GE1202 Managing Your Personal Finance

Lecture 1
Introduction to Personal Finance Management

Who Need to Know Personal Finance Planning?

- Every person has some money available
- Most people want to handle their finances so that they get full satisfaction from each available dollar
- Financial Goals
  - Buying a new car or getting a larger home
  - Pursuing advanced career training
  - Contributing to charity
  - Traveling extensively
  - Ensuring self-sufficiency during working and retirement years
  - Holding a fantastic wedding party

Financial Planning

- As we have limited money, it is impossible to have all the goals to be realized
- To achieve these goals, you need to identify and set priorities.
- The process of managing your money to achieve personal economic satisfaction
  - ***Personal money management*** or ***Personal financial planning***
- Financial decision must be planned to meet the unique situation facing each person.
  - People in their 20s spend differently from those in their 50s
  - Life situation/style – **Adult Life Cycle**

Adult Life Cycle

Life Situation Factors Affect Financial Planning Activities

Age

- 18–24
- 25–34
- 35–44
- 45–54
- 55–64
- 65 and over

Marital Status

- single
- married
- separated/divorced
- widowed

Number and Age of Household Members

- no other household members
- preschool children
- elementary and secondary school children
- college students
- dependent adults
- nondependent adults

Employment Situation

- full-time student
- not employed
- full-time employment or volunteer work
- part-time employment or volunteer work

TIME TO TAKE ACTION . . . COMMON FINANCIAL GOALS AND ACTIVITIES

- Obtain appropriate career training.
- Accumulate an appropriate emergency fund.
- Evaluate and select appropriate investments.
- Create an effective financial recordkeeping system.
- Purchase appropriate types and amounts of insurance coverage.
- Establish and implement a plan for retirement goals.
- Develop a regular savings and investment program.
- Create and implement a flexible budget.
- Make a will and develop an estate plan.

If this is your Life Situation, you should . . .	Specialized Financial Activities
Young, single (18–35)	• Establish financial independence. • Obtain disability insurance to replace income during prolonged illness. • Consider home purchase for tax benefit.
Young couple with children under 18	• Carefully manage the increased need for the use of credit. • Obtain an appropriate amount of life insurance for the care of dependents. • Use a will to name guardian for children.
Single parent with children under 18	• Obtain adequate amounts of health, life, and disability insurance. • Contribute to savings and investment fund for college. • Name a guardian for children and make other estate plans.
Young dual-income couple, no children	• Coordinate insurance coverage and other benefits. • Develop savings and investment program for changes in life situation (larger house, children). • Consider tax-deferred contributions to retirement fund.
Older couple (50+), no dependent children at home	• Consolidate financial assets and review estate plans. • Consider household budget changes several years prior to retirement. • Plan retirement housing, living expenses, recreational activities, and part-time work.
Mixed-generation household (elderly individuals and children under 18)	• Obtain long-term health care insurance and life/disability income for care of younger dependents. • Use dependent care service if needed. • Provide arrangements for handling finances of elderly if they become ill. • Consider splitting of investment cost, with elderly getting income while alive and principal going to surviving relatives.
Older (50+), single	• Arrange for long-term health care coverage. • Review will and estate plan. • Plan retirement living facilities, living expenses, and activities.

Financial Planning

- **Financial Plan**
  - A formalized report that summarize your current situation, analyzes your financial needs, and recommends future financial activities.
- Advantages of effective personal financial planning
  - Increased effectiveness in obtaining, using, and protecting your financial resources throughout your life
  - Increased control of your financial affairs by avoiding excessive debt, bankruptcy, and dependence on others
  - Improved personal relationships resulting from well–planned and effectively communicated financial decisions
  - A sense of freedom from financial worries obtained by looking to the future, anticipating expenses, and achieving personal economic goals

Goal-Setting Guidelines

- Financial goals should take a **SMART** approach.
  - **S**pecific — know exactly what your goals are and can create a plan to achieve those objectives
  - **M**easurable — can be measured by a specific amount
  - **A**ction oriented – provide the basis for the personal financial activities you will undertake.
  - **R**ealistic — involve goals based on your income and life situation
  - **T**ime based — indicate a time frame for achieving the goal

Which is *SMARTer*?

- A fresh graduate just starts his career as a secondary school teacher.
- Plan A: Buy a flat in Kowloon Tong by 30.
- Plan B: Put $5,000 into the saving account each month for 8 years as the down payment for a flat of $6M in Kowloon Bay.

Types of Financial Goal

- There are 3 different financial goals
  - **Consumable–Product Goals**
    - Food, clothing, entertainment
  - **Durable–Product Goals**
    - "Big ticket" items like appliances and cars
  - **Intangible–Product Goals**
    - Health, education, relationships, service

Types of Financial Goal

- There are 3 different time frames for achieving financial goals
  - **Short term goals**
    - Will be achieved within the next year
    - Saving for a vacation, buying a new phone
  - **Intermediate goals**
    - Two to five years
    - Further study, Wedding
  - **Long term goals**
    - More than five years
    - Retirement, children's education expenses

Components of Personal Financial Planning

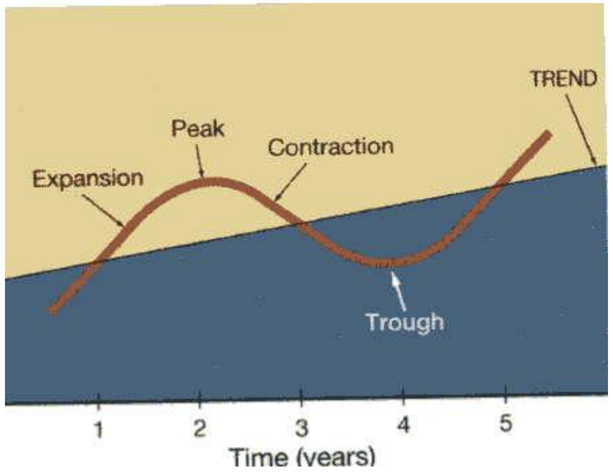
- There are Eight major personal financial planning areas
  - Obtaining – the receipt of income and other financial resources
  - Planning – actions to determine future financial directions
  - Saving – set aside funds for expected and unexpected expenses
  - Borrowing – appropriate use of short–and–long–term credit plans
  - Spending – analysis of purchasing decisions for wise money use
  - Managing Risk – insurance and other methods to reduce financial uncertainty
  - Investing – accumulation of funds for long–term financial security
  - Retirement and Estate Planning – efforts to provide for post–career years and transfer of assets

Factors Influence Financial Decisions

- Personal factors
  - Age
  - Income
  - Household size
  - Personal beliefs
- General factors
  - Global economy
  - Inflation rate
  - Interest rate

Global Economy

- Economy influences financial planning
  - Phases of the business cycle: expansion, peak, contraction, trough (takes 4–5 years on average)



- Economics: the study of how wealth is created and distributed; strongly influences financial planning
- Decisions made by *Central Banks* (e.g., interest rates, money supply)

Inflation

- Inflation is a rise in the *general price level*
- The general price level is measured by the Consumer Price Index (CPI)
- CPI is the weighted average of the prices of a **fixed** basket of goods and services

$$CPI = \frac{\text{Cost of the basket in the current year}}{\text{Cost of the basket in the base year}} \times 100$$

- Inflation rate is the % change in the CPI

$$\text{Inflation}\ \% = \frac{CPI_{\text{current year}} - CPI_{\text{last year}}}{CPI_{\text{last year}}} \times 100\%$$

Inflation

Product	Price in 2015	Quantity in 2015	Price in 2016	Quantity in 2016
iphone	$1000	10	$1100	12
iMac	$2000	5	$2500	6
ipod	$500	4	$550	3

- $CP_{2015} = \frac{}{} \times 100 =$
- $CP_{2016} = \frac{}{} \times 100 =$
- $Inflation\ \% = \frac{}{} \times 100\% =$

Inflation

- Inflation erodes the purchasing power of money
  - The quantity of goods that can be bought with a sum of money reduces
- Examples:
  - How many apples can be bought with $100 if each apple costs $10?
  - How many apples can be bought with $100 if each apple costs $11?
  - You can buy 1 apple (10%) less when the price goes up by $1 (10%) with the $100
- $Purchasing\ power\ of\ money = \frac{Nominal\ value\ of\ money}{CPI}$

% △ Real value = % △ Nominal value − Inflation%

Interest

- To maintain the purchasing power of money, you may invest them into *interest–yielding assets*.
- What is interest?
  - Lender — compensation for giving up earlier availability of resources
  - Borrower — cost of acquiring earlier availability of resources
  - Investor — return on financial investment
    - Interest on deposits
    - Interest on bonds
    - Dividend and capital gains from stocks

Interest

- Interest raises the nominal value of money
  - You get back $110 a year later if you deposit $100 into a bank which pays interest 10% p.a.
- Real value of money may increase, decrease or remain unchanged with interest during the time of inflation
  - You save $100 into a deposit which gives interest 10% p.a. and the initial price level is 100

Inflation rate (π)	Nominal value	% △ Nominal value	Real value	% △ Real value
0%				
10%				
15%				

Time Value of Money

- Why do we need to pay interest?
- As people prefer early consumption to late, people place higher value on current consumption
- The dollar received today is worth more than a dollar that will be received one year from today

Time Value of Money

- *Compounding*
  - The process of finding the ***future value*** from a current sum based on a certain interest rate and period of time
  - If you put $1000 into a bank deposit which offers an interest rate of 10% p.a., how much will you get after 10 years?
- *Discounting*
  - The process of finding the ***current value*** from a future sum based on a certain interest rate and period of time
  - How much do you need to put into your bank account which offers an interest rate of 10% p.a., how much will you get after 10 years?

Compounding

- If you put \$100 into your bank account for 3 years with an interest of 10%p.a., how much should you expect to get back?
- To find the future value of a ***Single*** amount

$$FV = PV(1 + i)^n$$

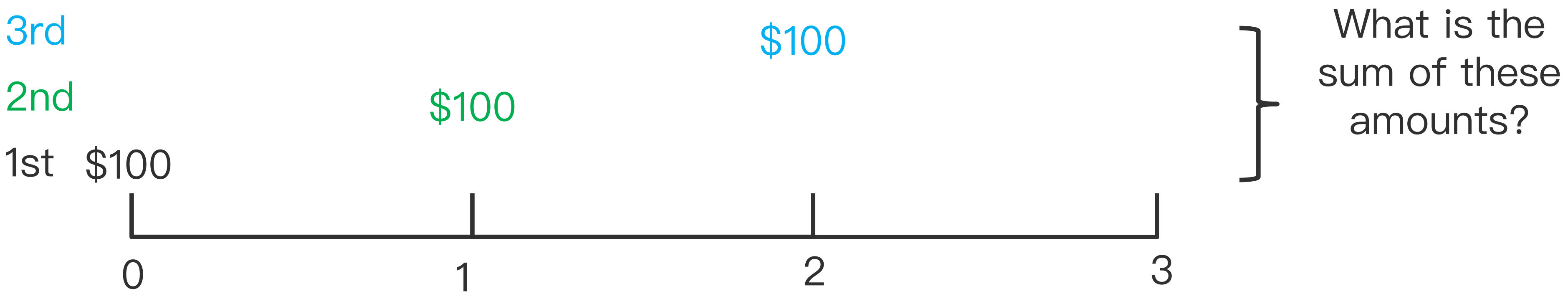
FV = Future Value; PV = Present Value; i = interest rate; n = time periods

Compounding

- If you put $100 into your bank account *in the beginning* of each year for 3 years with an interest of 10%p.a., how much should you expect to get back?
- A stream of constant amount is called ***Annuity***
- To find the future value of a **Series** of equal amounts

$$FV = Annuity \times \frac{(1+i)^n - 1}{i} \times (1+i)$$

Compounding



Compounding

- If you put $100 into your bank account *at the end* of each year for 3 years with an interest of 10%p.a., how much should you expect to get back?

	0	1	2	3
3rd				$100
2nd			$100	$110
1st		$100	$110	$121

What is the sum of these amounts?

$$FV = Annuity \times \frac{(1+i)^n - 1}{i}$$

Discounting

- How much should you put into your bank account with an interest of 10%p.a. so as that you can get back $133.1 after 3 years?
- To find the present value of a ***Single*** amount

$$PV = \frac{FV}{(1 + i)^n}$$

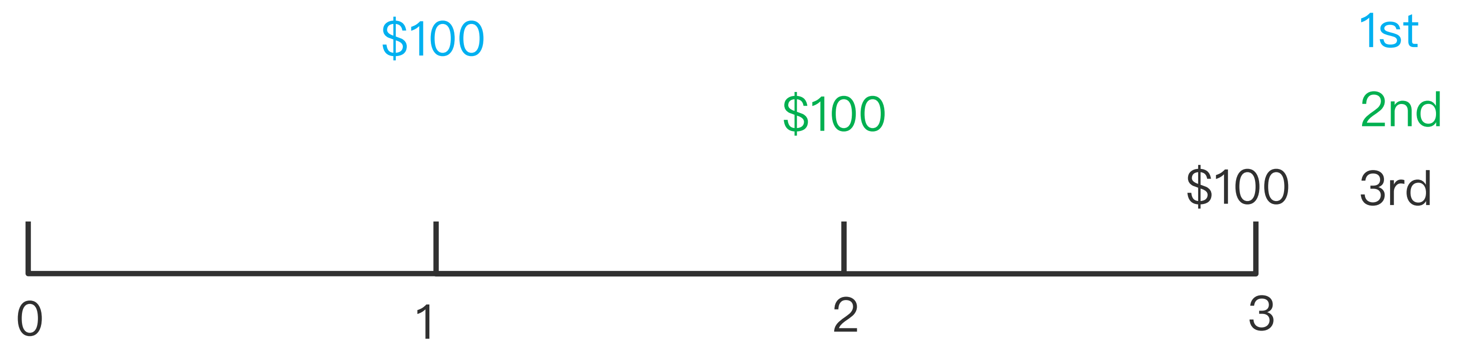
Discounting

- If you wish to withdraw $100 at the end of each year for 3 years from an account that earns interest 10% p.a., how much you should deposit not?
- To find the present value of a **Series** of equal amounts

$$PV = Anuity \times \frac{1 - \frac{1}{(1+i)^n}}{i}$$

Discounting

What is the sum of these amounts?



Opportunity Cost

- **Opportunity cost** is what you give up by making a choice
  - *Trade-off* of a decision
- Example 1:
  - You may spend $200 to have meal with your friend or to buy the textbook.
  - What is your opportunity cost for you to buy the textbook?
- Example 2:
  - You may spend $200 to buy the textbook or save it to earn an interest of 10%
  - What is your opportunity cost for you to buy the textbook?
- Interest rate is the opportunity cost for current consumption.

A Plan for Personal Financial Planning

- We all make hundreds of decision each day
- Some are complex and have long-term effects on our personal and financial situations
- Few people consider how to make *better* decisions
- Six-step financial planning process

Step 1: Determine Your Current Financial Situation

- Check out your current financial situation
  - Income
  - Savings
  - Living expenses
  - Debts
- Prepare your personal financial statement
  - A list of current asset and debt balances and amounts spent for various items
  - The foundation for financial planning activities

Step 2: Develop Your Financial Goals

- Analyze your financial values and goals periodically
  - Differentiate your **needs** from your **wants**
- Your financial goals can range from spending all of your current income to developing an extensive savings and investment program for your future financial security

Step 3: Identity Alternative Courses of Action

- Possible courses of action usually fall into these categories
  - Continue the same course of action
  - Expand the current situation
  - Change the current situation
  - Take a new course of action
- Not all of these categories will apply to every decision
- Consider all of the possible alternatives will help you make more effective and satisfying decisions

Step 3: Identity Alternative Courses of Action

- Example:
  - You are saving $1000 into your bank account every month. What are the possible courses of action available to you?
  - Continue to save the same amount.
  - Save $500 more
  - Invest it into the stock market
  - Pay off your credit card debts
  - Do nothing!!!

Step 4: Evaluate Your Alternatives

- Evaluating the alternatives, you should always keep in mind the following two aspects:

1. *Consequences of choices*
   - Every decision has an opportunity cost.
   - The trade-off cannot always be measured in money, but the resources you give up have a value that is lost
   - Example:
     - You are considering to take a Master degree after finishing your undergraduate degree or take up a job offer by a famous company.
     - What is your opportunity cost if you end up with taking the master degree?
     - Income; working experience; skills
     - Job satisfaction

Step 4: Evaluate Your Alternatives

2. *Evaluating risk*
   - Uncertainty is also a part of every decision
   - Different decisions involve difference degree of risk
   - In many financial decisions, identifying and evaluating risk are difficult.
   - Common risk to consider
     - Inflation risk
     - Interest rate risk
     - Income risk
     - Personal risk
     - Liquidity risk

Step 4: Evaluate Your Alternatives

- The best way to consider risk is to gather information based on your and others' experience and to use financial planning information sources.
- Common sources
  - The Internet
  - Media sources
  - Financial institutions
  - Financial specialists
- A larger amount and more advanced information is needed when more risks are associated with a decision.
- Some more things to consider
  - Your life situations; personal values, current economic conditions, etc

Step 5: Create and Implement Your Plan

- Develop an *action plan* to achieve your goals
- The plan has to be *realistic* and *achievable*
  - Example
    - Your friend is planning to have his own home after 3 years from graduate
    - He is targeting on a flat of size 600 sq. feet, which selling at $5M
    - He is expecting to get a job paying him $30,000 per month
    - He will save $28,000 per month and get it accumulated to $1M in 3 years for the down payment
    - What will you say to your friend?
    - God Bless You!!!

Step 6: Review and Revise Your Plan

- Financial planning is a dynamic process
- Regularly assess your financial decisions
- A complete review should be done at least once a year
- Changing personal, social, and economic factor may require more frequent assessments
- A regular review will help you make priority adjustments that will bring your financial goals and activities in line with your current life situation