

You are trying to decide whether or not to refinance your property loan. You took out a fixed rate, fully amortizing mortgage for \$3,000,000 exactly 3 years ago. The loan has a term of 10 years, and a prepayment penalty of 5% the first 2 years, 3%, the next 2 years, and 1% for any year thereafter. The penalty is a percentage of the original principal. The interest rate is 6.25%, and you have made no early payments. You can refinance this loan today at 4% fixed rate, for 10 years, with \$20,000 in closing costs, not including any prepayment penalty.

- a. If you will use the property for at least 10 more years, what is the NPV of refinancing, and should you do it?
- b. If you use the property for 3 more years, what is the NPV of refinancing, and should you do it?