

ECON 1550

Spring 2026

Problem Set 4

Due: February 25, 2026 at 11:59pm ET

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Head TA: [Leo Zucker](#)
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Submission: [Canvas](#) or [Gradescope](#)

Instructions

- When submitting to Gradescope, indicate the page where each question is answered to avoid a 5-point deduction.
- Full credit is given for correct answers. If multiple steps are needed, you must show them to get full credit.
- Points are shown for each part. Partial credit is given for partially correct answers; show your work to maximize it.
- Late submissions receive a score of zero.
- If you have technical problems submitting, email your work to the Head TA before the deadline.
- Collaboration with classmates is encouraged; use of generative AI is permitted but discouraged.
- You must write, understand, and submit your solutions individually. Copying other students' or AI-generated answers, even fragments, is not allowed.

1. Chapter 4: Money, Interest Rates, and Exchange Rates (75 points)

Answer the following questions about money, interest rates, and exchange rates from Chapter 4.

(a) [25 points] Question 1 from Chapter 4 of the textbook is:

“Suppose there is a reduction in aggregate real money demand, that is, a negative shift in the aggregate real money demand function. Trace the short- and long-run effects on the exchange rate, interest rate, and price level.”

Answer this question **but only for the short run**. Treat the expected exchange rate and the price level as exogenous.

(b) [25 points] Please answer question 4 from Chapter 4 of the textbook, reproduced here:

What is the short-run effect on the exchange rate of an increase in domestic real GNP, given expectations about future exchange rates?

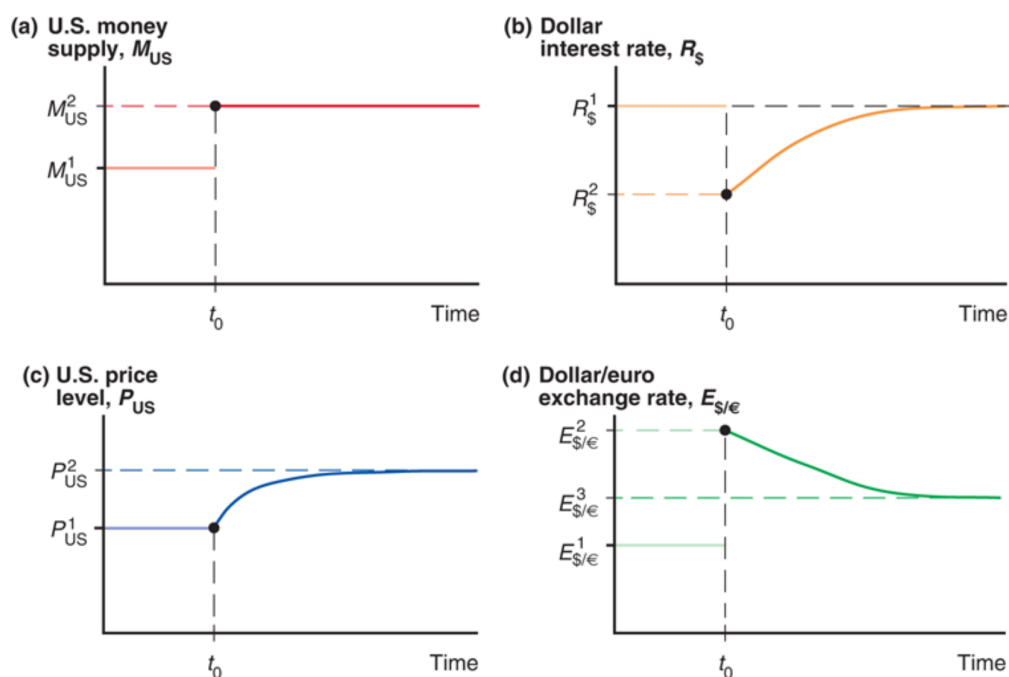
(c) [25 points] Please answer question 13 from Chapter 4 of the textbook, reproduced here:

“Since 1942, the small country of Panama has had no paper currency other than the U.S. dollar, which circulates freely internally. What would you expect to be true about the inflation rate in Panama compared to that in the United States, and why? Go to the International Monetary Fund’s most recent World Economic Outlook database (accessible directly or through www.imf.org) and examine comparable consumer-price inflation rates for Panama and the United States. Do the inflation rates you see there conform to your earlier prediction? (After you have read Chapters 5 and 7, you should return to this question as you will then have a deeper understanding of the factors that determine the price level in a country like Panama.)”

2. Overshooting and Carry Trade Returns (25 points)

Consider Figure 4-13 in Chapter 4 of the textbook:

Figure 4-13 Time Paths of U.S. Economic Variables after a Permanent Increase in the U.S. Money Supply



The figure was constructed under some specific assumptions explained in the textbook (the interest parity condition holds, $R_{\epsilon} = R_{\1 , expectations of exchange rates do not change

during the adjustment of P_{US} , etc.). When you answer the questions below, please maintain the same assumptions made by the textbook.

- (a) [5 points] Plot the time-path of the expected exchange rate. What is its long-run value?
- (b) [5 points] Plot the time-path of the realized depreciation rate of the dollar with respect to the euro, $E_{t+1}/E_t - 1$ (where E is the number of dollars per euro).
- (c) [15 points] Plot the time-path of realized returns for a carry trade that lends in dollars and borrows in euros. Give intuition for the behavior of the returns at t_0 and immediately after t_0 .