

Almost every macro free-response asks you to trace a policy through two or three markets in a fixed order. The rubric awards each link separately, so a response that gives the final answer without the chain earns one point out of five. Each model below writes the chain out.

The AD-AS model

I An economy is in a recession. (a) Draw a correctly labelled AD-AS graph showing the current output and the full-employment output. (b) Identify the gap. (c) Explain how the economy could return to full employment without government action.

(a) Axes labelled Price Level and Real GDP. A vertical LRAS at Y_f , an upward-sloping SRAS, and AD intersecting SRAS at Y_1 to the LEFT of Y_f , with price level PL_1 marked. (b) A recessionary gap, equal to the horizontal distance from Y_1 to Y_f . (c) With output below full employment, unemployment is high, so workers accept lower nominal wages and other input prices fall. Lower input costs shift SRAS to the right. Output rises and the price level falls until the economy returns to Y_f .

Commentary: The graph points require: both axes labelled, LRAS vertical at Y_f , and the intersection clearly to the LEFT of it. Part (c) is scored on three links – wages fall, SRAS shifts right, output returns to Y_f – plus the reason wages fall. Saying only “the economy self-corrects” earns nothing without the mechanism.

I The government increases spending. Explain the effect on real GDP, and identify what determines the size of that effect.

An increase in government spending increases aggregate demand, shifting AD to the right. Real GDP rises and the price level rises. The size of the increase depends on the spending multiplier, which is $1/(1 - MPC)$. The larger the marginal propensity to consume, the more of each additional dollar of income is spent again, so the larger the total increase in real GDP.

Commentary: Three points: AD shifts right, real GDP and price level both rise, and the multiplier identified WITH its formula. Note that the price level must be mentioned – a response giving only the output effect loses that point, and it is deliberately included in the rubric because students omit it.

Money, loanable funds and the international link

I The central bank buys government bonds on the open market. Explain the effect on the nominal interest rate, on investment, and on real GDP.

Buying bonds increases the money supply, shifting the vertical money supply curve to the right in the money market. With money demand unchanged, the nominal interest rate falls. A lower interest rate reduces the cost of borrowing, so firms undertake more investment projects and interest-sensitive consumption rises. Higher investment and consumption increase aggregate demand, shifting AD to the right, so real GDP rises and the price level rises.

Commentary: Five separate rubric points, and they are awarded in this order: money supply increases, nominal interest rate falls, investment increases, AD shifts right, real GDP increases. A response that jumps from “the central bank buys bonds” to “GDP rises” scores one of the five. Draw the money market with the NOMINAL rate on the vertical axis; using the real rate there is a lost point.

I The government finances a large deficit by borrowing. Explain the effect on the real interest rate and on private investment, and then on the international value of the currency.

Government borrowing increases the demand for loanable funds, shifting that demand curve to the right. The real interest rate rises. A higher real interest rate makes borrowing more expensive for firms, so private investment falls. This is crowding out, and it offsets part of the increase in aggregate demand from the deficit spending. A higher real interest rate also attracts financial capital from abroad. Foreign investors demand the domestic currency in order to buy domestic assets, so demand for the currency increases in the foreign exchange market and it appreciates. An appreciation makes exports more expensive abroad and imports cheaper, so net exports fall.

Commentary: This is the standard three-market chain and it is scored link by link across all three markets. The loanable funds graph must have the REAL interest rate on the vertical axis, and the foreign exchange graph must be labelled for a specific currency with both curves named. Crowding out must be named and explained, not just asserted.

Long-run adjustment and the Phillips curve

I An economy is producing above full employment. Explain what happens in the long run to output, the price level, and the short-run Phillips curve.

With output above full employment, labour markets are tight and workers bargain for higher nominal wages. Rising input prices shift SRAS to the left. Output falls back to the full-employment level and the price level rises further. Because inflation has risen, workers and firms revise their inflation expectations upward. The short-run Phillips curve shifts up and to the right, so at the natural rate of unemployment the economy now experiences higher inflation than before.

Commentary: Four points: wages rise, SRAS shifts left, output returns to full employment with a higher price level, and the short-run Phillips curve shifts because EXPECTED inflation rose. The last point requires the word expectations – the curve does not move because inflation rose, it moves because expected inflation rose, and the rubric distinguishes them.