

**Problem 1.** Home country pegs its currency to the USD if Home output is higher than 985, but everyone knows that Home government will allow depreciation of 1% for one year if its output falls to 985 or lower. Home output is 1000 when its interest rate is 2%, but Home output falls by 5 every time the Home interest rate increases by 1 percentage point. Investors are risk neutral and there is no default risk.

- (a) Suppose the peg is credible: Home government will allow depreciation of 1% for one year if output falls to 985 or lower, but no one believes it will actually come to that. For US interest rates  $i^* \in \{2, 3, 4, 5, 6, 7, 8\}\%$ , determine corresponding Home interest rates and output.
- (b) Suppose the peg is non-credible: Home government will allow depreciation of 1% for one year if output falls to 985 or lower, and investors believe it will actually come to that. For US interest rates  $i^* \in \{2, 3, 4, 5, 6, 7, 8\}\%$ , determine corresponding Home interest rates and output.
- (c) Whether (a) or (b) holds depends on whether investors believe that the peg is credible. Regardless of beliefs, which US interest rates will not lead to speculative attack?
- (d) Regardless of beliefs, which US interest rates guarantee speculative attack?
- (e) At what US interest rate are there two equilibria? What are the equilibria?

**Problem 2 (Partial Sample Final Question 1).** Here, have some short answer questions.

- (a) What is meant by home bias in an investment portfolio?
- (b) What is a currency board?
- (c) As of now (2022) how many countries are in the Eurozone? Which countries are the most recent to have joined?
- (d) Which two EU countries appear unlikely to join the euro?

**Problem 3 (Sample Final Question 3).** In the years leading up to the Great Depression, a key objective of the federal government was to balance the government budget.

- (a) Suppose that tax revenue collected by the government depends on income. During a recession, what happens to government tax revenues? What does this imply about the government budget?
- (b) If the government wants to keep the budget balanced, what type of fiscal policy must the government implement? Illustrate the effects of this policy using the IS-LM-FX diagram, assuming a floating exchange rate regime.
- (c) State how the fiscal policy affects  $Y, i, E, C, I$ , and TB. Is this a stabilization policy?
- (d) The US was part of the gold standard, fixing its exchange rate to the value of gold. Illustrate how the policy described in part (b) affects the economy differently under a fixed exchange rate regime. State how the fiscal policy affects  $Y, i, E, C, I$ , and TB.
- (e) How did the macroeconomic regime affect stabilization policy in this scenario?