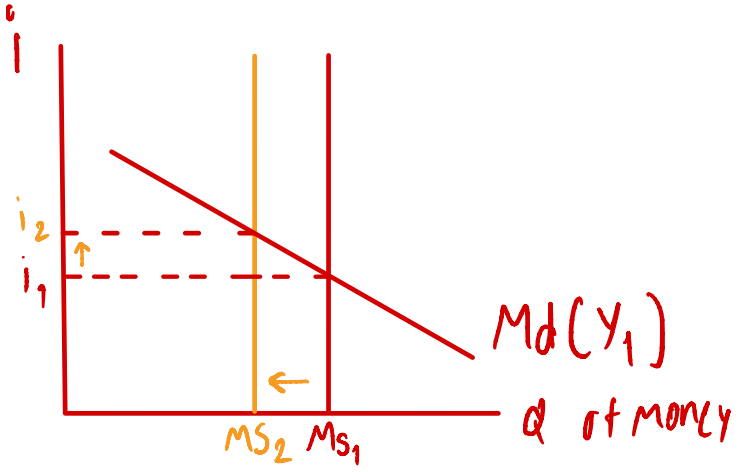
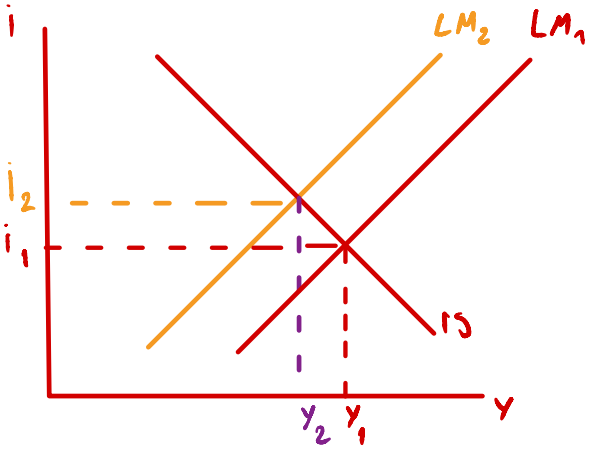
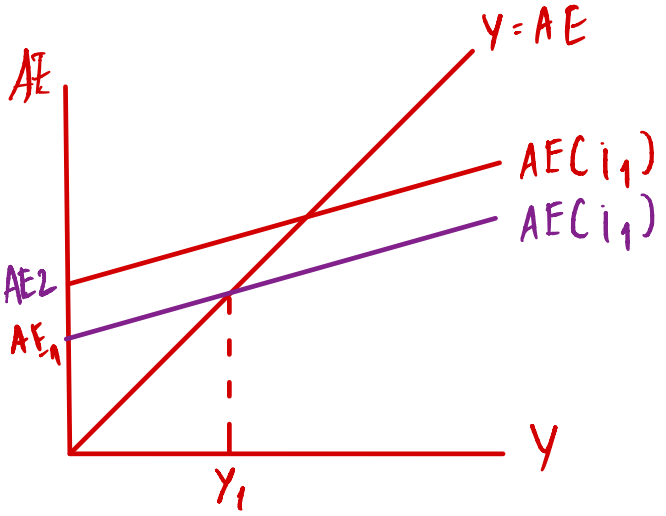
7. Suppose the central bank decreases its money supply, i.e. contractionary monetary policy. Use the IS-LM diagram to explain how the economy moves to the new general equilibrium.

contractionary monetary policy - sell bonds







MM: Government sell bonds = M_S↓ → i↑

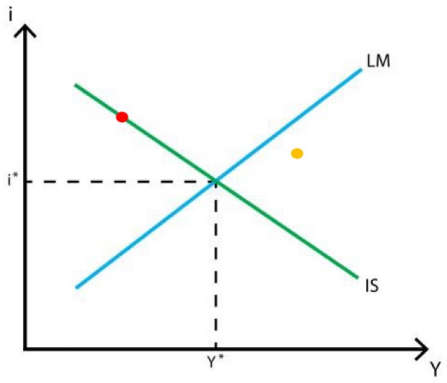
GM: i↑ → I↓ → AE↓ → Y↓

explain

Money market: when government sell bonds equal to decrease in money supply and increase in interest rate

G&S market : interest rate ↑ ⇒ Investment ↓ ⇒ AE ↓ ⇒ Y ↓

8. Use the graph below to answer the following questions.



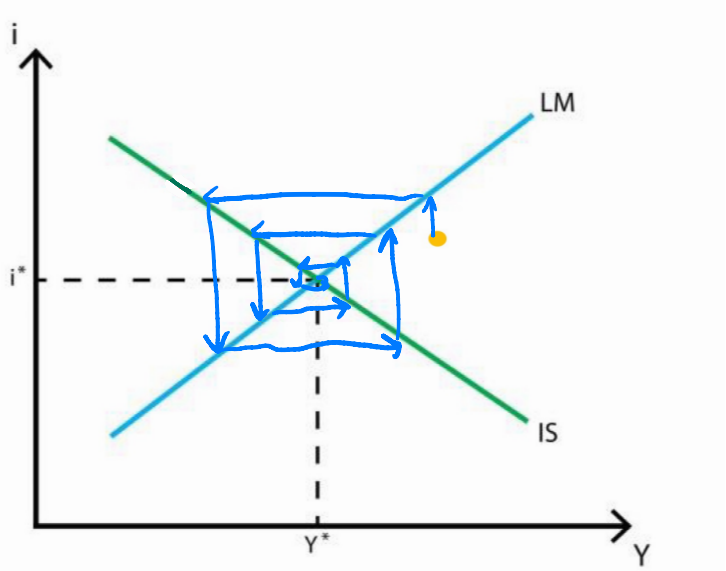
8.1 At the **Red** point, which market is in equilibrium, and which is not?

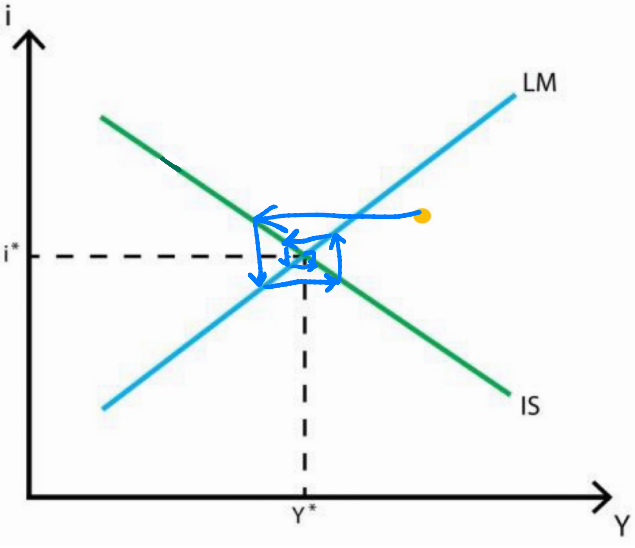
8.2 Explain how the goods and money markets at the **Orange** point will adjust towards the general equilibrium (Y*, i*).

8.1 IS : In equilibrium

LM : Not equilibrium

8.2





9. The government is worried about the effectiveness of its policies. You are to advise which policy – fiscal or monetary – should be used in each of the following cases.
   - 9.1 Consumers have high MPC.
   - 9.2 Investment is NOT sensitive to changes in interest rate.
   - 9.3 Money demand is very sensitive to changes in interest rate. L_r
   - 9.4 Money demand is very sensitive to changes in income (Y). L_y

9.1 high MPC = high multiplier = IS flat

Shift IS by fiscal policy

9.2 IS steep

Shift LM by monetary policy

9.3 L_i is large = LM flat

Shift LM by monetary policy

NOTE LM STEEP when L_y large or L_i small

9.4 L_y is large = LM steep

Shift IS by fiscal policy

10. Assume a closed economy with the government. The economy has the following parameters:

C = 100 + 0.5(Yd) I = 80 – 100(i) G = 40 T = 40

L(i, Y) = 0.5(Y) – 200(i) M = 400 P = 2

Answer the following questions.

10.1 Derive the IS equation.

10.2 Derive the LM equation.

10.3 Find the general equilibrium output and interest rate.

10.1 IS: AE = Y = C + I + G

$Y = 100 + 0.5(Y - 40) + 80 - 100(i) + 40$

$Y = 100 + 0.5y - 20 + 80 - 100(i) + 40$

$Y = 0.5y + 200 - 100(i)$

10.2 Md = Ms

$\frac{M}{P} = L(i, Y)$

$\frac{400}{2} = 0.5y - 200i$

$200 = 0.5y - 200i$

$Y = 0.5y - 200 - 200i$

10.3 IS = LM

$0.5y - 100i + 200 = 0.5y - 200 - 200i$

$(200 - 100)i = -200 - 200$

$100i = -400$

$i = -4$

LM = -200 + 800

LM = 600

IS = 200 + 400

IS = 600 Check

general equilibrium = 600