(1) What is the relationship between the consumption efficiency condition (derived by Hall) and the New Keynesian IS curve?

(2) If the coefficient “$a$” in the rational expectations version Cagan monetary model (shown below) is negative, then what is the unique stable solution for the price level? What is the economic interpretation of the term in brackets?

\[ M_t = P_t + a[E_tP_{t+1} - P_t] \]

Assume that $M$ is the log of the money stock and $P$ is the log of the price level.
(3) It is sometimes argued that a monetary authority/central bank should respond strongly to inflation if it is to bring about “price stability”. What do the models developed in chapters 2 and 3 of Gali’s text suggest about whether this view can be coherent? How does it depend on the definition of “price stability”?

(4) Under the assumptions of Gali and Gertler, what OLS regression can be validly used to estimate the parameters in the following model? Why?

\[ \pi_t = \beta E_t \pi_{t+1} + \lambda s_t \]

where the inflation rate \( \pi \) and the labor’s share \( s \) are assumed to be zero mean (or to have previously had the means removed).