Responding to Economic Fluctuations

This lecture discusses the effects of monetary and fiscal policy on the economy.

A. Economic shocks or disturbances to the economy might call for a policy response.

   1. Aggregate demand disturbances.

   2. Price disturbances.

B. Potential policy responses

   1. Adjusting the money supply.

   2. Changing government spending or taxes.

Shocks and Disturbances to the Economy

A. Shocks to aggregate demand

1. Factors that shift the spending line. Ex. increases in a, e, g_X or a decrease in g_{IM} shifts the spending line upward, which causes the AD curve to shift rightward.

2. Factors that shift the money demand line. Ex. An increase in h or a decrease in k shifts the money demand line leftward, which results in a lower R and rightward shift in the AD curve. [Recall: $M^D = (k{\times}Y - h{\times}R){\times}P$]

B. Analyzing the effects of an aggregate demand shock when monetary and fiscal policy do not change.

1. Suppose Y starts at its potential (Y^*) and a shock shifts the spending line downward.

a. In the short run, the shock pushes down Y to Y_B, which causes the IS curve to shift left from IS_A to IS_B and R to fall to R_B. Since P is unchanged at P_A, the AD curve shifts left from AD_A to AD_B. [point B]

b. In the long run, P falls from P_A to P_C, which causes the LM curve to shift right from LM_A to LM_C. That leads to R falling to R_C and Y to returning to Y^*. [point C]
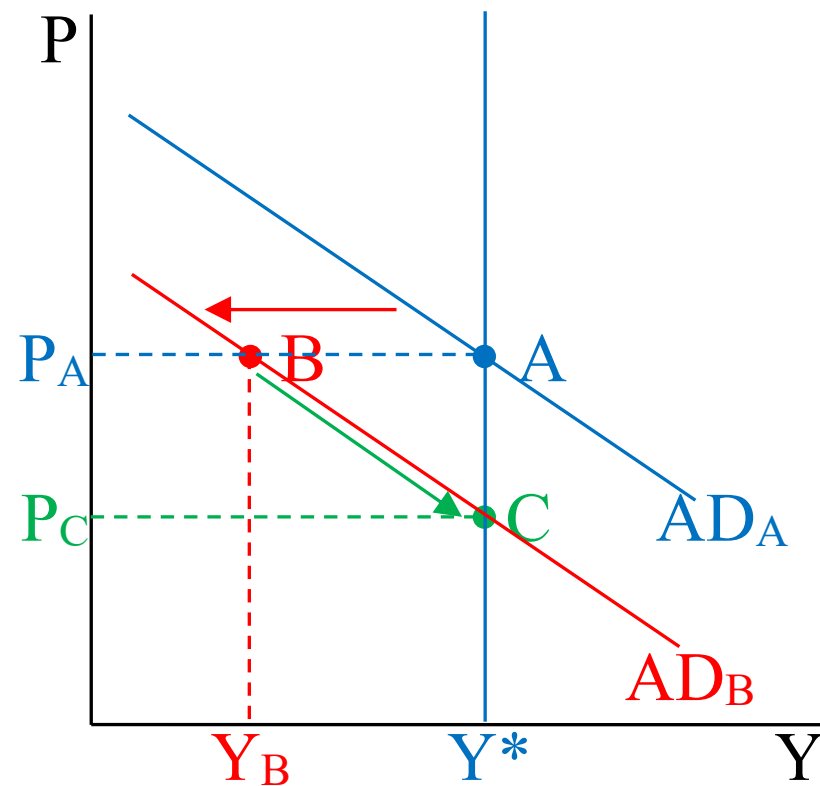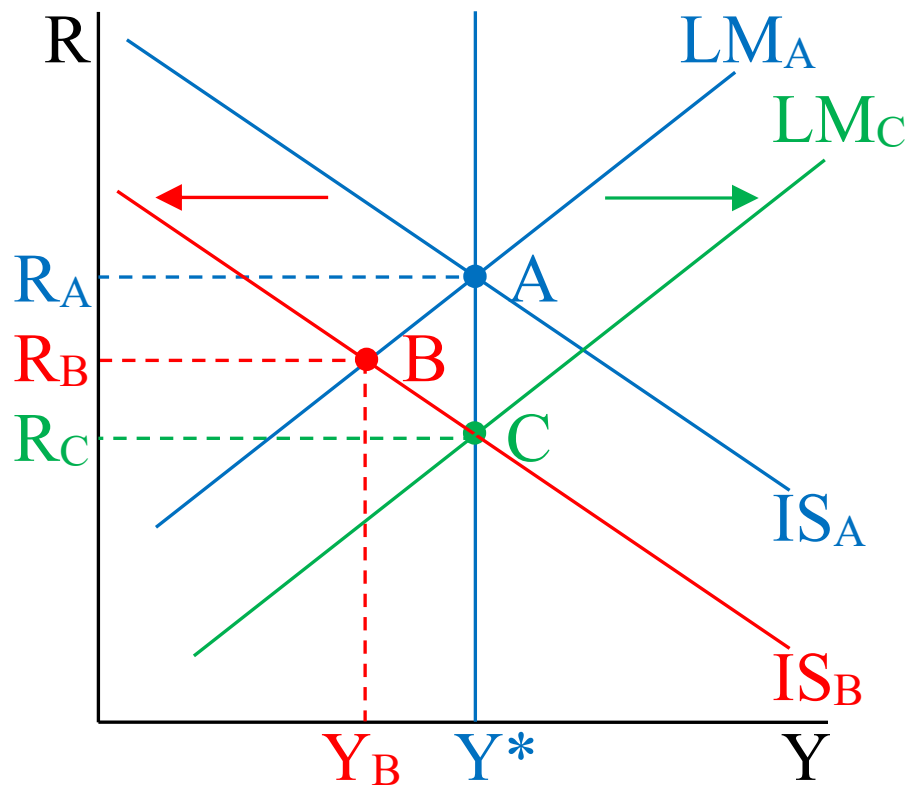
2. Suppose $Y = Y^*$ and a shock shifts the M^D line rightward.

   a. In the short run, higher M^D raises R to R_B and lowers Y to Y_B. The LM curve shifts left to LM_B. Since P remains at P_A, the AD curve shifts left from AD_A to AD_B. [point B]

   b. In the long run, P falls from P_A to P_C, which shifts the LM curve back to LM_A and causes Y and R to return to Y^* and R_A. [point C]
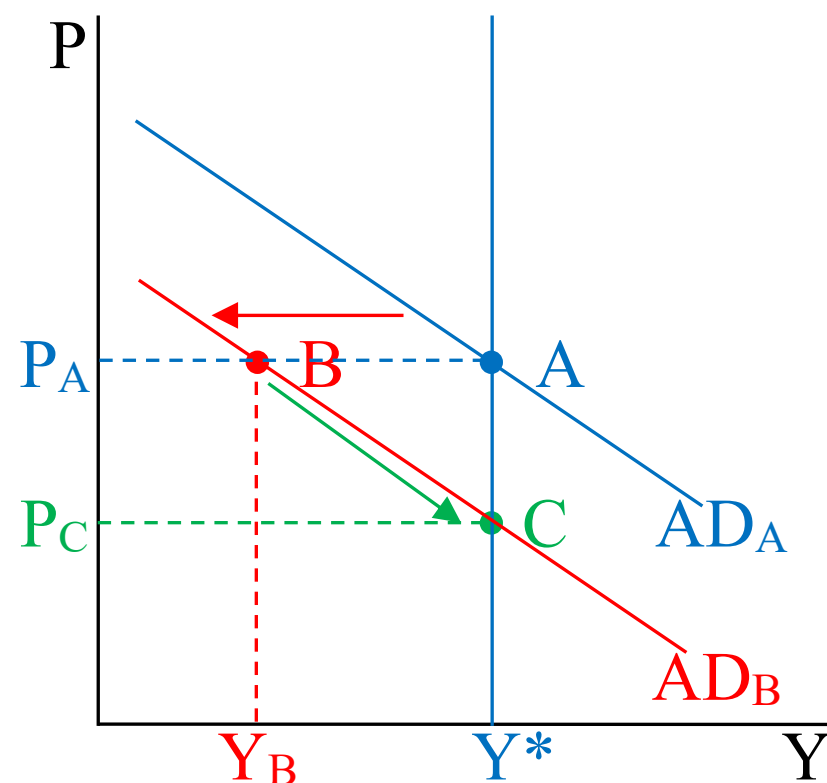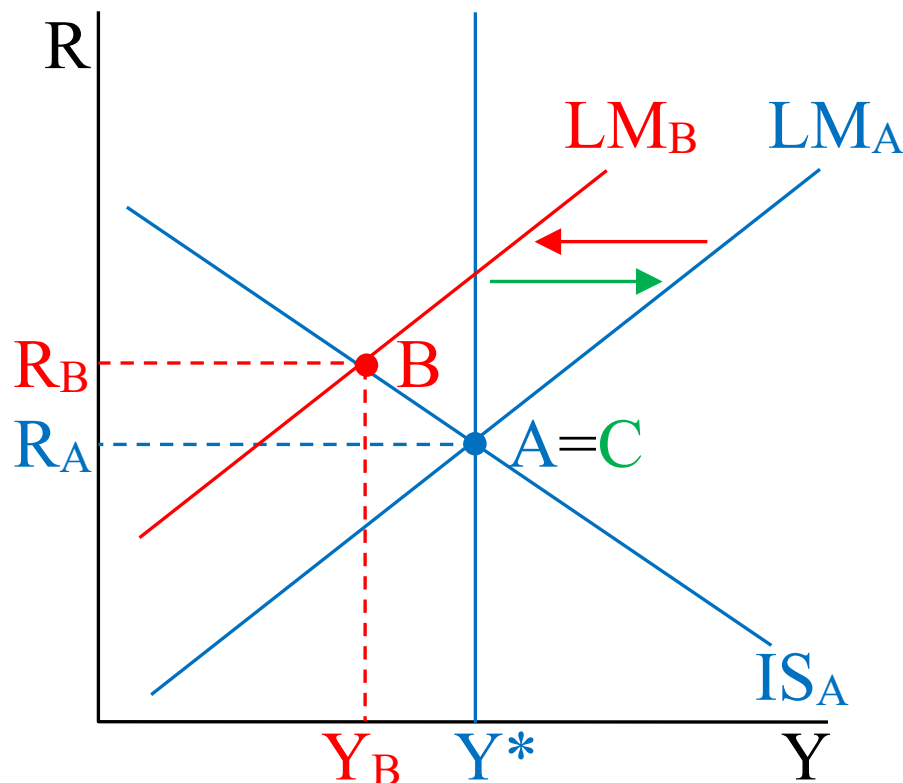
C. Shocks to the price level.

    1. Potential sources of a price shock.

        a. The price of an economy wide input, such as oil, rises.

        b. A large group of workers get an abnormally high wage increase. (Ex. a dramatic increase in the minimum wage)

        c. Firms mistakenly raise their prices too much. (Ex. firms expect an increase in inflation, wages or input prices that does not happen)

    2. Suppose output starts at Y* and a price shock increases P from P_A to P_B.

        a. In the short run, the increase in P to P_B pushes up M^D, which raises R to R_B and lowers Y to Y_B. The LM curve shifts left to LM_B. [point B]

b. In the long run, P falls to P_A, which shifts the LM curve back to LM_A and causes Y and R to return to Y^* and R_A. [point C]
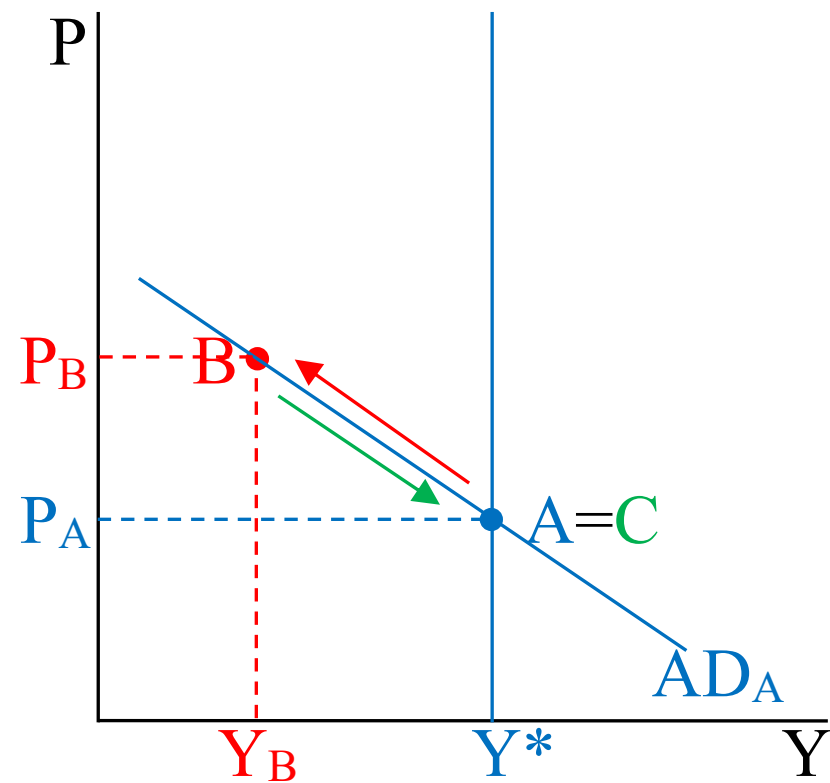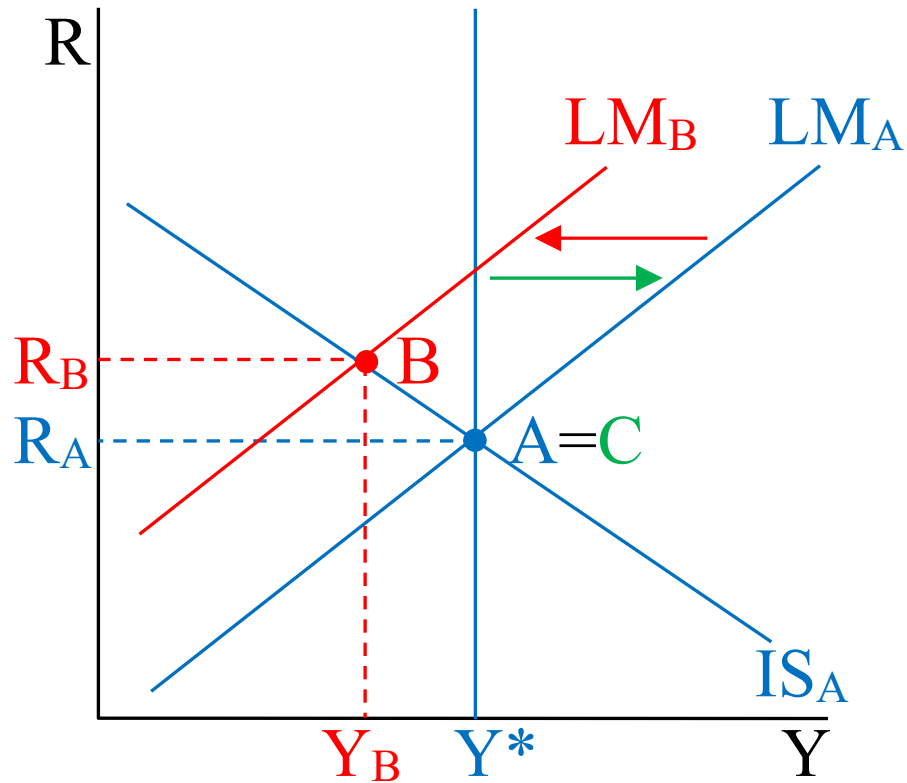
Responding to Aggregate Demand Shocks: Stabilization Policy

A. To counter shocks to the AD curve, policymakers can implement offsetting monetary or fiscal policy. This is referred to as stabilization policy.

B. Using stabilization policy to counteract a decline in AD from AD_A to AD_B.
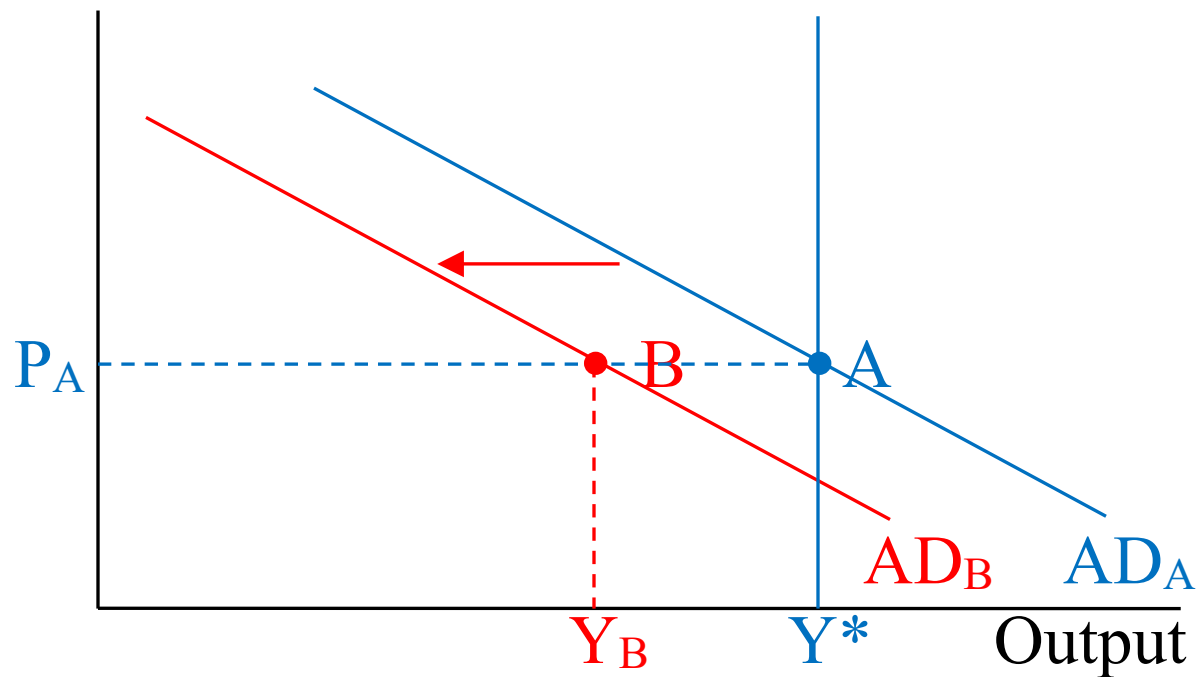
1. Active monetary policy
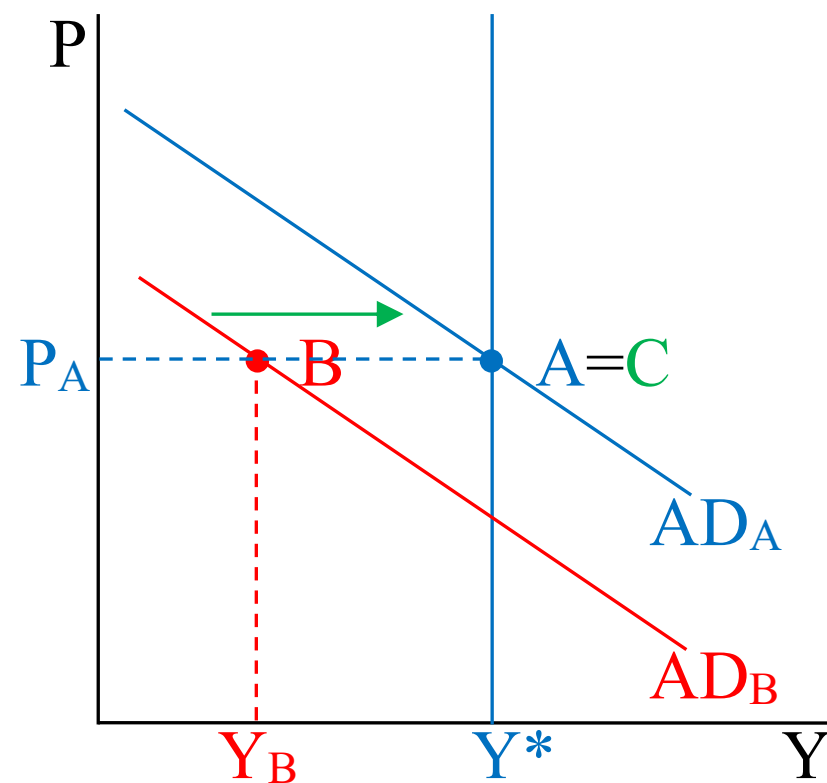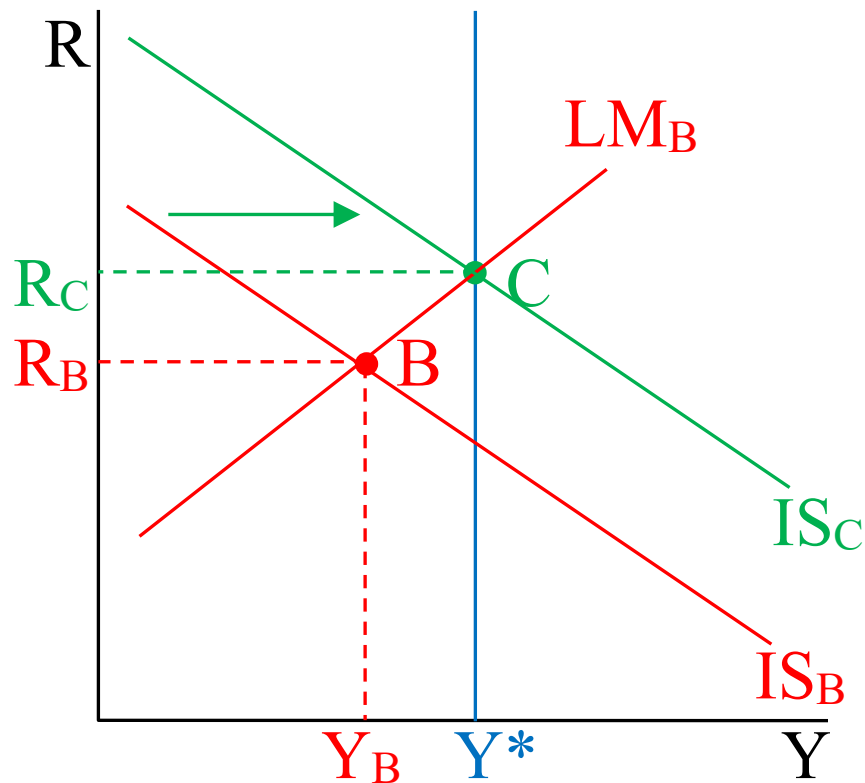
    a. The Federal Reserve can shift the AD curve back to AD_A by increasing M^S.

    b. As a result, Y returns to $Y*$ and R declines to R_C.
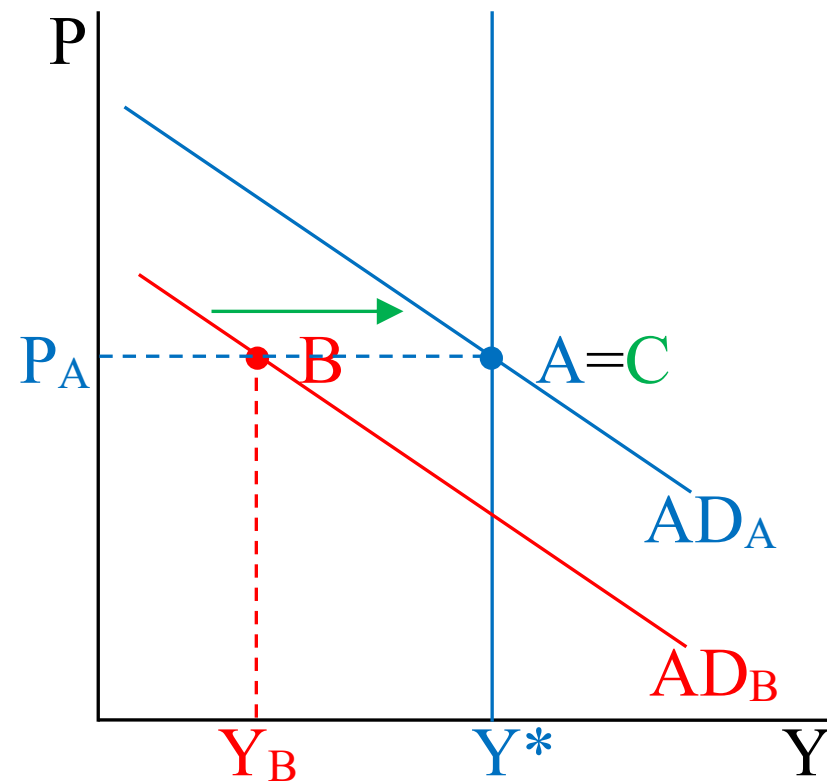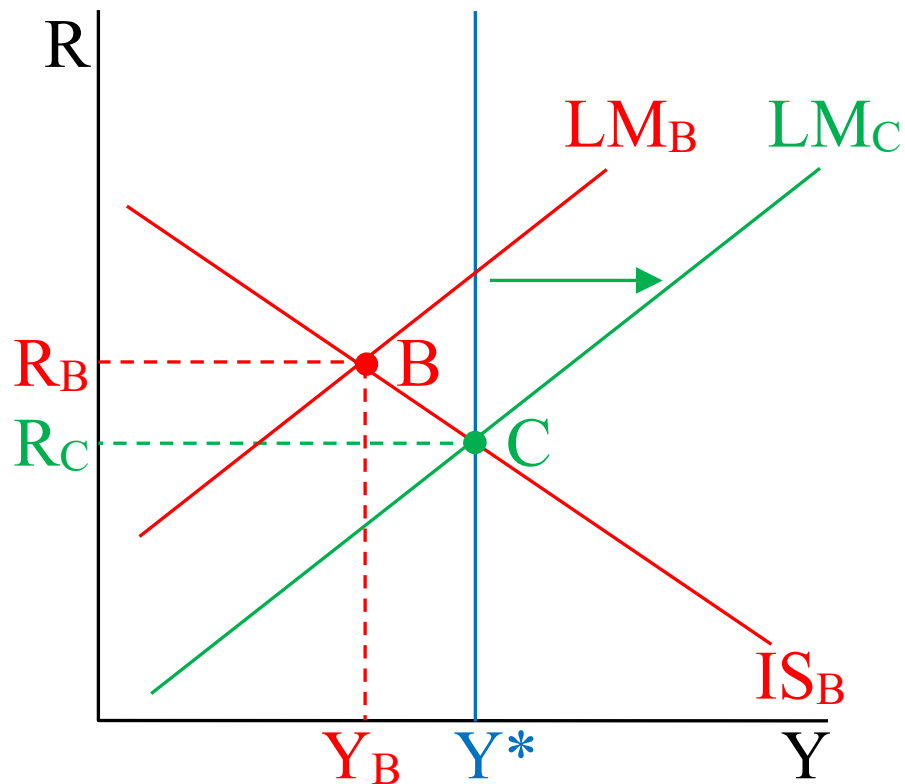
2. Active fiscal policy

   a. The President and Congress can shift the AD curve back to AD_A by increasing G or decreasing taxes.

   b. As a result, Y returns to Y* and R rises to R_C.

C. Problems with stabilization policy

1. Policymakers have trouble identifying the level of potential output.

2. Policymakers lack detailed knowledge of current and future economic conditions.

3. There are a variety of lags that prevent the economy from immediately adjusting.

   a. Recognition lag is the time it takes to identify an economic problem.

   b. Decision-making lag is the time it takes to identify a solution to the problem.

   c. Implementation lag is the time it takes to introduce a policy change.

   d. Effectiveness lag is the time it takes monetary or fiscal policy to have an effect on the economy.

The Response of Monetary Policy to a Price Shock: Two Options

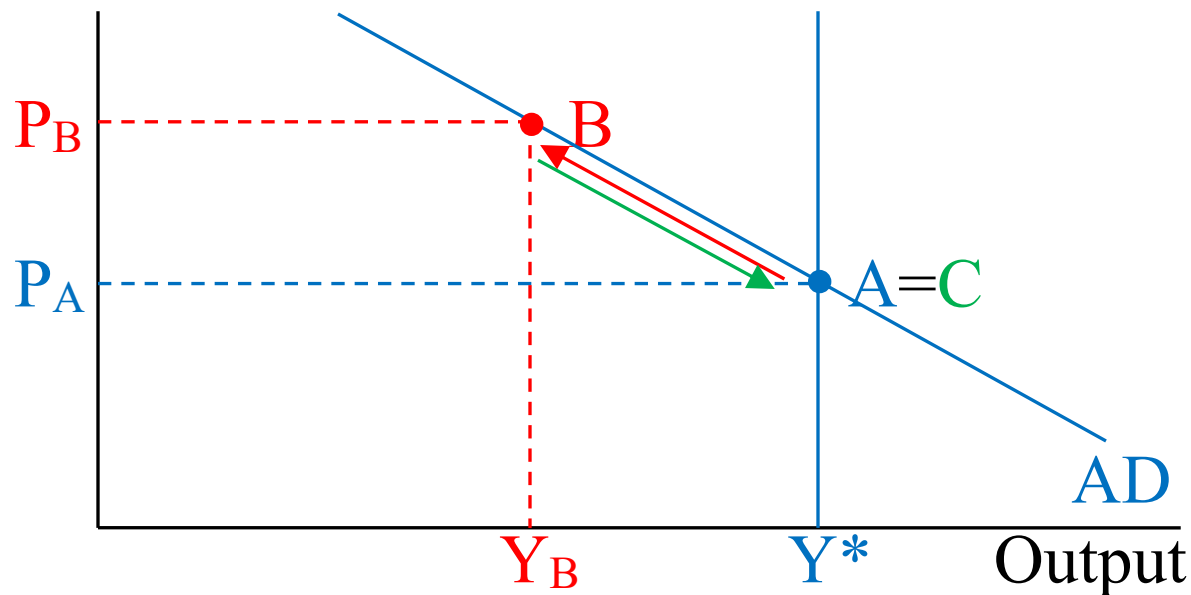A. Accommodative monetary policy (in response to a rise in P)

   1. In the short run, Y falls to Y_B while P rises to P_B. [point B]

   2. The Federal Reserve increases M^S which shifts the AD curve rightward and pushes Y back to $Y*$. [point C]

   3. The result is that Y returns to $Y*$, R declines, I and $(X - IM)$ increase, and P permanently rises.
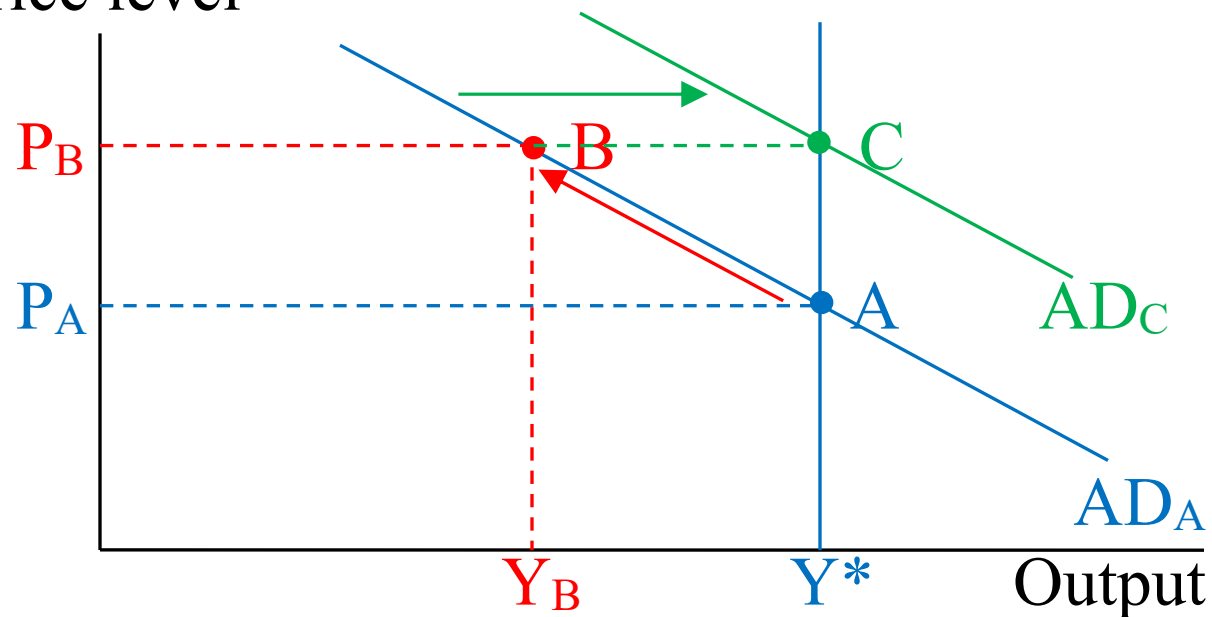
B. Nonaccommodative monetary policy (in response to a rise in P)

1. In the short run, Y falls to Y_B while P rises to P_B. [point B]

2. The Federal Reserve does not change policy (AD curve does not shift).

3. In the long run, Y returns to Y^* and P returns to P_A. [point C]

Price level

C. Summary of accommodative and nonaccommodative monetary policy (in response to a rise in P)

1. Accommodative monetary policy

   a. Advantage: $Y = Y^*$ in the short run.

   b. Disadvantage: P is higher in the long run.

2. Nonaccommodative monetary policy

   a. Advantage: P is unchanged in the long run.

   b. Disadvantage: $Y < Y^*$ in the short run.

Disinflation

A. Disinflation occurs when the inflation rate is falling.

B. The impact of disinflation

    2. Recall, the Phillips curve relationship

$$\pi = \pi^e + f[(Y_{-1} - Y^*)/Y^*]$$

    3. Disinflation is problematic when $\pi^e = \pi_{-1}$ because π can only be reduced by letting Y_{-1} fall below Y^*.

    4. If inflation is too high and needs to be reduced, then a recession and unemployment are inevitable.

C. Alternative disinflation paths

    1. Rapid disinflation causes the drop in output and the rise in unemployment to be large but short.

    2. Slow disinflation causes the drop in output and the rise in unemployment to be small but persistent.