5.4 Demand for Money, Demand for Liquidity

Reasons for holding Money

- **Transaction Demand for Money (M^d_t)**
- **Precautionary Demand for Money (M^d_p)**
- **Speculative Demand for Money (M^d_s)**

5.4 Demand for Money, Demand for Liquidity

Money Demand Function

$$M^d = M^d_t + M^d_p + M^d_s$$

$$M^d =$$

5.4 Demand for Money, Demand for Liquidity

Suppose there are only two assets: Money and Bond

Money

Bond

Relationship between price of bond and interest rate

Face value = 100 Baht **Maturity date = 20 years**

Coupon rate = 5% **Coupon payment = 5 Baht per year**

When issuing bond suppose bond price = 100 Baht
Nominal interest rate in the market = 5%

If in the second year, nominal interest rate increases to 7%

Q: If you want to sell bond in the second year can you sell at the price of 100 Baht?

A:

Negative relationship between Price of Bond and Interest Rate

Relationship between price of bond and interest rate

Face value = 100 Baht **Maturity date = 20 years**

Coupon rate = 5% **Coupon payment = 5 Baht per year**

When issuing bond suppose bond price = 100 Baht
Nominal interest rate in the market = 5%

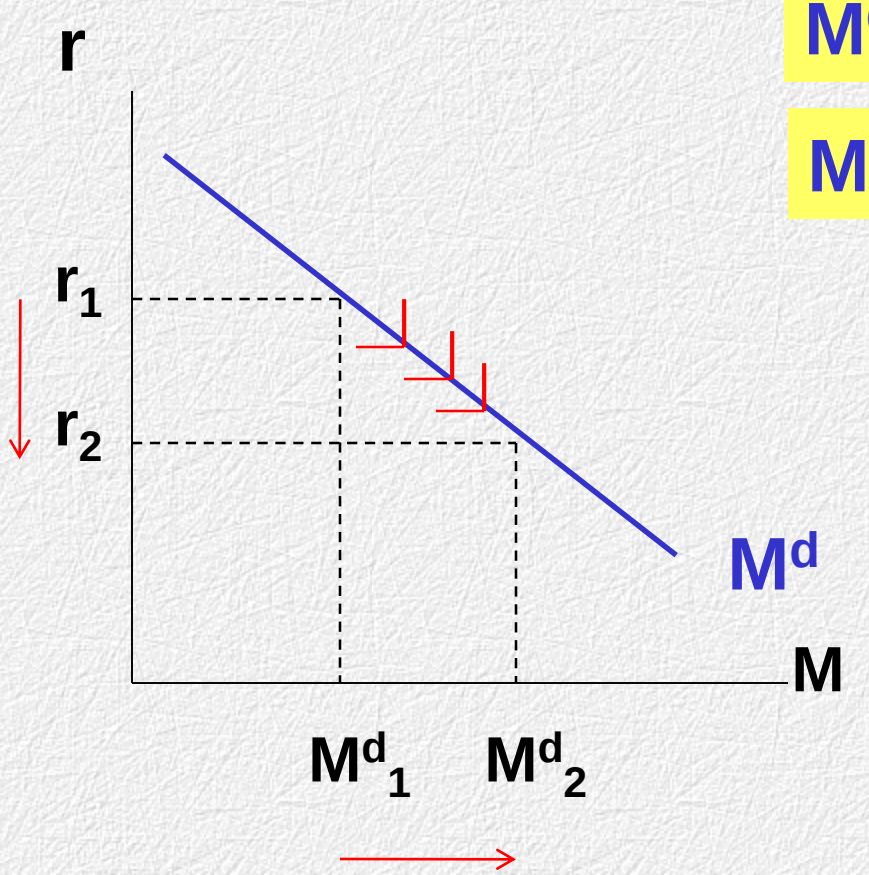
If in the second year, nominal interest rate decreases to 3%

Q: If you want to sell bond in the second year will you sell at the price of 100 Baht?

A:

Negative relationship between Price of Bond and Interest Rate

Move along M^d curve



$M^d = M^d_t + M^d_p + M^d_s$

$M^d = f(r, Y, \ldots\ldots)$

(-) (+)

r ↓ ⇨ M^d ↑

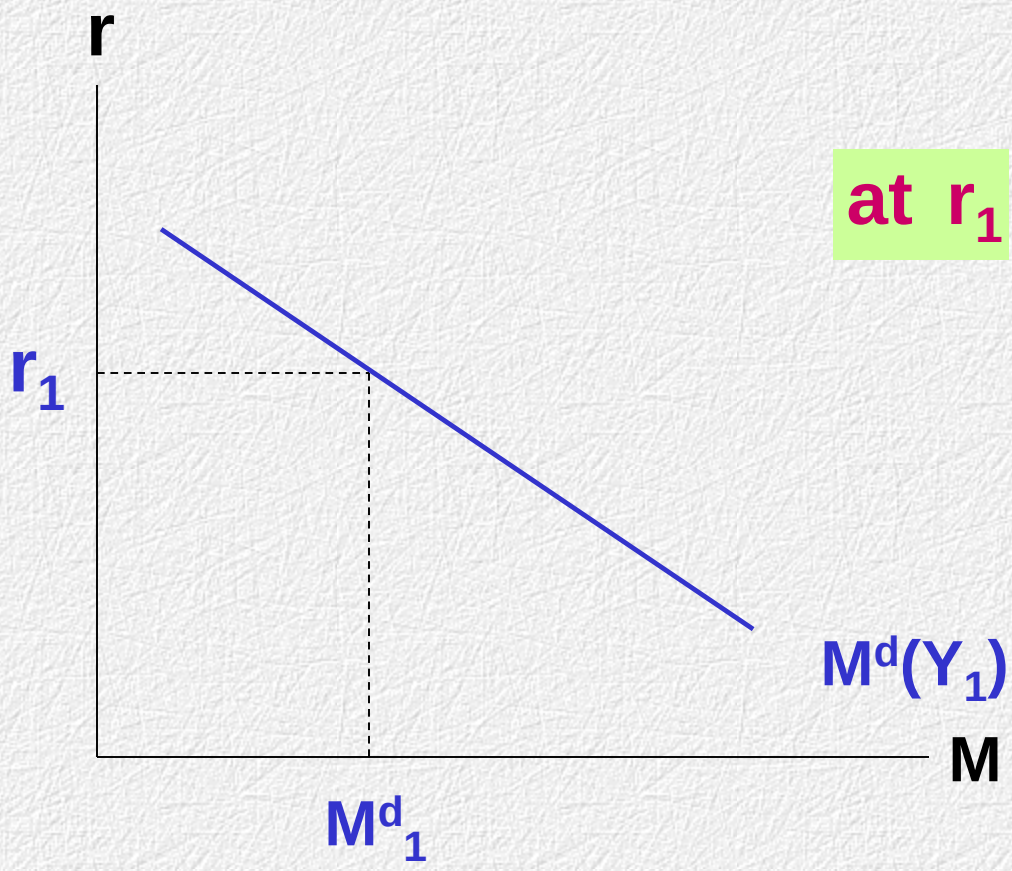
nominal GDP

Nominal M^d = L ($Y, i)

Real M^d = L (Y, r)

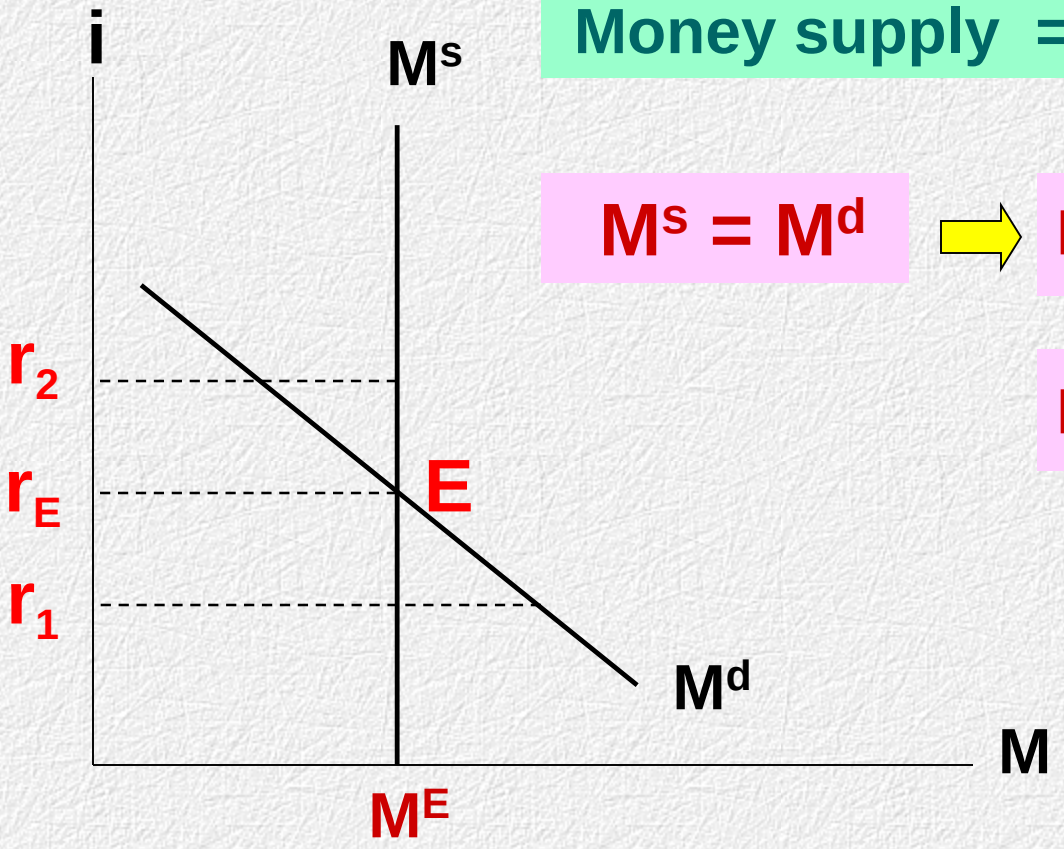
real GDP

Shift in M^d



at r_1 , if Y↑ ⇨

5.5 Equilibrium in Money Market

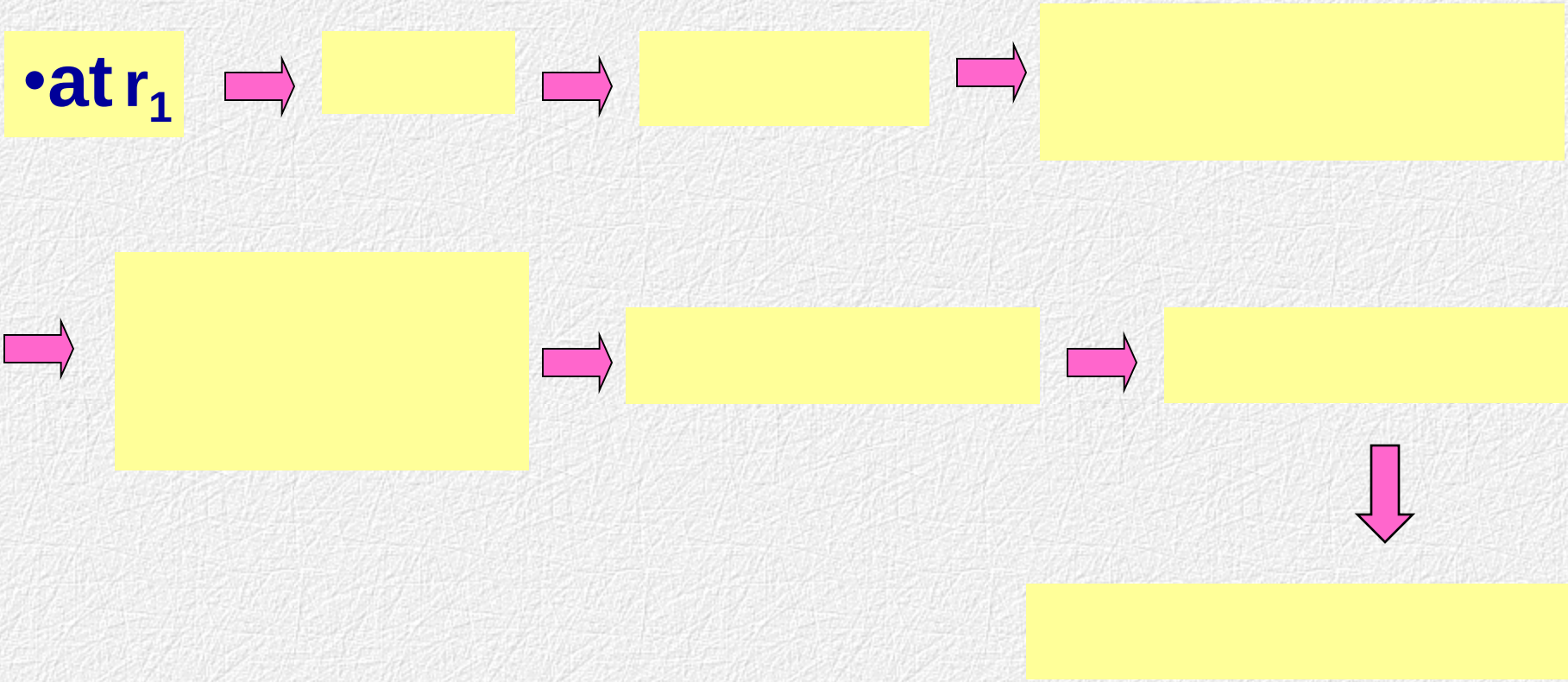


Money supply = Money demand

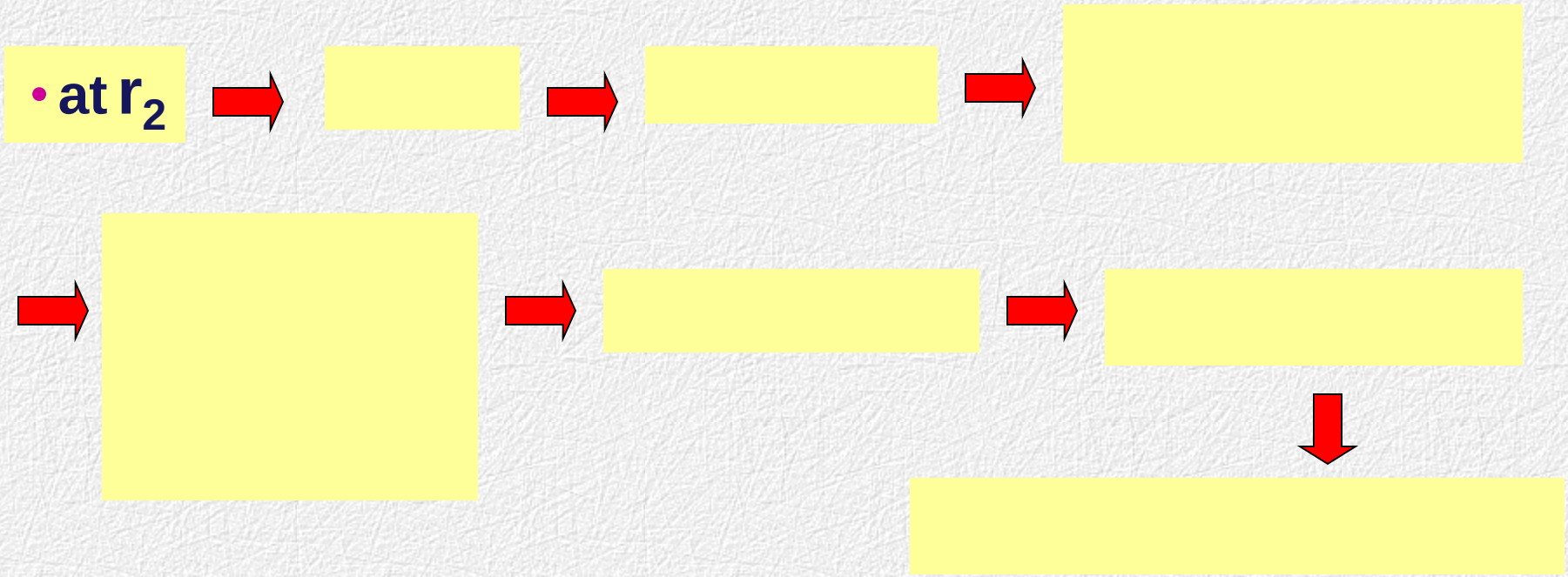
$M^s = M^d$ ⇒ Equil^m money = M_E

Equil^m interest rate = r_E

Equilibrium in Money Market



Equilibrium in Money Market

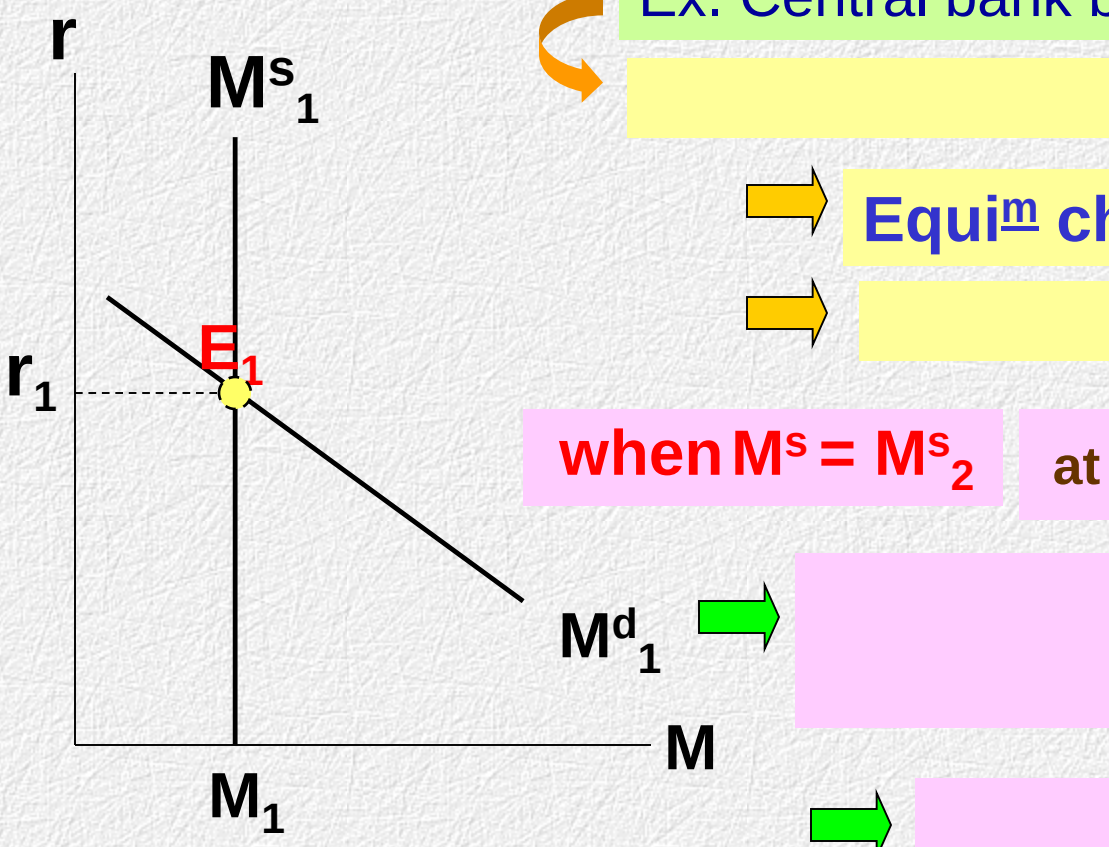


5.6 Changes in equilibrium money market

Start with
M^d_1, M^s_1, E_1

When factors determining M^d and M^s (rather than r) Δ

Ex. Central bank buy government bonds back



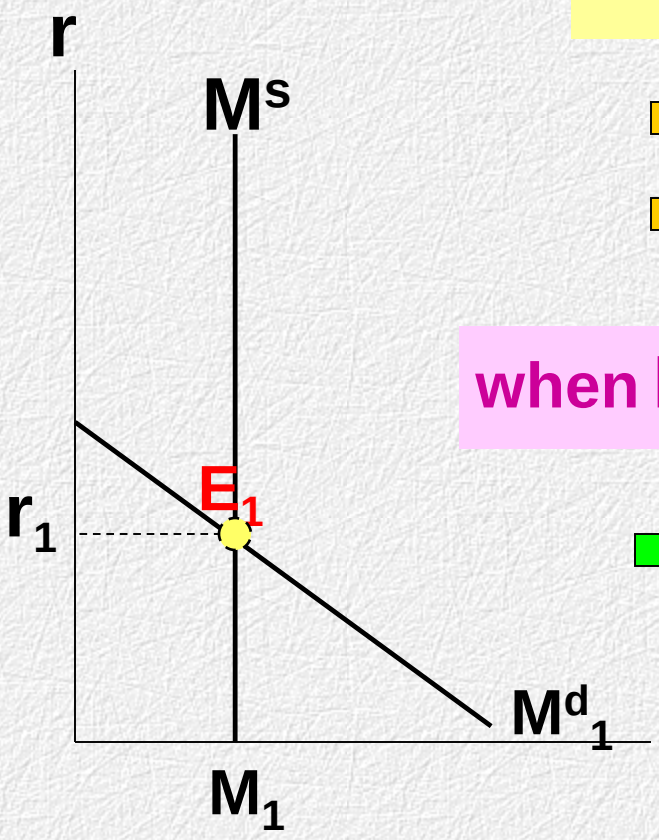
Equi^{m} changes from

when $M^s = M^s_2$ **at r_1**

Note: when $M^s > M^d \rightarrow \therefore r\downarrow$ in order to $\uparrow M^d$ until $M^d = M^s$

Start with
M^d_1, M^s_1, E_1

If people income ↑



Equi^m changes from

when $M^d = M^d_2$ **at r_1**