AGMP

i $\quad y_i$ = wages & salaries = w
interest bank deposits
dividends
comp gilt stock, MF sch
rental income
land or rent
royalties
consultancy

your income

$\sum y_i = ?$ National income

i = Set of residents

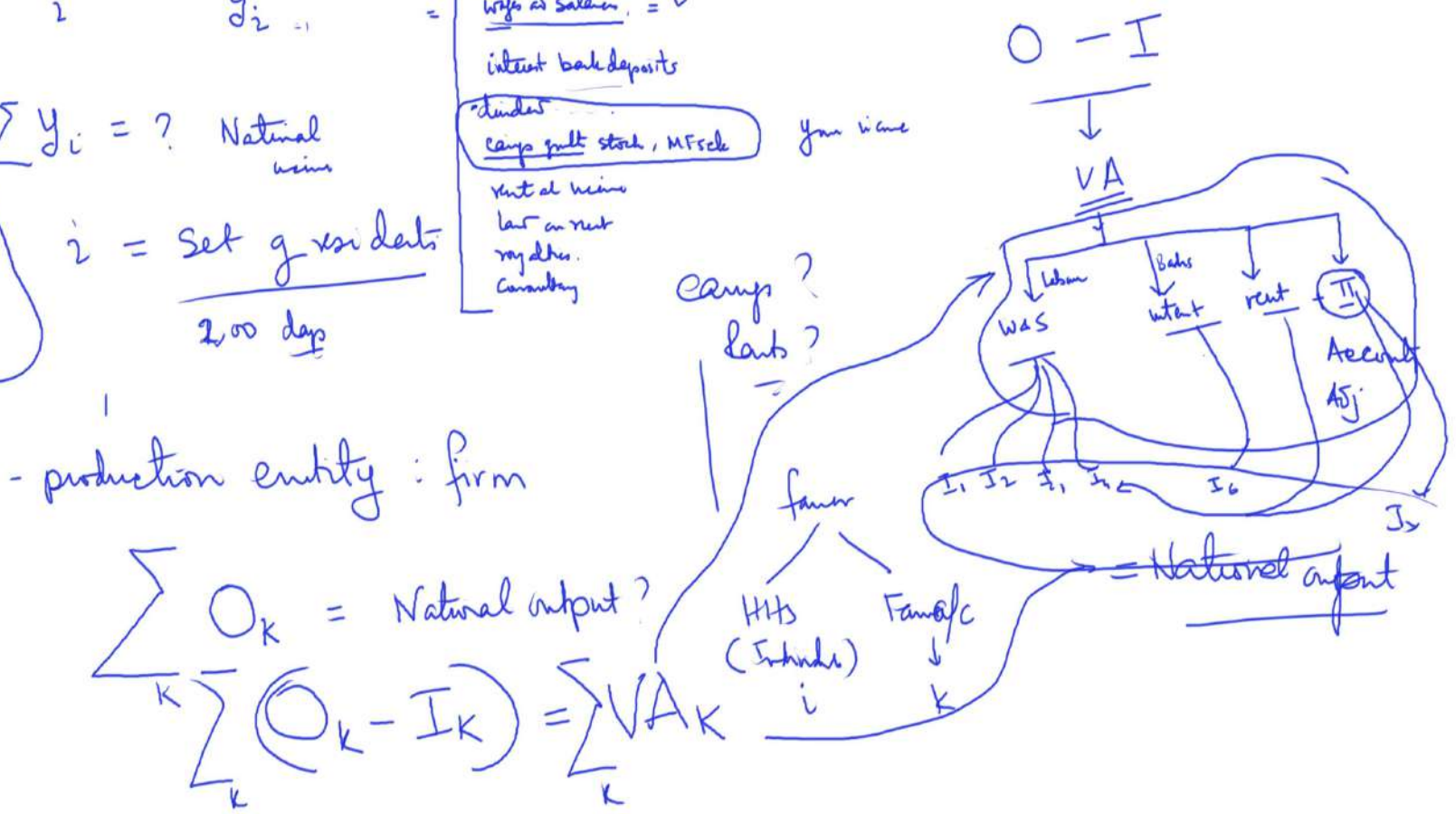
200 days

$$\sum_i y_i = \sum_k (O_k - I_k) \equiv \sum_k VA_k$$

k - production entity : firm

$$\sum_K O_K = \text{National output?}$$

$$\sum_k (O_k - I_K) = \sum_K VA_K$$



What is I_k ?

$$\sum_i y_i = \sum_k VA_k \equiv \sum_k (O_k - I_k)$$

$$NO = \sum_g FG_g$$

What is input I_k ?

labour ~~Investments~~

RM

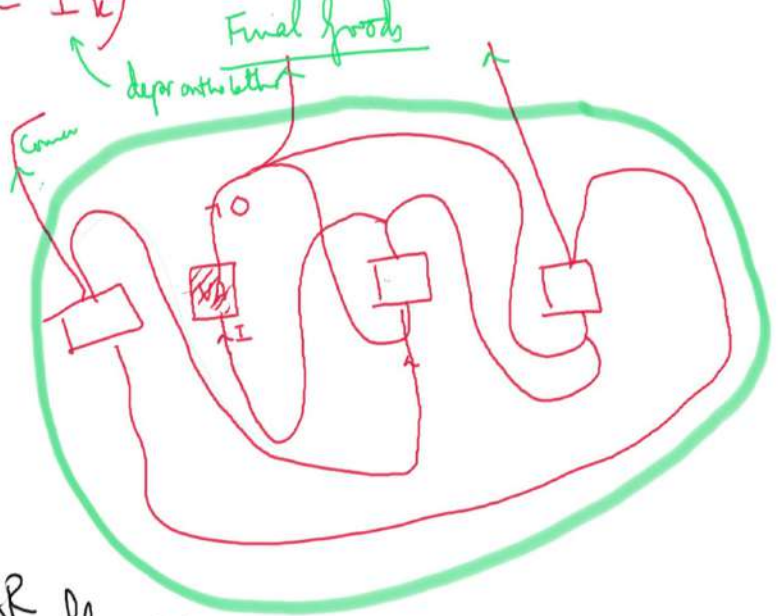
Capital goods

~~Taxes~~

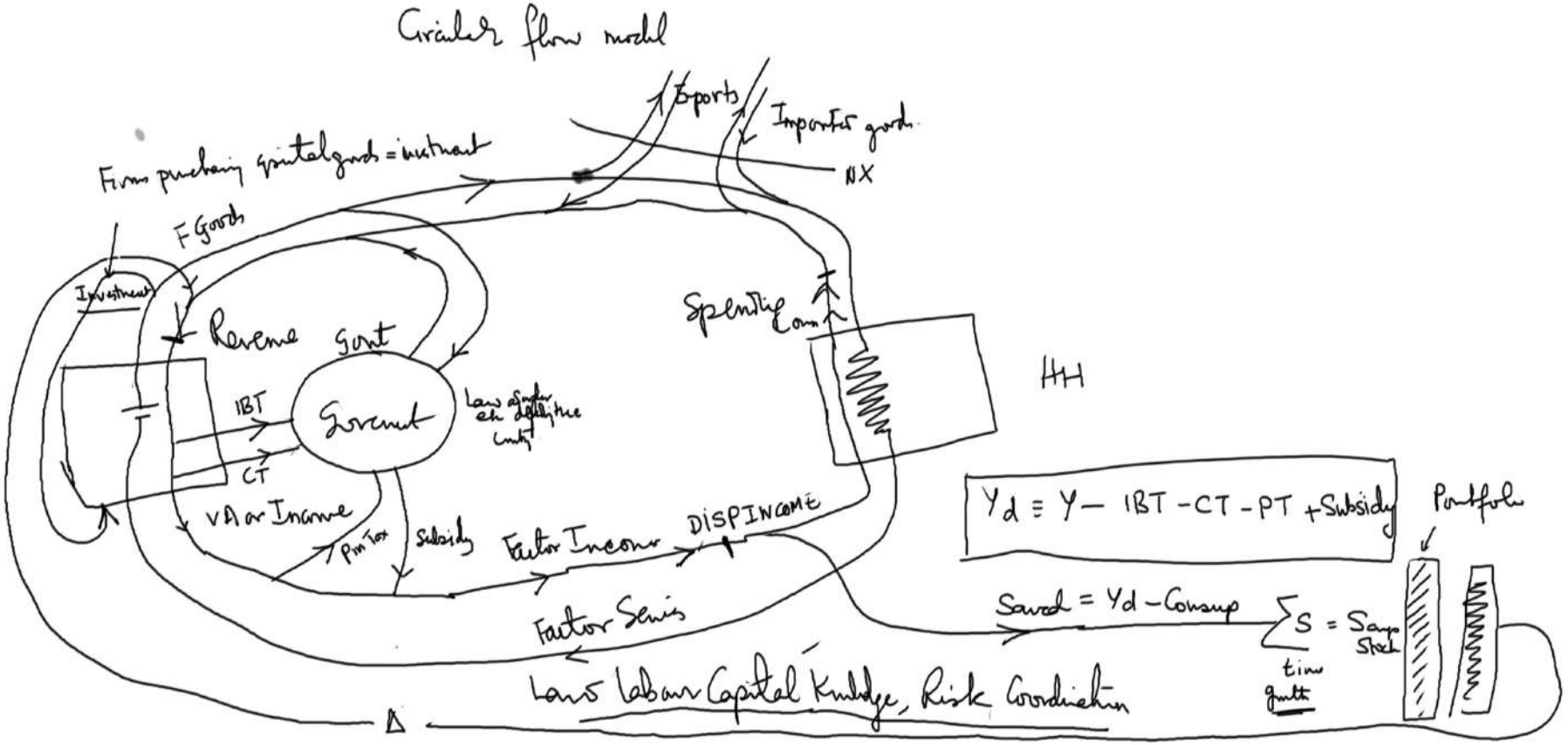
~~VA~~

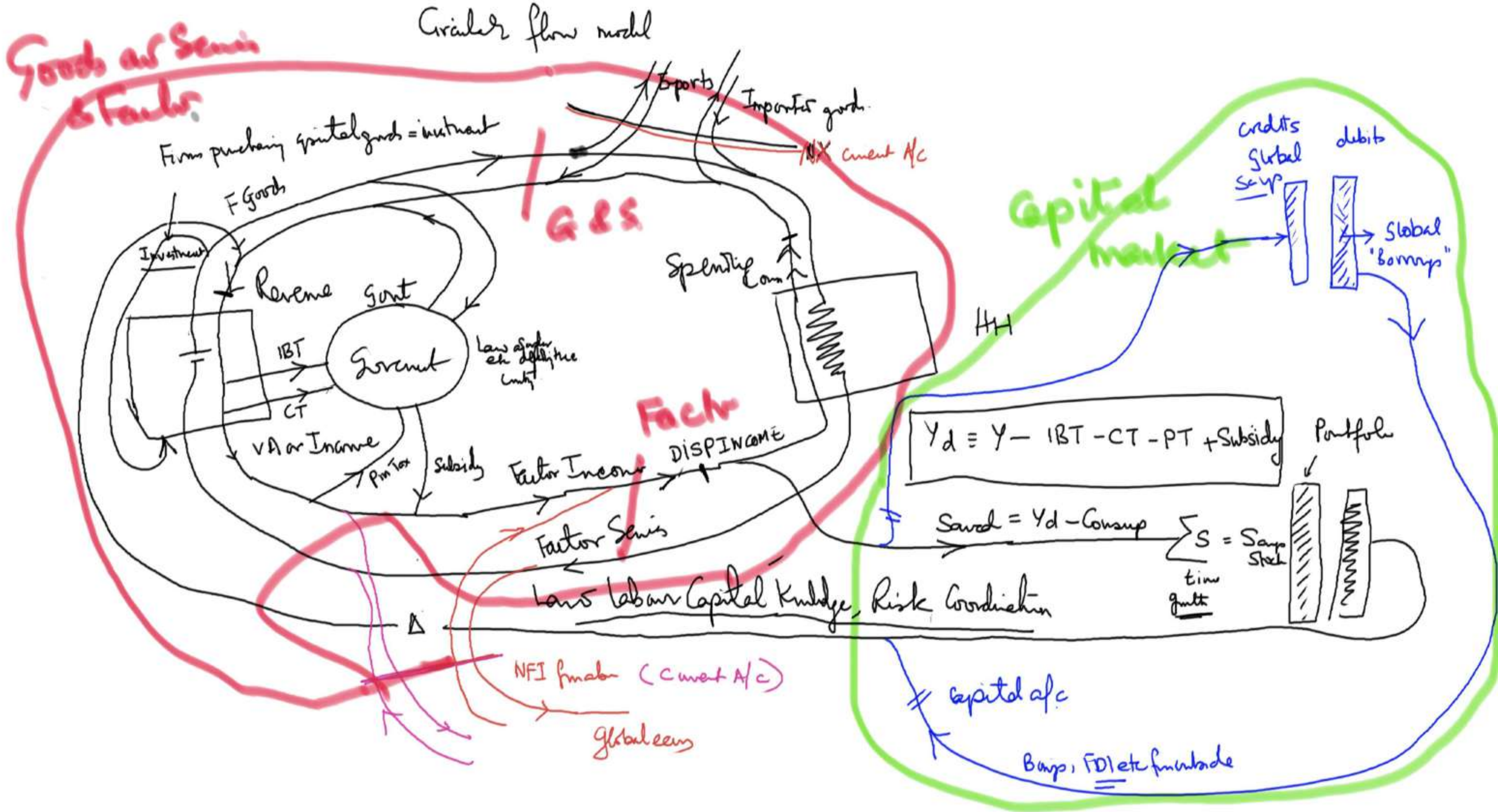
~~Capital~~

$$NO = \sum_g FG = \sum_i y_i = \sum_k O_k - I_k$$



CIRCULAR flow of Income etc


Circular flow model
Exports
Imported goods
NX
Firms purchasing capital goods = investment
F Goods
Investment
Revenue
Govt
Spending
Govt
HH
IBT
CT
VA or Income
Prod Tax
Subsidy
Factor Income
DISPINCOME
Yd ≡ Y − IBT − CT − PT + Subsidy
Portfolio
Saved = Yd − Consump
ΣS = Savg Stock
time
Factor Servs
Land labour Capital Knowledge Risk Coordination
Δ



Circular flow model
Goods and Services & Factor
Exports
Imported goods
NX Current A/c
Firms purchasing capital goods = investment
G&S
F Goods
Investment
Revenue
Govt
Government
IBT
CT
VA or Income
Subsidy
Factor Income
DISPINCOME
Spending Consum
HH
Factor
Factor Services
Land Labour Capital Knowledge, Risk Coordination
NFI from abroad (Current A/c)
Global econ
Capital market
credits
Global savings
debits
Global "borrowings"
Yd = Y − IBT − CT − PT + Subsidy
Saved = Yd − Consump
∑ S = Savings Stock
time
Portfolio
capital a/c
Borrowings, FDI etc from abroad

GDP = y = Expenditure ≡ Consumption + Govt Expenditure + (Exports − Imports) + Investment (Capital goods by the economy)

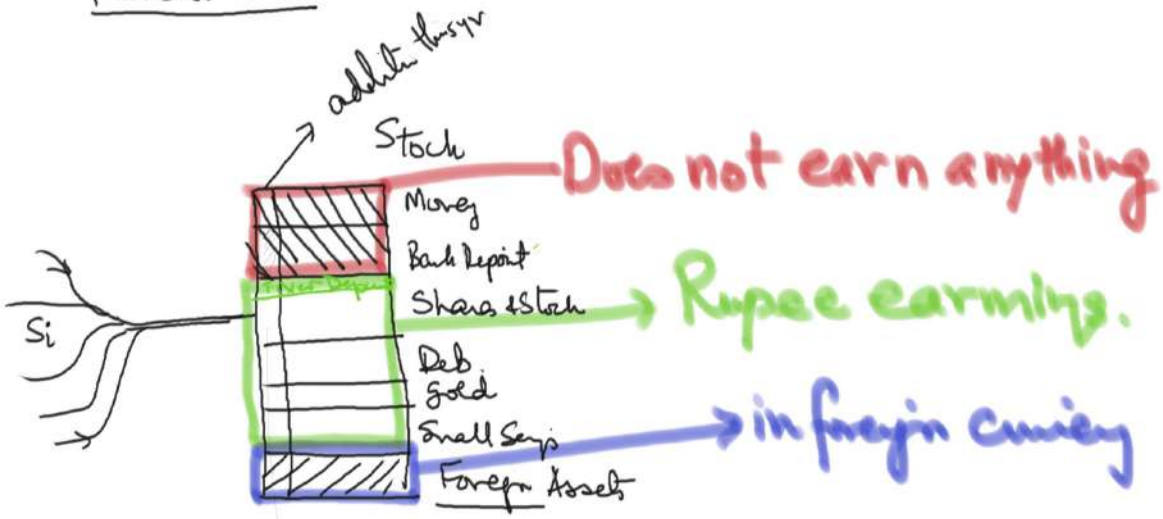
Contrib to Intuition

Macroeconomics defines deficits & surpluses in the short run

Demand overrides Supply FS: full supply of the economy

- if D < FS then D is produced hence D is also income
- if D = FS " "
- if D > FS " then too" D is produced over the short-run period (18 months) after them $\tilde{P}_{(infl.)}$ rises, as finally D falls to FS supply

Financial Sector



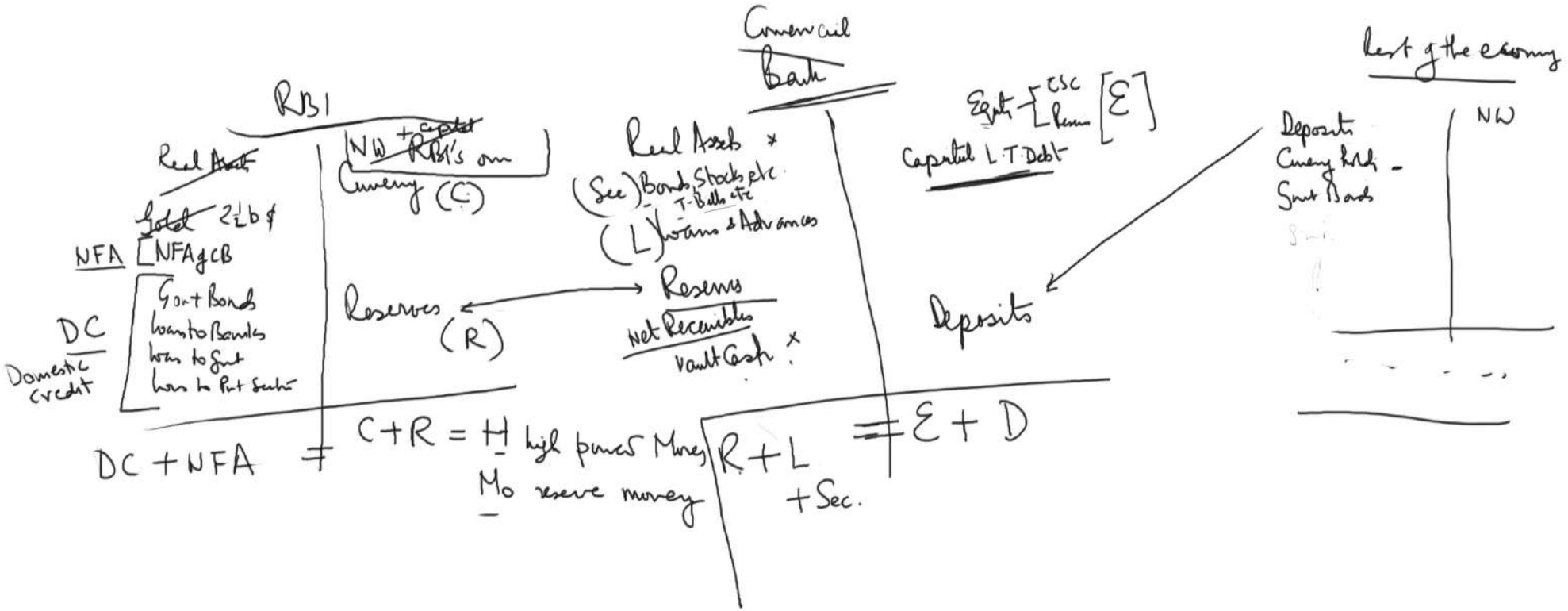
#How is money created?

- What is money?
  - medium of exchange
  - measure of value
  - Standard for deft pay
  - Would like to imagine that all assets have value means is money
  - Universally accepted.

What is money in India?

- Currency
- Promissory note × [M_1 = Currency + Deposits] narrow money
  - → Current A/c
  - → Savings A/c

∴ M_3


RBI
Commercial Bank
Rest of the economy
Real Assets
NFA
NFA of CB
DC
Domestic credit
Govt Bonds
loans to Banks
loans to Govt
loans to Pvt Sector
Reserves
(R)
Reserves
Net Receivables
vault Cash
Deposits
Equity
ESC
Reserves
Capital
L.T Debt
(See) Bonds, Stocks etc
T-Bills etc
(L) loans & Advances
Deposits
Currency held -
Govt Bonds
NW
DC + NFA = C + R = H high power Money
Mo reserve money
R + L + Sec. = E + D

Open market operations (OMO)

RBI

Assets	Liabilities
Real Asset	NW + capital, RBI's own
Gold 2½ b $	Currency (C)
NFA: NFA of CB +1000	
DC (Domestic credit): Govt Bonds, loans to Banks, loans to Govt, loans to Pvt Sector	Reserves (R) +1000

$$DC + NFA \equiv C + R = H$$ high power Money, 1000

M_0 reserve money

Commercial Bank

Assets	Liabilities
Real Assets	Equity: ESC, Reserves [E]
(Sec) Bonds, Stocks etc., T-Bills etc.	Capital, L.T. Debt
(L) Loans & Advances	100 CRR, 100 SLR
Reserves (CRR) +1000, +900, +810	Deposits +1000, +900, +810
Net Receivables −900, 800	
Vault Cash +900, −810 (E 300)	

$$R + L + Sec. \equiv E + D$$ (Equity, Capital)

10%

Rest of the economy Govt

Deposits +1000, +900, +810	NW
Currency holdings	loans + 900, + 810, +
Govt Bonds + −1000	

BS ↑ 1000 x mm

Let the RBI buy 1000 $ bond from people

money multiplier

$$\text{Money multiplier} = \frac{\text{Money}}{H} = \frac{C + D}{C + R} = \frac{C/D + 1}{C/D + R/D}$$

$$mm \text{ (constant)} = \frac{cu + 1}{cu + crr} \approx \frac{0.3 + 1}{0.3 + 0.1} = \frac{1.3}{.4} = 3.2$$

$$M \equiv H \cdot mm$$

$$1000\,(1 + 0.9 + 0.9^2 + 0.9^3 + 0.9^4 \ldots) = 1000\,\frac{1}{1 - 0.9} = 10{,}000 \text{ (multiplication)}$$

Money multiplier!

$$\frac{1}{1/10}\quad 5 = 5$$

$$\frac{0.05 + 1}{0.3 + 0.05} = \simeq 3 \text{ times}$$

Real

loans IOUs — 59

(Physical) gold → 40

Bank

gold (Equity) 10

gold (Deposits) 90

tickets

90 − 40

$\frac{40}{90} \approx 50$

RBI

US Sec/£ = NFA

Govt Bonds

C

NFA+DC

H ~ M

4.0

25

H