Government Debt: Practice Problems

1. True or False? The 2009 U.S. Budget deficit was the largest in the country's history.

2. In 2010, Alan Simpson and Erskine Bowles released a plan for long-term debt reduction. What are the major sources of debt reduction included in this proposal?

3. Which is more likely: Simpson-Bowles becoming law or me becoming the next *Ultimate Fighting Championship* winner?

4. Why do deficits typically increase during recessions even if there are no policy changes to taxes, spending, etc.?

5. There is no obvious level of debt to GDP that precedes a sovereign debt crisis. Discuss how you think the following may affect this level:

a. per capita GDP

b. tax rates

c. political structure

6. Consider the following model. A household lives for two periods. In the first period it earns \$100, pre tax. It earns nothing in the second period. Having no assets, its lifetime wealth equals:

$$LW_t = \$(100 - T_t) - \frac{T_{t+1}}{1 + i_t} \tag{1}$$

where T represents the level of taxes in each period and i_t is the interest rate which is used to discount future disposable income. Now suppose that the government spends \$25 per person each period, and pays for these expenditures by taxing each person the same amount.

a. Assuming that the household spends half of its lifetime wealth in period t, and that $i_t = 0$, calculate consumption under this balanced budget.

b. Now suppose that the government cuts taxes to \$15 per person (without changing spending in either period) in period t. How does your answer change if the government is required to pay off its debt by the end of period $t + 1$?

c. Using your answers to 6a and 6b, explain why tax cuts may not affect consumption.

d. Now suppose that the government must pay off its debt only by the end of period $t+471$. How does this change affect the household's response to the tax cut in period t.

e. Relate your answer to 6d to the concept of intergenerational transfers.