

Economics 102: Problem Set 6

Due date: December 11 (Friday) 2009.

Problem 1 Consider a model economy which is described by the following consumption and investment functions: $C(Y - T) = 25 + 0.9(Y - T)$, $I(r) = 100 - 10r$, the money demand function: $L(r, Y) = Y - 10r$, and the net export function $NX(e) = NX_0 - e$ where NX_0 is a constant and e represents the nominal exchange rate. Let $P = 1$. Take M^s , G and T as policy instruments over which the central bank of the model economy has control over. This model economy is a *small open* economy whose interest rate is fixed by the world interest rate r^* .

- (1) Suppose the economy operates a system of floating exchange rate.
 - (1a) Solve for the equilibrium Y and e .
 - (1b) Show how a higher world interest rate affects domestic GDP and the equilibrium nominal exchange rate e .
 - (1c) Show how an expansionary fiscal policy affects Y and e .

- (2) Suppose the economy operates under a system of fixed exchange rates with $e = \bar{e}$ where \bar{e} is a fixed constant.
 - (2a) Solve for the equilibrium Y .
 - (2b) Show how a higher world interest rate affects domestic GDP.
 - (2c) Show how an expansionary fiscal policy affects Y .
 - (2d) Show how a lower \bar{e} affects equilibrium Y .