Discussion of "*Emerging Market Business Cycles with Remittance Fluctuations*" by Durdu and Sayan

Pedro Silos

Federal Reserve Bank of Atlanta

February 21, 2008

Overview

- The Question: What are the *quantitative* effects of remittance shocks on aggregate fluctuations?
- The Tool: Calibrated dynamic equilibrium model of a small open economy.

Overview

- The Question: What are the *quantitative* effects of remittance shocks on aggregate fluctuations?
- The Tool: Calibrated dynamic equilibrium model of a small open economy.

Interesting question and the appropriate tool to answer it!!

Model Ingredients

- Infinitely lived representative household.
- Values consumption from tradables and non-tradables.
- Receives endowment of tradables, non-tradables, and remittances.
- Credit markets: Access to international borrowing and lending (no state-contingent assets).
- Infinitely elastic supply of funds up to a constraint.

Household's problem

$$V(b,\epsilon) = \max_{\{c,b'\}} \left\{ \frac{c^{1-\sigma}}{1-\sigma} + (1+c)^{-\gamma} EV(b',\epsilon') \right\}$$

s.t.

$$c^T + b' \leq (1+\epsilon^R)Rem + (1+\epsilon^y)y^T + Rb$$

$$c^N = y^N$$

$$c = \left[\omega (c^T)^{-\mu} + (1-\omega)(c^N)^{-\mu}\right]^{\frac{-1}{\mu}}$$

$$b' \geq \kappa((1+\epsilon^R)Rem + (1+\epsilon^y)y^T + p^N y^N)$$

$$\epsilon' = \Pi(\epsilon)$$

Model and Data

- Two great examples: Mexico and Turkey.
- Rem is pro-cyclical in Turkey, counter-cyclical in Mexico.
- With shock processes for remittances and tradable output we can simulate the artificial economy.

Model and Data

- Two great examples: Mexico and Turkey.
- Rem is pro-cyclical in Turkey, counter-cyclical in Mexico.
- With shock processes for remittances and tradable output we can simulate the artificial economy.

Along which data dimensions does the model do well? Along which does it do badly?

Interpreting the Results

- CRRA consumers like high mean-low-variance sequences.

Interpreting the Results

- CRRA consumers like high mean-low-variance sequences.
- In the model Turkish consumers face larger mean but higher variance in consumption. Welfare loss? (are remittances bad?)

Interpreting the Results

- CRRA consumers like high mean-low-variance sequences.
- In the model Turkish consumers face larger mean but higher variance in consumption. Welfare loss? (are remittances bad?)
- Positive mass at the constraint in long-run distribution: “sudden stops” do happen (in the model as in the data). Role of discount factor?

Business Cycles and Consumption Smoothing

A (simple) economy with capital:

$$V(w,\epsilon) = \max_{\{c,k',b'\}} \left\{ \frac{c^{1-\sigma}}{1-\sigma} + (1+c)^{-\gamma} EV(w',\epsilon') \right\}$$

s.t.

$$c^T + b' + k' \leq (1+\epsilon^R)Rem + (1+\epsilon^y)(k')^\alpha + w$$

$$w' = Rb' + k'(1-\delta)$$

$$c^N = y^N$$

$$c = [\omega(c^T)^{-\mu} + (1-\omega)(c^N)^{-\mu}]^{\frac{-1}{\mu}}$$

$$b' \geq \kappa((1+\epsilon^R)Rem + (1+\epsilon^y)(k')^\alpha + p^N y^N)$$

$$\epsilon' = \Pi(\epsilon)$$

More on Business Cycles

A (not so simple) economy with capital and labor:

$$V(b,k,\epsilon) = \max_{\{c,k',b',l\}} \left\{ u(c,l) + (1+c)^{-\gamma} EV(b',k',\epsilon') \right\}$$

s.t.

$$c^T + b' + k' \leq (1+\epsilon^R)Rem + (1+\epsilon^y)(k')^{\alpha} l^{1-\alpha} + Rb + (1-\delta)k$$

$$c^N = y^N$$

$$c = c(c^N, c^T)$$

$$b' \geq \kappa((1+\epsilon^R)Rem + (1+\epsilon^y)(k')^{\alpha} l^{1-\alpha} + p^N y^N)$$

$$\epsilon' = \Pi(\epsilon)$$