



September 2021

NATIONAL CREDIT UNION ADMINISTRATION

Additional Actions Needed to Strengthen Oversight

Accessible Version

GAO Highlight

Highlights of [GAO-21-434](#), a report to congressional committees

Why GAO Did This Study

NCUA oversees federally insured credit unions and administers the NCUSIF (which insures the accounts of credit union members). Credit union failures—145 from 2010 through 2020—resulted in more than \$1.55 billion in losses to the NCUSIF.

The Dodd-Frank Wall Street Reform and Consumer Protection Act contains a provision for GAO to review MLRs and make recommendations to improve NCUA's supervision of credit unions. Among its objectives, this report examines (1) credit union failures since 2010, and (2) NCUA use of supervisory information for deteriorating credit unions and its reporting on failures.

GAO analyzed data and information on credit unions' financial condition and NCUA supervisory activity. GAO examined credit union failures in 2010–2020, NCUA and Inspector General reviews of the failures, and the associated NCUSIF losses, and statistically modeled the relationship between examination findings and credit union deterioration and failure. GAO also interviewed NCUA officials.

What GAO Recommends

GAO makes three recommendations to NCUA, including that it more fully leverage the component ratings that indicate credit union deterioration and that it document which office should ensure timely completion of post mortem reports on failed credit unions. NCUA agreed with all of the recommendations.

View [GAO-21-434](#). For more information, contact Michael Clements at (202) 512-8678 or clementsm@gao.gov.

September 2021

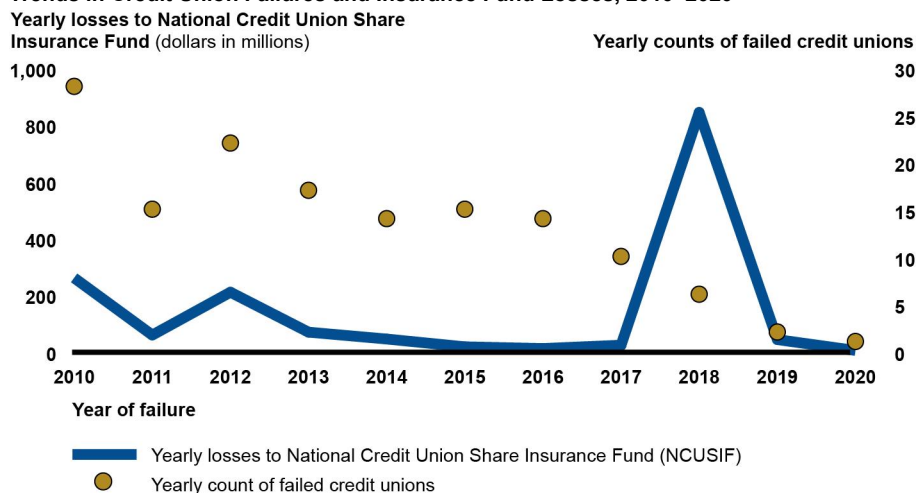
NATIONAL CREDIT UNION ADMINISTRATION

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What GAO Found

Credit union failures generally declined from 2010 through 2020, as did losses to the National Credit Union Share Insurance Fund (NCUSIF). But losses spiked in 2018 (see figure), largely due to failures of three credit unions with loans concentrated in taxi medallions with declining values. The National Credit Union Administration (NCUA) Office of Inspector General, which conducts material loss reviews (MLR) of certain credit union failures, attributed credit union failures and NCUSIF losses to weaknesses at credit unions and NCUA's oversight.

Trends in Credit Union Failures and Insurance Fund Losses, 2010–2020



Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Accessible Data Table for Figure

	Yearly losses to NCUS Insurance Fund	Yearly count of failed credit unions
2010"	257.453	28
2011"	55.864	15
2012"	207.04	22
2013"	66.0823	17
2014"	41.8722	14
2015"	14.4482	15
2016"	8.46105	14
2017"	20.1561	10
2018"	841.344	7
2019"	39.8335	2
2020"	1.61376	1

NCUA has opportunities to improve its use of supervisory information to address deteriorating credit unions and its processes for reporting on failures, including:

- NCUA examiners rate credit unions according to five individual components: Capital Adequacy, Asset Quality, Management, Earnings, and

Liquidity/Asset-Liability Management (CAMEL), and assign a composite rating on their overall condition. NCUA places emphasis on the CAMEL composite ratings to guide its enforcement actions. However, GAO found that when one of a credit union's component ratings is worse than its composite rating, that credit union is more likely to deteriorate or fail. NCUA's policies do not explicitly address how to more fully leverage the component ratings individually to determine an appropriate enforcement action. By more fully leveraging the additional predictive value of the CAMEL component ratings, NCUA could take earlier, targeted supervisory action to help address credit union risks and mitigate losses to the NCUSIF.

- NCUA did not always conduct post mortem reviews (13 of 44 as of April 2021) of certain failed credit unions (to determine causes for failure) and did not complete most reports (30 of 44) in the required time frame. NCUA's policies and procedures do not specify which office should ensure that reports are done and issued on time. Documenting the responsible office would help ensure reviews are conducted and provide useful and timely information.

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Abbreviations

CAMEL	Capital, Asset Quality, Management, Earnings, Liquidity/Asset-Liability Management
CEO	chief executive officer
COVID-19	Coronavirus Disease 2019
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
IG Act	Inspector General Act of 1978
MLR	material loss review
NCUA	National Credit Union Administration
NCUSIF	National Credit Union Share Insurance Fund
OIG	Office of Inspector General
PCA	prompt corrective action

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September 23, 2021

The Honorable Sherrod Brown
Chairman
The Honorable Patrick Toomey
Ranking Member
Committee on Banking, Housing, and Urban Affairs
United States Senate

The Honorable Maxine Waters
Chairwoman
The Honorable Patrick McHenry
Ranking Member
Committee on Financial Services
House of Representatives

In 2020, the credit union industry encompassed approximately 5,100 credit unions with assets exceeding \$1.8 trillion, and had over 124 million members. In the aftermath of the 2007–2009 financial crisis, the credit union system experienced billions in financial losses and more than 80 credit unions failures, causing sustained losses to the National Credit Union Share Insurance Fund (NCUSIF). NCUSIF provides primary deposit insurance for member accounts and is backed by the full faith and credit of the U.S. federal government.

The National Credit Union Administration (NCUA) is an independent federal agency that oversees federally insured credit unions and administers the NCUSIF. The agency is responsible for regulating and supervising credit unions, and ensuring that they operate in a safe and sound manner. NCUA is required to take prompt corrective action (PCA), a framework for applying discretionary and mandatory supervisory actions, with respect to troubled credit unions in order to minimize losses to the NCUSIF.¹ In 2012, we noted that earlier actions were needed to better address troubled credit unions.²

¹12 U.S.C. § 1790d; 12 C.F.R. pt. 702, § 704.4.

²GAO, *National Credit Union Administration: Earlier Actions Are Needed to Better Address Troubled Credit Unions*, [GAO-12-247](#) (Washington, D.C.: Jan. 4, 2012).

When the NCUSIF incurs a loss over a certain threshold with respect to an insured credit union, the NCUA Office of Inspector General (OIG) is required to submit a written report reviewing NCUA's supervision of the credit union, including NCUA's implementation of prompt corrective actions. The report—which OIG refers to as a material loss review (MLR)—must describe the reasons why the credit union's failure resulted in a material loss to the NCUSIF and include recommendations to prevent future losses.³ NCUA also conducts post mortem reviews on certain failed credit unions, which are not the subject of an MLR.⁴

The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) includes a provision for us to review NCUA's supervision of credit unions.⁵ Specifically, this provision directed us to review each MLR, including NCUA OIG's compliance with certain related requirements, and recommend improvements to the supervision of credit unions. This report examines (1) credit union failures and losses to the NCUSIF from 2010 through 2020; (2) NCUA's use of supervisory information to identify and address deteriorating credit unions; (3) NCUA's supervisory information and OIG compliance with certain requirements for accessibility and formatting of MLR reports; and (4) emerging risks to credit unions as identified by NCUA, and the supervisory actions NCUA took to address those risks.

For the first objective, we analyzed NCUA data from 2010 through 2020 on the number of failed and nonfailed credit unions and their characteristics, including asset size and losses to NCUSIF. We assessed the reliability of NCUA data (numbers of institutions and asset size) by interviewing NCUA officials, reviewing NCUA documentation, and

³The OIG must also prepare similar reports for losses that are not material, if the OIG determines that unusual circumstances exist that warrant an in-depth review. The OIG also refers to such reports as MLRs.

⁴As discussed later in this report, NCUA conducts post mortem reviews of credit union failures in order to minimize future losses to the NCUSIF and improve the agency's supervision of credit unions.

⁵See Pub L. No. 111-203, § 988, 124 Stat. 1376, 1938-39 (2010) (codified at 12 U.S.C. § 1790d(j)). In 2010, Section 988 of the Dodd-Frank Act amended Section 216(j) of the Federal Credit Union Act to require the NCUA OIG to submit a copy of each MLR to GAO, and to provide for GAO's review. Under such conditions as GAO deems appropriate, GAO must (1) review each MLR, including OIG compliance with Section 8M of the Inspector General Act of 1978 (codified at 5 U.S.C. app., § 8M, previously codified at 5 U.S.C. app., § 8L), and (2) recommend improvements to the supervision of credit unions (including improvements relating to the implementation of prompt corrective actions). 12 U.S.C. § 1790d(j)(5).

manually and electronically testing the data. We found the data to be sufficiently reliable for reporting the number of credit unions and analyzing their asset size. We analyzed additional characteristics, such as the concentration of loan portfolios, using data from S&P Global, a financial institution database. We assessed the reliability of certain data from this database by interviewing S&P Global officials, reviewing their data quality process documentation, and electronically testing the data. We found the data to be sufficiently reliable for analyzing the financial health and loan concentration of credit unions. We reviewed NCUA documents (including post mortem reports) and MLRs from the NCUA OIG to report the causes of credit union failures from 2010 through 2020.

For the second objective, we reviewed supervisory information, including Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management (CAMEL) ratings.⁶ We analyzed CAMEL component and composite ratings for failed and nonfailed credit unions over a 13-year period. We chose this time frame so we could assess CAMEL ratings issued for institutions that failed in the first year of our review period (2010). We also reviewed actions NCUA took to address 26 deteriorating credit unions whose failure resulted in an MLR. We determined this supervisory information was sufficiently reliable to identify CAMEL ratings by interviewing knowledgeable agency officials, reviewing related documentation, and electronically testing the data. In addition to our review of the supervisory information, we developed a series of models (using data for all nonfailed and failed credit unions in 2007–2020) designed to examine the relationship between CAMEL ratings and further deterioration of credit unions.⁷

For the third objective, we reviewed documentation of the dates on which the NCUA OIG submitted each MLR to the NCUA Board, and the dates on which the OIG posted the MLRs on its public website. We reviewed the accessibility, content, and formatting of each MLR. We compared this

⁶CAMEL ratings are on a scale from 1 (best) to 5 (worst). There are two types of CAMEL ratings: component (individual)—ratings for C, A, M, E, or L—and composite, which is based on all of the component conditions.

⁷From 2010 to 2020, MLRs were prepared for 32 credit unions—27 “retail” credit unions and five corporate credit unions. Corporate credit unions are financial institutions that provide liquidity and other services to credit unions. Our review of MLRs in the second objective focused on 26 of the 27 retail credit unions because the MLRs for those 26 credit unions presented CAMEL data. Accordingly, we verified enforcement actions taken and the CAMEL ratings assigned for these 26 credit unions.

information to related requirements in the Inspector General Act of 1978 (IG Act), as well as NCUA OIG policies and procedures for preparing, formatting, and communicating MLRs.⁸ We also obtained and analyzed data on enforcement actions. We manually compared the data with information in the MLRs, electronically tested the data, and interviewed knowledgeable agency officials and found the data were not sufficiently reliable for our reporting purposes (as discussed later). Additionally, we reviewed NCUA's post mortem reports for 2010–2020 to assess their completion in the time frame required under NCUA policies and procedures. We interviewed officials in NCUA's Office of Examination and Insurance and staff from three regional offices to understand supervisory processes.

For the fourth objective, we reviewed NCUA documentation on efforts to identify and address risks facing credit unions at the onset of the Coronavirus Disease 2019 (COVID-19) pandemic.⁹ We interviewed officials from offices involved in NCUA's enterprise risk management, who are responsible for identifying and addressing risks credit unions may face. We also interviewed representatives from two credit union industry associations, the Bookings Institution, and an investment industry consultant to obtain their perspectives on emerging risks to the credit union industry. See appendix I for more details on our scope and methodology.

We conducted this performance audit from May 2020 to September 2021 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁸See 5 U.S.C. App. § 8M(b)(1). This review included MLRs issued by NCUA OIG after the enactment of the Dodd-Frank Act on July 23, 2010, through February 2020.

⁹The President declared COVID-19 a national emergency on March 13, 2020. We regularly issue government-wide reports on the federal response to COVID-19. Our most recent government-wide report—GAO, *COVID-19: Continued Attention Needed to Enhance Federal Preparedness, Response, Service Delivery, and Program Integrity*, [GAO-21-551](https://www.gao.gov/coronavirus) (Washington, D.C.: July 19, 2021)—is available at <https://www.gao.gov/coronavirus>.

Background

Overview

Credit unions are not-for-profit cooperative financial institutions run by member-elected boards. They are tax-exempt entities and build capital by retaining earnings. Their tax-exempt status and cooperative, not-for-profit structure differentiates credit unions from other depository institutions, but like banks and thrifts, credit unions are either federally or state-chartered. Credit unions are also subject to limits on their membership because members must have a “common bond,” such as working for the same employer or living in the same community.¹⁰

NCUA has oversight responsibility for federally chartered credit unions, and shares oversight responsibility with state regulators for state-chartered credit unions.¹¹ NCUA supervises and issues regulations on the operations and services for federally insured credit unions, including with respect to the credit union’s net worth, investments, and lending activities.¹² For instance, NCUA regulations establish policies for the safe and sound operation of a credit union’s commercial lending program, and implement statutory limitations on member business loans.¹³ NCUA conducts safety and soundness oversight through off-site monitoring (of call report data and other financial information) and on-site

¹⁰See 12 U.S.C. § 1759 and 12 C.F.R. app. B to pt. 701. Members are allowed to retain their membership even after the basis for the original bond has ended.

¹¹With respect to state-chartered credit unions, NCUA’s authority extends to those that are federally insured, as well as certain non-federally insured corporate credit unions that provide services to federally insured credit unions. See 12 C.F.R. pt. 704. Other federal agencies also have authority to oversee credit unions. For example, the Consumer Financial Protection Bureau has rulemaking authority to implement federal consumer financial laws, and has related supervisory and enforcement authority with respect to federally insured credit unions with assets of more than \$10 billion. The Federal Trade Commission also has authority to enforce certain federal consumer financial regulations with respect to state chartered credit unions. See 86 Fed. Reg. 26726 (May 17, 2021).

¹²NCUA regulations are codified at 12 C.F.R. pts. 700-761.

¹³See 12 C.F.R. pt. 723.

examinations.¹⁴ In March 2020, NCUA began conducting off-site examinations as a result of the COVID-19 pandemic.

NCUA's statutory responsibilities also include administering the NCUSIF, which is funded by deposits from credit unions and certain other amounts collected by NCUA. NCUSIF provides primary deposit insurance for the nation's credit unions, which protects members against losses if a federally insured credit union fails.¹⁵ In the event of a credit union failure, NCUSIF covers the balance of each member's account, up to the insured limit (\$250,000), including principal and posted dividends through the date of the failure.¹⁶ Through its monitoring efforts and on-site examinations, NCUA strives to minimize losses to NCUSIF.

Supervisory Information—CAMEL Ratings

As part of its examination programs, NCUA uses the CAMEL rating system to evaluate credit union safety and soundness and the degree of risk to NCUSIF, and to identify institutions requiring special supervisory attention. The system encompasses component ratings—individual ratings for the C, A, M, E, and L areas—and a composite rating, which is an overall rating assigned at the conclusion of an examination.

The component CAMEL ratings reflect a credit union's condition in the five component areas that examiners evaluate (see table 1). Component areas rated 1 or 2 generally are considered to be in good or satisfactory condition. NCUA's guidance identifies components rated 3 as needing improvement, and those rated 4 or 5 as posing greater concerns and requiring more severe corrective actions. In a letter to credit unions,

¹⁴A call report is a quarterly listing of summarized accounts collected from all federally insured credit unions.

¹⁵By law, federally chartered credit unions must have deposit insurance provided by NCUA. We previously reported that most states require state-chartered credit unions to also have federal deposit insurance. However, in certain states, some credit unions have the option of choosing a private insurer. See GAO, *Private Deposit Insurance: Credit Unions Largely Complied with Disclosure Rules, but Rules Should Be Clarified*, [GAO-17-259](#) (Washington, D.C.: Mar. 29, 2017).

¹⁶Additional requirements apply with respect to members that have an interest in more than one account at the same credit union. See 12 C.F.R. pt. 745.

NCUA provides a more detailed description of the CAMEL rating system.¹⁷

Table 1: Summary of NCUA's CAMEL Components

Capital adequacy: The capital adequacy rating is based on, but not limited to, an assessment of factors such as the capital level, quality of capital, and ability of a credit union's management to address emerging needs for additional capital.

Asset quality: The asset quality rating is based on the quantity of existing and potential credit risk associated with a credit union's loan and investment portfolios, other real estate-owned assets, and off-balance sheet transactions.

Management: The management rating reflects the ability of a credit union's board of directors and management to identify, measure, monitor, and control the risks of the credit union's activities and ensure that it operates in a safe, sound, and efficient manner in compliance with applicable laws.

Earnings: The earnings rating reflects the adequacy of a credit union's current and future earnings to fund capital, commensurate with its current and prospective financial and operational risk exposure.

Liquidity and asset liability management: The liquidity rating reflects the adequacy of a credit union's liquidity position given its current and prospective sources of liquidity compared to funding needs. The rating also reflects the adequacy of a credit union's asset-liability management practices relative to its size, complexity, and risk profile.

Source: GAO summary of National Credit Union Administration (NCUA) information. | GAO-21-434

The composite CAMEL rating reflects the overall condition of the credit union (see fig. 1). Examiner judgement affects the overall analytical process for and assignment of composite CAMEL ratings; thus, composite ratings do not necessarily reflect an arithmetic average of the component ratings. Additionally, any given component rating may be more or less favorable than, or the same as, the composite rating.

¹⁷NCUA provided guidance to credit unions, *NCUA's CAMEL Rating System*, in a Letter to Credit Unions 07-CU-12, Appendix A (Alexandria, Va.: December 2007).

Figure 1: NCUA Composite CAMEL Rating Conditions

Composite CAMEL	Summary of conditions Credit unions in this group
1	Are sound in every respect
2	Are fundamentally sound
3	Exhibit degree of supervisory concern
4	Generally exhibit unsafe and unsound practices or conditions
5	Exhibit extremely unsafe and unsound practices and conditions

Source: GAO summary of National Credit Unions Administration (NCUA) information. | GAO-21-434

Accessible Data Table for Figure 1

Composite Camel	Summary of conditions Credit unions in this group
1	Are sound in every respect
2	Are fundamentally sound
3	Exhibit degree of supervisory concern
4	Generally exhibit unsafe and unsound practices or conditions
5	Exhibit extremely unsafe and unsound practices and conditions

Note: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

Enforcement Actions

NCUA has the authority to take an enforcement action against a credit union to correct deficiencies identified during an examination or as a result of other forms of supervision. Enforcement actions can be informal or formal and vary in levels of severity. Informal enforcement actions include documents of resolution, regional director letters, nonpublished letters of understanding and agreement, and preliminary warning letters.

For example, as part of an examination, NCUA can issue a document of resolution to the credit union, which instructs the credit union to take an action to correct a deficiency. Another option is for NCUA and a credit

union to concur on a nonpublished letter of understanding and agreement, where both parties agree on certain steps the credit union will take to correct deficiencies. As a more severe informal enforcement action, NCUA can issue a preliminary warning letter, which informs a credit union that unless it takes corrective actions to address a problem, NCUA may take a formal enforcement action.

If a credit union fails to comply with an informal enforcement action in the specified time and does not justify the delay, NCUA's policies and procedures, as noted in its Enforcement Manual, instruct NCUA staff to proceed with a formal enforcement action.¹⁸ Furthermore, NCUA's National Supervisory Policy Manual, which references the Enforcement Manual, states that the Office of General Counsel must be consulted on all formal actions, which are approved through certain NCUA protocols.¹⁹

Formal enforcement actions range from published letters of understanding and agreement, cease-and-desist orders, civil money penalties, and PCA directives, to termination of insurance, conservatorship, and liquidation.²⁰ For example, a published letter of understanding is a formal agreement between NCUA and the credit union that is publicly available, stating the terms and time frames for actions to correct deficiencies, where noncompliance may result in more severe formal administrative action.²¹

¹⁸Formal enforcement actions also can be taken immediately, depending on the severity of the adverse condition.

¹⁹The National Supervision Policy Manual explains that formal enforcement actions are taken when an event triggers a level of concern requiring immediate attention or when informal actions have not resolved the core concerns to NCUA's satisfaction (or both). The Manual explains that unlike most informal actions, formal actions are authorized by statute (and, in some cases, mandated), are generally more severe, and may be disclosed to the public.

²⁰PCA is a framework for applying a series of discretionary and mandatory supervisory actions to a credit union, based on its capital levels. For example, within 90 days of classification as critically undercapitalized, NCUA must place the credit union into conservatorship, liquidate the credit union, or take other corrective action in lieu of conservatorship or liquidation if certain criteria are met. 12 C.F.R. § 702.204(c).

²¹Other formal actions may include removal and prohibition orders. The NCUA Board is required by law to publish and make available to the public any written agreement or other written statement for which a violation may be enforced by the Board unless the Board, in its discretion, determines that publication would be contrary to the public interest. 12 U.S.C. §1786(s)(1)(A).

Our Prior Work on the Timing of NCUA Regulatory Actions

In January 2012, we found that credit unions subject to PCA and that remained viable were more likely than failed credit unions to have been subject to earlier PCA action—that is, before their capital levels deteriorated to the significantly or critically undercapitalized levels.²² We also reported that for many of the failed credit unions, NCUA initiated other enforcement actions too late or did not initiate them at all. We recommended, among other things, that NCUA consider additional triggers (other than capital) that would require early and forceful regulatory actions. NCUA agreed with and implemented this recommendation by issuing a rule to modify its PCA regulations to make its risk-based capital requirements more commensurate with credit union risks.²³

In other prior work, we raised longstanding concerns about the need for earlier regulatory action to address deteriorating depository institutions, and noted that actions focused solely on capital in the PCA framework may have limited effects because of deterioration that already may have occurred.²⁴ In particular, capital can be a lagging indicator of a depository institution's health. That is, problems with a depository institution's assets, earnings, or management typically manifest before these problems affect its capital. Once a depository institution falls below PCA's capital standards, it may not be able to recover regardless of the regulatory action imposed.

²²[GAO-12-247](#).

²³NCUA developed a risk-based capital ratio as a measure of capital levels relative to the risk of a credit union's on- and off-balance sheet exposures. In response to GAO's recommendation, NCUA issued a final rule on October 29, 2015, to modify its risk-based capital requirements, but delayed the effective date to January 1, 2022. See 80 Fed. Reg. 66626 (Oct. 29, 2015) and 84 Fed. Reg. 68781 (Dec. 17, 2019). The rule does not change the structure of PCA insofar as actions continue to be triggered by capitalization levels, versus other indicators.

²⁴GAO, *Bank Regulation: Modified Prompt Corrective Action Framework Would Improve Effectiveness*, [GAO-11-612](#) (Washington, D.C.: June 23, 2011); *Deposit Insurance: Assessment of Regulators' Use of Prompt Corrective Action Provisions and FDIC's New Deposit Insurance System*, [GAO-07-242](#) (Washington, D.C.: Feb. 15, 2007); *Bank and Thrift Regulation: Implementation of FDICIA's Prompt Regulatory Action Provisions*, [GAO/GGD-97-18](#) (Washington, D.C.: Nov. 21, 1996); and *Bank Supervision: Prompt and Forceful Regulatory Actions Needed*, [GAO/GGD-91-69](#) (Washington, D.C.: Apr. 15, 1991).

Material Loss Reviews

The Federal Credit Union Act requires the NCUA OIG to submit an MLR when a credit union's failure results in a material loss to the NCUSIF—that is, a loss that exceeds the sum of: (i) \$25 million; and (ii) an amount equal to 10 percent of the credit union's assets at the time the NCUA Board initiates special assistance to the credit union or appoints a liquidating agent.²⁵ The MLR must review NCUA's supervision of the credit union and include a description of the reasons why the credit union's problems caused a material loss to the NCUSIF. The MLR must also include recommendations for preventing such losses in the future.

The IG Act contains several requirements relating to the formatting and accessibility of inspector general reports, including those issued by the NCUA OIG. According to the IG Act, the NCUA OIG must

- post each report to the NCUA OIG's website within 3 days of submitting the report to the head of the NCUA;
- provide a direct link to the report on the website's homepage;
- format the report to allow the public to search, download, and print it; and
- include a summary of the OIG's findings in the report.²⁶

The Dodd-Frank Act requires GAO to review each MLR issued by the NCUA OIG, including the extent to which the NCUA OIG complied with the foregoing requirements.

²⁵12 U.S.C. § 1790d(j)(1)-(2). The NCUA OIG must submit similar reports for losses that are not material, if NCUA OIG determines that unusual circumstances exist warranting an in-depth review. 12 U.S.C. § 1790d(j)(4)(A)(iii)(II). NCUA's Asset Management and Assistance Center acts as the agency's liquidating agent. The center creates an asset management estate to manage a failed credit union's remaining assets, settle members' insurance claims, and attempt to recover any remaining value. Credit union failures are resolved through liquidations, purchases, or mergers. NCUA regional offices estimate NCUSIF loss amounts for failed credit unions that are liquidated or merged, including estimated liquidation expenses. The estimated amount may change over time from realization of gains and losses from disposal of balance sheet items.

²⁶5 U.S.C. app., § 8M(b)(1).

NCUA OIG Attributed Credit Union Failures and Insurance Fund Losses to Weaknesses with Credit Unions and NCUA's Oversight

Credit Union Failures Generally Declined from 2010 through 2020, but Losses to Insurance Fund Sharply Increased in 2018

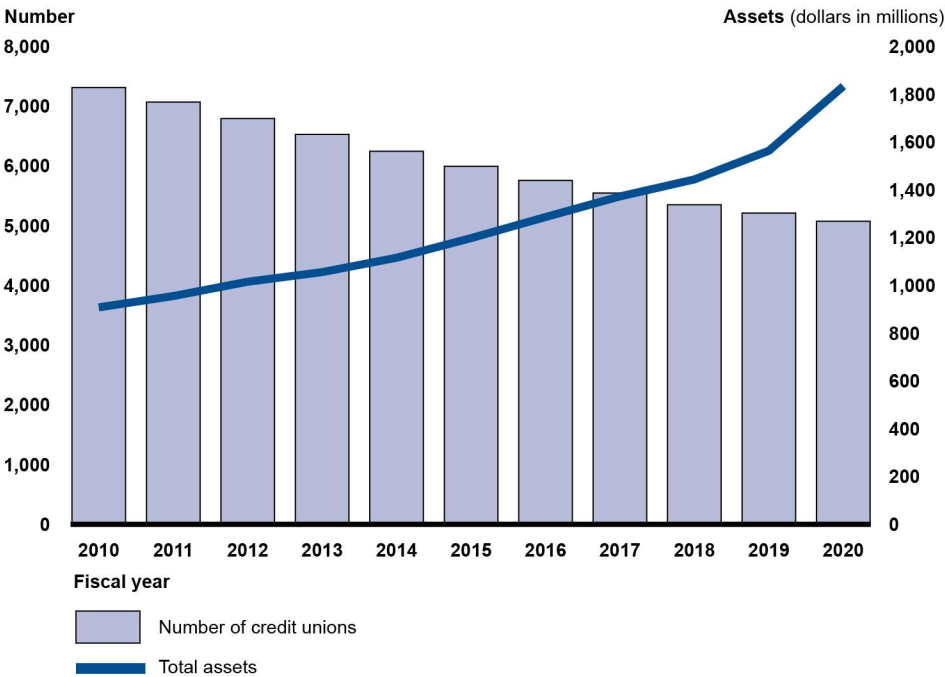
In the past decade, credit union assets grew and failures and losses to NCUSIF generally declined, but losses to NCUSIF increased sharply in 2018. These 2018 losses occurred in large measure because three failed credit unions had excessive concentration in their loan portfolios.

Number of Institutions and Assets

Since 2010, credit unions experienced consolidation and asset growth. The number of operating federally insured credit unions declined from 7,339 in 2010 to 5,099 in 2020. Credit unions can cease operations or terminate federal insurance for reasons including voluntary merger (with another federally insured credit union or a non-federally insured state-chartered one), converting a federal charter into a non-federally insured state charter, or failure. NCUA attributed the decline in numbers to two key factors: (1) economies of scale obtained when smaller credit unions merge with larger credit unions to reduce costs, and (2) competition from nondepository financial services companies (such as financial technology start-ups that do not follow traditional business models). Together, the economic pressures resulted in increased competition and incentives to consolidate. In the same period, total credit union assets increased from \$914.3 billion to \$1.84 trillion, and median credit union assets increased from \$17.3 million in 2010 to \$40.7 million in 2020 (see fig. 2).²⁷

²⁷The adjusted dollar value of \$914.3 billion would equal \$1.09 trillion in 2020 dollars. Credit union membership grew by 37.3 percent from 2010 through 2020. Over the same period, the overall U.S. population grew by 6.7 percent.

Figure 2: Number of Credit Unions and Amount of Assets, 2010–2020



Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Accessible Data Table for Figure 2

	Total Assets	Credit unions
2010"	914.475	7339
2011"	961.755	7094
2012"	1021.73	6819
2013"	1061.91	6554
2014"	1122.18	6273
2015"	1204.3	6021
2016"	1292.5	5785
2017"	1378.9	5573
2018"	1450	5375
2019"	1570	5236
2020"	1840	5099

Number of Failures and Losses to NCUSIF

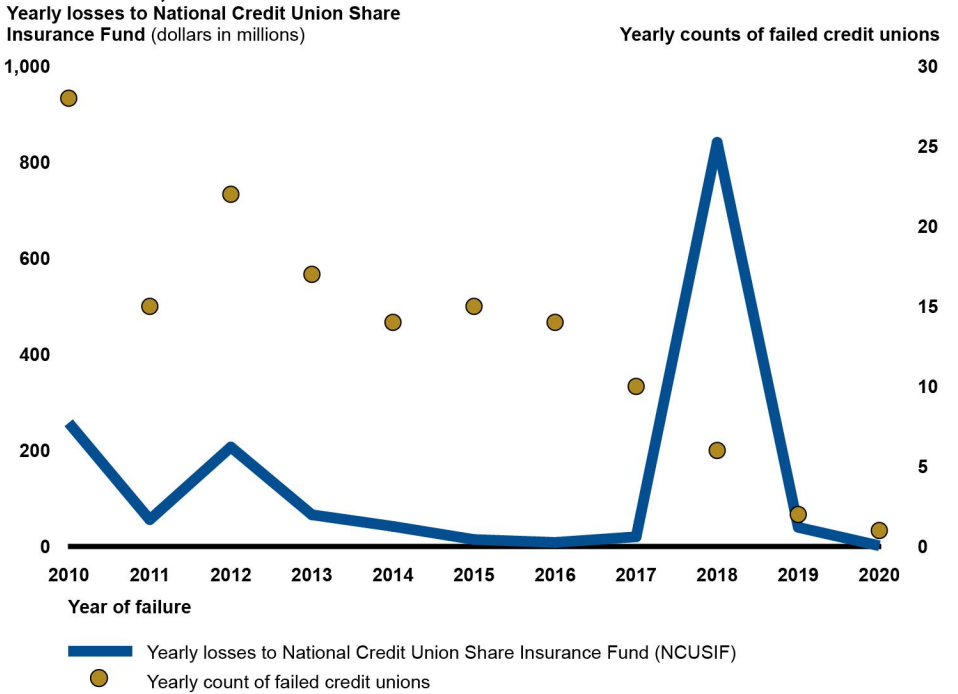
From 2010 through 2020, credit union failures generally decreased as did the size of losses to NCUSIF, with the exception of notable increases in 2012 and 2018 (see fig. 3). In this 11-year period, 145 credit unions failed, with a high of 28 failures in 2010 (out of 7,339 operating federally insured credit unions) and a low of one failure in 2020 (out of 5,099 operating credit unions).²⁸ Losses to the NCUSIF also declined significantly, from \$257.5 million in 2010 to \$1.6 million in 2020.²⁹ However, in the interim, losses spiked in 2012, to \$207 million, and to \$841.3 million in 2018.³⁰

²⁸We identified operating credit unions using the S&P Global Market Intelligence platform, which contains data for operating and defunct (failed or merged) credit unions based on call report data.

²⁹We report losses to NCUSIF as the estimated loss that the NCUA region responsible for the credit union estimated at date of failure. Actual losses to NCUSIF may be higher or lower, such as from litigation or assets sales occurring after failure. For example, actual losses to NCUSIF as of June 30, 2020, were \$1.3 billion with seven credit unions estimated to incur loss at the date of failure not causing an actual loss to the NCUSIF. The adjusted dollar value: \$257.5 million in 2010 equals \$305.6 million in 2020 dollars.

³⁰The adjusted dollar values: \$207 million in 2012 and \$841.3 million in 2018 equal \$233.4 million and \$867.1 million, respectively, in 2020 dollars.

Figure 3: National Credit Union Share Insurance Fund Losses and Number of Failed Credit Unions, 2010–2020



Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Accessible Data Table for Figure 3

	Yearly losses to NCUS Insurance Fund	Yearly count of failed credit unions
2010"	257.453	28
2011"	55.864	15
2012"	207.04	22
2013"	66.0823	17
2014"	41.8722	14
2015"	14.4482	15
2016"	8.46105	14
2017"	20.1561	10
2018"	841.330	6
2019"	39.8335	2
2020"	1.61376	1

The 2018 losses stemmed largely from the failure of three credit unions heavily concentrated in loans collateralized by taxi medallions, with those institutions responsible for 99 percent of the year's losses (\$831.7 million).³¹ Concentrated loan portfolios, such as those exhibited by these three credit unions, can pose safety and soundness risks to an institution because its financial well-being becomes linked to the health of one or a limited number of sectors. For example, a single event, such as a housing market crash or a decline in taxi medallion values, can threaten an institution's solvency because of the high proportion of loans connected to borrowers adversely affected by the event.

Taxi Medallions

A taxi medallion (a metal plate or sticker) is a transferrable license to operate a taxi. Municipal authorities, such as the New York City Taxi and Limousine Commission, regulate and supervise medallion taxi services. Taxi operating companies or drivers use medallions as collateral to obtain loans. Limits on supply in New York City, coupled with increased demand, steadily increased medallion values in the early 2000s to more than \$1 million each in 2013.

Mobile ridesharing companies obtained significant market share in large cities by 2014, disrupting the taxi industry and reducing cash flows for taxi owners. Those forces led to a significant decline in taxi medallion values. Loans collateralized by the medallions began to show signs of deterioration in 2014, which ultimately led to three credit union failures in 2018.

Source: National Credit Union Administration, Office of Inspector General. | GAO-21-434

Characteristics of Failed Credit Unions

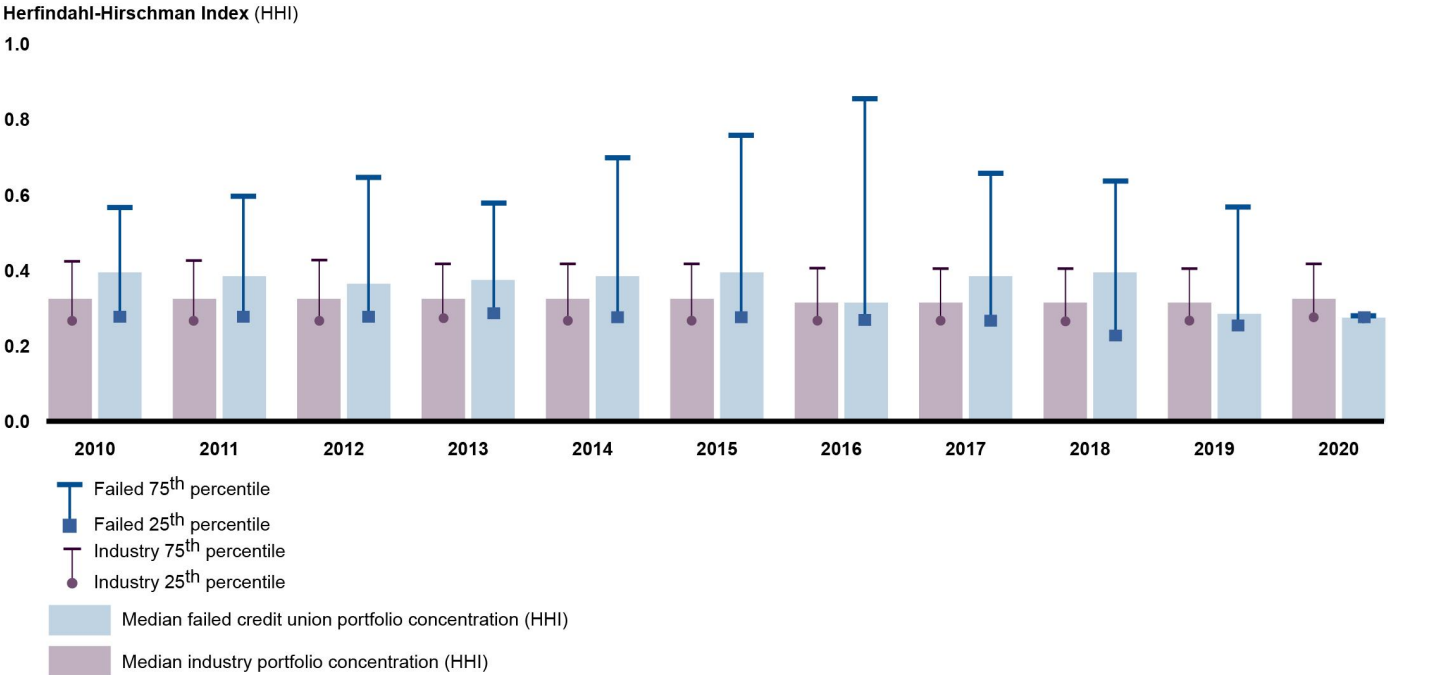
Failed credit unions tended to be smaller than the industry median and have higher loan portfolio concentrations. For example, from 2010 through 2020, median assets of failed credit unions ranged between \$2.2 and \$8.3 million, while median assets of nonfailed credit unions ranged between \$17.6 million and \$40.7 million.³² Median loan portfolio concentrations for failed credit unions were higher than for nonfailed credit unions in all but two years (2019 and 2020), reaching highs of 0.4

³¹The adjusted dollar value: \$831.7 million in 2018 equals \$857.3 million in 2020 dollars.

³²We performed sensitivity analyses on the asset size and concentration analyses. Asset size and concentration values may change as a credit union's financial health deteriorates before failure (for instance, assets may shrink). We calculated values in the quarter prior to failure, year prior to failure, and using all available data (2005 to credit union failure), and found that the trends reported above were true for each of those time horizons in all but two instances where the quarter prior to failure did not match the other time horizons. We report the time horizon incorporating all of the available data in our summary statistics.

in 2010 and 2015 (see fig. 4).³³ In contrast, median industry loan portfolio concentration remained between 0.32 and 0.33 from 2010 through 2020.

Figure 4: Median Loan Portfolio Concentration of Failed Credit Unions and Overall Industry, 2010–2020



Accessible Data Table for Figure 4

	Median Industry Portfolio Concentration (HHI)	Median Failed Credit Union Portfolio Concentration (HHI)	Industry 25th percentile	Industry 75th percentile	Failed 25th percentile	Failed 75th percentile
2010"	0.33	0.4	0.27	0.42	0.28	0.57
2011"	0.33	0.39	0.27	0.43	0.28	0.6
2012"	0.33	0.37	0.27	0.43	0.28	0.65
2013"	0.33	0.38	0.27	0.42	0.28	0.58

³³We measured loan portfolio concentration using the Herfindahl-Hirschman Index, which is calculated by summing the squares of the proportion of each element in a portfolio (expressed as percentages), and thus reflects both the number of loan types and their relative proportion in the overall portfolio. The calculation results in a value between 0 and 10,000, which can be scaled to a measure between 0 (less concentrated) and 1 (more concentrated). For example, a value of 0.33 may result from a portfolio with three loan types comprising 33, 33, and 34 percent of the portfolio, or 0.44 from a portfolio of three loan types comprising 60, 20, and 20 percent of the portfolio.

	Median Industry Portfolio Concentration (HHI)	Median Failed Credit Union Portfolio Concentration (HHI)	Industry 25th percentile	Industry 75th percentile	Failed 25th percentile	Failed 75th percentile
2014"	0.33	0.39	0.27	0.42	0.28	0.7
2015"	0.33	0.4	0.27	0.42	0.28	0.76
2016"	0.32	0.32	0.27	0.41	0.27	0.86
2017"	0.32	0.39	0.27	0.41	0.27	0.66
2018"	0.32	0.4	0.27	0.41	0.23	0.64
2019"	0.32	0.29	0.27	0.41	0.26	0.57
2020"	0.33	0.28	0.28	0.42	0.28	0.28

Note: We measured concentration using the Herfindahl-Hirschman Index, calculated by summing the squares of the proportion of each element in a portfolio. The index reflects the number of loan types and their relative proportion in the overall portfolio. The calculation results in a value between 0 and 10,000, scaled to a measure between 0 (less concentrated) and 1 (more concentrated).

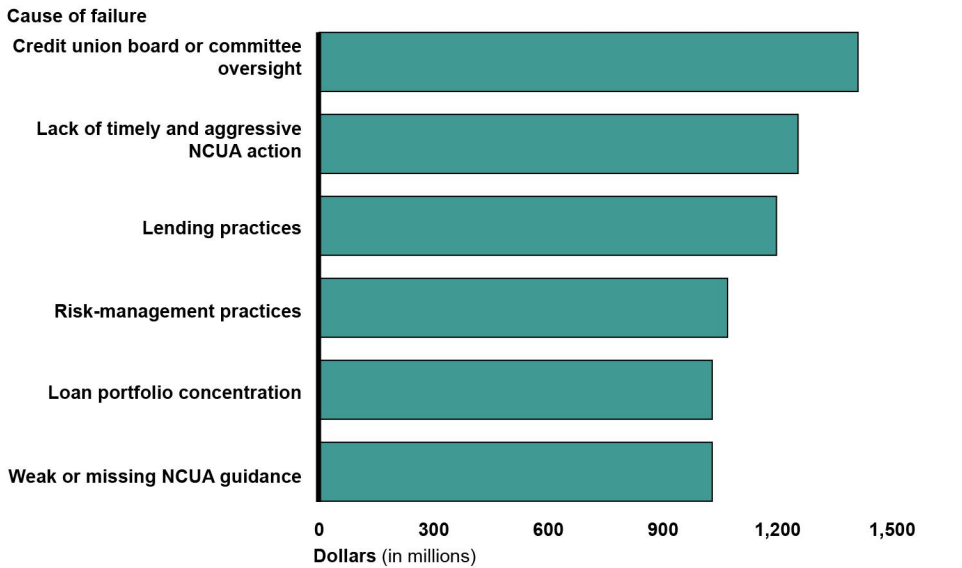
NCUA OIG Attributed Failures of Credit Unions and Losses to NCUSIF to Credit Unions and NCUA

Insufficient Credit Union Board Oversight and Lack of Timely and Aggressive NCUA Action Led to Largest NCUSIF Losses, According to NCUA OIG

The NCUA OIG identified causes of credit union failures of a certain size from 2010 through 2020, and attributed those failures to policies and actions of both credit unions and NCUA. Using information from NCUA OIG and NCUA, we determined which causes were associated with the largest total losses and median losses across multiple failures.

Specifically, OIG-identified causes of failure associated with the largest total losses to the NCUSIF were insufficient credit union board or committee oversight (\$1.4 billion in 2020 inflation-adjusted dollars), lack of timely and aggressive NCUA action (\$1.3 billion in 2020 dollars), credit union lending practices (\$1.2 billion in 2020 dollars), credit union risk-management practices (\$1.1 billion in 2020 dollars), credit union loan portfolio concentration (\$1 billion in 2020 dollars), and weak or missing NCUA guidance (\$1 billion in 2020 dollars). See figure 5.

Figure 5: Top Material Loss Review Causes or Contributors to Failure by Total National Credit Union Share Insurance Fund Losses, 2010–2020



Source: GAO analysis of National Credit Union Administration (NCUA) and Office of Inspector General data. | GAO-21-434

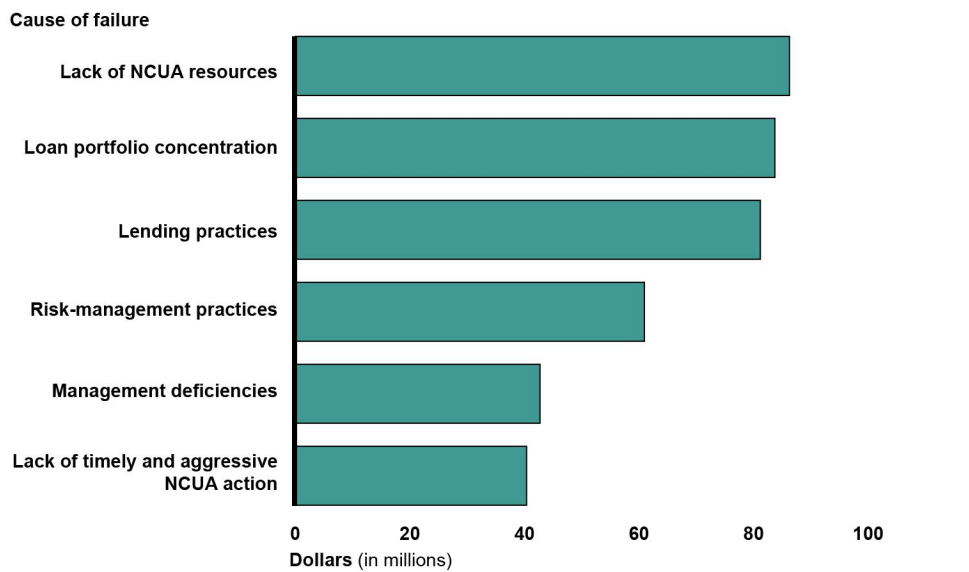
Accessible Data Table for Figure 5

Cause of failure	Dollars
Credit union board or committee oversight	1410.49
Lack of timely and aggressive NCUA action	1253.48
Lending practices	1196.71
Risk-management practices	1068.92
Loan portfolio concentration	1028.72
Weak or missing NCUA guidance	1028.55

The top OIG-identified causes of failure by median NCUSIF losses were lack of NCUA resources (\$86.2 million in inflation-adjusted 2020 dollars), credit union loan portfolio concentration (\$83.7 million in 2020 dollars), credit union lending practices (\$81.2 million in 2020 dollars), credit union risk-management practices (\$60.9 million in 2020 dollars), credit union management deficiencies (\$42.7 million in 2020 dollars), and lack of timely and aggressive NCUA action (\$40.3 million in 2020 dollars).³⁴ See figure 6.

³⁴We report median losses to the NCUSIF as a measure of central tendency—a way to statistically summarize data—because NCUA OIG cited multiple causes of failure in its reviews, and a cause can appear multiple times across a range of credit union sizes. We use median instead of mean due to the presence of outliers in the data.

Figure 6: Top Material Loss Review Causes or Contributors to Failure by Median National Credit Union Share Insurance Fund Losses, 2010–2020



Source: GAO analysis of National Credit Union Administration (NCUA) and Office of Inspector General data. | GAO-21-434

Accessible Data Table for Figure 6

Cause of failure	Dollars
Lack of NCUA resources	86.235
Loan portfolio concentration	83.6987
Lending practices	81.1624
Risk management practices	60.9345
Management deficiencies	42.7155
Lack of timely and aggressive NCUA action	40.347

For example, a 2013 MLR found that NCUA’s failure to allot sufficient examination resources was one of the contributing factors that led to the credit union’s failure when member business loan delinquencies rose.³⁵ The NCUA OIG also noted that examiners reported that sufficient resources were not always available or allocated for expanded reviews of member business loan activities. The OIG observed that identifying and understanding the complexity risks of member business loans is essential to applying risk-focused examination procedures effectively. The OIG

³⁵National Credit Union Administration, Office of Inspector General, *Material Loss Review of Chetco Federal Credit Union*, OIG-13-10 (Alexandria, Va.: Oct. 1, 2013). The OIG also cited loan portfolio concentration, inadequate risk-management practices, management deficiencies, and weak or missing NCUA guidance and examiner failure.

suggested that NCUA have supervisors review training courses completed by examiners to help ensure alignment with examiner responsibilities.³⁶ NCUA agreed and in 2013 tasked a subcommittee to review the individual development plan process for documenting training plans for staff.

In a more recent example, a 2019 MLR found that three failures in 2018 totaling \$831.7 million in losses to NCUSIF stemmed from significant concentrations in member business loans collateralized by taxi medallions.³⁷ While the credit unions qualified for exemptions to the statutory limit on member business loans, they ignored repeated examiner warnings on concentration risk and did not analyze borrowers' ability to repay or monitor the credit risk of their portfolios. By 2016, taxi medallion loans for the three credit unions comprised 47, 73, and 96 percent of each credit union's total loans.³⁸ The NCUA OIG recommended that NCUA develop a process to identify, analyze, and document concentration risk, update guidance to escalate enforcement actions after repeated informal actions, and update examination scope requirements to review certain lending practices. NCUA agreed and

³⁶The MLRs in the scope of our review included a defined section at the end with formal observations or recommendations, each with a separate heading, and have also included suggestions outside of a formal recommendation section. Both suggestion and recommendation sections included a written response from NCUA. According to the NCUA OIG, observations and suggestions do not rise to the level of full-scope findings and recommendations because they are typically one issue, identified at one time, at one credit union. According to the OIG, this allows NCUA management to look into the matter and decide whether to change a process or policy.

³⁷National Credit Union Administration, Office of Inspector General, *Material Loss Review of Melrose Credit Union, LOMTO Federal Credit Union, and Bay Ridge Federal Credit Union*, OIG-19-06 (Alexandria, Va.: Mar. 29, 2019). The NCUA OIG also cited unsafe and unsound lending practices, weak credit union board or management oversight, inadequate credit union risk-management practices, lack of timely and aggressive NCUA action, and weak or missing NCUA guidance.

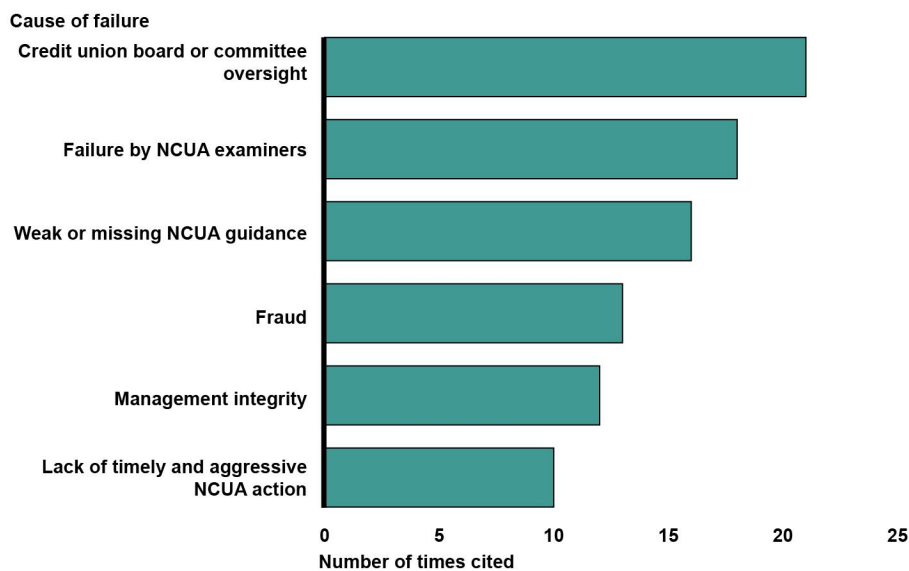
³⁸According to the NCUA OIG, the percentages of total loans that were taxi medallion loans changed relatively little from 2012 to 2016, ranging in low to high from 47 percent to 52 percent at Bay Ridge Federal Credit Union, 73 percent to 81 percent at Melrose Credit Union, and 96 percent to 97 percent at LOMTO Federal Credit Union.

updated the guidance and developed a loan analysis tool and a loan concentration risk outlier report that flags credit unions of concern.³⁹

OIG Frequently Cited Weak Oversight by Credit Unions and NCUA as Cause of Failure

The causes of failure most commonly cited by the NCUA OIG were credit union board or committee oversight (21 times), NCUA examiner failure (18 times), weak or missing NCUA guidance (16 times), fraud (13 times), credit union management integrity (12 times), and lack of timely and aggressive NCUA action (10 times). See figure 7.

Figure 7: Top Material Loss Review Causes or Contributors to Failure by Number of Times Cited, 2010–2020



Source: GAO analysis of National Credit Union Administration (NCUA) Office of Inspector General data. | GAO-21-434

³⁹The NCUA OIG also made two formal observations. First, it observed that NCUA should execute enforcement actions aggressively and in a timely manner. It stated that to the extent informal actions for safety and soundness concerns are ignored and must be repeated, NCUA should execute formal actions in a timely manner. Second, it stated that although a credit union may be profitable and “well capitalized” under PCA, formal enforcement actions still may be necessary. Examiners told the OIG that insufficient grounds existed to take formal actions to correct repeated issues identified in documents of resolution prior to 2015 because the credit unions were profitable and had strong capital positions. But the OIG noted that NCUA’s PCA regulations do not limit NCUA authority to take additional supervisory actions to address unsafe or unsound practices or conditions, either independently or in conjunction with PCA.

Accessible Data Table for Figure 7

Cause of failure	Number of times cited
Credit union board or committee oversight	21
Failure by NCUA examiners	18
Weak or missing NCUA guidance	16
Fraud	13
Management integrity	12
Lack of timely and aggressive NCUA action	10

In one example, in a 2020 MLR, the NCUA OIG found that a \$39.5 million loss to NCUSIF was due to fraudulent activity, weak internal controls, questionable management integrity, and weak credit union board or committee oversight, as well as NCUA examiner failure, among others.⁴⁰ The credit union's chief executive officer embezzled funds through fraudulent use of official credit union checks and fraudulent alteration of financial records.⁴¹ The NCUA OIG recommended that NCUA revise examination procedures to include a response to credit unions that do not segregate key duties or have dual controls, and amend guidance on member account verification to require reconciliation between two sources.⁴² NCUA agreed with both recommendations and stated its intention to implement them by the end of 2021.

⁴⁰National Credit Union Administration, Office of Inspector General, *Material Loss Review of CBS Employees Federal Credit Union*, OIG-20-01 (Alexandria, Va.: Feb. 11, 2020).

⁴¹The NCUA OIG noted the chief executive officer (CEO) successfully hid the fraudulent activity from examiners in part because the CEO anticipated examinations timing and procedures. The CEO altered records to fit the dates requested—commonly, the end of a quarter—so that when examiners physically observed the CEO generate reports, the altered records already were in place. The NCUA OIG noted that in situations in which duties are not segregated, examiners could take additional steps such as requiring reports for random dates instead of typically expected dates (to make perpetrating fraudulency activity more difficult and increase the chances of earlier detection).

⁴²The NCUA OIG also made two observations. First, that the lack of segregation of duties and dual controls—in which a second individual reviews and verifies the calculations conducted by the first individual—are two of the most significant indicators of potential fraud risk. Without segregation of duties, a member of management is in a position to embezzle assets and conceal their actions with fraudulent reporting. Second, statement verification (reconciliation of the member statements printed by third-party processors to the share and loan ledgers of credit union subsidiaries) is one of the most important procedures for member account verification. Without it, no assurance exists that a list of verified accounts is accurate or complete.

NCUA Does Not Fully Leverage Supervisory Information to Mitigate Risk of Credit Union Deterioration

CAMEL Component Ratings Provide Insights into Increased Risk of Credit Union Deterioration and Failure

To examine the relationship between CAMEL ratings and near-term deterioration and failure of credit unions, we developed a series of models using data for all credit unions from 2007 through 2020.⁴³ In particular, we sought to understand the relationship between CAMEL component and composite ratings and risk of credit union deterioration and failure.

- For example, one model considered fundamentally sound credit unions (CAMEL composite rating 2), and analyzed the risk of these credit unions deteriorating to a composite 3, or to a 4, 5, or failure, by the next examination.
- A similar model considered credit unions that exhibited a degree of supervisory concern (CAMEL composite rating 3) and analyzed their risk of deteriorating or failing.
- Our final model analyzed the risk of a credit union failing, regardless of its CAMEL composite rating, before the next examination. In all three cases, we focused on the predictive power of component ratings when they differ from the composite ratings.

Our models suggest that both CAMEL composite and component ratings provide insights into credit union deterioration. We found that CAMEL composite ratings are predictive of future outcomes. But, we also found that when a CAMEL component rating is worse than the composite rating, this condition is additionally predictive of both deteriorating conditions and failure.⁴⁴ See figure 8 for a summary of our analyses.

⁴³We begin our analysis in 2007 to capture the final examinations of credit unions that failed beginning in 2010. In all of the models, we controlled for credit unions exiting the industry without failing, generally through a merger. See appendix II for more details about the models and the full results.

⁴⁴Similarly, when one or more component ratings is better than the composite, that scenario is generally predictive of better outcomes for the credit union.

-
- When NCUA determined credit unions to be fundamentally sound (CAMEL composite rating 2), but rated one component 3 or worse, these credit unions generally had a higher risk of composite rating downgrades or failure by the next examination than credit unions with both composite and component ratings of 2. Specifically, the likelihood of a CAMEL composite rating downgrade from a 2 to a 3 at the next examination increased by 72 percent (over a baseline risk of 10 percent) if the Asset component was rated a 3, or by 21 percent if the Liquidity component was rated a 3. Furthermore, the likelihood of a credit union with a CAMEL composite rating 2 receiving a downgrade to a 4 or 5 by the next examination increased by 20–90 percent—depending on the component—if one of the components (except Liquidity) was rated a 3, from a baseline risk of 0.8 percent.⁴⁵
 - When NCUA determined that credit unions exhibited a degree of supervisory concern (CAMEL composite rating 3), and rated at least one component 4 or 5 (exhibiting unsafe and unsound conditions), these credit unions generally had a higher risk of further deterioration than credit unions with both composite and component ratings of 3. Specifically, such credit unions, depending on which component was rated worse, were from 25 to 67 percent more likely to receive a composite rating downgrade at the next examination or to fail than credit unions with composite ratings equal to their component ratings.
 - When considering all credit unions, we found the CAMEL composite rating is an effective predictor of failure prior to the next examination: no institutions rated a CAMEL composite 1 in our data failed before the next exam; there are minimal risks of failure for those rated a 2 or 3; less than half a percent risk of failure by the next examination for those institutions rated a 4; and almost a 20 percent chance of failure prior to the next exam for those rated a 5 (see table 9 in appendix II for more details). Additionally, while the absolute level of risk remains low, credit unions with a Capital Adequacy or Liquidity component rated more poorly than the composite score were 181 percent and 81 percent more likely to fail, respectively, by their next examination.⁴⁶

⁴⁵The excluded component elements were not statistically significant.

⁴⁶This scenario is only feasible when the CAMEL composite rating is 1 through 4.

Figure 8: Summary Results of Increased Risks of Deterioration or Failure When Component Examination Ratings Are Higher Than Composite Examination Results

Transition by next examination	Baseline risk (%)	Increasing risk (%) of deterioration when component is one rating higher than the composite:				
		Capital	Asset quality	Management	Earnings	Liquidity
Component > Composite	All components = composite					
Composite 2 → 3	10	23	72	71	59	21
Composite 2 → 4, 5, Failure	0.8	59	90	57	20	--
Composite 3 → 4, 5, Failure	8	39	52	67	41	25
All → Failure	0.006	181	--	--	--	81

--	Not significant
	<30% increased risk
	30% - 60% increased risk
	>60% increased risk

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Accessible Data Table for Figure 8

Transition by next examination	Baseline risk (%)	Increasing risk (%) of deterioration when component is on rating higher than the composite				
Component > Composite	All components = composite	Capital	Asset quality	Management	Earnings	Liquidity
Composite 2 through 3	10	23	72	71	59	21
Composite 2 through 4, 5, Failure	0.8	59	90	57	20	
Composite 3 through 4, 5, Failure	8	39	52	67	41	25
All Failure	0.006	181				81

Note: The table summarizes our analysis of Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management (CAMEL) ratings issued in examinations of credit unions that failed from 2010 through 2020. The results summarized here are based on our basic models, which do not include a time-in-rating element.

We observed similar results in our analysis of the MLRs prepared in response to credit union failures. In particular, of the 26 credit unions failures that triggered an MLR, 20 failures occurred when a credit union's CAMEL composite rating was better than one or more of its component ratings.

NCUA Does Not Fully Leverage Supervisory Information to Mitigate Credit Union Deterioration

While CAMEL component ratings can provide insights on credit union deterioration and failure, we found that NCUA had not fully leveraged that supervisory information into its decision making in a timely manner for the credit union failures that were the subject of an MLR. With respect to the CAMEL ratings, NCUA's Enforcement Manual places emphasis on the CAMEL composite ratings, explaining that the appropriate informal or formal enforcement action depends on the credit union's CAMEL composite ratings. It does not explicitly address how to consider the component ratings individually to determine an appropriate enforcement action.

Of 20 failures that had one or more CAMEL component ratings that were worse than the credit union's CAMEL composite rating, NCUA did not downgrade the CAMEL composite on 3 of these credit unions and waited between 3 and 51 months before lowering the CAMEL composite rating on the other 17 credit unions to reflect the lower component ratings. Typically, these downgrades occurred after 12 months or more.

Further, in these cases, NCUA did not initiate or escalate enforcement actions to mitigate supervisory concerns evidenced in the component ratings. We found opportunities to initiate or escalate actions that were 4–51 months earlier (typically, 12 months or longer) than the actual initiation or escalation of enforcement actions.⁴⁷ Table 2 provides an example where one or more of the component ratings is worse than the composite rating, presenting an early opportunity for addressing deteriorating conditions.

⁴⁷We identified opportunities to initiate or escalate informal or formal enforcement actions when a CAMEL component rating highlighted a more deteriorated condition (a 3, 4, or 5 rating) than the CAMEL composite rating. We compared the first opportunity to initiate or escalate enforcement actions for a deteriorating component area to when the actual enforcement action was initiated or escalated.

Table 2: Example of Composite and Component Rating Downgrades Resulting from Examinations of a Deteriorating Credit Union

Examination*	Component					
	Composite CAMEL	Capital	Asset quality	Management	Earnings	Liquidity
First examination (with a component rated 3 or worse)	2	1	3	3	1	2
Next examination	2	1	3	3	1	2
Next examination	3	1	3	3	2	3
Next examination	4	3	4	4	4	4

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Note: Examinations occur on a recurring basis, with flexibility for more or less time until the next examination depending on assessments of various risk factors.

Best practices in depository supervision emphasize the importance of examiners developing and maintaining a forward-looking assessment of the risk profile of individual depository institutions and acting at an early stage to address unsafe and unsound practices. According to the Basel Committee's framework for early supervisory intervention for banking supervision, early supervisory intervention depends on the judgment and actions of individual supervisors, as well as an organizational infrastructure to maximize the early detection of risks. It also depends on a clear framework that identifies when to act, and internal governance processes and programs to support such intervention.⁴⁸

In addition, as we reported in 2012, credit unions subject to earlier PCA action—that is, before their capital levels deteriorated to significantly or critically undercapitalized levels—failed less frequently. Furthermore, we reported that for many of the failed credit unions, other enforcement actions were initiated too late or not at all.⁴⁹ Finally, the NCUA OIG has observed the need for NCUA to execute enforcement actions in a timely manner to address safety and soundness concerns.⁵⁰

While NCUA policies and procedures, including its Enforcement Manual (2004), place emphasis on the CAMEL composite ratings to guide enforcement action, our results illustrate that additional supervisory information (the CAMEL component ratings) could further inform its

⁴⁸Bank for International Settlements: *Basel Committee on Banking Supervision: Frameworks for early supervisory intervention* (March 2018).

⁴⁹[GAO-12-247](#).

⁵⁰National Credit Union Administration, Office of Inspector General, OIG-19-06.

supervisory decision making—and at an earlier stage. NCUA states that it considers the interrelationships between CAMEL components when assigning the composite rating, but the policies do not explicitly address how to more fully leverage all of the component ratings individually for determining an appropriate initiation or escalation of enforcement action. As our findings illustrate, by more fully leveraging the additional predictive value of the component CAMEL ratings, NCUA could take earlier, targeted supervisory action that could help mitigate losses to the NCUSIF.

NCUA OIG Implemented Reporting Requirements, but NCUA Lacks Processes for Aggregating Data and Ensuring Timely Reports

NCUA OIG Implemented Accessibility and Formatting Requirements for Material Loss Reviews

As mentioned earlier, the Dodd-Frank Act requires us to review each MLR, including the NCUA OIG's compliance with certain statutory requirements relating to the formatting and accessibility of inspector general reports. In particular, the NCUA OIG must (1) post each report to the OIG's website within 3 days of submitting the report to the head of NCUA; (2) provide a direct link to the report on the website's homepage; (3) format the report to allow the public to search, download, and print it; and (4) include a summary of the OIG's findings in the report.

We identified 21 MLRs issued since the enactment of the Dodd-Frank Act in July 2010. The OIG posted 11 of the MLRs to its website within 3 business days of submitting the reports to the NCUA Board. The remaining 10 MLRs—all issued before 2012—were posted to the OIG's website, but we could not determine whether they were posted in a timely manner. According to the NCUA OIG, NCUA transitioned the OIG website from a website server to a SharePoint platform in 2011 and did not retain evidence showing the date on which previously issued MLRs were posted.

The NCUA OIG complied with the remaining requirements for the accessibility, content, and formatting of all 21 MLRs. The NCUA OIG provided a hyperlink on the home page of its website to each of the 21 MLRs, which allows the public to access them. The reports are in a

portable document format, which allows readers to search, download, and print them. The reports also contain an executive summary of the NCUA OIG findings, including the causes the OIG identified for losses to the NCUSIF.

NCUA Currently Lacks a Process to Reliably Aggregate Supervisory Data

NCUA's supervisory data about credit unions and examiner interactions are maintained on multiple systems across multiple offices or are not electronically stored, as described below.

- Officials said that the estimated NCUSIF loss at the date of a credit union's failure is obtained from regional staff memorandums and concurrence package documents created as part of the termination process and that the data are not stored in any electronic information system.
- NCUSIF loss data as of a particular date come from a financial accounting system that uses data from the Asset Management and Assistance Center, which tracks adjustments to the estimated NCUSIF loss, such as from litigation or sales of liquidated assets.⁵¹
- CAMEL data, including current and past ratings, are from the Automated Integrated Regulatory Examination System.
- Current administrative action data are obtained from the examination system, while historical administrative action data are obtained from manually created Microsoft Excel spreadsheets.⁵²

Supervisory data NCUA initially provided to us, which were manually aggregated from the sources described above, were incomplete and

⁵¹The Asset Management and Assistance Center tracks accounting balances and expenses associated with asset management. NCUA's Office of Chief Financial Officer produces a quarterly report (10 Year Loss Report) that contains updated current balances of past credit union failures.

⁵²Officials said that NCUA regional offices manually create Microsoft Excel spreadsheets of past informal and formal actions taken on credit unions, which are then distributed to the Office of Examination and Insurance, Division of Risk Management. The spreadsheet files from all of the regional offices are compiled and redistributed to the regions by the Division of Risk Management on a quarterly basis and stored on a Microsoft SharePoint site accessible by the regions, Office of Examination and Insurance, and the Office of Consumer Financial Protection.

inaccurate.⁵³ Specifically, NCUA did not initially provide us with CAMEL data and NCUSIF loss amounts for seven failed credit unions. NCUA also did not provide us data on some administrative actions, such as documents of resolution for all failed credit unions, civil money penalties for 11 failed credit unions, and prompt corrective actions for 29 failed credit unions.

When NCUA provided updated data, some administrative actions were missing for each of the 145 failed credit unions, including all documents of resolution except for the most recent for each credit union. Some of the data provided also were inaccurate. For example, CAMEL data for one credit union erroneously contained data for another failed credit union. Administrative action data related to four credit unions contained two dates with no corresponding action type, or actions with no date, and enforcement data for at least one credit union was incorrectly associated with another credit union.

Federal internal control standards call for agencies to use quality information from reliable sources to achieve intended objectives and to effectively monitor activities.⁵⁴ In addition, management should design control activities in response to the entity's objectives and risks to achieve an effective internal control system. These activities include controls over information processing, such as edit checks of data entered.

Officials attributed the inaccurate data to the manual operation and noted that the agency does not have a documented or automated process (including for reviews and quality checks) for aggregating data among multiple offices or systems. NCUA plans to automate and consolidate information from the current examination system and from separate manual data aggregation processes into the Modern Examination and Risk Identification Tool.⁵⁵ According to NCUA, the new system incorporates specific controls, such as defined roles for entering data, limits on personnel access, segregation of duties, and secondary review.

⁵³We identified the data quality problems by comparing data provided by NCUA with information in the OIG MLRs and actions listed in NCUA guidance. We worked with NCUA to obtain corrected and completed CAMEL and NCUSIF loss data.

⁵⁴GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014).

⁵⁵According to NCUA officials and documentation, in addition to current and historical administrative actions and CAMEL data, the tool will include credit union call report data and pre-calculated indicators of financial health, credit union loan and income data, NCUA and state regulator risk assessments, and NCUA examination reports.

These controls help ensure more reliable reporting of credit union and supervision information. As of July 2021, the tool was in a pilot testing phase, and planned training and implementation of the new tool was anticipated to be completed by November 2021, which had been delayed because of the COVID-19 pandemic, according to officials.

However, supervisory tracking—such as tracking historical enforcement actions—is not currently included in the planned system. Although supervisory tracking is listed as a feature to be included in future releases, NCUA officials did not provide any specific dates or plans on how the new tool will track this information. Without these data in the system, NCUA would have to continue to rely on the manual processes that resulted in unreliable data. Taking steps to produce and analyze more complete and accurate data would enhance NCUA's internal risk-management and oversight activities and external reporting.

NCUA Lacks Designated Office to Help Ensure Post Mortem Reports Are Completed in a Timely Manner

As discussed earlier, NCUA conducts post mortem reviews on certain credit union failures that cause losses to the NCUSIF. The purpose of the reviews is to determine and analyze the causes of the failures, learn how to better identify and address problems before they result in losses, assess the strengths and weaknesses of NCUA's policies and programs, and provide recommendations for improvements. According to its policies and procedures, NCUA must complete post mortem reports within a specified time frame after a credit union's failure, and federal internal control standards call for agencies to perform periodic review of control activities.

We found that NCUA did not complete all required post mortem reports in the period of our review and the majority of those that were prepared were not completed in a timely manner. From 2010 through 2020, NCUA did not meet its internal deadline for completing 30 of 44 post mortem reports, including reports that were not completed and those that were completed but not timely.⁵⁶

⁵⁶NCUA conducted three optional post mortems for failures that resulted in estimated NCUSIF losses below the amount specified in its policies and procedures. However, these post mortems also were not completed in the specified time frame.

As of March 2021, NCUA had not completed 13 reports required according to its policies and procedures. Officials stated that NCUA does not plan to complete four of the 13 reports because of the amount of time that has passed since the credit union failures, diminishing the value of the post mortem. Officials also said that they do not plan to complete another six of the 13 because the current NCUSIF losses, as of 2020, no longer met the threshold required for a post mortem review under NCUA's policies and procedures.⁵⁷ However, NCUA policies and procedures specify that the estimated loss at the date of failure be used as the loss amount to trigger a post mortem, not actual losses as of a particular date. Officials stated they planned to complete the remaining three reports (for two 2017 failures and one 2018 failure) of the 13.

Although NCUA's policies and procedures instruct the NCUA offices responsible for conducting post mortem reviews to submit drafts to the Office of General Counsel and the Office of Examination and Insurance, they do not designate an office as responsible for ensuring compliance (report completion and issuance in the prescribed time frame) or describe a process for doing so. Officials said that because internal policies establish the NCUSIF loss threshold and time frame for conducting post mortem reviews, they are subject to change at management discretion, including the decision not to complete a post mortem review. However, NCUA's policies and procedures do not characterize these post mortems as discretionary when the NCUSIF loss is above the required threshold.

As a result, NCUA may analyze less information and assess fewer failures. Without designating an office and process to conduct such analyses and recommendations for improvement, NCUA may miss opportunities to improve supervision at credit unions and help prevent future losses to the NCUSIF.

⁵⁷According to NCUA's policies and procedures, of the 10 post mortems NCUA does not plan to complete, six should have been completed by 2011, one by 2012, one by 2013, one by 2014, and one by 2015.

NCUA Identified and Took Steps to Address Risks to Credit Union Industry That the COVID-19 Pandemic Exacerbated

NCUA Identified Credit, Concentration, Liquidity, and Operations as Emerging Risks Exacerbated By the Pandemic

In February and March 2020, NCUA identified four risks to the credit union industry that were exacerbated as a result of the COVID-19 pandemic or other events: credit risk, concentration risk, operational risk, and liquidity risk.

- **Credit risk** is the potential for loss from the failure of a borrower or counterparty to perform on an obligation. NCUA officials stated that slower economic growth caused by the pandemic likely would lead to higher unemployment among credit union members. In turn, higher unemployment likely would increase credit risk by reducing loan performance as members sought loan modifications, forbearance, or failed to repay their loans, according to NCUA officials.
- **Concentration risk** is the potential for solvency-threatening losses from a loan portfolio concentrated in an investment, product, service, or industry. Officials added that this risk could emerge for credit unions with loan portfolios highly concentrated in industries with high unemployment caused by the pandemic, including the leisure, tourism, and oil and gas industries.
- **Operational risk** is the potential for loss from inadequate or failed internal processes, people, or from external events. To comply with pandemic-related guidelines for physical distancing, NCUA officials told us credit unions reduced operations in their physical locations and transitioned to off-site and online operations to serve members. NCUA officials cited increased cybersecurity risks associated with the increased use of credit unions' remote access systems.
- **Liquidity risk** is the potential that an institution will be unable to continue to meet demands for obligations (in the case of credit unions, to continue meeting member demand for share withdrawals) because of a lack of sufficient, stable sources of funds. According to NCUA officials, the pandemic increased the potential for more volatility in share balances because pandemic-related job losses could result in

members withdrawing deposits. NCUA officials also cited past experience with liquidity issues during economic downturns and noted that balance sheet liquidity of credit unions was low prior to the pandemic, due to strong loan growth in the industry.

NCUA Took Measures to Address and Monitor Identified Risks

NCUA has taken several actions it expects will address the emerging risks it identified and plans to continue monitoring these risks.

Conducted industry outreach. In April and May 2020, NCUA reached out to the credit union industry to determine the status of operations and liquidity. In April 2020, NCUA examiners contacted credit unions to obtain information on member services. Specifically, NCUA submitted questions to determine the operational status of credit union premises, including lobbies and drive-throughs, and whether credit unions were able to process new loans. NCUA also sought to determine the status of industry liquidity, including whether credit unions experienced a material increase in cash withdrawals and had adequate cash to meet member loan and withdrawal needs. In May 2020, NCUA contacted credit unions to obtain an update on operational and liquidity status and noted that credit unions reported no material changes in operational and liquidity status. As of December 2020, officials stated they would continue to communicate about liquidity and operational issues with credit unions through examinations and off-site monitoring.

Developed a risk-monitoring application. In July 2020, NCUA implemented the Risk Assessment and Data Analytics Rating application, which is used to identify credit unions that exhibit higher risks during the pandemic-caused economic downturn. The application develops a risk score by assessing a credit union's credit, liquidity, operational risk, and stress testing. For example, to determine credit risk, the application assigns weighted scores to metrics—including current loan delinquencies, and the asset quality component rating from the most recent examination—and then sums them to provide a risk score.⁵⁸ This credit risk score is then compared to the scores of all credit unions and subsequently assigned a low, moderate, or high credit risk rating.

⁵⁸Stress tests are hypothetical exercises that assess the potential impact of economic, financial, or other scenarios on the financial performance of an institution. To conduct stress testing for a credit union's credit risk, the application stresses the credit union's provision for loan loss expenses and projects the effect on the credit union's net worth.

Similarly, the application assigns an overall risk score for the credit union by combining the credit union's credit score, liquidity score, operational score, and stress test results and assigning a low, moderate, or high risk rating. Officials said that using the risk scores allows NCUA to tailor future examinations and off-site monitoring for credit unions that exhibit a high risk score. For example, examiners may review the application's risk score and determine that more frequent examinations and contact with the credit union are needed.

Adjusted scope of examinations and increased focus on cybersecurity and fraud. In July 2020, in response to the COVID-19 pandemic, NCUA adjusted the scope of its examination program to include a review of emerging risks. For example, to address credit and concentration risk, NCUA instructed examiners to prioritize review of credit unions' actions to assist members who faced economic hardships. This review included assessments of the use of loan modification strategies, assessing the adequacy of credit union loan and lease losses accounts, and assessing risk diversification in loan portfolios. NCUA also instructed examiners to review the effect of loan payment forbearance, loan delinquencies, and the adequacy of contingency funding plans to address potential reductions in liquidity.

To assess operational risk—including the increased use of remote technology to provide services to credit union members—NCUA piloted an information technology risk examination program, known as InTReX-CU, to identify and remediate information security deficiencies. NCUA also issued guidance on cybersecurity risks for credit unions that had increased their remote operations. NCUA officials told us that credit unions reported 142 cybersecurity incidents from March 2020 through February 2021 and noted none of these incidents were caused by increased use of remote operations.

Finally, NCUA developed guidance to address off-site examinations during the COVID-19 pandemic. According to its guidance, NCUA may approve an on-site examination for conserved credit unions or those with known fraud. From March 2020 through February 2021, NCUA approved 24 such examinations for suspected cases of fraud, to conduct conservatorships, or for targeted meetings with credit union officials.

Created a committee to monitor pandemic effects. In March 2020, NCUA created the COVID-19 Economic Impact and Planning Team Committee to monitor the effects of the pandemic and assess emerging

risks to the industry.⁵⁹ According to officials, as part of its work, the committee has conducted analyses and issued weekly reports to the NCUA Board. For example, the committee obtained and analyzed responses from the credit union industry on operational and liquidity status and reported the results to the NCUA Board. According to officials, the committee also has been assessing concentration risk of loans related to industries affected by COVID-19.

Continued monitoring. NCUA stated that its analyses showed no increased liquidity, credit, or credit concentration risks to the industry. Our analysis shows that average liquidity for the credit union industry increased 22 percent from March 2020 through December 2020. NCUA officials said they plan to continue monitoring liquidity. They noted that risk areas arising from past economic downturns have taken 12–18 months to be reflected in call report and other data. Similarly, officials said they will continue monitoring operational risk until credit unions resume full operations at their physical locations.

Conclusions

The past decade saw growth in the credit union industry's assets and a decline in the number of credit union failures. However, over the same period, the NCUA OIG commonly cited weaknesses or failures in NCUA oversight as one of the causes for credit union failures; these failures impose losses on the NCUSIF, which insures members' accounts and is backed by the full faith and credit of the U.S. government. NCUA also identified emerging risks for credit unions during the COVID-19 pandemic. These weaknesses and emerging risks illustrate the importance of NCUA improving its oversight of credit unions.

While NCUA has taken some steps to do so, including by developing new risk-monitoring tools, we identified opportunities for NCUA to strengthen its analytical capabilities and better position itself to execute timely and aggressive enforcement actions:

- The composite CAMEL rating NCUA uses to inform its supervisory actions is highly predictive of credit union deterioration and failure, but our analysis shows that use of CAMEL component ratings could

⁵⁹According to NCUA officials, the COVID-19 Economic Impact and Planning Team consists of several officials from offices throughout the agency.

provide additional predictive value. We previously recommended that NCUA consider additional triggers for determining when to take supervisory action. More fully leveraging information from CAMEL component ratings into its composite ratings and enforcement decisions could help NCUA take more timely and targeted actions to address credit union deterioration.

- The lack of a reliable process to aggregate the examination and other supervisory data NCUA maintains across multiple systems and offices has resulted in some data that are incomplete or inaccurate. While NCUA's new Modern Examination and Risk Identification Tool will aggregate much of the data, currently it does not incorporate past administrative or enforcement actions. Including such data in the tool could mitigate reliability issues arising from currently separate data sources. It also would allow NCUA to more readily use such data in its risk-monitoring and other oversight activities and to report such data externally.
- NCUA's failure to complete post mortem reports required under its policies and procedures—or to complete them in a timely manner—deprives the agency and others of information that may help prevent future failures. While NCUA policies and procedures specify a process and time frame for completing post mortem reviews, they do not designate an office responsible for ensuring timely completion. By documenting which NCUA office is responsible for ensuring completion of post mortem reports in the required time frame and a process for compliance reviews by that office, NCUA could better ensure the reviews are undertaken and completed in a timely manner—providing information that may help to prevent future losses to the NCUSIF.

Recommendations for Executive Action

We are making the following three recommendations to the National Credit Union Administration:

The Executive Director should consider how to more fully leverage the information content from CAMEL component ratings into its composite ratings and informal and formal enforcement decisions, and update NCUA's policies and procedures, as appropriate. (Recommendation 1)

The Executive Director should take steps to improve the accuracy and reliability of supervisory data, such as by implementing the Modern Examination and Risk Identification Tool to readily aggregate supervisory

data and incorporating all relevant data into the tool, including past administrative or enforcement actions. (Recommendation 2)

The Executive Director should document which NCUA office is responsible for ensuring completion of post mortem reports in the time frame required under NCUA policies and procedures and a process for compliance reviews by that office. (Recommendation 3)

Agency Comments

We provided a draft of this report to NCUA for review and comment. NCUA provided written comments, which are reproduced in appendix III. NCUA agreed with our recommendations. In its written comments, NCUA agreed to consider additional ways to extract any incremental information content from the CAMEL component ratings and incorporate it into their supervisory program as appropriate. Further, NCUA agreed with improving how it stores and retrieves supervisory data, noting the use of the Modern Examination and Risk Identification Tool to expand and better organize its supervisory data and an Enterprise Data Program to work on improvements to the NCUA's data governance. NCUA also agreed to update its policy to provide more governance over post mortem reports.

We are sending copies of this report to the appropriate congressional committees, the Chairman of the NCUA Board, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-8678 or clementsm@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.



Michael Clements
Director, Financial Markets and Community Investment

Appendix I: Objectives, Scope, and Methodology

This report examines (1) credit union failures and losses to the National Credit Union Share Insurance Fund (NCUSIF) from 2010 through 2020; (2) the National Credit Union Administration's (NCUA) use of supervisory information to identify and address deteriorating credit unions; (3) NCUA's supervisory information and Inspector General (OIG) compliance with certain requirements for accessibility and formatting of material loss review (MLR) reports; and (4) emerging risks to credit unions as identified by NCUA and the supervisory actions NCUA took to address those risks.

To examine credit union failures and NCUSIF losses, we analyzed information including financial condition, amounts of insured losses, and causes of failure.

Financial condition. We consider financial condition to include credit unions' financial characteristics, loan portfolio concentrations, and asset sizes.

- First, to determine the financial characteristics of credit unions, we obtained and analyzed data from NCUA on the number of failed and nonfailed credit unions from 2010 through 2020 and the asset size of these credit unions.
- Second, to determine credit union portfolio concentration, we obtained loan portfolio composition data from S&P Global, and measured portfolio concentration using the Herfindahl-Hirschman Index. We calculated the Herfindahl-Hirschman Index by summing the squares of the proportion of each type of loan in a credit union's loan portfolio, such as vehicle loans, credit card loans, or real estate loans. The calculation results in a value between 0 and 10,000, which can be scaled to a measure between 0 (less concentrated) and 1 (more concentrated). The index reflects both the number of loan types and their relative proportion in the overall portfolio.
- Third, we compared median asset size of failed (at time of failure) and nonfailed credit unions in each year of our review. We also compared loan portfolio concentration between failed and nonfailed credit unions for the same period. To assess the sensitivity of our results, we calculated the asset size and portfolio concentration data for failed credit unions in (1) the quarter prior to failure, (2) the year prior to

failure, and (3) using all available data (credit union failures since 2005) compared to nonfailed credit unions in the same period.

We assessed the reliability of the S&P Global data on financial indicators and loan portfolio composition by interviewing S&P Global officials, reviewing its data quality process documentation, and electronically testing the data. We found the data to be sufficiently reliable for our analysis of financial health and loan portfolio concentration. We assessed the reliability of the NCUA data on numbers of institutions and asset size by interviewing NCUA officials, reviewing NCUA documentation, and manually and electronically testing the data. We found the data to be sufficiently reliable for our analyses of asset size.

Amounts of insured losses. To determine the amounts of the losses of the failed credit unions and the causes for the failures, we obtained and analyzed NCUA data on the annual losses (from 2010 through 2020) from failed credit unions to NCUSIF. We then combined loss data and cause of failure information (described below) to determine which causes were associated with the largest total and median losses. We report median losses to the NCUSIF because NCUA OIG cites multiple causes of failure in its reviews, and a cause can appear multiple times across a range of credit union sizes.

Causes of failures. To examine the causes of credit union failures, we obtained and analyzed NCUA documents, including the NCUA OIG's MLRs and NCUA's post mortem reports from 2010 through 2020.¹ We determined the most commonly identified causes of failures stemming from both credit union and NCUA actions.

To examine NCUA's use of supervisory information to identify and address deteriorating credit unions, we analyzed NCUA's Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management (CAMEL) ratings for credit unions from examinations,

¹The NCUA OIG must submit an MLR when a credit union's failure results in a material loss to the NCUSIF—that is, a loss exceeding the sum of: (i) \$25 million; and (ii) an amount equal 10 percent of the credit union's assets at the time the NCUA Board initiates special assistance to the credit union or appoints a liquidating agent. 12 U.S.C. § 1790d(i)(1)-(2). In addition, the OIG's semi-annual reports to Congress must include a limited review of credit union failures resulting in losses that are not material; if OIG determines that unusual circumstances exist warranting an in-depth review of any such loss, OIG must also submit a report similar to an MLR. 12 U.S.C. § 1790d(j)(4). Under NCUA policies and procedures, the agency must complete post mortem reports after certain credit union failures, which reports also identify causes of failure.

statistically modeled the relationship between examination findings and credit union deterioration and failure, and analyzed data on enforcement actions.

CAMEL ratings and multinomial logistic regression models. We analyzed data on CAMEL composite and component ratings for failed and nonfailed credit unions over a 13-year period from the fourth quarter of 2007 through 2020.² We chose this time frame to enable us to assess CAMEL ratings issued before the first year of our review period (2010). We determined this regulatory information was sufficiently reliable for the purposes of our work, as detailed below, by reviewing related documentation, electronically testing the data, and interviewing knowledgeable agency officials.

We used the CAMEL ratings in a series of models designed to examine the relationship between examination findings and further near-term deterioration and failure of credit unions. The first regression model analyzed the risk of institutions with a CAMEL composite rating 2 deteriorating to a 3, 4, or 5, or failure, by the next examination. The second regression model analyzed the risk of institutions with a CAMEL composite rating of 3 improving to a 1 or 2, or deteriorating to a 4, 5, or failure, by the next examination. The third regression model examined the risk of all institutions, regardless of CAMEL composite rating, failing before the next examination. In all of the models, we controlled for credit unions exiting the industry without failing, generally through a merger. For additional information about the logistic regression models, see appendix II.

Enforcement actions. We also obtained and analyzed data on informal and formal enforcement actions from NCUA. To assess the reliability of these data, we manually compared the data with MLRs, electronically tested the data, and interviewed knowledgeable agency officials. We determined these data on enforcement actions were not sufficiently reliable for our reporting purposes.

We then altered our approach and instead assessed a subset of credit union failures using data from NCUA OIG MLRs for 26 credit from 2010 to 2020. In total, MLRs had been prepared for 32 credit unions—27 “retail” credit unions and five corporate (“wholesale”) credit unions, which provide

²CAMEL ratings are on a scale from 1 (best) to 5 (worst). There are two types of CAMEL ratings: component (individual)—ratings for C, A, M, E, or L—and composite, which is based on all of the component conditions.

liquidity and other services to credit unions. We focused on 26 of the 27 retail credit unions because the MLRs for those 26 presented CAMEL data. Accordingly, we verified enforcement actions taken and the CAMEL ratings assigned for these 26 credit unions.

More specifically, we determined when NCUA had earlier opportunities to initiate or escalate informal or formal enforcement actions and compared those time frames to when enforcement actions were actually initiated or escalated. We defined “earlier opportunities” to initiate enforcement actions as when a CAMEL component rating was downgraded (to 3 or worse) and was worse than the CAMEL composite rating. We defined “earlier opportunities” to escalate an enforcement action as when a deteriorated component rating had not improved by the next examination. We then compared the opportunities to initiate or escalate enforcement actions with the timelines for the actual initiation and escalation of enforcement actions. This allowed us to ascertain how much earlier a corrective action to address a deteriorated component could have been taken.

To review NCUA OIG compliance with Section 8M(b)(1) of the Inspector General Act of 1978 (IG Act), we reviewed the content, formatting, and accessibility of MLRs and compared our findings to the related statutory requirements.³ We identified the MLRs issued by the NCUA OIG after July 2010 and NCUA OIG procedures for submitting the MLRs to the NCUA Board and subsequently posting these reviews to its public website. We reviewed each MLR to determine the date on which the OIG submitted it to the NCUA Board, and obtained documentation of the date on which the OIG posted the report to its public website. We compared these dates to determine whether the MLRs were posted within 3 days. We reviewed the NCUA OIG’s website to determine whether each MLR was accessible via a direct hyperlink in a format that allows for document searching, downloading, and printing; and included a summary of the OIG findings.

We also obtained and reviewed NCUA’s post mortem reports. We obtained and reviewed NCUA procedures for preparing these reports, including time frames for completion. We analyzed the post mortem

³The NCUA OIG must post each report to its website within 3 days of submitting report to the head of NCUA; provide a direct link to the report on the website’s homepage; format the report to allow the public to search, download, and print it; and include a summary of the OIG’s findings in the report. 5 U.S.C. app., § 8M(b)(1).

reports to determine whether the reports were completed within the required time frame.

To examine NCUA-identified emerging risks to credit unions since the onset of the Coronavirus Disease 2019 (COVID-19) pandemic in March 2020, and actions NCUA has taken to address those risks, we reviewed relevant NCUA documents, such as COVID-19 Economic Impact and Planning Team committee reports submitted to the NCUA Board and guidance submitted to examiners and credit unions during the COVID-19 pandemic. We also interviewed officials from NCUA offices involved in enterprise risk management, which included officials from the regional offices, Office of the Executive Director, and the Office of Examination and Insurance. We also interviewed representatives from two credit union industry associations (National Association of Federal Credit Unions and the Credit Union National Association), the Brookings Institution, and an investment industry consultant to obtain their perspectives on emerging risks to the credit union industry.

We conducted this performance audit from May 2020 to September 2021 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Methodology and Findings for Statistical Analyses of Credit Union Deterioration and Failure

During 2010–2020, 145 credit unions failed, leading to losses to the National Credit Union Share Insurance Fund. The analyses discussed in this appendix examine the patterns in the National Credit Union Administration (NCUA) examination results that are associated with increased likelihood of deterioration and failure.

The CAMEL rating, the outcome of the examination process, is an important element for both identifying problems and intervening in credit unions. Credit unions are given both a composite score—ranging from 1 (sound in every respect) to 5 (extremely unsafe and unsound practices and conditions)—and component scores that rate five elements of the institution's health along the same scale: Capital Adequacy, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management. Institutions with composite ratings from 3 to 5 face an escalating series of expected interventions. There is no fixed formula for converting the component ratings into the composite rating.

Our analyses explored the extent to which the composite ratings identified useful information and the possibility that the components provided additional useful information beyond that contained in the composite, particularly when they deviate from the composite. To do this, we looked at how the risk of various transitions—to later stages of deterioration and failure—changed based on variations in the component ratings relative to the composite rating.

Methodology

We are interested in assessing NCUA's ability to identify credit unions that are at risk of further deterioration and ultimately failure. Since failure is a potentially consequential but very rare event, we look both at deterioration—as defined as further downgrades in the CAMEL composite rating—and failure, since deterioration through each step of the CAMEL rating scale substantially increases the risk of failure.

Our analyses confirmed the expected result that the CAMEL composite ratings are meaningful predictors of future decline and failure—in other words, that the risk of failure is much higher among institutions rated a 5 than among the general population of credit unions. In our work, we sought to quantify both the risk of further deterioration and the risk of failure. When it comes to investigating component ratings, there are two scenarios of particular interest: either the composite rating fully incorporates the information developed in the component ratings and thus considering the components in addition to the composite provides no additional information, or some or all components remain informative, even after considering the composite rating.

Since we are interested in this process of aggregating information from the component ratings into the composite and its potential for information loss, we assumed that a component that is equal to the composite has no additional information that is not incorporated in the composite. Therefore, in all of our analyses, we are primarily interested in the difference between the component rating and the composite, not the component rating on its own.

A standard approach to modeling risks of event occurrences, such as institution failures, is to use a discrete-time competing risk model. These models assess the contribution of included variables to the risks of “transition” from one state to another, conditional on institutions currently being in the “baseline” state. Furthermore, in our initial models, we assume that the current examination results (and the current state of the credit union) provide all necessary information for predicting its next period’s results.¹ Combining the modeling approach and this key assumption, each observation contributes only the information from the periods in which it appears in the data, thereby solving problems of left- and right-censoring (that is, the relevant transitions at the credit unions before and after the time period of our analysis). The only additional influences on the risk of transition derive from the time-varying independent variable values in the current period.

This assumption combined with our modeling approach allows us to extract meaningful information from data like ours, which are censored on both sides of the panel—the credit unions we examine have been in continued existence for differing lengths of time prior to their appearance

¹We relax this assumption somewhat in some of our specifications by adding the time-in-rating as an additional informative variable that accommodates duration dependence within a particular state.

in our data, and, of those still operating in 2020, some will fail at some point in the future.

Our models identify whether the component ratings, to the extent they differ from the composite ratings, provide additional meaningful, predictive information about the risks of credit union deterioration or failure. The models we use are not designed to illustrate the causes of credit union failure. Because there are multiple paths that institutions can take from health to exit from the industry, we use a series of multinomial logit regression models that look at the risks of various transitions simultaneously.

We estimated three sets of regression models. First, we look at the pool of generally healthy institutions—those with a CAMEL composite rating 2—and look for early warnings of future problems in the component ratings, dividing the potential negative outcomes into transitions to a 3 in the next examination and transitions to a 4, 5, or failure by the next examination. Second, we look at the pool of institutions with significant concerns—those with a CAMEL composite rating 3—and look at how supervisory information contained in the components predict further deterioration or recovery. Third, we consider the entire population of operating credit unions, regardless of CAMEL composite rating, and look at their overall risk of failure prior to the next examination to see if components still contain additional information even on the cusp of failure.

In the two models with pools of examinations all at the same rating—a CAMEL composite rating 2 or 3, respectively—we estimate alternative specifications that include a time-in-rating specification. We count the number of contiguous examinations in which the credit union had a CAMEL composite rating 2 or 3 (depending on the model), inclusive of the current examination. We include both the time-in-rating and its square in the model. In both cases, the addition of these terms are statistically significant. A challenge with adding a time-in-rating counter is that we introduce a left-censoring problem for the variable. We conducted sensitivity analyses by dropping censored values that have been in the rating for three or fewer examinations, and we find that the results are not driven by censored values. These models have no material differences between the coefficients estimated here and those estimated in the main models.

All results are reported as relative risk ratios, which are the ratio between the risks of transition for institutions that have a unit increase in the

independent variable and the baseline independent variable value. Therefore, a relative risk ratio of 1 implies that the independent variable has no effect on the risk of transition. Relative risk ratios greater than 1 imply an increased risk and ratios from 0 to 1 imply opposite reduced risk. There are no negative relative risk ratios.

In all cases, the risks of different transitions (including that of the reference transition) sum to one, and all independent variables are used to estimate risks of transitions of all types. Therefore, when an independent variable value increases the risk of one transition, the risk of at least one of the other transitions must decrease. In our particular models, this identity can make intuitive interpretation of the results more difficult, since we are largely interested in the risks of one or two transitions relative to the baseline and ignore one or more of the other possible transitions. In particular, our consideration of institutions that exit the sector for reasons other than failure are outside of the scope of our discussion in this report. Since in some cases, an increase in an independent variable of interest can affect the risk of multiple transitions, and have a different effect depending on the values of other independent variables, the net effect on the risks of the transition of interest relative to baseline is not obvious from reading the coefficient tables.

Data

To conduct our analyses, we use data on credit unions' failure, other exits, and examination results:

1. All credit unions report their financial condition (balance sheet and income statements) quarterly, and these reports can be downloaded from the NCUA website. We pulled data from the fourth quarter of 2007 through 2020 for all credit unions to capture the quarters for which each credit union, as identified by its unique charter identification number, submitted reports. We use these data to identify credit unions that exit the industry by means other than failure.
2. Credit unions are examined approximately annually. NCUA provided us with all CAMEL examinations from 2005 through 2020. Included in the data are charter identification numbers and the date of the most recent call report on which NCUA relied during the examination. We matched the examination results with the call reports on these two fields.
3. NCUA provided data on the 145 institutions that went through its resolution process in 2010–2020. These data include the charter

identification numbers and the date of failure. We use the data to flag institutions that failed and to identify which examination was the last prior to failure.

The initial merged data set has observations that are charter-quarter, and we drop those that do not have examinations. The data set used in the analysis is therefore an unbalanced panel of charter-examinations. Because some of the failed credit unions included in this analysis failed early in the panel, their last examinations occurred before 2010. We therefore include examinations beginning in the fourth quarter of 2007 but drop institutions that exit our panel before January 2010, because we do not have data on whether those exits were the result of failure or occurred for a different reason.

Analysis

Model 1: Deterioration from CAMEL composite rating 2

In the first discrete-time competing risks model, we use a multinomial logit model to estimate transition probabilities for all credit unions with a CAMEL composite 2 rating during the current quarter: whether they (1) remain at a 2 or improve to a 1; (2) deteriorate to a 3; (3) deteriorate to a 4, 5, or fail prior to the next examination; or (4) exit the sample via merger prior to the next examination. These are comprehensive and mutually exclusive categories (see table 3).

Table 3: Outcomes by Next Examination of Credit Unions with CAMEL Composite Rating 2

Outcomes by next examination	Count of examinations
Remain CAMEL 1 or 2	29,125
CAMEL 3	3,814
CAMEL 4, 5, or failure	259
Exit without failure	635

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Note: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

Because the entire sample has a composite CAMEL rating of 2, we include only the difference between each component rating and the composite as the other independent variables in the basic model (see table 5, Basic model). In the time-in-rating model, we also include the number of consecutive examinations in which the credit union has been

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rated a 2 and its square (see table 4, Time-in-rating model). The first time a credit union is rated a 2 is counted as one examination at the rating.

Table 4: Risk of Transitions to Deterioration, Failure, and Exit for Composite CAMEL 2 Credit Unions, 2010–2020

		Basic model		Time-in-rating model	
		Coefficient	Standard error	Coefficient	Standard error
CAMEL 3	Component C - Composite	1.274***	(0.0413)	1.236***	(0.0404)
	Component A - Composite	1.871***	(0.0586)	1.825***	(0.0572)
	Component M - Composite	1.878***	(0.0707)	1.921***	(0.0726)
	Component E - Composite	1.738***	(0.0423)	1.738***	(0.0424)
	Component L - Composite	1.239***	(0.0477)	1.236***	(0.0474)
	# of consecutive examinations at composite 2	—	—	0.907***	(0.0146)
	# of consecutive examinations at composite 2 squared	—	—	1.004**	(0.00118)
	Constant	0.114***	(0.00323)	0.155***	(0.00717)
CAMEL 4 or 5 or failure	Component C - Composite	1.653***	(0.183)	1.533***	(0.170)
	Component A - Composite	2.070***	(0.228)	1.950***	(0.214)
	Component M - Composite	1.732***	(0.231)	1.812***	(0.242)
	Component E - Composite	1.319**	(0.117)	1.323**	(0.118)
	Component L - Composite	1.263	(0.174)	1.255	(0.171)
	# of consecutive examinations at composite 2	—	—	0.785***	(0.0445)
	# of consecutive examinations at composite 2 squared	—	—	1.011**	(0.00420)
	Constant	0.00955***	(0.000888)	0.0187***	(0.00279)
Exit without failure	Component C - Composite	1.429***	(0.104)	1.379***	(0.100)
	Component A - Composite	0.695***	(0.0505)	0.683***	(0.0496)
	Component M - Composite	1.475***	(0.131)	1.499***	(0.134)
	Component E - Composite	2.181***	(0.116)	2.193***	(0.117)
	Component L - Composite	0.761**	(0.0634)	0.767**	(0.0638)
	# of consecutive examinations at composite 2	—	—	0.837***	(0.0285)
	# of consecutive examinations at composite 2 squared	—	—	1.011***	(0.00235)
	Constant	0.0189***	(0.00122)	0.0293***	(0.00299)
Number of observations		33833	—	33833	—

Legend:

Coefficients reported as relative risk ratios; standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

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“— = not applicable.”

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Notes: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

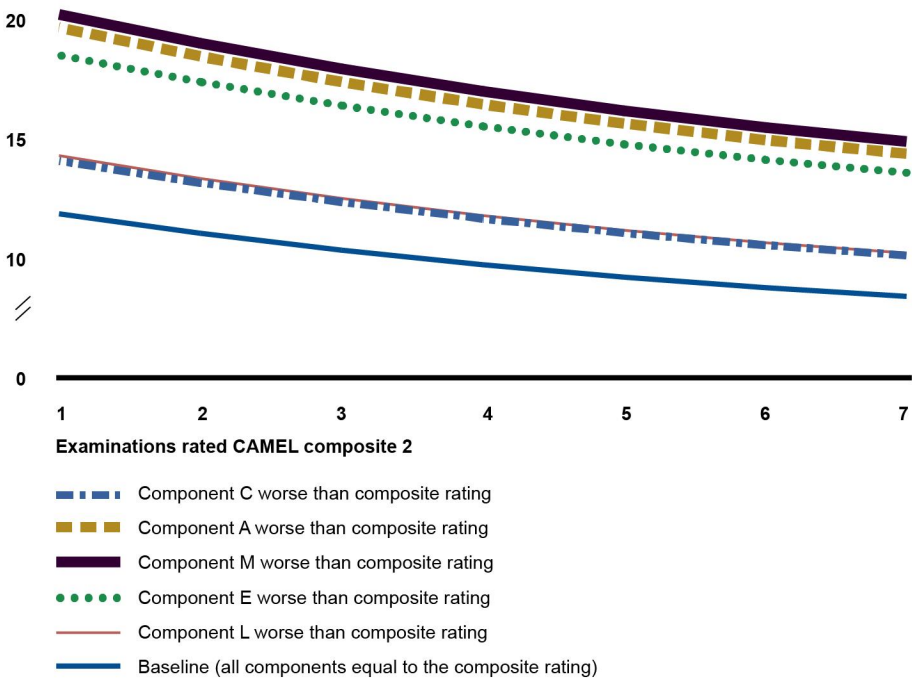
This regression suggests that all CAMEL components provide additional predictive information for credit unions with a composite rating 2 deteriorating to a 3. All but Liquidity ratings are associated with further deterioration from a 2 to a 4, 5, or failure by the next examination. The estimated coefficients are qualitatively similar between the basic and time-in-rating model. However, the time-in-rating elements of the second model are also statistically and practically significant.

The implications of the estimates of the time-in-rating variables is that the early examinations of a period in which a credit union's CAMEL composite rating is 2 have a meaningfully higher baseline risk of transition to both forms of deterioration and a correspondingly higher risk when combined with a component greater than a composite. For example, when the component A (Asset Quality) is rated a 3 in the first examination of a credit union with a CAMEL composite rating 2, it has a higher risk—of more than 8 percentage points (an almost 20 percent likelihood compared with almost 12 percent)—of transitioning to a composite 3 at the next examination (see fig. 9). It also has a higher risk—almost one percentage point (over 2 percent compared with over 1 percent)—of transitioning to a 4, 5, or failure by the next examination than a credit union that has all of its components rated 2 (see fig. 10). Over time, as an institution remains rated a 2, both the levels of risk and their differences decline somewhat.

Figure 9: Probability That Credit Unions Rated CAMEL Composite 2 Will Deteriorate to a Composite 3, as a Function of Consecutive Composite 2 Ratings

Probability of transition to 3 by next examination

25



Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

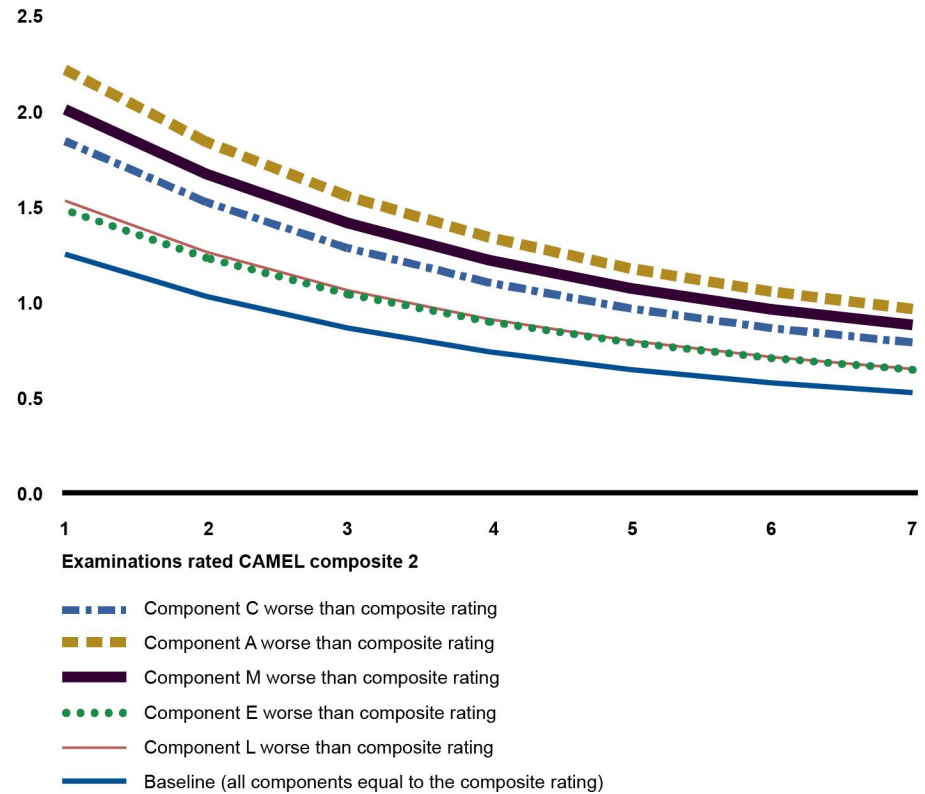
Accessible Data Table for Figure 9

Baseline	Component C worse than composite rating	Component A worse than composite rating	Component M worse than composite rating	Component E worse than composite rating	Component L worse than composite rating
11.9377	14.1483	19.735	20.2824	18.5729	14.3734
11.124	13.2356	18.524	19.0782	17.4598	13.4184
10.4166	12.4333	17.4541	18.007	16.4697	12.5852
9.807	11.7357	16.5197	17.066	15.6001	11.8651
9.28659	11.1359	15.7133	16.2499	14.8458	11.2488
8.84734	10.6265	15.0266	15.5518	14.2003	10.7278
8.48202	10.2006	14.4513	14.9644	13.6566	10.2938

Note: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

Figure 10: Probability That Credit Unions Rated CAMEL Composite 2 Will Deteriorate to a Composite 4, 5, or Fail, as a Function of Consecutive Composite 2 Ratings

Probability of transition to 4, 5, or failure by next examination



Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Accessible Data Table for Figure 10

Baseline	Component C worse than composite rating	Component A worse than composite rating	Component M worse than composite rating	Component E worse than composite rating	Component L worse than composite rating
1.25771	1.8489	2.22228	2.01535	1.48913	1.53728
1.0368	1.53012	1.84532	1.67704	1.23842	1.2696
0.87154	1.29032	1.56085	1.42094	1.04868	1.06894
0.74744	1.10943	1.3457	1.22672	0.90483	0.918
0.65423	0.97308	1.18317	1.07969	0.79593	0.80448
0.58462	0.87096	1.06126	0.9692	0.71409	0.71962
0.53346	0.79575	0.97142	0.88763	0.65364	0.65721

Note: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

Model 2: Deterioration and Improvement from 3

To look at whether a credit union in some trouble—with a CAMEL composite rating 3—is more likely to deteriorate or improve, we limit the sample to credit unions with a composite rating of 3 and then group their next status into four mutually exclusive and collectively exhaustive categories: (1) remaining a 3 at their next examination (baseline); (2) upgraded to a 1 or 2 composite at their next examination; (3) downgraded to a 4 or 5 in the next examination or failing before the next examination; or (4) exiting the data for unknown reasons (e.g., merger) before the next examination (see table 5).

Table 5: Outcomes by Next Examination of Credit Unions with CAMEL Composite Rating 3

Outcomes by next examination	Count of examinations
Remain at CAMEL 3	20,793
CAMEL 1 or 2	3,861
CAMEL 4, 5, or failure	1,436
Exit without failure	728

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Note: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

Because the entire sample has a composite CAMEL rating of 3, we include only the difference between each component rating and the composite rating as the independent variables in the basic model. In the time-in-rating model, we add the number of consecutive examinations in which the credit union has been rated a 3 and its square (see table 6).

Table 6: Risk of Transitions to Improvement, Deterioration, Failure, and Exit for Credit Unions with a CAMEL Composite Rating 3, 2010–2020

		Basic model		Time-in rating model	
		Coefficient	Standard error	Coefficient	Standard error
CAMEL 1 or 2	Component C - Composite	0.806***	(0.0197)	0.816***	(0.0200)
	Component A - Composite	0.661***	(0.0182)	0.671***	(0.0185)
	Component M - Composite	0.517***	(0.0210)	0.522***	(0.0214)
	Component E - Composite	0.585***	(0.0130)	0.590***	(0.0131)
	Component L - Composite	0.919**	(0.0290)	0.913**	(0.0288)
	# of consecutive examinations at composite 3	—	—	0.975*	(0.0123)

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		Basic model		Time-in rating model	
		Coefficient	Standard error	Coefficient	Standard error
CAMEL 4, 5, or failure	# of consecutive examinations at composite 3 squared	—	—	0.999	(0.000782)
	Constant	0.119***	(0.00463)	0.141***	(0.00729)
	Component C – Composite	1.422***	(0.0524)	1.427***	(0.0528)
	Component A – Composite	1.528***	(0.0640)	1.530***	(0.0642)
	Component M – Composite	1.712***	(0.0969)	1.713***	(0.0976)
	Component E – Composite	1.423***	(0.0496)	1.431***	(0.0500)
	Component L – Composite	1.259***	(0.0600)	1.261***	(0.0602)
	# of consecutive examinations at composite 3	—	—	0.965*	(0.0143)
	# of consecutive examinations at composite 3 squared	—	—	1.002*	(0.000710)
	Constant	0.0974***	(0.00478)	0.108***	(0.00723)
Exit without failure	Component C – Composite	1.322***	(0.0658)	1.342***	(0.0671)
	Component A – Composite	0.712***	(0.0391)	0.718***	(0.0395)
	Component M – Composite	1.643***	(0.129)	1.669***	(0.133)
	Component E – Composite	1.825***	(0.0895)	1.849***	(0.0910)
	Component L – Composite	0.777***	(0.0529)	0.773***	(0.0527)
	# of consecutive examinations at composite 3	—	—	0.929***	(0.0201)
	# of consecutive examinations at composite 3 squared	—	—	1.003**	(0.00108)
	Constant	0.0259***	(0.00206)	0.0328***	(0.00334)
	Number of observations	26818	—	26818	—

Legend:

Coefficients reported as relative risk ratios; standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

“—” = not applicable.”

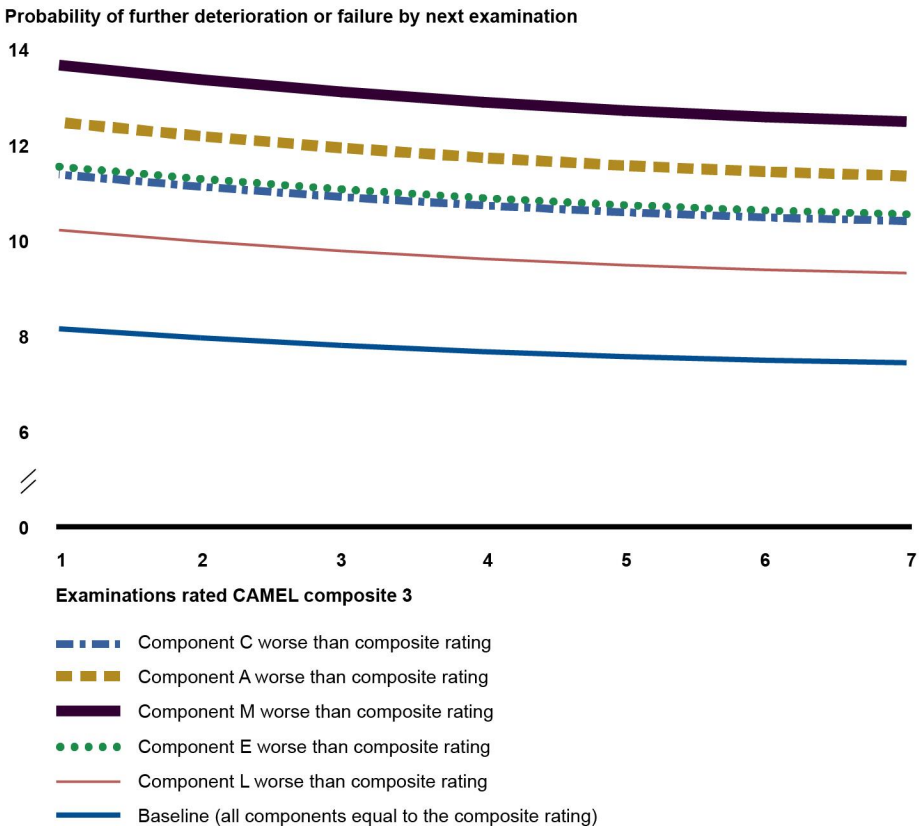
Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Notes: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

From these results, we conclude that all of the component ratings that differ from the composite (those that are not 3) provide at least some useful predictive information about the credit union’s likely progression. Similar to the model of credit unions with a CAMEL composite rating 2, these institutions with a composite rating 3 have a higher risk of further deterioration when they are newly rated a 3 than when they have been rated a 3 for many examinations in succession (see fig. 11). In this case, the Management component is associated with the highest estimated increase in risk, particularly for those institutions recently rated a 3. In

their first year of being rated a 3, institutions with a higher Management component have an almost 14 percent chance of further deterioration by the next examination, in contrast to an approximately 8 percent chance of deterioration if all the components are equal to 3.

Figure 11: Probability That Credit Unions Rated a CAMEL Composite 3 Will Deteriorate to a Composite 4, 5, or Fail, as a Function of Consecutive Composite 3 Ratings



Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Accessible Data Table for Figure 11

Baseline	Component C worse than composite rating	Component A worse than composite rating	Component M worse than composite rating	Component E worse than composite rating	Component L worse than composite rating
8.18104	11.4102	12.5043	13.6988	11.5737	10.2463
7.99217	11.1559	12.2137	13.3971	11.3176	10.0096
7.83317	10.9403	11.9667	13.1393	11.0991	9.80975
7.70261	10.762	11.7614	12.9235	10.9169	9.64502

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Baseline	Component C worse than composite rating	Component A worse than composite rating	Component M worse than composite rating	Component E worse than composite rating	Component L worse than composite rating
7.59929	10.6195	11.5958	12.7485	10.7697	9.51392
7.52222	10.5117	11.4688	12.6133	10.6567	9.41525
7.47065	10.4378	11.3792	12.5168	10.577	9.34806

Note: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

Model 3: Exit Transitions

In the final model, we examine whether component ratings that differ from the composite rating contribute additional information—above and beyond that provided by the composite rating—that predict failure prior to the next examination. See table 7 for counts of each outcome.

Table 7: Counts by Outcomes of All Credit Unions by Next Examination

Outcomes by next examination	Count of examinations
Continuing to operate	75,594
Failure	145
Exit without failure	2,040

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Because we include all examinations, we also control for the CAMEL composite rating assigned in each examination. We control for it in two ways: first, we include the composite CAMEL score as a continuous variable; second, we include it as a series of indicator variables (but drop all examinations with a composite score of 1). The first is a simpler implementation, but imposes a functional form on the relationship between the composite score across its possible values and the risks of transition. The second allows for a more flexible relationship between the composite and risks of transitions, but will have a tendency to over-fit. Furthermore, because no institution with a composite score of 1 fails prior to the next examination in our sample, we have to drop those institutions from the model.

In both specifications, we use a multinomial logit model to estimate transition probabilities for all credit unions: whether they (1) remain in business (baseline); (2) exit the sample via failure in the next period; or (3) exit the sample for unknown reasons (probably through merger).

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Table 8 highlights these risks of transition to failure and exit for credit unions.

Table 8: Risk of Transitions to Failure and Exit for All Credit Unions, 2010–2020

		Basic model		Indicator CAMEL model	
		Coefficient	Standard error	Coefficient	Standard error
Failure	CAMEL Composite	36.20***	(6.168)	—	—
	Component C – Composite	2.835***	(0.627)	2.768***	(0.657)
	Component A – Composite	1.035	(0.174)	0.968	(0.169)
	Component M – Composite	1.218	(0.263)	1.320	(0.307)
	Component E – Composite	1.209	(0.260)	1.415	(0.343)
	Component L – Composite	1.803***	(0.236)	1.596***	(0.215)
	CAMEL Composite = 2	—	—	0.000386***	(0.000172)
	CAMEL Composite = 3	—	—	0.000522***	(0.000276)
	CAMEL Composite = 4	—	—	0.0111***	(0.00273)
	CAMEL Composite = 5	—	—	(Omitted Category)	
	Constant	0.000***	(0.000)	0.667**	(0.0937)
Exit without failure	CAMEL Composite	1.886***	(0.0620)	—	—
	Component C – Composite	1.365***	(0.0433)	1.307***	(0.0435)
	Component A – Composite	0.720***	(0.0243)	0.709***	(0.0244)
	Component M – Composite	1.585***	(0.0739)	1.602***	(0.0768)
	Component E – Composite	1.862***	(0.0580)	1.900***	(0.0609)
	Component L – Composite	0.876***	(0.0332)	0.829***	(0.0322)
	CAMEL Composite = 2	—	—	0.0621***	(0.00876)
	CAMEL Composite = 3	—	—	0.0819***	(0.0112)
	CAMEL Composite = 4	—	—	0.175***	(0.0239)
	CAMEL Composite = 5	—	—	(Omitted category)	
	Constant	0.00414***	(0.000379)	0.263***	(0.0353)
	Number of observations	77779	—	69917	—

Legend:

Coefficients reported as relative risk ratios; standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

“—” = not applicable. “

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Notes: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

This regression suggests that, while the composite rating is the predominant supervisory predictor of imminent failure, the Capital Adequacy and Liquidity components retain additional predictive

information up to the point of failure. We calculate the implications of a credit union moving from all components equal to the composite to one where, first, the Capital Adequacy component is one rating higher (that is, worse), and second, the Liquidity component is one rating higher. While the risk of failing before the next examination is very small for the average credit union, downgrading (raising) the Capital Adequacy component more than doubles the risk (181 percent) and downgrading the Liquidity component increases the risk by almost 81 percent.

Using the more flexible specification, we can see the escalation of risk overall for credit unions rated a composite 4 or, particularly, 5 (see table 9). The risks of failure prior to a 5 rating are amplified when the Capital and Liquidity ratings are higher (worse) than the composite. (Note that they cannot be higher than the composite when the composite is equal to 5.)

Table 9: Risk of Failure of All Credit Unions by Next Examination for Selected CAMEL Components

Composite	Risk of failure prior to next examination for selected components greater than composite		
	Baseline (%)	Capital (%)	Liquidity (%)
Composite = 2	0.01	0.06	0.03
Composite = 3	0.02	0.09	0.04
Composite = 4	0.39	1.69	0.73
Composite = 5	19.40	—	—

Source: GAO analysis of National Credit Union Administration data. | GAO-21-434

Note: CAMEL ratings refer to the Capital, Asset Quality, Management, Earnings, and Liquidity/Asset-Liability Management ratings.

Assumptions and Limitations

While our results show that component ratings are informative over the span of a credit union's decline, our analyses rely on several key assumptions and have important limitations. First, our analyses assume that the role of component ratings has remained constant over the 10 years of the analysis period. Second, in general, our results are not generalizable outside our sample, and, in particular, might not continue to hold true if NCUA were to change its policies on how to develop its examination ratings or on how to respond to component ratings. Third, our models are designed to identify how informative the information that NCUA already compiles is. The models do not attempt to identify additional signals of credit union weakness that are not already

incorporated into the component or composite ratings. Fourth, the pace of examinations is not consistent and a credit union is more likely to be examined more frequently as it deteriorates. This may bias the effect sizes measured. Finally, while we are able to demonstrate the additional information content of the component ratings, we do not quantify the additional costs or other unintended consequences of NCUA attempting to use the additional information contained in the component ratings.

Appendix III: Comments from the National Credit Union Administration



National Credit Union Administration
Office of the Executive Director

August 26, 2021

Michael E. Clements
Director, Financial Markets & Community Investment
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Clements,

We reviewed the GAO's draft report (GAO 21-434) entitled *National Credit Union Administration: Additional Actions Needed to Strengthen Oversight*. The draft report examines credit union failures from 2010 through 2020, the NCUA's use of supervisory information to address deteriorating credit unions, reporting on failures, and risks facing credit unions related to the COVID-19 pandemic.

We agree that the credit union failures during this period were primarily caused by insufficient credit union board or committee oversight and management deficiencies, including weak lending practices and risk management practices and high loan portfolio concentrations. We also acknowledge that improvements in supervisory approaches for some of these cases would have helped mitigate the corresponding losses to the National Credit Union Share Insurance Fund (Share Insurance Fund).

The NCUA uses a variety of tools and approaches to regulate and supervise insured credit unions. We recognize there is always room for improvement and continuously seek to incorporate lessons learned. In fact, since 2010 we have adopted a variety of improvements to our regulatory and supervisory approaches. In addition, we have various initiatives in process, like development of the Modern Examination and Risk Identification Tool (MERIT), that will provide additional enhancements to our supervisory capabilities. When considering changes to our regulatory and supervisory approaches, our goal is to strike the right balance between enhancing our ability to mitigate losses to the Share Insurance Fund and any corresponding cost to credit unions and/or impact on their ability to take well-managed risks in serving their members.

The GAO makes the following three recommendations in the draft report:

Recommendation 1: The Executive Director should consider how to more fully leverage the information content from CAMEL component ratings into its composite ratings and informal and formal enforcement decisions, and update NCUA's policies and procedures, as appropriate.

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Mr. Clements
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Page Two

CAMEL component and composite ratings are assigned based on the descriptions and definitions established by the agency.¹ Examiners consider the interrelationships between CAMEL components when assigning the composite rating. Based on this system a component rating could meet the definition of a code 3, 4, or 5 while the overall composite rating may not be a CAMEL code 3, 4, or 5.

For example, some credit unions have successful lending programs designed to serve the needs of their membership that result in higher risk loan portfolios. These programs are well managed, and the credit unions have the capital and liquidity to cover the increased risk. Thus, while an Asset Quality component rating of a 3 may best reflect the risk in the loan portfolio, a CAMEL composite rating of 1 or 2 may best reflect the overall condition and risk of the institution. In such situations, no informal or formal enforcement actions would be warranted or appropriate.

The NCUA does incorporate CAMEL component ratings into our supervisory approaches beyond what is specified in the National Supervision Policy Manual. For example, we use CAMEL component ratings in some of our national and regional risk reports and as criteria in policies like NCUA's extended examination cycle.² And, though the NSPM requires enforcement actions for all CAMEL composite 4 and 5 rated credit unions, staff are also instructed to use enforcement actions for any material violations or material unsafe or unsound conditions or practices in a credit union.³

However, we agree to consider additional ways to extract from CAMEL component ratings any incremental information content and incorporate this into our supervisory program as appropriate.⁴

Recommendation 2: *The Executive Director should take steps to improve the accuracy and reliability of supervisory data, such as by implementing the Modern Examination and Risk Identification Tool to readily aggregate supervisory data and incorporating all relevant data into the tool, including past administrative or enforcement actions.*

We agree with the value of improving how we store and retrieve supervisory data. As the draft report acknowledges, one of the objectives of MERIT is to expand and better organize our

¹ See Letter to Credit Unions 07-CU-12, CAMEL Rating System. Also see the NCUA's [Examiner's Guide](#) for additional discussion of the CAMEL rating process.

² For example, the criteria for NCUA's extended examination cycle considers the Management component and CAMEL composite ratings. See [Letter to Credit Union 16-CU-12, Risk-Based Examination Scheduling Policy](#)

³ See NCUA [National Supervision Policy Manual](#), Field Staff Responsibilities in the Administrative Remedies Chapter.

⁴ The GAO's draft report notes a relatively high percentage increase in the probability of a CAMEL downgrade at the next exam when certain CAMEL component ratings are lower than the CAMEL composite rating. We would note that these percentage increases are on a small base and therefore represent small absolute increases. For example, the report cited that for a CAMEL composite 2 rated institution with an Asset Quality component rating of a 3, the likelihood of a CAMEL downgrade at the next examination would increase from 10 percent to an estimated 17.2 percent. Conversely, about 83 percent of the time there would not be a CAMEL downgrade at the next exam. For downgrades to a CAMEL composite rating of a 4 or 5 (those most likely to fail) from a CAMEL composite 2 rating with a component rating of a 3 - the likelihood of such a downgrade only increases from 0.8 percent to as high as about 1.5 percent.

**Appendix III: Comments from the National
Credit Union Administration**

Mr. Clements
August 26, 2021
Page Three

supervisory data. In addition, a few years ago the agency established an Enterprise Data Program to manage enterprise data as a strategic asset through its full lifecycle and enhance analytic and reporting capabilities. This program continues to work on improvements to the NCUA's data governance.

We would note that the NCUA believes its underlying supervisory data are reliable. However, we acknowledge there were administrative errors made in the extraction and submission of supervisory data during the GAO study.⁵ We apologize for any inconvenience. We have recently implemented a new quality control process for such information requests to minimize the likelihood of any such future administrative errors.

Recommendation 3: *The Executive Director should document which NCUA office is responsible for ensuring completion of postmortem reports in the timeframe required under NCUA policies and procedures and a process for compliance reviews by that office.*

We agree with this recommendation. We plan to update the policy to provide more governance over postmortems, including exercising discretion over when to extend the completion time and when to forgo completion of certain postmortems given competing priorities and/or low expected information value.

In conclusion, the NCUA is committed to ensuring sound oversight of insured credit unions and will take appropriate measures to adopt the recommendations in the draft report. Thank you for the opportunity to review and comment on the draft report.

Sincerely,

LARRY FAZIO Digitally signed by LARRY FAZIO
Date: 2021.08.26 14:36:45 -04'00'

Larry Fazio
Executive Director

⁵ As indicated on pages 25-26 of the draft report, issues with the data were attributed to the manual process of extracting and providing the information, not the data itself.

Agency Comment Letter

Text of Appendix III: Comments from the National Credit Union Administration

Page 1

August 26, 2021

Michael E. Clements
Director, Financial Markets & Community Investment
U.S. Government Accountability Office 441 G Street NW
Washington, DC 20548

Dear Mr. Clements,

We reviewed the GAO's draft report (GAO 21-434) entitled National Credit Union Administration: Additional Actions Needed to Strengthen Oversight. The draft report examines credit union failures from 2010 through 2020, the NCUA's use of supervisory information to address deteriorating credit unions, reporting on failures, and risks facing credit unions related to the COVID-19 pandemic.

We agree that the credit union failures during this period were primarily caused by insufficient credit union board or committee oversight and management deficiencies, including weak lending practices and risk management practices and high loan portfolio concentrations. We also acknowledge that improvements in supervisory approaches for some of these cases would have helped mitigate the corresponding losses to the National Credit Union Share Insurance Fund (Share Insurance Fund).

The NCUA uses a variety of tools and approaches to regulate and supervise insured credit unions. We recognize there is always room for improvement and continuously seek to incorporate lessons learned. In fact, since 2010 we have adopted a variety of improvements to our regulatory and supervisory approaches. In addition, we have various initiatives in process, like development of the Modern Examination and Risk Identification Tool (MERIT), that will provide additional enhancements to our supervisory capabilities. When considering changes to our regulatory and supervisory approaches, our goal is to strike the right balance between enhancing our ability to mitigate losses to the Share Insurance Fund and any corresponding cost to credit unions and/or impact on their ability to take well-managed risks in serving their members.

The GAO makes the following three recommendations in the draft report:

Recommendation 1: The Executive Director should consider how to more fully leverage the information content from CAMEL component ratings into its composite ratings and informal and formal enforcement decisions, and update NCUA's policies and procedures, as appropriate.

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CAMEL component and composite ratings are assigned based on the descriptions and definitions established by the agency.¹ Examiners consider the interrelationships between CAMEL components when assigning the composite rating. Based on this system a component rating could meet the definition of a code 3, 4, or 5 while the overall composite rating may not be a CAMEL code 3, 4, or 5.

For example, some credit unions have successful lending programs designed to serve the needs of their membership that result in higher risk loan portfolios. These programs are well managed, and the credit unions have the capital and liquidity to cover the increased risk. Thus, while an Asset Quality component rating of a 3 may best reflect the risk in the loan portfolio, a CAMEL composite rating of 1 or 2 may best reflect the overall condition and risk of the institution. In such situations, no informal or formal enforcement actions would be warranted or appropriate.

The NCUA does incorporate CAMEL component ratings into our supervisory approaches beyond what is specified in the National Supervision Policy Manual. For example, we use CAMEL component ratings in some of our national and regional risk reports and as criteria in policies like NCUA's extended examination cycle.² And, though the NSPM requires enforcement actions for all CAMEL composite 4 and 5 rated credit unions, staff are also instructed to use enforcement actions for any material violations or material unsafe or unsound conditions or practices in a credit union.³

However, we agree to consider additional ways to extract from CAMEL component ratings any incremental information content and incorporate this into our supervisory program as appropriate.⁴

Recommendation 2: The Executive Director should take steps to improve the accuracy and reliability of supervisory data, such as by implementing the Modern Examination and Risk Identification Tool to readily aggregate supervisory data and incorporating all relevant data into the tool, including past administrative or enforcement actions.

We agree with the value of improving how we store and retrieve supervisory data. As the draft report acknowledges, one of the objectives of MERIT is to expand and better organize our

1 See Letter to Credit Unions 07-CU-12, CAMEL Rating System. Also see the NCUA's Examiner's Guide for additional discussion of the CAMEL rating process.

2 For example, the criteria for NCUA's extended examination cycle considers the Management component and CAMEL composite ratings. See Letter to Credit Union 16-CU-12, Risk-Based Examination Scheduling Policy 3 See NCUA National Supervision Policy Manual, Field Staff Responsibilities in the Administrative Remedies Chapter.

4 The GAO's draft report notes a relatively high percentage increase in the probability of a CAMEL downgrade at the next exam when certain CAMEL component ratings are lower than the CAMEL composite rating. We would note that these percentage increases are on a small base and therefore represent small absolute increases. For example, the report cited that for a CAMEL composite 2 rated institution with an Asset Quality component rating of a 3, the likelihood of a CAMEL downgrade at the next examination would increase from 10 percent to an estimated

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Sincerely,

Larry Fazio Executive Director

⁵ As indicated on pages 25-26 of the draft report, issues with the data were attributed to the manual process of extracting and providing the information, not the data itself.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

Michael E. Clements, (202) 512-8678 or ClementsM@gao.gov.

Staff Acknowledgments

In addition to the contact named above, John Forrester (Assistant Director), Brandon Jones (Analyst in Charge), Barry Kirby (Analyst in Charge), Abigail Brown, William Chatlos, Michael Hoffman, Courtney LaFountain, Matty Njie, Kirsten Noethen, Barbara Roesmann, Jena Sinkfield, and Richard Zarrella made significant contributions to this report.

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