

# The IS/LM Model

Based on Blanchard, 7<sup>th</sup> edition, chapters 3-6

## The IS/LM Model (version 1, chapters 3-5)

- *IS*: the elements in the construction of *IS* are *C*, *I*, *G*, and *NX*, and all the factors that influence these four variables.

$$C = f(Y_D, \text{real wealth, expectations, credit market conditions, ...})$$

$$I = g(i, \text{expectations, credit market conditions, ...})$$

$$G = \bar{G}$$

$$NX = \bar{NX}$$

$$T = \text{taxes, net of transfers, given}$$

- *LM*: the elements in the construction of *LM* are demand for money, supply of money, and all factors that influence these two variables.

$$M^d = \bar{P}Y \cdot L(i)$$

$$\frac{M^s}{P} = \frac{\bar{M}}{\bar{P}}$$

- Interest-rate targeting: horizontal *LM* curve.

## The IS/LM Model (version 2; with risk premia and nominal vs. real interest rates, chapter 6)

### Fisher Equation

$$r_t = i_t - \pi_{t+1}^e \Leftrightarrow i_t = r_t + \pi_{t+1}^e.$$

- *IS* relation:  $Y = C(Y - T) + I(Y, i - \pi^e + x) + G + NX$ .  $x$  is the risk premium.
- *LM* relation:  $i = \bar{i}$ .

However, “although the central bank formally chooses the nominal interest rate, it can choose it in such a way as to achieve the real interest rate it wants”. This ignores the issue of zero lower bound—to be discussed.