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**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**

$$Y_t = Y_0 (1 + \bar{g})^t; \quad \bar{g} = \left( \frac{Y_t}{Y_0} \right)^{1/t} - 1$$

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

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

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

**Solow**

|   |  |                 |                   |
|---|--|-----------------|-------------------|
| $Y_t = \bar{A} K_t^{\frac{1}{3}} L_t^{\frac{2}{3}}$ | $\Delta K_t = \bar{s} Y_t - \bar{d} K_t$ | $L_t = \bar{L}$ | $C_t + I_t = Y_t$ |
|---|--|-----------------|-------------------|

**Romer**

|                    |                                   |                             |                            |
|--------------------|-----------------------------------|-----------------------------|----------------------------|
| $Y_t = A_t L_{yt}$ | $\Delta A_t = \bar{z} A_t L_{at}$ | $L_{yt} + L_{at} = \bar{N}$ | $L_{at} = \bar{l} \bar{N}$ |
|--------------------|-----------------------------------|-----------------------------|----------------------------|

|   |                                     |
|---|-------------------------------------|
| $y_t = \bar{A}_0 (1 - \bar{l}) (1 + \bar{g})^t$ | $\bar{g} = \bar{z} \bar{l} \bar{N}$ |
|---|-------------------------------------|

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