

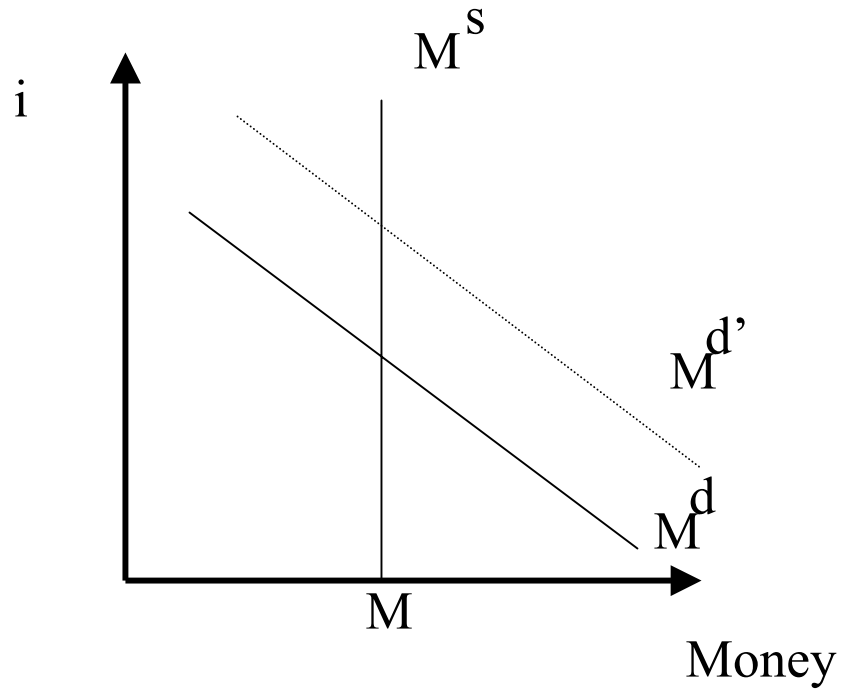
Lecture 6: Financial Markets (Cont.)

- Current events (Bloomberg 09/24/01)
 - **Singapore Bank Cuts Prime Rates as Premier Goh Warns of Extended Recession**
United Overseas Bank Ltd. cut the interest it charges best customers by half a percentage point, becoming the first Singapore lender since 1998 to lower its prime rate as loan growth slows due to a weakening economy
- Review Lecture 5
 - Simple model: i
- Banks

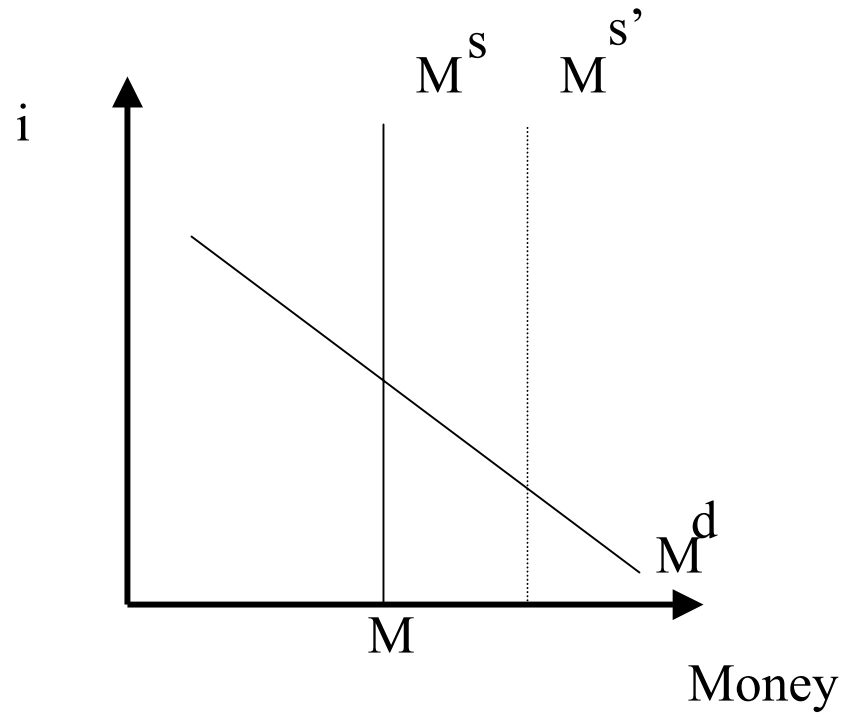
Equilibrium Interest rate

- Simple model:
 - Money supply is constant (i.e. it doesn't depend on interest rate or P or Y)
- Equilibrium:
 - $M = P Y L(i)$
- Our interest is to determine the interest rate, so we fix P and Y .

Equilibrium



Monetary Policy



Open Market Operation

- Central Bank buys bonds in the open market
- As a result, price of bonds rises

=> interest rate falls

$$i = \frac{\$100 - P_B}{P_B}$$

Banks

- Financial intermediation
 - Institutions (many) that receive money from people
 - Buy stocks, bonds, make loans,...
- Banks: Liabilities are money (checkable deposits can be used to pay for transactions)

Key Balance Sheets

Banks

assets	liabilities
Reserves	Checkable Deposits
Loans	
Bonds	

Central Bank

Bonds	Central Bank Money = Reserves + Currency
-------	--

Central Bank Money

≠

Money

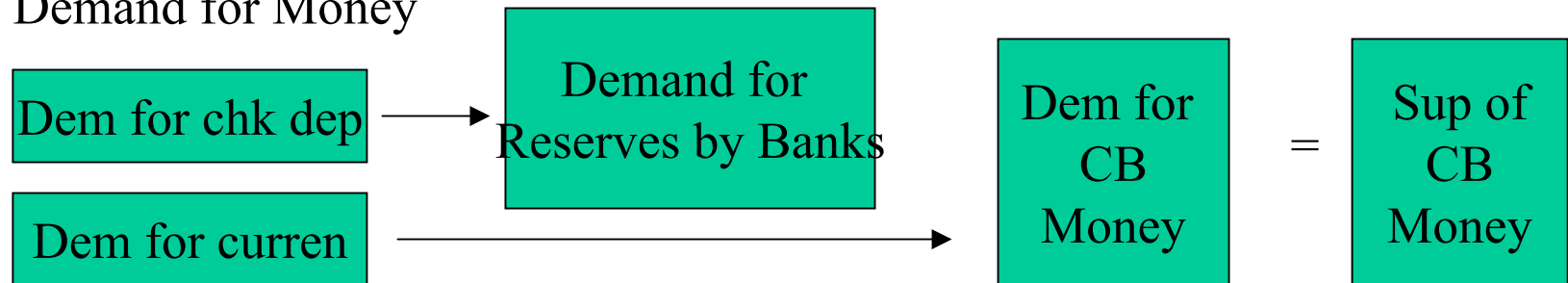
Banks in Money Supply

- Not all Central Bank Money is held as currency by the public.
 - Some is held as reserves by banks
- Why do banks hold reserves
 - mismatches (depositors, other banks)
 - legal requirement (about 10% in U.S.)
 - RESERVE RATIO (reserves to chk.deposits)
- Assume no loans (only bonds)

Supply and Demand for Central Bank Money

Warning: this is non-standard; often done directly on Money
Neat: This Supply is controlled by Central Bank!

Demand for Money



Equilibrium Interest Rate

$$\begin{aligned}M_d &= P Y L(i) \\CU_d &= c M_d \\D_d &= (1-c) M_d\end{aligned}$$

$$\begin{aligned}R &= \theta D \\&\Rightarrow \\R_d &= \theta (1-c) M_d\end{aligned}$$

$$\begin{aligned}H &= CU_d + R_d \quad (\text{supply CB} = \text{demand CB}) \\H &= [c + \theta (1-c)] M_d \\H &= [c + \theta (1-c)] P Y L(i)\end{aligned}$$

Equilibrium in M rather than Central Bank M

$$M_s = \frac{H}{c + \theta(1-c)}$$

$$M_s = M_d \Rightarrow$$

$$\frac{H}{c + \theta(1-c)} = P Y L(i)$$

Examples: a) Y2k ; b) Prudence; c) OMO with multiplier