IS-LM Model

1. The IS-LM Model is a general equilibrium model, which means that……
   There are……markets, which are……
   The price that clears these markets is……
   The IS curve represents a……relationship between ……and……This is because……
   ……
   The LM curve represents a……relationship between ……and……This is because……
   ……
   Each point on the IS curve is an equilibrium in the……market.
   Therefore, we have the equilibrium condition: ……
   Each point on the LM curve is an equilibrium in the……market.
   Therefore, we have the equilibrium condition: ……

2. Cetaris Paribus (other things equal), how will each variable affect each curve – shift (to which direction?) or movement?

Variable	IS Curve	LM Curve
i↑		
G↓		
T↓		
G&T↑ equally		
M↓		
P↓		

3. Explain, together with diagrams, how we can derive the IS curve from Keynesian Cross, and how we can derive the LM curve from the money market.

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

   $C = C_0 + C_1(Y - T)$ $I = I_0 - I_1 \cdot i$ $G = G_0$ $T = T_0$

   $L(i, Y) = L_0 \cdot Y - L_1 \cdot i$ $M = M_0$ $P = P_0$

   Answer the following questions.

   4.1 What are I_1, L_0, and L_1?

   4.2 Why are I_1 and L_1 negative?

   4.3 Derive the IS equation that shows how i and Y are related.
   ให้ นร เริ่มจาก equilibrium condition of goods market, Y = AE
   จากนั้นให้จัดสมการโดย แยก i ไปอยู่ด้านซ้าย แล้วโยกพจน์ที่เหลือมาไว้ด้านขวา

   4.4 Find the slope of the IS curve.
   ทำการ differentiate the IS equation โดยเทียบกับ Y
   กล่าวคือ หา coefficient หน้าตัว Y นั้นเอง

   4.5 Derive the LM equation that shows how i and Y are related.
   ให้ นร เริ่มจาก equilibrium condition of money market, Md = Ms
   จากนั้นให้จัดสมการโดย แยก i ไปอยู่ด้านซ้าย แล้วโยกพจน์ที่เหลือมาไว้ด้านขวา

   4.6 Find the slope of the LM curve.
   ทำการ differentiate the LM equation โดยเทียบกับ Y
   กล่าวคือ หา coefficient หน้าตัว Y นั้นเอง

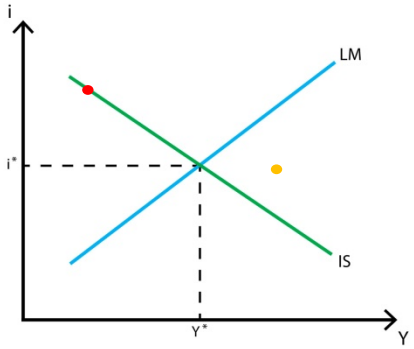
5. From Question 4.4, we can see that the slope of IS curve depends on two factors. Explain how each of these factors affects the slope of the IS curve.

6. From Question 4.6, we can see that the slope of LM curve depends on two factors. Explain how each of these factors affects the slope of the LM curve.

7. What is the Crowding-Out Effect?
   Suppose that the government increases its spending, i.e. expansionary fiscal policy. Use the IS-LM diagram to explain how the economy moves to the new general equilibrium and the crowding-out effect.

8. 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.

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



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

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

10. 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.

10.1 Consumers have high MPC.

10.2 Investment is NOT sensitive to changes in interest rate.

10.3 Money demand is very sensitive to changes in interest rate.

10.4 Money demand is very sensitive to changes in income (Y).

11. 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.

11.1 Derive the IS equation.

ทำเหมือนข้อ4 เริ่มจาก Y = AE แล้วแยก i มาฝั่งซ้ายของสมการ ที่เหลือฝั่งขวา

11.2 Derive the LM equation.

ทำเหมือนข้อ4 เริ่มจาก Md = Ms แล้วแยก i มาฝั่งซ้ายของสมการ ที่เหลือฝั่งขวา

11.3 Find the general equilibrium output and interest rate.

เราจะได้สองสมการ IS กับ LM เราสามารถแก้สมการสองตัวแปร หา i และ Y ได้

(ตอบ Y* = 400 and i* = 0%)