

Homework 1

due: Tuesday, Feb 10, in class

Problem 1: Consider purchasing power parity (PPP).

- a) The US does not trade with Cuba. However, the US trades with the EU and the EU trades with Cuba. Suppose absolute PPP holds between the US and the EU and relative PPP between the EU and Cuba. Show mathematically which type of PPP (if any) holds between the US and Cuba.
- b) You graduate from Illinois and have two job offers: one in Anywhere, Canada, and the other in Smalltown, USA. The former pays x Canadian dollars and the latter y US dollars. Explain how you would use PPP or deviations thereof to evaluate these job offers.
- c) The dollar has depreciated by more than 30% vis-à-vis the Euro over the course of the last 12 months. Find the relevant data to confirm/disprove that this fact is compatible with relative PPP.
- d) Can you repeat c) for absolute PPP? If you answer affirmatively, do it. If your answer is negative, provide reasons why it cannot be done.

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) Repeat a) for a country pair of your choice — you find the data.
- c) 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.
- d) Suppose you have to pay income tax on interest payments but not on capital gains. How does this affect your investment decision?