Mini-case 7: Mortgage Loans, Qualifying for a Mortgage, Finding the Lowest Interest Rate, Effective Cost of the Loan, Prepayment Options

CONCEPTS IN THIS CASE

mortgage loans
fixed-rate versus variable-rate loans
calculating loan amounts
the effect of loan timing
internet alternatives to local mortgages
adjustments needed to remain competitive
alternatives to basic mortgages
the effect of discount points

Your bank has a mortgage loan department/subsidiary. It has been suggested that this area of the bank is not competitive in terms of interest rates and options available to homeowners. You have been given the opportunity to evaluate the products offered by your bank and how they compare to alternatives that homeowners are considering when selecting a mortgage company.

You decide that the best way of learning how your bank's mortgage department works is to experience the mortgage application process using Internet resources first, then compare your findings with what would occur if you obtained the mortgage from your own employer.

The following information applies to your mortgage qualification process:

Monthly Gross Income	$3000
Money you have in savings for a down payment	$25 000
You have monthly payments for all existing debts of	$400
The property tax rate in your area is	1%
The hazard/home insurance rate in your area is	0.5%

You are an acceptable credit risk, with a respectable credit history.

1. Assume your bank offers the following mortgage terms and rates:

Term of loan: 15 or 30 years
Down payment required: 10% to 20%
Closing costs of: Discount Points of 1%
Origination Fees of 2%
Lender Fees of $300
Credit Report Cost of $20
Escrow Fee of $300
Lender's Title Insurance fee of $400
Recording Fee of $25
Appraisal Report of $300
Survey Fee of $200
Termite Infestation Report of $50
A 15-year fixed mortgage has an interest rate of 6.5%
A 30-year fixed mortgage has an interest rate of 7.0%
A 15-year adjustable-rate mortgage (ARM) has an interest rate of 5.0%, adjusted every 12 months
The bank uses a payment-to-income (PTI) ratio range of 28% to 33%

Using Internet mortgage calculators answer the following:

a. How much do you qualify to borrow (assume 28% PTI)
   i. for a 15-year fixed-rate mortgage (10% down)?
   ii. for a 30-year fixed-rate mortgage (10% down)?
   iii. for a 15-year fixed-rate mortgage (20% down)?
   iv. for a 30-year fixed-rate mortgage (20% down)?
b. How much do you qualify to borrow (assume 33% PTI)
   i. for a 15-year fixed-rate mortgage (10% down)?
   ii. for a 30-year fixed-rate mortgage (10% down)?
   iii. for a 15-year fixed-rate mortgage (20% down)?
   iv. for a 30-year fixed-rate mortgage (20% down)?

c. Assuming closing costs are paid from savings:
    i. What is the monthly payment on a 30-year, fixed-rate loan of $100,000?
    ii. What is the monthly payment on a 15-year, fixed-rate loan of $100,000?
    iii. What is the monthly payment on an adjustable-rate loan of $100,000 for the first year?
    iv. How much is the total interest paid on the 30-year loan in year 5?
    v. How much is the total interest paid on the 15-year loan in year 5?

d. Given the following information on the adjustable-rate loan:

Maximum Rate is 12%
Months before First Adjustment is 36
Months between Adjustments is 12
Rate Change Per Adjustment is 2%
Years before Sell/Pay Off Loan is 7
Your Savings Rate is 4%
Your Federal Tax Rate is 40%

i. What is the cost difference between the adjustable-rate loan and the 30-year fixed rate loan if interest rates decrease?

ii. What is the cost difference between the adjustable rate loan and the 30-year fixed-rate loan if interest rates increase?

iii. Which loan would you prefer, and why?

2. Use local mortgage lenders and/or libraries/Internet resources to find terms and rates for competing mortgage lenders. Recalculate your responses to questions 1(a), 1(b), and 1(c). Indicate the strengths and weaknesses of your bank's mortgage loan area relative to what you find locally or on the Internet. What changes should your company consider in order to improve its position as a mortgage lender? What recommendations would you make to your supervisor?

3. What is the effective annual interest rate of the 15-year mortgage in question 1, if the discount rate is zero?

4. What is the effective annual interest rate of the 15-year mortgage in question 1, if the discount rate is 2%?

5. Your bank suffers from the typical maturity mismatch in bank assets and liabilities.
    a. Could your bank make more adjustable-rate loans to reduce the mismatch problem?
    b. What is the likely consequence of the above on the profit margin of adjustable-rate loans versus fixed-rate loans?