$$dK_{i,t} = K_{i,t}\left(\left(\Phi(I_{i,t}) - \delta\right)dt + (1-\gamma)(\sigma^{GS} - \sigma^{i})dt + \sqrt{\sigma^{i}}\,dz_t\right)$$

$$\max E_0 \int_0^{\infty} e^{-\rho t}\left(u(c_t)\right)$$

$$dm_t = -c_t dt + (m_t - q_t k_t)\,dr_t^{B} + q_t k_t\, dr^{k}$$

Asum

$$\cancel{dr_t^{k,i} = \mu_t^{r^k}}$$

$$dr_t^{k,i} = \mu_t^{r} dt + \sigma_t^{r} dz_t$$

$$dr_t^{k} = \frac{d(q_t^{k} K_{i,t})}{q_t^{k} \cdot K_{i,t}} + \frac{(a - I_t)}{q_t}\,dt$$

$$dr_t^{B} = \mu_t^{r,B} dt + \sigma^{r,B} dz$$

$$dr_t^{B} = i_t + \frac{d\left(\frac{q_t^{B} K_t}{B_t}\right)}{\frac{q_t^{B} \cdot K_t}{B_t}}$$

a)

$$d\vartheta = \mu^{\vartheta}\vartheta\, dt + \sigma^{\vartheta}\vartheta\, dz$$

$$dq_B = q_B \mu^{q_B} dt + q_B \sigma^{q_B} dz$$

$$dq_K = q_K \mu^{q_K} dt + q_K \sigma^{q_K} dz$$

b) $\vartheta = \dfrac{q_B}{q_B + q_K}$

$\cancel{\vartheta\vartheta = \dfrac{q}{}}$

$$\vartheta_{q_B} = \frac{q_K}{(q_B + q_K)^2} \qquad \vartheta_{q_K} = -\frac{q_B}{(q_B + q_K)^2}$$

$$\vartheta_{q_K q_K} = \frac{2q_B}{(q_B + q_K)^3} \qquad \vartheta_{q_B q_B} = -\frac{2q_K}{(q_K + q_B)^3}$$

$$\vartheta_{g_A g_B} = \frac{g_B - g_A}{(g_B + g_A)^3}$$

c) $\cancel{d\vartheta = \left(\frac{g_A}{g_B + g_A}\right)}$

$$d\vartheta = \frac{g_A}{(g_B+g_A)^2}\left(g_B\, u^{g_B} d_t + g_B\, \sigma^{g_B} d_2\right)$$

$$- \frac{g_B}{(g_B+g_A)^2}\, g_A\left(u^{g_A} d_t + \sigma^{g_A} d_2\right)$$

$$+ \frac{1}{2}\left(\frac{2g_B}{(g_B+g_A)^3}(g_A)^2\left(u^{g_A} d_t + \sigma^{g_A} d_2\right)^2 - \frac{2g_A}{(g_A+g_B)^2}(g_B)^2\left(u^{g_B} d_t + \sigma^{g_B} d_2\right)^2 - \frac{g_B - g_A}{(g_B+g_A)^3}(g_A)(g_B)\left(u^{g_A} d_t + \sigma^{g_A} d_2\right)\left(u^{g_B} d_t + \sigma^{g_B} d_2\right)\right)$$

CUADRICULADO

Justus

Escaneado con CamScanner

$$d\vartheta = (\vartheta)(1-\vartheta)\left(u^{q_B} dt + \sigma^{q_B} dz\right) - (\vartheta)(1-\vartheta)u^{q_B} dt$$

$$+ (\vartheta)(1-\vartheta)(1-\vartheta)\,\sigma^{q_K 2} dt$$

$$- (\vartheta)^2(1-\vartheta)\left(\sigma^{q_B}\right)^2 dt$$

$$+ \underbrace{\frac{(q_B - q_K)}{(q_B + q_K)^3}\, q_K q_B \left(\sigma^{q_B} \cdot \sigma^{q_K}\right) dt}_{\left(\frac{\vartheta^2(1-\vartheta)}{} - \left(\frac{\vartheta(1-\vartheta)^2}{}\right)\right)\sigma^{q_B} \cdot \sigma^{q_K} dt}$$

$$\cancel{(\vartheta)(1-\vartheta)\left(u^{q_B} - u^{q_K}\right) dt + \left(\sigma^{q_B} - \sigma^{q_K}\right) dz)}$$

$$\cancel{(\vartheta)(1-\vartheta)^2(\sigma^{q_K})^2 - (\vartheta)^2(1-}$$

$$\cancel{\vartheta(1-\vartheta)^2 - (\vartheta)^2(1-\vartheta)(\sigma^{q_B})^2 dt}$$

$$\cancel{\frac{\vartheta(1-\vartheta)^2(\sigma^{q_K})}{2}}$$

$$dk_{ti} = k_{it}\left(\Phi(I_{it}) - \delta\right)dt + \sigma\, dz)$$

$$dk = \int \left(\Phi(I_{it}) - \delta\right) k_{it}\, di\, dt$$

$$dr_t^k = \left(\frac{a - I_t}{q_t}\right) dt + d\left(\frac{q_t k_t}{q_t k_t}\right)$$

$$dr_t^k = \left(a - i_t\right) dt + \left(\frac{1}{q_t k_t}\right)$$

$$d(q_t^k k_t) = k_t \cdot \left(\mu^{qk} q^k + \sigma^{qk} dz\, q^k\right)$$

$$q(k_t)\left(\left(\Phi(I_{it}) - \delta\right) + \sigma\, dz\right)$$

$$dr_t^k = \left(a - \frac{I}{q_t}\right) dt + \left(\mu^{qk} dt + \sigma^{qk} dz\right)$$

$$+ \left(\Phi(I_{it}) - \delta\right) dt + \sigma\, dz$$

$$\cancel{dB = N^{gB}}$$

$$d\varphi = (\varphi)(1-\varphi)\left(N^{gB} - N^{gK} + (1-\varphi)(\sigma^{gK})^2 - (\varphi)\sigma^{gB}\right)$$

$$+ \left(\varphi - (1-\varphi)\right)\sigma^{gK} \cdot \sigma^{gB})\,dt$$

$$\left(\sigma^{gB} - \sigma^{gK}\right) dz$$

$$\cancel{(\varphi)(1-\varphi)\left(\sigma^{gK} - \sigma^{gB}\right)\left(\sigma^{gK} + \sigma^{gB}\right)}$$

$$\boxed{\left(\sigma^{gK} - \sigma^{gB}\right)\left((1-\varphi)\sigma^{gK} + \varphi\sigma^{gB}\right)}$$

$$d\vartheta = \vartheta(1-\varphi)\left(\left(N^{gB} - N^{gK}\right) + \right.$$

$$\left(\sigma^{gK} - \sigma^{gB}\right)\left((1-\vartheta)\sigma^{gK} + \vartheta\sigma^{gB}\right)$$

$$\left(\sigma^{gB} - \sigma^{gK}\right) dz$$

ICULADO

Justus

Escaneado con CamScanner

$$dV_t^B = d\left(\frac{y^B K_t}{B_t}\right) =$$

$$\frac{y_t^B K_t}{B_t}$$

$$d\left(\frac{y^B K_t}{B_t}\right) = \frac{K_t}{B_t}\left(\mu^{yB} dt + \sigma^{yB} dz\right)$$

$$+ \frac{y_t}{B_t}\left(K_t\right)\left(\Phi(1) - r\right)dt$$

$$+ \frac{y_t^B K_t}{B^B}\left(B\right)\left(r_t^B\right)$$

$$dV_t^B = \mu^{yB} dt + \sigma^{yB} dz + \left(\Phi(1) - r\right)dt$$

$$+ r^B dt$$

$$\max E\int e^{-\rho t}(u_{cc})$$

$$dm = -c_t\,dt + (m - g_t^k k_t^k)\,dr_t^B + g_t^k k_t\,dr_t^k$$

$$\frac{dm}{m} = m\left(-\frac{c_t}{m} + \frac{g_t^k k_t}{m}\right)\left(\frac{a-1}{g_t}\right.$$

$$+ (\mu^{gk}\,dt + \sigma^{gk}\,dz) + (\Phi(1) - \gamma)\,dt$$

$$+ \sigma\,dz$$

$$+ g_t + \left(1 - \frac{g_t^k k_t}{m}\right)\left(\mu^{gB}\,dt\right.$$

$$(\Phi(1) - \gamma)\,dt + \mu^B + \sigma^{gB}\,dz)$$

$\beta(\log q + \log n)$ $(x^2)(\sigma$

$$\cancel{\frac{dn}{n} = \frac{c_t}{n} + (1-\gamma)(\nu_t^n)}$$

$$\frac{dn}{n} = -\frac{c}{n} + (\cancel{1-\gamma})\left(\nu^{qk} + \phi(1) - \gamma\right)\left(\frac{-1}{q}\right)dt$$

$$+(1-\gamma)\left(\nu^{qB} + \phi(1) - \gamma + \nu^{B}\right)dt$$

$$\cancel{\left(\gamma\left(\tilde{\sigma}_{\nu}^{qk}\right) + (1-\gamma)\left(\sigma^{qB}\right)\right)dz}$$

$$\gamma\left(\left(\sigma^{qk}\right) + 1 - \gamma\sigma\right)dz + \gamma\sigma dz$$

Asumir que

$$= \left(\frac{1}{\rho}\right)\nu(q, m)$$

$$\nu = \log(c_t)$$

$$E\left(\frac{V(q, m)}{dt}\right) =$$

$$\sigma\left(\frac{\log(q, m)}{dt}\right) = V_m dm + V_q dq + V_{mm}(dm)^2$$

$$V_{qq}(dq)^2$$

$$\frac{\partial E(U)}{\partial \mu} = \frac{1}{p\,m}\left(m\,\mu_t^m + \frac{1}{q}\left(q\,\mu^q\right)\right)$$

$$= \frac{1}{2}\left(\frac{1}{m^2}\right)\left(m^2\right)\left(\sigma^m\right)^2 - \frac{1}{2}\left(\sigma^q\right)^2$$

$$P\,\underline{U(q,m)} = \max_c \left\{ \left(\log c - \frac{c}{m}\right) \right.$$

$$\left. \max_{\gamma} \left\{ \frac{1}{2}\left(\sigma^m\right)^2 \cancel{\ldots} + \mu_t^m \right\} \right\}$$

$$\mu^q - \frac{1}{2}\sigma^q$$

CPO

$$\partial c = \frac{1}{c} - \frac{1}{m} = 0$$

$$c = m$$

CPO

$$\partial x = \mu^{q_t} - \mu^{q_B} - \mu^B + \frac{a-1}{q_t}$$

$$\cancel{+\gamma\left(\sigma + \sigma^{q_t}\right)^2 - \gamma\left(\sigma^{q_B}\right)^2}$$

$$\cancel{\nu^{q_k} - \nu^{q_B} - \nu^{B} + \frac{a-1}{q_t} +}$$

$$\cancel{\gamma\left(\left(\bar{\sigma} + \sigma^{q_k} - \sigma^{q_B}\right)\left(\sigma^{q_B} + \bar{\sigma} + \sigma^{q_k}\right)\right) = 0}$$

$$2\gamma = \nu^{q_k} - \nu^{q_B} - \nu^{B} + \frac{a-1}{q_t} +$$

$$\cancel{\left(\gamma\left(\sigma^{q_k}\right) + (1-\gamma)\right)}$$

$$\frac{1}{2}\left(\gamma\left(\sigma^{q_k}\right) + (1-\gamma)\left(\sigma^{q_B}\right)\right)^2 + \left(\gamma\bar{\sigma}\right)^2$$

$$\frac{1}{2}\left(2\sigma^{q_k}\sigma^{q_B} + 2\left(\sigma^{q_k}\right)^2\gamma + 2\left(\sigma^{q_B}\right)^2\gamma + 4\sigma^{q_k}\sigma^{q_B}\gamma + \cancel{\left(\sigma^{q_B}\right)^2 + 2\gamma\left(\bar{\sigma}\right)^2} + \sigma^{q_B} + 2\gamma\bar{\sigma}^2\right)$$

$$2\gamma = \nu^{q_k} - \nu^{q_B} - \nu^{B} + \frac{a-1}{q_t}$$

$$+ \gamma\left(\sigma^{q_k} - \sigma^{q_B}\right)^2 + \sigma^{q_k}\sigma^{q_B} - \left(\sigma^{q_B}\right)^2$$

$$+ \bar{\sigma}^2(\gamma) = 0$$

$$\cancel{\nu^{q_k} - \nu^{q_B}}$$

$$\gamma\left(\sigma^{q_A}-\sigma^{q_B}\right)\left(\sigma^{q_A}-\sigma^{q_B}\right)+$$

$$\sigma^{q_B}\left(\sigma^{q_A}-\sigma^{q_B}\right)$$

$$\left(\gamma\sigma^{q_A}-\gamma\sigma^{q_B}+\sigma^{q_B}\right)$$

$$\left(\sigma^{q_A}-\sigma^{q_B}\right)\left(\gamma\sigma^{q_A}+(1-\gamma)\sigma^{q_B}\right)$$

Escaneado con CamScanner

hay CPO

$$\frac{1}{c} - \frac{1}{\rho m} = 0$$

$$\frac{1}{c} = \frac{1}{\rho m}$$

$$\rho m = c$$

$$\times$$

$$-(\dot{c} + u_c^{a,b} + \phi(1-\gamma) + D(\tilde{\sigma}_{ss} - \tilde{\sigma}_t)$$

$$u^{ac}$$

Market clearing conditions

$$(a-i) = \left(q_t^B + q_t^A\right) \frac{c_t}{m_t}$$

$$\cancel{\left(q_t^B + q_t^A\right)\left(\frac{c_t}{m_t}\right) = 1}$$

$$\cancel{\frac{q_t^A}{q_t^A}}$$

$$\cancel{\gamma^A = \frac{q_t^A}{q_t^A + q_t^B}}$$

$$\cancel{\gamma^B = \varphi}$$

$$\frac{1}{\phi}$$

$$a - \left(\frac{q^k}{\phi}\right) = \left(q_k^B + q_k^k\right) \frac{\varepsilon}{n}$$

$$a\phi - q^k + 1 = \left(\left(q_k^B\right) + q_k^k\right) P\phi$$

$$\cancel{a\phi + 1}$$

$$a\phi - q^k - 1 = \left(\frac{1}{\varphi}\right) P\phi q_k$$

$$a\phi\varphi - q^k\varphi + \varphi = P\phi q_k$$

$$=$$

$$\dot{q} = \underset{\emptyset}{q} - 1$$

$$a - \left(\underset{\emptyset}{q^k - 1}\right) = \left(q_t^B + q_t^k\right) \underset{n}{\subseteq}$$

$$a\emptyset \; q^k + 1 = \left(\left(q_t^B\right) + q_t^k\right) P\emptyset \left(\frac{q_t}{q_k}\right)$$

$$a\emptyset - q^k - 1 = \left(\frac{1}{\varphi}\right) P\emptyset q_k$$

$$a\emptyset\varphi - q^k\varphi + \varphi = P\emptyset q_k$$

$$=$$

$$a\phi - 1 + \frac{1}{q_k} = \frac{(q_t^B + q_t^k)}{q_t^k} P\phi$$

$$a\phi - 1 + \frac{1}{q_k} = \frac{1}{\phi} P\phi$$

$$\frac{1}{q_k} = \frac{1}{\phi} P\phi + 1 - a\phi$$

$$\frac{(a - q^k + 1)}{\phi} = \left(q_t^B + q_t^k\right) \frac{c}{m}$$

$$a\phi - q^k + 1 = \left(q_t^B + q_t^k\right) P$$

$$\frac{a\phi - q_k + 1}{q_t + q_t^k} = P\phi$$

$$= P\phi q$$

k^e

Continuación de la 34

$$\left(a - \frac{g^k}{\phi} + \frac{1}{\phi}\right) = \left(g_t^B + g_t^k\right) P\phi$$

$$\left(a\phi - g^k + 1\right) = \left(g_t^B + g_t^k\right) P\phi \quad \frac{g_t^k}{g_t^k}$$

$$=$$

$$P\phi$$

o

$$a\phi - g^k + 1 = \frac{\left(g_t^B + g_t^k\right)}{g_t^k} P\phi\, g_t^k$$

$$\frac{g_t^k}{g_t^k + g_t^B} a\phi \quad \frac{-g_t^k g_t^k}{g_t^B + g_t^k} \quad \frac{g_t^k}{g_t^B + g_t^k} =$$

$$(1-\varphi)\, a\phi - (\phi - \varphi)\, g^k + (1-\varphi) = P\phi\, g_t^k$$

CUADRICULADO

Justus

$$(a\phi + 1)(1-\varphi) = ((1-\varphi) + \rho\phi)\, q_t^k$$

$$\frac{a\phi + 1}{1-\varphi + \rho\phi}(1-\varphi) = q_t^k$$

$$\frac{\frac{q_t^k}{q_t^k + q_t^B}}{\frac{q_t^k}{q_t^k + q_t^B}} = \frac{q_t^k}{q_t^B + q_t^k}$$

$$i = \frac{\left(\frac{a\phi + 1}{1-\varphi + \rho\phi}\right)(1-\varphi) - 1}{\phi}$$

$$i = \frac{(a\phi + 1)(1-\varphi) - (1-\varphi+\rho\phi)}{((1-\varphi) + \rho\phi)(\phi)}$$

$$(a-i) - q_t^k = q_t^B$$

$$\cancel{(a-i) =}$$

$$\frac{(a-i) - q_t^k}{\rho} = q_t^B$$

$$\cancel{\frac{1}{\phi}\left((a-i) - q_t^k\right) = q_t^B}$$

$$\frac{a\phi}{\rho\phi} - \frac{q^k}{\rho\phi} + \frac{1}{\rho\phi} = q_t^B + q_t^k$$

$$\frac{a\phi}{\rho\phi} - \left(\frac{1}{\rho\phi} + 1\right) q_k + \frac{1}{\rho\phi} = q_t^B$$

$$\frac{a}{\rho} - \left(\frac{1}{\rho\phi} + 1\right)\left(\frac{(1-\varphi)(a\phi)}{(1-\varphi+\rho\phi)}\right) + \frac{1}{\rho\phi} = q_t^B$$

$$\frac{a}{\rho} + \frac{1}{\rho\phi} - \left(\frac{1+\rho\phi}{\rho\phi}\right)\left(\frac{(1-\varphi)(a\phi+1)}{1-\varphi+\rho\phi}\right) = q_t^B$$

$$\frac{(a\phi+1)}{\rho\phi}$$

CUADRICULADO
Justus
Escaneado con CamScanner

$$b = \frac{a(\phi)(1-\varphi) - p\phi}{((1-\varphi) + p\phi)\phi}$$

$$b = \frac{a(1-\varphi) - p}{(1-\varphi) + p\phi}$$

Escaneado con CamScanner

$$\mu^{t} = \frac{c}{m} - \sigma^{2}(1-\nu)^{2}$$

$$\mu^{d} = r - \sigma^{2}(1-\nu)^{2}$$

Escaneado con CamScanner

$$N^{e} = P - \bar{\sigma}^{2}(1-v)^{2}$$

$$N^{e} = \frac{P - \bar{\sigma}^{2}(1-v)^{2}}{(1-v)^{2}}$$

no monotonic

$$(a-i) = \left(q_t^{B} + q_t^{K}\right)\left(\frac{c}{m_t}\right)$$

$$(a-i) = \left(q_t^{B} + q_t^{K}\right)P$$

$$\frac{(a-i)}{P} = q_t^{K}$$

$$i = q_t^{K} - \frac{1}{\phi}$$

$$\frac{1}{P}\left(a - \frac{q_t^{K}}{\phi} + \frac{1}{\phi}\right) = q_t^{K}$$

ADRICULADO

Escaneado con CamScanner

$$g^{k_b}\begin{pmatrix}1 & 1\\ & \rho\phi\end{pmatrix}$$

$$g\begin{pmatrix}a & 1\\ & \phi\end{pmatrix} = g^{k_b}\begin{pmatrix}\rho & \phi\\ & \rho\phi\end{pmatrix}$$

$$\frac{(a\phi+1)}{1+\rho\phi} = g^{k_b}$$

$$i = \left(\frac{a\phi+1}{1+\rho\phi}\right)\begin{pmatrix}1\\ \phi\end{pmatrix} - \begin{pmatrix}1\\ \phi\end{pmatrix}$$

$$(a\phi+1) - (1+\rho\phi)$$

$$i = \frac{a\rho}{1+\rho\phi}$$

Escaneado con CamScanner

$$\Delta u^2 = (1-v)(u)(u^{40} - u^{2n})$$

$$\Delta u = (\rho - \bar{\sigma}^2 (1+v)^2) = 0$$

$$\rho = \bar{\sigma}^2$$

$$\frac{\rho}{\bar{\sigma}^2} = (1+v)^2$$

$$\sqrt{\frac{\rho}{\bar{\sigma}^2}} = 1+v$$

$$\frac{y^{\theta}}{\tau_{\theta}} = \left(\frac{a\phi + n}{\rho_{\phi}}\right) - \left(\frac{1+\rho\phi}{\rho_{\phi}}\right)\left(\frac{(1-\psi)(a+\psi)}{1-\psi+\rho\phi}\right)$$

$$\frac{1}{\rho_{\phi}}\left((a\phi + n) - (1+\rho\phi)\left(\frac{(1-\psi)(a+\psi)}{1-\psi+\phi}\right)\right)$$

$$\frac{1}{\rho\phi}\frac{(a\phi+1)\left((1-\varphi)+\rho\phi\right)-(1+\rho\phi)\left((1-\varphi)(a\phi+1)\right)}{(1-\varphi)+\rho\phi}$$

$$(a\phi+1)(1+\rho\phi)-(\varphi)(a\phi+1)$$
$$-(1+\rho\phi)\left((1-\varphi)(a\phi+\varphi)\right)$$

$$(a\phi+1)-(1-\varphi)(a\phi+1)$$

$$(1+\rho\phi\left((a\phi+1)(1-1+\varphi)\right)-\varphi(a\phi+1)$$

$$\frac{1}{\rho\phi}\frac{\cancel{(\rho\phi)}(\varphi)(a\phi+1)}{(1-\varphi)+\rho\phi}=g^{B}$$

$$\frac{\left(1-\frac{\sqrt{\rho}}{\sigma}\right)a\phi+1}{\frac{\sqrt{\rho}}{\sigma}+\rho\phi}=g^{B}$$

$$\frac{(a\phi+1)\left(\frac{\sqrt{\rho}}{\sigma}\right)}{\frac{\sqrt{\rho}}{\sigma}+\rho\phi}=g^{B}$$

4)

a) $\cancel{u = \frac{\sqrt{\rho}}{\sigma}}$

$\cancel{\left(\frac{\sqrt{\rho}}{\sigma^2}\right) d\sigma + \frac{\sqrt{\rho}}{\sigma^3} (d\sigma)^2}$

$\cancel{d\sigma = (\sigma)(\rho - \sigma^2)}$

$\cancel{-\frac{\sqrt{\rho}}{\sigma^2} d\sigma - \frac{\sqrt{\rho}}{\sigma^3} (d\sigma)^2}$

b)

$$\varphi(\sigma) = \varphi_m d\sigma + \frac{1}{2} \varphi_{mm} (d\sigma)^2$$

tqm alvarito :)

$$d\varphi(\tilde{\sigma}) = \left(b(\tilde{\sigma}_{ss} - \tilde{\sigma}_t)dt + \nu\sqrt{\tilde{\sigma}_t}\, dz_t\right)\varphi_{\tilde{\sigma}}$$

$$\frac{1}{2}\nu^2 \tilde{\sigma}_t \quad \varphi_{\tilde{\sigma}\tilde{\sigma}}$$

$$d\varphi\tilde{\sigma} = b(\tilde{\sigma}_{ss} - \tilde{\sigma}_t)dt + \nu^2\tilde{\sigma}_t dt + \nu\sqrt{\tilde{\sigma}_t}dz_t$$

de la ecuación

$$u_t^4 = (\rho - \tilde{\sigma}^2(1-\varphi)^2)$$

$$\varphi u_t^4 = \left(b\tilde{\sigma}^{ss} + (b - \nu^2\tilde{\sigma})\right)dt + \nu\sqrt{\tilde{\sigma}_t}dz_t$$

$$d\varphi_{\tilde{\sigma}} = \varphi_{\tilde{\sigma}} b(\tilde{\sigma}_{ss} - \tilde{\sigma}_t)dt$$

$$d\varphi_{\tilde{\sigma}} = \left(\varphi_{\tilde{\sigma}} b(\tilde{\sigma}_{ss} - \tilde{\sigma}_t) + \frac{1}{2}\varphi_{\tilde{\sigma}\tilde{\sigma}}\nu^2\tilde{\sigma}_t\right)dt$$

$$\varphi_{\tilde{\sigma}}\nu\sqrt{\tilde{\sigma}_t}\, dz_t$$

$$\varphi u_t^4 = \left(\rho - \tilde{\sigma}^2(1-\varphi)^2\right)\varphi$$

$$\left(\rho - \tilde{\sigma}^2(1-\varphi)^2\right)\varphi = \varphi_{\tilde{\sigma}} b(\tilde{\sigma}_{ss} - \tilde{\sigma}_t) + \varphi_{\tilde{\sigma}\tilde{\sigma}}\nu^2\tilde{\sigma}_t$$

$$\rho\varphi = \tilde{\sigma}^2(1-\varphi^2)\varphi + \varphi_{\tilde{\sigma}} b(\tilde{\sigma}_{ss} - \tilde{\sigma}_t) + \frac{1}{2}\varphi_{\tilde{\sigma}\tilde{\sigma}}\nu^2\tilde{\sigma}_t$$

CUADRICULADO Justus

Escaneado con CamScanner

2) Usando la condición de market clearing

$$n = 0$$

$$(a^e - a^h) k^e + a^h = i(q) + q(\rho h)$$

Recordar

$$\cancel{n k^e + (1-n)}$$

$$\underbrace{n x^{k^e}}_{k^e} + \underbrace{(1-n) x^{k_h}}_{k^h} = 1$$

$$k^{e=0} \quad k^h = 1$$

$$a^h = i(q) + q(\rho h)$$

$$q^{-1} = \Phi'(i)$$

$$\Phi(i) = \frac{1}{\phi} \log(1 + \phi i)$$

$$\Phi'(i) = \frac{1}{\phi}\left(\frac{1}{1+\phi i}\right)\phi i = \frac{1}{1+\phi i}$$

CUADRICULADO

Justus

Escaneado con CamScanner

$$q^{-1} = \frac{1}{1+\phi I}$$

$$1+\phi I = q \Rightarrow I = \frac{q-1}{\phi}$$

$$a^h = \frac{q-1}{\phi} + q(\rho^h)$$

$$a^h = \frac{q-1}{\phi} + q(\rho_h)\phi$$

$$\phi\left(\frac{1+a^h}{1+\rho_h\phi}\right) = q$$

$$\frac{1+a^h\phi}{1+\rho_h\phi} = q$$

$$\eta = 1$$

$$K^e = 1$$

$$(a^e - a^h) + a^h = \frac{q-1}{\phi} + q\rho^e$$

$$q^e = \frac{q-1}{\phi} + q r_e$$

$$q = \frac{1 + q^e \phi}{1 + r_e \phi}$$

$$Q_j = \frac{1}{1 + r_j(r)}$$ Mundell

$$Q_j(r^1) = 0$$

Norma de un otro periodo

$$Y - \bar{Y} = \gamma Q_j(r)$$

$$u_{c_t}(c_t) = P(r)\left[\gamma Q_j(r)\right] + h^P(r)a$$

$$\theta_j(r) = \frac{D}{1 + r_j(r)} + \cdots$$

Renovación bolsa un periodo