

5. Answer each question in Section C on a **FRESH page** of the answer book.
6. Try to answer all questions. In general, if you have some knowledge about a question, it is better to try to answer it. You will not be penalized for guessing.
7. You may work on the TRUE/FALSE questions, multiple-choice questions and problem solving questions in any order that you choose. Be sure to allocate your time carefully so you are able to complete the entire exam within the exam session.

Section A (TRUE/FASLE Questions) [Total = 10 marks]

Consider each of the following statements. Say whether you believe the statement is true or false. Briefly explain you answer in words. Note that most of the marks will be given for the explanation.

Question 1. [5 marks] If country A loses some capital stock due to a disaster (which is a transitory shock), households will save less and the investment will not change.

False. Investment will increase since the transitory shock will not affect firm's decision of choosing future capital stocks. However, the current capital stock falls. Investment will increase. Also lower capital stock means lower household wealth, savings will increase.

Question 2. [5 marks] If there are two countries A and B in the world, country A loses some capital stock due to a disaster, country B's current account will fall.

False. The most correct answer should be that current account in Country B is ambiguous, since both savings and investment shift to right, as suggested in Question 1.

Section B (Multiple Choice Questions) [Total = 30 marks]

Choose ONE of the best answers for each of the following questions. Each question is worth 2 marks.

Question 3. [2 marks] The two most comprehensive, widely accepted macroeconomic models are

- (a) the classical model and the supply-side model.
- (b) the supply-side model and the real business cycle model.
- (c) the classical model and the Keynesian model.
- (d) the Austrian model and the Keynesian model.

Answer: C

Question 4. [2 marks] Aggregation is the process of

- (a) calculating real GDP based on nominal GDP and the price index.
- (b) summing individual economic variables to obtain economy wide totals.
- (c) Forecasting the components of GDP.

(d) Predicting when recessions will occur.

Answer: B

Question 5. [2 marks] Positive analysis of economy policy

- (a) examines the economic consequences of policies but does not address the question of whether those consequences are desirable.
- (b) examines the economic consequences of policies and addresses the question of whether those consequences are desirable.
- (c) generates less agreement among economists than normative analysis.
- (d) is rare in questions of economic policy.

Answer: A

Question 6. [2 marks] Frictional unemployment arises when

- (a) unskilled or low-skilled workers find it difficult to obtain desirable, long-term jobs.
- (b) labour must be reallocated from industries that are shrinking to areas that are growing.
- (c) workers must search for suitable jobs and firms must search for suitable workers.
- (d) output and employment are below full-employment levels.

Answer: C

Question 7. [2 marks] According to Okun's Law, an increase in the unemployment rate will cause _____ in the level employment and _____ in the level of output.

- (a) an increase; an increase
- (b) an increase; a decrease
- (c) a decrease; an increase
- (d) a decrease; a decrease

Answer: D

Question 8. [2 marks] The equilibrium level of employment, achieved after the complete adjustment of wages and prices, is known as the

- (a) zero-unemployment level of employment.
- (b) natural state.
- (c) invisible handshake.
- (d) full-employment level of employment.

Answer: D

Question 9. [2 marks] A curve that connects all the consumption combinations that yield the same level of utility is known as

- (a) an isoquant.
- (b) a yield curve.
- (c) a budget line.
- (d) an indifference curve.

Answer: D

Question 10. [2 marks] An invention that raises the future marginal product of capital would cause an increase in desired investment, which would cause the investment curve to shift to the _____ and would cause the real interest rate to _____

- (a) right; increase
- (b) right; decrease
- (c) left; increase
- (d) left; decrease

Answer: A

Question 11. [2 marks] An increase in the expected real interest rate tend to

- (a) raise desired savings only.
- (b) raise desired investment only.
- (c) raise both desired savings and desired investment.
- (d) raise desired savings, but lower desired investment.

Answer: D

Question 12. [2 marks] Government policies to raise the productivity growth include all of the following EXCEPT

- (a) improving infrastructure.
- (b) encouraging research and development.
- (c) reducing the government budget surplus.
- (d) improving human capital development.

Answer: C

Question 13. [2 marks] Unconditional convergence means that in the long run,

- (a) living standards converge only within groups of countries have similar characteristics.
- (b) living standards converge only for countries that have the same initial capita-labour ratio.
- (c) living standards around the world become the same.
- (d) difference persist in living standards around the world.

Answer: C

Question 14. [2 marks] Large differences in inflation rates among countries are almost always the result of large differences in

- (a) productivity.
- (b) real income growth.
- (c) the growth rates of real money demand.
- (d) the growth rates of nominal money supplies.

Answer: D

Question 15. [2 marks] If there is a financial panic and increased uncertainty about the returns in the stock market and bond market, what is the likely effect on money demand?

- (a) Money demand declines first, then rises when inflation increases.
- (b) Money demand rises.

- (c) The overall effect is ambiguous.
- (d) Money demand declines.

Answer: B

Question 16. [2 marks] The aggregate demand curve shows the combinations of output and price level that put the economy on

- (a) the *FE* line and the *IS* curve.
- (b) the *FE* line, the *IS* curve, and the *LM* curve.
- (c) the *IS* curve.
- (d) the *IS* curve and the *LM* curve.

Answer: D

Question 17. [2 marks] Which of the following changes shifts the AD curve down and to the left?

- (a) A temporary increase in government purchases
- (b) A rise in the nominal money supply
- (c) A decrease in corporate taxes
- (d) A decrease in consumer confidence

Answer: D

Section C (Problem Solving Questions) [Total = 60 marks]

Question 18. [20 marks] **Classifying Transactions.** Classifying the following as a transaction reported in a sub-component of the current account or the capital and financial accounts of the two countries involved:

- (a) [4 marks] A California-based mutual fund buys shares of stocks on the Tokyo and London stock exchanges.

A debit to the portfolio investment section of the U.S. financial account; a credit to the portfolio section of the Japanese and British financial accounts.

- (b) [4 marks] The U.S. army buys food for its troops in South Asia from vendors in Thailand.

A debit to the goods part of the U.S. current account; a credit to the goods part of the Thai current account.

- (c) [4 marks] A Yale graduate gets a job with the International Committee of the Red Cross working in Bosnia and is paid in Swiss Francs.

A debit to the income part of the Swiss current account; a credit to the income part of the Bosnia current account. This assumes the Yale graduate spends her earnings within Bosnia; should she deposit the sum in the United States then the credit would be to the income part of the U.S. current account.

- (d) The Russian government hires a Dutch salvage firm to raise a sunken submarine.

A debit to the service part of Russia's current account; a credit to the service part of the Netherland's current account.

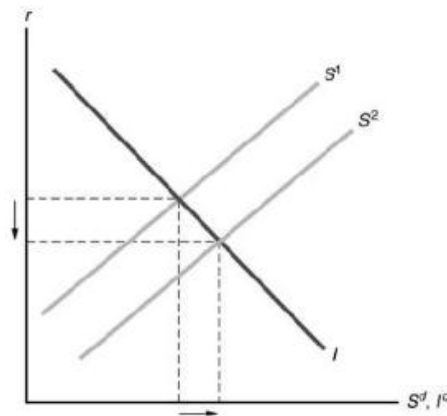
- (e) [4 marks] A Colombian drug cartel smuggles cocaine into the United States, receives a suitcase of cash, and flies back to Colombia with that cash.

This would not get captured in the goods part of the U.S. or the Colombian current accounts. Assuming the cash was "laundered" appropriately, from the point of view of the smugglers, bank accounts in the U.S. or somewhere else (probably not Colombia, possibly Switzerland) would be credited. This imbalance would end up in the errors and omissions part of the U.S. balance of payments.

Question 19. [20 marks] Use the saving-investment diagram to analyse the effects of the following on national saving, investment, and the real interest rate. Explain your reasoning.

- (a) [5 marks] Consumers become more future-oriented and thus decide to save more.

As the following figure shows, the shift to the right in the saving curve from S^1 to S^2 causes saving and investment to increase and the real interest rate to decrease.

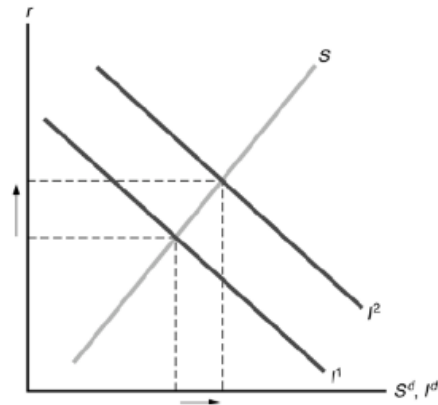


- (b) [5 marks] The government announces a large, one-time bonus payment to veterans returning from a war. The bonus will be financed by additional taxes levied on the general population over the next five years.

This is really just a transfer from the general population to veterans. The effect on saving depends on whether the marginal propensity to consume (MPC) of veterans differs from that of the general population. If there is no difference in MPCs, there will be no shift of the saving curve; neither investment nor the real interest rate is affected. If the MPC of veterans is higher than the MPC of the general population, then desired national saving declines and the saving curve shifts to the left; the real interest rate rises and investment declines. If the MPC of veterans is lower than that of the general population, the saving curve shifts to the right; the real interest rate declines and investment rises.

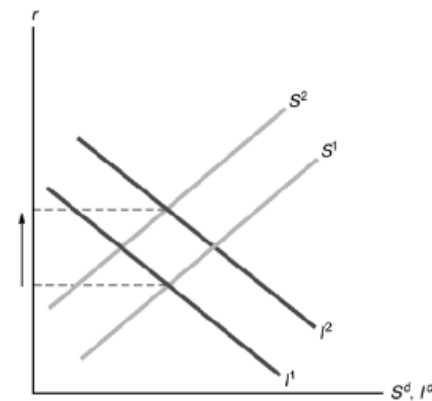
- (c) [5 marks] The government introduces an investment tax credit (offset by other types of taxes, so total tax collection remains unchanged).

The investment tax credit encourages investment, shifting the investment curve from I^1 to I^2 in the following figure. Saving and investment increase, as does the real interest rate.



(d) [5 marks] A large number of accessible oil deposits are discovered, which increases the expected future marginal product of oil rigs and pipelines. It also causes an increase in expected future income.

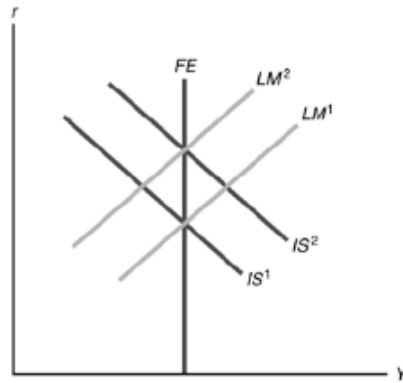
The increase in expected future income decreases current desired saving, as people increase desired consumption immediately. The rise of the future marginal productivity of capital shifts the investment curve to the right. The result, as shown in the following figure, is that the real interest rate rises, with ambiguous effects on saving and investment.



Question 20. [20 marks] Use the IS-LM model to determine the effects of each of the following on the general equilibrium values of the real wage, employment, output, real interest rate, consumption, investment and price level.

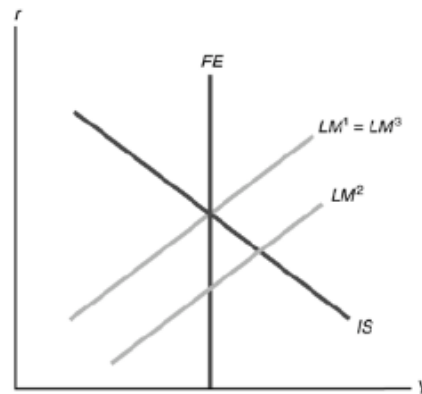
(a) [5 marks] A reduction in the effective tax rate on capital increases desired investment.

The increase in desired investment shifts the IS curve up and to the right, as shown in the following figure. The price level rises, shifting the LM curve up and to the left to restore equilibrium. Since the real interest rate rises, consumption declines. In summary, there is no change in the real wage, employment, or output; there is a rise in the real interest rate, the price level, and investment; and there is a decline in consumption.



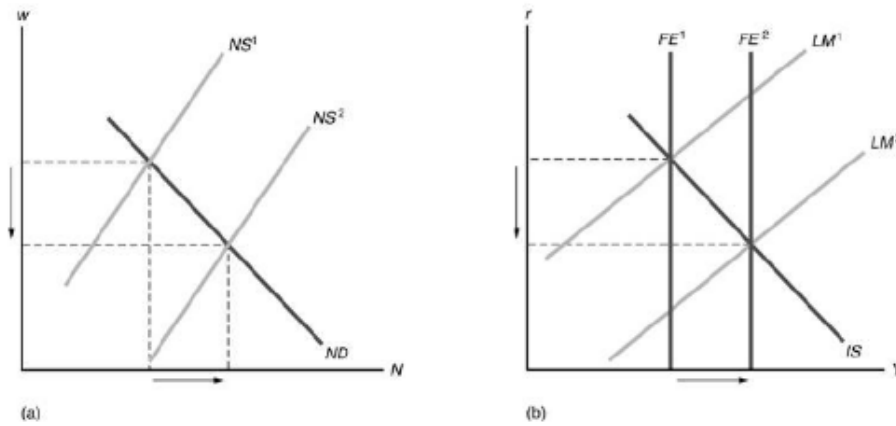
(b) [5 marks] The expected rate of inflation rises.

The rise in expected inflation shifts the LM curve down and to the right, as shown in the following figure. The price level rises, shifting the LM curve up and to the left to restore equilibrium. Since the real interest rate is unchanged, consumption and investment are unchanged. In summary, there is no change in the real wage, employment, output, the real interest rate, consumption or investment; and there is a rise in the price level.



(c) [5 marks] An influx of working-age immigrants increases labour supply (ignore any other possible effects of increased population).

The increase in labour supply is shown as a shift in the labour supply curve in part (a) of the following figure. This leads to a decline in the real wage rate and an increase in employment. The rise in employment causes an increase in output, shifting the FE line to the right in part (b) of the following figure. To restore equilibrium, the price level must decline, shifting the LM curve down and to the right. Since output increases and the real interest rate declines, consumption and investment increases. In summary, the real wage, the real interest rate, and the price level decline; and employment, output, consumption, and investment rise.



(d) [5 marks] Increased usage of automatic teller machines reduces demand for money. The reduction in the demand for money gives results identical to those in part (b) in the above figure.

END OF EXAMINATION