	A	C	E	F	G
4	**SCOPE DETERMINATION**				
5	The scope of the Liquidity review will be primarily determined by the results of the Fundamental Criteria below. Where the ratios indicate there is little liquidity risk, and the CU does not have recourse liability, a minimum scope will be expected (Part B). If the ratios indicate there is at least moderate risk, or the CU is exposed to recourse liability, a more expanded scope will be expected (Part C). **The expanded questions embedded in Part C are optional for all CUs**. Click on the appropriate Expanded Questions button to review the expanded questions.				
6	You may expand the scope if you determine the level of liquidity risk is greater than reflected in the ratios, or if your qualitative assessment prompts an increased review. In addition to the Fundamental Criteria ratios and questions below, you may click on the Additional **Scope Determination button** to the right to review liquidity flags from alternative perspectives. ***Should you expand your scope, you need not respond to all the expanded questions embedded in Part C or within a particular section, but may respond to only those questions you deem appropriate.*** You should document the reasons for expanding your scope below, under Scope of Review.				
7	**Fundamental Criteria**				
8		**01/00/1900**	**01/00/1900**	**01/00/1900**	**01/00/1900**
9	1. Loans/Assets				
10	2. Borrowings & Non-member Deposits/Total Shares and Liabilities				
11	3. Cash + ST Investments / Assets				
12		**Yes/No**	**Comments**		
13	4. Has the CU sold a participation interest in a loan, or sold a loan, where the loan is still outstanding and the CU is liable to repurchase the loan under a recourse arrangement?				
14					
15	**Scope of Review**				
16	Based on the infomation provided above, the expected scope of review is Part: -->				
17		**Comments**			
18	If you are expanding the scope, please **briefly** identify what parts of your review have been expanded and provide reasons why you expanded the scope.				
19					

	A	C	E	F	G
4	**SCOPE DETERMINATION**				
20	**ADDITIONAL SCOPE CONSIDERATIONS**				
21	The following is optional and is intended to support the Part A-Required workpaper. After reviewing the ratios and answers to the questions raised in the Other Considerations section, you may consider expanding the scope of your liquidity review beyond the required minimum.				
22	**Supplemental Ratios**				
23		**01/00/1900**	**01/00/1900**	**01/00/1900**	**01/00/1900**
24	1. Loans/Shares				
25	2. Contingent Liabilities/Cash and Investments				
26	3. Net Liquid Assets / Total Liabilities & Shares				
27	4. Volatile Liabilities/Cash & Short-Term Investments				
28	5. Growth in Volatile Liabilities/ Assets				
29	6. Investment Loss Ratio				
30	7. Estimated Loan Maturity				
31					
32	**Comments:**				
33	**Other Considerations**	**Yes/No**	**Comments**		
34	1. Have the loan, investment and/or share structures changed significantly since the prior examination, or are significant changes likely to occur in the near future?				
35	2. Does the investment portfolio consist of a significant amount of assets and/or liabilities with principal cash flows subject to prepayment or extension risk?				
36	3. Has the CU been attracting shares or non-member deposits by paying above market rates?				
37	4. Is there a reliance on borrowed funds, high balance accounts, or non-member deposits for meeting daily cash needs?				
38	5. How has management handled liquidity needs in the past?				
39	6. Has the CU experienced turnover in key management positions since the previous examination?				
40	7. Are there any other potential threats to liquidity?				

Cell: A7

Comment: Ratio analysis is an industry standard for measuring various components of liquidity, although no single ratio or set of ratios provides a complete measure of liquidity. The purpose of this ratio review is to allow you to determine the liquidity position of the CU from alternative points of view. Trend analysis may also indicate management's demonstrated ability or inability to manage liquidity risk.

The following thresholds are presented as benchmarks only. That is, if a CU's ratio exceeds a benchmark, it does not necessarily indicate there is liquidity risk—it only prompts you to investigate the issue further. These benchmarks are not to be used as the sole basis of assigning a CAMEL rating.

In some cases, a high threshold may not be indicative of risk because of other mitigating circumstances such as a CU adopting sound policies and practices and having a thorough understanding of its flow of funds and stability of funding sources. In other cases, a combination of ratios may indicate higher risk even though no individual ratio breaches the high threshold.

Cell: A9

Comment: A CU should strive to maintain a loan-to-asset ratio where it can meet members' loan demand and still meet other liquidity needs. High loan-to-asset ratios (e.g., in excess of 80%) may indicate a CU cannot satisfy this condition, especially if other funding sources are limited, if existing funding is dependent upon volatile sources (e.g., non-member shares), and/or short-term investments are minimal. Therefore, it warrants attention during the review.

While loan repayments provide the CU with a flow of funds, these funds are generally reinvested in future loans. If a CU uses loan repayments to meet liquidity needs (such as share withdrawals or repaying borrowings), it may not be able to satisfy member loan demand. This could jeopardize the CU's reputation risk, resulting in members leaving the CU.

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Total loans DIVIDED BY total assets

Cell: A10

Comment: Borrowings and non-member shares may indicate the CU is unable to meet its cash needs through member shares. Because these funds generally incur a higher cost and are more volatile than member shares (i.e., lenders may not renew their funding if yields are not competitive or the CU's financial condition deteriorates), they generally require a higher level of oversight to manage effectively. Generally, borrowings and non-member shares in excess of 5% indicate a level of potentially volatile funding sources that merits attention during the review.

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Total borrowings + non-member deposits DIVIDED BY total shares + total liabilities

Cell: A11

Comment: This ratio provides an indicator of how much cash is available to meet share withdrawals or additional loan demand. A low (e.g., < 15 percent) or rapidly declining ratio may indicate the CU will be unable to meet its near term obligations. You should also consider the trend in this ratio and determine whether the current level of cash and short-term investments are representative of what management has historically maintained.

This ratio can change dramatically in a short period of time and, alone, is not an adequate indicator of liquidity adequacy. Further, short-term investments may be pledged as collateral for borrowing repurchase agreements. If so, such investments may not represent a source of liquidity.
\-- Cash + investments < 1 Year DIVIDED BY total assets

Cell: A13

Comment: If a CU sells a loan, or participates out an interest in a loan, with recourse, the CU is obliged to repurchase the loan under certain conditions (e.g., if the loan defaults or the CU is unable to adequately service the loan). If the CU must repurchase a loan, or pool of loans, it could result in impaired liquidity. A CU should have controls and procedures in place for monitoring the performance of collateral and determining its potential liability to other parties. CUs engaging in this practice merit further review (i.e., you will conduct a Part C review).

Cell: C16
Comment: Click on the appropriate tab below and conduct your review based on the questions provided. After you have completed all the questions, you are finished, unless you choose to expand the scope of review.

Cell: A18
Comment: At your option, you may expand the scope of review. Review the Supplemental Ratios and questions raised under Other Considerations in Part A--Additional Scope Considerations. You may also identify other reasons not explicitly addressed in this questionnaire.

When expanding the scope, you need only complete those questions/sections you deem necessary. For example, you may decide to expand your review of the CU's measurement systems. Therefore, you may choose to complete Part C's expanded questions in Step 3, Liquidity Measurement, in part or in its entirety. You need not complete all of Part C, or all questions in Section 3, Part C.

Cell: A22
Comment: The purpose of this ratio review is to allow you to determine the liquidity position of the CU from alternative points of view. Trend analysis may also indicate management's demonstrated ability or inability to manage liquidity risk. These additional ratios are provided to assist you in determining whether to expand the required scope of review.

The following thresholds are presented as benchmarks only. That is, if a CU's ratio exceeds a benchmark, it does not necessarily indicate there is liquidity risk—it only prompts you to investigate the issue further. These benchmarks are not to be used as the sole basis of assigning a CAMEL rating.

In some cases, a high threshold may not be indicative of risk because of other mitigating circumstances such as a CU adopting sound policies and practices and having a thorough understanding of its flow of funds and stability of funding sources. In other cases, a combination of ratios may indicate higher risk even though no individual ratio breaches the high threshold.

Cell: A24
Comment: The higher the ratio, the greater the likelihood the CU will need to obtain external funding sources. Generally, a ratio in excess of 100% is indicative of high liquidity risk; therefore you should determine how management is managing liquidity risk.

This ratio is similar to the loans to assets ratios, but focuses only on the ability of the CU to fund loans from member and non-member shares. It excludes funding from borrowings and capital. Thus, you must determine the CU's capital level and ability to manage borrowed funds to determine if a high loan to share ratio indicates a problem. Further, if the CU is relying upon short-term non-member shares, you must determine if the CU can maintain its loan volume in light of the higher volatility of these shares.

Total loans DIVIDED BY total shares

Cell: A25
Comment: This measure indicates the CU's ability to meet its potential commitments. These may include unfunded loan commitments or lines of credit, letters of credit, or loans sold with recourse. Credit card and share overdraft lines tend to have low utilization levels, while HELOC, construction loan, and other business loan commitments often have high utilization levels. Even if the CU has not guaranteed it will honor these commitments, the CU could jeopardize its member confidence if it did not fulfill its member demands. If the ratio is significantly high (>=200%), you may wish to expand your analysis and review the potential impact of contingent liabilities on liquidity.

Total unused commitments for member business loans + total unused commitments for all other loans (e.g., HELOC, credit card, LOC) + outstanding balance of loans sold or swapped with recourse DIVIDED BY total cash + non-security investments + FV of HTM investments + AFS investments + trading investments

Cell: A26
Comment: The lower the ratio, the greater likelihood the CU will have to use market alternatives (e.g., borrowing, repurchase agreements, non-member shares) to meet its cash needs. Generally, a ratio of less than 5 percent is indicative of high liquidity risk, and warrants further review.

Cash + non-security investments (<1Yr) + FV HTM investments + AFS investments + trading investments, LESS accounts payable + accrued dividends and interest payable + reverse repurchase agreements + subordinated debt (< 1 Yr) + notes payable (< 1 Yr), DIVIDED BY total liabilities (including shares)

Cell: A27
Comment: Money market shares, and short-term borrowed funds, certificates, and non-member deposits are more volatile sources of funds that are credit and interest rate risk sensitive. A low ratio indicates volatile liabilities can be liquidated without disrupting normal operations, whereas a high ratio (>=600%) may necessitate accessing alternative funding sources, especially if the CU cannot continue to pay attractive dividends. You should also consider whether the CU has longer-term borrowings, certificates, and non-member deposits that may behave more like short-term funds. Embedded options in the borrowings and early withdrawal penalties that are not unduly prohibitive may result in the funds being withdrawn from the CU prior to maturity (typically during periods of rapidly rising interest rates).

Money market shares + borrowings < 1 year + non-member deposits < 1 year + certificates < 1 year DIVIDED BY cash + total investments < 1 year

Cell: A28
Comment: If growth is rapid (e.g., >= 15%), you should determine how the CU is investing the funds. Investing volatile funds in long-term assets could lead to liquidity problems because volatile funds may be withdrawn prior to the maturity of assets.

This ratio does not consider regular shares or IRA shares as volatile liabilities because regular shares are generally required to maintain CU membership and because IRA shares are constrained by tax rules that may inhibit member sensitivity. However, in your analysis you may consider whether these accounts should be considered volatile (e.g., smaller CUs generally do not offer money market accounts, therefore regular shares could be priced more aggressively).

Volatile liabilities in current year less volatile liabilities in prior year DIVIDED BY current assets (annualized as necessary)

Volatile liabilities =Money market shares + borrowings < 1 year + non-member deposits < 1 year + certificates < 1 year

Cell: A29
Comment: Investments with significant unrealized losses (current market value losses of >= 3%) may deter a CU from selling them when liquidity pressures mount. Reduced values also require the CU having to pledge more securities as collateral if the CU engages in borrowing repurchase transactions. These factors could reduce the options available to the CU to meet cash demands.

Unrecognized losses on HTM securities plus unrealized losses on AFS securities DIVIDED BY HTM securities plus the book value of AFS securities (i.e., excluding market value adjustments)

Cell: A30
Comment: Increasing maturities or the lengthening of the portfolio can indicate reduced principal cash flows from loans. Consumer loans provide proportionately higher principal cash flow than long-term real estate loans. In general, increased long-term loans will reduce overall short term liquidity, especially if the loan portfolio is a significant portion of assets and/or is expanding. A result of >= 48 months is indicative of higher risk, warranting further attention.

Loans outstanding at end of prior year DIVIDED BY loans outstanding at end of prior year + loans granted during the current period – loans outstanding at end of current year (annualized)

Cell: A34

Comment: A change in the structure (e.g., maturity, concentration, type of asset or liability, optionality) can have significant impact on the flow of funds. As examples: (1) diverting funds from consumer loans to 30-year mortgages will likely result in reduced principal cash flows, (2) offering lines of credit creates uncertainty about the future outflow of funds, (3) divesting funds from Treasury securities and buying privately issued mortgage-backed securities will reduce the ability to sell or pledge the instruments at a favorable price, and (4) increasing dividends on short-term deposits (e.g., offering "bonus" rates on money markets or 3 month CDs) can increase the potential volatility of funding sources.

You should also look to rapid changes in shares, loans and investments (refer top the Key Ratios workpaper for growth trends) or significant concentrations in a particular type of asset or liability as potential liquidity signals. It is likely such shifts have resulted from management's decisions relating to the pricing or marketing of loans and/or shares (e.g., dividend "bonuses"), or could occur due to mergers. Aggressive pricing and marketing practices should be followed only after considering the liquidity impact.

Cell: A35

Comment: Prepayment and extension risk inhibit the CU's ability to project its cash flows. Thus, it complicates the CU's liquidity analysis and understanding of its future liquidity risk exposure. Prepayments arise from early amortizations of loans and mortgage-backed securities, as well as calls in investments during periods of falling interest rates. Extensions typically occur in mortgages and mortgage-backed securities as refinancing slows during periods of rising interest rates.

Cell: A36

Comment: By offering rates on shares that are considerably above market (e.g., greater than 100 basis points over the market rate for an equivalent product), the CU is likely attracting volatile funding. Relying on this source of funds to invest in longer term loans and investments (e.g., greater than one year maturity) can lead to future liquidity risk should the CU be unable to maintain its competitive rate advantage, or should its credit standing deteriorate. When determining the scope of the Liquidity Review, you should consider the CU's ability to continue paying above market dividends and the amount and proportion of shares in these high rate accounts. The cost of funds ratio can alert you to CUs paying high dividend rates, but may be skewed if the CU has significant borrowings, which are typically higher cost funds.

Cell: A37

Comment: Generally, these funding sources are considered somewhat volatile for the depositors or lenders are more attuned to market rates than other member shares. If these sources are short-term and used to meet daily cash needs, it indicates increased liquidity risks. Reliance on this strategy, instead of planning for liquidity needs, is effective only for short periods of time. If the CU continues to use volatile funds to address chronic liquidity shortfalls, the CU may develop significant impairment in the future.

Long-term borrowings paired off against like assets may be valid business strategies, but may reduce contingency liquidity options as the institution's real estate mortgage portfolio or securities are generally required for collateral.

Because borrowings may be paid off prior to the effective examination date, you should examine the Interest on Borrowed Money line item on the Income Statement. This should provide you a better picture as to the magnitude of borrowings and the length of time outstanding (e.g., if the amount is material to the CU's cost of funds, borrowings are most likely frequent and/or significant).

Cell: A38

Comment: A track record of meeting funding needs without borrowing or tapping other external sources is indicative of sound liquidity management (assuming the CU does not maintain excessive liquidity that drains profitability). For credit unions that had to tap external sources of funds or otherwise take action to meet liquidity shortfalls, you should inquire as to the nature of the shortfall, management's ability to identify it timely, and the ability to meet the cash needs in a cost-effective manner and with minimal disruption to normal business. If the liquidity shortfall was significant, the problem has not been resolved timely, and/or the proposed solution was not cost effective, it indicates the CU is not effectively managing and controlling liquidity risk.

Cell: A39
Comment: If the CU has replaced personnel it can lead to new approaches to risk management. Oftentimes changes may improve the CU's ability to manage risk. However, you should determine whether new personnel have the experience to manage risk at least as competently as before. Further, new executive positions can lead to new risk tolerances and ideas about risk management. You should determine if the CU's risk tolerance has been revised since the prior examination.

Cell: A40
Comment: These would include, but are not limited to, potential CU mergers, changes in local competition, sponsor closings or layoffs, possible sponsor or CU employee strikes, seasonal trends, national or local economic deterioration, etc. The CU should determine how these events, once known, could impact liquidity. Expanded liquidity analysis should be considered if these threats exist.

	A	C	E
3	**LIQUIDITY REVIEW QUESTIONNAIRE - PART B**		
4	**LIMITED SCOPE**		
5	This review is designed to be minimal. Because there is little evidence of liquidity risk, the scope will be narrow and focused on a general review of the liquidity program. If you need to expand your scope, in general or in parts, you may reference or complete Part C, including the optional questions, at your option. If you determine a credit union does not have the expected documentation (e.g., policies), or has not adopted recommended practices, you must determine if such a finding materially impairs the credit union's ability to manage liquidity risk presently or in the future. Material findings should be documented in the exam report with appropriate recommendations for corrective action. Less significant findings may be addressed informally (e.g., in meetings with key staff persons).		
6	**Liquidity Management**	**Yes/No**	**Comments**
7	1. Has the CU established a liquidity policy or plan?		
8	2. Has the CU established liquidity limits?		
9	3. Is the CU monitoring its liquidity position?		
10	4. Is the CU monitoring its contingent liabilities?		
11	5. Has the CU identified alternative sources of liquidity?		
12	6. Are there any recent trends or future events forecasted by the CU that may have a material impact on the balance sheet's liquidity structure (e.g., new loan, share, or investment strategies, merger, aggressive growth strategy)?		
13	Based on your answers above, develop appropriate corrective action with the CU officials as necessary. For additional resources in developing reasonable recommendations, utilize the questions and guidance found in **Part C** as well as the **Liquidity Risk Matrix**.		

Cell: A7
Comment: A separate liquidity policy need not be established, but minimum liquidity standards should be established. A credit union may incorporate its liquidity management practices into policies addressing such areas as ALM or investments. The policy should be tailored to the size and complexity of the CU. Smaller CUs with simple balance sheets may only need to set forth required minimum balances of short-term and overnight funds (e.g., corporate daily share accounts), identify alternative sources of liquidity (e.g., lines of credit), and/or establish limits in terms of simple ratios (e.g., loan to asset ratio). Large, more complex CUs should set limits in terms of ratios and projected net cash flows (cash inflows less cash outflows), prioritize alternative sources of funds, assign responsibilities for monitoring liquidity, and establish reporting requirements.

Cell: A8
Comment: Limits should alert the CU to conditions where liquidity pressures are likely to disrupt normal business. Limits will generally be expressed as a ratio (e.g., such as those identified in Part A), or as a required amount of funds on hand (e.g., greater than $X or X percent of assets will be on hand at the corporate overnight account). Alternatively, a credit union may conduct a liquidity gap analysis to project inflows and outflows of funds for the coming year. Thus, the credit union may set liquidity gap targets. A CU may establish ranges or multiple limits to convey an increasing concern over liquidity pressures. For example, a CU may set a loan to asset ratio at 75 percent to trigger formal reporting to the board on a monthly basis, and 80 percent to trigger development of an action plan. If limits have not been set, a CU board cannot determine if the current level of liquidity risk is acceptable.

Cell: A9
Comment: All CUs should monitor liquidity. For small credit unions with basic share and loan products, such analysis may be rudimentary (e.g., reviewing the loan to share ratio or amount of cash and short-term investments on hand). Larger, more complex CUs may analyze projected sources and uses of funds, evaluate liquidity alternatives, and determine expected liquidity under adverse economic conditions. These latter CUs would also be expected to document their analysis. The absence of any monitoring should result in an Examiner Finding. Some CUs may decide to maintain excessive overnight funds or short-term investments instead of actively monitoring liquidity. This practice will likely lead to depressed earnings and slower capital accumulation; therefore it should be discouraged.

Cell: A10
Comment: Contingent liabilities are those commitments that the CU is expected to fund, but has not recognized on the balance sheet. Most commonly, these commitments consist of unused lines of credit and credit card balances. Should members begin accessing these commitments when funding becomes limited, the CU could experience liquidity pressures. Failing to meet commitments can result in reputation risk and a loss of members.

Cell: A11
Comment: All CUs should establish at least one means for generating cash or funding liquidity needs outside of normal operations. Typically, a CU will establish a line of credit with its corporate CU or another lender (e.g., FHLB). Whatever the source, it should be accessible quickly and at a reasonable cost. The CU should also have demonstrated its ability to access the source. For example, if a CU has not sold loans before, it should not expect loan sales to be a primary source of liquidity.

Cell: A12
Comment: These events can trigger changes in the CU’s liquidity position. For example, a merger will result in the combination of two separate balance sheets, likely with different cash flow profiles. The officials must analyze the impact the combination will have on the CU’s exposure to liquidity risk.