Macro Equation Sheet

Percent change in price: $\%\Delta P = \frac{P_{is} - P_{was}}{P_{was}} 100\%$

Percent change in quantity: $\%\Delta Q = \frac{Q_{is} - Q_{was}}{Q_{was}} 100\%$

Elasticity: $\varepsilon = \frac{\%\Delta Q}{\%\Delta P}$

Consumer Price Index: $CPI_{2003} = \frac{PL_{2003}}{PL_{base\ year}} 100\%$

Inflation Rate: $\pi = \frac{CPI_{is} - CPI_{was}}{CPI_{was}} 100\%$

Change in Inflation: $\Delta\pi = \pi_{is} - \pi_{was}$

Real GDP Growth Rate: $g = \frac{GDP_{is} - GDP_{was}}{GDP_{was}} 100\%$

Unemployment Rate: $u = U / L$ (where $U = L - E$)

Disposable Income: $DI = Y - T$ (where $Y = GDP^{real}$)

Marginal Propensity $mps = 1 - mpc$

Consumption: $C = [W - PL + Y_e - r] + mpc \cdot DI$

Snarrian Consumption: $C = [W - PL + Y_e - r - mpc \cdot T] + mpc \cdot Y$

Import Function: $M = mpm \cdot Y$

Aggregate Expenditure: $AE = [W - PL + Y_e - r - mpc \cdot T + I + G + X] + \{mpc - mpm\} \cdot Y$

Aggregate Demand: $PL_{AD} = [W + Y_e - r - mpc \cdot T + I + G + X] - \{mps + mpm\} \cdot Y$

Production Function: $Y = Z \cdot \sqrt{K \cdot R \cdot (E - U_n)}$

LRAS Function: $Y_p = Z \cdot \sqrt{K \cdot R \cdot L}$

SR Aggregate Supply: $PL_{SRAS} = [w + p + t - b \cdot Y_p] + b \cdot Y$

Demand for Reserves: $i_{ff} = [\rho \cdot D + S] - \beta \cdot Q_R^D$

Supply of Reserves: Vertical part = $R_N + R_B$

Horizontal part = i_d