

## Week 3 Tutorial Solution

ECON203: Macroeconomics 2

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### Multiple Choice Questions

**Question 1.** Desired national saving equals

- (a)  $Y - C^d - G$
- (b)  $C^d + I^d + G$
- (c)  $I^d + G$
- (d)  $Y - I^d - G$

**Answer:** A

**Question 2.** With no inflation and a nominal interest rate ( $i$ ) of .03, a person can trade off one unit of current consumption for \_\_\_\_\_ units of future consumption.

- (a) 0.97
- (b) 1.03
- (c) .03
- (d) .03

**Answer:** B

**Question 3.** The desire to have a relatively even pattern of consumption over time is known as

- (a) excess sensitivity.
- (b) the substitution effect.
- (c) the consumption-smoothing motive.
- (d) forced saving.

**Answer:** C

**Question 4.** When a person gets an increase in current income, what is likely to happen to consumption and saving?

- (a) Consumption increases and saving increases.
- (b) Consumption increases and saving decreases.
- (c) Consumption decreases and saving increases.
- (d) Consumption decreases and saving decreases.

**Answer:** A

**Question 5.** Last year, Linus earned a salary of \$25,000 and he spent \$24,000, thus saving \$1000. At the end of the year, he received a bonus of \$1000 and he spent \$500 of it, saving the other \$500. What was his marginal propensity to consume?

- (a) 0.96
- (b) 0.50
- (c) 0.04

(d) 0.02

**Answer:** B

**Question 6.** An increase in expected future output while holding today's output constant would

- (a) increase today's desired consumption and increase desired national saving.
- (b) increase today's desired consumption and decrease desired national saving.
- (c) decrease today's desired consumption and increase desired national saving.
- (d) decrease today's desired consumption and decrease desired national saving.

**Answer:** B

**Question 7.** When a person receives an increase in wealth, what is likely to happen to consumption and saving?

- (a) Consumption increases and saving increases.
- (b) Consumption increases and saving decreases.
- (c) Consumption decreases and saving increases.
- (d) Consumption decreases and saving decreases.

**Answer:** B

**Question 8.** Aunt Agatha has just left her nephew \$5000. The most likely response is for her nephew to

- (a) increase current consumption, but not future consumption.
- (b) decrease current consumption, but increase future consumption.
- (c) increase future consumption, but not current consumption.
- (d) increase both current consumption and future consumption.

**Answer:** D

**Question 9.** The stock market just crashed; the Dow Jones Industrial Average fell by 750 points. You would expect the effect on aggregate consumption to be the largest if which of the following facts was true?

- (a) The crash had been preceded by a large run-up in the price of stocks.
- (b) Most stocks were owned by insurance companies.
- (c) Most stocks were owned by pension funds that invested in the market.
- (d) Many individuals had invested in the stock market immediately prior to the crash.

**Answer:** D

**Question 10.** If the substitution effect of the real interest rate on saving is larger than the income effect of the real interest rate on saving, then a rise in the real interest rate leads to a \_\_\_\_\_ in consumption and a \_\_\_\_\_ in saving, for someone who's a lender.

- (a) fall; fall
- (b) fall; rise
- (c) rise; rise
- (d) rise; fall

Answer: B

## Problem Solving Questions

**Question 11.** Can the unemployment rate and the employment rate rise during the same month? Can the participation rate fall at the same time that the employment ratio rises? Explain.

**Yes, it is possible for the unemployment rate and the employment ratio to rise during the same month. For example, suppose the population falls, the labour force is constant, the number of unemployed rises, and the number of employed falls (but by less than the decline in population). Then the unemployment rate rises, since there are more unemployed but the same labour force, but the employment ratio rises, since population declines more than employment does.**

**Yes, it is possible for the participation rate to fall at the same time that the employment ratio is rising. For example, suppose that population is constant, the labour force declines, employment rises, and unemployment falls. The participation rate falls, since there are fewer people in the labour force from the same population. The employment ratio is rising, since employment rises while population is constant.**

**Question 12.** How would each of the following affect Helena Handbasket's supply of labour?

a. The value of Helena's home triples in an unexpectedly hot real estate market.

**The increased value of Helena's home increases her wealth. The rise in wealth leads to an income effect that leads Helena to reduce her labour supply.**

b. Originally an unskilled worker, Helena acquires skills that give her access to a higher-paying job. Assume that her preferences about leisure are not affected by the change in jobs.

**The permanent rise in Helena's real wage gives rise to offsetting income and substitution effects. The income effect of the higher wage reduces Helena's labour supply, but the substitution effect increases it. So the result is theoretically ambiguous.**

**Empirically, women tend to increase labour supply in response to a permanent increase in the real wage, and men tend to reduce labour supply in response to a permanent increase in the real wage.**

c. A temporary income tax surcharge raises the percentage of her income that she must pay in taxes, for the current year only. (Taxes are proportional to income in Helena's country.)

**The temporary income tax surcharge is equivalent to a temporary reduction in the real wage, which reduces current labour supply, assuming that the income effect is smaller than the substitution effect.**