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Department of Economics

ECON 102 (1-2)

27 May 2025

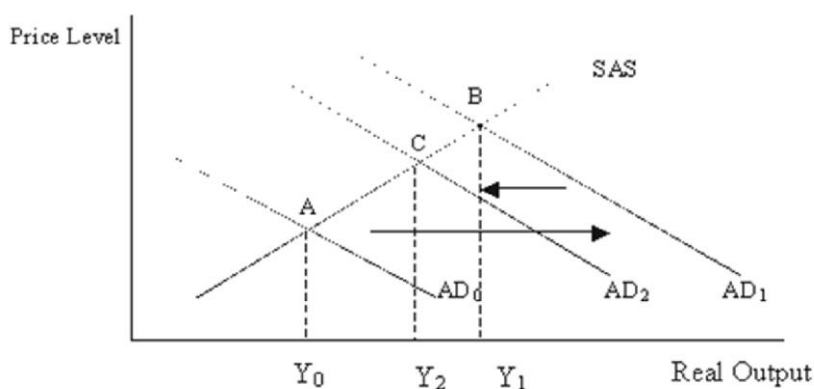
QUIZ 3
(Time: 60 minutes)

Q.1 (30 Points)

a.) (20 Points) What is the crowding out effect? Using the AD/AS model, demonstrate graphically and explain in words the impact of expansionary fiscal policy with incomplete crowding out.

Answer:

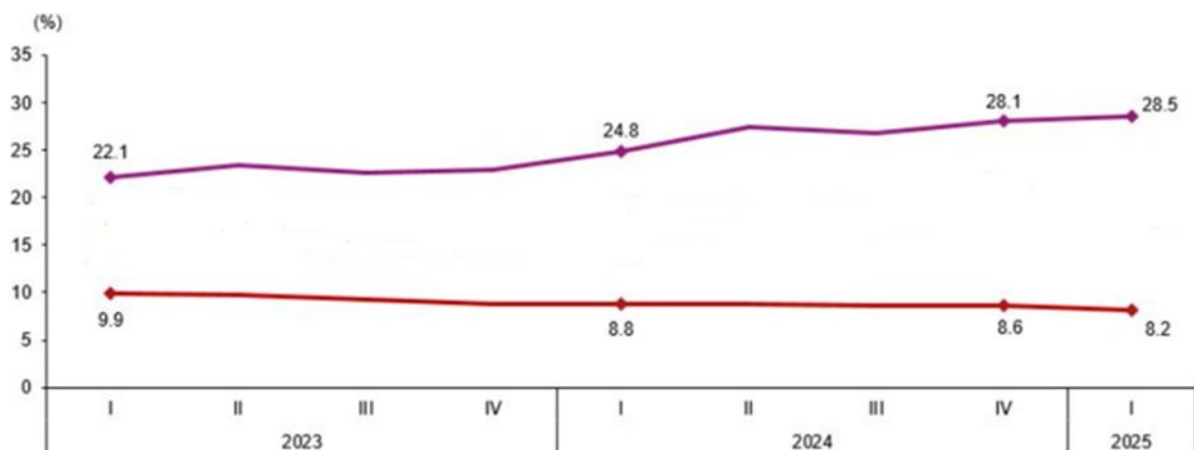
Crowding out effect is the offsetting of a change in government expenditures by a change in private investment in the opposite direction. The initial equilibrium is point A where AD_0 intersects the SAS curve with an income of Y_0 . The government undertakes an expansionary fiscal policy by increasing spending. This shifts the AD curve outward to AD_1 and brings the multiplier effect into action resulting in a new equilibrium level of income of Y_1 . If the government finances the increase in spending by selling bonds this will drive up interest rates resulting in a drop in business investment. The drop in investment will shift the AD curve inward to AD_2 and result in a third equilibrium point C and an associated level of income of $Y_2 < Y_1$. Thus the amount of income shown by $(Y_1 - Y_2)$ is crowded out of the economy. In the end, instead of moving from equilibrium point A to equilibrium point B (from Y_0 to Y_1) the economy moves to point C (Y_0 to Y_2); the change in income is smaller than the multiplier effect suggests.



b.) (10 Points) Give an example of an automatic stabilizer. Explain how automatic stabilizers work in case of a recession.

Examples of automatic stabilizers are welfare payments, unemployment insurance payments, and income taxes. Automatic stabilizers change tax receipts and government spending automatically as a result of fluctuations in the business cycle. This occurs without discretionary actions on the part of the government. In the case of recession, they would change automatically to stimulate spending in the economy. When the economy is in a downturn, there will be more people who require transfers, and the government will start to pay them welfare benefits. During a recession, employment declines, and government spending on unemployment insurance payments increases. An increase in unemployment insurance payments should raise disposable income and consumer spending above what they would otherwise be. During a recession, income tax receipts decline as incomes decline. This automatic decline in income tax revenues keeps disposable income and consumer spending from falling as much as they would without automatic stabilizers.

Q.2 (20 Points)



In the above graph from TURKSTAT, the lower curve shows the unemployment rate and the upper curve shows the labor underutilization rate (the broader definition of unemployment). Why do these two curves move in opposite directions for Türkiye since 2023? Try to interpret the graph within the framework of the different definitions and types of unemployment, and the effects of monetary policy that you learned in this course.

- **Unemployment Rate: Percentage of the labor force actively seeking but unable to find work.**
- **Labour Underutilization: A broader measure, including:**
 - Unemployed individuals (traditional unemployment).
 - Time-related underemployment (working fewer hours than desired).
 - Discouraged workers (not actively seeking but willing to work).
 - Marginally attached workers (not in labor force, but available and willing under certain conditions).

The fall in the unemployment rate may indicate more people are getting jobs—but possibly part-time, temporary, or low-quality jobs. This would reduce unemployment, but increase underemployment, driving up the underutilization rate. Some individuals may have stopped actively seeking jobs due to economic pessimism, becoming “discouraged workers”. These are not counted in the unemployment rate but are included in underutilization.

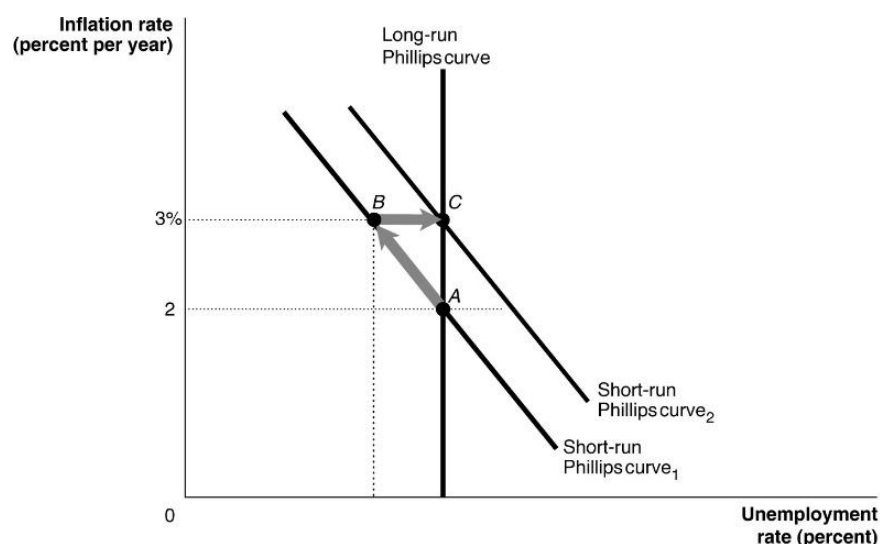
Türkiye began aggressively raising interest rates starting mid-2023 under a new economic management to decrease inflation.

Effects of Tight Monetary Policy

- Higher borrowing costs → firms and households face more expensive credit.
- Lower consumer demand → reduces output in interest-sensitive sectors (e.g., construction, durable goods).
- Slower investment → firms hold off on hiring or expansion.
- Short-term recessionary pressure → potentially leading to layoffs or less hiring.

Q.3 (30 Points)

Suppose an economy is initially at its long-run equilibrium, with unemployment at the natural rate and stable inflation. Then, the government implements an unexpected **expansionary fiscal policy**, causing aggregate demand to rise. Describe the short-run and long-run outcomes according to the Phillips Curve framework. Support your answer with a graph of the Phillips Curve.



Expansionary fiscal policy increases the inflation rate due to creation of more demand. Due to it is an unexpected policy, workers and firms will underestimate inflation, resulting in a decrease in the real wage and a decrease in the unemployment rate (move from A to B on the short-run Phillips curve above). Eventually, workers and firms will adjust to the fact that inflation is higher, shifting the short-run Phillips curve up and

increasing the unemployment rate to its natural rate (move from B to C in the graph above).

MULTIPLE CHOICE QUESTIONS (20 Points)

- 1) What action could The Central Bank (CB) take to reduce the crowding – out effect of an expansionary fiscal policy?
A) The CB could increase the money supply at the same time the government increases its spending
B) No action choice of The CB can reduce crowding – out effect
C) The Central Bank should increase the required reserve ratio
D) The CB should sale securities.
- 2) Which of the following fiscal policies would help restore the Turkish economy to full employment if it were in a recessionary gap?
A) A tax cut, since it would shift AD rightward by increasing C and I
B) A tax increase, since it would shift AD leftward by decreasing C and I
C) A decrease in government spending, since it would shift AD rightward by increasing G
D) An increase in taxes and a decrease in government spending used at the same time
- 3) Fiscal policy would be more effective if:
B) the government could change taxes and expenditures rapidly.
A) potential income was unknown.
C) the size of the government debt didn't matter.
D) crowding out occurred more often.
- 4) According to the Ricardian equivalence theorem, government deficits do not affect output because people:
B) save more when government deficits increase.
A) save more when government deficits decrease.
C) consume more when government deficits increase.
D) do not change consumption nor savings.
- 5) Which of the following types of unemployment is considered to be the most controllable through demand-side macroeconomic policy?
C) Cyclical unemployment
A) Frictional unemployment
B) Natural unemployment
D) Structural unemployment
- 6) Suppose workers at a car-manufacturing plant are laid off because the car technology has been changed and new cars will be electric cars which the old workers are not capable of to produce them since they have old fashioned skills. What type of unemployment describes the workers' situation?
C) Structural unemployment
A) Cyclical unemployment
B) Full unemployment
D) Frictional unemployment

- 7) The wage a person requires before accepting a job is referred to as the _____ wage:
- A) compensating
 - B) minimum
 - C) **reservation**
 - D) psychological
- 8) The quantity theory of money implies that an increase in the money supply will ultimately:
- A) **increase the price level and leave real GDP unchanged.**
 - B) affect only the level of real GDP; the price level will remain unchanged.
 - C) increase the price level and the level of real GDP.
 - D) decrease the price level and the level of real GDP.
- 9) If actual inflation is correctly expected and built into people's wage and price-setting decisions, the Phillips curve:
- A) becomes a horizontal line.
 - B) **becomes a vertical line.**
 - C) remains a downward sloping line.
 - D) becomes an upward sloping line.
- 10) Inflationary pressures increase when the economy moves:
- A) to the right of the long-run Phillips curve.
 - B) **to the left of the long-run Phillips curve.**
 - C) down the short-run Phillips curve.
 - D) down the long-run Phillips curve