

Economics 170
International Macroeconomics
Homework 3
Due 2/4

A Reputational Model of External Debt

Consider a two-period model of a small open economy with a single good each period. Let preferences of the representative household be described by the utility function

$$\ln(C_1) + \ln(C_2),$$

where C_1 and C_2 denote consumption in periods 1 and 2, respectively, and \ln denotes the natural logarithm. In period 1, the household receives an endowment of $Q_1 = 10$ units of goods. In period 2, the household receives an endowment of $Q_2 = 20$ units of goods. At the beginning of period 1, the household carries from the past a debt, including interest, equivalent to 10 percent of its period-1 endowment. The world interest rate, denoted r^* , is 10 percent.

1. Suppose that debt obligations are enforceable in periods 1 and 2. Compute the equilibrium levels of consumption, the trade balance, and the interest rate.
2. Now answer the previous question under the assumption that debt obligations are enforceable at the beginning of period 2 but not at the beginning of period 1. If the country defaults at the beginning of period 1, it acquires a reputation of defaulter and, as a consequence, is excluded from international financial markets. In this case, the country is unable to borrow or lend internationally.
3. How does the answer to the previous question change if the initial debt position was twice as large as initially assumed?