INTRODUCTION

Profitability is the ability of the mortgage banking operation of a thrift to generate stable and consistent earnings in excess of all costs. It is the key to managing and regulating the mortgage banking business because without a high yield or profit on the funds invested in mortgage banking, the associated interest-rate risks (IRR) are not justified. This is because the IRR of the mortgage pipeline and the servicing operations are very high relative to other thrift investments.

This Profitability Section discusses the ways in which the OTS looks at the profitability of mortgage banking operations and compares that profitability to other thrifts and mortgage bankers with similar operations. Although each thrift may have a different cost accounting system, management should be able to provide explanations to examiners for costs that exceed the industry averages as shown in the annual cost studies of the Mortgage Bankers Association (MBA).

The MBA Cost Study provides average income and costs associated with mortgage origination and servicing functions. As such, the MBA Cost Study, which is completed about eighteen months after the year ends, is a good tool to use to compare the relative efficiency of an association's mortgage banking operation. Such use must be tempered with the understanding that it is directly comparable only to mortgage banking firms. OTS internal reports comparing the mortgage banking operations of thrifts are another good source of data for examiners; however, these reports should be used with caution since they are based on Thrift Financial Report (TFR) data that does not usually include the mortgage banking activities of subsidiaries. Also, if the thrift has no subsidiaries these reports may not show any loans serviced for others because this data was not reported on the TFR.

Production Overview

Production refers to the process of obtaining mortgages, on a wholesale or retail basis, for sale in the secondary mortgage market. A wholesale or correspondent production operation purchases mortgages from other originators, or utilizes mortgage brokers who originate mortgages for the thrift in exchange for the origination and servicing release fees. In contrast, retail origination operations generally originate all of their mortgages internally.

In addition, thrifts can act as correspondents where it underwrites mortgages to the specifications of another financial institution, and funds these mortgages for later sale to the correspondent, typically a mortgage banker. Revenue is realized by the association from receiving a higher price for the mortgages than the related costs of originating and funding those mortgages. During this period the thrift is exposed to losses from IRR unless the buyer of the mortgages has specifically agreed to absorb that risk in the form of purchase price guarantees.

In some areas of the country it is customary for the seller to provide the original mortgage documents (note and mortgage or deed of trust) to the buyer prior to receiving payment. This exposes the association to losses from nonpayment or partial payment from the buyer. It can be avoided through the use of escrow agents, closing attorneys, or brokers, whenever practical, especially when the buyer is unknown or has limited resources.

The final type of mortgage production is called table funding and relies on independent subcontractors to originate mortgages and close them in their own name. The thrift funds the closing, takes possession of the mortgage and an assignment, and pays the originator a servicing release fee for the servicing. The mortgage is then sold in the secondary mortgage market paying off the association and leaving it with the servicing rights. Under GAAP this process qualifies the servicing as purchased mortgage servicing rights (PMSR). (See Section 573, Accounting.)

Normally the cost of originations from retail operations exceeds the cost of wholesale operations due to the burden of additional employees and greater overhead costs. However, the revenue per mortgage for retail originations is generally higher since a portion of the origination fee does not have to be given up to the broker. This offsets the greater origination costs, thus making wholesale and retail originations similar in costs.

Another cost factor is the volume of mortgages originated. Clearly the fewer the mortgages originated for sale, the higher the costs per mortgage. Conversely, high volume origination operations can achieve great economies of scale. One of the major mortgage banking firms with over $10 billion in annual internal mortgage originations, reduced origination costs to 155 basis points (bp) per mortgage in 1991 compared with an average of 216bp for all types of mortgage lenders.

Some thrifts have hybrid mortgage banking operations that combine both internal and wholesale operations, while others specialize in only one type, or act only as correspondents. When evaluating these mortgage banking operations, examiners should first separate the revenue and expense amounts of each operation for both origination and servicing. This separation is necessary to compare the income and expense elements of the various types of mortgage banking operations with similar operations and to calculate net profitability to the thrift. Several sources of income are discussed below.

Income from Production. Mortgage production income consists primarily of origination and application fees. Retail origination fees are generally much higher than wholesale fees, but so are costs.

Income from Sales of Mortgages or Servicing. A second source of income is from the sale of the mortgages. This income can either be in the form of cash from an outright sale of the mortgage and its servicing rights, called a servicing released sale, or from the combination of selling the mortgage and capitalizing the present value of the excess servicing rights retained called excess servicing fee receivable (ESFR).

ESFR is calculated by deducting the generally accepted accounting principles (GAAP) normal servicing fee from the total servicing fee and then calculating the present value of the remaining servicing fee at an appropriate discount rate. Under GAAP, and for safety and soundness considerations, the combination of the sales price of the mortgage and the ESFR must not exceed what the association could have realized if it had sold the mortgage for cash without retaining the servicing. (See Section 573, Accounting.)

The normal portion of the servicing fee is called retained servicing or originated mortgage servicing rights (OMSR). It can never be capitalized by the thrift and it cannot be fully recognized as income until the entire mortgage servicing rights are sold or the underlying mortgages pay off. Also, thrifts can rarely sell the excess portion separately from the normal servicing fee since FNMA, FHLMC, and many private investor contracts prohibit splitting the ownership of servicing on their mortgages.

The mortgage servicing asset is usually the means by which mortgage banking operations generate a profit. The book value of ESFR, recording servicing income when received, realizing gains on servicing released, or selling off-balance sheet servicing rights all refer to the value of the mortgage servicing asset that is created in the origination process. Only the timing of receipt and tax considerations give advantages to one method over another.

Warehousing Income and Losses. Warehousing income is the third form of origination income and it refers to the profits on the difference between an association's cost of funds and the interest from the mortgages, less hedging costs. This income should be viewed as an unimportant by-product of the secondary marketing process, because the main objective is to sell the mortgages at the highest possible price while holding them for the shortest time. Warehousing income is usually insignificant compared to the risks of losses on sale. In fact, mortgages and mortgage-backed securities (MBS) in the warehouse are subject to losses even before they are sold. That is because GAAP requires that mortgages held for resale must be carried at the lower of cost or market (LOCOM) adjusted on a regular basis. (See Section 573, Accounting.)

Revenue and Cost Elements of Servicing

Mortgage servicing entails the collection, record-keeping, and remittance of monthly payments of principal and interest (P&I) and payoffs to the owner of the mortgages (investor) in accordance with the servicing agreement with that investor. It also usually involves the payment of property taxes and insurance premiums on the mortgaged property from an impound or escrow account as well as foreclosure and any other needed services during the life of the mortgages. For performing these services, the servicer usually retains a fee from the monthly remittances which is a fixed percentage of the mortgage amount set by the servicing contract. In addition, the servicer usually receives float or interest income from the use of the escrow and P&I accounts as well as ancillary or miscellaneous income.

Elements of Servicing Income

Servicing Fees. Servicers retain fees to service mortgages for investors that typically range from 25bp and up. Usually servicing fees are at least as high as the minimum that FNMA, FHLMC, and GNMA require. These are the same as the GAAP normal servicing fees discussed earlier because GAAP relies on these organizations to determine the minimum acceptable fees.

Float Earnings. Mortgagors are usually required to maintain escrow or impound accounts for the payment of taxes and insurance on the mortgaged property. The servicer normally retains most, if not all, of the interest earned on these funds because only fourteen states currently require servicers to pay interest on escrow accounts. Also, the servicer usually retains all of the float income from the relatively short periods P&I payments and payoffs are held prior to remittance to the investor.

Ancillary Income. Ancillary income is the miscellaneous income a servicer receives from such things as late charges, insurance commissions, and mortgage assumption fees. The MBA Cost Study for 1991 shows the average of these fees for mortgage bankers as $33 per mortgage per year.

Elements of Servicing Costs

Personnel. Personnel costs are the expenses for employees, fringe benefits, training, and other employee expenses.

Occupancy. Occupancy expenses are the costs of occupying the building and any related costs.

Systems Costs. Systems costs are the servicing expenses for data processing.

Other Direct Costs. Other direct costs of servicing cover all expenses not directly associated with another cost category. They cover such items as the cost of funds advanced on delinquent mortgages and the maintenance and sales expenses of REO.

Provision for Loan Losses. Loan losses are the average allowance for losses on the foreclosure and sale of the property to satisfy a mortgage in default. Although the investor usually bears this risk, there are many types of servicing that require the servicer to absorb all or part of these losses. This is called recourse or partial recourse servicing.

Amortization of Purchased Servicing. This is the annual cost to amortize the debt related to the purchase of the PMSR. (See Section 573, Accounting.)

Marginal Servicing Costs. In addition to the total direct servicing costs, thrifts should calculate the marginal cost of servicing one additional mortgage. This cost should exclude all fixed costs, management, and overhead. Marginal costs are an additional consideration to gauge the profitability of prospective PMSR purchases, but should be used with great caution.

Value of the Servicing Asset

The value of the servicing asset is the present value of the profit from the expected cash flows less the direct costs of the servicing. Larger mortgages are more profitable since they provide larger dollars of servicing fees and float while the cost of servicing is usually a fixed amount per mortgage regardless of size.

Many factors influence the valuation and market price of mortgage servicing: the type of mortgage, average size, age, geographic location, investor, market conditions, government regulations, loan to value ratio (LTV) and many other smaller factors. The largest single factor affecting servicing market values is the anticipated prepayment speed and that is usually dependent on interest rates. As rates fall, mortgages, with their related servicing, prepay faster because borrowers want to refinance at a lower interest rate. (See Section 576, Servicing.)

As servicing on individual mortgages is paid off, the servicing fees from pools of mortgages decrease, thus decreasing servicing values. Alternatively, if rates rise the prepayments decline because people tend to retain mortgages with below-market interest rates. However, losses in servicing values from decreases in interest rates are far greater than increases in value for an equal amount of interest rate increase.

The creation of the servicing asset and its value have a counter cyclical nature. That is to say, when rates decline and rapid prepayments result, a typical mortgage banking operation will take part in the wave of refinances. This replaces the servicing paying off with new servicing rights created from new originations. Conversely, if rates rise, the volume of origination activity falls, but the servicing portfolio also prepays at a slower rate.

Underwriting and Servicing Risks

The amount of default and servicing risk that is retained by the servicer after the securitization and sale of an MBS is very important. Almost all mortgage securities require the seller/servicer to make extensive representations and warranties to the issuer and investors covering the origination, sale, and servicing of the individual mortgages. These warranties usually include a guarantee from the seller/servicer that the individual mortgages were underwritten and will be serviced in accordance with the issuers published requirements as is the case with FNMA and FHLMC. Subsequent servicers of these mortgages are usually required to assume not only the servicing warranties but also the origination warranties.

A breach of either the origination or servicing warranties usually requires the current servicer to repurchase the mortgage from the MBS. Since these repurchases usually involve mortgages that have gone into default, the servicer is being forced to repurchase a mortgage that almost certainly will cause a loss. Additional penalties for warranty violations can include fines, suspensions as approved seller/servicers, and, in some cases, the loss of the entire servicing portfolio for that issuer, with and sometimes without compensation.

Many mortgages that were swapped with FNMA for mortgage securities require the seller/servicer to retain the risk of default. For example, under the FNMA MBS program the regular servicing option requires that the servicer advance interest during the delinquency and repurchase the mortgage in the event of default. This default risk is significant and can be very expensive for the servicer. The OTS defines this as recourse servicing for capital purposes. Only under FNMA's special servicing option does the servicer transfer the default risk.

Servicers should carefully evaluate and estimate the costs of all warranties and default risks before they decide to originate or service mortgages, especially mortgage securities, since they generally have more extensive requirements. These costs should be added to the other expenses of origination and sales in evaluating overall profitability.

Mortgage Banking Strategies

The following strategies are the predominant methods used by thrifts to create mortgage servicing assets. The risks associated with each strategy normally increase as the percentage of the servicing asset carried on the balance sheet increases and as the ratio of those booked servicing assets to capital increases. Generally, no more than 150bp of total loans serviced for others should be carried on the balance sheet and over 200bp clearly indicates excessive risk.

Creating an Off-Balance Sheet Servicing Portfolio (OMSR) and Recording Servicing Fees and Income as Received

This is the most conservative type of mortgage banking operation. The creation of a servicing portfolio provides the thrift with the right to future income, similar to receiving interest on whole loans held in the portfolio, for up to the thirty-year life of mortgages. (Although most mortgages have a stated maturity of thirty years, their actual life is usually only about seven years). In this strategy the right to future income is not clouded by the need to amortize the servicing assets (ESFR or PMSR). In addition, this strategy lessens the thrift's dependence on origination volume because the servicing portfolio is counter cyclical. That is, if interest rates increase and originations slow, the servicing portfolio will increase in value because prepayments decline. On the other hand, if rates fall, the servicing portfolio will drop in value as prepayments increase. This can be partially offset by increased originations.

The disadvantage of this strategy is that unless the servicing asset is sold or somehow capitalized as either ESFR or PMSR, most mortgage banking operations will not make a profit from originations. The income from originations usually is barely enough to cover the cost of originating and selling mortgages in the secondary market. In fact, losses often occur in the origination process. Therefore, to retain off-balance sheet servicing (OMSR), thrifts must be able to afford the short-term sacrifice of not making money on their mortgage banking originations. This disadvantage gradually decreases as the servicing operations generate more and more income. This strategy has the least amount of risk for thrifts since it avoids the risks of overcapitalizing ESFR or relying upon PMSR.

Creating an Off-Balance Sheet Servicing Portfolio and Capitalizing the ESFR

This strategy is similar to the first one except for how the servicing asset and incomes are recorded. Rather than carry the servicing asset off the balance sheet, this strategy capitalizes the present value of the ESFR portion of the servicing fee. A portion of the servicing fees received each month is then used to amortize that ESFR. The risk is that the assumptions of projected cash flows used to estimate the present value of the ESFR may be inaccurate. If prepayments occur more rapidly than the original assumptions, thrifts are required under GAAP to evaluate the prepayment speeds and make downward adjustments to their ESFR assets quarterly. A failure to make these quarterly adjustments can lead to large adjustments that can rapidly impair capital.

This strategy is used by most thrifts for mortgage banking operations since it usually creates enough additional income from originations to provide a small profit, yet it is still conservative. Part of the servicing asset (OMSR) is still carried as an off-balance sheet asset, thereby creating long-term servicing income to be recognized as received. As long as the initial ESFR asset is conservatively calculated and adjustments to the asset are made quarterly for increases in the prepayment speed, then this strategy is a good compromise between the first and third strategies.

The danger of this strategy is that thrifts will use accounting techniques to overstate ESFR, which artificially inflates current profits at the expense of long-term profitability. This strategy is even more risky if thrifts pool mortgages into unnecessarily low coupon MBS (i.e., 9.0% mortgages into 8.0% MBS instead of 8.5%) to increase the amount of ESFR and then use accounting techniques to greatly inflate the already overstated ESFR. This process often creates huge amounts of ESFR that cannot be amortized by the actual servicing income; and thus becomes a drain on the thrift. In virtually every occurrence where we have found a thrift consistently pooling mortgages into unnecessarily low coupon MBSs, we have also found greatly overstated ESFR. Many thrifts have failed because of overstating ESFR and, therefore, these tactics are of major concern to OTS.

Selling Mortgages With Servicing Released

Under this strategy thrifts sell the servicing rights at the same time that the mortgage is sold, therefore, no servicing assets of any type are retained. Immediate income is maximized at the expense of long-term income. Profits from mortgage banking operations will rise and fall with the rate of originations. To the extent that the thrift is dependent on mortgage banking origination income for its own profits, then a change in origination volume will increase or reduce profits. If originations decline to the point where the thrift is unable to earn sufficient income to cover fixed expenses, then the risk is significant. With this type of strategy, the expenses of origination should go down proportionately for drops in origination volume; the lack of this cost variability is of concern. Finally, thrifts that engage in this strategy should have other major sources of core revenue to ensure long-term viability.

Despite its shortcomings, this strategy may be appropriate for some thrifts. Thrifts that have minimal capital levels, that do not have any experience servicing mortgages for investors, that have small servicing portfolios, or that have high servicing costs will all benefit from this strategy, but for different and obvious reasons.

Buying or Using Table Funding to Obtain Servicing

Under this strategy the association purchases or uses table funding to acquire virtually all of its servicing. This results in the entire value of the servicing asset being carried on the books at its amortized purchase price or full value. Since PMSR must be adjusted downward each quarter, if necessary, to reflect unexpected increases in the prepayment speed, this strategy can result in major losses to the association, especially in times of decreasing interest rates.

Of all the strategies, this strategy poses the most risk to the thrift when investments in PMSR exceed safe amounts. Generally, no more than the amount whose losses could be safely absorbed by the association's capital should be purchased. In addition, there is a 50% of core capital regulatory limitation on PMSR contained in the Regulatory Capital: Intangible Assets regulation.

Combination of Strategies

Most mortgage banking operations utilize more than one of these strategies, and some use all of them. The important point from the regulatory perspective is that the thrift carefully monitor and minimize the risks associated with each strategy.

Compensation

The area of compensation for mortgage banking personnel working for a thrift or a thrift subsidiary is difficult for thrift management and regulators. In order to attract and hold qualified mortgage bankers, thrifts must offer compensation that is equal to that offered in the mortgage banking industry. The problem is that mortgage banking compensation is usually significantly higher than that paid to comparable personnel within the thrift.

The equalizing factor between mortgage banking compensation and lower thrift compensation for similar jobs is that mortgage banking compensation and even employment is tied to the profitability of the mortgage banking operation. When times get hard mortgage bankers are laid off, whereas thrift personnel are traditionally retained.

There are four broad categories of mortgage banking personnel for compensation purposes: originators, clerical processors/servicers, secondary marketers/managers, and executive management. The compensation for each category are quite different and should be tied to different performance factors.

<u>Originators</u>. Originators' compensation should primarily be tied to the volume of mortgage originations, and second, to quality, as most mortgage bankers do. In good times this commission income can be very large and may appear way out of line compared to comparable thrift employees. In some cases it even exceeds the compensation of senior thrift management. In bad times, however, mortgage banking originators traditionally have little, if any, compensation. The limiting factor should be that originator compensation should not exceed that for similar positions in the mortgage banking industry.

<u>Clerical Processors/Servicers</u>. Clerical mortgage banking personnel include mortgage processors and servicers of all types. Although clerical in nature, the sophistication, training, and communication skills required to perform these

functions is greater than the typical clerical job and, therefore, the compensation must also be higher. In addition, the tight quality control needed to meet the requirements of today's secondary mortgage market and the skill needed to service all of the types of mortgages that back mortgage securities require a higher level of skill than that needed for similar personnel processing and servicing mortgages for the thrift's portfolio. The higher compensation of mortgage banking processors and servicers should not be totally fixed; at least part of the total compensation should be tied directly to strict levels of quality control and to volume.

Secondary Marketers/Managers. For the secondary marketing manager in charge of pipeline and warehouse IRR, the difficulties of minimizing this enormous risk and avoiding recourse sales demand exceptional skill and dependability. Other managers in the mortgage banking operation must only concern themselves with volume and minimizing the risks of having to repurchase mortgages because of origination or servicing errors. Also, thrifts traditionally are not as concerned with mortgage sales because of the investment needs of the thrift's own portfolio. These considerations justify higher compensation compared to that of thrift employees and other mortgage banking managers, but compensation should be partially tied to how successfully these managers perform their jobs of limiting risk and maximizing quality control.

Executive Management. Executive management of a thrift's mortgage banking operation are often paid what appear to be exorbitant salaries compared to thrift management. This primarily results from the competitiveness in the mortgage banking industry. These high salaries, however, should be tied to overall profitability in the same way as that of mortgage bankers and should decrease dramatically during slow cycles. Executive management should also be judged on the minimization of excessive IRR, quality control risks, recourse sales, and overall risk to the parent thrift.

Bonuses. Often a significant part of executive compensation, and the compensation of other mortgage banking employees to a lesser degree, is made up of annual bonuses. Such bonuses should be no larger than those offered in nonaffiliated mortgage banking firms and this limit should be enforced by the thrift or an outside compensation committee. The practice of basing bonuses on short-term production profits without regard to quality control, IRR, future recourse losses, or servicing retained should be avoided. The worst of both worlds is to have higher salaries for mortgage banking personnel, but with less profits, risk and quality control, accountability, or servicing production than their thrift counterparts.

In evaluating mortgage banking management compensation, examiners and thrift management should never lose sight of the fact that almost all thrift mortgage banking operations were added primarily to increase overall, long-term profitability without jeopardizing the thrift. The executive management of thrift mortgage banking operations that succeed in these goals should be rewarded according to mortgage banking industry standards, however, management that falls short of these goals should not receive such high levels of compensation. Mortgage banking operations that produce losses or marginal profits, that pay high salaries, and that pose large risks to the thrift are defeating their whole purpose.

Subsidiaries and Affiliates

A vital part of the profitability of mortgage banking operations in subsidiaries or affiliates is determined by its overall affect on the parent association. No matter how much origination or servicing is generated or how many savings customers are served, a mortgage banking operation that is a drain on the thrift, or a threat to it, is in conflict with basic safety and soundness considerations.

To measure the overall profitability of a mortgage banking subsidiary or affiliate to a thrift, the profit or loss calculations of the basic operations of origination and servicing are only the starting point. After carefully checking to see that these basic costs and incomes are accurately calculated, the costs to the thrift for the funds advanced, office space provided, equipment, supplies, data processing, mortgage servicing, legal support, general and administrative (G&A) expenses allocated, and the costs of any nonconforming or below-market mortgages purchased should be determined. Calculations of both the cost to the thrift and market costs can be made, however, the only realistic profitability calculations are based on market prices. In fact, market prices are required for transactions with affiliates under a holding company structure by §§ 23A and 23B of the Federal Reserve Act. A comparison of calculated market costs to those actually paid, by the mortgage banking operation to the thrift, normally results in significant additional charges against the profitability of most mortgage banking subsidiaries and affiliates.

The profits and other benefits provided to the thrift should be compared to the amount the thrift has paid the subsidiary or affiliate. Thrifts and examiners often overlook the value of off-balance sheet servicing that has been contributed to the thrift. This servicing produces an annual net income that gives it a determinable market value, and the additional servicing helps the thrift to achieve the economies of scale that volume normally brings. The value of this servicing and the contribution to efficiency should be calculated and added to income from the subsidiary or affiliate. Also, the costs charged for origination or servicing provided to the thrift should be compared to market rates and resulting adjustments made to profitability.

The borrowings from the thrift by subsidiaries and affiliates should be carefully reviewed and separated into secured lines of credit for the warehouse and servicing purchases, and into unsecured lines of credit for working capital and other uses. (Affiliates cannot obtain unsecured advances from thrifts.) Market costs for each of these items should be compared to actual charges paid by the subsidiary or affiliate and the needed adjustments calculated.

The relationship of the subsidiary or affiliate to the thrift should also be examined. Any guarantees, recourse agreements, cross-collateral agreements, and other forms of credit support provided by the thrift is of particular concern. The permissibility of that support under OTS and §§ 23A and 23B of the Federal Reserve Act should be determined, its threat to the thrift should be assessed, and a market cost for that support should be estimated.

After all adjustments to the income and expenses of the mortgage banking operation are made, the net profit or loss to the thrift should be calculated. This net income should then be compared to the investment and the return on equity calculated. If the mortgage banking operation in the subsidiary is not producing a superior yield on the association's investment than other less risky alternative investments, then that investment should be questioned in the final examination report. Likewise, if the relationship with an affiliate produces more risks than rewards for the thrift, then that relationship should also be questioned.

Conclusion

In summary, the mortgage banking operation should be viewed as a financial factory originating or buying servicing rights. Originated servicing rights are assets that can be sold at the time of the mortgage sale (servicing released) or retained as an off-balance sheet asset (OMSR) and an on-balance sheet asset (ESFR).

The ability to create servicing rights at a profit without exposing the thrift to excessive IRR or other undue risks from error, fraud, credit, and recourse is the goal of most mortgage banking operations. These operations may be commingled between the thrift and its subsidiaries and affiliates, however, it is vital that the thrift maintain sufficient records of individual income and expense categories to separate the activities of each. Without these records it is not possible for the thrift to manage or monitor its mortgage banking operations nor can examiners do their job to ensure safety and soundness.

REFERENCES

Mortgage Bankers Association of America, *The Cost Study*