

Basics of Mortgage Lending for Credit Unions

An Executive Level White Paper

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of the Mortgage Insight Panel of
CMG Mortgage Insurance Company**

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A Joint Venture between PMI Mortgage Insurance Co. and
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Executive Summary

Mortgage lending is a valuable tool for credit unions. Homeownership and the attendant mortgage loan are often a member's most important asset and liability. If a credit union wants to be its members' preferred financial institution, the ability to offer mortgage loans is a critical component. Properly implemented, mortgage lending is a valuable service to members that can generate significant income for the credit union.

Mortgage lending income can be derived from a variety of sources. In addition to interest income from loans held in the portfolio, credit unions can earn money through service release premiums, float, servicing fees and origination fees.

This white paper discusses the value of mortgage lending to credit unions, the methods involved in setting up a successful mortgage lending operation, and the potential risks involved.

Credit unions can enter the mortgage lending arena in a number of ways. In addition to entering directly, they could form a mortgage CUSO with other credit unions to share the expense of necessary expertise, or enter through third-party originators. In any event, they will need to differentiate themselves from the competition that has been increasingly commoditized. Defining the market and customizing the delivery systems to focus on the member are vital to success.

Mortgage lending is not without risks. In addition to normal underwriting risks, regional cyclical risks, collateral risks and fraud all need to be considered. Risk managers also must be cognizant of prepayment, interest-rate and liquidity risk. All these risks must be managed with care.

Introduction

The purpose of this White Paper is to provide useful information that will enable credit union management to make an informed decision on whether to enter the mortgage lending arena or expand the horizons of an existing mortgage lending operation.

The Paper comprises the following sections:

1. Why Credit Unions Should Offer Real Estate Loans
2. Profits vs. Risks: Income Opportunities Presented by Mortgage Lending
3. Risk and Risk Mitigation in Mortgage Lending

SECTION ONE: Why Credit Unions Should Offer Mortgage Lending

There are many reasons a credit union should consider making mortgage financing options available to members. Credit unions have historic ties to communities and micro-communities. As a result, they enjoy a unique vantage point from which to identify specific mortgage lending needs and provide solutions in the form of loan products tailored to such markets.

In addition, mortgage lending:

- Supports the concept of the Preferred Financial Institution
- Provides convenience and hence increased value to members
- Improves member retention rates
- Encourages the growth of membership
- Facilitates cross-sale opportunities
- Diversifies the product portfolio
- Helps to generate potential income on multiple levels:
 - Servicing Released Premiums (SRPs)
 - Servicing fees
 - Origination fees
 - Float value
 - Servicing income

The Importance of the Preferred Financial Institution (PFI)

Mortgage lending gives credit unions a unique opportunity to reinforce member loyalty to the credit union by offering mortgages. A mortgage is usually the most expensive investment and emotionally fraught decision that a member will undertake during his or her lifetime. In making this financing available to members, credit unions almost automatically assume a larger role as a trusted financial advisor.

The result is that member households who have mortgage loans with their credit union:

- Typically possess higher total loan balances, while the credit union gains a higher share of those balances*
- Typically possess higher total deposit balances, while the credit union gains a higher share of those balances*
- Are more likely to be very satisfied with the credit union's service*
- Are more likely to consider the credit union to be their Preferred Financial Institution*

*Based on results of a Raddon Financial Group (RFG) study. ©2007 Open Solutions Inc. RFG is a business unit of Open Solutions Inc. All Rights Reserved/Confidential

SECTION TWO: PROFITS vs. RISKS *INCOME OPPORTUNITIES* ***PRESENTED BY MORTGAGE LENDING***

Introduction

Mortgage lending can generate significant sources of income for credit unions. The most important is servicing, which is required on almost every mortgage loan. Servicing may be managed at the individual credit union or on an aggregate level, leveraging the collective strength of multiple institutions, such as a Credit Union Service Organization (CUSO).

Generating income from servicing can be handled in several different ways, according to the credit union's needs, capacity and business philosophy. The financial implications of each approach need to be considered when deciding whether to offer mortgage lending.

Servicing Released Premiums (SRPs)

Under this scenario, a credit union sells the mortgage loan and the servicing rights (i.e., the right to collect the mortgage payments and pay taxes and insurance) to a third party that pays the credit union in the form of premium (income). Once the credit union sells the whole mortgage loan (the unpaid principal balance plus the servicing rights), the credit union is no longer involved in that member's mortgage process.

Premiums vary, depending on predetermined factors. Selling a loan "servicing released" could produce significant income for a credit union. However, this approach also presents certain drawbacks:

- The third party buying the servicing rights may reserve the option to sell those servicing rights to yet another servicer if necessary. This means your member might be making mortgage payments to an entirely different company, not the

original servicer. This kind of transaction could occur several times during the life of the loan, removing the credit union further and further from the mortgage process that involves its member.

- Moreover, once a credit union sells the servicing rights, the member is now open to cross-selling approaches by the new servicer – and other non-credit union entities. Although some servicers may agree not to cross-sell your members, their numbers are dwindling.
- Once a third party takes over the servicing rights, the credit union has no control over the quality of service that its member will receive for the life of that loan.
- If problems arise, the approach to problem resolution by non-credit union entities may differ considerably from that utilized by the credit union.

Servicing Rights Retained

Under this scenario, the credit union retains the servicing rights and manages the collection of a member's loan payments, paying taxes and insurance as well. The credit union may derive income from members by continuing to provide these payment collection services when they sell the loans into the secondary market. Additionally, if they service their mortgage loans more cost-effectively than outside providers, they can realize substantial savings for their credit union and possibly other credit unions.

A credit union must weigh the following factors before choosing this approach:

- Do you have the experienced personnel, electronic capabilities and facilities to support this effort?

- Can you identify a profitable (for your credit union) per-loan fee model? A credit union must ensure that its model is competitive with those of other credit unions and general sector service providers who perform the same tasks.

Mortgage CUSO

Still another approach is for the credit union to create or join a mortgage CUSO providing mortgage-related products and services to members and credit unions. These services can be very sophisticated, depending upon the expertise residing in the CUSO.

With this option, opportunities to generate income from mortgage lending vary. They may include:

- Origination fee (either a flat fee or a fee based on loan size) may be charged to each applicant at the time the application is taken
- Specific service charges (processing, underwriting, etc.)
- Mortgage servicing fees, as referenced above
- Loan aggregation/securitization fees (to finance the collection of mortgage loans from credit unions in order to create a mortgage-backed security, which may be sold as investments to other credit unions or private investors)
- Loan warehousing fees (to cover the expense of a temporary mortgage repository where loans can be held prior to final funding/disposition)

Third-Party Originations

Credit unions can also contract with an entity (for example, a CUSO or a private-sector company) to originate your credit union mortgages and option the disposition of each mortgage loan (for example, keep loan and servicing rights, sell loan and retain servicing rights, or sell the whole loan for SRP). *This may be one of the most cost-effective approaches to gain entry into the first-mortgage market.*

On the debit side, a credit union should keep in mind that with third-party originations, the following might apply:

- Income varies (dependent on loan type, size etc.)
- Mortgage products/programs may be limited; your vendor may not be able to offer viable alternatives for your members' first-mortgage needs
- Relationship marketing to members may be impaired
- Quality of service may not match your credit union's
- Possible loss of member-centric focus

Due diligence is extremely important in the selection of a third-party originator. Credit unions should ensure the vendor's business model fits with their business philosophy.

SECTION THREE: RISK AND RISK MITIGATION CONSIDERATIONS FOR MORTGAGE LENDING

Introduction

Credit unions will need to differentiate themselves from the competition and at the same time economically justify their mortgage lending operations. Technology, marketing and training will be the key tools that deliver the speed and service to set a credit union apart. Credit unions need to take the following steps:

- Define the target market and its needs

- Define the necessary mortgage delivery system

- Make the necessary investments in mortgage lending technology and training before starting the program

- Manage the implementation and execution of the investment

In formulating their mortgage lending plans, credit unions need to think creatively and to use a broad risk management perspective. Specific risks that need to be monitored, measured, and managed must be identified and degrees of significance attached to each.

For mortgage lending to be profitable, a credit union must deal with two competing pricing issues. On the one hand, mortgages need to be priced competitively and, on the other, they must be priced appropriately:

- **Credit unions must have access to mortgage products** at attractive rates in sufficient quantities to meet your membership's needs...

- **...and credit unions must originate mortgages that yield high risk-adjusted returns.**

Among the risks that need to be appropriately priced are duration risk, prepayment option risk, credit risk, etc. The following section outlines an overview of risk management considerations.

RISK MANAGEMENT CONSIDERATIONS

Mortgage Default Risk

There are four broad categories of mortgage default risk that need to be considered in the formulation and implementation of underwriting policies. Credit unions should realize that with an aggressive risk management program incorporated into underwriting policies, mortgage defaults will decrease, mortgage profitability will increase and member satisfaction will be enhanced.

1. **Normal risks** – Traditional methods of underwriting address so-called “normal” risks. This risk group is a relatively small percentage of mortgage loans that become delinquent because of individual borrower circumstances.
2. **Cyclical risks** – As a result of short-term adverse economic conditions, foreclosures may occur in a specific region or nationally.
3. **Catastrophic risks** – A severe and extended drop in property values caused by economic depression regionally or nationwide, resulting in widespread mortgage foreclosures.

4. **Fraud** – Deliberate misrepresentation of credit or property information necessary to conduct prudent underwriting. The risk of fraud is persistent and the need for protection against fraud is ongoing.

Underwriting policies and procedures traditionally address normal risk and, to a certain extent, fraud risk. However, the scope of “risk management” today has been expanded beyond underwriting to include cyclical and catastrophic risks, requiring some of the following tools:

- Individual loan underwriting and underwriting policy development
- Condominium project approval
- Lender evaluation, approval and performance tracking
 - Quality control
 - Credit review
- Appraisal review
- Risk-based pricing
- Loss management
- Management of risk

Establishing an appropriate balance among the various risk management tools is undoubtedly as important as performing each individual function.

Business Risk

Credit unions consistently face the business risk associated with lending. This White Paper reviews four major sources of business risk specifically related to mortgage lending:

- Credit risk
- Prepayment risk

- Interest-rate risk from mismatched maturities of assets and liabilities
- Liquidity risk

Credit Risk

Credit risk is a fact of life for real estate lending. Members can and do default on mortgages. However, the industry has developed underwriting criteria to effectively manage credit risk through guidelines, implemented automated underwriting systems that apply cutting-edge statistical and data analysis techniques to complex data, introduced “best practices” to the management of high loan-to-value mortgages and adopted the use of mortgage insurance.

Even though default rates on mortgages in the United States have historically been low—at times less than 1% for prime loans—recent market events serve to indicate that credit problems can vary significantly by region and loan type. Lenders of subprime loans, for example, have been especially hard hit, leading RealtyTrac to forecast a 65% increase in foreclosures for 2007. One state, Nevada, is experiencing one foreclosure for every 40 households.

Given that house prices do sometimes decline in particular markets, it is possible that even a geographically diversified portfolio of mortgages could suffer significant losses. Therefore, to determine the amount of capital a credit union needs to hold in reserve requires an analysis of risks and likely losses given foreclosure rates in your housing markets. Credit risk can never be ignored and predicted portfolio expectations should be compared to actual results on an ongoing basis.

Prepayment Risk

Prepayment risk and interest-rate risk tend to operate in unison during periods of decreasing interest rates. Fixed-rate mortgages are most vulnerable to the effects of both prepayment and interest-rate risk, while the shared-risk nature of adjustable-rate mortgages can provide some insulation against the impact of changes in interest rates.

Most first-mortgage loans and all loans offered through Fannie Mae and Freddie Mac carry no prepayment penalties, and are therefore subject to prepayment risk. In other words, these fixed-rate mortgages carry an implied “call” option. In the event that interest rates decline during the life of the mortgage, the homeowner can exercise the option to refinance the mortgage, effectively “calling” the outstanding high-interest-rate mortgage and replacing it with a new loan obligation at a lower interest rate. Historically, the exercise of this option was constrained by relatively high transaction costs. In recent years, however, transaction costs have decreased considerably, so that the call option in the typical fixed-rate mortgage instrument becomes possible with relatively small declines in mortgage rates. Such refinancing activity has been substantial in recent years.

When a credit union sells mortgages to Fannie Mae and Freddie Mac, these agencies assume the credit and prepayment risks of those mortgages.

Interest-Rate Risk

Interest-rate risk, related to prepayment risk, arises primarily from the long-term, fixed-rate, and freely prepayable mortgages that are the mainstay of the American home mortgage market and underpin the vast majority of mortgage portfolios. To put it another way, prepayment and interest-rate risk are created when the characteristics of mortgage liabilities are not matched to the characteristics of the mortgage assets.

The following table looks at interest-rate adjustments from a starting interest rate of 6% for a 30-year, fixed-rate, freely prepayable mortgage when interest rates change unexpectedly.

Losses From Interest Rate and Prepayment Risk

7% Interest Rate, 30-Year Term, Pre-payable Mortgage

Initial Mortgage at 7% Interest Rate

Mortgage Value	100.0
Funding Value	100.0

Interest Rates Increase By 2% (Interest Rate at 9%)

Credit Union has a market loss from interest rate risk.

Mortgage Value	82.7
Funding Value	100.0
<i>Net Value Change</i>	<i>-17.3%</i>

Interest Rates Decrease By 2% (Interest Rate at 5%)

Credit Union is matched but mortgage prepays (refinances).

Mortgage Value	100.0
Funding Value	124.0
<i>Net Value Change</i>	<i>-24.0%</i>

The table demonstrates the dangerous potential that exists in any portfolio that is invested primarily in fixed-rate, long-term, freely prepayable mortgages.

Notice that when the interest rate rises by 2%, the mortgage value will fall to 82.7, while the funding value is unchanged. This interest change of 2% produced a 17.3% loss.

Alternatively, if market interest rates fall by 2%, although the credit union is matched at a funding value of 124, the loan will prepay at 100 at a loss of 25.6%, which demonstrates

the loss potential for a maturity-matched credit union under pressure from prepayment risk.

In a perfect world, a credit union's liabilities would match its long-term mortgages. This strategy would allow the cash inflow from the asset (the mortgage) to exactly match the cash outflow required to service the liabilities (usually the deposits). With this type of strategy, interest rate and prepayment risk are perfectly hedged.

In the real world there are other, less perfect, hedging strategies available. Basically, they use interest rate swaps to partially control interest rate risk and option-based derivatives, to hedge prepayment risk. The complexities of hedging are beyond the scope of this paper. While these solutions may work for losses from small or moderate, near-term, interest-rate changes, they can also generate losses well beyond a credit union's capital position.

Liquidity Risk

Credit unions "borrow short and lend long." This results in three obvious risks – credit risk on the lending, long-term interest-rate risk (discussed above) and **liquidity risk** from the mismatch between the term structure of the assets and liabilities.

A conventional analysis of liquidity risk distinguishes between funding liquidity risk and market liquidity risk.

- **Funding liquidity risk** is the risk that depositors who provide short-term funding to the credit union will withdraw or not roll over that funding. In other words, as depositors withdraw their funds from the credit union.

- **Market liquidity risk** is the risk of a generalized disruption in asset markets that would make normally liquid assets illiquid.

There are three broad approaches to managing liquidity risk.

- *The stock approach* - The credit union maintains a sufficient amount of liquid assets to deal with crisis events.
- *The cash flow* - The firm attempts to match outflows and inflows by using contractual cash flows or adjusting cash flows based on the behavior of the markets.
- *The mixed approach* - This approach combines elements of the cash flow.
- *Matching approach and the stock approach* - Adjusted cash flows are projected as under the cash flow matching approach, except that it is assumed that the stock of liquid assets are not merely held to maturity but are used to generate cash inflows – either through their sale, through repossession or other secured lending transactions.

Managing Risk via the Secondary Market

While the number and range of risks involved in mortgage lending can seem ominous, many of the risks mentioned here can be mitigated – and even eliminated – by selling newly originated loans into the secondary market.¹ There are numerous investors, including the GSEs and various conduits and wholesale lenders, who stand ready to purchase mortgage loans. In addition, several vendors provide a broad range of services to assist credit unions in developing mortgage product lines to service members. Some of the resources and services available are:

¹ Although the selling of mortgage loans into the secondary market is one way to reduce exposure to interest rate, prepayment and other risks associated with mortgage lending, this should not be construed as a riskless transaction. For example, a purchaser may not be able to perform as agreed or refuse to purchase loans due to underwriting errors.

- Shared infrastructure, including expert staff, Web-based loan origination systems and other applications and reporting tools
- Complete product lines for conventional, jumbo and various niche loan programs
- Assistance in hedging pipeline interest rate risk
- Options to retain or sell servicing
- Sales and marketing support

In short, various options exist to help first-time loan originators to comfortably enter the mortgage business and negotiate what might initially appear to be precarious terrain.

SUMMARY

More could be said about these risks and more risks could be added, such as operational and political risks. However, the purpose of this document has been to give credit unions a basic introduction to the potential benefits and risks typically faced by mortgage lenders.

Nationally, credit unions hold only approximately 2% of their members' mortgages. The CU Housing Council has set 10% as a realistic goal. Given credit unions' unique affinity with their members, this seems achievable. Credit unions have expanded their portfolios dramatically over the past five years. By committing more resources to mortgage lending, credit unions can not only become their members' preferred financial institution, but can also provide an additional, profitable service to members.

Credits

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