Ginnie Mae
Our Guaranty Matters

Transcript
Servicing

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1. Introduction

1.1 Title Screen

1.2 Course Purpose

Welcome to Servicing!

The purpose of this training is to train Ginnie Mae employees, mortgage-backed securities analysts, and counterparty risk management analysts on counterparty risk management with an emphasis on Servicing Economics and Mortgage Servicing Rights.

Learning Objectives

Learning Objectives:

- Identify the essential activities involved in mortgage servicing
- Analyze how mortgage servicing activities affect the economics of the business
- Identify what mortgage servicing rights (MSRs) are
- Identify the risks MSRs pose to Ginnie Mae counterparties
- Describe how MSRs are valued

1.3 Navigation Tutorial

[The navigational tutorial is applicable to the on-line training only.]

2. Servicing Economics

2.1 Servicing Overview

The Loan Servicing Model depicts the processes used to manage mortgages over their life from Mortgage Servicing Rights (MSRs) on the left through Servicing Operations on the right. As the model outlines, regulatory compliance informs the servicing guidelines in the servicing pipeline. In that process, the purchase and sale of assets have transfers of servicing that occur at times.

In addition, you have the operational design components that adhere to the servicing guidelines. This entails ensuring that the physical plant and all the systems that go into loan servicing practices are operational from the beginning to the end of performing loans and non-performing loans.

Borrowers send monthly payments of principal, interest, taxes, and insurance (PITI) to investors, insurance companies, and taxing authorities based on prescribed timelines and procedures. If you think about the enormous nature of the business, servicing is an economy of scale business that has grown to a level of significant concentration. Let's examine how the mortgage servicing process works.

2.2 Mortgage Servicing at a Glance

After the loan origination process is complete, the loan must be serviced until it is terminated through payment in full or foreclosure.

Servicing is inherent in all mortgage loans, but the right to service a mortgage becomes a distinct asset – an MSR – when contractually separated from the loan as the loan is sold or securitized.

Originators can service mortgage loans that they originate or purchase, or they can sell the mortgage loans but retain the MSR.

Servicers other than the Originator may also purchase MSR on securitized loans or may be hired to subservice loans for others.

2.3 Mortgage Loan Servicing Functions

Servicers perform various loan management functions, including the following. They collect payments from the Borrower until the mortgage debt is satisfied or terminated. They send Borrowers monthly account statements and tax documents. Servicers respond to customer service inquiries. They maintain escrow accounts for property taxes and hazard insurance. Lastly, they forward monthly mortgage payments to the loan owners.

In the event that Borrowers become delinquent on their loan payments, Servicers may also initiate a range of actions, from offering a workout option to allow the Borrower to stay in the home or the Servicer can initiate foreclosure proceedings. In most instances, the MSR is revocable by the owner in the case of the GSEs or the guarantor, Ginnie Mae for their MBS, who may terminate the right to service for cause or without cause.

2.4 Mortgage Servicing Diagram

Starting at the top left of the Mortgage Servicing Diagram is In-House Mortgage Servicing where financial institutions may service mortgages that they hold in their portfolios. Connected to this institution, the Borrowers receive account statements and send payments to In-House Servicers, who own the mortgage and receive payments.

Note, however, that some Borrowers may have mortgages that perform poorly, wherein the loans are not paid on time and may go into default and be foreclosed. Repayment plans, forbearance plans, and loan modifications can help some borrowers avoid foreclosure.

In the first case, the Mortgage Termination may occur due to this poor performance, in which case the In-House Servicers terminate the mortgage. The other option that may result from poor mortgage performance is mortgage specialty servicing arranged by the owner of the mortgage. In this case, the mortgage may go to the In-House Mortgage Servicing institution that holds the loan in their portfolio and specializes in delinquent loan servicing.

Alternatively, the mortgage owner may send the mortgage to an Independent Mortgage Servicing institution. These third-party Servicers, which are often a large bank or nonbank, service mortgages for mortgage trusts or Lenders. If this route is taken, Borrowers still send payments to Servicers and receive account statements.

In turn, Payments Less the Servicer Compensation are passed to Mortgage Trustees, and Mortgage Trustees pass on payments and interest to Investors in the secondary market.

Servicing Retained vs. Released

Over the years there has been a huge consolidation of servicing because it is such an economy of scale business. The more loans you can service through the pipeline, the lower your average cost of servicing.

There has been an enormous consolidation into nonbank servicing. Approximately 90% of the activity that's going on in the market today on the origination side is by nonbanks. Additionally, many institutions that had retained their servicing in their own portfolio no longer find that to be a financially attractive alternative. They shifted that servicing to another company.

Banks and other financial companies may use nonbank Servicers to service mortgages they originate or own. Some nonbank Servicers may also use nonbank Subservicers, which are third-party Servicers that have no fiduciary ties to or investment in the loans they service.

As the servicing scale has increased, some smaller originators have opted for a servicing retained execution when selling their loans as opposed to servicing released where another company services the loans.

2.5 Performing Loan Activities

Performing loan activities include statement payment processing and cash management. They also include Investor reporting if these loans are sold in mortgage-backed securities (MBS), as well as escrow administration such as hazard insurance policies or flood insurance, or for taxing authorities. Activities include customer service and payoffs in the case of a loan maturing or when a Borrower pays off their mortgage early or when the loan is no longer in the pool.

2.6 Non-Performing Loan Activities

The nonperforming loan activities are where costs can really start to add up for Servicers. To avoid the progression from collections to real estate owned (REO) units brought in at foreclosure, the bank or nonbank works to assist delinquent customers by determining a set of workable options for the Borrower’s situation when payments are unable to be made. The goal is to help customers get back on track with their payments. Loans are deemed in default when payment is not received on or before the due date.

2.7 Default Management Strategies

When we talk about default management strategies, we think about retention, liquidation, or as a last resort, foreclosure.

The retention strategy looks to employ modification programs to lower the rate the Borrower is paying. For example, let's say the Borrower has a 5% note rate. If the institution reduces that rate to 4% and extends the term from 30 years to 35 or 40 years, it will significantly reduce the interest rate and the Borrower’s payments will decrease. Another path for Borrower retention is forbearance if the Borrower is unemployed. This happened during the COVID pandemic, so the institution worked with the Borrowers to get them on track in a paying position in some capacity until they could get back on their feet.

The liquidation strategy would be the next step if retention doesn’t work. In this case, given certain conditions, the Borrower may be allowed to enter a short sale or a deed-in-lieu. Either option would have less damage to the Borrower’s credit score than a foreclosure. A short sale is the difference between the mortgage balance and the sale price. A deed-in-lieu is an arrangement where the Borrower voluntarily turns over ownership of the home to the Lender to avoid the foreclosure. In a deed-in-lieu of foreclosure, it's the difference between the mortgage balance and the market value of the home.

The foreclosure strategy is a last resort when the other strategies don’t work.

2.8 Default Management

Active delinquency and default management strategies can effectively reduce losses to Investors if conducted properly. Many Servicers employ the use of technology, such as adaptive control techniques to apply different treatments to loans at various stages of delinquency.

At the same time, if default and collections activities are performed poorly, they lead not only to higher credit losses but also potential reputation, legal, and regulatory costs.

Workout Options

Payoff: When a customer pays off the loan, they pay back the entire amount they borrowed, as well as any outstanding interest and fees. This option completes the mortgage contract, and the lender no longer holds an interest in the property.

Pre-Foreclosure Reinstatement: To reinstate, a customer must pay back the entire amount of their delinquency. For customers wanting to reinstate before they enter the foreclosure process, the minimum amount necessary to reinstate the loan includes the total of all past due payments.

Promise-to-Pay: A Promise-to-Pay is an informal arrangement between customers and Default Specialists to accept a payment or payments at a future date.

Repayment Plan: A repayment plan allows customers to reinstate the loan over a specified length of time. Generally, a portion of the delinquent amount is added to the regular payment each month until the delinquency is resolved.

Alternatives

Foreclosure Reinstatement: Customers interested in reinstating after the foreclosure process has begun must include the amounts of all past due payments, all fees (including late charges), all attorney fees/costs, and any expenses paid on the customer's behalf (Corporate Advances).

Forbearance: Forbearance is the act of refraining from taking legal action even though the mortgage is in arrears.

Modification: A modification is a workout program for customers unable to make the regular monthly payments due to a permanent hardship but are able to pay a reduced amount.

Short Sale: A short sale may be available when a customer is unable to continue the financial obligation to the note, and the value of the property is not sufficient to pay off the loan in full.

Deed-in-Lieu: A deed-in-lieu allows the customer to voluntarily surrender the property back to the lien holder to satisfy the debt and avoid foreclosure.

Redemption: Some states allow a redemption period after a foreclosure sale. During this period, customers may retain their property if they can pay the full amount of the loan. In some states, customers may even have the opportunity to complete a short sale during the redemption period.

2.9 Servicing Vulnerabilities

During good economic periods, default management activities subside. This can put increasing pressure on Servicers to lay off experienced collections staff. BEWARE! Laying off knowledgeable staff in very rosy economic environments can mean that ramping up in difficult economic times is harder because you do not have the right resources, at the right time, with the right level of experience to come in and do that work.

The cyclical nature of mortgage banking creates an ebb and flow of servicing resources. During refi booms, resources can become severely pressured to cut corners on servicing activities. During high default periods, Servicers may find their ability to perform severely handicapped. During the 2008 mortgage crisis, many Servicers performed poorly along multiple dimensions, which negatively affected Borrowers struggling to stay in their homes.

2.10 Revenue and Cost Components of Servicing

Servicing revenues are comprised of fees, escrow float income, P&I payoff float income, other ancillary income, late fees, and modifying the loan, which can add a little fee.

On the cost side, it's all the General and Administrative (G&A) costs on both the performing and nonperforming loans. Remember, Servicers for the nonperforming loans are going to have to advance from their own funds P&I payments on delinquent loans, as well as interest owed on escrow accounts and early payoffs. So, there are costs to balance out against these revenues.

Servicing Fee Comparisons

Servicing fees for the typical GSE are a minimum of 25 basis points (bps) of unpaid principal balance (UPB). However, for Ginnie Mae, it’s a minimum of 19 bps and can range up to 69 bps.

Why would you go with Ginnie Mae if it pays less? In a good economic period (i.e., low default, strong market), you can generate a good amount of gain-on-sale income with a Ginnie Mae MBS versus a GSE-eligible institution.

The flip side of that, however, goes back to the cyclical nature of the market. A Ginnie Mae servicing contract requires Servicers to advance delinquent payments to Investors for the life of the loan, regardless of whether that Servicer will recover those payments. So, there's a risk/reward tradeoff that the company must make.

2.11 Knowledge Check 1

Identify whether each statement is a Performing Loan Activity or Nonperforming Loan Activity. Select Submit when you are finished.

Statement	Performing Loan Activity	Nonperforming Loan Activity
Payment Processing & Cash Management	✓	
Customer Outreach/Collections		✓
Investor Reporting	✓	
Loss Mitigation		✓
Escrow Administration	✓	
Foreclosure		✓

2.12 Knowledge Check 2

Which of the following mortgage servicing activities affect the economics of the business?

A. Statement Payment Processing
B. Retention (e.g., modification programs for rate and term or principal reductions; unemployment forbearance policies)
C. Liquidation (e.g., short sale or deed-in-lieu)
D. Foreclosure

Feedback:

The following mortgage servicing activities affect the economics of the business:

- Retention (e.g., modification programs for rate and term or principal reductions; unemployment forbearance policies)
- Liquidation (e.g., short sale or deed-in-lieu)
- Foreclosure

3. Mortgage Servicing Rights

3.1 Mortgage Servicing Rights Overview

Mortgage Servicing Rights (MSRs) refer to a contractual agreement in which the right to service an existing mortgage is sold by the original mortgage Lender to another party (i.e., the Servicer).

The Servicer takes over the administration of the mortgage, performing such tasks as collecting payments and forwarding them to the investor and insuring entity.

The Servicer earns a fee from the original Lender for performing loan servicing activities in this contractual arrangement. Nothing changes for the Mortgagor/Borrower except the address to which payments are sent.

Top 30 Holders of Ginnie Mae MSRs by UPB

This table shows the 30 largest owners of mortgage servicing rights (MSR) by unpaid principal balance (UPB) for Ginnie Mae securitizations. As of May 2020, over half (52.5 percent) of the Ginnie Mae MSRs are owned by the top six firms. The top 30 firms collectively own 85.4 percent. Eighteen of these 30 are non-depositories, the remaining 12 are depository institutions.

Rank	MSR Holder	UPB ($ millions)	Share	Cumulative Share
1	Lakeview	$211,874	12.5%	12.5%
2	Wells Fargo	$209,247	12.3%	24.8%
3	PennyMac	$188,862	11.1%	36.0%
4	Freedom Home Mortgage	$122,818	7.2%	43.2%
5	Nationstar	$97,684	5.4%	48.6%
6	Quicken Loans	$65,442	3.9%	52.5%
7	US Bank	$56,979	3.4%	55.9%
8	Carrington Mortgage	$51,922	3.1%	58.9%
9	Newrez	$47,044	2.8%	61.7%
10	USAA Federal Savings Bank	$39,106	2.3%	64.0%
11	Truist Bank	$34,059	2.0%	66.0%
12	Caliber Home Loans	$32,086	1.9%	67.9%
13	Navy Federal Credit Union	$29,141	1.7%	69.6%
14	Amerihome Mortgage	$26,552	1.6%	71.2%

15	The Money Source	$21,322	1.3%	72.4%
16	JP Morgan Chase	$20,682	1.2%	73.7%
17	Home Point Financial Corporation	$19,762	1.2%	74.8%
18	Midfirst Bank	$19,484	1.1%	76.0%
19	M&T Bank	$17,381	1.0%	77.0%
20	Roundpoint	$16,904	1.0%	78.0%
21	Loan Depot	$16,219	1.0%	78.9%
22	Guild Mortgage	$16,069	0.9%	79.9%
23	PHH Mortgage	$14,155	0.8%	80.7%
24	Citizens Bank	$13,558	0.8%	81.5%
25	Flagstar Bank	$12,070	0.7%	82.2%
26	Pingora	$11,669	0.7%	82.9%
27	Planet Home Lending	$11,583	0.7%	83.6%
28	Fifth Third Bank	$10,160	0.6%	84.2%
29	Bank of America	$10,059	0.6%	84.8%
30	New American	$9,932	0.6%	85.4%

3.2 MSR Process

The Borrower makes a monthly payment to their Servicer. The Servicer receives their servicing fee. Let’s say in our example, it is $1.00. They will also receive float income on principal, interest, and prepayments. Tax and insurance float and any kind of ancillary income (e.g., late modification fees) are collected by the Servicer.

Then the Servicer pays the Investor the principal and interest. It pays the taxes to the government, and it pays the insurance proceeds for the hazard insurance or the flood insurance to the insurance companies.

So, what is this MSR asset? The asset really comes down to the discounted cash flows of these activities. That is the revenues that they receive, the servicing fees, and all other fee and float income components, net the costs associated with having to advance on delinquent payments or managing on the back side all of the Borrowers that they have in the servicing portfolio.

So, it winds up, particularly for the nonbanks, MSRs are the biggest asset that they have on their balance sheet.

3.3 Common Approaches to MSR Valuation

MSR valuation can be extremely complicated, and generally the mortgage industry relies on expert third-party service providers such as Phoenix Capital, MIAC, or others for this modeling.

There are generally three types of MSR valuations: fair value, market value, and economic value. Each valuation type draws from a different set of assumptions to gain a certain perspective on the MSR asset. A fair value approach is typically used for marking the asset in accounting reports and public filings. A market valuation is used to determine the possible outcomes of an MSR sale in the secondary market. An economic valuation determines the intrinsic value of the MSR asset for a certain institution, and that value can inform a variety of strategic decisions and accounting approaches, including loan capitalization.

The three valuation types are not exclusive; however, and it is not uncommon that an institution would evaluate their assets using all three types. In fact, certain strategic decisions are best informed by comparing the results from each valuation on the same portfolio at the same point in time. The following section further explains these three valuation types.

3.4 Fair Value

The fair value approach is a mark-to-market exercise for the MSR asset. This analysis is the most common type performed to establish the MSR value at a specific point in time. Foundationally, the MSR modeler relies on market activity to substantiate and formulate assumptions. However, in periods with reduced MSR liquidity and/or market disruption the market has accepted the incorporation of other benchmarks to validate the reasonableness of valuation assumptions.

HMBS – Home Equity Conversion Mortgage-Backed Securities

From an HMBS perspective, the vast majority of HMBS are held by Servicers that cannot qualify the structure under true sale accounting treatment, due to the buyout requirement at 98% of maximum claim amount and non-guaranteed nature of assignment to FHA thereafter.

This poses significant risk retention challenges for HMBS Servicers, but also leads to a fair value accounting treatment on the servicing asset valuation.

3.5 Fair Value Benchmarks

Let's talk about these benchmarks.

The goal of these additional inputs is to establish a reasonable capitalization and carrying value for the MSR asset during a period of market illiquidity.

Industry Surveys

- Several of the large public accounting firms conduct quarterly surveys of the top Depository and IMB Servicers.
- These surveys collect valuation assumption data as well as typical capitalization levels.

Broker Surveys

- MSR Brokers participate in quarterly surveys that track broker-specific assumptions.

Peer Benchmarking

- Tracking financials for publicly traded entities can provide insight into their internal valuation approach.
- Differences in portfolio composition (i.e., GSE vs. Ginnie Mae mix, geography, servicing fee strip, delinquency levels, etc.) can make comparisons difficult.

Industry Publications

- Several of the large money center/investment depositories produce reports that document industry-wide and servicer-specific MSR performance metrics.
    - Particularly conditional prepayment rate (CPR) and constant default rate (CDR) experiences, as well as vintage, coupon, geographic trends, among others

Servicing Economics

- MSR Brokers have insight into servicing/subservicing economics and utilize this data to inform their modeling assumptions.
- Industry sources such as Black Knight and CoreLogic also provide insightful loan performance data for a fee.

3.6 Loan Servicing – Payment Processing

Generally Accepted Accounting Principles (GAAP) accounting policies drive the way MSRs are valued and follow what's called Fair Value Accounting Principles. Fair Value Accounting is the practice of measuring a business's liabilities and assets at their current market value. If you have an MSR asset in your portfolio, it exists in a very illiquid market with no direct observable prices available. They are not traded frequently, so it is difficult to give them a reliable and accurate market price. So, you must infer a lot about the value.

From a fair value accounting standpoint, these MSRs are treated as Level 3 assets, meaning they must be marked-to-model. Mark-to-model means that you are now subjecting yourself not only to the valuation risk but to introducing model risk into the analysis as well.

3.7 Market Value

MSR Brokers also perform market valuations which establish the estimated sale value of a bulk MSR portfolio in an open auction. This valuation considers the most recent market activity and accounts for the portfolio's characteristics, potential market participants, buyer economics, macroeconomic factors, etc. to establish the approximate trading value. Unlike fair value, a market value may or may not be supported by other benchmarks in periods of subdued market activity. This is especially true for Ginnie Mae transactions, which can be influenced by several factors, including the following.

Portfolio size, as larger books in terms of unpaid principal balance (UPB), will attract a broader, more aggressive universe of buyers.

Portfolio composition, such as the FHA/VA mix, geography, delinquency rates, streamline Interest Rate Reduction Refinance Loan (IRRRL), servicing strip, etc., which will ultimately impact the execution.

Another factor is recapture potential. The economics of recapturing Borrowers who refinance is a meaningful assumption that independent mortgage bank (IMB) buyers will consider when pricing a bulk deal.

Counterparty strength, as an entity's net worth potentially plays a role as to depth of buyer participation.

Lastly is prevailing market liquidity. Supply/demand, macro/micro-economic factors influence buyer aggressiveness and ultimately execution.

3.8 Economic Value

The third type of MSR valuation is the economic value. This valuation is based on an institution's actual servicing or sub-servicing economics and attempts to reflect the intrinsic value of the asset. Typically, the MSR modeler will receive a copy of the institution's subservicing contract and use the listed costs and revenues to build the valuation assumptions. Certain assumptions such as the discount rate are established by the institution and their outlook on the asset. Generally, the economic valuation assumptions remain relatively static, but there are instances in which the institution prefers to update the valuation assumptions on a regular basis to reflect their most up-to-date economic costs and revenues. Additional economic assumptions that can be considered in an economic valuation include the following.

Recapture, which typically includes the value of a recaptured MSR coming back into the servicing portfolio.

Origination income and/or gain on sale/redelivery margin. In some instances, loan origination fees and the ability to realize a premium when selling and/or re-securitizing the loan is also included as an additional revenue stream in the valuation.

Ancillary income, which includes a host of broad/miscellaneous fees that can be collected from the Borrower, including late fees and modification/incentive fees.

Lastly, Levered vs. Unlevered yield. The discount rate used in the analysis may incorporate the use of debt vs. equity, as opposed to 100% equity.

3.9 Pricing Differences Among Valuation Types

Given the three valuation types fulfill different needs for an MSR owner and are drawn from different assumption sets, it is logical that the valuations differ. Though CPR/CDR curves will be aligned between the three, generally the economic approach will produce the most conservative value. This result is typically driven by higher cost to service assumptions, lower ancillary income from late fees, float income, etc. There are always exceptions to the rule. However, in some cases, an institution's lucrative MSR economics can propel the economic value to higher pricing levels than other valuation types.

Market valuations typically represent the midpoint between economic and fair value, although the results vary significantly with current market conditions. For conventional loans, the market pricing is typically 0-10 basis points (bps) lower than fair value, although in-the-money portfolios may trade higher than fair value due to bidders' recapture expectations. On the Government side, market liquidity is more volatile due to the smaller pool of buyers. Market pricing on Ginnie Mae loans often lands between a quarter to full multiple below the fair value pricing. Like conventional loan trades, Ginnie Mae sale pricing heavily depends on the portfolio characteristics and bidder appetite.

Finally, fair value generally results in the highest MSR value, on average. This status is partially intentional; the fair value approach allows institutions to avoid asset pricing volatility during periods of an illiquid market. Given that MSRs are a Level 3 Asset, and thus can face prolonged periods with little trade indications, it follows that the fair value remains higher than market value in most conditions.

3.10 Ginnie Mae vs. Conventional MSR Factors

Generally, Ginnie Mae MSR market values require higher yields (historically, 2%-3%+ range) depending largely upon performance, seasoning, remaining principal balances (RPBs), and weighted average servicing fee vs. conventional servicing rights (i.e., GSEs) given the higher perceived credit risk and potential loss severity.

In addition, buyers pay close attention to prepayment spreads tied into the VA Interest Rate Reduction Refinance Loan (IRRRL) and FHA Streamline programs, where, as a result, buyers in possession of an effective loan recapture solution are better positioned than their competitors.

Structurally, another key point of distinction in Ginnie Mae vs. GSE servicing rights is the inability to "split" Ginnie Mae pools. This restriction is now well-known across the mortgage banking market, but it remains a limiting factor to consider when a potential MSR seller is contemplating a portfolio sale, be they endeavoring to carve out specific geographies or non-performers, for example.

Lastly, in contrast to conventional servicing rights, the possibility for servicing fee variance in the Ginnie Mae II MBS Program, which allows for servicing strips of 19.0 bps, 31.5 bps, 44.0 bps, 56.5 bps and 69.0 bps, can also factor into the MSR value. In general, the highest value Ginnie Mae servicing fees are the 31.5 bps and 44.0 bps "sweet spot" strips.

The decision to create the ultimate servicing fee, though, is not only a function of the aforementioned MSR values, but also the respective pass-through Ginnie Mae security prices, which can outweigh any specific MSR strip valuations and still result in the best "all-in" execution.

Government vs. Conventional Yield Variance

Factoring into the Government vs. Conventional yield variance are the:

- Historically higher delinquencies associated with Government guaranteed loans with accordingly higher delinquency costs,
- Scheduled/scheduled advancing mandate (i.e., no actual/actual advancing remittance structure available),
- Interest-debenture reimbursement interest shortfall, and
- VA no-bid and claims curtailments.

Servicing Strips

Specifically, the lowest 19 bps servicing fee is viewed as posing material risk to the MSR owner given the asset's top-line revenue is limited by the 19.0 bps coefficient multiplied by the remaining principal balance.

On the other end of the spectrum, the 69.0 bps servicing fee is sometimes priced back by MSR owners due to perceived greater "at risk" revenue tied to that most substantial MSR fee (and occasionally the 56.5 bps servicing fee as well).

3.11 Why Is MSR Valuation So Important?

MSRs can be a significant asset on the balance sheet. However, the MSR can be very volatile because a mortgage is just a fancy bond-like instrument where there is the potential for the Borrower to prepay their mortgage or the potential for that Borrower to default in their mortgage.

In either case, market conditions make it economically attractive for the Borrower to either prepay or default. For example, if interest rates go down, they'll be incentivized to prepay. They'll be incentivized to default, if they lose their job or their property value is underwater relative to the remaining principal balance.

3.12 Why Is MSR Valuation So Important? (continued)

Market conditions and the uncertainty of prepayment or default gives rise to a lot of volatility in the valuation of the underlying MSR asset.

Why is that?

It’s because the revenue that's derived for that Servicer is dependent on there being a loan in the first place and the Borrower being current with their payments.

When a loan goes away, either because prepayment or the Borrower defaults, the Servicer is no longer able to receive their servicing fees. Even if the loan defaults, they still must make payments to the Investors. So, from an MSR valuation standpoint, prepayments and delinquencies make it a tricky business.

3.13 MSR Valuation Implications

MSR valuations have huge implications for liquidity risk. They become sizable assets on the balance sheet and can be a major source of collateral for nonbank financing. Because of their illiquidity, it can be difficult to derive an accurate market value and at times you can’t easily sell them out into the market.

During stressful economic periods, such as a liquidity crisis, you'll see a potential for a huge devaluation of these MSRs, and that can be very destabilizing to the counterparties. As an example, a huge devaluation of these MSRs in a downturn can cause margin calls or the need to raise additional capital, especially impacting nonbanks with a lot of MSRs.

3.14 Major Drivers of MSR Valuation

Mortgages provide Borrowers with two options. The first is the option to prepay their mortgage when rates fall (voluntary prepayment). Second is the option to default on their mortgage (involuntary prepayment).

The uncertainty of these options greatly affects the underlying valuation of MSRs and thus profitability to Servicers. This is acutely important to Ginnie Mae Servicers.

How do prepayment and default affect servicing profitability? They drive down the amount of servicing fees earned on a pool as loans prepay or default. They also increase expense in the case of default associated with servicing advances. Lastly, they add additional cost to service nonperforming loans.

3.15 Major Drivers of MSR Valuation – Example

Let's suppose that next year, 10% of a $25,000,000 pool of loans prepays.

The unpaid principal balance (UPB) would then be $22,500,000. With a servicing fee of 25 bps (0.25%), the Servicer would receive $56,250 instead of $62,500 if the pool value remained at the full $25 million.

Annual Servicing Income equals Face Value of Pool multiplied by the Servicing Fee.

Since 10% of the loans are no longer in the pool to be serviced, it means less servicing income. If the expected life is 4 years, then the MSR would be capitalized at a fair value of $56,250 multiplied by 4, which equals $225,000 instead of $250,000.

Capitalized MSR value equals Annual servicing income multiplied by Expected Life.

What about default?

3.16 Effects of Default on MSR Valuation

Let's examine what happens when there is a default. Suppose that the pool experiences a 5% default rate next year. If there are no prepayments on a pool of $25,000,000, you're going to have $23.75 million in balance left.

Servicing fees earned would be $59,375. Now your servicing would be less than the $62,500 because now Ginnie Mae Servicers do not receive the servicing fee for delinquent loans.

As loans enter delinquency, there are other adverse impacts to Ginnie Mae Servicer profitability. The cost to service nonperforming loans is higher than performing loans and so higher costs drag down profitability. Servicers of FHA loans are also forced to bear the cost of the first 2 months of interest associated with delinquent loans. There are also repair costs on defaulted properties.

3.17 Scenario-Based Calculations

Let's explore a scenario.

Assume a $10 million pool of mortgages in an MBS have a weighted average coupon (WAC) of 5%. The pool has an expected life of 4 years. The Guarantee Fee (G-Fee) for credit risk is 50 bps (.5%) and servicing fee is 25 bps (.25%).

Pass-Through Rate

Calculate the pass-through rate for Investors in this MBS, when:

Pass-Through Rate = WAC – G-Fee – Servicing Fee.

Complete the calculation by selecting the appropriate data.

A. Pool Value: $10,000,000

B. WAC: 5%
C. Expected Life: 4 years
D. G-Fee: % 0.5
E. Servicing Fee: 0.25%

Feedback:

Pass-Though Rate = 5% - 0.5% - 0.25% = 4.25%

Annual Servicing Income

Calculate the Servicer's annual servicing income in dollars, when:

Annual Servicing Income = Face Value of Pool x Servicing Fee.

Complete the calculation by selecting the appropriate data.

A. Pool Value: $10,000,000
B. WAC: 5%
C. Expected Life: 4 years
D. G-Fee: % 0.5
E. Servicing Fee: 0.25%

Feedback:

Annual Servicing Income = $10,000,000 x .25% = $25,000

Capitalized MSR Value (4 Years)

Calculate the capitalized MSR value of the asset in this case, when:

Capitalized MSR value = Annual servicing income x Expected Life.

Complete the calculation by selecting the appropriate data.

A. Pool Value: $10,000,000
B. WAC: 5%
C. Expected Life: 4 years
D. G-Fee: % 0.5
E. Servicing Fee: 0.25%

Feedback:

Capitalized MSR value = $25,000 * 4 years = $100,000

Capitalized MSR Value (3 Years)

Calculate the impact if the expected life is 3 years, when:

Capitalized MSR value = Annual servicing income x Expected Life.

Complete the calculation by selecting the appropriate data.

A. Pool Value: $10,000,000
B. WAC: 5%

C. Expected Life: 3 years
D. G-Fee: % 0.5
E. Servicing Fee: 0.25%

Feedback:

Capitalized MSR value = $25,000 * 3 years = $75,000

3.18 Cradle to Grave Risks

There are any number of risks that your counterparties can face from cradle to grave.

Loan production entails a variety of activities from loan sourcing, underwriting, collateral valuation, and compliance, among others.

Ginnie Mae counterparties have a variety of funding sources available to them that can pose liquidity risk, such as warehouse lines, repurchase agreements, and even parent-subsidiary funding arrangements.

Secondary marketing is involved in the processes used to securitize loans into MBS including pooling and pricing.

Mortgage servicing activities are focused on performing and nonperforming loans. As loans enter delinquency, the effort spent to service these loans rises. Default management tends to be very cyclical, following the mortgage cycle and hence resources dedicated to these efforts can and will ebb and flow over time.

MSRs are an important asset class for a number of nonbank Ginnie Mae counterparties. MSRs pose significant market risk to these companies based on their sensitivity to interest rates and prepayments.

3.19 Knowledge Check 3

Mortgage Servicing Rights (MSRs) refer to a contractual agreement in which the right to service an existing mortgage is sold by the _____________ to another party.

A. Borrower
B. Sub-servicer
C. Servicer
D. Original Mortgage Lender

Feedback:

Mortgage Servicing Rights (MSRs) refer to a contractual agreement in which the right to service an existing mortgage is sold by the Original Mortgage Lender to another party.

3.20 Knowledge Check 4

Given the expected life of the capitalized MSR changes from 4 years to 3 years, which of the following are affects this decrease could have on the financial stability of the counterparty?

A. The value of a potentially significant asset on the balance sheet declines by 25%, which may reduce net worth and threaten non-compliance and/or insolvency.
B. Prepayment reduces the size of the pool and thereby reduces the amount of servicing income the counterparty receives, which could drive net losses and liquidity/capital erosion.
C. The value of the MSR increases when interest rates increase.
D. An increase in delinquent loans would increase servicing income.

Feedback:

The decrease in expected life of the capitalized MSR from 4 years to 3 years has the following effects on the financial stability of the counterparty:

- The value of a potentially significant asset on the balance sheet declines by 25%, which may reduce net worth and threaten non-compliance and/or insolvency.
- Prepayment reduces the size of the pool and thereby reduces the amount of servicing income the counterparty receives, which could drive net losses and liquidity/capital erosion.

3.21 Knowledge Check 5

How do prepayment and default affect Mortgage Servicing Rights' (MSRs) valuation and servicing profitability?

A. MSRs with a high concentration of low FICO, high LTV loans are more valuable for a Servicer
B. Drives down the amount of servicing fees earned on a pool as loans prepay or default
C. Increases expense in the case of default associated with servicing advances
D. Adds additional cost to service nonperforming loans

Feedback:

Prepayment and default affect MSR valuation and servicing profitability by:

- Driving down the amount of servicing fees earned on a pool as loans prepay or default
- Increasing expense in the case of default associated with servicing advances
- Adding additional cost to service nonperforming loans

4. Conclusion

4.1 Summary

The goal of this training was to provide you with a fundamental understanding of risk management with a focus on Servicing Economics and Mortgage Service Rights.

In the Servicing Economics topic, you learned about the loan servicing model and mortgage servicing process. You examined performing vs. nonperforming loan activities. You explored the default management strategies, delving into servicing vulnerabilities and the revenue and cost components of servicing.

In the Mortgage Servicing Rights topic, you learned about MSRs and the Mortgage Servicing process. You examined why and how MSRs are valued. You explored the major drivers of MSR valuation and the effects of prepayment and default on that valuation as well, as common approaches used in industry to make those valuations.

Learning Objectives

Learning Objectives:

- Identify the essential activities involved in mortgage servicing
- Analyze how mortgage servicing activities affect the economics of the business
- Identify what mortgage servicing rights (MSRs) are
- Identify the risks MSRs pose to Ginnie Mae counterparties
- Describe how MSRs are valued