EE 312: Macroeconomics Theory (1/2012)

Product Market, Money market, and Joint Equilibrium (IS-LM Framework)

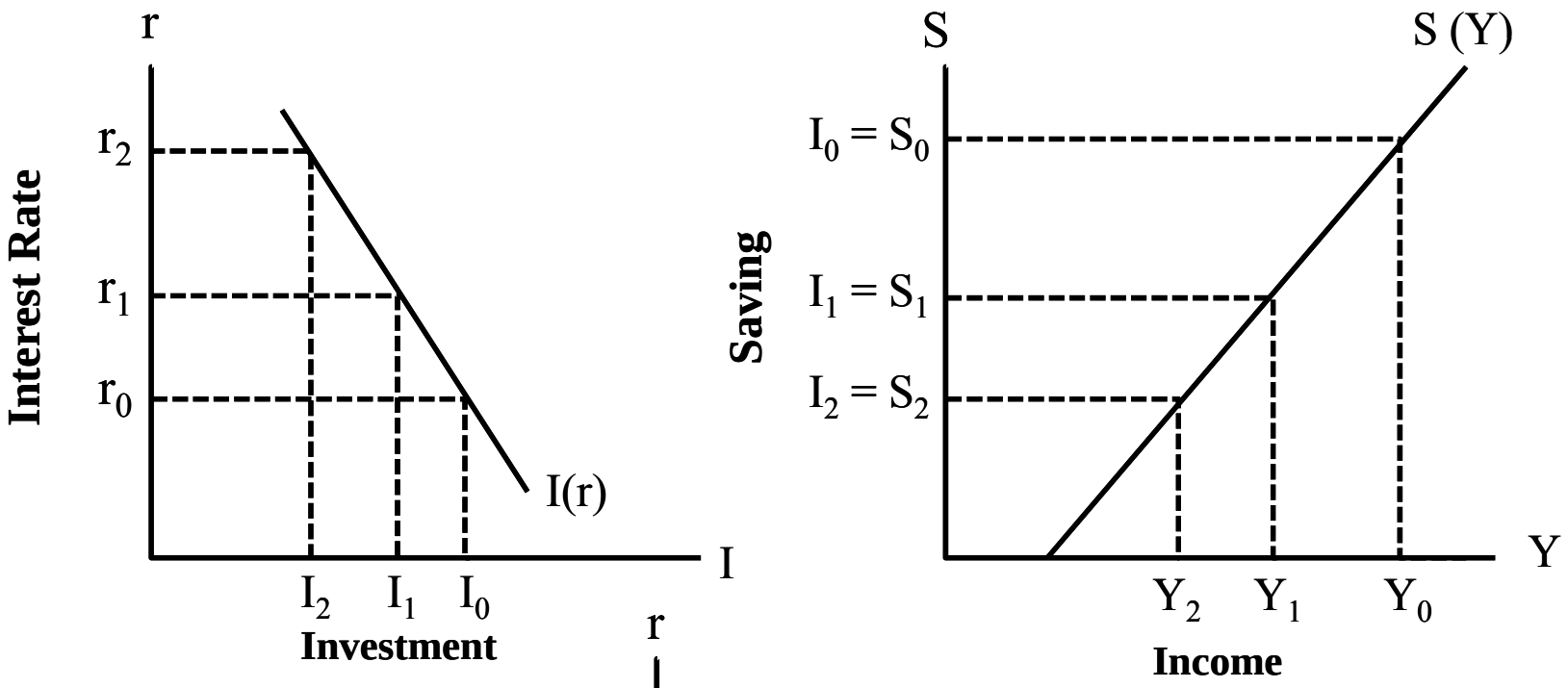
Dr. Pranee Tinakorn

Faculty of Economics

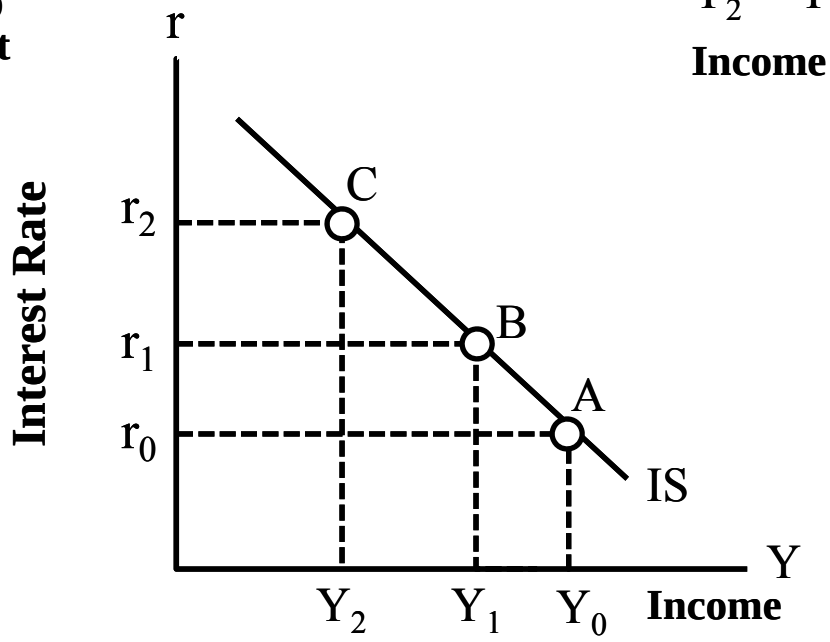
Thammasat university

Equilibrium in the product market: Construction of the IS Schedule (Assuming T = G = 0)

a. Investment and Saving Schedules

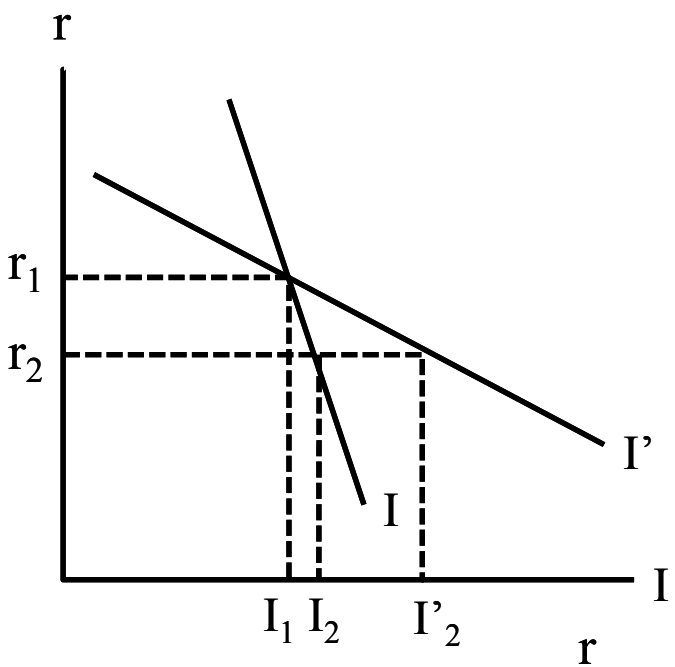


b. The IS Schedule

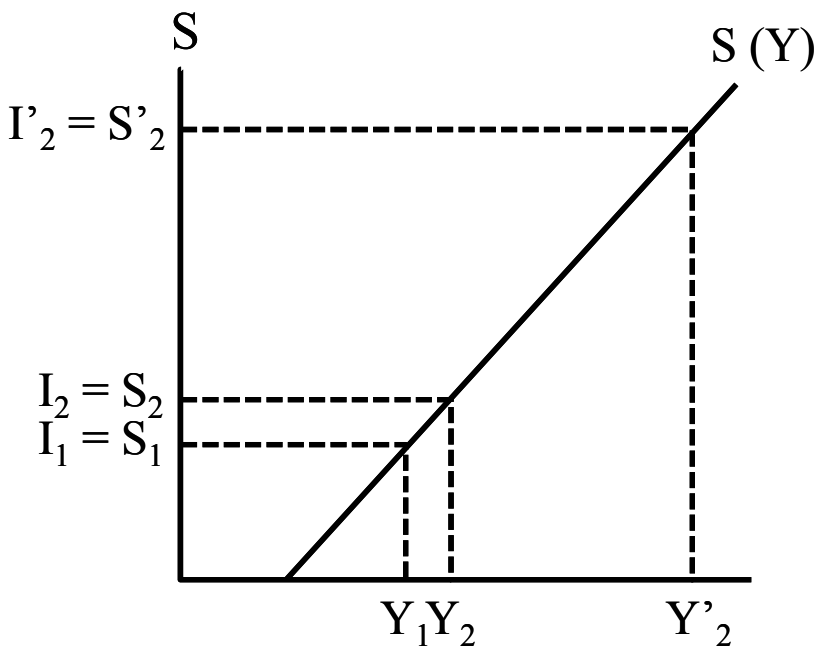


Interest Elasticity of Investment and the Slope of the IS Schedule

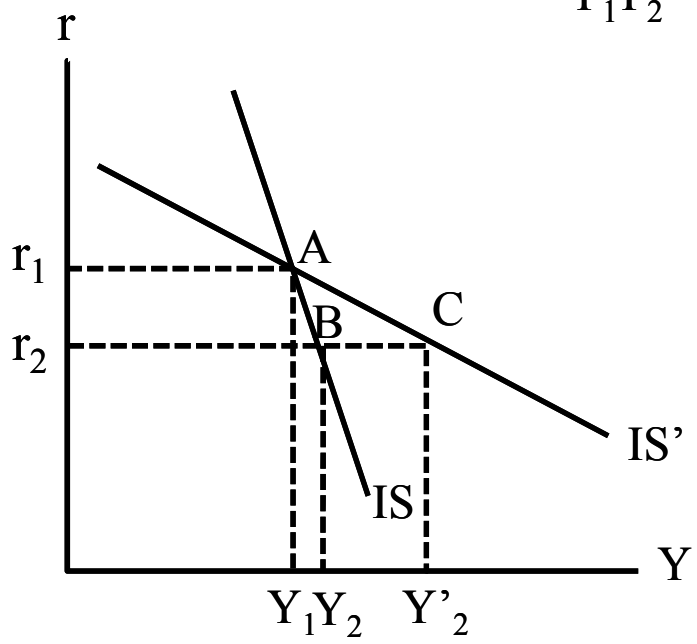
a. Investment Schedule



b. Saving Schedule

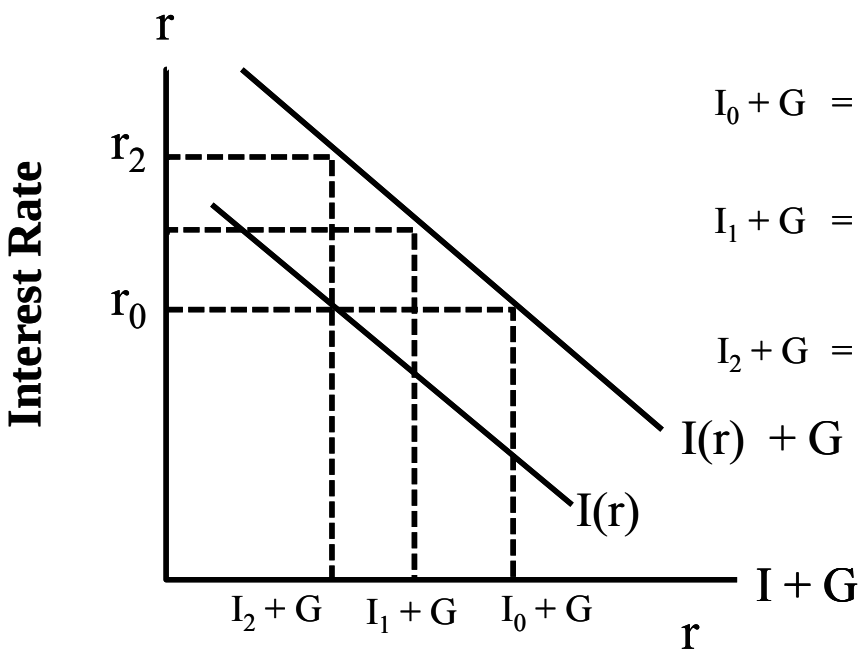


c. IS Schedule

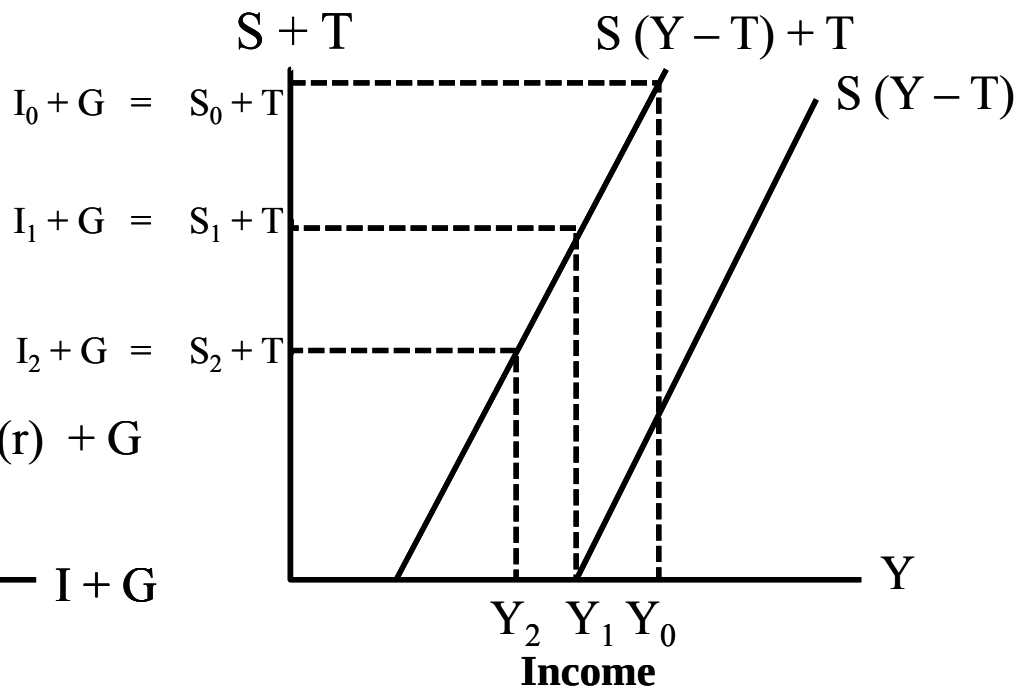


IS Schedule with the Addition of a Government Sector

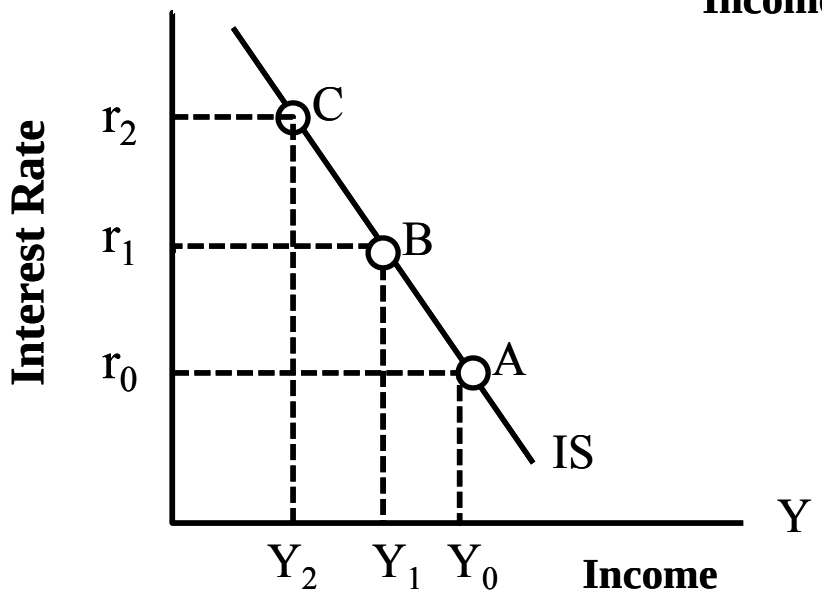
a. Investment Plus Government Spending



b. Saving Plus Taxes

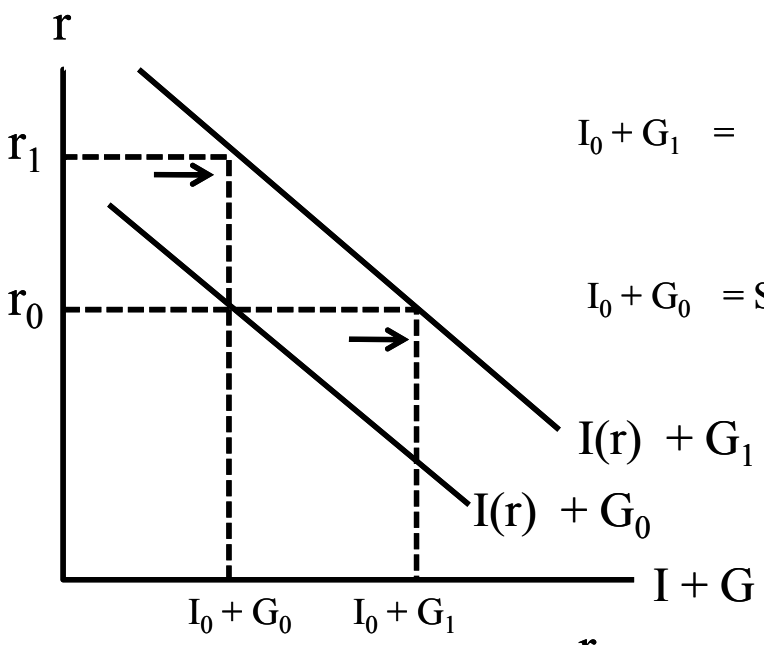


c. IS Schedule

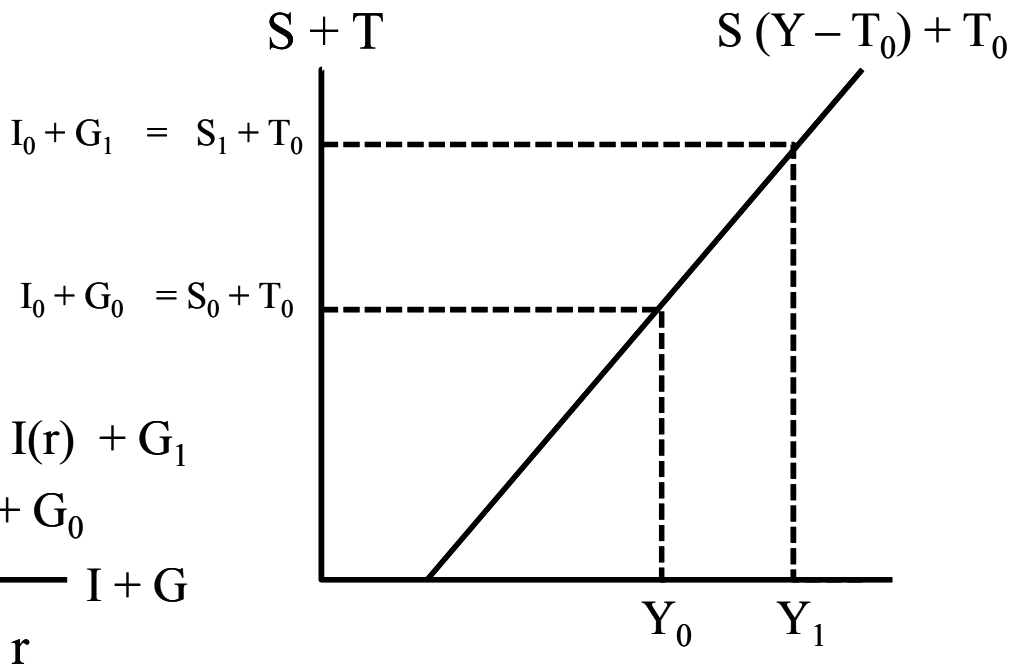


Shift in the IS Schedule with An Increase in Government Spending

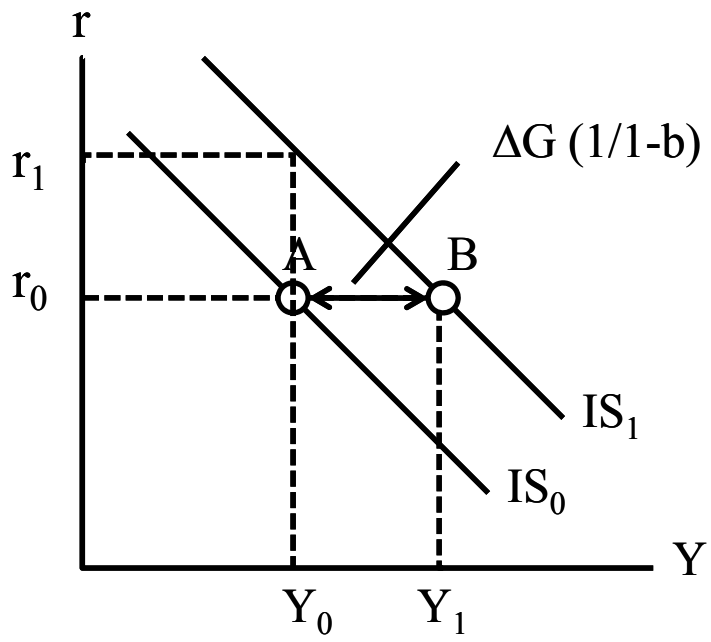
a. Investment Plus Government Spending



b. Saving Plus Taxes

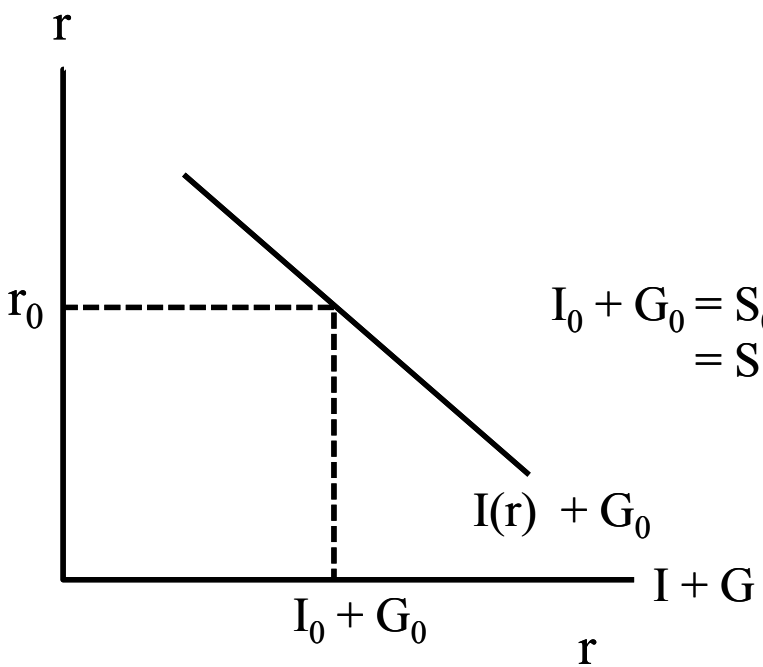


c. IS Schedule

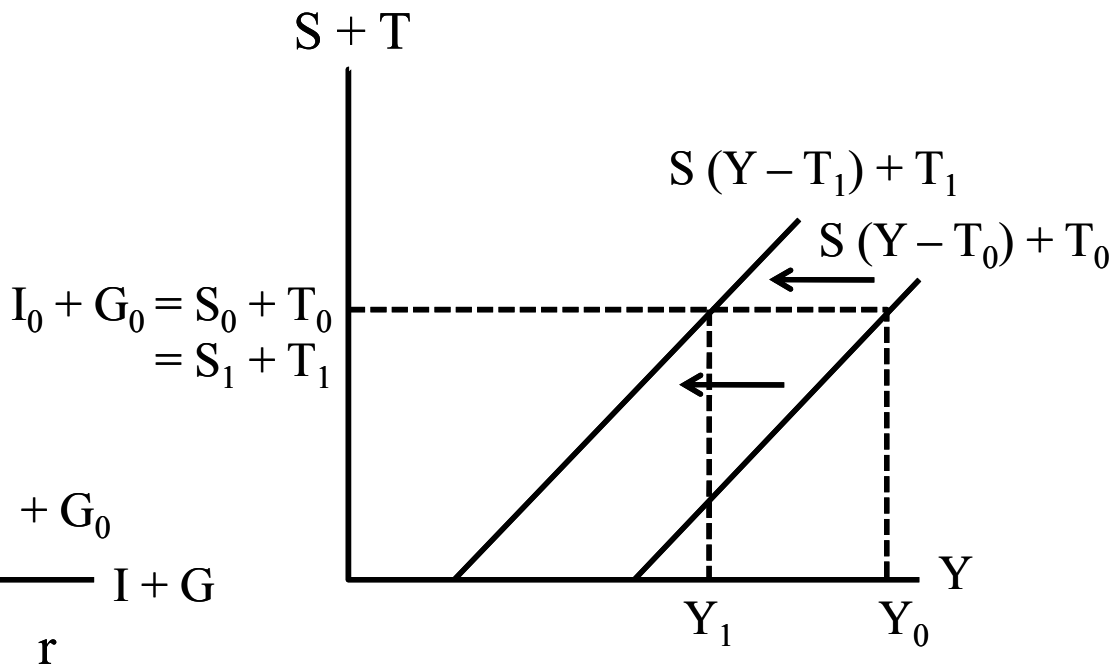


Shift in the IS Schedule with An Increase in Taxes

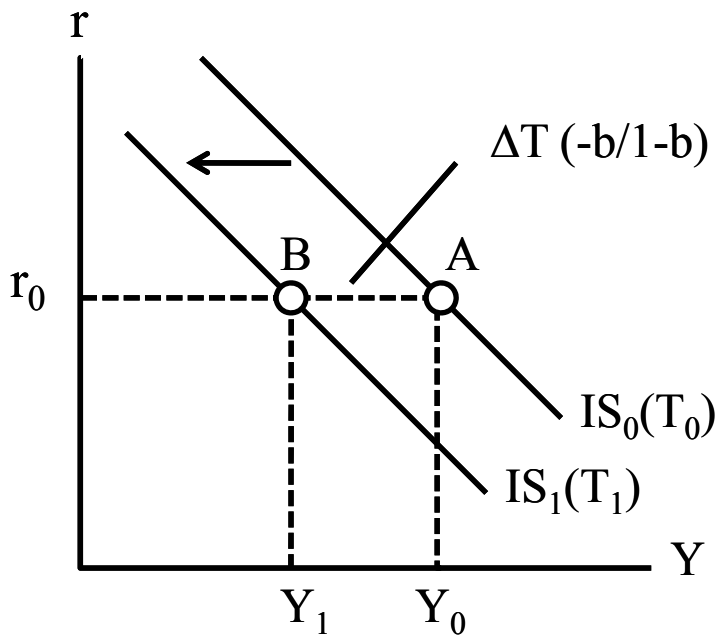
a. Investment Plus Government Spending



b. Saving Plus Taxes



c. IS Schedule



Equilibrium in the money market: Construction of the LM Schedule

- Keynesian theory of money demand
  1. Transactions demand
  2. Precautionary demand
  3. Speculative demand

- Transactions and precautionary demand for money is a function of income ($M^1 = f(Y)$).

- Speculative Demand for money is a function of interest rate ($M^2 = f(r)$).

- Money supply can be controlled by the monetary authority or the central bank. It is considered to be a policy variable.

Speculative Demand for Money

Return on money (cash) = 0

Expected return on bonds = interest earnings (r)
+/- expected capital gain or loss

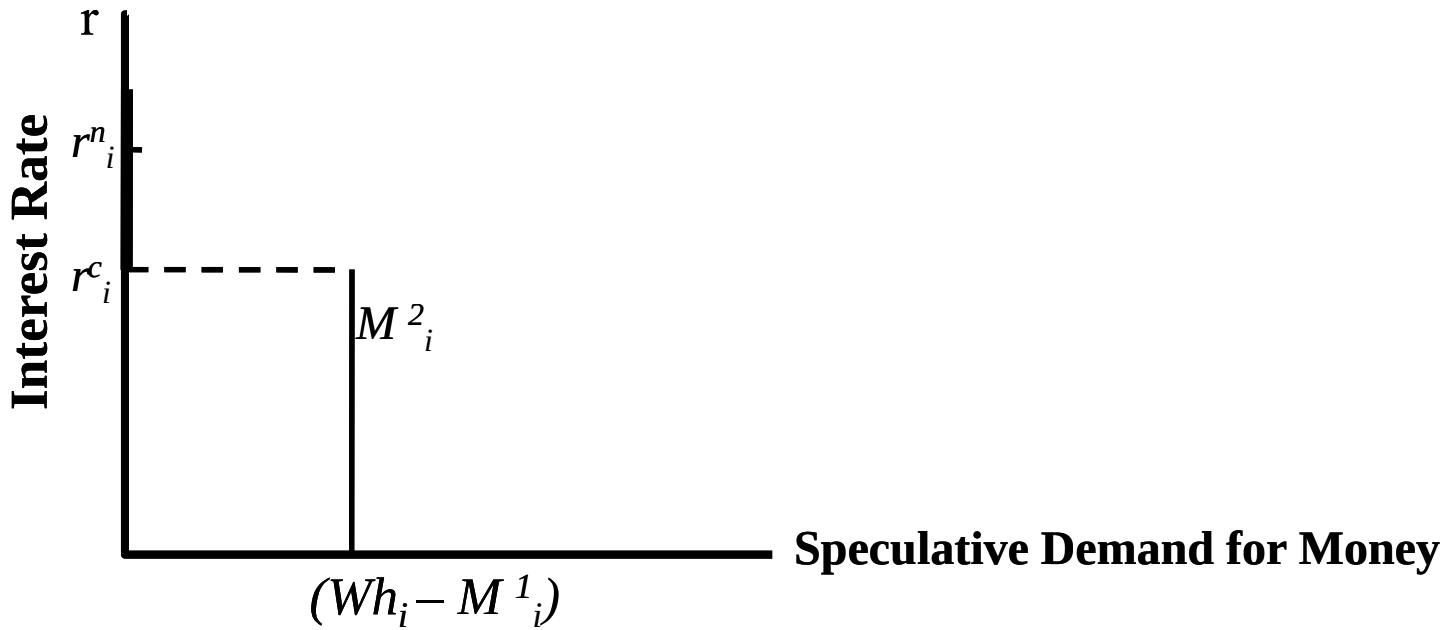
For an individual i , his total demand for money is

$$Mi = Mi^1 + Mi^2$$

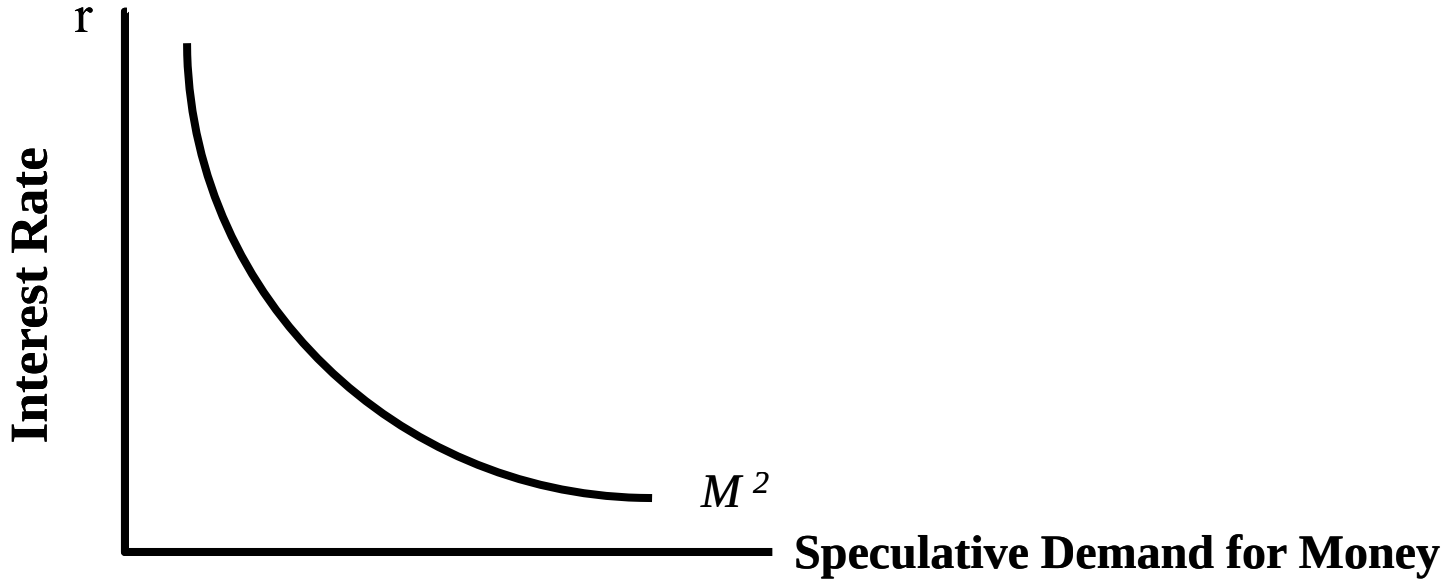
An individual holds his wealth (Wi) in terms of money (Mi) plus bonds(Bi), assuming no other assets.

$$Wi = Mi + Bi$$

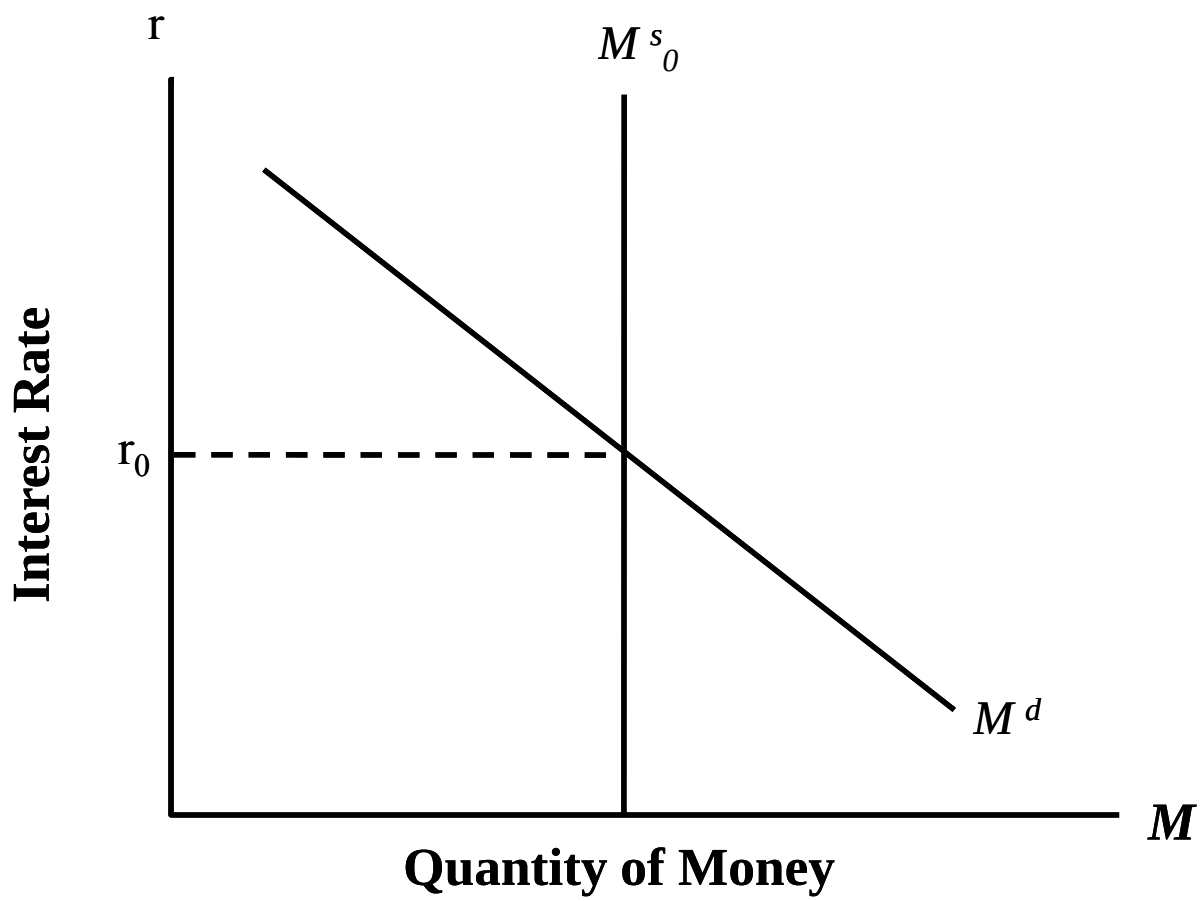
a. Individual Speculative Demand for Money



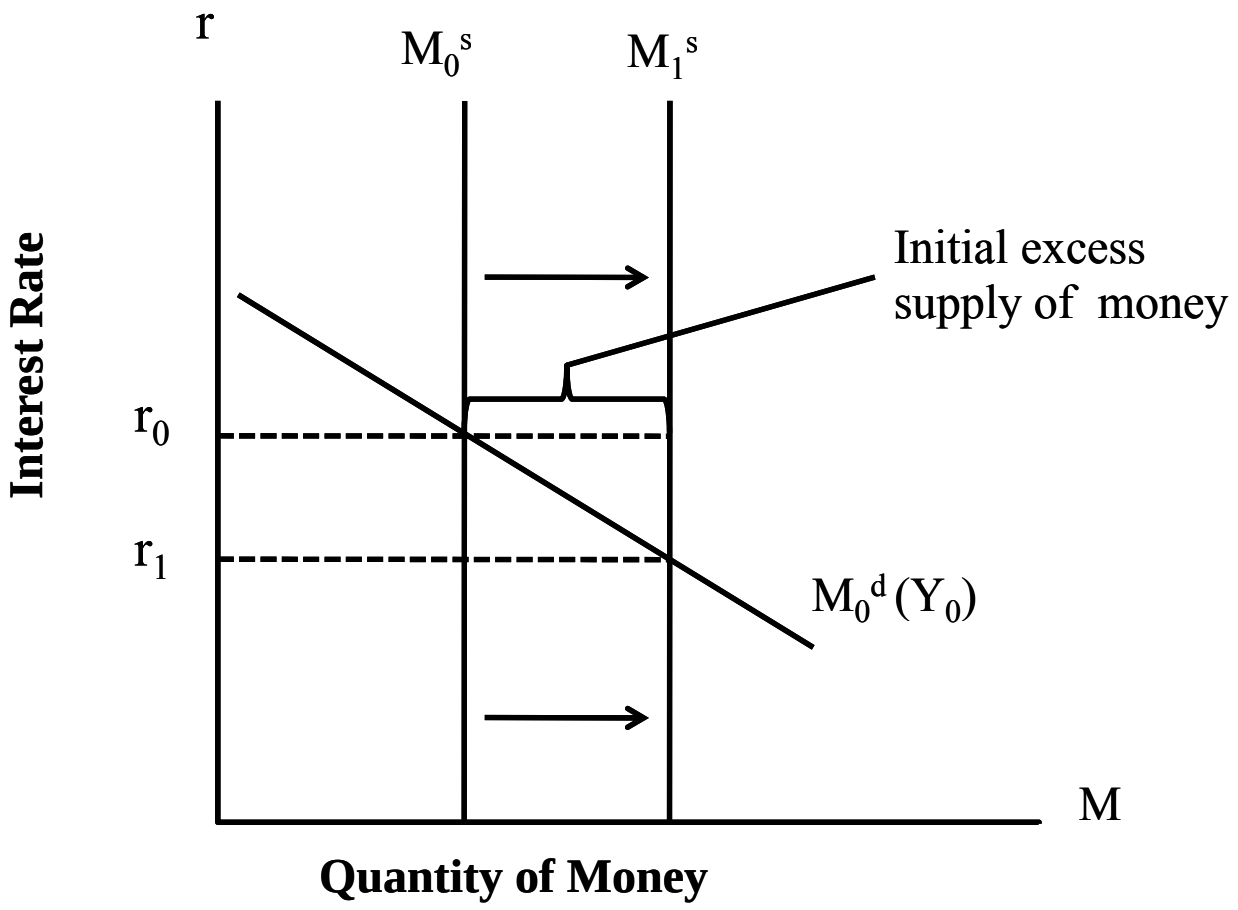
b. Aggregate Speculative Demand for Money



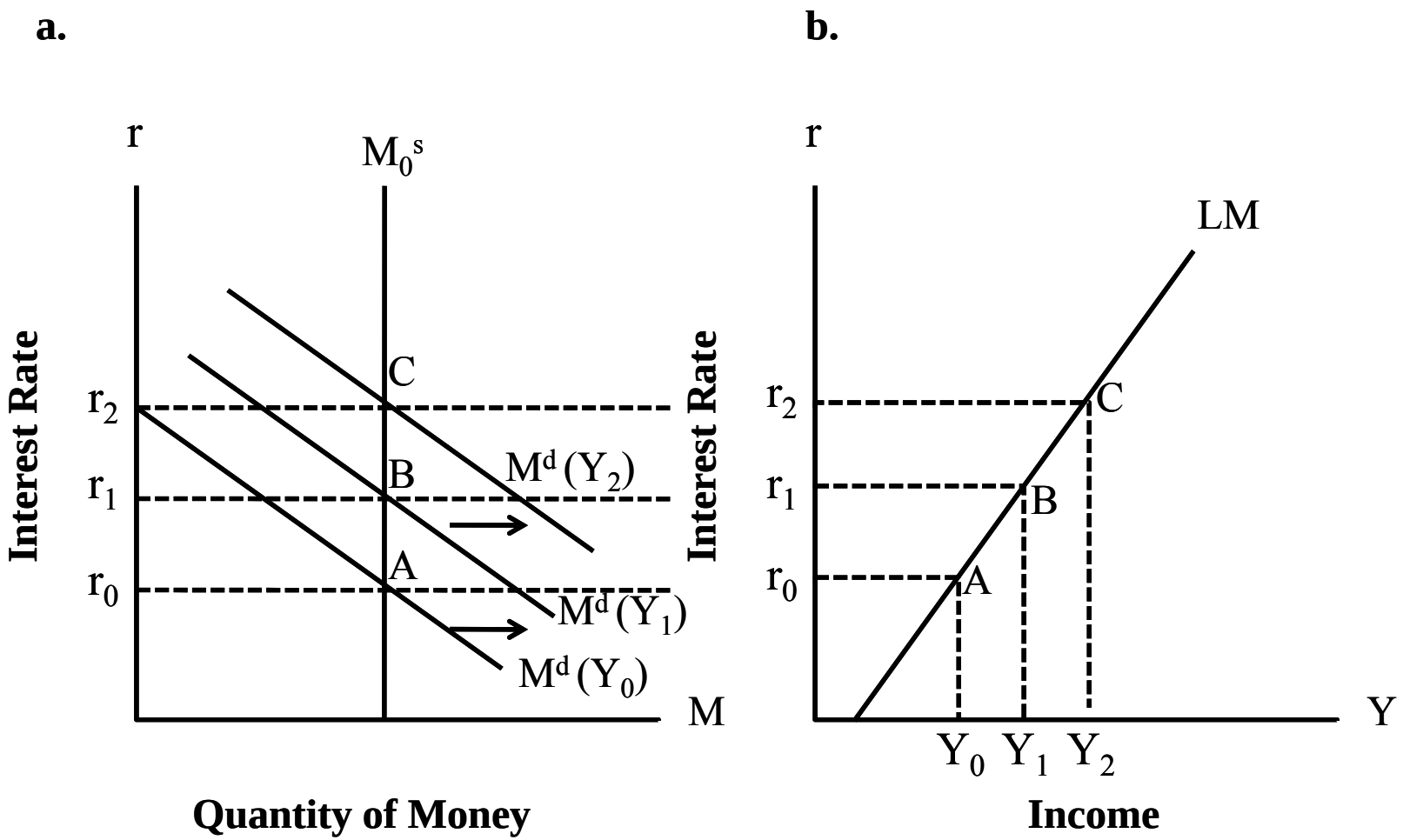
Determination of the Equilibrium Interest Rate



Effect of an increase in money supply

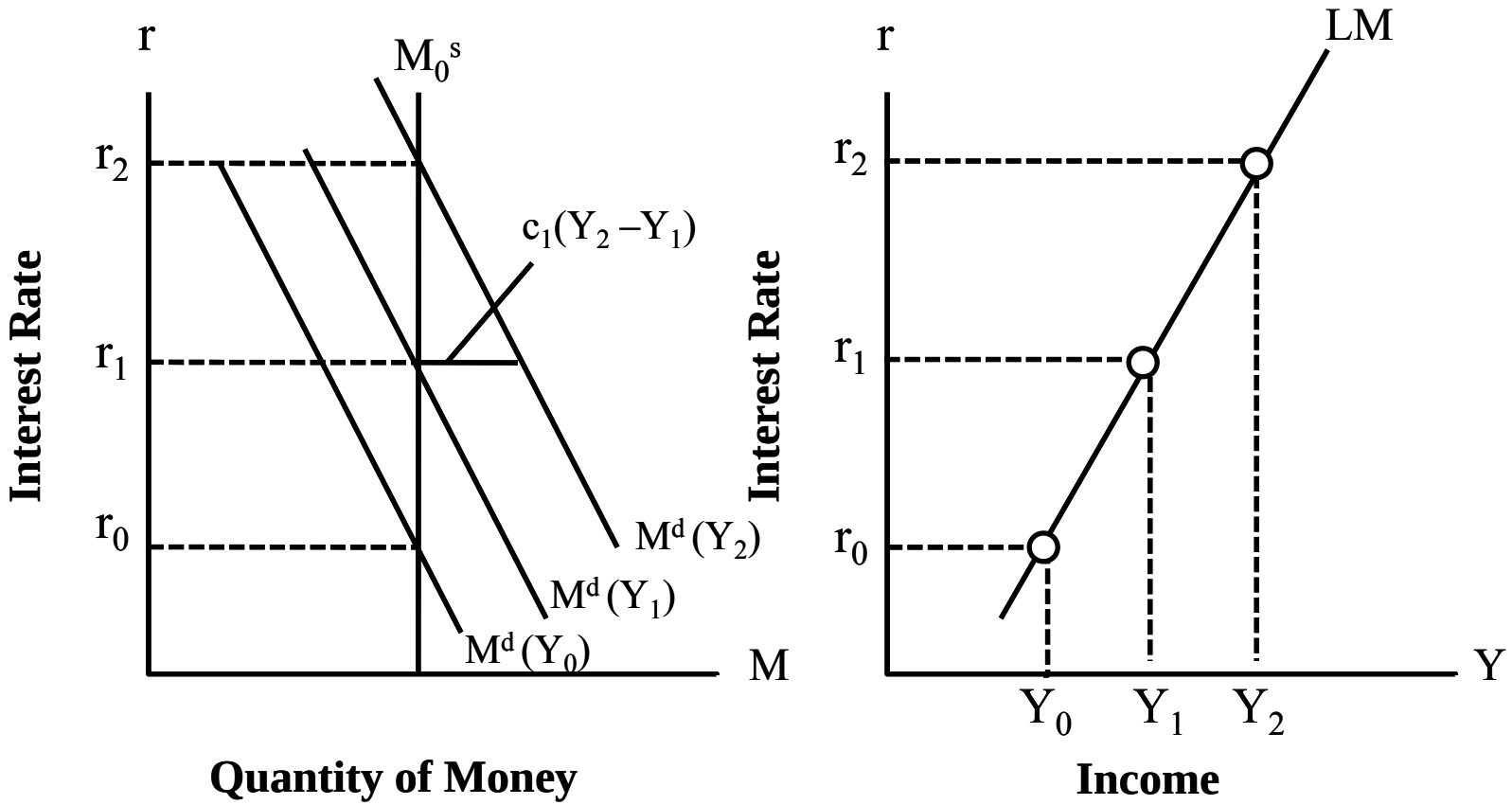


Equilibrium in the Money Market and the LM Schedule



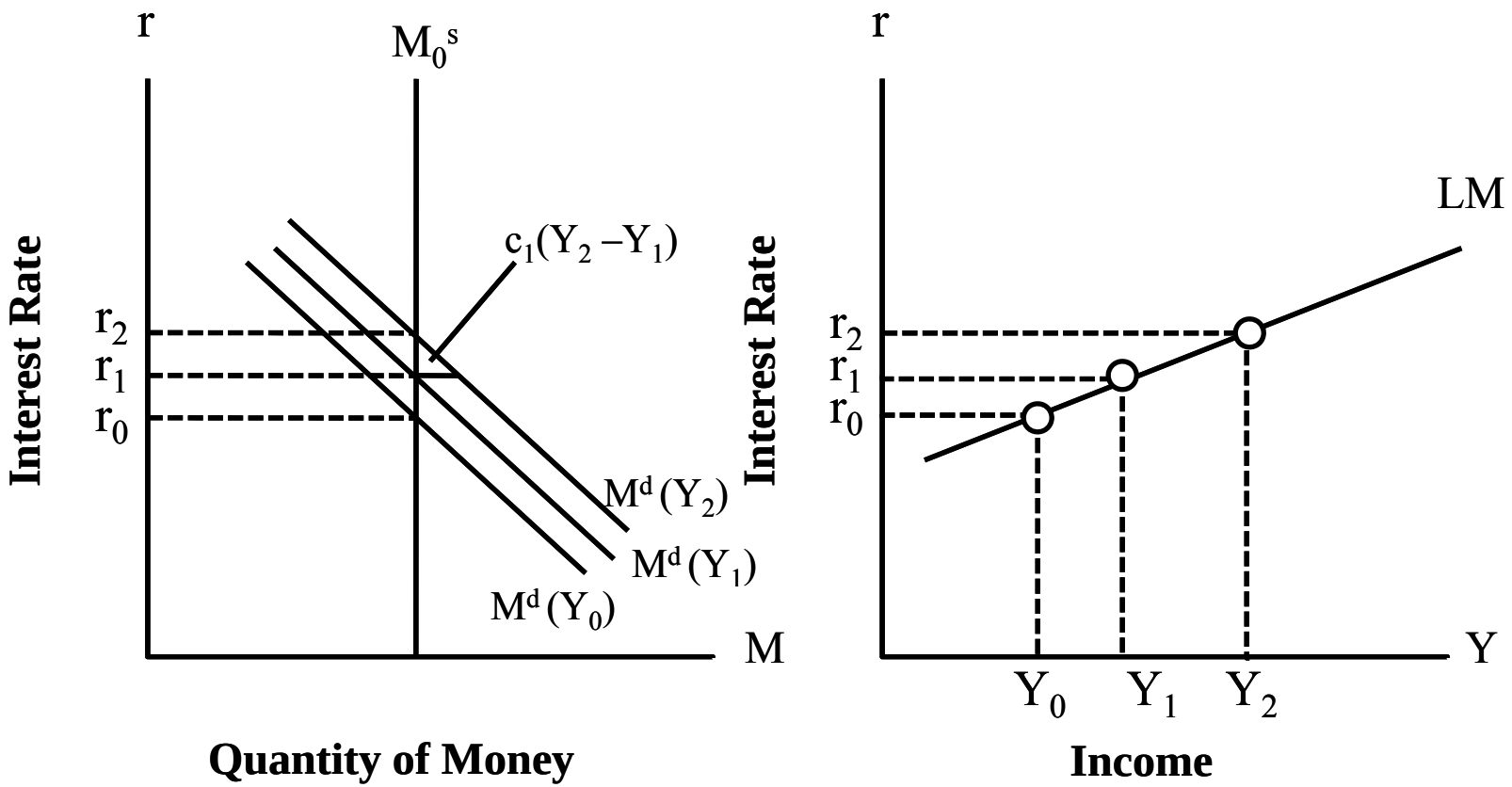
Interest Elasticity of Money Demand and the Slope of the LM Schedule

a. Low Interest Elasticity of Money Demand

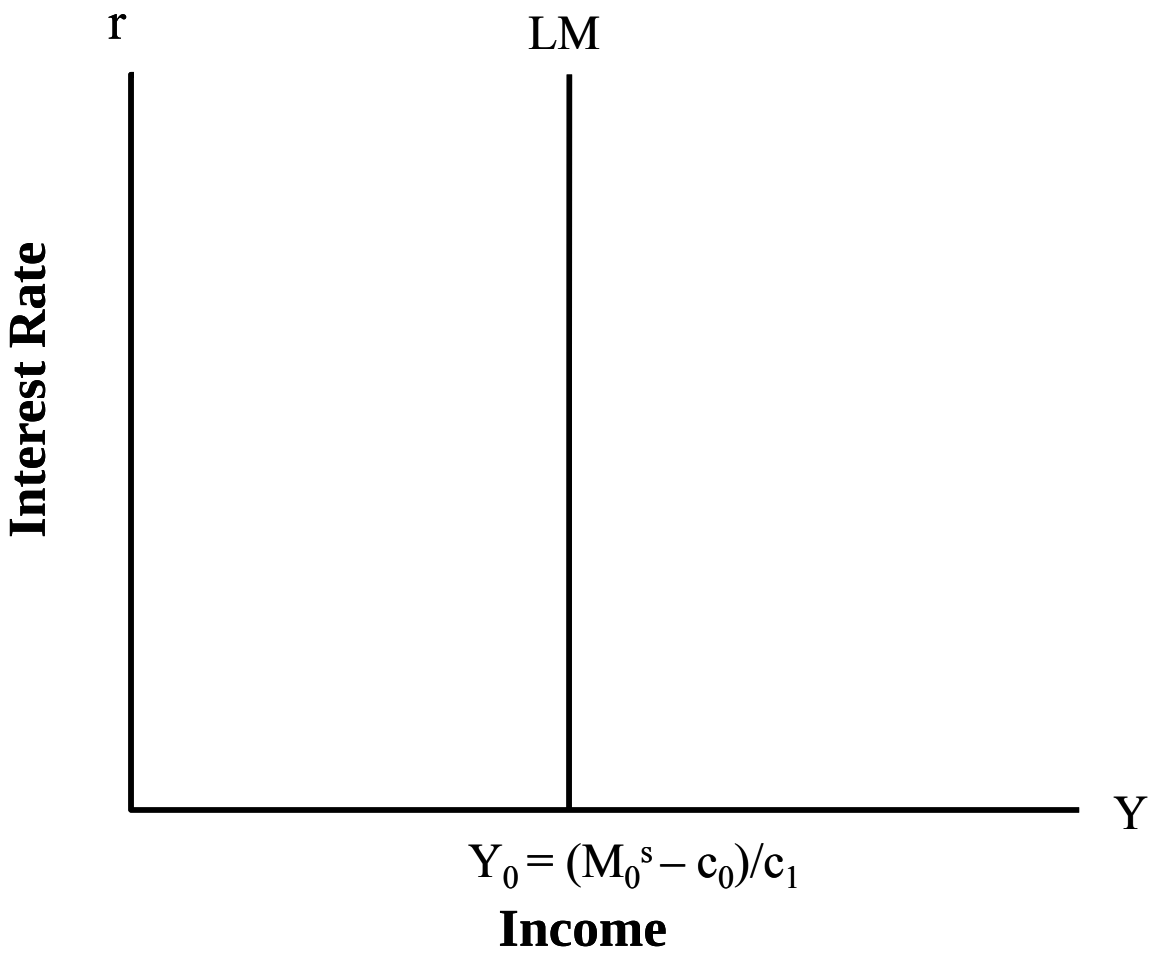


Interest Elasticity of Money Demand and the Slope of the LM Schedule (Continued)

b. High Interest Elasticity of Money Demand

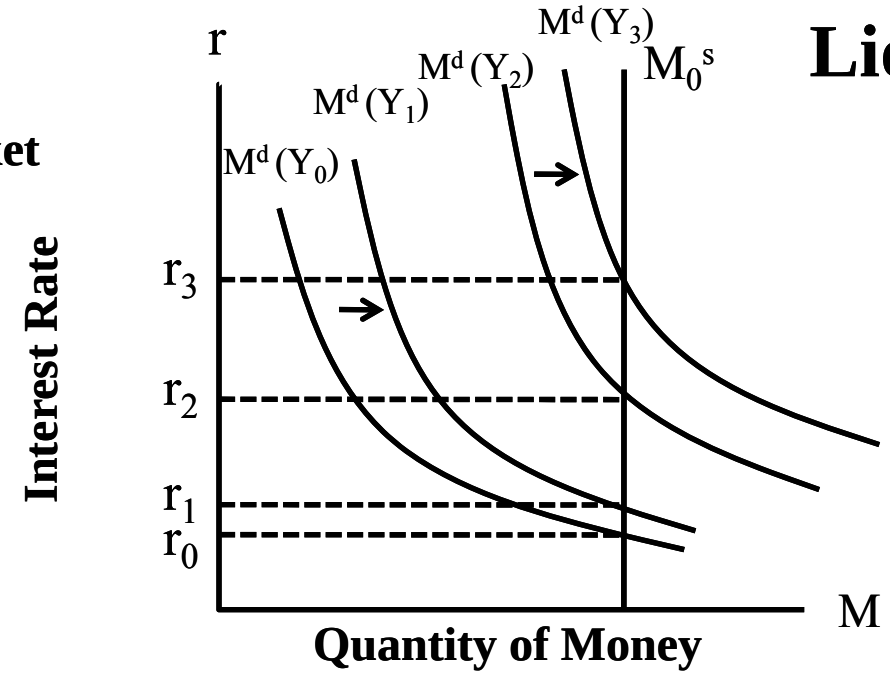


LM Schedule: The Classical Case (only transactions demand)

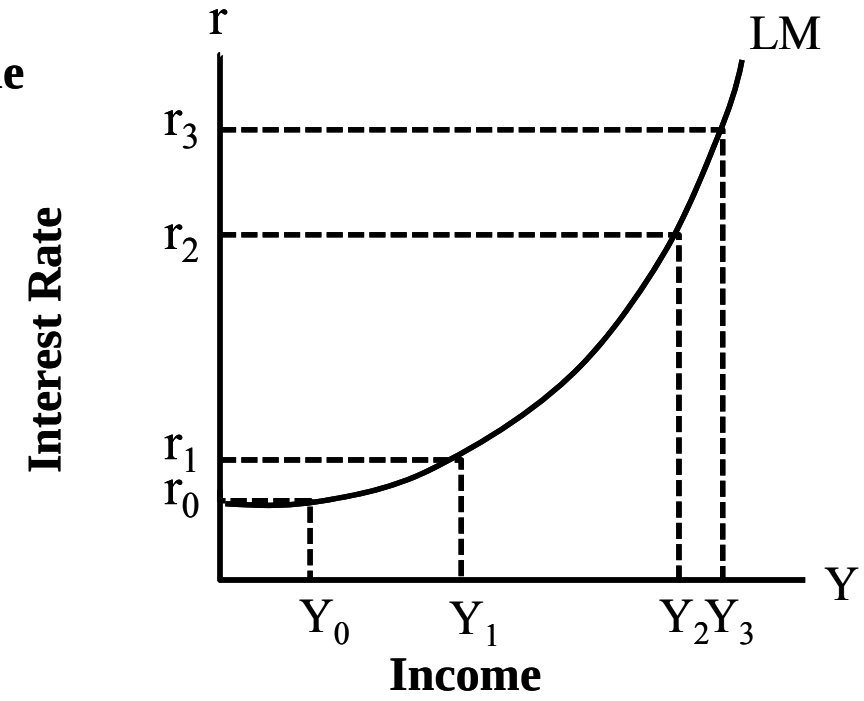


Liquidity Trap

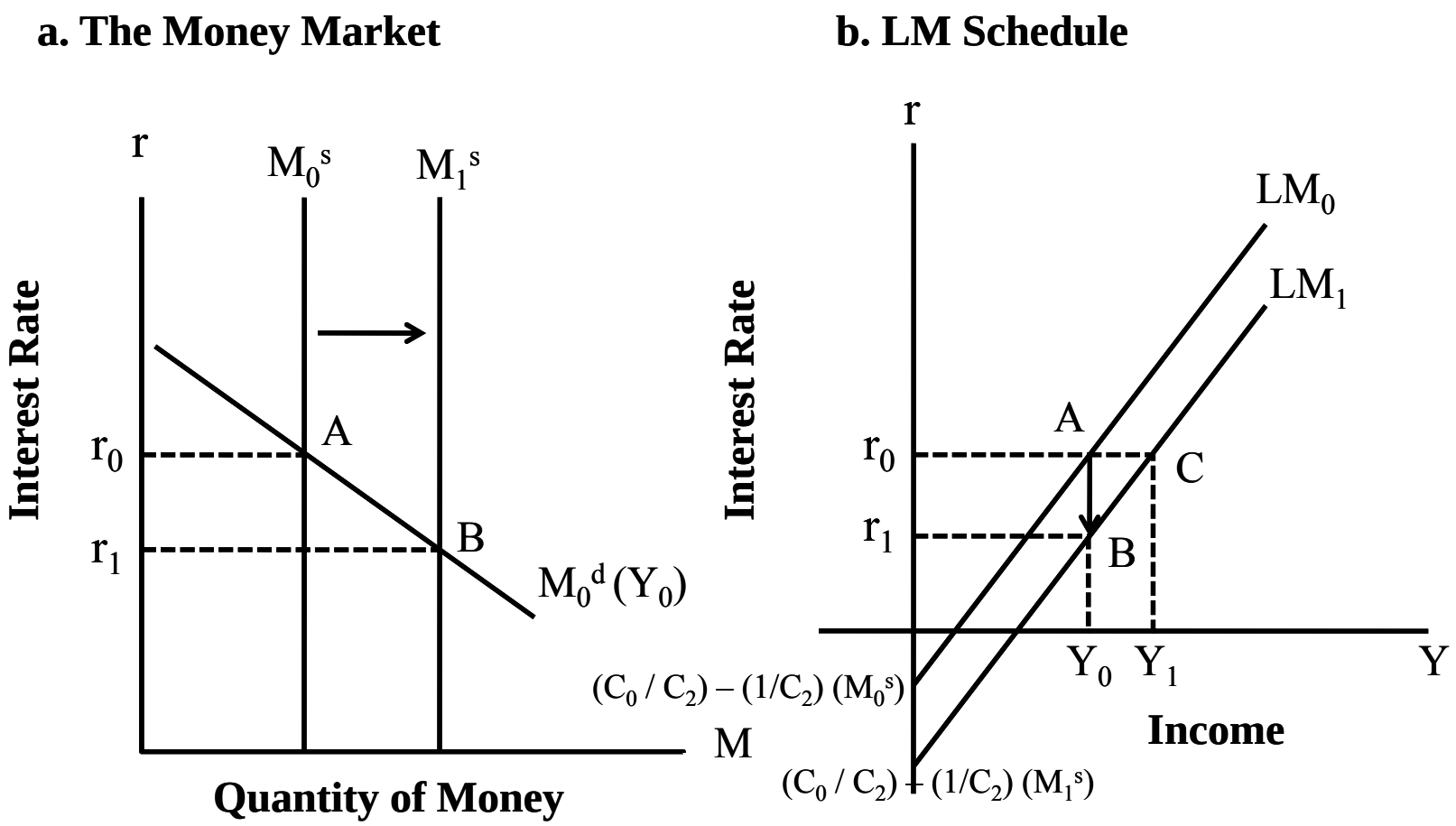
a. The Money Market



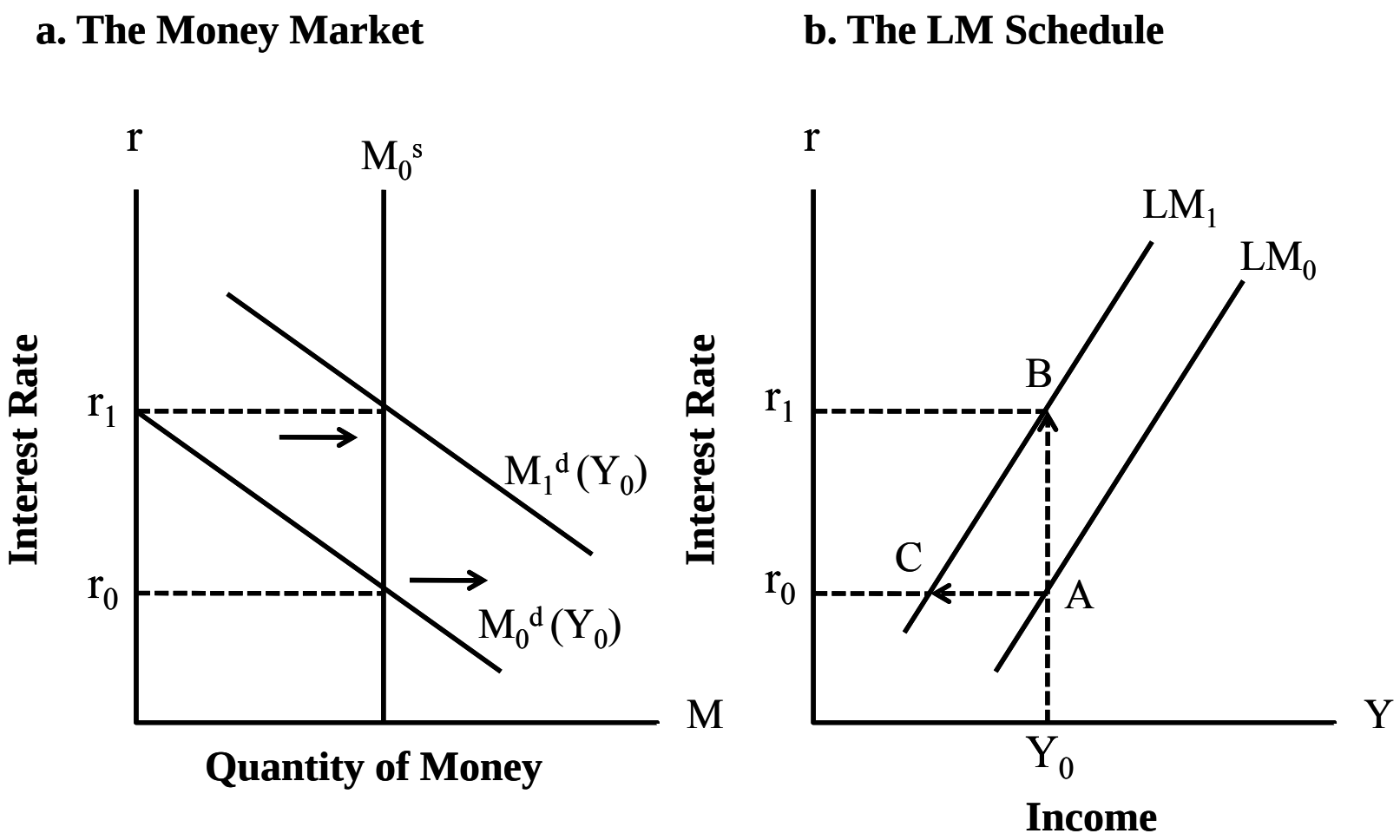
b. The LM Schedule



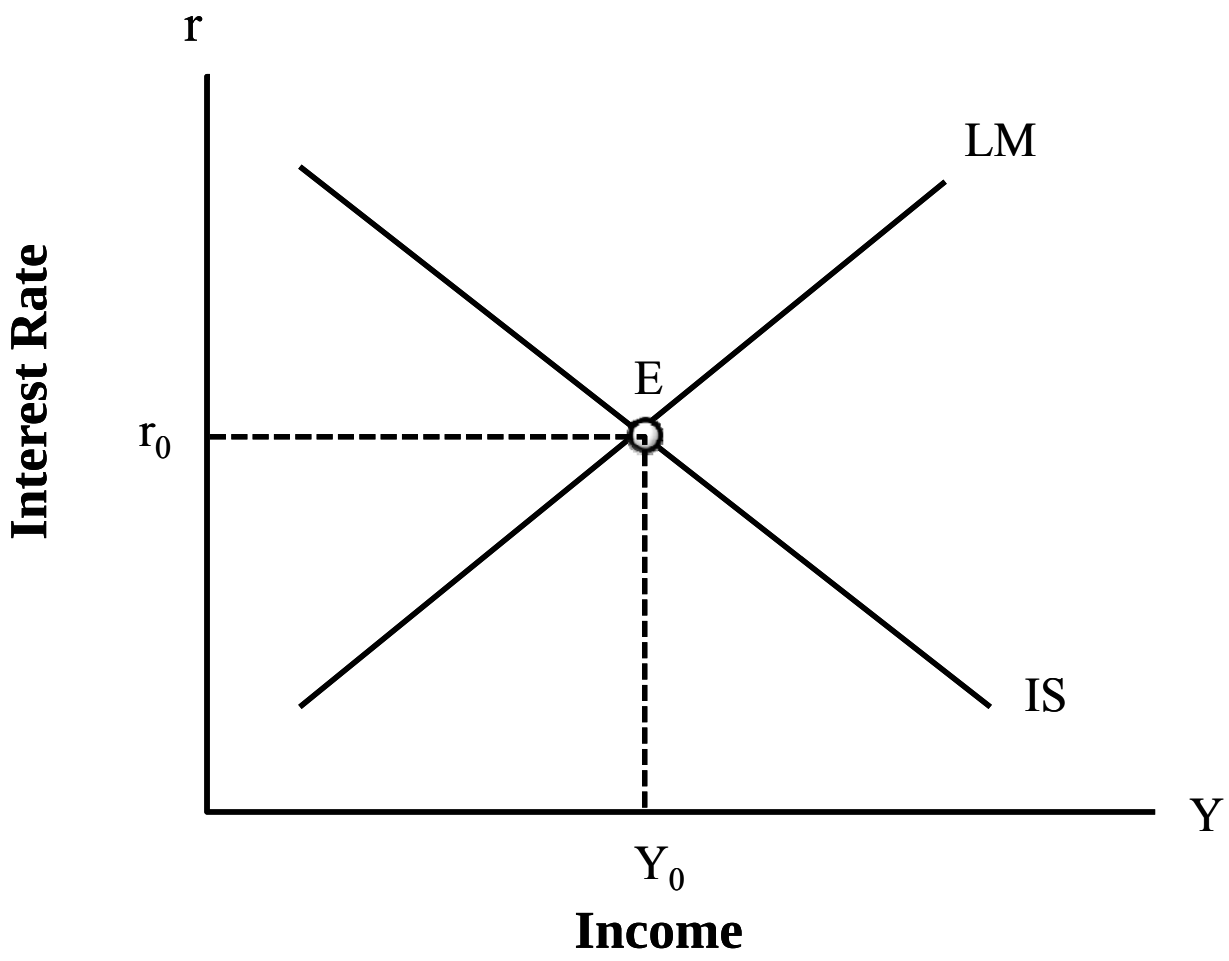
Shift in the LM Schedule with an Increase in the Quantity of Money



Shift in the LM Schedule with a Shift in the Money Demand Function



IS and LM Schedules Combined



Adjustment to Equilibrium in the IS-LM Model