**ECON 206 Formula Sheet Final – page 1**

**Indexes**

$$I_L = \frac{\sum q_1 p_0}{\sum q_0 p_0};\quad I_P = \frac{\sum q_1 p_1}{\sum q_0 p_1};\quad I_F = \frac{I_L + I_P}{2}$$

**Growth**

$$Y_t = Y_0\left(1+\bar{g}\right)^t$$

$$z = x/y \Rightarrow g_z = g_x - g_y$$

$$z = xy; \Rightarrow g_z = g_x + g_y$$

$$z = x^a \Rightarrow g_z = a g_x$$

**Solow**

| | | | |
|---|---|---|---|
| $Y_t = \bar{A}K_t^{\alpha} L_t^{\beta}$ | $\Delta \mathrm{K}_t = \bar{s}Y_t - \bar{d}\mathrm{K}_t$ | $L_t = \bar{L}$ | $C_t + I_t = Y_t$ |

**Romer**

| | | | |
|---|---|---|---|
| $Y_t = A_t L_{yt}$ | $\Delta A_t = \bar{z} A_t L_{at}$ | $\mathrm{L}_{yt} + \mathrm{L}_{at} = \bar{N}$ | $\mathrm{L}_{at} = \bar{l}\,\bar{N}$ |
| $y_t = \bar{A}_0\left(1-\bar{l}\right)\left(1+\bar{g}\right)^t$ | | $\bar{g} = \bar{z}\,\bar{l}\,\bar{N}$ | |

**ECON 206 Formula Sheet Final Page 2**

| | |
|---|---|
| $pdv(k) = \frac{X_0}{(1+R)^k}$ | $pdv^{n+1} = \bar{X}_0 \frac{1-\left(\frac{1}{1+R}\right)^{n+1}}{1-\frac{1}{1+R}}$ |
| $M_t V_t = P_t Y_t$ | $R_t = i_t - \pi_t$ |
| $\tilde{Y}_t = \frac{Y_t - \bar{Y}_t}{\bar{Y}_t}$ | $u - \bar{u} = -\frac{1}{2}\tilde{Y}$ |
| $\tilde{Y}_t = \bar{a} - \bar{b}\left(R_t - \bar{r}\right)$ | $\bar{a} = \bar{a}_c + \bar{a}_i + \bar{a}_g + \bar{a}_{ex} - \bar{a}_{im} - 1$ |
| $\Delta\pi_t = \bar{v}\tilde{Y}_t + \bar{o}$ | $R_t - \bar{r} = \bar{m}\left(\pi_t - \bar{\pi}\right)$ |
| $\tilde{Y}_t = \bar{a} - \bar{b}\bar{m}\left(\pi_t - \bar{\pi}\right)$ | $\pi_t = \pi_{t-1} + \bar{v}\tilde{Y}_t + \bar{o}$ |
| $G_t + Tr_t + iB_t = T_t + \Delta B_t + \Delta M_t$ | $Y = C + I + G + EX - IM$ |
| $P^W = PE$ | $\mathrm{Re}\,alE = E\frac{P}{P^W}$ |