

Homework 4

due: Tuesday, November 11, in class

Problem 1: Purchasing Power Parity (PPP)

- a) Pick a product (not the Big Mac), find its price in two countries, and calculate the exchange rate implied by absolute PPP. How does it compare to the actual exchange rate. Which currency seems to be over/undervalued?
- b) The US does not trade with North Korea. However, the US trades with China and China trades with North Korea. Suppose absolute PPP holds between North Korea and China, and relative PPP holds between China and the US. Show whether relative and/or absolute PPP hold between the US and North Korea. In case one does not hold provide a counterexample.
- c) The US dollar has depreciated by about 30 percent against the Euro over the last two years. Find the inflation rates on both sides of the Atlantic to show or disprove that relative PPP has held between Euroland and the US during that time period. What can you say about absolute PPP?

Problem 2: Interest Rate Parity (covered and uncovered)

- a) The current 1-year interest rate is $7/16$ % per annum in Switzerland and $17/16$ (not $17/16$) % p.a. in the US. The spot exchange rate of the Swiss Franc versus the US dollar is 1.328 (francs/dollar) and the 1-year forward rate is 1.315. Check whether covered interest parity holds.
- b) Explain the concept of uncovered interest rate parity. Show how your decision to invest in Switzerland versus USD denominated bonds depends on the future exchange rate you expect.
- c) Suppose you have to pay income tax on interest payments but not on capital gains. How does this affect your investment decision?