

**Problem 1.** Wages and prices are fully flexible.  $MPC = 0.75$ ,  $EX - IM = 0$ ,  $G = 1000$ .



Find private spending.

**Hint 1.** Since  $EX - IM = 0$ , private spending is  $C + I$ .

**Problem 2.** The government increases its purchase of goods and services by 150 units and borrows from the public to pay for it. The long-run effect of this policy on the real GDP and the general price level will be...?

**Hint 2.** Use the multiplier effect to shift AD.

**Problem 3.** The government increases its purchase of goods and services by 150 units and borrows from the public to pay for it. As a long-run result of this policy, the private spending ( $C + I$ ) will change to \_\_\_\_\_ units.

**Hint 3.** Find *complete* or *dollar-for-dollar* crowding out in the ebook.

**Problem 4.** The government conducts a balanced-budget increase in its purchase of goods and services equal to 300 units. The long-run effect of this policy on the real GDP and the general price level will be...?

**Hint 4.** “A balanced-budget increase” means that the increase in government spending is funded by increasing taxes by the exact same amount. What was the lesson from the previous homework apropos balanced-budget increases?

**Problem 5.** Business firms become pessimistic about the future state of the economy and, therefore, reduce their investment spending by 225 units. The long-run effect of this event on the real GDP and the general price level will be...?

**Hint 5.** Use the multiplier effect, except now the shift will be a reduction in AD since investment spending is falling.

**Problem 6.** To fight the ongoing inflation, the central bank reduces the supply of money by 30%. The long-run effect of this policy on the real GDP and the general price level will be...?

**Hint 6.** Does money have any effect on real variables like  $Y$ ?

Use the **equation of exchange**,  $MV = PY$ . In words, this equation says “the quantity of money in circulation times the velocity at which it circulates equals nominal GDP.” We will assume that velocity is constant. If  $Y$  is also unchanged in the long run, we can see that  $P$  and  $M$  must move in the same direction and in exact proportion:

$$\downarrow 30\% \overline{M} \overline{V} = \downarrow 30\% \overline{P} \overline{Y}.$$

**Problem 7.** The government conducts a balanced-budget increase in its transfer payments equal to 300 units. The long-run effect of this policy on the real GDP and the general price level will be...?

**Hint 7.** This is similar to a problem from the last homework.

**Problem 8.** *True or False.* If the government increases its spending ( $G + TR$ ) through monetizing the debt, the national debt will increase.

**Hint 8.** “Monetizing the debt” means that the government is creating money out of thin air in order to pay for its spending. (Actually not quite true. Technically, the government borrows by selling bonds, but then the Fed buys those bonds back from the public.)

**Problem 9.** If the government increases its spending without raising an equal amount of tax, money supply will necessarily increase.

**Hint 9.** Check the “Monetizing the Debt” part of the chapter.

**Problem 10.** Consider the following data on a government's budget for three years.

	2014	2015	2016
$G$	100	110	125
$TR$	20	30	50
$TX$	90	150	160

At the end of 2013 the total national debt was 20 units. The government uses its budget surpluses to pay off its debt. The national debt at the end of 2016 will equal \_\_\_\_\_.

**Hint 10.** Calculate the deficit for each year and then add them up. Add this to the starting debt level of 20.