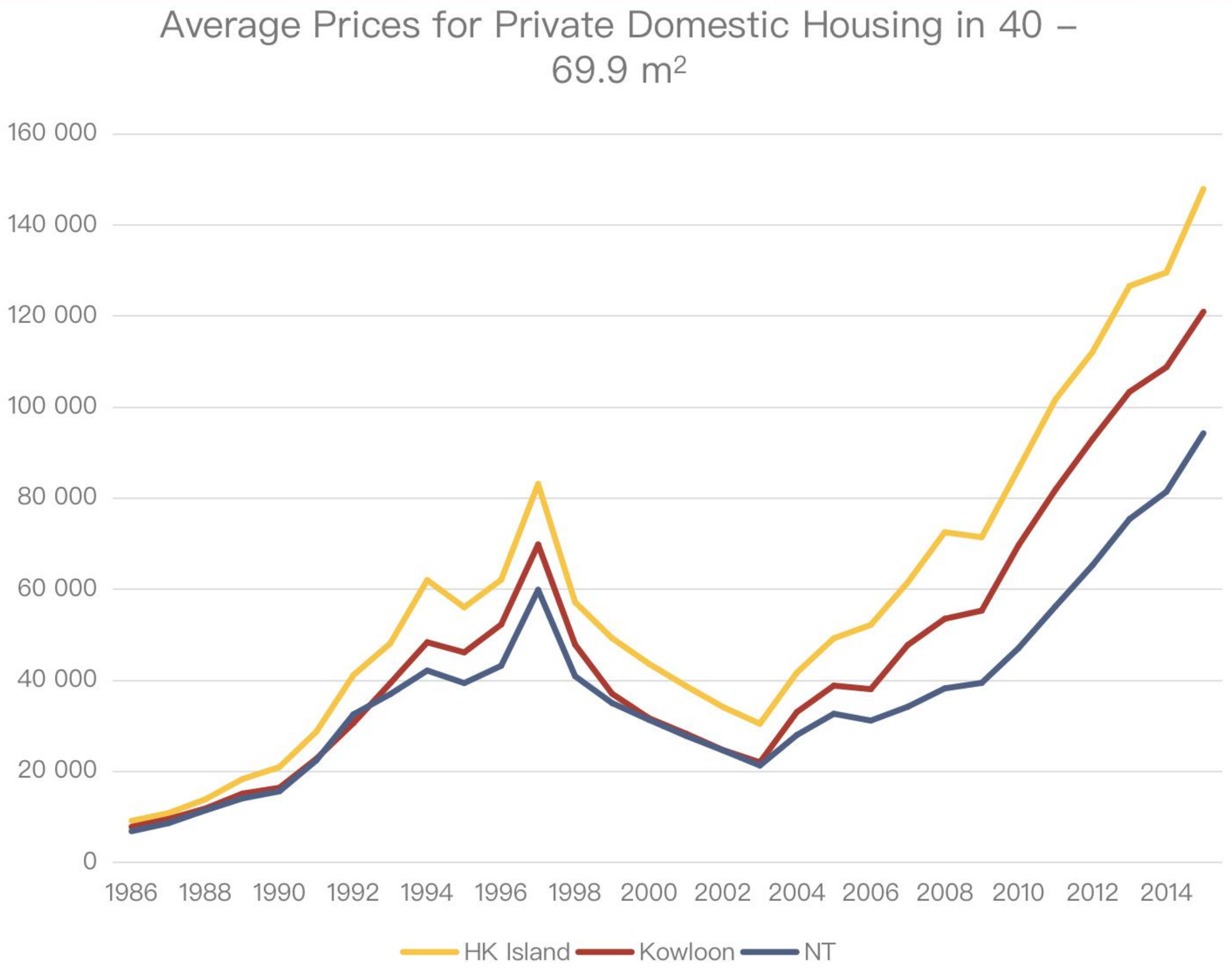
GE1202 Managing Your Personal Finance

Lecture 5
Purchasing Homes

HK Property Market

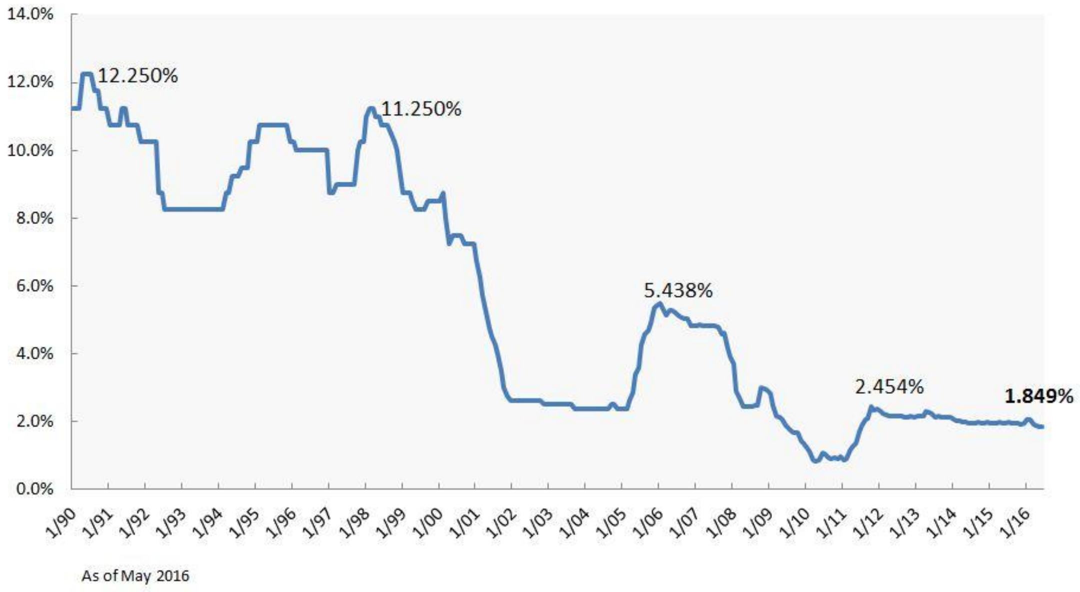
- In 1997, many homeowners in Hong Kong had **negative equity**
  - Outstanding value of mortgage > the current value of home
- Home foreclosures
  - The process whereby lenders attempt to recover loan balances from borrowers who have quit making payments by forcing the sale of the home pledged as collateral



HK Property Market

- The property price went down to the bottom in 2003 and rebounded quickly
- The long lasting low interest rate environment fuelled the property market, leading to a rocket rise since 2009.

Mortgage rate



Should You Buy Your Home?

- Opportunity costs of homeownership
  - Closing Costs
  - Interest Charged on Mortgage Payments
  - Taxes
  - Insurance
    - Fire insurance
    - Homeowner's insurance
  - Maintenance
  - Lost of interest on Down Payment and Closing Costs

Closing Costs

- **Closing costs** are all expenses that borrowers ordinarily pay when a mortgage loan is closed and they receive title to the purchased property
  - Loan application and loan origination fees paid to the lender
  - Mortgage points
  - Insurance fees
  - Appraisal fees
  - Title check
    - The research of legal documents and courthouse record to verify the seller conveying title actually has the legal interest he or she claims and that the title is free of all liens and encumbrances
  - Attorneys' fees
  - and other miscellaneous fees
    - Property agent commission – 1% of the property price

Interest Charged on Mortgage Payments

- Most of the people purchase their properties that make use of the mortgage services from the bank
- Mortgage loan is secured on the borrower's property
- According to the guideline issued by the Hong Kong Monetary Authority, banks have to comply with a 60% **loan-to-value** (LTV) requirement on owner-occupied residential mortgage lending for properties valued below HK$7 million
  - A **down payment** 40% of the full purchase price

Interest Charged on Mortgage Payments

- There are two types of mortgage

1. **Fixed-Rate, Fixed Repayment Mortgage**
   - Conventional
   - Both the rate of interest and the monthly mortgage payment are fixed over the full term of the loan
   - 20-year, 25-year and 30-year
2. **Adjusted-Rate Mortgage (ARM)**
   - During the life of the loan the interest rate varies
   - Two commonly used ARM in Hong Kong
     - Prime-based Mortgage
     - HIBOR-based Mortgage

Interest Charged on Mortgage Payments

- Prime-based Mortgage
  - **Prime rate**
    - A reference interest rate used by banks lending to customers with good credit
  - There are two Prime rate in HK
    - *Big P*: 5.25% (CITI Bank, Standard Charatered Bank)
    - *Small P*: 5% (HSBC, Hang Seng Bank, Bank of China)
  - Mortgage rate = Prime rate – spread
    - eg: 5.25% – 3.1% = 2.15%
  - The interest rate is relatively stable
    - Interest rate change when banks adjust the prime rate

Interest Charged on Mortgage Payments

- HIBOR-based Mortgage
  - Hong Kong Inter-Bank Offer Rate (**HIBOR**)
    - It is the annualized rate charged for inter-bank lending on Hong Kong Dollar
    - The cost of banks for acquiring short term funding
  - Mortgage rate = One month HIBOR + spread
    - eg: 0.2% + 1.5 % = 1.7%
  - This is much more fluctuated
    - As Hibor rate is easily affected by the domestic capital flow and the external economical factors, the installments of borrower may vary accordingly.
    - Most of the banks will set a cap to lock up the risk of interest soar

Interest Charged on Mortgage Payments

- How to find the interest charges on the loan?
- Mortgage payment is made up partly of principal repayment on the loan and partly of interest charges on the loan.
- **Amortization table** is an method to identify how much of your repayment is used to repay the principal of the loan
  - Amortization is the paying off of debt with a fixed repayment schedule in regular installments over a period of time
- Example
  - The property worth 3m and applied a 70% mortgage loan with 15 years. Assume prime rate = 5% and does not change in the whole period

Interest Charged on Mortgage Payments

- Step 1: Find the monthly payment

$$P = \frac{r\,(L)}{1 - (1 + r)^{-n}}$$

- L = 3m x 70% = 2.1m
- r = 3%/12 = 0.25%
- n = 15 x 12 = 180 months
- P = $14502.2 per month

Interest Charged on Mortgage Payments

- Step 2: Calculate your interest part for the 1st month
  - 2.1m x 0.25% = $5250
- Step 3: Repayment — interest part for the 1st month = principal repayment for the 1st month
  - $14502.2 – $5250 =$9252.2
- Step 4: Your beginning outstanding balance — your principal repayment = Your ending outstanding balance.
  - $2,100,000 – $9252.2 = $2,090,747,8
- Step 5 repeat the step 2–4 for the subsequent month

Interest Charged on Mortgage Payments

Month	Month Beginning balance (A)	Monthly payment (B)	Interest part (C)	Principal repayment (D)	Ending balance
	Equal to pervious ending balance	Compute with the equation	Equal to (A) X r	Equal to (B) – (C)	Equal to (A) – (D)
1	2100000	14502.21	5250	9252.2	2090747.79
2	2090747.79	14502.21	5226.87	9275.3	2081472.45
3	2081472.449	14502.21	5203.68	9298.5	2072173.92
4	2072173.921	14502.21	5180.43	9321.8	2062852.15

Interest Charged on Mortgage Payments

- **Mortgage Insurance Programme (MIP)**
  - Government financing programme

香港按揭證券有限公司
The Hong Kong Mortgage Corporation Limited

- As long as an application meets the relevant eligibility criteria (e.g. the maximum property value and the maximum loan amount, etc.), the bank can provide a mortgage loan of up to 80% LTV ratio under the MIP
- Lower down payment than conventional
  - 20% down payment

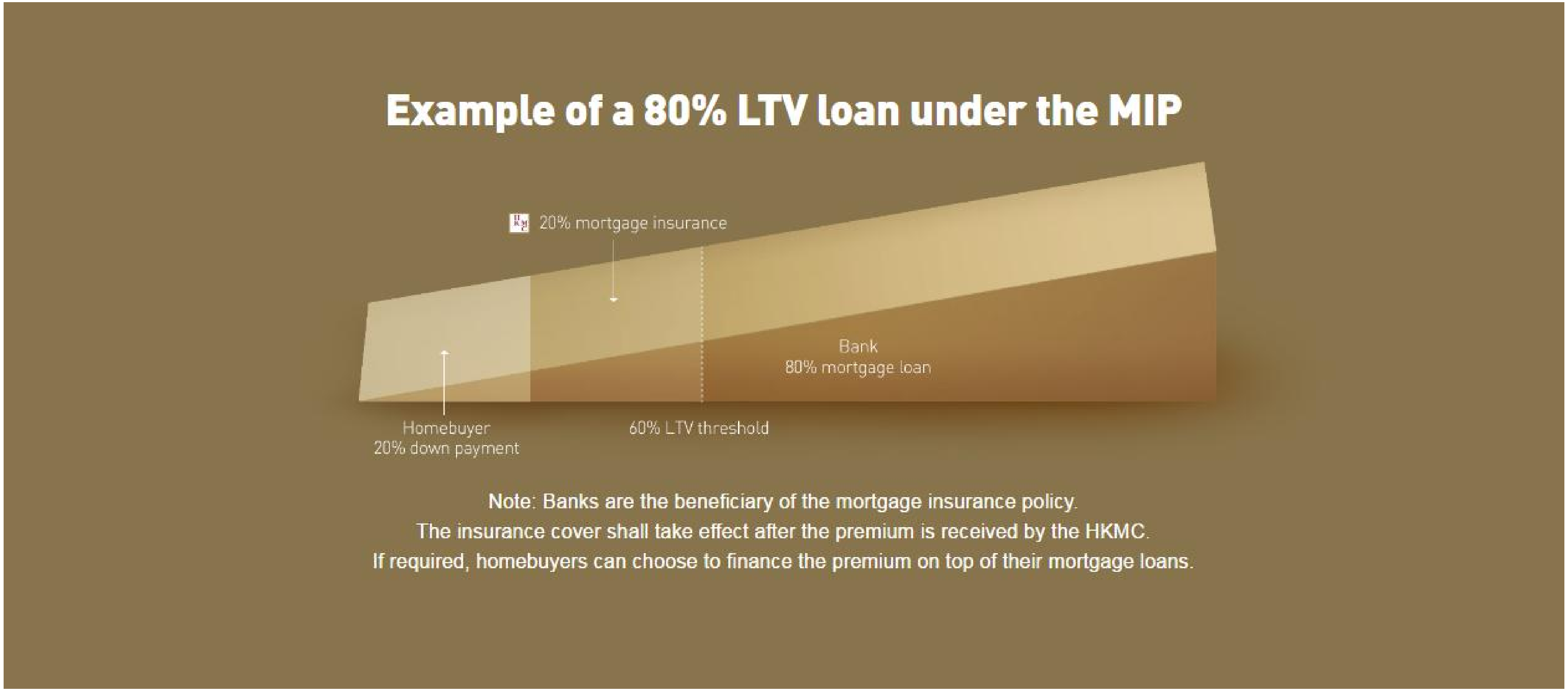
Interest Charged on Mortgage Payments

Revisions to MIP

From 28 February 2015, revisions were made to the eligibility criteria for the MIP.
After revisions, the maximum LTV ratio was as follows:

Revisions to MIP	
Property Value	Maximum LTV Ratio
At or below HK$4 million	80% or 90%*
Above HK$4 million and below HK$4.5 million	80% - 90%*, subject to a cap of HK$3.6 million (whichever is lower)
At or above HK$4.5 million and up to HK$6 million	80% or capped at HK$4.8 million (whichever is lower)
*Only applicable to application with (i) all mortgagors not holding any residential properties in Hong Kong at the time of application; (ii) all applicants being regular salaried persons; and (iii) maximum debt-to-income ratio of 45% (please refer to the requirement of maximum debt-to-income ratio as stated in the relevant Insurance Eligibility Criteria)	

Interest Charged on Mortgage Payments



Taxes

- With effect from 23 February 2013, unless specifically exempted or otherwise provided, stamp duty on sale or transfer of *immovable property* in Hong Kong is chargeable with ad valorem stamp duty (AVD) at higher rates

Amount or value of the consideration		Rate
Exceeds	**Does not exceed**	
	$2,000,000	1.5%
$2,000,000	$2,176,470	$30,000 + 20% of excess over $2,000,000
$2,176,470	$3,000,000	3%
$3,000,000	$3,290,330	$90,000 + 20% of excess over $3,000,000
$3,290,330	$4,000,000	4.5%
$4,000,000	$4,428,580	$180,000 + 20% of excess over $4,000,000
$4,428,580	$6,000,000	6%
$6,000,000	$6,720,000	$360,000 + 20% of excess over $6,000,000
$6,720,000	$20,000,000	7.5%
$20,000,000	$21,739,130	$1,500,000 + 20% of excess over $20,000,000
$21,739,130		8.5%

Taxes

- The liability to **Special Stamp Duty** (**SSD**) will arise if all of the following 3 conditions are met:
  I. The transaction involves the sale and purchase or transfer of a residential property
  II. The property is acquired by the seller or transferor on or after 20 November 2010; and
  III. The property is disposed of (which includes a resale or transfer) by the seller or transferor within 24 months (if the property was acquired between 20 November 2010 and 26 October 2012) or 36 months (if the property was acquired on or after 27 October 2012) from the date of acquisition
- If the property was acquired on or after 27 October 2012
  I. 20% if the property has been held for six months or less
  II. 15% if the property has been held for more than six months but for 12 months or less; and
  III. 10% if the property has been held for more than 12 months but for 36 months or less

Alternative – Renting

- Advantages of renting
  - Easier to move
  - Fewer maintenance and repair responsibilities
  - Lower initial costs
- Disadvantages of renting
  - No tax benefits
  - Limitations regarding remodeling
  - Restrictions regarding pets and other activities
  - Legal concerns of a lease
  - Costs including a security deposit, utilities and renter's insurance
  - Not a permanent residence

The Rental Contract (Lease Agreement)

- When you rent an apartment, duplex, house, or any other type of residence, you'll be required to sign a rental contract or lease agreement
- Contract Protects
  - Lessor/Landlord = Owner
  - Lessee/Tenant = One who leases
- Contract Specifies
  - Monthly rent and due date
  - Penalties for late payment
  - Length of lease agreement
  - Deposit requirement
  - Renewal options
  - Amount of security deposit
  - The right to sublet the unit

Buy? Rent?

- To choose the lowest–cost alternative, compare the cost of renting with the cost of buying
- Use different assumptions
  - Rent increases
  - Mortgage rates
  - Home appreciation rates
  - The rate of return that you can earn on the funds you could invest
- Need to consider non–monetary items

RENT-OR-BUY ANALYSIS

A. COST OF RENTING			
1. Annual rental costs (12 × monthly rental rate of $ 850)		$ 10,200	
2. Renter's insurance		600	
3. Opportunity cost of security deposit: $ 1,000 × after-tax savings rate 0.040		40	
Total cost of renting (line A.1 + line A.2 + line A.3)			$ 10,840
B. COST OF BUYING			
1. Annual mortgage payments (Terms: $ 120,000, 360 months, 6 %) (12 × monthly mortgage payment of $ 719)	$ 8,634		
2. Property taxes (2.0% of price of home)	3,000		
3. Homeowner's insurance (0.5% of price of home)	750		
4. Maintenance (0.8% of price of home)	1,200		
5. After-tax cost of interest on down payment and closing costs ($ 34,500 × 4.0 % after-tax rate of return)	1,380		
6. Total costs (sum of lines B.1 through B.5)		$ 14,964	
Less:			
7. Principal reduction in loan balance (see note below)	$ 1,434		
8. Tax savings due to interest deductions* (Interest portion of mortgage payments $ 7,200 × tax rate of 25 %)	1,800		
9. Tax savings due to property tax deductions* (line B.2 × tax rate of 25 %)	750		
10. Total deductions (sum of lines B.7 through B.9)		3,984	
11. Annual after-tax cost of homeownership (line B.6 − line B.10)		$ 10,980	
12. Estimated annual appreciation in value of home (2 % of price of home)		3,000	
Total cost of buying (line B.11 − line B.12)			$ 7,980

Should You Buy Your Home?

- Benefits of Home Ownership
  - Financial benefits
    - Deduct property taxes and mortgage interest
    - Potential increase in value of your home
    - Building equity in your home
  - Psychological reward
    - Pride of ownership, feeling of permanence and sense of stability
  - Lifestyle flexibility
    - Privacy
    - The desire to personalize your home,
  - Stability

Home Affordability

- How large a monthly mortgage payment can you afford?
- Traditional financial guidelines suggest
  - Spend no more than 25-33% of take-home pay on housing
- Mortgage Calculator
  - http://www.gohome.com.hk/mortgage-calculator/en/
- Stress Testing
  - Banks must assume a mortgage rate increased of 300 basis points (3%) in stress-testing mortgage applicants' repayment ability

Home Buying Process

1. Evaluate your homeownership needs
   - Be **rational** when make a decision
     - Benefit > Cost
2. Find a property to purchase
   - Selecting a Location
     - Be aware of zoning laws
       - The regulation of the use of real property by government, restricts particular territory to residential, commercial, industrial, or other uses
     - Assess the school system if you have children.
   - Using a real estate agent
     - They present your offer, negotiate the price, assist you in obtaining financing, and represent you at the closing
   - Conduct a home inspection or hire an inspector
   - Mortgage company may want an appraisal

Home Buying Process

3. Pricing the property
   - Determine the home price
     - Price is affected by whether it is a seller's or a buyer's market
     - Property valuation by mortgage firms
       - Upper limit = 5% higher than the estimated value
   - Calculate the costs
     - Determine the amount of the down payment
       - 30% down payment
     - Investigate the rates, types, & terms of mortgages

Home Buying Process

4. Negotiating the Purchase Price
   - Counteroffers are common
   - Earnest money
   - Contingency clauses
     - Buyer must be able to obtain financing
     - Sale contingent on the sale of the buyer's current home
5. Obtain financing
   - Apply for a mortgage and evaluate types of mortgages.
   - Qualifying for a mortgage
     - Includes your income, debts, credit history, down payment amount, length of the loan, and current mortgage rates
     - Guarantor

Home Buying Process

6. Closing the transaction
    - Documents signed; meeting of buyer, seller, and lender
    - Closing costs include:
    - Title check
        - The research of legal documents and courthouse record to verify the seller conveying title actually has the legal interest he or she claims and that the title is free of all liens and encumbrances
    - Attorney's and appraisers fees
    - Property survey
    - Stamp duty
    - Real estate commission

How To Acquire a Mortgage

- There are in general Five steps to apply mortgage

1. Complete the application form and enclose the relevant documents
2. The bank will then arrange for a valuation of the property and determine the maximum loan amount based on the appraised property value and your repayment ability
3. Upon loan approval, the bank will:
    - Arrange for you to sign the Letter of Offer
    - Notify the solicitor(s) to prepare the legal charge

How To Acquire a Mortgage

4. After all legal documents have been signed, the solicitor will notify the bank to disburse the mortgage amount to the seller via the solicitor and the transaction is then completed.
5. Finally, the bank will send you a schedule of monthly mortgage repayment, detailing the principal and interest to be repaid and the outstanding balance of each month

Sources of Mortgage Loans

- Retail Bank
- Mortgage broker
  - A firm that solicits borrowers, originates primarily conventional loans, and places them with mortgage lenders, the broker merely takes loan applications and then finds lenders willing to grant the mortgage loans under the desired terms.
  - http://mreferral.com/index.php

Mortgage Selection

- When you see this situation in two banks
  - BANK A “prime – 2.8%”
  - BANK B “prime – 2.65%”
- Is bank A more preferable?
- There are some terms we need to consider
  - Mortgage amount
  - Cash reimbursement
  - Interest penalty period

When To Buy Your First Home?

- The timing of when to buy a first home depends on your
  - Current and expected income and expenses
    - Reliable income
    - Ability to make at least 10% down payment and to cover closing costs
    - Ability to finance home–maintenance and improvement projects
    - Adequate savings and a cash reserve sufficient to handle the loss of your job or another financial challenge for at least a few months
  - Credit history
  - Future plans
    - The desire to build equity and to be eligible for homeowner tax breaks and credits
  - Your preferred lifestyle
    - A plan to stay in your home for a least a few years

Effective Home-Buying Strategies

- Don’t wipe out your savings
- Pick the right neighborhood
- Stay away from the most expensive home in the neighborhood
- Interview your agent and ask hard questions
- Rely on professional advice
- Use traditional financing
- Don’t change the financial picture before closing
- Be sure to do the home inspection
- Be careful about taking on additional debt after closing