Economics 314 Spring 2020

Daily Problem #25 FRIDAY THE 13TH OF MARCH

Suppose that we have partially solved the Lucas imperfect-information model to yield an aggregate-supply curve: $y = b\left[p - E(p)\right]$ and an aggregate-demand curve: $y = m - p$.

1. Solve these together to get expressions for y and p in terms of m and $E(p)$.

2. Take expectations of the p equation and solve for $E(p)$. The expectation of the aggregate-demand-shift variable m is $E(m)$ and, by a theorem known as the law of iterated projections, the expectation of an expectation is just the original expectation, so $E\left[E(p)\right] = E(p)$.

3. Plug the formula you calculated for $E(p)$ back into the expressions in question 1 to get final equations for y and p in terms of m and $E(m)$.