Aguiar & Gopinath, 2007

Francisco Guerrero

Open Macro

Sep 2021



- Model emerging markets considering it's volatilty
- Identify permanent shocks from transitory shocks
- In permanent shocks savings decrease, and trade experiment a large deficit.
- In transitory schocks, savings increase and deficit in trade is small



- Model emerging markets considering it's volatilty
- Identify permanent shocks from transitory shocks
- In permanent shocks savings decrease, and trade experiment a large deficit.
- In transitory schocks, savings increase and deficit in trade is small



- Model emerging markets considering it's volatilty
- Identify permanent shocks from transitory shocks
- In permanent shocks savings decrease, and trade experiment a large deficit.
- In transitory schocks, savings increase and deficit in trade is small

- Model emerging markets considering it's volatilty
- Identify permanent shocks from transitory shocks
- In permanent shocks savings decrease, and trade experiment a large deficit.
- In transitory schocks, savings increase and deficit in trade is small

- BCF in emerging markets are characterized by large volatily and dramatic current account reversals, the so -called sudden stops
- Emerging markets have high volatitily in their moments due to frequent Regime Switches
- Those distinct regimes have different policies that change over time : Fiscal, Monetary and Trade
- On average business cycle in emerging economies is twice as volatile as their developed counterparts.



- BCF in emerging markets are characterized by large volatily and dramatic current account reversals, the so -called sudden stops
- Emerging markets have high volatitily in their moments due to frequent Regime Switches
- Those distinct regimes have different policies that change over time: Fiscal, Monetary and Trade
- On average business cycle in emerging economies is twice as volatile as their developed counterparts.



- BCF in emerging markets are characterized by large volatily and dramatic current account reversals, the so -called sudden stops
- Emerging markets have high volatitily in their moments due to frequent Regime Switches
- Those distinct regimes have different policies that change over time: Fiscal, Monetary and Trade
- On average business cycle in emerging economies is twice as volatile as their developed counterparts.



- BCF in emerging markets are characterized by large volatily and dramatic current account reversals, the so -called sudden stops
- Emerging markets have high volatitily in their moments due to frequent Regime Switches
- Those distinct regimes have different policies that change over time: Fiscal, Monetary and Trade
- On average business cycle in emerging economies is twice as volatile as their developed counterparts.



■ Author proposes a production function affected by 2 parameters e_t and Γ_t

$$Y_t = e^{z_t} K_t^{1-\alpha} (\Gamma_t L_t)^{\alpha}$$
 (1)

 \blacksquare Transitory Shock z_t

$$z_t = \rho_z \, z_{t-1} + \epsilon_t^z \tag{2}$$

 \blacksquare Cumulative product de "growth" shocks Γ_t (Trended shock)

$$\Gamma_t = e^{g_t} \Gamma_{t-1} = \prod_{s=0}^t e^{g_s} \tag{3}$$

$$g_t = (1 - \rho_g)\mu_g + \rho_g g_{t-1} + \epsilon_t^g \tag{4}$$

■ Author proposes a production function affected by 2 parameters e_t and Γ_t

$$Y_t = e^{z_t} \, K_t^{1-\alpha} \, (\Gamma_t \, L_t)^{\alpha} \tag{1}$$

 \blacksquare Transitory Shock z_t

$$z_t = \rho_z \, z_{t-1} + \epsilon_t^z \tag{2}$$

- Cumulative product de "growth" shocks Γ_t (Trended shock)

$$\Gamma_t = e^{g_t} \Gamma_{t-1} = \prod_{s=0}^{\infty} e^{g_s} \tag{3}$$

$$g_t = (1 - \rho_g)\mu_g + \rho_g g_{t-1} + \epsilon_t^g \tag{4}$$

■ Author proposes a production function affected by 2 parameters e_t and Γ_t

$$Y_t = e^{z_t} K_t^{1-\alpha} (\Gamma_t L_t)^{\alpha}$$
 (1)

Transitory Shock z_t

$$z_t = \rho_z \, z_{t-1} + \epsilon_t^z \tag{2}$$

■ Cumulative product de "growth" shocks Γ_t (Trended shock)

$$\Gamma_t = e^{g_t} \Gamma_{t-1} = \prod_{s=0}^t e^{g_s} \tag{3}$$

$$g_t = (1 - \rho_g)\mu_g + \rho_g g_{t-1} + \epsilon_t^g \tag{4}$$

■ Author proposes a production function affected by 2 parameters e_t and Γ_t

$$Y_t = e^{z_t} K_t^{1-\alpha} (\Gamma_t L_t)^{\alpha}$$
 (1)

- Transitory Shock z_t
 - $z_t = \rho_z \, z_{t-1} + \epsilon_t^z \tag{2}$
- Cumulative product de "growth" shocks Γ_t (Trended shock)

$$\Gamma_t = e^{g_t} \Gamma_{t-1} = \prod_{s=0}^t e^{g_s} \tag{3}$$

$$g_t = (1 - \rho_g)\mu_g + \rho_g g_{t-1} + \epsilon_t^g \tag{4}$$

Francisco Guerrero

■ Author proposes a production function affected by 2 parameters e_t and Γ_t

$$Y_t = e^{z_t} K_t^{1-\alpha} (\Gamma_t L_t)^{\alpha}$$
 (1)

- Transitory Shock z_t
 - $z_t = \rho_z \, z_{t-1} + \epsilon_t^z \tag{2}$
- Cumulative product de "growth" shocks Γ_t (Trended shock)

$$\Gamma_t = e^{g_t} \Gamma_{t-1} = \prod_{s=0}^t e^{g_s} \tag{3}$$

$$g_t = (1 - \rho_g)\mu_g + \rho_g g_{t-1} + \epsilon_t^g \tag{4}$$

■ Author proposes a production function affected by 2 parameters e_t and Γ_t

$$Y_t = e^{z_t} K_t^{1-\alpha} (\Gamma_t L_t)^{\alpha}$$
 (1)

Transitory Shock z_t

$$z_t = \rho_z \, z_{t-1} + \epsilon_t^z \tag{2}$$

■ Cumulative product de "growth" shocks Γ_t (Trended shock)

$$\Gamma_t = e^{g_t} \Gamma_{t-1} = \prod_{s=0}^{t} e^{g_s} \tag{3}$$

$$g_t = (1 - \rho_g)\mu_g + \rho_g g_{t-1} + \epsilon_t^g \tag{4}$$

■ Author proposes a production function affected by 2 parameters e_t and Γ_t

$$Y_t = e^{z_t} K_t^{1-\alpha} (\Gamma_t L_t)^{\alpha}$$
 (1)

Transitory Shock z_t

$$z_t = \rho_z \, z_{t-1} + \epsilon_t^z \tag{2}$$

■ Cumulative product de "growth" shocks Γ_t (Trended shock)

$$\Gamma_t = e^{g_t} \Gamma_{t-1} = \prod_{s=0}^{t} e^{g_s} \tag{3}$$

$$g_t = (1 - \rho_g)\mu_g + \rho_g g_{t-1} + \epsilon_t^g \tag{4}$$

Conclusions

- Model is consistent with the Solow residuals.
- Standard business cycle model can be used to estimate the predominance of shocks to trend growth relative to transitory shocks.
- Average random walk component is 0.84 for emerging markets and 0.61 for developed countries.

Conclusions

- Model is consistent with the Solow residuals.
- Standard business cycle model can be used to estimate the predominance of shocks to trend growth relative to transitory shocks.
- Average random walk component is 0.84 for emerging markets and 0.61 for developed countries.

Conclusions

- Model is consistent with the Solow residuals.
- Standard business cycle model can be used to estimate the predominance of shocks to trend growth relative to transitory shocks.
- Average random walk component is 0.84 for emerging markets and 0.61 for developed countries.