## The Home Mortgage Company - Rate Program

You are working as a business analysis for The Home Mortgage Company, offering thirty year residential fixed and variable rate mortgage loans to in the greater Philadelphia Area. The Home Mortgage Company offers a range of loan options in their mortgage program based on the applicants past and current credit history.

During your meeting with Jack Jones who is the Director of Residential Leading you have noted the follow criteria for the Thirty Year Mortgage Program.

Applicants with an existing mortgage loan, in good standing with HMC and a credit score greater than 750 will be offered a fixed mortgage rate 50 basis points below the prime rate, with a credit score between 750 and 500 will be offered a fixed mortgage rate 25 basis points below the prime rate, otherwise they will be offered a fixed mortgage rate at the prime rate, on the day of lock-in.

Applicants with existing mortgage loans, in poor standing with HMC and a credit score greater than 650 will be offered a fixed mortgage rate 25 basis points over the prime rate at the time of lock-in, otherwise the applicant will be offered a variable rate mortgage 100 basis points above prime on the first day of each month.

Applicants with no existing mortgage loans with HMC, assets of over 200,000 dollars, with a credit score greater than 550 will be offered a fixed mortgage rate 50 basis points above the prime rate, with a credit score between 550 and 300 they will be offered a fixed mortgage rate 100 basis points above the prime rate, otherwise they will be offered a fixed mortgage rate 150 basis points above the prime rate, on the day of lock-in.

Applicants with no existing mortgage loans with HMC, assets less than 200,000 with a credit score greater than 550 will be offered a variable rate mortgage based on 200 basis points above prime on the first day of each month.

All other Applicants will be sent a rejection letter and placed in the application archive system

The Deliverables: Using the information provided:

1. Identify the set of business rules that The Home Mortgage Company is using to decide what interest rate and type loan (fixed or variable) to grant to an applicant for a thirty year loan.
2. Draw a Decision Tree of how The Home Mortgage Company should link these business rules to decide what rate and loan type to offer the applicant.
3. Write a list of questions (4-5) that you want to ask Jack Jones when you go back to him with your draft rules to check if they are correct.

## The Home Mortgage Company Solution

## Business Rules

1. Existing HMC mortgage holder in good standing with Credit score greater than 750 receives a fixed rate loan 50 basis point below prime on day of lock-in
2. Existing HMC mortgage holder in good standing with Credit score between 750 and 500 receives a fixed rate loan 25 basis point below prime on day of lock-in
3. Existing HMC mortgage holder in good standing with Credit score below than 500 receives a fixed rate loan at prime on day of lock-in
4. Existing HMC mortgage holder in poor standing with Credit score greater than 650 receives a fixed rate loan 25 basis point above prime on day of lock-in
5. Existing HMC mortgage holder in poor standing with Credit score less than or equal to 650 receives a variable rate loan 100 basis point above prime on the first day of each month
6. Non-HMC mortgage holders with assets over 200,000 dollars and Credit score greater than 550 receives a fixed rate loan 50 basis point above prime on day of lock-in
7. Non-HMC mortgage holders with assets over 200,000 dollars and Credit score between than 550 and 300 receives a fixed rate loan 100 basis point above prime on day of lock-in
8. Non-HMC mortgage holders with assets over 200,000 dollars and Credit score below or equal to 300 receives a fixed rate loan 150 basis point above prime on day of lock-in
9. Non-HMC mortgage holders with assets below or equal to 200,000 dollars and Credit score above 550 receives a variable rate loan 200 basis point above prime on the first day of each month
10. Applicant not meeting specific criteria will be sent a rejection letter and placed in the application archive system

## Decision Tree



## Follow Up Questions:

1. Can you quantify the terms of good standing in HMC?
2. What is included in Assets calculation?
3. How far back do you look to see if the application had a mortgage with HMC?
4. What data does the application archive system require?
5. What Credit Score organization should be used (lowest, average or highest)?
6. How do you determine the Prime Rate?
7. Do the basis points frequently change?
