Economics 314 Spring 2019

Daily Problem #17 March 1

Suppose that the economy is on its balanced-growth path with real output growing at $n + g$. The demand for money is given by $M^d = P \cdot L(Y, i, TC) = PY^{\eta} i^{\varepsilon} TC^{\xi}$, where $P$ is the aggregate price level, $i = r + \pi$ is the nominal interest rate, $\pi$ is the inflation rate ($= \dot{P} / P$), and $TC$ is real transaction costs associated with converting between money and interest-bearing assets ("bonds"). In the steady state, the supply of money is growing at constant rate $\mu = \dot{M} / M$.

1. What signs do you expect for $\eta$, $\varepsilon$, and $\xi$, and why?

2. Assuming that $r$ and $TC$ have no long-run trend, find an equation for the steady-state rate of inflation in terms of $\mu$, $\eta$, $n$, and $g$.