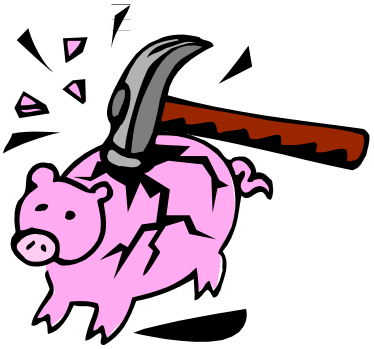
Consumption & Saving Game



Definitions

❖Consumption function

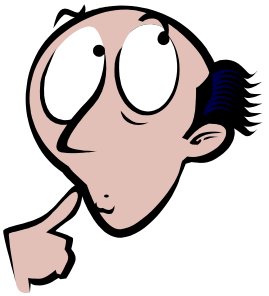
- ✓A function shows the relationship between planned consumption expenditure and disposable income in an economy.

❖Saving function

- ✓A function shows the relationship between planned savings and disposable income in an economy.

Definitions

- **Aggregate expenditure function**
  - ✓ **A function shows the relationship between planned aggregate expenditure and income in an economy.**



Definitions

- **Average propensity to consume (APC)**
  - ✓ **A ratio tells how much an economy spends on consumption for every dollar it earns.**
- **Average propensity to save (APS)**
  - ✓ **A ratio tells how much an economy spends on saving for every dollar it earns.**

Definitions

- **Marginal propensity to consume (MPC)**
  - ✓ **An index which tells how much of an increase in national income will be developed to increase consumption spending.**

- **Marginal propensity to save (MPS)**
  - ✓ **An index which tells how much of an increase in national income will be developed to increase savings spending.**

Income/ Expenditure Worksheet

Item	Monthly Income	Column1 HK$8000	Column2 HK$13000	Column3 HK$18000	Column4 HK$23000
1	Food/household (e.g. dishwasher liquid, etc.)				
2	Housing (e.g. rent, mortgage payments, repairs, etc.)				
3	Transportation (e.g. gas, car repairs, bus fares, etc.)				
4	Medical (e.g. insurance premiums, etc.)				
5	Entertainment/recreation (e.g. eating out, etc.)				
6	Other ordinary expenses				
7	Savings/personal investments				
8	TOTAL EXPENDITURES	HK$8000	HK$13000	HK$18000	HK$23000

Monthly Expenditure on Consumption

Monthly expenditure on savings

Total Income

•Do you remember this table? (Project Income/ Expenditure Worksheet). You received and completed it few days ago. From your data, I know how much you want to consume and save under different income levels. (Project Table 1)

•Actually, the summation of item one to six is a monthly expenditure on consumption. Item seven is a monthly expenditure on savings. The summation of expenditure on consumption and savings are the total expenditure which is equal to the total income.

Summary of Expenditure & Savings Data (1)

	Monthly Income	Column1 HK$8000	Column2 HK$13000	Column3 HK$18000	Column4 HK$23000
1	**Total Monthly Income** of the class				
2	**Total Consumption** of the class				
3	**Total Savings** of the class				
4	**Average Propensity to Consume (APC)**				
5	**Average Propensity to save (APS)**				

•Here is a brief summary of your data. (Project table 2. Teacher should calculate item 1 to 3 before the lesson.) We have a total income, total consumption and total savings of the economy in this class for different income levels.

•Teacher can explain here:

- •The concept of consumption, savings and aggregate expenditure;
- •The two-sector model; and
- •The income-expenditure diagram with a 45° line.

•Based on students' data, teacher draws the consumption function, savings function and the aggregate expenditure function in diagrams. (Most likely, they are not straight lines as shown in textbooks. Tell students that straight lines are used due to simplicity.)

Discussion

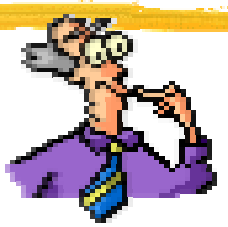
- **Now, if we want to know how much the class wants to spend on consumption for every dollar it earns in a month, how can we find out?**
  - **We can calculate:**
  - ✓ **The proportion of C to income (Y)**
  - ✓ **A ratio of C/Y**
  - ✓ **Average Propensity to Consume (APC)**

- **Similarly, the ratio of S/Y is called Average Propensity to Save (APS) which shows how much the class wants to spend on savings for every dollar it earns in a month.**

•Let's calculate the APC ad APS for different monthly income levels and see whether the class's APC and APS increase or decrease when the monthly income rises. (Calculate the APCs and APSs together with the students. Teacher should bring along a calculator.)

APC & APS

- APC + APS = 1



- APC and APS at certain level of income is the slope of the line joining from the origin to the consumption (savings) function at that certain level of income in an income-expenditure diagram.

Summary of Expenditure & Savings Data (2)

	Monthly Income	Column1 HK$8000	Column2 HK$13000	Column3 HK$18000	Column4 HK$23000
1	**Total Monthly Income** of the class				
2	**Change in Income**				
3	**Total Consumption** of the class				
4	**Change in Consumption**				
5	**Total Savings** of the class				
6	**Change in Savings**				
7	**Marginal Propensity to Consume (MPC)**				
8	**Marginal Propensity to save (MPS)**				

- Look at another table. (Project table 3. Teacher should calculate item 1, 3 and 5 before the lesson.)

Discussion

- **Now, we want to find out how much the class will spend if the total monthly income of the class increase $1?**
  - **We can calculate:**
  - ✓ **The change of income (∆Y) and the change of consumption (∆C)**
  - ✓ **∆C /∆Y**
  - ✓ **Marginal Propensity to Consume (MPC)**
- **Similarly, the ratio of ∆S /∆Y is called Marginal Propensity to Save (MPS).**

•Let's fill in all the blanks and see whether the MPC and MPS increase or decrease when the monthly income rises.

MPC & MPS

- MPC + MPS = 1

- MPC (MPS) is the slope of the consumption (savings) function in an income-expenditure diagram.

Discussion

- What's the slope of the consumption function called?
- If the MPC is 0.7, what is the marginal propensity to save in a two-sector model?
- What will happen to the class's consumption function if the wealth of the class increases?

Discussion

- What will happen to the consumption function if the interest rate increases?
- What will happen to the consumption function if the marginal propensity to consume decreases?