

Barro Mod 19 & 20 chapter 14 budget deficit practice exam questions

(The attached PDF file has better formatting.)

Real government savings

The following are government accounts for year 20XX:

- Real taxes = 5,041
- Real transfers = 620
- Nominal value of government debt = 13,410
- Interest rate on government debt = 5%
- Other government spending = 5,497
- The price level = 150 (meaning 1.50)

The price level is constant, the debt is held throughout the year, and the government prints no new money.

Question 19.1: Interest expense on government debt

What is the interest expense on the government debt in nominal value?

Answer 19.1: Interest expense is the nominal value of the debt times the interest rate = $13,410 \times 5\% = 670.50$

Question 19.2: Real interest expense on government debt

What is the interest expense on the government debt in real terms?

Answer 19.2: Interest expense in real terms is the nominal value divided by the price level = $670.50 / 1.50 = 447.00$.

Question 19.3: Real government expenditures

What are real government expenditures for the year?

Answer 19.3: Real government expenditures are real transfers + real interest expense + other government spending = $620 + 5,497 + 447.00 = 6,564.00$.

Question 19.4: Real government savings

What are real government savings?

Answer 19.4: Real government savings = real taxes – real government expenditures = $5,041 - 6,564 = (1,523)$
= $-1,523$.

Government expenditures are more than taxes, so government savings are negative.

Take heed: The solution to exam problems depends on the data given: G_t is government spending; $(G_t + V_t + r_{t-1} \times (B^{gt-1}/P))$ is real *government expenditures*. Real government savings = taxes – government expenditures

=
taxes – [government spending + transfers + interest on government debt] =

$$T_t - [(G_t + V_t + r_{t-1} \times (B^{gt-1} / P))]$$