1. Suppose the economy is at the long-run equilibrium when suddenly a global pandemic causes consumers to reduce their demand for many final products and services.

a. Describe and illustrate the **short-run** effects on the price level, real GDP, and employment.
b. Assuming government does not intervene to fix the problem, describe and illustrate the impact on the price level, real GDP, employment, and wages in the **long-run**.
c. Given the state of the economy in the short-run (answer to problem (a)), suggest a change in government spending to reverse the problem without waiting for convergence to long-run equilibrium. Illustrate the short-run impact of this policy on price level, real GDP, and employment. Compared to the original long-run equilibrium, what happened to the price level and real GDP as a consequence of your government policy?

2. Suppose incomes in Europe increase, causing an increase in demand for U.S.-produced goods and services that are exported to Europe.

a. Describe and illustrate the **short-run** effects on the price level, real GDP, and employment.
b. Assuming government does not intervene to fix the problem, describe and illustrate the impact on the price level, real GDP, employment, and wages in the **long-run**.
c. Given the state of the economy in the short-run (answer to problem (a)), suggest a change in taxes to reverse the problem without waiting for convergence to long-run equilibrium. Illustrate the short-run impact of this policy on price level, real GDP, and employment. Compared to the original long-run equilibrium, what happened to the price level and real GDP as a consequence of your government policy?

3. Suppose global supply-chain production disruptions cause an increase in production costs.

a. Describe and illustrate the **short-run** effects on the price level, real GDP, and employment.

b. Assuming government does not intervene to fix the problem, describe and illustrate the impact on the price level, real GDP, employment, and wages in the **long-run**.

c. Given the state of the economy in the short-run (answer to problem (a)), suppose the government passes a bill to give businesses grants to financially support businesses during the difficult time. Illustrate the impact of this policy on price level, real GDP, employment, and wages. Compared to the original long-run equilibrium, what happened to the price level and real GDP as a consequence of your government policy?

d. Given the state of the economy in the short-run (answer to problem (a)), suppose the government passes a tax rebate bill that gives most consumers $800 to spend or save as they please. Illustrate the impact of this policy on price level, real GDP, and employment. Compared to the original equilibrium, what happened to the price level and real GDP as a consequence of your government policy?