Macroprudential Policy Framework: The Case of Korea

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IMF Stylized 3 Types of Models for MPF:
Full Integration, Partial Integration and Separation

No Single Universal Solution:
No sole “Best Practice” for addressing Unique Systemic Risks in all Countries

“A cat’s color (MPF) does not matter, black or white, as long as it can catch mice (Systemic Risk).” (Deng Xiaoping, 1978)
Outline

I. What are the Potential Systemic Risks Unique to Korea?

II. Macroprudential Policy Responses

III. Macroprudential Policy Framework in Korea: Institutional Arrangements
I. What are the Potential Systemic Risks Unique to Korea?

✓ More exposed to Systemic Risk in a Time-varying Dimension, entailed by **Procyclicality**, than in a Cross-sectional Dimension


✓ **Procyclicality** emanating from Volatile Capital Flows and Build-up of Household Debt may result in heightened Systemic Risk in Korea.
In particular, Strong Procyclicality of Capital Flows Amplifies Business Cycle Fluctuation

Source: BOK staff Calculation
High Capital Flow Volatility

Capital Flows

- **Asian Crisis**
  - 1997.11~1998.3: -21.4 billion dollars
  - 1998.4~1998.8: 221.9 billion dollars

- **Lehman Crisis**
  - 2008.9~2008.12: -69.6 billion dollars
  - 2009.1~2011.6: 101.6 billion dollars

- **EU Debt Crisis**
  - 2011.7~2011.12: -12.6 billion dollars

Financial Market Volatilities (std. dev*)

- **Won/Dollar FX rate (LHS)**
- **KOSPI (LHS)**
- **Treasury Bond Yield (3Y, RHS)**

* 3-month moving averages

Source: BOK staff calculation
Speculators’ Arbitrage-Seeking Behavior in Volatile Markets may Aggravate Volatility.

“Most traders…don’t really care that much how they [world leaders] are going to fix the economy, how they are going to fix the whole situation – our job is to make money from it…. Personally I’ve been dreaming of this moment for three years. I have a confession, which is I go to bed every night and I dream of another recession.” (Interview with 34-year-old Trader, AFP, September 29, 2011)
Interaction between Global (push) Factors and Regional (pull) Factors

<table>
<thead>
<tr>
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<th>Cyclical Factors</th>
<th>Structural Factors</th>
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<tr>
<td><strong>Push Factors</strong></td>
<td>Global liquidity</td>
<td>Diversified capital flows</td>
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<td></td>
<td>Global risk appetite</td>
<td>Advanced countries’ weakened fiscal structures</td>
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<td>Slowing growth of AEs</td>
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<td><strong>Pull Factors</strong></td>
<td>Interest rate differentials</td>
<td>High potential growth</td>
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<td>Fast recovery of EMEs</td>
<td>Fiscal soundness</td>
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<td>Capital market development</td>
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Source: IMF(2011)
Build-up of Household Debt: Fault Lines

✓ High level ⇒ Household Leverage at historic peak
✓ Variable Rate ⇒ More than 92% of Mortgage Loans
✓ Interest only paid, No Principal (78.4%)

Household debt-to-disposable income

2005 2006 2007 2008 2009 2010
129% 155%
Source: Bank of Korea

Mortgage Loans, by Interest Rate Type¹)

- Floating Rate 92.7%
- Fixed Rate 4.9%
- Mixed Rate 2.4%

Source: Bank of Korea
Note: 1) As of end-June 2011

Mortgage Loans, by Repayment Type

- Installment Repayment Loans on which principal currently being repaid, 41.1%
- Bullet Repayment Loans, 37.3%
- Installment Repayment Loans currently in grace period, 41.1%

Source: Seoul metropolitan area home mortgage loan data of 4 major banks
Background of Household Debt Increase since 2002

- **Housing Price Bubble**
- Banks seeking alternative customers, i.e. Households, in response to decline in demand from Corporate Sector
- Competition among Banks
- Most recently, *increase in household loans for other purposes* (e.g. securing living expenses, funding SOHO business, smoothing consumption, etc.) rather than home purchases
- Low interest rates since recent global financial crisis
II. Macroprudential Policy Responses

High Capital Flow Volatility

(Policy Responses for Capital Inflows)

Foreign Bank Branches’ Arbitrage Incentives

Currency Mismatches of FX Banks

Foreigners’ Investment in Bonds

BOK
Macroprudential Stability Levy (August, 2011)

MOSF/BOK
Ceiling on FX Derivative Positions (October, 2010)

MOSF
Reimposed Taxation on Foreign Bond Investment (November, 2011)
(Policy Responses for Capital Outflows)

Strengthening of Financial Cooperation: Backstop against sudden Capital Flow Reversal

- Expansion of **Currency Swaps** with other central banks (FRB, BOJ, PBC)
- BOK initiated international discussion on G20 **Global Financial Safety Net (GFSN)** in 2010, and contributed to launch of CMIM in March 2010

### Korea’s Policy Responses to Capital Flow Volatility

<table>
<thead>
<tr>
<th>Type</th>
<th>Period of capital inflows (Q2 2009~Q2 2011)</th>
<th>Periods of capital outflows (Q4 2008<del>Q1 2009, Q3 2011</del>Q4 2011)</th>
</tr>
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<tbody>
<tr>
<td>Conventional</td>
<td>• Currency appreciation</td>
<td>• Currency depreciation</td>
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<td></td>
<td>• Increases in foreign reserves</td>
<td>• Decreases in foreign reserves</td>
</tr>
<tr>
<td>Unconventional</td>
<td>• Macroprudential Policy</td>
<td>• Currency Swaps (FRB in 2008, BOJ and PBC in 2008 and 2011)</td>
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<td></td>
<td>- Ceilings on FX derivative positions</td>
<td>• Strengthening of GFSN</td>
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<td></td>
<td>- Macroprudential Stability Levy</td>
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These policies differ from Capital Controls, which differentiate between Residents and Non-residents.

- Price regulations: Macroprudential Stability Levy, imposition of reserve requirements on foreign currency deposits, etc.
- Quantitative regulations: ceilings on FX position and investment in foreign currency-denominated assets, regulation of foreign currency loans, etc.

Some Asian EMEs used Capital Controls.

e.g. Prohibition of investment in time deposits with maturities less than 1-year* (Taiwan, Nov 2009); Restrictions on investment in government bonds and MMFs* (Taiwan, Nov 2010); Hike in ratio of reserve requirements on non-residents’ deposits* (Taiwan, Nov 2010)
Build-up of Household Debt

FSC/FSS Tightening of DTI and LTV

Seemingly effective, but more work needed to establish how much of changes in house price and loan growth attributable to macroprudential policy tightening

Housing indicators (Seoul area) before and after loan regulation tightening

1) Comparison between six-month periods before and after strengthening of loan regulations
2) In trillions of won
3) Apartment basis
4) In units of 10,000

* Source: Bank of Korea
III. Macroprudential Policy Framework (MPF) in Korea: Institutional Arrangements

1. Successful Systemic Risk Identification
2. Timely Use of Policy Tools
3. Coordination + Autonomy across Policy Functions
## Financial Stability Policy Framework in Korea

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<tr>
<th>Ex-ante</th>
<th>Ex-post</th>
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<tbody>
<tr>
<td><strong>Macroprudential Policy</strong></td>
<td><strong>Crisis Management</strong></td>
</tr>
<tr>
<td>- Financial Services Commission (FSC)</td>
<td>- BOK: Lender of Last Resort</td>
</tr>
<tr>
<td>- Financial Supervisory Service (FSS)</td>
<td>- Korea Deposit Insurance Corp. (KDIC): Deposit Insurance and Resolution of FIs</td>
</tr>
<tr>
<td>- Bank of Korea</td>
<td>- Ministry of Strategy &amp; Finance (MOSF): FX Policies and Bail-out</td>
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### Microprudential Policy

- Financial Services Commission (FSC)
- Financial Supervisory Service (FSS)
Policy Coordination among Separate Authorities

- “There is no 「e pluribus unum」.”
  - No formal Organization/Committee dedicated to Macroprudential Policy

- Some Policy Coordination Channels
  - Policy Coordination through FSC Meetings:
    High-level officials of relevant authorities (BOK, FSS, MOSF and KDIC) participating as ex officio members
  - Various Channels for Information Sharing and Policy Coordination:
    e.g. FX Market Stabilization Council, Economic and Financial Advisory Council, National Economic Advisory Council, etc.
MPF in Korea: Separation (Model 6)

Limitations of Informal Policy Coordination

- No Binding Effects of Agreement on Policy
- Difficult to identify Agency Accountable for Policy Responses to Common Systemic Risk
- Rivalry or Turf Issues impeding Free Flow of Information
Lack of Policy Coordination

Counteractive or Push-Me, Pull-You Outcomes

- Central Bank raises Policy Rate (July 2010)
- Supervisor eases DTI regulation (August 2010)

⇒ Counteractive Outcome

- Supervisor deploys 「Countercyclical Capital Buffer」
- Central Bank raises Policy Rate

⇒ Push-me, pull-you outcome
## Potential Tensions Between Micro- and Macroprudential Supervisors

<table>
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<tr>
<th>Cycle</th>
<th>Boom</th>
<th>Downturn</th>
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</table>
| **Macro-Authority** | Credit expansion  
⇒ Systemic risk  
⇒ Buffer deployed | Credit contraction  
⇒ Systemic risk  
⇒ Buffer released |
| **Micro-Authority** | -No worry (no mandate for systemic risk)  
-Concern about lowering of FI profitability by limiting of asset allocation | -Unease. (Why? Lowering of capital when most needed)  
-Concern about negative signaling effect |
Build-up of Common Risks (Interconnectivity)

Need to Respond with Macroprudential Policy Tools?

Microprudential Supervisor
Everything OK in terms of Individual FI Health

Macroprudential Supervisor
Concerned about Interconnectivity

Coordination Failure
Microprudential Supervisor may mechanically deploy CCB when credit-to-GDP ratio rises above its long-term average.

However, Central Bank may tolerate build-up of credit exposures stemming from increase in money demand for investment entailed by improved productivity.
Macroprudential Policy Effect Offset: Bounce Back

- Importance of Communication between Supervisory and Monetary Authorities
- Is Regulation effective under Low Interest Rates + Ample Liquidity?
  ⇒ Continued risk-taking (returning to mortgage loans)
  ⇒ Macroprudential policy effects possibly offset, due to monetary policy stance in opposite direction, and vice versa
Way Forward for Separate Framework: Policy Coordination

**Shock**

- **Systemic Risk?**
  - **Consultation**
    - Central Bank
    - Government
    - Supervisors
      - No Blessing
      - Blessing

- **Application of Macroprudential Tools**
- **Application of Microprudential Tools**

Financial Stability Mandate Re-introduced

- Assessment of Systemic Risk: a starting point of Financial Stability Policy Framework

Enhanced Access to Microprudential Data

- Amended Act mandates BOK Access to B/S info of both Banks and Non-Bank FIs
- MOU with FSS allowing BOK to Access Wider Range of Microprudential Data

Greater Accountability for Financial Stability

- Semiannual Report on Financial Stability (FSR) to National Assembly

Greater Role in Responding to Systemic Risk
Thank You!!
Bibliography

- Caruana, J. (2010): “Macroprudential policy: working towards a new consensus”, remarks at high-level meeting organized by BIS FSI and IMF Institute, April.
Bibliography