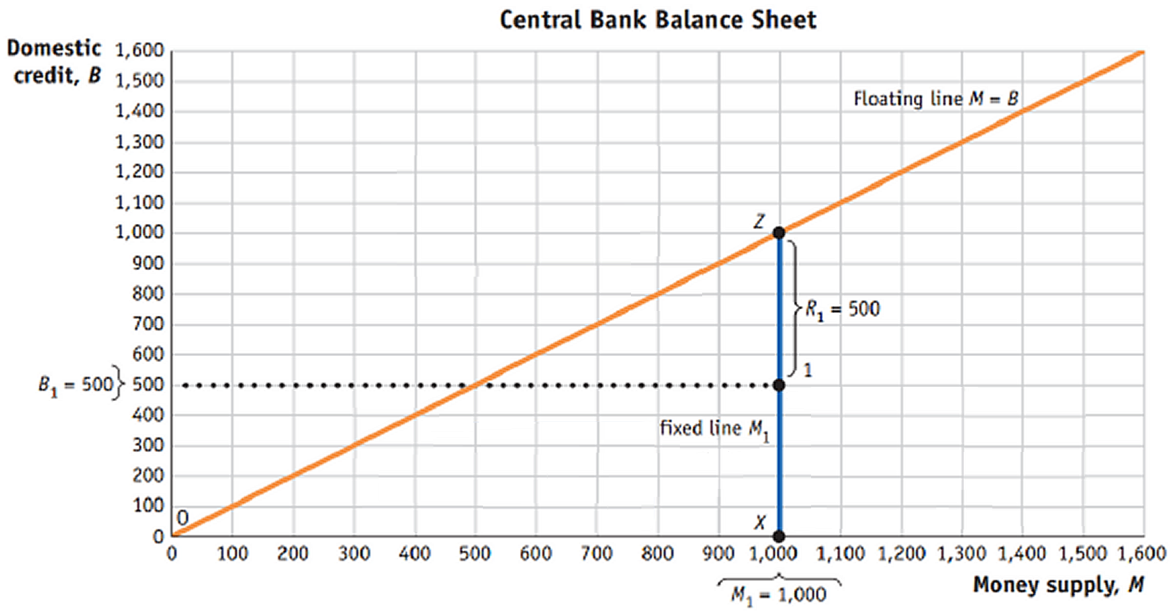
Problem 1. Explain how the following scenarios affect the central bank balance sheet diagram and home country's ability to maintain its exchange rate peg.



(a) Economic expansion leads to an increase in money demand.

(b) Currency traders suddenly expect a future appreciation in home currency.

Problem 2 (Sample Final Problem 5). The government of the Republic of Banania is currently pegging the Bananian peso to the dollar at $E = 1$ peso per dollar. Assume the following.

In year 1, the money supply is $M = 12500$ pesos, reserves are $R = 4500$ pesos, and domestic credit is $B = 8000$ pesos. To finance spending, B is growing at 25 percent per year. Inflation is currently zero, prices are flexible, PPP holds at all times, and initially $P = 1$. Assume also that the foreign price level is $P^* = 1$, so PPP holds. The government will float the peso if and only if it runs out of reserves. The US nominal interest rate is $i = 5\%$. Real output is fixed at $Y = 12500$ at all times. Real money balances are initially $M/P = 12500 = L(i)Y$ when $i = 5\%$, and L is initially equal to 1. Assume myopia for parts (a) through (d).

(a) Assume that Bananian investors are myopic and do not forsee the reserves running out. Compute domestic credit in years 1, 2, 3, 4, and 5. At each date, also compute reserves, money supply, and the growth rate of money supply since the previous period (in percent).

(b) When do reserves run out? Call this time T. What will the new inflation rate be? What will the rate of depreciation be? What will be the new domestic interest rate?

(c) Suppose that at time T, when the home interest rate i jumps up, then $L(i)$ drops from 1 to $4/5$. Recall that Y remains fixed. What is M/P before time T? What will be the new level of M/P after time T, once reserves have run out and inflation has started?

(d) What is the price level right before reserves run out? What about when time T hits? What is the percentage increase in the price level and exchange rate? (Use part (c) and PPP.)

(e) Stop assuming myopia. Suppose investors know the rate at which domestic credit is growing. Given the above data, when do you think a speculative attack would occur? At what level of reserves will such an attack occur? Explain.