3. AN INCREASE IN CAPITAL AND INTERNATIONAL DEBTS

Fill in the missing values in the table below.

 CA_t is notation for the current account balance. All other notations are in the text. The stock variable B_t is calculated at the end of the period using equation (17.4). The stock variable K_t is calculated as of the beginning of the period using equation (17.2). At the end of period 1 (the beginning of period 2) B_t is zero. K_t equals 300 at the beginning of period 2. The interest rate earned on foreign assets or paid on foreign debt is 10%.

- a. What is the value of the depreciation rate δ? Why is the capital stock unchanged from year 4 to year 5?
- b. What is the value of B₁ at the end of period 2? Is there a current account deficit in period 2? Explain the source of the current account deficit in year 3. Calculate net foreign debts at the end of year 3.
- c. There is a sharp fall in consumption in year 5. What is the effect of that drop in consumption in the current account? What is the effect of that drop in consumption in this country's net foreign debts at the end of year 5?

| Year 2 | Υ, | Ct | 1, | X, | Q_t | CA | B' ₁ | Trade Balance | Kı |
|-----------|-----|----|----|----|-------|----|-----------------|------------------|-----|
| 2 | 100 | 70 | 30 | 20 | 20 | | 0 | | 300 |
| 3 | 100 | 65 | 40 | | 25 | | -5 | | |
| 4 | 105 | 73 | 31 | 21 | 20 | | | | 310 |
| 5 | 105 | 68 | 31 | | 20 | | | | 310 |

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