Economics 314 Spring 2020

Daily Problem #22 March 9

For the development of the New Keynesian *IS*/*LM* model we use a utility function such as:

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$$U = \sum_{t=0}^{\infty} \beta^t \left[U(C_t) + \Gamma\left(\frac{M_t}{P_t}\right) - V(L_t) \right].$$

1. What role is played by β? How have we represented the functionally equivalent terms in earlier models? What would be a typical value for β if the unit of time is a year?

2. Imposing an additive form on the utility function means that the partial derivatives of utility with respect to one argument (*C*, *M*/*P*, or *L*) do not depend on the other arguments. Why would this be useful in solving the model?

3. What signs would you expect for each of the following and why?
   a. U' and U''
   b. Γ' and Γ''
   c. V' and V'' (don't forget the minus sign in front of this term)