QUESTION I. INTERNATIONAL MONEY MARKETS

Exercise 1.
Use the interest differential between countries to proxy for expected future exchange rates (use CIRP and UIRP):

\[ i(t) - i^*(t) = \frac{(F(t,t+1) - e(t))}{e(t)} \]

and if \( F(t) = E(e(t+1)) \)

then

\[ i(t) – i^*(t) = \frac{E(e(t+1))-e(t)}{e(t)} \]

The more homogenous the assets being compared, the better the approximation.

Exercise 2.

a) Assume two countries, A and B. First write down their respective Fisher equations:

\[ i(A) = r(A) + \pi(A) \]

\[ i(B) = r(B) + \pi(B). \]

Then, by CIRP we know that

\[ i(A) - i(B) = \frac{F(t)-e(t)}{e(t)} \]  (CIRP)

and from the Fisher equations we know that

\[ i(A) - i(B) = r(A) – r(B) + \pi(A) - \pi(B) \]

Combining these two equations, we find that

\[ \frac{F(t) – e(t)}{e(t)} = r(A) – r(B) + \pi(A) - \pi(B) \]

implying that
\[ r(A) - r(B) = \frac{F(t) - c(t)}{e(t)} - (\pi(A) - \pi(B)) \]

This shows the direct relation between the real interest rate differential and the forward premium.

b) If \( r(A) = r(B) \) then the forward premium is just equal to the inflation rate differential

**Exercise 3.**

Transactions costs, differential taxation, capital controls, political risk, time lags and other trading frictions.

**Exercise 4.**

\( i^* = 0.11, i = 0.06, e = 1.8 \)

a) \( i - i^* = (F-e)/e \) hence
   -0.05 = \( (F - 1.8)/1.8 \) and therefore
   \( F = 1.71 \) (approximately equal to expected future spot rate)

b) Expectations are not observable or measurable today. Different people may have different expectations.

c) \( 0.07 - i^* = (1.75 - 1.8)/1.8 \) implies \( i^* = 0.098 \)

**Exercise 5.**

**False.** Expected inflation, interest rates and exchange rates are all determined simultaneously and are all endogenous variables and determined by exogenous variables. For example, a change in US monetary policy can lead to changes in inflation expectations, interest rates, and exchange rates simultaneously as they all adjust to new equilibrium values.

**Exercise 6.**

\( E = 1.76, F = 1.74. \)

a) Forward premium on dollar.

b) \( \frac{(F-e)}{e} \times 2 = \frac{[1.74 - 1.76]}{1.76} \times 2 = -0.23 \)

Pound is selling at a forward discount.
QUESTION II. MARKET EFFICIENCY AND SPECULATION

Exercise 2.

\( i = 0.1, \ i^* = 0.12, \ e = 0.4 \)

   a) from CIRP
   b)

Exercise 3.

Exercise 4.

Exercise 5.

Answer questions 1, 2, 3, 4 and 5 at the end of Chapter 8 in the textbook.