Formula Sheet: Final
Econ 4673
Dr. Keen

M1 = currency + traveler's checks + demand deposits + other checkable deposits + savings deposits

M2 = M1 + small time deposits + retail money market mutual funds

MZM = M1 + retail money market mutual funds + institutional money market mutual funds

$$PV = \frac{CP}{(1+i)^n}$$

Coupon rate = coupon payment/face value

$$LV = \frac{FP}{(1+i)} + \frac{FP}{(1+i)^2} + \cdots + \frac{FP}{(1+i)^n}$$

$$P = \frac{C}{(1+i)} + \frac{C}{(1+i)^2} + \cdots + \frac{C}{(1+i)^n} + \frac{F}{(1+i)^n}$$

$$P = \frac{F}{(1+i)^n}$$

$$P = \frac{C}{(1+i)} + \frac{C}{(1+i)^2} + \frac{C}{(1+i)^3} + \cdots$$

$$R = \frac{C}{P_t} + \frac{P_{t+1} - P_t}{P_t}$$

$$R = r + \pi^e$$

$$R_{n,t} = \frac{R_{1,t} + R_{1,t+1} + R_{1,t+2} + \cdots + R_{1,t+n-1}}{n}$$

$$R_{n,t} = \frac{R_{1,t} + R_{1,t+1} + R_{1,t+2} + \cdots + R_{1,t+n-1}}{n} + l_{n,t}$$

$$P_t = \frac{D_{t+1}}{(1+k)} + \frac{D_{t+2}}{(1+k)^2} + \cdots + \frac{D_{t+n}}{(1+k)^n} + \frac{P_{t+n}}{(1+k)^n}$$

$$P_t = \sum_{n=1}^{\infty} \frac{D_{t+n}}{(1+k)^n}$$

$$P_t = \frac{D_t \times (1+g)^*}{(k-g)}$$

$$R_t^{of} = \frac{P_{t+1}^{of} - P_t + C}{P_t}$$

Total assets = total liabilities + bank capital

$$\text{ROA= net profit after taxes/assets}$$

$$\text{EM = assets/bank capital}$$

$$\text{ROE = net profit after taxes/bank capital}$$

$$\Delta\text{Profits} = [\text{Assets(st)} - \text{Liabilities(st)}]\times\Delta R$$

$$\Delta\text{Market value} = [(\text{Assets}\times D_A) - (\text{Liabilities}\times D_L)]\times[-\Delta R]$$

$$\text{LR = bank capital/assets}$$

$$\text{RWA} = 0.0*\text{R\&GS} + 0.2*\text{B} + 0.5*\text{ MB\&RM} + 1.0*\text{L}$$

$$\text{Total reserves = nonborrowed reserves + borrowed reserves}$$

$$M^B = CU + TR$$

$$TR = rr\times ChD$$

$$M^S = m\times M^B$$

$$M^S = CU + ChD$$

$$CU = c\times ChD$$

$$M^S = [(1 + c)/(c + rr)]\times M^B$$

$$R = r + \pi + 0.5\times(\pi - \pi^*) + 0.5\times[(Y - Y^*)/Y^*]$$

$$M^S\times V = P\times Y$$

$$\%\Delta M^S + \%\Delta\overline{V} = \%\Delta P + \%\Delta Y$$

$$BD = G - T$$

$$BD = \Delta B + \Delta MB$$

$$M^D/P = L(Y,R)$$

$$Y = C + I + G + NX$$

$$Y^D = Y - T$$

$$C = \overline{C} + MPC\times(Y - T)$$

$$I = \overline{I} - d\times(r + \overline{f})$$

$$G = \overline{G}$$

$$T = \overline{T}$$

$$NX = \overline{NX} - x\times r$$

$$R = \overline{r} + \pi + \theta\times(\pi - \pi^*)$$

$$\pi = \pi^e + \gamma\times(Y - Y^P)/Y^P + \rho$$