ECON1002 Introductory Macroeconomics

TUTORIAL 2
(Week 2)

READING GUIDE: Review Chapters 1 to 2 of BOF as preparation for this tutorial.

KEY CONCEPTS: MEASUREMENT AND MEANING OF THE CPI AND INFLATION; SAVINGS AND WEALTH

SELF-REVIEW OF CONCEPTUAL UNDERSTANDING

These are to be attempted before the tutorial. They will **not normally be covered** in the tutorial, maybe, except for a quick review, time permitting. The answers are typically found in the textbook and lecture notes.

1. What is meant by the distortions in the tax system introduced by inflation?
2. What is the difference between CPI and GDP deflator?
3. What are the problems caused for the measurement of inflation by changes in the quality of goods and services over time?
4. What are the costs of inflation? Who, if any, benefits from inflation?
5. Distinguish between household savings and national savings. For Australia, what factors have contributed to a persistent decline in household savings over the past two decades?

PRACTICE PROBLEMS

1. A typical consumer's food basket in the base year 2000 is as follows:

   30 chickens at $3 each

   10 hams at $6 each

   10 steaks at $8 each

   A chicken feed shortage causes the price of chickens to rise to $5 each in the year 2001. Hams rise to $7 each, and the price of steaks is unchanged.

   a. Calculate the change in the 'cost-of-eating' index between 2000 and 2001.

   b. Suppose that consumers are completely indifferent between 2 chickens and 1 ham. For this example, how large is the substitution bias in the official 'cost-of-eating' index?

2. A typical family's expenditures each month are as follows:

   20 pizzas at $10 each

   Rent of apartment, $600 per month

   Petrol and car maintenance, $100

Phone service (basic service + 10 long distance calls), $50.

In the following year, the price of pizzas have risen to $11 each, apartment rent is $640, petrol and maintenance has risen to $120, and phone service has dropped in price to $40.

a. Find the CPI in the subsequent year and the rate of inflation between the base year and the subsequent year.

b. The family's nominal income rose by 5% between the base year and the subsequent year. Are they worse off or better off in terms of what their income is able to buy?

c. How do you measure inflation? What causes it? Why is inflation a problem?

3. For each of the following scenarios, use supply demand analysis to predict the resulting changes in the real interest rate, national savings and investment.

   a. Parliament passes a 10 percent investment tax credit. Under this program, for every $100 that a firm spends on new capital equipment, it receives an extra $10 in tax refunds from the government.

   b. A reduction in military spending moves the government's budget from deficit into surplus.

   c. The government raises taxes on corporate profits. Other tax changes are also made, such that the government's deficit remains unchanged.

   d. Concerns about job security raise precautionary saving.

   e. New environmental regulations increase firm's costs of operating capital.