



# GE1202

# Managing Your Personal Finance

---

Lecture 3  
Saving



# Savings

---

- What is saving?
  - Monthly income > monthly expenditure
  - Scarifying *current* consumption in favour of *future* benefits
- Building up savings helps to provide financial independence and security later on in life
  - Keep away the need to resort to expensive loans or emergency lenders
- A general rule of thumb
  - Readily available savings should be equal to between 3 to 6 months' income



# Types of Savings

---

- Saving involves people placing spare funds in
  - A saving account
  - An investment
  - Pension fund
  - Etc
- The amount deposited is known as *capital*
- The value of capital may change overtime
  - **The risk of saving**
- Different kinds of saving involve different degree of risk
  - Capital in saving accounts in general should not be at risk of loss
  - The value of capital of an investment fluctuates frequently



# Who Save More?

---

- In HK, the mean household saving rate is around 15%.

Country	Saving rate (% 2014)
China	15.50
Germany	10.50
Greece	-
Japan	15.50
US	10.50
Switzerland	10.50
Korea	10.50
Portugal	10.50
Italy	10.50
Spain	3.88

A decorative vertical bar on the left side of the slide, featuring a golden-yellow background with various currency symbols (dollar, yen, euro, pound, etc.) in a 3D, embossed style.

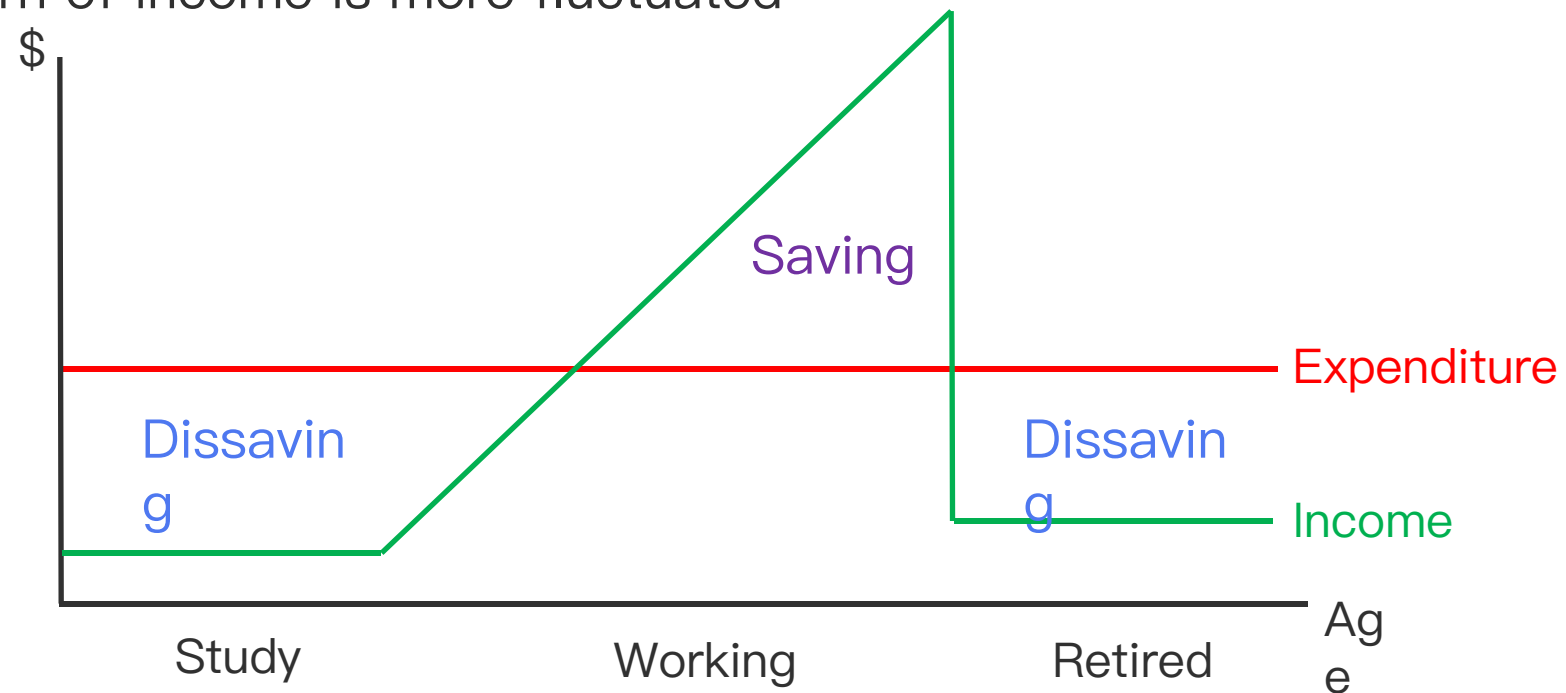
# Saving Pattern in HK

---

- What affect the saving rate?
- In general, low saving rate for three groups of people
  - Young people
  - Families with children
  - Elderly

# Why Do People save?

- In general, people need to save whenever there is an inconsistency between the stream income and expenditure
  - Pattern of expenditure is stable
  - Pattern of income is more fluctuated







# Reasons for saving

---

- Three different motives of savings
  - **Transactions Motive**
    - Saving for the spending on “big ticket” items
    - Housing, retirement, holidays, or other expensive items
  - **Precautionary Motive**
    - To protect their standard of living in the unexpected events
      - Unemployment or illness
    - To meet unforeseen expenditure
      - Maintenance on a house or repair bill on a car
  - **Speculative Motive**
    - To be able to take advantage of good investment opportunities
      - Starting up a business

A decorative vertical bar on the left side of the slide, featuring a golden-yellow background with various currency symbols (Dollar, Euro, Pound, Yen, etc.) in a 3D, embossed style.

# Types of Savings Accounts

---

- Banks in HK offer numerous types of saving accounts
  - HK Dollar Savings Account
  - HK Dollar Time Deposit
  - Certificate of Deposit
  - Foreign Currency Savings Account
  - Foreign Currency Time Deposit





# Types of Savings Accounts

---

- Regular savings accounts
  - *Passbook* or *statement* accounts
  - Involve low or no minimum balance
  - Withdraw money as needed
- Time deposits
  - Fixed **maturity**
  - Cannot be withdrawn for a specific term or period of time
  - When the term is over it can be withdrawn or it can be held for another term
  - Higher interest rate than savings accounts



# Types of Savings Accounts

---

- Certificates of Deposit (CD)
  - A form of time deposit
  - CDs are negotiable and can be rediscounted when the holder needs some liquidity
  - Some banks offer fixed rate and floating rate CD
    - Fixed rate CD pays a fixed amount of interest at regular intervals
    - Floating rate CD pays interest with reference with a designated benchmark interest rate
      - Stock-indexed CDs — earnings based on the stock market
      - Callable CDs — the bank may “call” the account after a stipulated period
  - Generally offers a higher interest rate than normal savings accounts or time deposits



# Managing Time Deposits/CD

---

- When first buying or rolling over a time deposit/CD, investigate potential earnings and costs
- Do not allow your bank to automatically roll over your money for the same term
- If interest have dropped, you may consider a shorter maturity
- If you believe rates are at a peak and you will not need the money for some time, obtain one with longer term
- Consider creating a time deposit/CD portfolio with different maturity

# Types of Financial Institutions

---

- Hong Kong maintains a three-tier system of deposit-taking institutions
  - Licensed banks
    - Operate current and savings accounts
    - Accept deposits of any size and maturity
  - Restricted license banks
    - Principally engaged in merchant banking and capital market activities
    - May take deposits of any maturity of HK\$500,000 and above
  - Deposit-taking companies
    - Mostly owned by, or associated with, banks
    - May take deposits of HK\$100,000 or above with an original term of maturity of at least three months

HSBC 

Goldman  
Sachs

 八達通  
OCTOPUS

A decorative vertical bar on the left side of the slide, featuring a golden-yellow background with various 3D financial symbols including dollar signs (\$), yen signs (¥), and Euro signs (€).

# Evaluating Savings Accounts

---

- Selection of a saving plan is usually influenced by
  - Rate of return
  - Inflation
  - Tax considerations
  - Liquidity
  - Safety
  - Restrictions
  - Fees



# Rate of Return

---

- Rate of return (or **Yield**) is the percentage of increase in the value of savings as a result of interest earned.
  - A \$100 savings account that earned \$5 after a year would have a rate of return of 5%
- It is determined by dividing the interest earned by the amount in the savings account
- The yield on your savings usually will be greater than the stated interest rate
  - Compound interest
  - The more frequent the compounding, the higher your rate of return will be
  - A saving account which gives interest daily has a higher yield



# Rate of Return

---

- **Compound interest** is interest paid on both the original deposit and also any accumulated

$$A = P(1 + i)^n$$

$A$  = Amounts;  $P$  = Principle;  $i$  = interest rate;  $n$  = compound periods

- Normally *annual* interest rate is stated
- If interest is not paid annually, the compound period has to be adjusted accordingly



# Rate of Return

---

- \$1000 is deposited into a savings account offering interest rate of 12% p.a. for a year.

Interest pay	Compound Period	Corresponding Interest Rate	Amount	Yield
Annually				
Half-yearly				
Monthly				
Weekly				
Daily				

# Rate of Return

---

- **Annual Equivalent Rate (AER)**, or **Annual Percentage Yield (APY)**, is an interest rate that reflects what the interest rate would be if the interest was paid and compounded every year
- The AER is based on the assumption that interest is accumulated in the account and is not withdrawn

$$AB = \left(1 + \frac{i}{n}\right)^n - 1$$

- The AER could be used to determine which banks offer better rates and which banks may be attractive investments

# Rate of Return

---

- How long does it take to double your savings?
- The **rule of 72** is a shortcut to estimate the number of years required to double your money at a given *annual* rate of return.

Years required to double investment =  
72

compound annual interest rate

- The rule of 72 is reasonably accurate for interest rates between 6% and 10%.
- When dealing with rates outside this range, the rule can be adjusted by adding or subtracting 1 from 72 for every 3 points the interest rate diverges from 8%.
  - For 11% annual compounding interest, the rule of 73 is more appropriate
  - For 14%, it would be the rule of 74; for 5%, the rule of 71.

# Rate of Return

- Comparing the AER for savings account and time deposit of HSBC

Savings Account	
Account Balance	Interest Rate
Less than HKD5,000	0.000%
HKD5,000 to HKD9,999	0.001%
HKD10,000 to HKD149,999	0.001%
HKD150,000 or above	0.001%

Time deposit				
Deposit Period	HKD10,000	HKD100,000	HKD500,000	HKD1,000,000
	to HKD99,999	to HKD499,999	to HKD999,999	or above
1 week	0.001%	0.001%	0.001%	0.001%
2 weeks	0.001%	0.001%	0.001%	0.001%
1 month	0.010%	0.010%	0.010%	0.010%
2 months	0.010%	0.010%	0.010%	0.010%
3 months	0.010%	0.010%	0.010%	0.010%
6 months	0.050%	0.050%	0.050%	0.050%
9 months	0.100%	0.100%	0.100%	0.150%
12 months	0.150%	0.150%	0.150%	0.200%

# Inflation

---

- The rate of return you earn on your savings should be compared with the inflation rate

$$\text{Real Interest \%} = \text{Nominal Interest \%} -$$

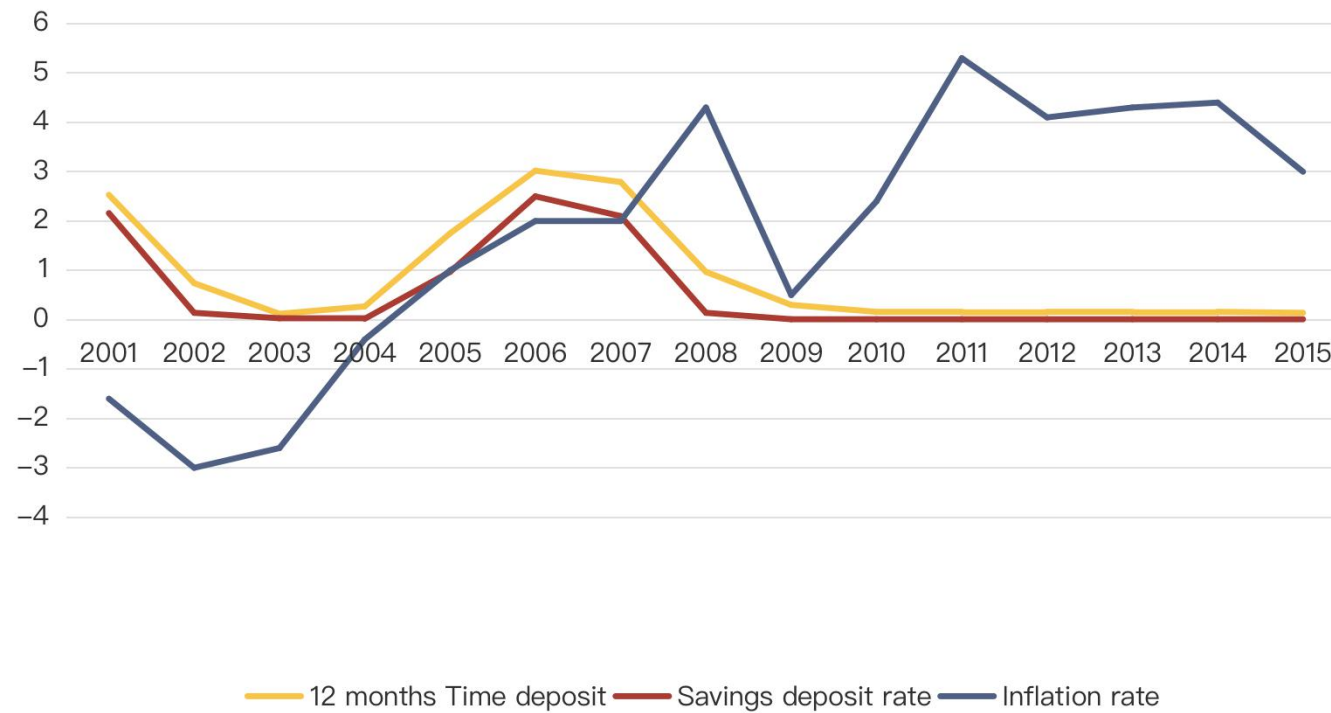
$\text{Inflation\%}$

- In general, as the inflation rate increases, the interest rates offered to savers also increase
- If Inflation rate < Nominal interest rate, you earn real return from your savings
- If Inflation rate > Nominal interest rate, your real return from savings will be negative



# Inflation

Savings and Time Deposit Rate, Inflation rate





# Tax Considerations

---

- In some countries, government collect taxes on interest
  - Interest earning is part of your income
- Banks will act for the government as collectors
- Tax will be deducted from the **gross interest** paid to savers
- Taxpayers will receive the **net interest**
- This reduces the return generated from savings
- Consider the *after-tax return* when comparing accounts
- No tax on interest in HK

# Tax Considerations

---

- You have the right of abode in both HK and UK.
- You have £5000 and are considering to put into a savings account. There are two options available to you.
  - Put it into a foreign currency account of HSBC in HK which offers a rate at 2.75%
  - Put it into a savings account with HSBC in UK which offers a rate of 3%
- Given that a interest tax of 20% in UK, which option is better to you?

Account	Gross Interest	Net Interest
HK@2.75%	5	
UK@3%		3



# Liquidity

---

- **Liquidity** allows you to withdraw your money on short notice without a loss of value or fees
- In general, high interest rate compensates low liquidity
- Some savings plans impose penalties for early withdrawal or have other restrictions
  - Loss of interest or lower earnings rate
- Consider the degree of liquidity you desire in relation to your savings goals.
  - To achieve long term financial goals, you may decide to trade off liquidity for a higher return.



# Safety

---

- Saving in bank is deemed to be one of the safest options
- There is still possibility for you to lose your capital when banks fail
- **Bank run** occurs when a bank fails to meet a massive withdrawal and become insolvent
  - **Maturity mismatch**
- When people holds the *belief* that a bank is at risk for insolvency, the risk arises no matter it is *real* or *perceived*
  - The spread of *rumours* can cause bank runs
- Failing of a bank can lead to a contagion effect
  - **Banking panic**

# Safety



- To reduce the risk of having a bank run due to the spread of rumours, the HK government launched the **Deposit Protection Scheme (DPS)** in 2006.
- DPS protects eligible deposits held with banks in Hong Kong which are members of the Scheme.
- It will pay you compensation up to a limit of HK\$500,000 if the bank with which you hold your eligible deposits fails.
- Your eligible deposits are protected regardless of the currency in which the deposits are denominated.
- Eligible deposits include all types of ordinary deposits such as current accounts, savings accounts, secured deposits and time deposits with a maturity not exceeding five years.





# Safety

---

- The following types of financial products are not protected by the DPS
  - structured deposits
  - term deposits with a maturity exceeding 5 years
  - deposits the repayment of which are secured on the assets of the Scheme member
  - bearer instruments
  - off-shore deposits
  - deposits held for the account of the Exchange Fund
  - deposits held by an excluded person
  - financial products other than deposits
- <http://www.dps.org.hk/en/coverage.html>

A decorative vertical bar on the left side of the slide, featuring a textured gold background with various financial symbols like dollar signs, yen signs, and Euro signs in a 3D, embossed style.

# Restrictions and Fees

---

- Some banks imposed restrictions and fees on saving accounts
  - Monthly fee
  - Minimum balance requirement
  - ATM Savings Account Counter Service Fee
  - Inactive Account Service Charges

Service	Hang Seng Bank	HSBC	Bank of China	Citibank	Standard Chartered
Monthly Fee	HKD Passbook / Statement Savings Account - HK\$50 per month if average daily balance of account below HK\$5,000; ATM Passbook / ATM Statement Savings Account - Not subject to Below Balance Service Fee	HK\$50 (Accounts with monthly balance less than HK\$5,000)	HK\$60 (Combined average monthly balance in HKD current account(s) and savings account(s) below HK\$5,000)	HK\$60 (Accounts with monthly balance less than HK\$10,000)	HK\$100 (Accounts with monthly balance less than HK\$10,000)
Transfer / cash withdrawal	HK\$20	HK\$20	HK\$20	NA	NA
HKD account transactions conducted through branches	Free (50 transactions or below); HK\$30 per transaction (Above 50 transactions)	NA	NA	NA	NA
Inactive Account Service Charges	HK\$100 - Inactive for two years and balance below HK\$2000	NA	NA	NA	NA