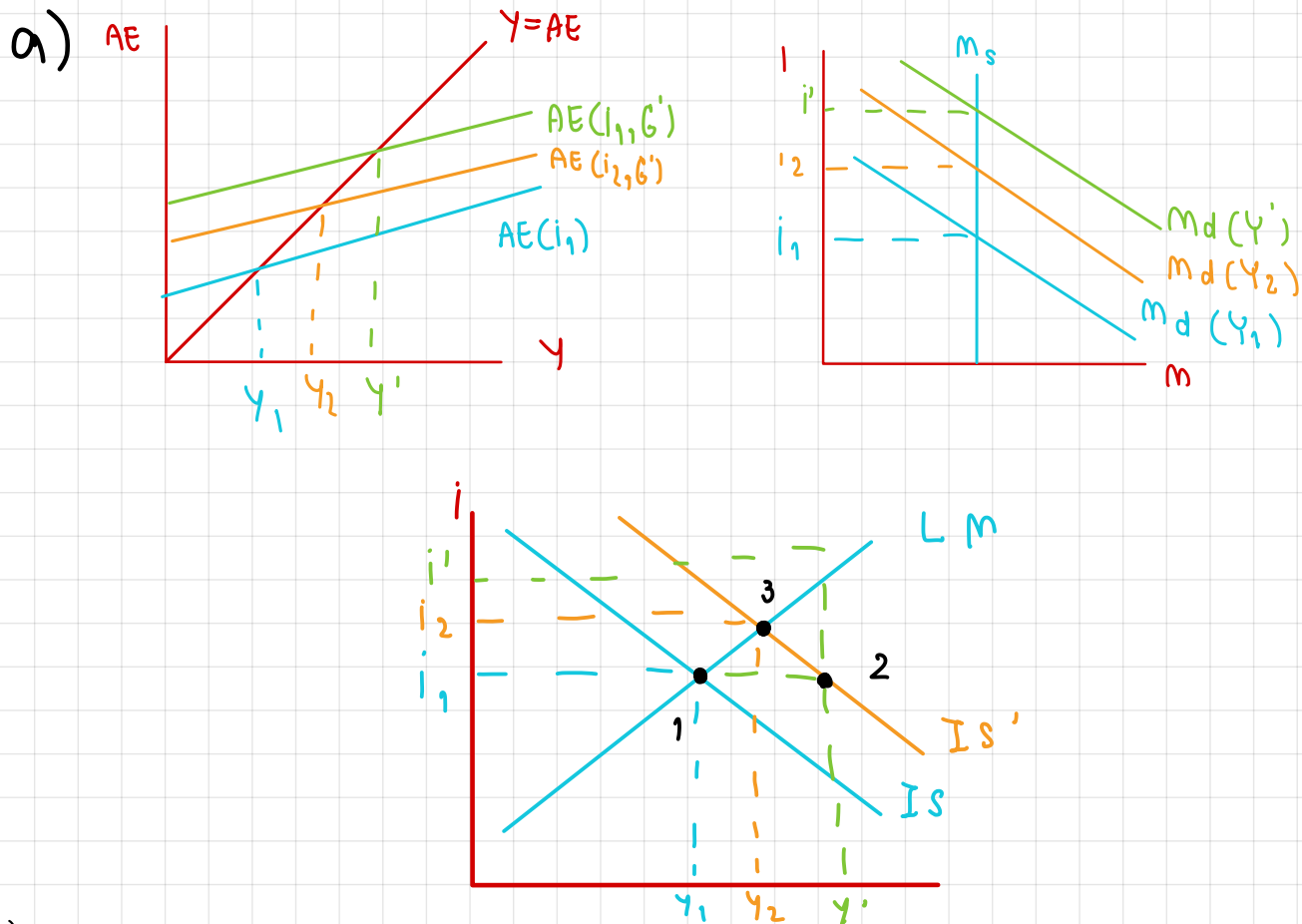


Draw 3 diagrams (Keynesian Cross, Money Market, IS-LM) to **show and briefly explain** the followings:

- The crowding-out effect when the government increases its spending
- Another policy that can be used to avoid the crowding-out effect



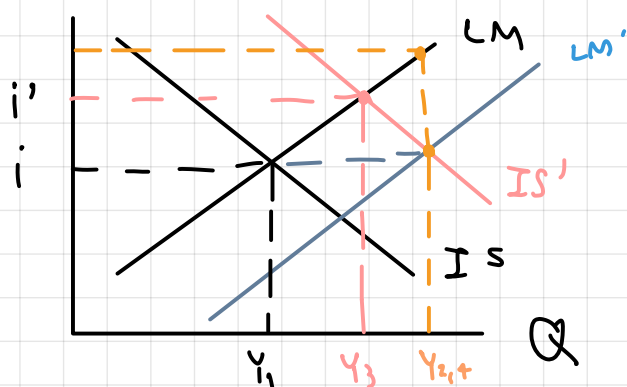
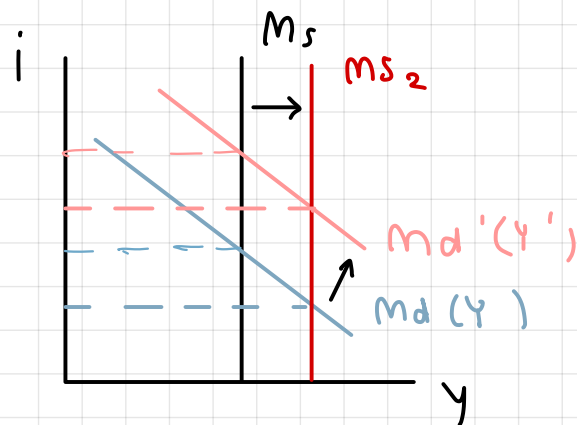
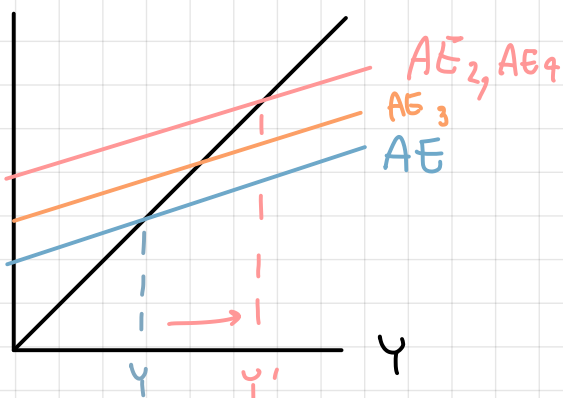
1) GM: $G \uparrow \rightarrow AE \uparrow \rightarrow Y \uparrow$

2) mm: $Y \uparrow \rightarrow m_d \uparrow \rightarrow i \uparrow$

3) GM: $i \uparrow \rightarrow I \downarrow \rightarrow AE \downarrow \rightarrow Y \downarrow$
→ crowding cost effect

$\therefore$ When the government increases spending, it makes demand in the economy (AE) increase. So, when demand in the economy increase, firms will produce more output ($Y=AE$). Thus, This raises output and income (Y). After that, people have more income (Y), they want to spend money. It makes money demand increasing and raises the interest rate (i). Therefore, higher interest rate (i) discourages investment (I). Lowering investment (I) makes demand in the economy decrease and makes output falls (Y). All of these make the new equilibrium has higher output and higher interest rate.

b) AE



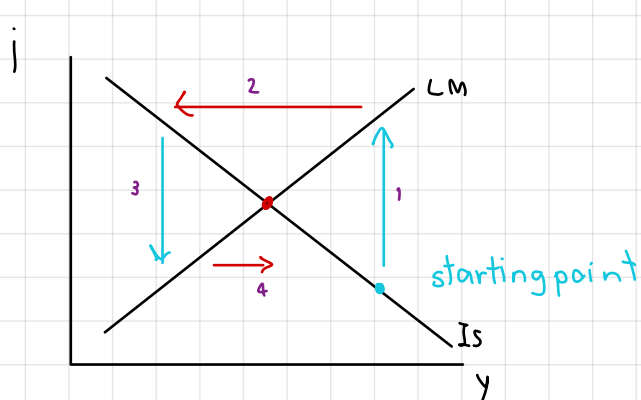
- 1) GM : $G \uparrow \gg AE \uparrow \gg Y \uparrow$ (expansionary fiscal policy)
- 2) MM : $Y \uparrow \gg M_d \uparrow \gg i \uparrow$
- 3) GM : $i \uparrow \gg I \downarrow \gg AE \downarrow \gg Y \downarrow$
- 4) MM : $M_s \uparrow \gg i \downarrow$ (expansionary monetary policy)
- 5) GM : $i \downarrow \gg I \uparrow \gg AE \uparrow \gg Y \uparrow$

$\therefore$ For fiscal policy, when the government increases spending, it makes demand in the economy (AE) increase. So, when demand in the economy increase, firms will produce more output ($Y=AE$). Thus, This raises output and income (Y). After that, people have more income (Y), they want to spend money. It makes money demand increasing and raises the interest rate (i). Therefore, higher interest rate (i) discourages investment (I). Lowering investment (I) makes demand in the economy decrease and makes output falls (Y). For monetary policy, the central bank increases money supply (M_s), bond issuers lower the interest rate (i). Next, lowering interest rate (i) makes investment (I) increasing. It also raises demand in the economy (AE). Firms will produce more output. All of these make new equilibrium has higher output (Y) but lower interest rate (i) for avoid the crowding out effect.

Question 2

Draw the IS-LM diagram. **Pick ANY point on either the IS curve or the LM curve** (NOT the general equilibrium point). ย้ำว่าเลือกจุดไหนก็ได้ที่อยู่บนเส้น IS หรือ LM ที่ไม่ใช่จุดตัดตรงกลางของสองกราฟ

Use the diagram that you draw to briefly explain how the two markets at **your current point** will adjust towards the general equilibrium.



$$Y < AE$$

- 1) MM: $M_d \uparrow \rightarrow i \uparrow$
- 2) GM: $i \uparrow \rightarrow I \downarrow \rightarrow Y \downarrow$
- 3) MM: $Y \downarrow \rightarrow M_d \downarrow \rightarrow i \downarrow$
- 4) GM: $i \downarrow \rightarrow I \uparrow \rightarrow Y \uparrow$

First, starting point below LM Line so bank should raise interest rate. When interest rate increase decreases investment (I). With lower investment, income & output falls (Y). After that, money demand will decrease due to income decrease. It affects to lower interest rate (i). Lastly, At the lower interest rate (i), Firms increase investment. This also raises demand in the economy. Firms produce more to supply at the higher demand. All of these show my current point will adjust towards the general equilibrium.

Question 3

Assume that the liquidity preference function (real money demand) is given by the $L(Y, i) = L_0 + L_Y Y - L_i i$.

Note that L_0 is **autonomous money demand**, while other terms are the same as in the lecture slides.

Now suppose that L_0 falls.

- Give ONE reason why this may happen.
- Show and briefly explain the effect of the fall in L_0 on the 4 diagrams (Keynesian Cross, Money Market, IS-LM, AD).

a) Money demand decrease, it makes output decrease.
With lowering output (Y), it makes L_0 falls which makes
AD decrease

