ธนาคารแห่งประเทศไทย

Additional notes to Lecture 3.

Supply and Demand in the bond market

1) Demand curve

ex 1 year discount bond

the bond pays owner face value of \$1000 in a year.

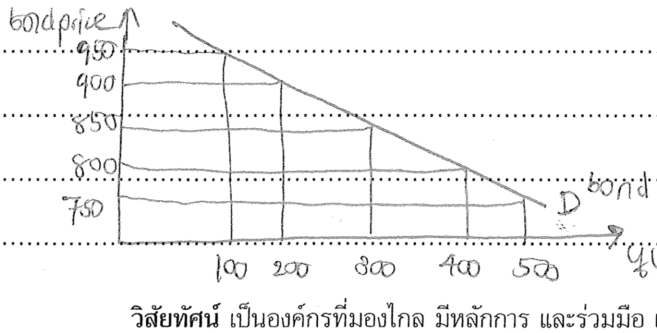
∴ coupon = 0 holding period = 1 year

price → $PV = \frac{FV}{(1+i)^1}$ ← face value $\Rightarrow i = \frac{FV}{PV} - 1 = \frac{FV - PV}{PV}$

- If bond price = \$950 ⇒ PV = 950 Quantity Demand for bond:
  $i = \frac{1000-950}{950} = 0.053 = 5.3\%$ ⇒ Assume D = \$100 billion
- If bond price = \$900
  $i = \frac{1000-900}{900} = 0.111 = 11.1\%$ ⇒ " D = \$200 billion
- If bond price = \$850
  $i = \frac{1000-850}{850} = 17.6\%$ ⇒ = \$300
- If bond price = \$800
  $i = \frac{1000-800}{800} = 25\%$ ⇒ = \$400
- If bond price = \$750
  $i = \frac{1000-750}{750} = 33\%$ ⇒ = \$500

As expected return on bond ↑ → Quantity demand for bond ↑,
(price of bond ↓)

When all other economic variable beside bond price & i are held constant



Bond supply curve

When interest rate is low → less costly to borrow fund by issuing bond

∴ firm will be willing to issue more bond.

↳ positive relationship between bond price and quantity supply of bond.