# Comments on *Financial Integration and Capital Account Re-regulation* by Kim, Kim, Song and Yie

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# Overview

- Standard DSGE model of small open economy
- Twist: FX swap market imperfectly competitive
  - So UIP doesn't hold in principle
    - Good, since it doesn't hold in practice
- Surprising Conclusion: more financial integration *reduces* welfare
  - Even though market power of foreign banks falls

# Interest Parity Conditions

- Distinguish *Covered* from *Uncovered* Interest Parity more sharply

# Covered Interest Parity

- CIP: $R_t = R^f_t \cdot [S_t / For^{t+1}_t]$
  - $R_t$: gross domestic interest return at t
  - $R^f$: gross foreign return
    - Same asset, taxes, liquidity, maturity, …
  - S: domestic price of unit of foreign exchange
  - $For^{t+1}_t$: forward price of FX, agreed on at t, delivered at t+1
- Note: all prices available at t: arbitrage

# CIP Usually Holds Well

- Norm is within 2/3 basis points
- For onshore markets, "political risk" (future capital controls)
  - For offshore markets, default risk usually negligible
- FX markets much deeper than stock or bond markets
  - Unsurprising that CIP works well usually

# CIP Fails During Korean Great Recession

- Evidence Figures 1, 2
- Interesting, worth examining
- Notes
  - Volatility Key
  - 0 as tranquil norm?
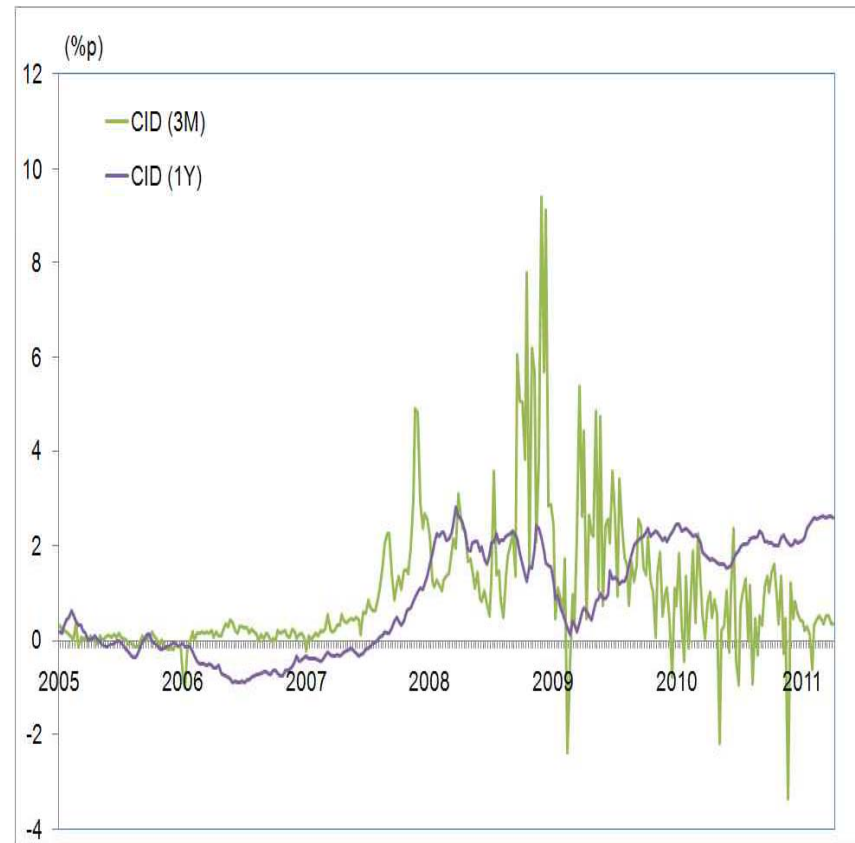
# Messages from Figure

1. Linking Crises to CIP Deviations seems key

   – Assuming constant market power for banks doesn't seem natural modeling strategy

     • Is market power cyclic (a la Rotemberg-Saloner)?

     • FX market doesn't look oligopolistic from Table 1

2. CIP Deviations are … CIP Deviations

# *Uncovered* Interest Parity

- UIP: $R_t = R^f_t \cdot [S_t / E_t(S_{t+1})]$
  - $E_t()$: conditional expectation at t
  - $[S_t / For^{t+1}_t]$ for CIP
- Since expectation is unobservable, cannot be tested without measurement error

# UIP Deviations

- UIP is a speculative (not arbitrage) condition
  - Usually tested via regressing $\%\Delta S_t$ on $(R_t - R^f_t)$
  - Not tested here at all
  - Can't tell if UIP deviations match model
- *Different from CIP!*

# Discomfort

- Final producers are competitive
- Intermediate producers are monopolistically competitive
- Seems odds to add *ad hoc* form of imperfect competition in financial markets
  - (Quadratic cost of changing capital inflows – eq26)
  - Usually model real side as having *more* frictions than financial markets
  - Especially true for short-maturity money markets

# Discomfort, continued

- Swaps here are involve exchange of currencies, later reversed at different prices
- Hence "Foreign Exchange Swap"
  - "Currency Swap" is exchange of interest streams in different currencies, BIS *Triennial Report* p32
- But FX swap market *deepest in world*
  - $1,765 billion *daily* turnover in April 2010 (BIS, p7)
  - >50x stock/bond markets

# More Discomfort from BIS

- P9: "Among the top 13 global FX centres (covering 90% of global turnover), a decrease in the number of banks accounting for 75% of the turnover was reported between 2007 and 2010 in most centres. <span style="color:red">In contrast, in Denmark, Hong Kong SAR and Korea, an increase in competition is evident (Table B.3)"</span>
  - In 2010, 16 banks accounted for 75% of foreign exchange turnover in Korea
  - Korea: most competitive of top 13 global FX centers (CR75 for US=7, Japan=8, UK=9)

# Welfare Effects

- Notice small effect of foreign financial competition on welfare

- In practice, probably bigger but omitted potentially big effects of capital flows:

  - Production (quantity or quality)

  - Consumption smoothing

  - Domestic financial market structure

# Bottom Line

- Modeling mechanism doesn't seem to match up with observed interest parity deviations
  - Crisis-related CIP deviation, not steady-state UIP
  - Imperfect Competition in real before financial markets
- Key conclusion (capital market liberalization can lower welfare) based on narrow model, hard to generalize