

Review Problems: International Finance

Prof. Lutz Hendricks. November 24, 2009

Jones, *Macroeconomics*, problems 15.2-15.5, 15.7-15.8.

1 Basics

1. What questions do the nominal and real exchange rates answer?
2. What do relative and absolute PPP assert?
3. The U.S. inflation rate is about 2% per year. Suppose the Mexican inflation rate is 4%. What do you expect to happen to the Mexican peso over time. Explain the mechanism through which this happens.

2 Uncovered Interest Parity

1. What does UIP assert in words?
2. You should be able to derive / explain the UIP condition.
3. If the real interest rate in the U.S. is 5% and in Mexico it is 3%, what would you expect to happen to the peso/dollar exchange rate over time?
4. Given the following data: Euro interest rate 3%, exchange rate today 1.5\$/Euro, expected exchange rate next year 1.65\$/Euro.
 - (a) Calculate the dollar return of investing in Euro.
 - (b) Calculate the dollar interest that is consistent with UIP. Assume no risk premia.
 - (c) Suppose Euro interest rate rises to 6%. What should happen to the Euro now and in the future?
 - (d) What would happen to the Euro if investors view the Euro as more "risky" than the dollar?
5. Is the dollar strong when U.S. interest rates are high?

2.1 Answers: UIP

1. The dollar returns of investing abroad and at home are the same.
2. See slides.
3. A trick question: investors do not compare real interest rates, they compare nominal interest rates.
4. Plug the numbers into the UIP formula.
 - (a) $(1 + i_{Euro}) (1 + x)$ where x is the expected appreciation rate of the Euro:
 $1 + x = 1.65/1.5$.
 - (b) Solve $(1 + i_{\$}) = (1 + i_{Euro}) (1 + x)$.
 - (c) Assume the future exchange rate stays the same. Otherwise, everything has to be expressed relative to it. Today the Euro appreciates so that $1 + x = (1 + i_{\$}) / (1 + i_{Euro})$ continues to hold. Over time, the Euro must depreciate, so that $x < 0$ and the dollar returns of investing in dollars (low interest) and Euros (high interest) remain the same.
 - (d) Same as a reduction in the Euro interest rate.
5. While the dollar interest rate is high, the dollar must depreciate. When the interest rises, the dollar appreciates on impact.

3 Short-run model

1. You should be able to work through the effects of shocks in the short-run model. Almost all shocks look like in the closed economy; just the interpretation changes as the exchange rate adjusts in the background.

4 Exchange rate regimes

1. You should be able to explain what floating and fixed exchange rate regimes do.
2. Why are fixed exchange rate regimes inherently vulnerable to speculative attacks?

3. Why does a country that fixes its exchange rate against the dollar have to adopt an inflation rate that is equal to the dollar inflation rate?
4. What are benefits and drawbacks of fixing the exchange rate?
5. Explain the Impossible Trinity.