ECO 120-04
Lucas Reddinger
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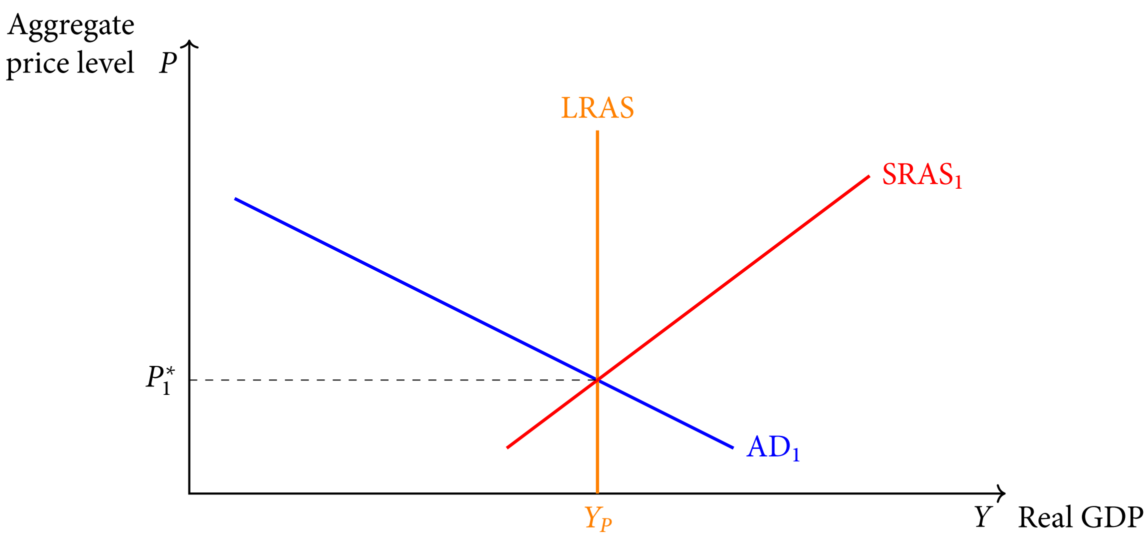
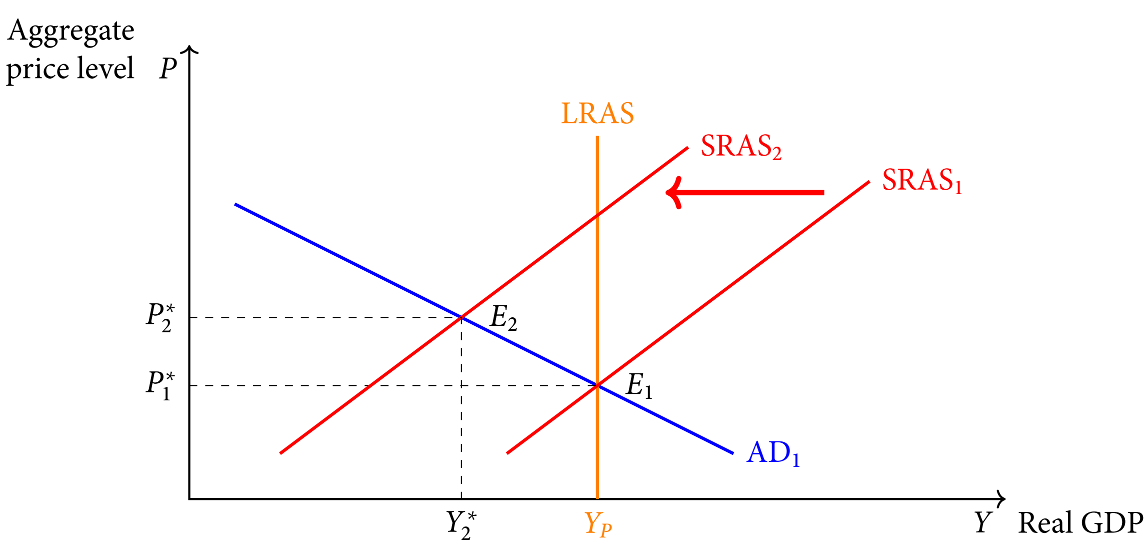
Assignment 10 Solutions

Suppose that the U.S. economy is initially in long-run equilibrium, producing its potential output Y_P, as depicted directly below.



A multinational effort to sanction Russian oil and natural gas results in a negative shock to short-run aggregate supply from SRAS$_1$ to SRAS$_2$ as depicted below. U.S. economic output falls from Y_P to Y_2^*, and the aggregate price level rises from P_1^* to P_2^*. This results in a period of *stagflation*—lower economic output coupled with inflation.



1. Please illustrate how fiscal policy could be used to maintain economic growth.
   Hint: Reproduce the second graph here. Illustrate a change in fiscal policy that restores output to Y_P.

> To maintain economic growth, we would want to achieve actual output equal to potential output. Thus we would want to shift the AD curve until Y_P is achieved with SRAS_2.
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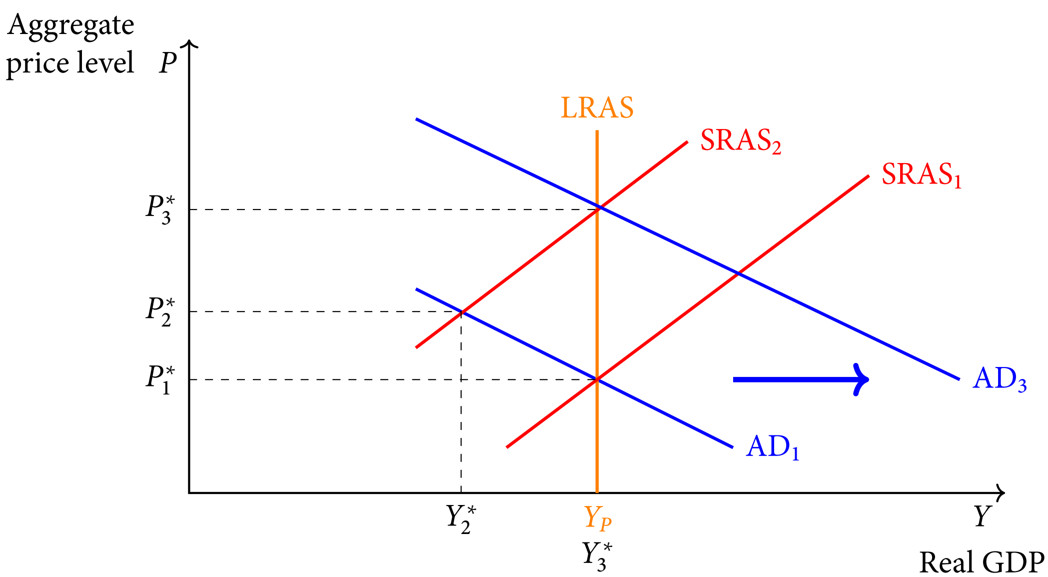
> 
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2. Please illustrate how fiscal policy could be used to stabilize prices.
   Hint: Reproduce the second graph here. Illustrate a change in fiscal policy that restores the price level to P_1^*.

> To stabilize the price level, we would want to achieve P equal to P_1^*. Thus we would want to shift the AD curve until P_1^* is achieved with SRAS_2.
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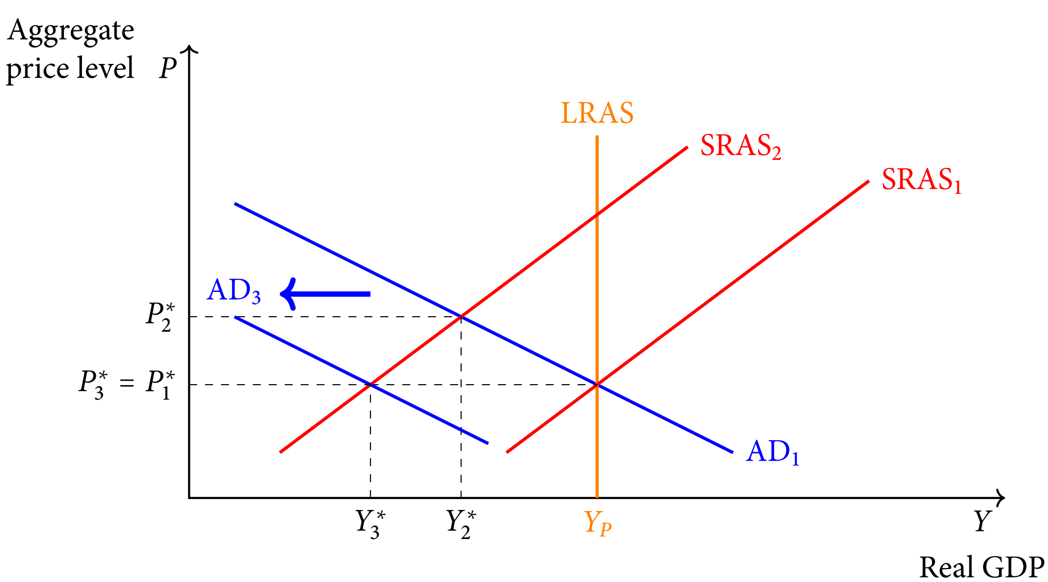
> 
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3. Can fiscal policy remedy stagflation? Please explain with a complete sentence.
Hint: Can a change in fiscal policy restore *both* output to Y_P *and* the price level to P_1^*?

> Stagflation refers to output stagnation coupled with inflation. We see stagflation at E_2 relative to E_1 because $Y_2^* < Y_P$ (output is decreased) and $P_2^* > P_1^*$ (the price level is increased).
>
> In question 1, the proposed policy restores economic output ($Y_3^* = Y_P$), but it worsens inflation ($P_3^* \gg P_1^*$). In question 2, the proposed policy restores the price level ($P_3^* = P_1^*$), but it further depresses output ($Y_3^* \ll Y_P$).
>
> We conclude that by shifting the aggregate demand curve, higher output can be achieved (but with higher prices) or lower prices can be achieved (but with lower inflation).
>
> A shift of the aggregate demand curve *cannot both* lower the price level and *also* raise output.