RE 310 – Principles of Real Estate
Mortgages and Mortgage Markets

1) What is a Mortgage?
   a) A mortgage is simply a _____ as collateral for a _____.

      - Although we usually speak of the "mortgage" as if it were a loan, technically it is a security instrument putting up the property as collateral for the loan.

   b) The _____ (or financing instrument) is the document that actually creates the debt and specifies the terms of the loan.

   c) The _____ is also known as the *security instrument*. This is what gives the lender the right to sue for foreclosure in the event of default.

      - The mortgage typically contains certain uniform covenants (promises) that require the borrower to:
        – Pay the debt in accordance with the terms of the note;
        – Pay real estate taxes on the property;
        – Keep insurance on the property; and
        – Maintain the property.

- Other clauses in the mortgage may:
  - Allow the lender to collect reserves for taxes, insurance, and flood insurance;
  - Provide that rents from the property be assigned to the lender in the event of default;
  - Require the lender to release the mortgage in a timely fashion when the loan is repaid; and
  - Allow the lender to assign the mortgage to a new lender.

The book has samples of both documents.

d) In these documents, the _____ is called the *mortgagor*,

while the _____ is called the *mortgagee*.

e) Mortgages must be recorded in the register of deeds office in order to be valid.
   - This provides constructive notice of the claim and establishes priority in relation to other claims.

2) Mortgage Loan Default and Foreclosure
   a) Default occurs when the borrower fails to make his or her payment on time or violates any of the terms of the note or mortgage.

   b) Foreclosure refers to the process of seizing the property and having it sold to repay the debt.

   c) In the event that the sale of the property does not pay off all the debt, the mortgagee may be entitled to a personal _____ against the borrower.

   d) Lenders prefer to avoid foreclosure, and are typically willing to make concessions to keep the borrower paying on the loan.

      - Recasting or modifying the loan

      - Allow the loan to be assumed

      - Short sale

      - Deed in lieu of foreclosure

e) Redemption rights

- Equitable right of redemption

  - Prior to the foreclosure sale, if the borrower pays the amount in default plus costs the debt may be reinstated.

- Statutory right of redemption
  - A period of time in which the borrower can redeem his property *even after the foreclosure sale*. In Kansas is this is generally 12 months, depending on the circumstances.

3) Other Mortgage Tidbits
   a) Mortgage Alternatives
      - Deed of trust

      - Land contracts

        – A variety of names are used for this arrangement:
          - Real estate contract
          - Contract for deed
          - Installment sales contract
          - Owner carry
          - Agreement to convey

        – Don't confuse this with seller financing.

b) Purchasing a mortgaged property
   - Assuming the mortgage

   - Purchase subject to an existing mortgage

4) Mortgage Markets
   a) Primary Mortgage Market
      - In the primary mortgage market, new mortgage loans are created and funds are advanced to borrowers.

- Major players in the primary mortgage market include:
  - Depository institutions (commercial banks, savings banks, credit unions, etc.)
  - Mortgage banks
  - Mortgage brokers
  - Institutional Investors
- Lenders in the primary mortgage market earn income from three basic sources:
  -
  -
  -

b) Secondary Mortgage Market

- In the secondary mortgage market, existing mortgages are bought and sold by investors.

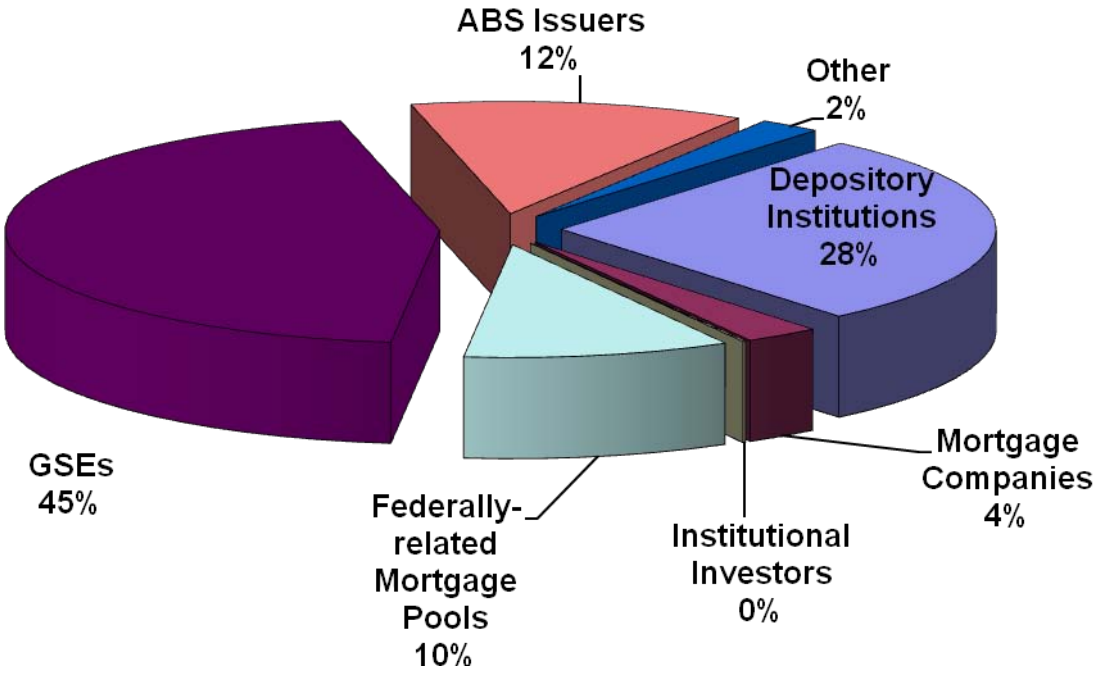
  - What is the purpose of the secondary mortgage market?

- Direct investment

- Mortgage-backed securities

- Players in the secondary mortgage market:
  - Government Sponsored Enterprises (GSEs)
    - Fannie Mae (Federal National Mortgage Association)
    - Freddie Mac (Federal Home Loan Mortgage Corporation)
  - Ginnie Mae (Government National Mortgage Association)
  - Federal Home Loan Bank System
  - Investment banks
  - Private investors

Residential Mortgage Holdings



- How do firms earn income in the secondary mortgage market?

- Commercial mortgage-backed securities

5) Classifications of mortgage loans
   a) Conventional loans
      - Uninsured vs. insured conventional mortgages

        – Private mortgage insurance protects the _____ against _____.

      - Conforming vs. nonconforming mortgages

        – Jumbo loans

        – Qualified Residential Mortgages

   b) Government-backed mortgages
      - Federal Housing Administration (FHA) insured loans

      - Veterans Administration (VA) guaranteed loans

6) Mortgage Loan Underwriting
   a) Credit history
      - Installment loans
      - Revolving accounts
      - Mortgage loans
      - Bankruptcies, judgments, and chargeoffs
      - Lenders often use credit scores (FICO scores) to summarize the applicant's credit history
   b) Income (capacity)
      - Will the applicant be able to make the required monthly payment on the loan?
        – The lender will verify the income reported by the applicant by inspecting past tax returns and calling employers.

- The front-end (housing expense) ratio (FER) is the percentage of the applicant's monthly income needed to meet required monthly housing expenses.
  - Housing expenses include:

  - Thus, the front-end ratio is equal to:

  - Conforming lenders typically require that the applicant's FER be no greater than _____.

  Example: Suppose a borrower has monthly income of $3,000. The proposed mortgage payment is $550 per month, while taxes and insurance are expected to be $250 per month. What is this applicant's front-end ratio? Doe he meet the traditional mortgage underwriting guidelines?

- The back-end (total debt) ratio (BER) is the percentage of the applicant's monthly income needed to meet all of his or her debt payment obligations, including both the housing expenses and any other required monthly debt payments

  – Other debt payments include almost all other monthly obligations the applicant may have.

  – Conforming lenders typically require that an applicant's BER be no greater than _____.

  Example: Suppose the applicant above has a car loan requiring a monthly payment of $350 and a student loan with a monthly payment of $200. What is his back-end ratio? Does he meet the traditional underwriting requirements?

c) Collateral

- Finally, lenders want to make sure that the property provides adequate collateral for the loan.
  - Does the applicant have clear title to the property?
  - Does the property meet the lender's criteria?
  - Is the value of the property high enough?
- The loan-to-value (LTV) ratio is used to determine whether the value of the collateral is high enough.
  - Conventional lenders typically require the LTV ratio be no greater than 80%.
    - With private mortgage insurance (PMI) the LTV ratio can be as high as 95%
    - FHA loans can have LTV ratios of up to 98.75%

Example: A property is selling for $115,000 and has been appraised at $112,500. The loan amount is $90,000. What is the LTV Ratio?

7) Housing Finance Regulations

a) Equal Credit Opportunity Act (ECOA)

- Prohibits discrimination on the basis of race, color, religion, national origin, sex, marital status, age, or receipt of public assistance.
- Applicants must be informed of the loan's status within 30 days of the application, along with reasons for denial.
- The Fair Housing Act also prohibits mortgage discrimination.

b) Truth in Lending Act (TILA)

- Lenders must disclose the costs of the loan within three business days of the application, including the total finance charges and the annual percentage rate (APR).
- Provides borrowers on refinance loans to rescind the loan within three business days of the application.

c) Real Estate Settlement Procedures Act (RESPA)

- Requires lenders to provide applicants with a "good faith estimate" of settlement costs within three business days of the application.
- Prohibits kickbacks and referral fees by the lender.
- Allows the borrower to receive a copy of the appraisal.
- Requires the HUD-1 settlement statement to be used at closing to show the costs of the transaction.

d) Community Reinvestment Act (CRA) and the Home Mortgage Disclosure Act (HMDA)

- Intended to prohibit "redlining."

8) Mortgage Payment Mechanics

a) The traditional residential mortgage loan is a long-term, fully-amortizing, fixed-rate loan with constant monthly payments

- Terms of 15 and 30 years are the most common
- Fully-amortizing means that the regular monthly payments will fully repay the loan by the end of the term
- The interest rate charged on the loan remains constant for the entire loan term, and the monthly payment never changes

b) You can use the time value of money keys on your financial calculator to solve mortgage problems

P/Y = Number of payments to be made per year

N = Number of periods the payments will be made

I/Y = Annual nominal interest rate

PV = Present value, or the initial loan amount

PMT = Periodic payment on the loan

FV = Future value, or the balance due after all payments are made

Example #1: What is the monthly payment required to purchase property worth $225,000 under the following terms using a 30-year, fixed-rate mortgage with monthly payments at 8.5 percent interest with an 80 percent LTV ratio?

- The first step in any problem is to clear your financial calculator of old information that may be entered in the registers.

  Press [2nd], [Clr TVM]

- Next note that the loan amount is 80% of the property's value, based on the lender's required LTV ratio.

  Solve for the loan amount $225{,}000 \times 0.80 = 180{,}000$
  Enter this into your calculator by pressing [PV]

- This loan has monthly payments, so the number of payments per year is 12.

  Set this by entering [2nd], [P/Y], 12, [Enter]
  Exit this feature by pressing [2nd], [Quit]

- The total number of payments will be $30 \times 12 = 360$.

  Enter this by pressing 360, [N]
  Note that you can calculate the total number of payments by pressing 30, [2nd], [xP/Y]; make sure you then press [N] to enter this value

- Next enter the annual interest rate on the loan.

  Press 8.5, [I/Y]

- Finally, note that because the loan is fully-amortizing, the loan balance will be 0 at the end of the term

  Because we cleared the calculator at the beginning, the future value is preset to 0; check this by pressing [RCL], [FV]

  To be safe, get in the habit of entering your future value again: 0, [FV]

- Now you can solve for the monthly payment

  Press [CPT], [PMT] to get – 1,384.04

  This is negative because payments are cash outflows

Example #2: What is the required monthly payment on a 15-year, $75,000 fixed-rate mortgage with monthly payments and 5.50% interest rate?

c) Mortgage loan amortization

- Traditional mortgages are structured so that each month a portion of the loan is repaid, with the last payment fully paying off the loan.

- Consider our $180,000 mortgage from earlier:

  – The monthly payment on the mortgage was $1,384.04

  – In the first month, $1,275 of interest will accrue.

  – The balance of the payment is credited toward principal.

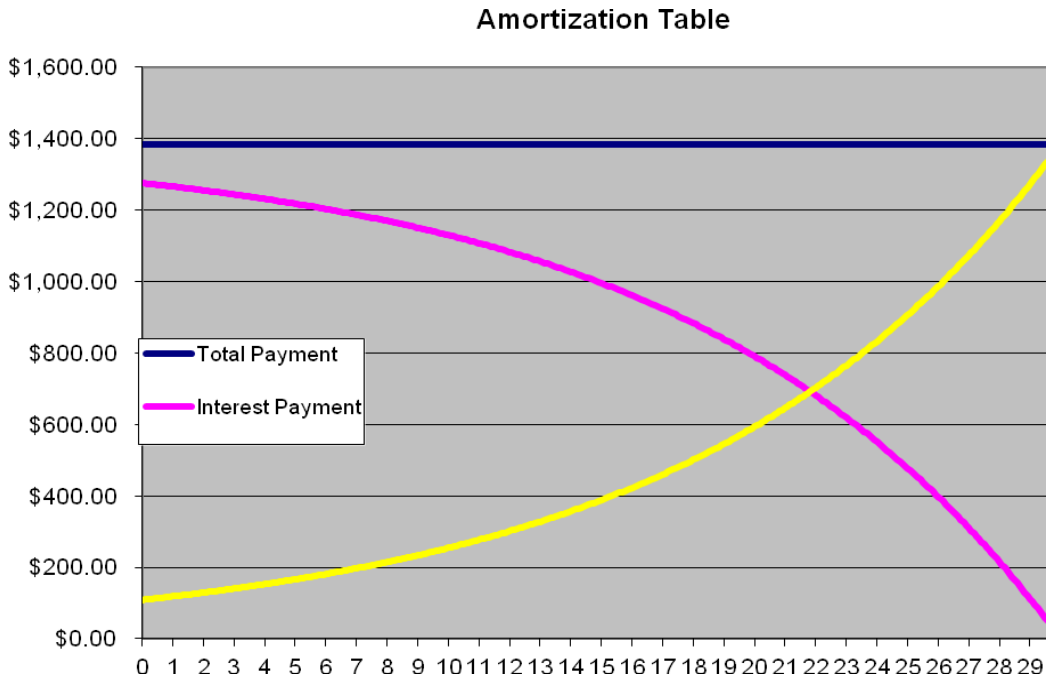
  – As a result, the borrower's loan balance is only $179,890.96 after the first payment.

  – Because part of the loan has been repaid, less interest accrues during the second month.

  – Hence, even more of the payment is left over to pay down the principal of the loan.

Mortgage Amortization Schedule:

Month	*Opening Balance*	*Total Payment*	*Interest Payment*	*Principal Payment*	*Ending Balance*
1	$180,000.00	$1,384.04	$1,275.00	$109.04	$179,890.96
2	$179,890.96	$1,384.04	$1,274.23	$109.81	$179,781.15
3	$179,781.14	$1,384.04	$1,273.45	$110.59	$179,670.54
4	$179,670.54	$1,384.04	$1,272.67	$111.38	$179,559.17
12	$178,757.12	$1,384.04	$1,266.20	$117.85	$178,639.27
36	$175,685.94	$1,384.04	$1,244.44	$139.60	$175,546.34
60	$172,047.85	$1,384.04	$1,218.67	$165.37	$171,882.48
120	$159,737.16	$1,384.04	$1,131.47	$252.57	$159,484.58
180	$140,935.03	$1,384.04	$998.29	$385.75	$140,549.27
240	$112,218.52	$1,384.04	$794.88	$589.16	$111,629.36
300	$68,359.78	$1,384.04	$484.22	$899.83	$67,459.95
359	$2,738.95	$1,384.04	$19.40	$1,364.64	$1,374.31
360	$1,374.31	$1,384.04	$9.73	$1,374.31	$0.00



9) How Much Does My Loan Really Cost?

b) Points and the cost of a mortgage

- The nominal interest rate determines how fast interest accrues on your outstanding loan balance, but it may not accurately measure the true cost of the loan.

- Fees often come in the form of “points,” where one point is one percent of the loan amount.

- Origination points are used to compensate the lender for the costs of processing and originating the loan.

- Discount points are used to “buy down” the interest rate that will be paid by the borrower.

c) Discount points and rate sheets

Rate	45-day Lock	60-day Lock
3.875%	3.0	3.5
4.000%	2.5	3.0
4.125%	2.0	2.5
4.250%	1.5	2.0
4.375%	1.0	1.5
4.500%	0.5	1.0
4.625%	0.0	0.5
4.750%	-0.5	0.0

- Rate sheets will be adjusted based on the borrower's credit score, whether the borrower uses an escrow account, cash out refis, and other factors.

d) Annual Percentage Rate

- One tool for comparing loans is the Annual Percentage Rate (APR).

- On the rate sheet from before, what is the APR of a 30-year $100,000 mortgage at 4.375% interest with 1 point?
  - Begin by calculating the monthly payment on the loan:

  - Next calculate the net funds that will be received by the borrower and enter this as the new PV:

  - Finally, solve for the interest rate implied by this lower net amount financed:

- What is the APR of the 4.625% loan with zero points?

- Choosing the loan with the lowest APR ensures that you are getting the best alternative, assuming you hold the loan until maturity.

  - If you do not hold the loan for the entire term, then the loan with the lowest APR may not be the best choice.

e) Effective Borrowing Cost

- The effective borrowing cost (EBC) measures the true cost of the mortgage taking into account both the up-front fees and the anticipated holding period for the loan.

  – If you hold the loan until maturity, _____.

  – If there are no up-front fees on the loan, _____.

  – If the loan has up-front fees and you don't hold it until maturity

    _____.

  – Calculating the EBC or the APR is relatively simple with a financial calculator.

- What is the EBC of the 4.375% loan if you only anticipate holding the mortgage for 5 years?
  – Begin by calculating the monthly payment as before:

  – Next calculate the balance that will be due at the end of 5 years:

  – Finally, calculate the implicit interest rate based on the net funds provided to the borrower:

  Notice that the EBC is higher because there is less time to benefit from the lower interest rate.

f) Rules of Thumb for Choosing Among Loans

- If you anticipate holding the loan for the entire term, choose the option with the lowest APR.

- Generally speaking, if your expected holding period is more than 3 or 4 years, you are better off paying points and getting a lower interest rate.

g) When Should you Refinance?

- As a general rule, you should refinance if the EBC of the new loan is lower than the nominal interest rate of your existing loan.

- If your new loan term is the same, then refinance if you can lower your monthly payment.

  – Be careful about extending the loan term, however, because you can get a lower payment will increasing your total borrowing cost.

10) Other Mortgage Loan Structures

a) Adjustable-rate mortgages (ARMs) do not have a fixed interest rate over the life of the loan:

- 1-year ARMs allow the interest rate to adjust every year.

- 6-month ARMs adjust every six months.

- 3-1, 5-1, and 7-1 ARMs have a fixed interest rate for the first several years (3, 5, or 7, respectively) which then adjusts annually thereafter.

b) Many other mortgage products exist as well.

- Reverse-annuity mortgages (RAMs) are used by borrowers who own their properties outright, but desire to obtain a regular stream of income from the property without selling it.

  – With a RAM, the lender makes payments to the borrower, with the payments and accrued interest added to the principal balance of the mortgage each month. At the end of the loan term, the property is sold and the proceeds used to pay off the loan.

11) Commercial Property Mortgages

a) Basic structure of these loans is very much the same as with long-term residential mortgages.
   - Prepayment penalties are very common
   - Balloon payments are very common on these mortgages.

b) Underwriting guidelines
   - LTV ratios
   - Debt-coverage ratio
   - Recourse vs. non-recourse
   - Property characteristics
     - Size
     - Location
     - Age
     - Quality
   - Other collateral
   - Portfolio mix
   - Lease analysis
     - Tenant creditworthiness
     - Lease characteristics
       Tenant mix