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Evaluation Model Can Maximize Single-Family Servicing Profits

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Evaluation Model Can Maximize Single-Family Servicing Profits

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Single family mortgage banking is a highly competitive industry. If mortgage bankers are to earn an adequate rate of return for their stockholders, they must examine carefully the profitability of their origination and servicing activities. A profit/loss evaluation model can be of help in determining the profit/loss potential of originating and servicing in this area. The model presented here is based on three fundamental principles:

> The first principle is that mortgage companies usually incur a loss on single-family loan originations because the cash outlay required to originate the loan usually exceeds the origination fee paid by the mortgagor.[1] Mortgage bankers expect to recover these losses from the income received for servicing the loans for institutional investors.
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> The second principle was developed by Irving Rose.[2] In his article, "How Much Is Servicing Worth?," he demonstrated that the proper method for establishing the value of servicing a loan is by discounting servicing revenues, less servicing costs at the company's required rate of return, or cost of capital. This quantity is called the present value of the net earnings received for servicing the loan.
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> The third fundamental principle is that the time period over which these'earnings will be received is unknown when the loan is originated. Some mortgages will be terminated soon after origination; others will be outstanding until maturity. In order to evaluate the earnings potential of a loan, it is necessary to take this uncertainty into account. William Wildhack presented the concept of allowing for this uncertainty by estimating the probability that a loan will be outstanding in each future period .[3]

In the profit/loss model developed here, the net after-tax earnings received in each month for servicing a loan are multiplied by the probability that the loan still will be outstanding at the end of that month. This product is the net, after-tax, expected earnings for the month. The net, after-tax, expected earnings are then discounted at the company's after-tax cost of capital, in order to yield the after-tax, expected, present value of servicing the loan. To determine whether it is profitable to originate and service a mortgage loan, this quantity is compared with the net, aftertax cost of originating the loan. A loan is profitable if the discounted value of the net, aftertax, expected earnings exceeds the after-tax cost of origination. More concisely, a loan is profitable only if it has a positive, expected, net present value.

Given this basic framework, each of the costs and revenues associated with originating and servicing single-family mortgage loans are then included in the profit/loss evaluation model. The costs and revenues are

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* At the time this paper was prepared Professor McConnell was a Research Associate in the Credit Research Center.

1 John M. Wetmore, "Inflation Hits Mortgage Banking- Origination and Servicing Costs Juinp," Mortgage Banker (February 1974), pp. 85-87.

2 Irving Rose, "How Much Is Servicing Worth?" Mortgage Banker, (September 1963).

3 William A. Wildhack, "Cash Flow Method of Yield Calculation Termed More Accurate," Mortgage Banker, (September 1973), pp. 41-43.

associated with one of the four basic functions of mortgage banking: 1) originating the loan; 2) warehousing the loan; 3) selling the loan; and 4) servicing the loan.

Originating The Loan

Origination Income. Over 95 percent of all single-family loans originated by mortgage companies are federally-sponsored. The origination fee on these loans is limited by regulation to one percent of their face amount. If we let Lo represent the original face amount of the loan, and let T*x* represent the company's tax rate, we have:

After-tax origination income = $.01xL_O,x(1\text{-}Tx)$

Origination Gost. The costs required to originate a mortgage loan can be divided into two categories: 1). costs that are independent of loan size; and 2) costs that vary directly with loan size. An example of the second type of cost might be incentive income paid to loan producers. If we let OC represent the dollar amount of those costs that are unaffected by loan size, and let VC represent the rate at which other costs vary directly with loan size, we have:

After-tax origination cost = $(OC + VCxL_o)x(1\text{-}Tx)$

To illustrate these relationships, let us assume that OC = $349; VC = .5 percent of the loan amount; and Tx equals 48 percent. The net, after-tax cost required to originate a loan equals origination income, less origination cost. For a $20,000 loan:

Net after-tax cost of loan origination = [(.01x$20,000) - ($349 + .005x$20,000)] x(1-.48) = $129.50

"The costs required to originate a mortgage loan can be divided into two categories: 1) costs that are independent of loan size; and 2) costs that vary directly with loan size. An example of the second type of cost might be incentive income paid to loan producers."

The discounted value of future, expected, after-tax, net earnings is compared with this amount to determine the loan's after-tax, expected, net present value.

Warehousing The Loan

When a loan is held in inventory, the originating company earns income from the interest paid on the loan. The amount of interest income received in each month depends on the mortgage interest rate and the unpaid principal amount of the loan at the beginning of the month. if we let R represent the monthly mortgage interest rate, let L_o, L_1, L_2, ... represent the principal balance of the loan at the beginning of each month, and let p be the number of months that a loan is held in warehouse, we have:

After-tax interest income $(RxL_O + RxL_1 +\ldots..+ RxL_{P\text{-}1})x(1\text{-}Tx)$

In order to compute the present value of this earnings stream, we must discount it at the company's monthly, after-tax cost of capital. If we let r represent this discount rate, we have:

$$\text{After-tax present value of interest income} = \left[\frac{R \times L_0}{(1+r)^1} + \frac{R \times L_1}{(1+r)^2} + \ldots + \frac{R \times L_{p-1}}{(1+r)^p} \right] \times (1-Tx)$$

We should note that r is a weighted, average cost of capital that incorporates the company's after-tax, required return on equity and its after-tax cost of debt. If the company's discount rate exceeds the mortgage interest rate, the mortgage banker "loses" money while the loan is held in warehouse.

Selling The Loan

When a loan is sold to an institutional investor, the originator may incur a marketing gain or a marketing loss. If the discount points paid by the seller of the property (i.e., the discount on the origination) exceed the discount points paid by the institutional purchaser of the loan (i.e., the discount on the resale), then a profit is earned. If the discounts are equal, neither a gain nor a loss is received. If the discount on the origination is less than the discount on the resale, then a loss is incurred. By letting DP represent the discount at the time of origination, and SP represent the discount at the time the loan is sold to an investor, we have:

After-tax marketing gain or loss = $[L_0 x(1-SP) – L_0 x(1-DP)]x(1-Tx) = L_O x(DP-SP)x(1-Tx)$

To illustrate this point, let's assume the discount on the origination equals four points and the discount on the sale equals three points. For a $20,000 loan:

After-tax Marketing Gain = $20,OOOx(.04 - .03)x(1-.48) = $104.00

Since this gain or loss occurs when the loan is sold to an investor, we must discount it over the num her of months that the loan is held in warehouse to determine its present value:

$$\text{After-tax present value of marketing gain or loss} = \left[\frac{L_0 x(DP-SP)}{(1+r)^p} \right] x(1-Tx)$$

We can use this relationship to evaluate an institutional investor's commitment to purchase loans at a fixed price during a period of changing mortgage yields.

Servicing The Loan

In order to calculate the expected present value of the net earnings received for servicing the loan, we must compute the present value of servicing revenues, servicing costs, and the implicit value of funds held in escrow.

Servicing Revenues. The monthly revenues received for servicing a mortgage loan usually are determined as a fixed percentage of the unpaid principal amount of the loan. This stream of earnings begins when the loan is originated, and continues until it is terminated. We must discount the earnings stream at the company's cost of capital, in order to determine its present value. If we let SF represent the monthly servicing fee as a fraction of the loan amount and let it be the month in which the loan is terminated through premature payoff, foreclosure, or maturity, we have:

$$\text{After-tax present value of servicing revenues} = \left[\frac{SF x L_0}{(1+r)^1} + \frac{SF x L_1}{(1+r)^2} + \ldots + \frac{SF x L_{t-1}}{(1+r)^t} \right] x(1-Tx)$$

In general, servicing revenues are greater for larger loans, and for loans with longer maturities and higher interest rates, since their unpaid balances decline more slowly.

Servicing Costs. The cash outlays required to service a loan also will continue until its termination, but because of inflation, these costs are likely to increase over time. In order to determine the present value of servicing costs, we must estimate the rate at which costs can be expected to increase, and project future costs on the basis of this estimate.

These inflation-adjusted costs must then be discounted at the company's cost of capital. If we let SC represent the monthly dollar cost of servicing at the time the loan is originated, and let IF represent the monthly rate at which these costs are expected to increase, we have:

$$\text{After-tax present value of servicing costs} = \left[\frac{SC x (1+IF)}{(1+r)^1} + \frac{SC x (1+IF)^2}{(1+r)^2} + \ldots + \frac{SC x (1+IF)^t}{(1+r)^t} \right] x(1-Tx)$$

This relationship makes clear that high rates of inflation substantially increase the cost of servicing loans and could seriously impair the profitability of servicing single-family mortgages.

Escrow Funds. Mortgage companies currently receive an indirect benefit from the collection and management of funds for the payment of FHA mortgage insurance premiums, property taxes, and fire and hazard insurance premiums. These temporary funds, which are accumulated in non-interest-bearing escrow accounts, are of value because they may be used as compensating balances on commercial bank loans. Mortgage companies may be considered to earn an implicit rate of return on these funds that is equal to the opportunity cost of obtaining compensating balances from another source. As with other earnings streams, these must be discounted at the company's cost of capital. If we let EB_O, EB_1, EB_2, . . . represent the escrow balance at the beginning of each month, and let *i* be the opportunity cost of obtaining compensating balances elsewhere, we have:

$$\text{After-tax present value of implicit return on escrow funds} = \left[\frac{i x EB_0}{(1+r)^1} + \frac{i x EB_1}{(1+r)^2} + \ldots + \frac{i x EB_{t-1}}{(1+r)^t} \right] x(1-Tx)$$

Other Revenues and Costs. In addition to the revenues outlined above, mortgage companies may receive miscellaneous earnings from late payment penalties, special assessments, and fees for handling mortgage transfers and assumptions. They also may incur other costs, such as the payment of fees for FNMA or GNMA commitments. All of these items could be included in a larger profit/loss model, but are omitted here for the sake of brevity.[4]

Probability of Loan Terminations. Up to this point, our discussion of future revenues and costs has assumed that the date on which a loan will be terminated is known at the time of its origination. Unfortunately, this date is always unknown to the originator. But when a mortgage banker originates a large pool of loans, he knows that some percentage of the loans will be terminated in each month. in order to compute the present value of future income, he must estimate the percentage of these loans that will be outstanding in each period. We can apply this same concept to a single loan by estimating the probability that the loan will be outstanding in each period. Then, by multiplying the net , after-tax earnings in each month by the corresponding probability factor, we can compute the net, after-tax, expected earnings for the month. For the moment, let E_l, E_2, ..., E_m be the net earnings received in each month for servicing a loan which has a maturity of m months (E equals the servicing revenues, plus the implicit return on escrow funds, less the servicing costs described above), and let $P(0_1)$, $P(0_2)$, . . ., $P(O_m)$ be the probability that the loan will be outstanding in each month. With these definitions we have:

Net after-tax expected earnings $[P(O_1)xE_1 + P(0_2)xE2 + . . .+ P(O_m) * E_m]x(l-Tx)$

For example, if there is a 98 percent probability that a loan will be outstanding for one month, and a 97 percent probability that it will be outstanding for two months, then the expected value of the net earnings for the first two months equals $(.98xE_l + .97xE_2)$- If the probability is high that a loan will be paid off soon after its origination, expected earnings will be decreased accordingly. Of course we must discount expected earnings to determine their present value:

$$\text{After-tax expected present value of net earnings} = \left[\frac{P(O_1) x E_1}{(1+r)^1} + \frac{P(O_2) x E_2}{(1+r)^2} + \ldots + \frac{P(O_m) x E_m}{(1+r)^m} \right] x(1-Tx)$$

In the completed version of the profit/loss model, E_l, $E_{2,}$ . . ., E_m are replaced with terms that make up their components. That is, E_l, E_2, . . . , E_m are replaced by terms that represent servicing revenues, the implicit return on funds held in escrow, and the inflation-adjusted costs of servicing the loan.

The costs and revenues that result from each of the four functions of single-family mortgage banking, and the manner in which they should be incorporated in an evaluation of the profitability of originating and servicing single-family loans have been discussed here. In order to use the model, however, one must combine all of these terms into one equation. If we use the symbol 2: to represent a summation, we can express the complete profit/loss model as:

[4] A larger and more complete version of the profit/loss model is available from the Credit Research Center, Purdue University: John J. McConnell, Mortgage Companies: A Financial Model and Evaluation of Their Residential Real Estate Lend-, ing Activities, unpublished Ph.D. thesis, Purdue University, 1974.

$$
\begin{aligned}
&\text{After-tax expected net present value} = \\
&(1-Tx)\times\Big[\ (.01\times L_0) - (OC + VC\times L_0) \\
&\quad + \sum_{j=1}^{p} \frac{R\times L_{j-1}}{(1+r)^j} \\
&\quad + \frac{L_0\times(DP-SP)}{(1+r)^p} \\
&\quad + \sum_{j=1}^{m} P(O_j)\times \\
&\quad \left(\frac{SF\times L_{j-1} + i\times EB_{j-1} - SC\times(1+IF)^j}{(1+r)^j}\right)\Big]
\end{aligned}
$$

This equation simply says that the after-tax, expected, net present value of originating and servicing a particular loan equals the net cost of originating the loan, plus the present value of the interest income earned while the loan is held in inventory, plus the present value of the marketing gain or loss incurred when the loan is sold to an investor, plus the expected present value of the explicit and implicit income received for servicing the loan, less the inflationadjusted cost of servicing the loan.

The profit/loss model is extremely flexible, and the cost and revenue data needed to implement it should be accessible to most mortgage bankers. The model can be used to evaluate the profitability of a single loan or a large pool of loans. It can be used to examine and compare loans of different amounts, different interest rates, and different maturities; to examine the potential profit of opening a new branch office; to judge the relative merits of buying versus originating a servicing portfolio; to compare theprofitability of originating different grades of loans when the cost of servicing depends on loan quality; or to determine the discount points needed to break even on different loan sizes when a fixed commitment is obtained from an institutional investor. Most of the information needed to use the model should be readily available from internal financial statements. The only information not available internally may be estimates of the probability of premature payoffs and fore-closures. However, the Federal Housing Administration keeps, several sets of statistics that Gan be used for this purpose. These distributions can be adjusted for the particular clientele of tile mortgage company that is using the model.

Perhaps the most important use of the model is as an aid to managerial judgment, concerning the impact of future uncertainties. By estimating the size of each of the revenues and costs that are incurred in originating and servicing a loan, and then by varying these estimates over a range of values, a mortgage banker can judge whether a loan will be profitable under a variety of circumstances. For example, a mortgage banker may be unsure of the increase in the cost of servicing a loan over its entire life. By varying the value of the inflation factor, IF, he can determine the maximum rate of cost increase that still would yield a positive, expected, net present value. Any inflation rate above that amount means that it is unprofitable to originate and service the loan. Use of the model for this type of "sensitivity analysis" will be illustrated in the second part of this study, to be published in the next issue of Mortgage Banker.

The March issue of Mortgage Banker contained an article describing a profit/loss model for mortgage bankers. The model's premise is that it is profitable for a mortgage banker to originate and service a single-family mortgage loan only if the discounted value of the net after-tax earnings the mortgage banker expects to receive for servicing the loan exceeds the net after-tax cost of originating the loan. Because a servicer does not know the date on which a loan will be terminated, he must estimate what is the probability that the loan will be outstanding in each month, and then multiply the net earnings in that month by the estimated probability factor to determine the expected earnings for the month. These expected earnings are then discounted at the company's required rate of return, or the after-tax cost of capital, to determine their expected present value. The net cost of originating the loan is subtracted from this amount to yield the loan's expected net present value. A loan is profitable to originate and service only if it has a positive expected net present value. This article will illustrate the ways in which the model can be used to evaluate the profit/loss potential of singlefamily mortgage banking.

To illustrate the model, actual cost and revenue information provided by a group of eight mortgage companies that participated in this study will be used. Each of the costs and revenues that influence the profitability of single-family mortgage banking were discussed in the first article. The average value of each of the variables that determine the costs and revenues of the eight companies is presented in Table 1, along with their corresponding symbols. Each symbol is accompanied by a short definition.

The numbers in Table 1 show that, on the average, the companies providing data for this study receive an origination fee of one percent of the face amount of each loan they originate, and that they incur origination costs of $349 per loan, plus a variable cost equal to .5 percent of the face amount of each loan. They expect to hold the loan in warehouse for two months, after which time they will sell the loan to an institutional investor at the same discount price at which the loan was originated. That is, they expect to incur neither a marketing gain nor a loss on the sale.

In exchange for servicing the loan, they receive a servicing fee equal to .375 percent of the unpaid principal balance of the loan, and incur servicing costs equal to $34.44 per year. Due to inflation, these costs are expected to increase at a rate of . 2 percent per annum.

Additionally, they expect to maintain an escrow balance for each mortgagor that averages 1 percent of the original face amount of the mortgage loan. These funds earn an implicit rate of return of 8 percent per annum for the mortgage banker.

Finally, all of these earnings are subject to a corporate tax rate of 48 percent; to determine their present value, they must be discounted at the companies' required return of 7 percent per annum.

The cost and revenue data in Table 1 and the four payoff distributions illustrated in Figure 1 were used to compute the expected net present values for 8.5 percent, 30-year maturity loans ranging in size from $16,000 to $32,000. The results of these computations are illustrated in Figure 2.

The figure shows us that expected net present values are influenced significantly by the face amount of the loan being originated and the future expected payoff rate. When the future payoff rate is the same as the historic rate (i.e., PR=1.00), a $32,000 loan provides a positive expected net present value of $130, while a $20,000 loan provides a negative expected net present value of $40. If we define a "break-even" loan as any loan providing a zero expected net present value, we see that the break-even loan size for this group of companies is $25,100 when the expected prepayment rate is the same as the historic rate. But when the future payoff rate is 250 percent of the historic rate (i.e., PR= 2.50), the break-even loan size increases to $26,500 and the expected net present value of all loans is 100 reduced. When the future payoff rate is 50 percent of the past rate, the break-even loan size is $21,700 and the expected net present value of all loans is increased. The future payoff rate has significant bearing on the profit/loss potential of mortgage banking. An increased payoff rate decreases the profitability of originating and servicing singlefamily loans, while a decreased payoff rate has the opposite effect.

Table 1
Cost and Revenue Data Used In Analysis

	Item	Value
1.	Origination fee-percentage of original loan amount	1.0%
2.	Origination cost that is independent of loan amountdollars per loan (OC)	$349.00
3.	Origination cost that varies with loan amount-percentage of loan amount (VC)	.5%
4.	Number of moliths in warehouse before sale to investor (p)	2.0 months
5.	Mortgage interest rate-percent per annum (R)	8.5%
6.	Discount points on originationpercentage of original loan amount (DP)	3. 0 %
7.	Discount points when loan is sold to investor-percentage of original loan amount (SP)	3. 0 %
8.	Annual servicing f ee-percentage of unpaid balance (SF)	.375%
9.	Annual servicing cost-dollars per loan (SC)	$34.44
10.	Rate at which servicing costs increase-percent per annum (IF)	2.0%
11.	Average escrow balancepercentage of original loan amount (EB)	1.0%
12.	Implicit rate of return earned on escrow f unds-percent per annum(i)	8.0%
13.	Corporate tax rate-percent per annum (Tx)	48.0%
14.	After-tax cost Of Gapital-percent per annum (r)	7. 0%

For comparison, we used the same data to compute the expected net present values for 25-year maturity loans. These results are illustrated in Figure 3. This figure shows us that the break-even loan size under each prepayment rate is larger than the break-even loan size for 30-year maturity loans under the corresponding payoff rates. For 25-year maturity loans with a future payoff rate equal to the historic rate, all loans less than $24,100 provide a negative expected net present value. That is, it is not profitable for the group of mortgage companies that provided cost and revenue information for this study to originate 25-year maturity loans of less than $24,100 if they expect those loans to experience the same prepayment pattern as similar loans in the past. If we expect loans to experience a prepayment rate that is 250 percent of the historic rate, then it is not profitable for them to originate and service 25-vear maturitv loans with face amounts of less than $28,700.

Although the results are not shown here, expected net present values for 35-year maturity loans were also computed. These results indicated a break-even loan size of $23,100.

Of course, all of these results depend upon the values assigned to each of the variables that determine a mortgage company's future costs and revenues. Assigning different values to the variables will yield different results. One variable that may be of considerable interest to mortgage bankers is the rate at which their servicing costs increase in the future. An inflation rate of 2 percent per annum was used in Figures 2 and 3. By introducing electronic data-processing systems, mortgage servicers have been able to maintain relatively stable costs over a long-term period. However, most of the industry already has taken advantage of these costsaving devices. Unless recent inflationary pressures ease, mortgage servicing costs are likely to climb substantially in the future.

In order to compute expected earnings, the probability that a loan will be outstanding in each month must be estimated. The FHA has tabulated the number of 20-, 25-, and 30-year maturity loans insured in each year since 1952, as well as the number from each cohort that have been terminated in each succeeding year.

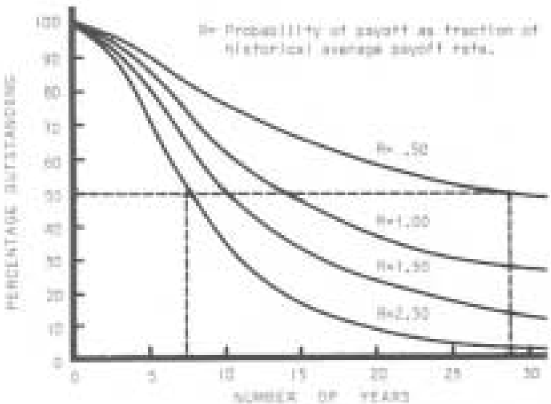


FIGURE 1

Probability That a Loan Will Be Outstanding Under Four Different Prepayment Rates

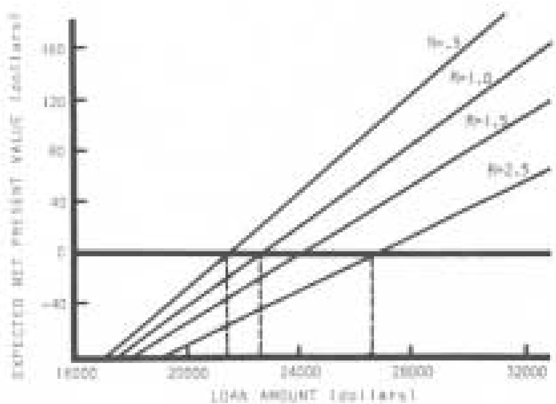


FIGURE 2

Expected Net Present Value Of 30-Year Maturity Loans

These statistics were used to estimate the probability that 20-, 25-, and 30-year loans will be outstanding in each month after origination. From these statistics, the probability that a 35-year loan will be outstanding in each month was estimated. To the extent that future prepayment rates differ from the historic rate, these statistics may not provide adequate information about the future. Figure 1 illustrates the probability that a 30year maturity loan will be outstanding under four different prepayment rates. In Figure 1, PR represents the monthly payoff rate as a fraction of the historic rate. For example, when the future payoff rate is 50 percent of the historic rate (i.e., PR=.50) there is a 50 percent probability that a loan will be outstanding until the 28th year, but when the future payoff rate is 250 percent of the historic rate (i.e., PR=2.50) there is a 50 percent probability that loan will be outstanding only until the eighth year. If we expect loans to be prepaid more frequently in the future than in the past, the profitability of servicing residential loans will decline. By using several different payoff rates, we can gain greater insight into the profit/loss potential of single-family mortgage banking.

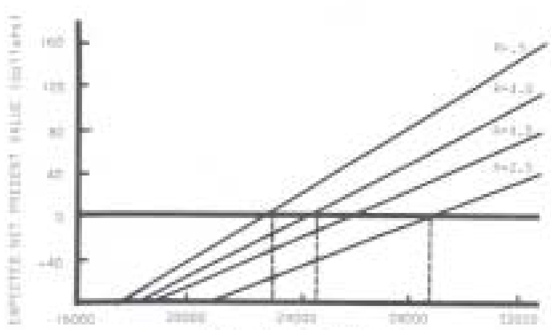


FIGURE 3

Expected Net Present Value Of 25-Year Maturity Loans

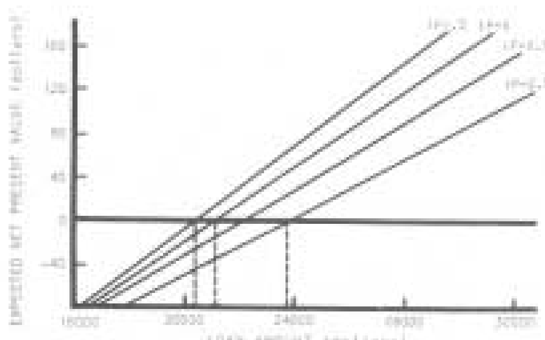
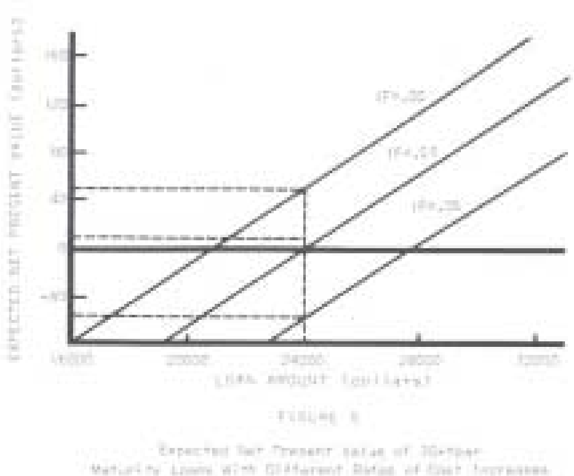


FIGURE 4

Expected Net Present Value Of 35-Year Maturity Loans



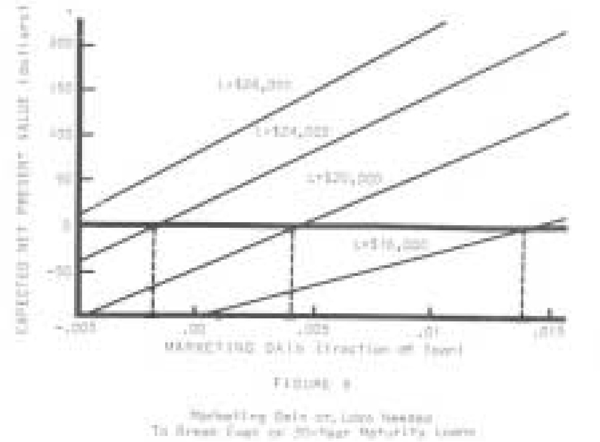


Figure 4 illustrates the impact of three different rates of cost increases on the expected net present values of 30-year maturity loans (IF=the future rate of cost increases). In these computations the historic payoff rate was used. The figure shows that increasing the inflation rate from 2 percent to 6 percent increases the break-even loan size from $25,100 to $27,800.

It is interesting to compare the expected net present value of a $24,000 loan under each of the three inflation rates. Increasing the inflation rate from zero percent to 6 percent reduces the value of originating and servicing a $24,000 loan from a positive $48 to a negative $55. Because mortgage bankers are committed to servicing mortgage loans for the duration of their lives, long-run high rates of inflation could substantially impair the profitability of mortgage servicing.

The results presented in Figures 2, 3, and 4 indicate that if mortgage companies are to earn an adequate rate of return for their shareholders, they must either concentrate on originating and servicing loans above their break-even points, increase their origination or servicing fees, or generate marketing gains by imposing larger discounts when they originate residential loans. Because the origination fee on government-sponsored loans is limited to 1 percent of their face amount, and because institutional investors are adverse to increased servicing fees, the ortly alternative available for mortgage bankers is to set their discounts so as to earn a marketing profit. Since expected net present value depends upon loan size, the marketing gain needed to break even will not be the same for different sizes of loans.

In order to determine the marketing gain needed to break even on each loan size, expected net present values for different loan sizes tinder a range of marketing gains were computed. In these computations, the historic average payoff rate and a 2 percent inflation rate were used. The results are presented in Figure 5 where L represents the face amount of the loan. The figure shows that a marketing gain of almost 1.5 percent is needed to break even on a $16,000 loan, while a gain of almost .5 percent. is needed to break even on a $20,000 loan. However, these companies can afford a marketing loss on loans greater than $24,000 and still "break even."

When a mortgage banker obtains a commitment from an institutional investor to purchase loans at a fixed price, the mortgage banker must be able to originate loans at a discount large enough to break even. By using the profit/loss model as illustrated in Figure 5, a mortgage banker can determine the discount points needed to j ustif y originating diff erent loan sizes.

Several uses for a profit/loss evaluation model for mortgage bankers have been illustrated here. The model can also be used to evaluate the impact of different servicing fees, different origination fees, and different mortgage interest rates on the expected net present value of originating and servicing single-family loans. It can be used to determine the price for which a mortgage company should sell or purchase servicing originated by others. By using different combinations of each of the variables that determine a servicer's costs and revenues, the profit/loss potential of a single-family mortgage banker can be examined under a variety of circumstances. The model can be easily programmed and the cost and revenue data needed to implement it should be available to all mortgage bankers. In short, the profit/loss model should be a valuable aid to the analytical judgment of mortgage bankers.