ECON 4420/5420
Quiz #3 (Answers)

Last Name:______________________, First Name:______________________

(1) [14 points] **Uncovered Interest Parity**

Suppose $S_t = \$2.0/£1$ and $S^e_{t+1} = \$1.96/£1$.

(a) [1 points] Is the dollar expected to depreciate over time?

Because $S^e_{t+1} < S_t$, *the dollar is expected to appreciate over time*

(b) [1 points] Is the pound expected to depreciate over time?

Because $S^e_{t+1} < S_t$, *the pound is expected to depreciate over time*

(c) [2 points] What is the expected rate of appreciation of the pound?

The expected rate of appreciation of the pound is $\frac{1.96-2.0}{2.0} = -2\%$

(d) [2 points] What is the expected rate of depreciation of the dollar?

The expected rate of appreciation of the pound is the same as the expected rate of depreciation of the dollar

(e) [2 points] Suppose interest rate on a dollar deposit is $R_\$ = 3\%$. What is the (expected) rate of return on the dollar deposit?

The (expected) rate of return on the dollar deposit is the interest rate on the dollar deposit, 3%

(f) [2 points] Suppose interest rate on a pound deposit is $R_£ = 4\%$. What is the (expected) rate of return on the pound deposit?

The expected rate of return on the pound deposit equals the interest rate on the pound deposit plus the expected rate of appreciation of the pound. That is, $R_£ + \frac{S^e_{t+1}-S_t}{S_t} = 4\% - 2\% = 2\%$

(g) [2 points] Does Uncovered Interest Parity (UIP) hold? Explain

Since $R_{\$} > R_{£} + \frac{S^e_{t+1} - S_t}{S_t}$*, the UIP does not hold*

(h) [2 points] If the foreign exchange market is in equilibrium implied by the UIP, is the dollar appreciating or depreciating?

The answer in part (g) above suggests all investors would want to hold dollar deposits driving up the demand and price of of dollars. Therefore, dollar would appreciate until the UIP hold

(2) [6 points] **Changes in Interest Rates**

(a) [3 points] Show graphically a drop in the interest rate paid by dollar deposits. What is the effect on the dollar?

For a given interest rate paid by foreign currency deposits and constant expected exchange rate, a drop in the interest rate offered by dollar deposits causes the dollar to depreciate

(b) [3 points] Show graphically a rise in the interest rate paid by euro deposits. What is the effect on the dollar?

For a given U.S. interest rate and a given expectation with regards to the future exchange rate, a rise in the interest rate paid by euro deposits causes the dollar to depreciate