses, the examiner could diminish a primary reason for the credit union's existence and unnecessarily decrease its income. Performing the following will increase understanding and possibly change the examiner's preliminary assessment of risk:

- Inquire about the sponsor's support and viability, local economic conditions, and other relevant information not directly available within the confines of the credit union's office;
- Differentiate between important and unimportant data; and
- Place all data in its proper perspective.

### **Reaching Conclusions**

After collecting, reviewing, and properly interpreting all appropriate data, the examiner arrives at conclusions. In this part of the total analysis process, the examiner identifies concerns, explains the causes, and assesses risk to arrive at a CAMEL rating. The examiner will determine the level (high, moderate, or low) of the overall strategic, interest rate, credit, liquidity, transaction, compliance, and reputation risks. The examiner will also evaluate the direction of these risks (increasing, unchanged, or declining). For example, the examiner may determine that the member business loan portfolio has high credit risk. However, member business loans may only make up a small percent of total assets. As a result, the examiner may conclude that the credit union has low or moderate credit risk depending on the remainder of

the balance sheet and management's future plans for their member business loan program.

Depending on a credit union's circumstances and the degree of examiner judgment required for each case, examiners may find some conclusions relatively simple to reach, while they find others difficult. Examiners can make sound recommendations only by reaching informed and logical conclusions.

**Making  
Recommendations**

After analyzing the operation, the examiner makes recommendations for action based on the conclusions reached and final risk assessments. The recommendations usually consist of general statements addressing what the credit union should do to correct its problems and reduce unacceptable risk. Examiners should assist the officials in developing a specific plan for carrying out the recommendation.

**Developing  
Plans for  
Action**

Well-designed, achievable, and measurable action plans should reduce unacceptable risks and prevent problems from recurring. Since management's responsibility includes implementing the action plans, the examiner and management should jointly develop the plans. While examiners usually have an approach for the plan in mind, they should be tactful, flexible, and receptive to alternatives suggested by management, who will more likely implement the plan if they participate in developing it.

Management often corrects less serious weaknesses during the examination, thus eliminating the need for a formal written plan. Examiners should document the significant agreed upon action plans, describing the reasons and causes in the written examination report.

An action plan should specify the following:

- Who will take the action;
- Description of the action;
- Completion dates; and
- Responsible oversight by the supervisory committee or officials, if necessary.

The action plan should remain in effect until the examiner and board agree the improved financial condition and level of risk reduction warrants discontinuance or relaxation of the plan. If the credit union has not made sufficient improvement, the examiner and the board should strengthen or revise the plan.

### **Testing the Results**

Valid results of the total analysis process depend on the examiner considering and accurately interpreting all pertinent data. The examiner then has the tools to make meaningful recommendations and design action plans that will reduce unacceptable risks and prevent future problems. If examiners have not properly applied the total analysis process, inappropriate recommendations and action plans may result. To reduce this possibility, the examiner should:

- Make a final review of all data;
- Discuss analysis, risk assessments, and conclusions with management;
- Determine that recommendations and action plans are practical, specific, and understandable; and
- Determine that the plans will achieve an appropriate level of risk reduction.

### **Workpapers and References**

- Work papers
  - Financial History
  - Key Ratios
  - Scope Workbook
  - Examination Overview
  - Confidential Section
  - Supplementary Facts
  - Examiner's Findings
  - Financial Triggers Questionnaire
  - Document of Resolution