The *IS/LM/PC Model*
Based on Blanchard, 7th edition, chapters 3-9

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.

  $C = f(Y_D, \text{real wealth}, \text{expectations}, \text{credit market conditions, ...})$
  $I = g(i, \text{expectations}, \text{credit market conditions},...)$
  $G = \bar{G}$
  $NX = \overline{NX}$
  $T, \quad$ 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.

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

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

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

Fisher Equation

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

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.

Chapters 7-9: The Labor Market, The Phillips Curve; from the Short to the Medium Run

The Labour Market

- Wage-setting equation:

  $$W = P^e F(u, z).$$

- Price-setting equation:

  $$P = (1+m)W.$$

The Phillips Curve

$$\pi = \pi^e + (m+z) - \alpha u \implies \pi_t - \pi_t^e = -\alpha(u_t - u_n).$$

For details of all of the above, see Blanchard, 7th edition, chapters 3 through 9.

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