Discussion Paper Cover Letter

March 2012

With the ever and increasingly changing world of financial services and the economy as a whole, it is becoming more difficult for credit unions to anticipate and mitigate the myriad of risks they face. The following paper can help credit unions identify challenges associated with protracted low interest rate environments and the impacts of changes, up or down, when they occur. This paper will be particularly helpful for credit unions' asset and liability management strategies. Ensuing discussions within credit unions should involve both management and directors.

If you have any feedback on the paper, please contact Russ Morrow at 780-426-8682 or rmorrow@cudgc.ab.ca.

Sincerely,
Walker Rogers
Executive Vice President
Credit Union Deposit Guarantee Corporation

DISCUSSION PAPER

March 2012

Implications of Changing Interest Rate Environments

Reference

Standards of Sound Business & Financial Practices, ERM Version

- Standard G-9 Oversee Risk Management
- Standard G-10 Oversee Liquidity and Funding Management
- Standard G-11 Oversee Capital Management
- Standard M-3 Credit Risk
- Standard M-4 Investment Risk
- Standard M-5 Interest Rate and Foreign Exchange Risk
- Standard M-7 Operational Risk
- Standard M-8 Liquidity and Funding Management
- Standard M-9 Capital Management

Introduction

This paper is a commentary and does not predict where interest rates are going. The intent is to assist boards and management in considering interest rate risks and in developing mitigation plans under an enterprise risk management framework. The scenarios outlined provide a starting point for a credit union's stress testing.

International economic turmoil in recent years has highlighted the risk associated with interest rates. Provincially, credit unions have experienced considerable challenges with margins and profitability due to the interest rate environment. Each credit union should seek to understand the impact interest rates will have on their organization. That understanding should inform governance oversight of interest risk to be managed and mitigated.

Changes in interest rates have considerable impact on many areas of a credit union's business, and so too on many areas of governance. It is key a credit union's Board and Management ensure controls are in place to oversee, manage and mitigate risk; from the overall enterprise risk management program to specifics around capital and liquidity, credit and investments, operations, and foreign exchange.

Oversight of interest rate risk lies with both board and management. This paper should be shared with a credit union's board of directors. Management should conduct stress testing and the board should expect a report on the results along with risk management plans.

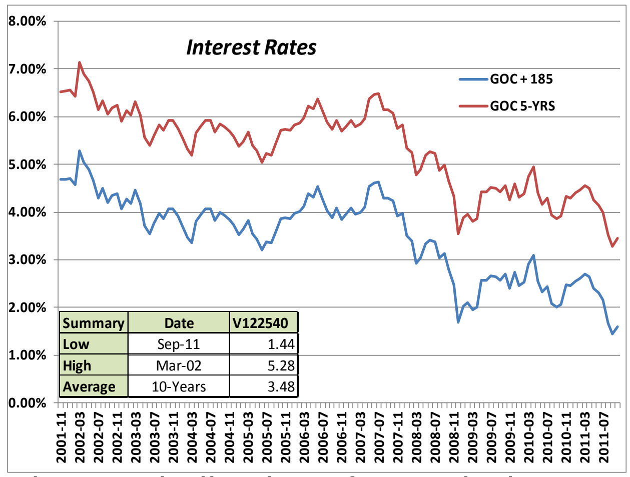
There are three sections in this guidance paper:

1. Credit commentary
2. General impact commentary
3. Appendices

Credit Commentary

This section will highlight some of the impacts of interest rates on portfolio and credit risk management.

Portfolio Risk Management



An extended period of low interest rates results in an increase in portfolio risk:

- Asset bubbles form, particularly in residential and commercial real estate, as low interest rates allow owners/investors to service larger loans and consequently support higher asset prices. There is an additional connection to commercial real estate where valuations are based on capitalization of Appraisal net operating income (EBITDA). Asset bubbles result in lower recoveries on loan realization, and therefore increased loan losses when values return to normal levels.
- Low interest rates for an extended period may result in excess liquidity, which can impact credit conditions through changes in supply and demand. Lenders who are inundated with surplus liquidity may lower their credit quality standards or relax loan terms, increasing the supply of loans available. Borrowers may increase loan demand with purchase or expansion decisions based on lower payments.
- In the short-term, arrears and the probability of default will appear below historical levels. However, in the medium-term this may lead to increased credit risk, when interest rates move back to 'normal' levels and the portfolios are loaded with riskier loans from the era of 'cheap' money. The Bank for International Settlements states that low interest rates delay the recognition of bad loans, creating vulnerability to increased loan losses. Increased due diligence is required to ensure risk appetites and risk tolerances are monitored and maintained. Special attention should be directed to arrears and default trends by product. Observable credit loss events, such as increased interest rates, unemployment, reduced GDP, etc., may result in increased

delinquencies or defaults, and those observable events should be incorporated into general loan loss allowance modeling.

- Lower interest rates naturally reduce the amount of cash flow required to support debt service. This may result in reliance on smaller amounts of disposable or surplus cash flow potentially increasing exposure to lower quality borrowers or funding of purchases at higher levels supporting over extension of debt obligations.

Products and industries to closely monitor due to their rate sensitivity include conventional mortgages, home equity lines of credit, commercial real estate, construction and hotels.

Credit Risk Management

Individual loan applications should be subject to increased due diligence, which should include careful review of security valuations, and stress testing interest rates and cash flow.

- Here is an example of impact on debt service capacity:
    - A commercial loan rate, based on Government of Canada 5-year bonds + 185 bps, has ranged from a high of 7.13% (March 2002) to a low of 3.48% (September 2011). The 10-year average rate is 5.33%;
    - If rates increased 1.85% from the current low at 3.48% to the 5-year average at 5.33%, debt service requirements, based on a 20-year amortization, would increase 17%;
    - A 1.25X debt service ratio would reduce to 1.07X;
    - Assuming cash flow does not change with increased interest rates, debt service would become negative at 6.10%.
- Large commercial projects are typically debt-financed and prone to end up in a "debt trap", where the cost of servicing debt becomes larger than available cash flow.
- Rates used to value commercial properties on capitalization of net operating income as well as comparable sales are also susceptible to interest rate changes. For example, the impact on a commercial property valued at $1,000,000 indicates a net operating income of $70,000 if capped at 7% would be as follows:
    - If interest rates lead to a 1% increase in the cap rate, to 8%, the value would fall 13% to $875,000. Loan to value would increase from 65% to 74%;
    - If interest rates lead to a 2% increase in the cap rate, to 9%, the value would fall 22% to $778,000. Loan to value would increase from 65% to 84%.

Credit risk may be understated in periods of low interest rates for commercial real estate, and hotels due to the material debt service and security value deterioration when rates return to normal levels. Stress testing articulates the risk. The Board should review and approve a risk limit.

General Impact Commentary

This section will highlight some of the impacts of interest rates on profit and yields, deposit costs, liquidity, capital and earnings. It will review the impact of stable, increasing, and decreasing rate environments.

Profitability and Loan Yields

Stable Rate Environment

Many pundits expected low interest rates to be a short-term phenomenon, yet we are now in the third full year of low interest rates, with rates likely to hold until the second half of 2013. These extreme low rates have lead to prolonged margin compression in the credit union system, and created a new normal. Credit unions may now have to reconsider certain aspects of their business model to ensure continued profitability and long term viability. Previously fixed operational aspects need to be reexamined by the board and senior management. A credit union may decide to close branches or limit services, limit or eliminate patronage or dividends or even increase rates or add service charges. The choice can be raising rates and losing deals or keeping them the same and losing money.

The sustained low rate environment has had a significant influence on consumer preferences on both the deposit and loan side and needs to be taken into account when creating interest rate risk models. The average duration of deposits has declined while the average duration of loans has increased. As loans renew, some members will lock in to long-term fixed products to take advantage of the low interest rate environment and others will look for short term variable rates and look to lock in as soon as rates look as though they might increase. When existing products are repriced at lower rates – whether short-term variable or long-term fixed - there is downward pressure on loan yields and ultimately profitability.

A long-term stable but low interest rate environment also brings another challenge: complacency. The asset liability mix, pricing strategies and liquidity of a credit union must be able to withstand any sudden changes in rates – up or down. Credit unions must be vigilant and prepared for rate changes even if they believe low rates are here to stay for a couple of years. Signing up conventional term loans just below a low rate curve will lock in low yields for many years to come.

Increasing Rate Environment

If rates increase, margins may begin to improve for the majority of credit unions as they are, for the most part, asset sensitive (e.g., variable rate assets exceed variable rate liabilities). It is also possible short, low cost deposits will extend term to the more expensive longer end of curve when rates rise but loans will be stuck at lower rates until renewed. This may more than offset lift from prime based assets even for credit unions that are asset sensitive. For those credit unions with a prime rate floor, margins will only begin to improve once the floor level is exceeded. In the short term, these credit unions could experience further margin compression if deposit rates need to be increased to ensure adequate liquidity levels are maintained.

If members believe rates will increase, they will quickly move from short-term and variable rate products to long-term products. As a result, a credit union could become liability sensitive and vulnerable to upward movements in rates. This may occur if the cost of deposits increases faster than an equivalent increase in interest income. Liability sensitive credit unions face declining income if their balance sheet is not adequately hedged.

Declining Rate Environment

If rates start to decline, credit unions without a prime rate floor and those who have not hedged successfully will likely experience some margin compression. They will earn lower incomes on variable rate products and the repricing of existing higher rate long-term products will also lower earnings over time. Members will be less willing to commit to long-term variable rate products, and will seek short-term variable or long-term fixed pricing. This could have a significant impact on the asset/liability mix of a credit union.

If a credit union is already struggling with profitability, further margin compression from a decline in prime will increase pressure to look for other sources of income and to reevaluate what might previously have been considered to be sacred parts of their business model. Hard and difficult cost cutting exercises or member service charges or rate increases could take place.

Chartered banks could oppose the Bank of Canada rate declines and maintain their lending rates which would put us in uncharted territory. Credit unions would have to make their own decisions regarding pricing if this were to occur, but must still prepare their business for declines in prime.

Deposit Costs

Stable Interest Rate Environment

In a stable rate environment we would see stability in the pricing of deposits and member behaviour will continue to focus on short-term maturities. The repricing of longer term deposits could impact profitability depending on what a credit union has on its books.

Challenge raising deposits to fund loans, issue with matching where all deposits go short in a sustained low and flat rate environment. Shape of the curve is an essential aspect to consider when looking at this risk – a low, flat curve is devastating for all financial institutions as sufficient profit can’t be realized even if you can fund deposits near zero.

Increasing Rate Environment

Deposit costs will be slow to rise however after a certain point increases will begin to mirror asset increases. Credit unions with higher levels of demand deposits will show increased profitability because their cost of funds will be lower than credit unions with lower levels of demand deposits. As rates increase, members will be more diligent in moving deposits from low return demand deposits to term deposits. As rates peak, members will move to long term products in anticipation of falling rates, and credit unions could become short term asset sensitive. Asset sensitive credit unions will be vulnerable to declining rates because as rates decline their cost of funds would be generally higher than their ability to earn on the interest sensitive assets.

Declining Interest Rate Environment

Deposit rates are likely as low as they can go. If rates move down, only assets can price lower. Therefore from a funding standpoint, we do not expect a change in the cost to obtain funds if rates were to decline. However as longer-term deposits reprice there could be a positive impact on profitability for some credit unions.

Investment Yield

Stable Rate Environment

In this scenario continued low yields on investments are expected. This may tempt some credit unions to look for non-traditional higher-reward but higher-risk investments. Credit unions must ensure they do not expose themselves to excessive risk by venturing beyond their core business and level of expertise.

Increasing Rate Environment

Investment yields will increase with rising rates, and as rates peak credit unions will need to evaluate their investment strategies, such as moving excess liquidity from low return investments to longer-term investments to lock in preferable rates. This practice can also hedge against declining rates, offering some protection against rate declines shortly after any increases but may add liquidity risk depending on the marketability of the securities they purchase.

Decreasing Rate Environment

We would see even lower returns on investments, although the room to decline is minimal in our current stable and low rate environment. However, if this were to occur there will likely be an even stronger motivation for some credit unions to look for higher return but higher risk investments. Care must be taken to ensure credit unions follow their approved investment policies to ensure the continued safety of their investments and profitability.

Liquidity - Loan and Deposit Growth

Stable Rate Environment

Due to previous poor economic conditions and low loan growth, banks and life insurance companies returned with a vengeance to the domestic market, particularly the growing Alberta marketplace and especially in the residential mortgage sector.

Sustained low loan growth, excess liquidity and weak profitability could motivate credit unions to add lower quality and higher yielding loans to their books. Also pressure on margins can create temptation to compromise on credit conditions rather than price. Care must be taken to ensure a credit union maintains its underwriting standards to ensure the safety and soundness of its loan portfolio.

After the 2008 financial crisis, with poor economic conditions and a volatile stock market persisting, there was a general “flight to safety” (and Alberta due to the 100% guarantee), and therefore higher deposit growth occurred. Counterbalancing this growth some members paid down their debts, decreasing deposits.

Increasing Rate Environment

Increasing rates indicate a strengthening economy and therefore we should see an improvement in loan demand in the short term. If deposits are required to fund this growth, there could be upward pressure on deposit pricing to meet this increased need for liquidity. At the same time as rates peak, members may move into longer-term term deposits. Credit unions would need to be diligent to ensure there is adequate deposit growth to maintain loan growth and pricing strategies are appropriate.

Decreasing Rate Environment

In a declining rate environment loan growth would be fairly stagnant. At the same time, poor economic conditions will promote a “flight to safety” and could lead to higher deposit growth. Those members who are able and willing could choose to pay down debts, which decreases deposit levels. Overall the net effect will likely be deposit growth outpacing loan growth.

Liquidity Adequacy

Stable Rate Environment

Global, especially European, liquidity issues may exacerbate liquidity risk. Some Alberta credit unions experienced minor liquidity issues which are easing due to low loan growth and stable deposit levels. If global markets issues escalated we could quickly be impacted, but, future crises, such as the continued deterioration in Europe, could exacerbate the stressed global system to which Alberta may not be as sheltered. Long-term issues could prevent some credit unions from pursuing alternate liquidity management tools such as securitization.

In addition, these sustained low rates increase funding risk because depositors have no incentive to commit to longer-term deposits.

Increasing Rate Environment

Credit unions with excess liquidity will benefit from increasing rates. Over the longer term if excess liquidity decreases, credit unions would need to maintain adequate funding mechanisms. Members may be reluctant to lock in to longer-terms deposits, impacting the cash outflow calculation or the liquidity coverage (short term liquidity) ratio and therefore requiring credit unions to hold a larger pool of quality liquidity assets.

Declining Rate Environment

It is especially difficult with declining rates to predict the impact on liquidity as we are in uncharted territory. Overall, declining rates point to a weakening economy, and we may experience a flight to safety, thereby increasing deposit levels. This could result in excess liquidity, which credit unions may have difficultly lending out. Global liquidity issues may have an unknown impact on local market conditions and alternative funding mechanisms such as asset sales and securitizations may not be available. As members move to longer-terms deposits this might reduce the impact on the cash outflow calculation on the liquidity coverage ratio and therefore require credit unions to hold a smaller pool of quality liquidity assets.

Capital and Earnings

Stable and Declining Rate Environment

The ability to grow capital through earnings is limited due to reduced profitability. At the same time, capital requirements based on legislation are not rising because of low asset growth. In this scenario, credit unions must keep an eye on future capital requirements when stronger economic times return. Limitations on patronage and current dividend policies may be prudent to ensure adequate capital is on hand to take advantage of opportunities that become available when the economy improves.

Increasing Rate Environment

While increased earnings make it easier to build capital, this usually does not occur rapidly. Therefore, increased loan growth from a strengthening economy would pressure a credit union’s capital requirements as the legislated amounts of required capital could increase at a pace faster than what a credit union’s capital can be replenished. Credit unions need to be diligent to ensure adequate capital is available if capital requirements from higher loan growth exceed capital growth.

Appendix A

Stable Environment - Credit

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
Delinquency	Arrears should be low as debt service capacity is stable.	No concern as long as interest rates remain stable or reduce, however debt capacity should be stressed to assess interest rate sensitivity.	Financing (cost/benefit) decisions may be made based on current interest rates with repricing risk not considered.	Key Risk (Performance) Indicators may provide false (positive) readings.
Impairment	Defaults should be low, caused by deteriorating cash flow, weak management or uncontrollable conditions (unemployment, recession, etc.).	Normal default conditions expected under continuing stable interest rates.	Member may be able to restructure or refinance.	Problem loans may be hidden in the portfolio as repayment ability is not stressed; General allowances may not be sufficient to mitigate increased losses when interest rates increase.

Stable Environment - Margin

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
General Info	Margin compression continues. May require changes in current business models to ensure profitability.	Normalized margin due to changes in pricing strategy. May require changes in long-term business models to ensure profitability.		Compressed margins may now be considered the "new norm" and a return to early 2000s levels may not be realistic. Stable rate environment may promote complacency. Whether rates increase or decrease, credit unions must be prepared (asset/liability mix, pricing strategies, and liquidity) for eventual movement.
Loan Yield	Continued movement to lower priced products as rates remain low and stable. Short-term variable rates likely to remain.	Stability in pricing. Less likely for consumers to commit to long-term variable rates. May look for short-term variable or long-term fixed pricing.	Members are looking more long-term than they did in the past. Mostly because they don't know when the end of stable low rates is going to be and they can get a long-term rate for a very small premium over a short-term rate.	Repricing of long-term products may impact profitability.
Deposit Cost	Demand deposit costs are likely as low as they can go.	Stability in pricing.	Member behaviour continues to focus on short-term maturities.	Repricing of long-term products may impact profitability.
Investment Yield	Continued low returns.	Continued low returns.		Propensity may exist for credit unions to look for higher return and higher risk investments.
Yield Curve				Current flat yield curve does not reward longer term investments. This may drive decisions to invest into higher risk investments to increase returns.

Stable Environment - Liquidity

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
Loan Growth	Tepid loan growth and excess liquidity may require credit unions to look to deploy excess liquidity to enhance return at a cost of higher risk products. Increased competition from the largest financial institutions especially in mortgage market.	Interest rate environment is an indication of less than ideal economic conditions. Poor economic conditions are driving low loan growth despite current rates. Increased competition from the largest financial institutions especially in mortgage market.	Continuing lower demand. Pockets of higher economic activity will drive loan growth. Systemically, not likely to have provincial impact. Increased competition from the largest financial institutions especially in mortgage market.	Lower demand and competition may lead to taking on increased risk to grow or maintain market share.
Deposit Growth	With poor economic conditions, increased "flight to safety" likely and therefore higher deposit growth may occur. Alternately, a propensity for members to pay down debt may decrease deposit levels.	With poor economic conditions, increased "flight to safety" likely and therefore higher deposit growth may occur. Alternately, a propensity for members to pay down debt may decrease deposit levels.	See impact columns.	See impact columns.
Adequacy	Global liquidity issues may have an unknown impact on local market conditions. Current local conditions may be easing due to low loan demand and flight to safety. However, the shortening of deposit terms increases funding risk.	Global liquidity issues may have an unknown impact on local market conditions. Current local conditions may be easing due to low loan demand and flight to safety. However, the shortening of deposit terms increases funding risk. Long term issues, may impact some credit unions' ability to engage in alternative liquidity management techniques.		Global liquidity issues may have an unknown impact on local market conditions. Current local conditions may be easing due to low loan demand and flight to safety. However, the shortening of deposit terms increases funding risk. Long term issues, may impact some credit unions' ability to engage in alternative liquidity management techniques.

Stable Environment - Capital

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
General Info	Ability to grow capital through earnings is limited due to reduced profitability. However, capital requirements are lessening due to minimal asset growth.	Ability to grow capital through earnings is limited due to reduced profitability. However, capital requirements are lessening due to minimal asset growth.		Credit unions must be cognizant of future capital requirements in a stronger economic environment. Limitations on patronage and/or current dividend policies may be prudent.
Earnings	Relative stability at low levels.	Relative stability at low levels.		See impact columns.

Appendix B

Increasing Environment - Credit

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
Delinquency	Delinquencies will increase, when interest rates increase, however with a material lag based on renewal dates and surplus cash flow levels; more resources dedicated to collection activity.	Arrears will tend to increase in relationship to the magnitude of upward interest rate movement and resulting stress on the borrower's repayment capacity. A higher percentage of delinquencies will migrate to default.	Members may avoid dealing with issues, avoiding communication; projects may stall or be cancelled.	Increased resources dedicated to collection; collection process should be independent, specialized and documented.
Impairment	Defaults will increase as higher delinquencies migrate to default; more resources dedicated to liquidation efforts; losses increase as more distressed security offered for sale,	Creates a cleansing, whereby weaker borrowers are identified and resolved; loan growth slows or even decreases.	Member loses control of business; may take steps to protect personal funds at risk; may become antagonistic.	Increased resources dedicated to collection; process should be independent, specialized, documented and reviewed at a senior level; increased loan losses; severance of member relationship

Increasing Environment - Margin

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
General Info	Margins will expand. However, CUs that have instituted a floor will not see an increase in margin until floor level exceeded and could in fact see a compression if deposit rates need to increase for competitive reasons.	If members perceive increasing rates early and move to fix debt to long term, credit unions could become liability sensitive and require hedging.	Likely see a move from short term debt term to long term debt very quickly.	Liability sensitive mismatches could occur, leaving credit unions vulnerable.
Loan Yield	Yield will increase from rising rates and the member movement to longer-term rates (movement along the yield curve).	Loans will reach a point where further increases will not improve yield as much due to member behaviour locking into fixed rate instruments.	Likely see a move from short term debt term to long term debt very quickly.	
Deposit Cost	Deposit costs will be slow to rise. However, at a certain level, increases will begin to mirror asset increases. Credit unions with high levels of demand deposits will show increasing profitability.	Deposit costs will be slow to rise. However, at a certain level, increases will begin to mirror asset increases. Credit unions with high levels of demand deposits will show increasing profitability.	As rates increase, members will be more diligent in moving deposits from low return demand deposits to terms (CU will see higher costs deposits). As rates peak, one will see deposits move to long term in anticipation of rates falling.	As rates peak and deposits are locked in long-term, the balance sheet will return to being asset sensitive.
Investment Yield	Yield will increase from rising rates.	Yield will increase from rising rates.		As rates peak, credit unions need to be diligent in moving excess liquidity from low return investments to longer terms to lock in preferable rates. This practice can also affect a hedge against declining loan rates.

Yield Curve	Yield curve will be positive and relatively pronounced (steep).	As rates peak, the curve will flatten and if rates have increased sufficiently, the yield curve may become inverse.		As rates peak, credit unions need to be diligent in moving excess liquidity from low return investments to longer terms to lock in preferable rates. This practice can also be an effect hedge against declining loan rates.

Increasing Environment - Liquidity

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
Loan Growth	Indication of an improving economy and should see substantial improvement in growth.	Variable and maturing fixed rate loans may cause stress on member's ability to pay. Higher rates likely to reduce demand.	See previous.	Loan growth can create pressures on capital. Higher rates can increase inability of members to maintain good payment histories and increase delinquency/impairment. Inflation can create asset bubbles and therefore diligence must be maintained on security lending.
Deposit Growth	Indication of an improving economy and should see substantial improvement in loan growth. If deposits are required to fund growth, pressures on deposit pricing may occur to ensure adequate growth.	Indication of an improving economy and should see substantial improvement in loan growth. If deposits are required to fund growth, pressures on deposit pricing may occur to ensure adequate growth.	As rates increase, members will be more diligent in moving deposits from low return demand deposits to terms (CU will see higher cost deposits). Growth will occur in different products than in other scenarios. As rates peak, one will see deposits move to long term in anticipation of rates falling.	Diligence will need to be maintained by credit unions to ensure adequate deposit growth is maintained to fund loan growth. Aggressive pricing may be required to ensure adequate funding is maintained.

Adequacy	Global liquidity issues may have an unknown impact on local market conditions. Credit unions with excess liquidity will have little concern with an increasing growth climate.	Global liquidity issues may have an unknown impact on local market conditions. Credit unions with excess liquidity will have little concern with an increasing growth climate. Over the longer term as excess liquidity reduces, credit unions will need to ensure adequate funding mechanisms are maintained.		Global liquidity issues may have an unknown impact on local market conditions and alternative funding mechanisms (asset sales, securitizations, etc.). Long term issues, may impact some credit unions' ability to engage in alternative liquidity management techniques. Member behaviour (moving to longer terms) on the deposit side may reduce the impact on the cash outflow calculation on the liquidity coverage ratio (LCR) and thus require the credit unions to hold a lower pool of quality liquid assets.

Increasing Environment - Capital

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
General Info	Capital requirements likely to increase with higher loan growth as economic activity increases.	Capital requirements will increase with higher loan growth as economic activity increases.		Credit unions must be cognizant of future capital requirements in a stronger economic environment. Attention will have to be paid to ensure adequate capital is available if capital requirements (from higher loan growth) exceed capital growth.
Earnings	Increasing.	Increasing.		

Appendix C

Declining Environment - Credit

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
Delinquency	Delinquency rates should decrease; lenders may be willing to take more risk; increased competition from lenders on rates, leverage and terms.	The lower rates descend, the more material the impact of future increases. I.e. at 4% interest a 1% increase could result in a 9% increase in payments; resources dedicated to collection follow-up; efforts move from revenue generation to loss mitigation.	Shopping for the best deal; member may become over extended/leveraged; may take on marginal deals. Surplus cash flow may be withdrawn from the company or diverted to other uses.	Repricing risk: renewal at higher rates may increase arrears; asset bubbles and cap rate valuations may create over lending situations; large projects subject to debt trap where debt servicing costs through construction increase to a level that cannot be supported by project cash flow.
Impairment	Loan defaults should decrease; loan loss percentages may fall, as recoveries improve in an easy money environment. Lenders become complacent with credit quality.	Bad loans are typically originated in periods of "cheap money" with defaults increasing once rates move to an upward trend.	Member may shop around with institutions anxious to lend excess liquidity, possibly at lower rates or with relaxed financing terms; members may overpay for assets as demand and security valuations increase, potentially forming asset bubbles.	Increased exposure to marginal borrowers; problem accounts may be hidden until rates increase; general allowance may be understated if not forward looking.

Declining Environment - Margin

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
General Info	Margin compression for credit unions that have not instituted a floor or have hedged successfully will worsen. May require changes in current business models to ensure profitability.	Greater dependence on other sources of income. Likely will require changes in long-term business models to ensure profitability.		Compressed margins may now be considered the "new norm" and a return to early 2000s levels may not be realistic. Credit unions will likely look for increasing return and therefore higher risk opportunities to support income.
Loan Yield	Continued movement to lower priced products as rates decline.	Less likely for consumers to commit to long-term variable rates. May look for short-term variable or long-term fixed pricing.	Member behaviour continues to focus on short-term maturities.	Repricing of long-term products may impact profitability. Banks may oppose the BOC rate declines and maintain lending rates.
Deposit Cost	Demand deposit costs are likely as low as they can go.	Stability in pricing.	Member behaviour continues to focus on short-term maturities.	Repricing of long-term products may impact profitability.
Investment Yield	Continued even lower returns from stable scenario although room to decline is minimal.	Continued even lower returns from stable scenario although room to decline is minimal.		Stronger propensity (desperation) will exist for credit unions to look for higher return and higher risk investments.
Yield Curve				Yield curve will steepen. Will reward longer term investments although long term rates will remain low. This may drive decisions to invest into higher risk investments to increase returns.

Declining Environment - Liquidity

<table>
<tr><th></th><th>Short Term Impact</th><th>Long Term Impact</th><th>Member Behaviour</th><th>Risks</th></tr>
<tr><td>Loan Growth</td><td>Tepid loan growth and excess liquidity may require credit unions to look to deploy excess liquidity to enhance return at a cost of higher risk products.

Increased competition from the largest financial institutions especially in mortgage market.</td><td>Interest rate environment is an indication of less than ideal economic conditions. Poor economic conditions are driving low loan growth despite current rates.

Increased competition from the largest financial institutions especially in mortgage market.</td><td>Continuing lower demand. Pockets of higher economic activity will drive sporatic and/or varying loan growth.

Increased competition from the largest financial institutions especially in mortgage market.</td><td rowspan="2">Until such time as deposit rates become meaningful or materially higher, the risk to the credit unions will be borrowers going long to take advantage of the low rates and the depositors will not want to lock in future potential increases.

This will cause an increasing asset mismatch which could impact margin as rates increase.</td></tr>
<tr><td>Deposit Growth</td><td>With poorer economic conditions, increased "flight to safety" likely (as previously witnessed) and therefore higher deposit growth may occur.
Alternately, a propensity for members to pay down debt may decrease deposit levels.</td><td>With poor economic conditions, increased "flight to safety" likely (as previously witnessed) and therefore higher deposit growth may occur.
Alternately, a propensity for members to pay down debt may decrease deposit levels.</td><td>As very little difference in long term vs short term deposit rates, it will be increasingly difficult for credit unions to attain a longer term deposit commitment.</td></tr>
</table>

Adequacy	Global liquidity issues may have an unknown impact on local market conditions. Current local conditions may be easing due to low loan demand and flight to safety. However, the shortening of deposit terms increases funding risk.	Global liquidity issues may have an unknown impact on local market conditions. Current local conditions may be easing due to low loan demand and flight to safety. However, the shortening of deposit terms increases funding risk. Long term issues, may impact some credit unions' ability to engage in alternative liquidity management techniques.		Global liquidity issues may have an unknown impact on local market conditions. Current local conditions may be easing due to low loan demand and flight to safety. However, the shortening of deposit terms increases funding risk. Long term issues, may impact some credit unions' ability to engage in alternative liquidity management techniques. Member behaviour on the deposit side may impact the cash outflow calculation on the liquidity coverage ratio (LCR) and thus require the credit unions to hold a high pool of quality liquid assets.

Declining Environment - Capital

	Short Term Impact	Long Term Impact	Member Behaviour	Risks
General Info	Ability to grow capital through earnings is limited due to reduced profitability. However, capital requirements are lessening due to minimal asset growth.	Ability to grow capital through earnings is limited due to reduced profitability. However, capital requirements are lessening due to minimal asset growth.		Credit unions must be cognizant of future capital requirements in a stronger economic environment. Limitations on patronage and/or current dividend policies may be prudent.
Earnings	Relative stability at low levels.	Relative stability at low levels.		