

### Review Questions - Chapter 13

1.
  - (a) Define *primary deficit*. What is the difference between the primary deficit and the *total deficit*?
  - (b) Why are deficits “bad”? Explain what kinds of economic problems arise when governments run deficits.
  - (c) Use the relationship,  $Y = C + I + G$ , to demonstrate how large budget deficits can cause declines in the level of investment. Explain why this need not always be the case.
  - (d) Provide an economic explanation for why richer economies might experience worse fiscal problems in terms of health spending than relatively less rich economies.
  
2.
  - (a) Use the definition of *total deficit* to derive equation 13.3. That is, derive the expression for the change in the debt-GDP ratio,  $\Delta(B_t/Y_t) = (i - g_Y) B_{t-1}/Y_{t-1} + (G_t - T_t)/Y_t$ . Assume the economy grows at the constant rate,  $g_Y$ .
  - (b) If the primary budget is balanced every year,  $i = 4.5\%$ , the economy is growing at  $3.5\%$ , and the initial debt-GDP ratio is  $15\%$ , calculate the debt-GDP ratio for the next five years.
  - (c) If instead the initial debt-GDP ratio is  $10\%$ , calculate the debt-GDP ratio for the next five years.
  - (d) If  $g_Y$  increases by  $.5\%$  every after the first year and there's a primary deficit of  $2\%$  every year, do part (c) over again. Provide an economic interpretation for why your answer changes.