

Cherbeddy Yang Lu

THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

ECON 3123 Final Exam (Answer Book)

Date: Dec 10, 2025

Time allowed: 120 minutes

Not to be taken away.

Instructions:



- Answer ALL the questions. Write your answers on the answer book. Anything written on the question book will NOT be graded.
- Write your answer to all the questions within the provided area. Anything outside the provided area will NOT be graded.
- Make sure that all your handwritings are legible. Anything that cannot be understood by the grader will not be graded.
- Please submit BOTH the question book and the answer book after the exam.

DO NOT OPEN UNTIL INSTRUCTED!

Name: Kuzmin Sergei

Student ID: 11249477

Seat Number: 57

You MUST sign the following HKUST Honor Code.

Otherwise, your exam will NOT be graded.

The HKUST Academic Honor Code

Honesty and integrity are central to
the academic work of HKUST.

Students of the University must observe and uphold
the highest standards of
academic integrity and honesty in all the work
they do throughout their program of study.

◆
As members of the University community,
students have the responsibility to help maintain
the academic reputation of HKUST
in its academic endeavors.

◆
Sanctions will be imposed on students,
if they are found to have violated the regulations
governing academic integrity and honesty.

Your Signature:

A handwritten signature in black ink, appearing to read "WILLIAM J. SAWYER".

Multiple Choice Questions (20 points)

1	2	3	4	5
X E	X C	D	X E	C

~~8~~

Question 6 (15 points)

(1) (5 points)

$$\begin{aligned} \pi_t &= \pi_t^e \\ \pi_t &= 2.4\% + 0.4\pi_{t-1} + 0.5u_t \\ 5\% &+ 0.4\pi_{t-1} - 0.5u_t = 2.4\% + 0.4\pi_{t-1} \\ 5\% - 2.4\% &= 0.4\pi_{t-1} - 0.4\pi_{t-1} + 0.5u_t \\ 2.6\% &= 0.5u_t \\ u_t &= 5.2\% \end{aligned}$$

Question 6 (15 points, Continued)

(2) (5 points)

$$\pi_t = 5\% + 0.4\pi_{t-1} - 0.5u_t \Rightarrow \pi_{t+1} = 5\% + 0.4\pi_t - 0.5u_t \quad (u_t = u_{t+1})$$
$$\pi_{t+1} = 5\% + 0.4 \cdot 0.05 - 0.5 \cdot 0.052 = 5\% + 0.02 - 0.026 = 0.044$$
$$\Rightarrow \pi_{t+1} = 4.4\%$$

5

(3) (5 points)

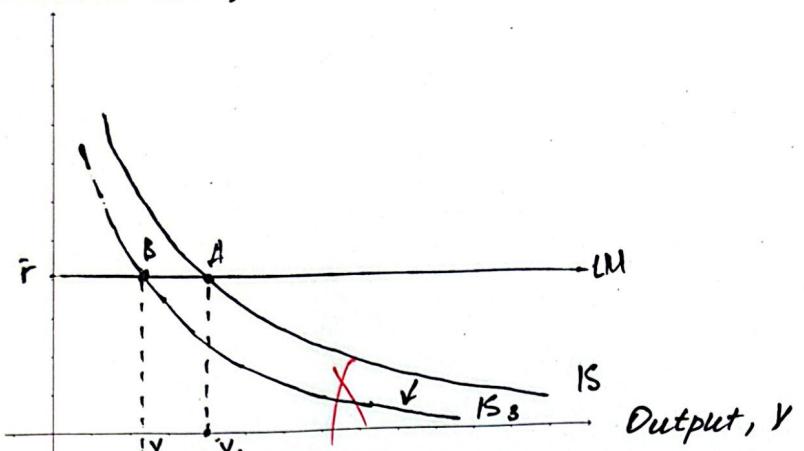
$$4\% = 5\% + 0.4\pi_t - 0.5u_{t+1}$$
$$4\% = 5\% + 0.02 - 0.5u_{t+1}$$
$$0.5u_{t+1} = 0.07 - 0.04 = 0.03$$
$$u_{t+1} = 0.06$$

6 %

Question 7 (35 points)

(1) (5 points) and (3) (10 points)

Interest rate, r



3

inflation rate

rate

π_A

π_B

u_A

u_B

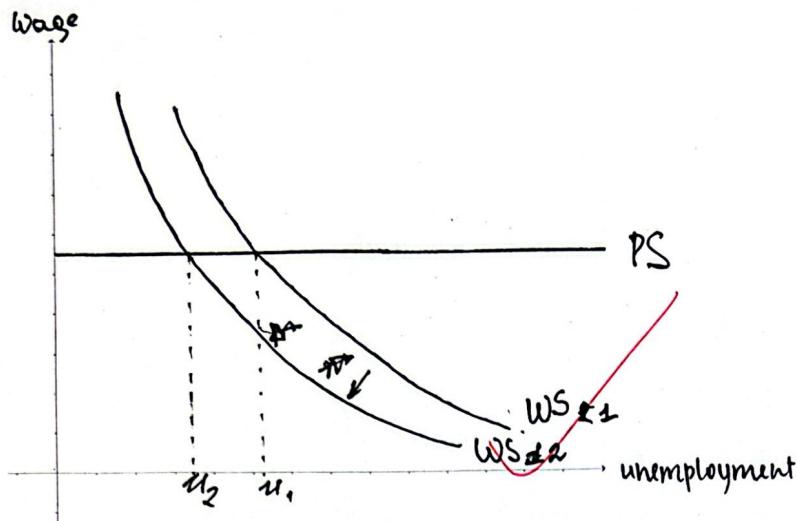
\times_{PC}

unemployment
rate

Effects: As bargaining power $\downarrow \rightarrow$ workers cannot bargain for higher wages or better conditions. \rightarrow Incomes decrease \rightarrow consumption decreases, IS shifts left ($IS_1 \rightarrow IS_3$), output decreases, Investment $I(Y, i)$ falls as Y falls, unemployment rate moves from u_A to u_B , interest rates remain the same

Question 7 (35 points, Continued)

(2) (10 points)



Effects:

(4) (10 points) Circle the correct one and write one-sentence explanation.

Inflation ~~increases~~ / decreases / remains unchanged / is uncertain).

Explanation: As IS shifts left, the equilibrium on PC goes from A to B, causing an increase in inflation

2

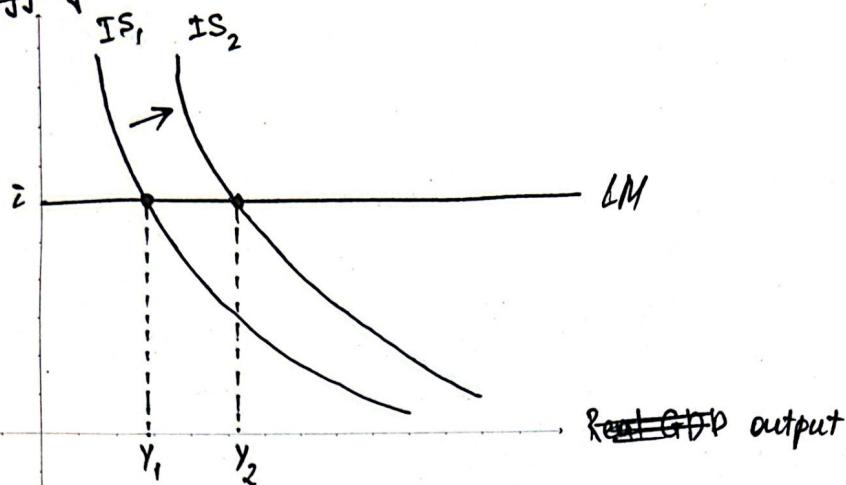
Output (increases / ~~decreases~~ / remains unchanged / is uncertain).

Explanation: As G remains the same, but incomes fall, IS shifts left, causing output to fall

Question 8 (30 points)

(1) (5 points) and (2) (10 points)

~~Aggregate demand~~ Interest rate



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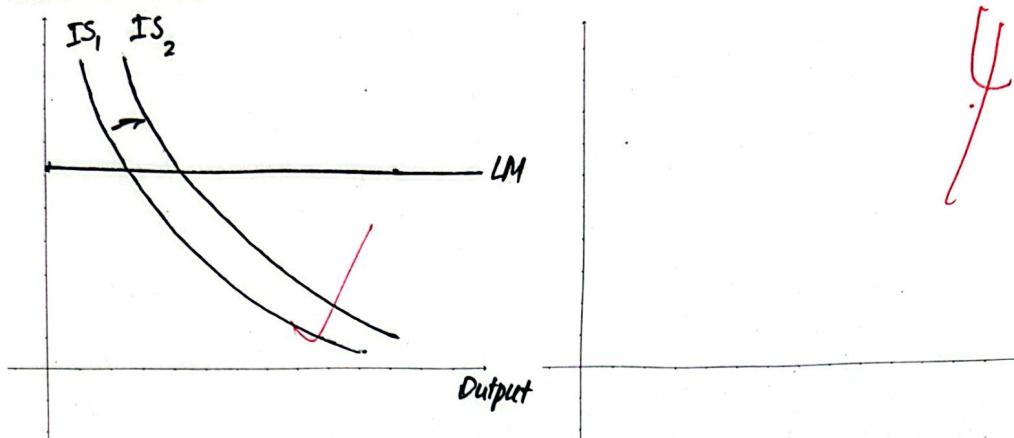
Policy mix: subsidizing the non-export areas.

Explanation: Provision of subsidies in non-export areas would increase gov. spending, thus increasing potential output. ~~However, do not emphasize~~
~~too much~~ lower exchange rate might allow to stabilize NX later -

Question 8 (30 points, Continued)

(3) (15 points) Circle the correct one and write one-sentence explanation.

Interest rate



Monetary policy: ~~Expansionary~~, Contractory, as if the inflation rate domestically is lower than foreign inflation rate trade would become more expensive, thus decreasing the trade surplus. Furthermore, as no trade happens, the demand for domestic currency falls, thus, ~~each~~ exchange rate decreases.

Consumption (increases / decreases / remains unchanged / is uncertain).

Explanation:

Investment increases / decreases / remains unchanged / is uncertain).

Explanation:

Net export (increases / decreases / remains unchanged / is uncertain).

Explanation:

***** END OF THE EXAM *****