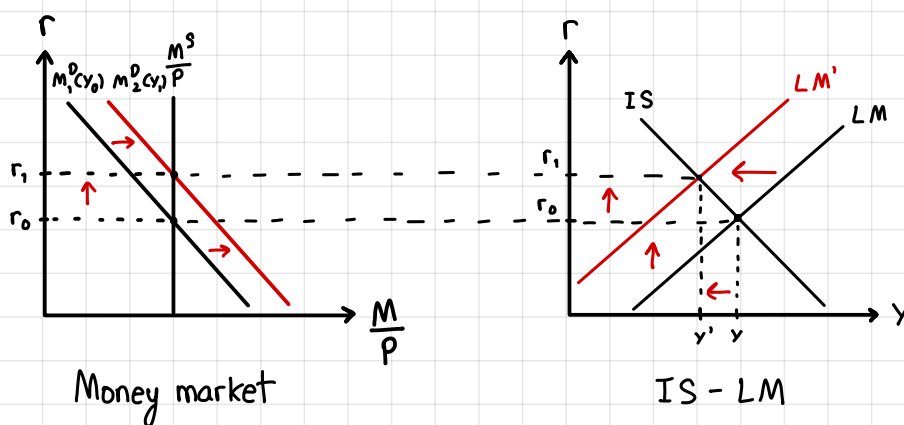


2. after a wave of credit card fraud, consumers using cash more frequently in transactions. (Odds number) Even

For each shock,

- use the  $IS-LM$  diagram to show the effects of the shock on  $Y$  and  $r$ . Explain the mechanism.
- determine what happens to  $C$ ,  $I$ , and the unemployment rate.



- a) After a wave of credit card fraud, consumers turn to use more cash, then the money demand shifts to the right as the demand for money increases ( $M_1^D \rightarrow M_2^D$ ). The new equilibrium interest rate increases from  $r_0$  to  $r_1$  for each level of  $Y$ . Assuming that all other exogenous variables (including  $M^s$  and  $P$ ) are not change, so  $\frac{M^s}{P}$  does not change. From this consequence in the money market, we can derive the  $LM$  curve.  $LM$  curve will shift to the left from  $LM$  to  $LM'$ . The new equilibrium output will be at  $Y'$ . (decreasing from  $Y$  to  $Y'$ ) The new equilibrium interest rate will be increased from  $r_0$  to  $r_1$ . (P.S:  $r_1 > r_0$ ,  $Y' < Y$ )

- b) As the shift in  $LM$ , the level of output decreases and the interest rate increases. The fall in  $Y$  makes the consumption ( $C$ ) to fall. The increasing in  $r$  makes the investment to be decreased. Moreover, the unemployment rate will be increased as the decreasing in  $Y$ . (As income falls, the number of labors that the firm want to hire will be decreased/smaller. It leads to the increasing in unemployment rate)