High-Level Seminar on Macroprudential Policies to Achieve Financial Stability
Held by Banco Central Del Uruguay and IMF
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Macroprudential Policy Framework:

The Case of Korea

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THE BANK OF KOREA

- ✓ ***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

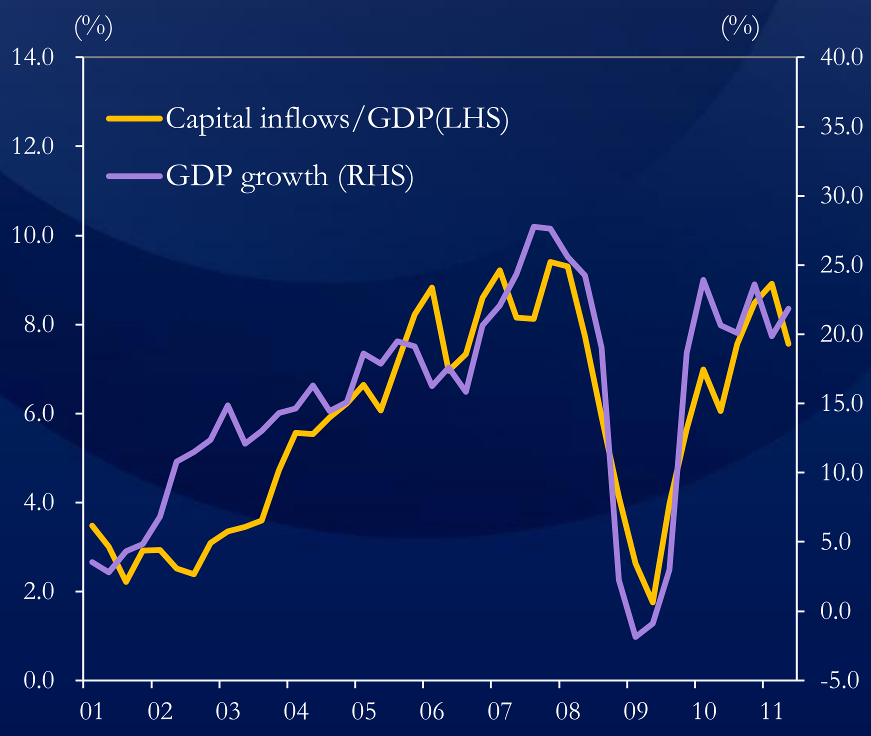
III. Macroprudential Policy Framework in Korea: Institutional Arrangements

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

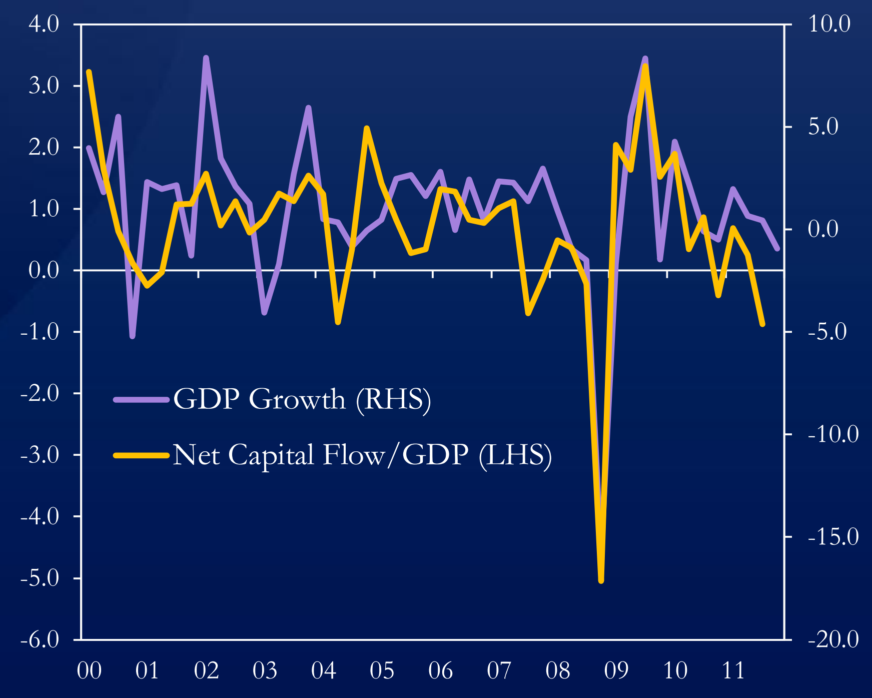
- ✓ **More exposed to Systemic Risk in a Time-varying Dimension, entailed by Procyclicality, than in a Cross-sectional Dimension**
  - *Empirical Evidence: "Financial Linkages across Korean Banks," IMF-BOK Joint Research, 2011. WP/11/201)*
- ✓ **Procyclicaity emanating from Volatile Capital Flows and Build-up of Household Debt may result in heightened Systemic Risk in Korea.**

✓ In particular, **Strong Procyclicality of Capital Flows** Amplifies Business Cycle Fluctuation

Capital Inflows to Asia & GDP Growth



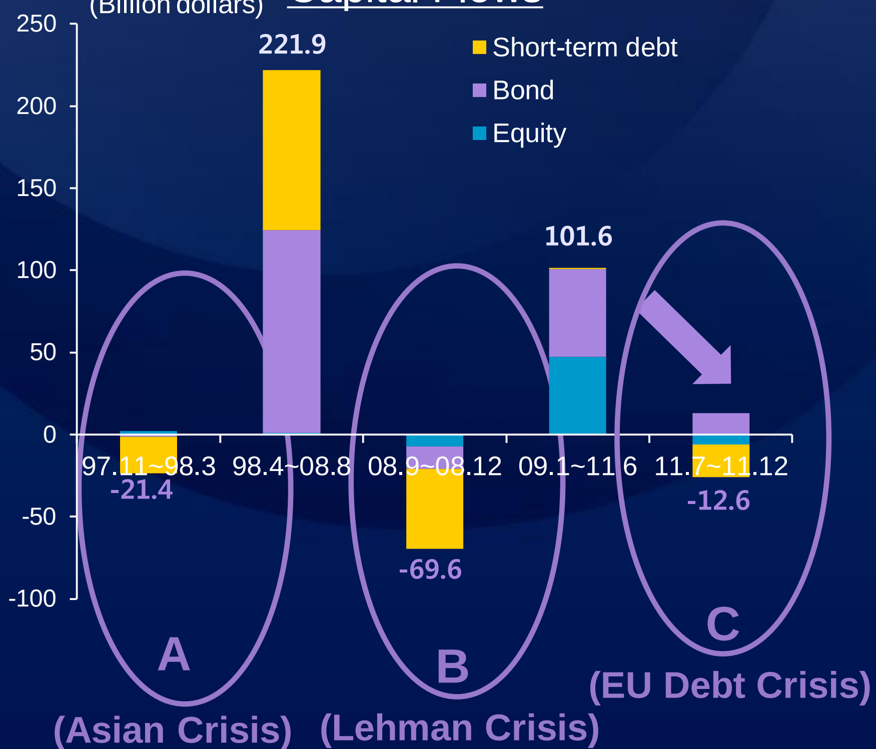
Capital Inflows to Korea & GDP Growth



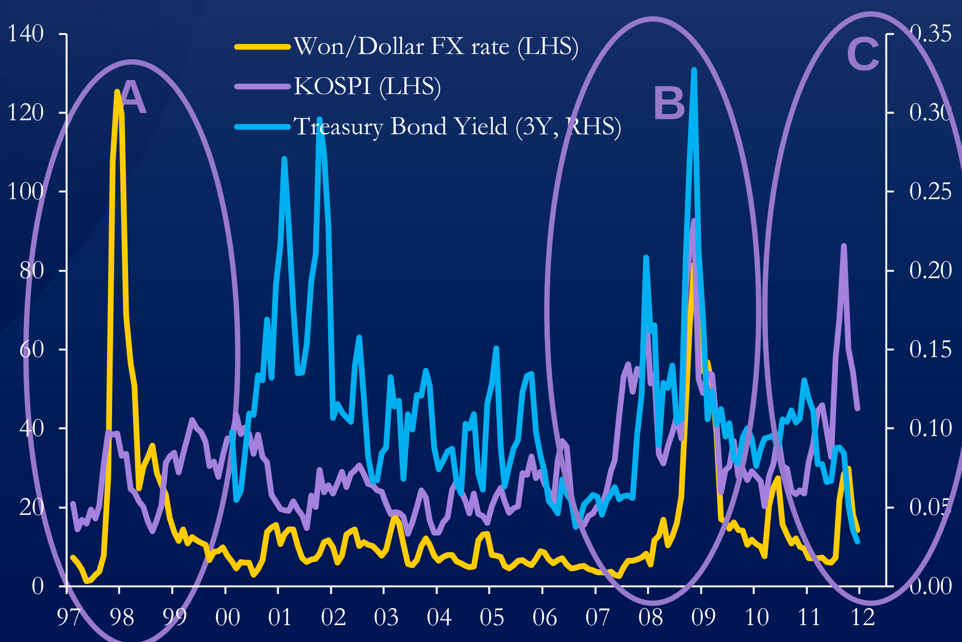
Source: BOK staff Calculation

1 High Capital Flow Volatility

Capital Flows



Financial Market Volatilities (std. dev*)



* 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

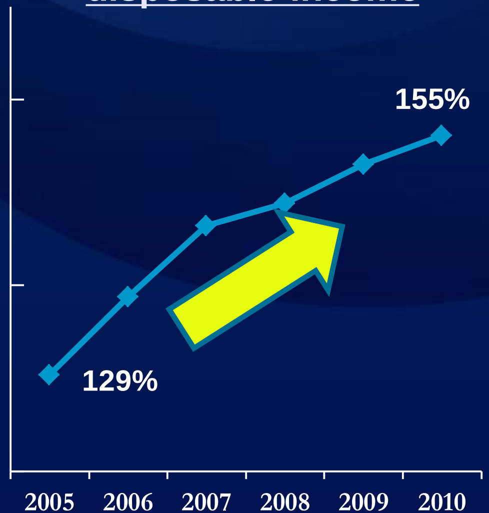
	Cyclical Factors	Structural Factors
Push Factors	Global liquidity Global risk appetite Slowing growth of AEs	Diversified capital flows Advanced countries' weakened fiscal structures
Pull Factors	Interest rate differentials Fast recovery of EMEs	High potential growth Fiscal soundness Capital market development

Source: IMF(2011)

Build-up of Household Debt: Fault Lines

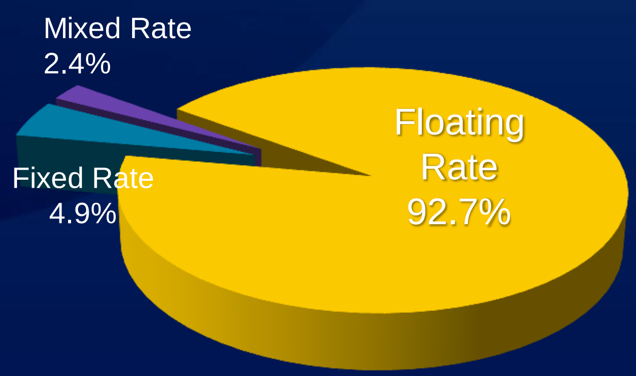
- ✓ **High level ⇒ Household Leverage at historic peak**
- ✓ **Variable Rate ⇒ More than 92% of Mortgage Loans**
- ✓ **Interest only paid, No Principal (78.4%)**

Household debt-to-disposable income



Source : Bank of Korea

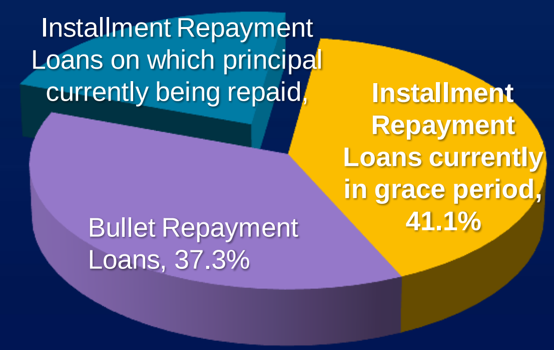
Mortgage Loans, by Interest Rate Type[1)]



Source : Bank of Korea

Note: 1) As of end-June 2011

Mortgage Loans, by Repayment Type



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

1 High Capital Flow Volatility

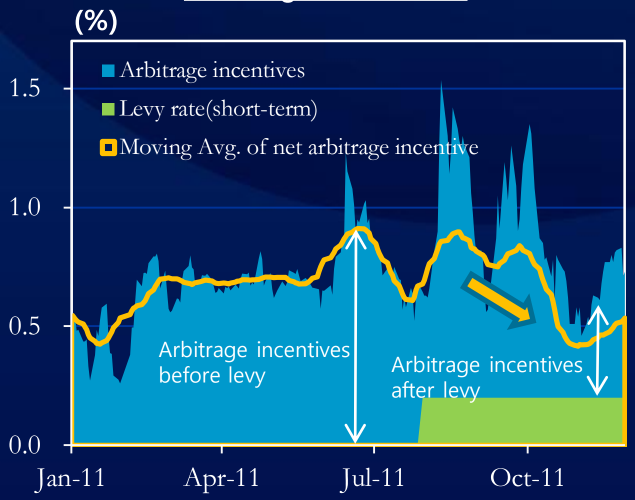
(Policy Responses for Capital Inflows)

BOK
Macroprudential Stability Levy
(August, 2011)

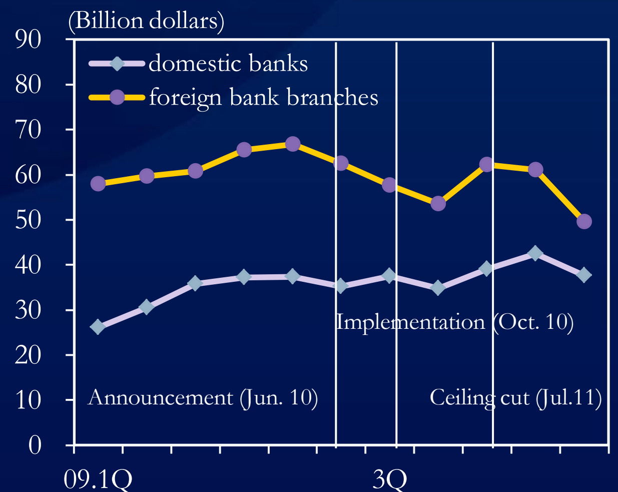
MOSF/BOK
Ceiling on FX Derivative Positions
(October, 2010)

MOSF
Reimposed Taxation on Foreign Bond Investment
(November, 2011)

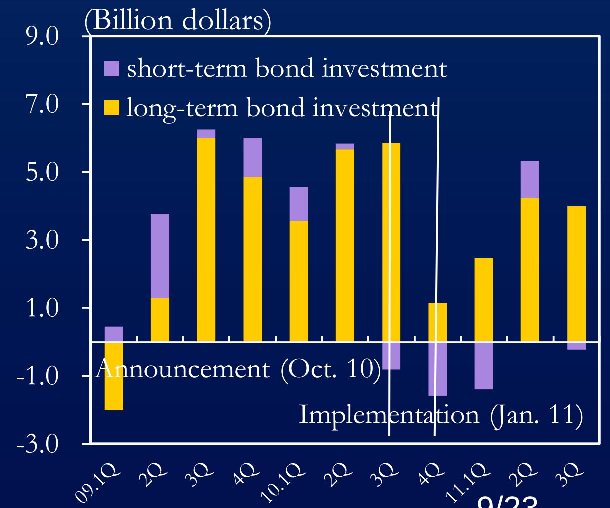
Foreign Bank Branches' Arbitrage Incentives



Currency Mismatches of FX Banks



Foreigners' Investment in Bonds



(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

	Period of capital inflows (Q2 2009~Q2 2011)	Periods of capital outflows (Q4 2008~Q1 2009, Q3 2011~Q4 2011)
Conventional	• Currency appreciation • Increases in foreign reserves	• Currency depreciation • Decreases in foreign reserves
Unconventional	• Macroprudential Policy - Ceilings on FX derivative positions - Macroprudential Stability Levy	• Currency Swaps (FRB in 2008, BOJ and PBC in 2008 and 2011) • Strengthening of GFSN

- ✓ **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

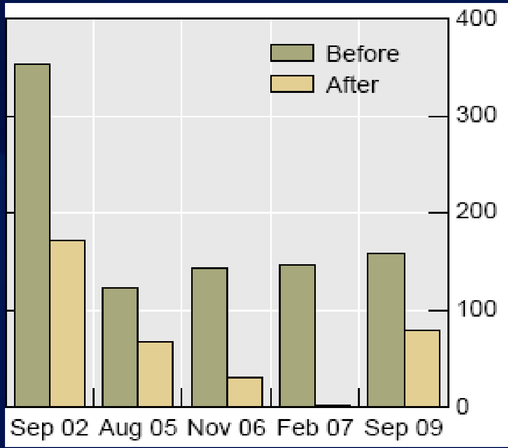
FSC/FSS

Tightening of DTI and LTV

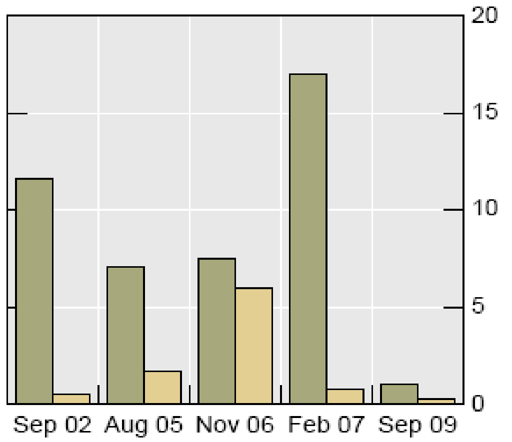
Seemingly effective, but more work needed to establish how much of changes in house price and loan growth attributable to macroprudential policy tightening

Housing indicators (Seoul area) before and after loan regulation tightening[1)]

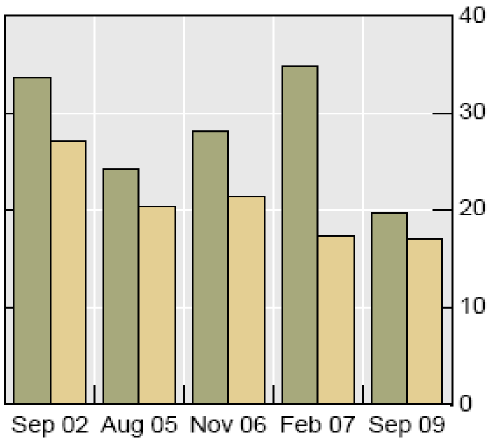
Mortgage loans[2)]



House prices[3)]



Housing transactions[4)]



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

Effective Institutional Arrangements for MPF

Financial Stability Policy Framework in Korea

Ex-ante	Ex-post
Macroprudential Policy ➢ Financial Services Commission (FSC) ➢ Financial Supervisory Service (FSS) ➢ Bank of Korea	**Crisis Management** ➢ BOK: Lender of Last Resort ➢ Korea Deposit Insurance Corp. (KDIC): Deposit Insurance and Resolution of FIs ➢ Ministry of Strategy & Finance (MOSF): FX Policies and Bail-out
Microprudential Policy ➢ Financial Services Commission (FSC) ➢ Financial Supervisory Service (FSS)	

MPF in Korea: Separation (Model 6)

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

1 **Counteractive or Push-Me, Pull-You Outcomes**

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

⇨ **Counteractive Outcome**

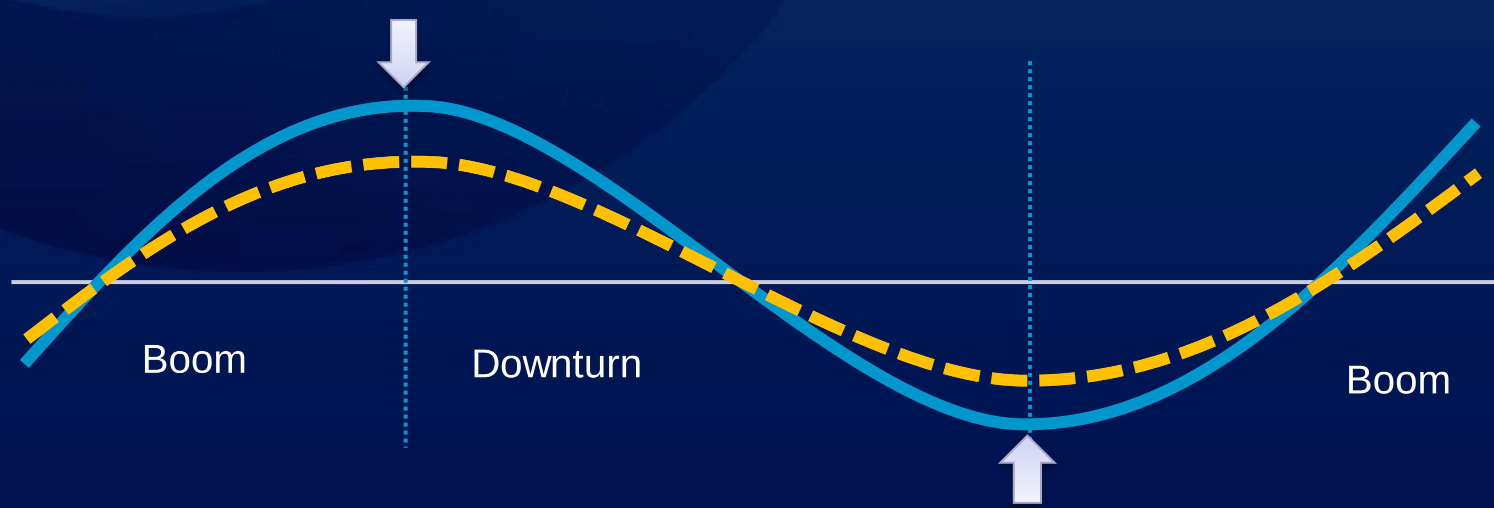
- Supervisor deploys「Countercyclical Capital Buffer」
- Central Bank raises Policy Rate

⇨ **Push-me, pull-you outcome**

2

Potential Tensions Between Micro- and Macroprudential Supervisors

Cycle	Boom	Downturn
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



Countercyclical policy

Credit cycle

3

Potential Tensions Between Micro- and Macroprudential Supervisors

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

4

Potential Tensions Between Microprudential Supervisors and Central Bank

Build-up of Credit Exposures

CCB Deployed?
Who should own the Tool?

Microprudential Supervisor	More Focus on Credit Cycle and Individual FI Health
Central Bank	More Focus on Business Cycle/GDP

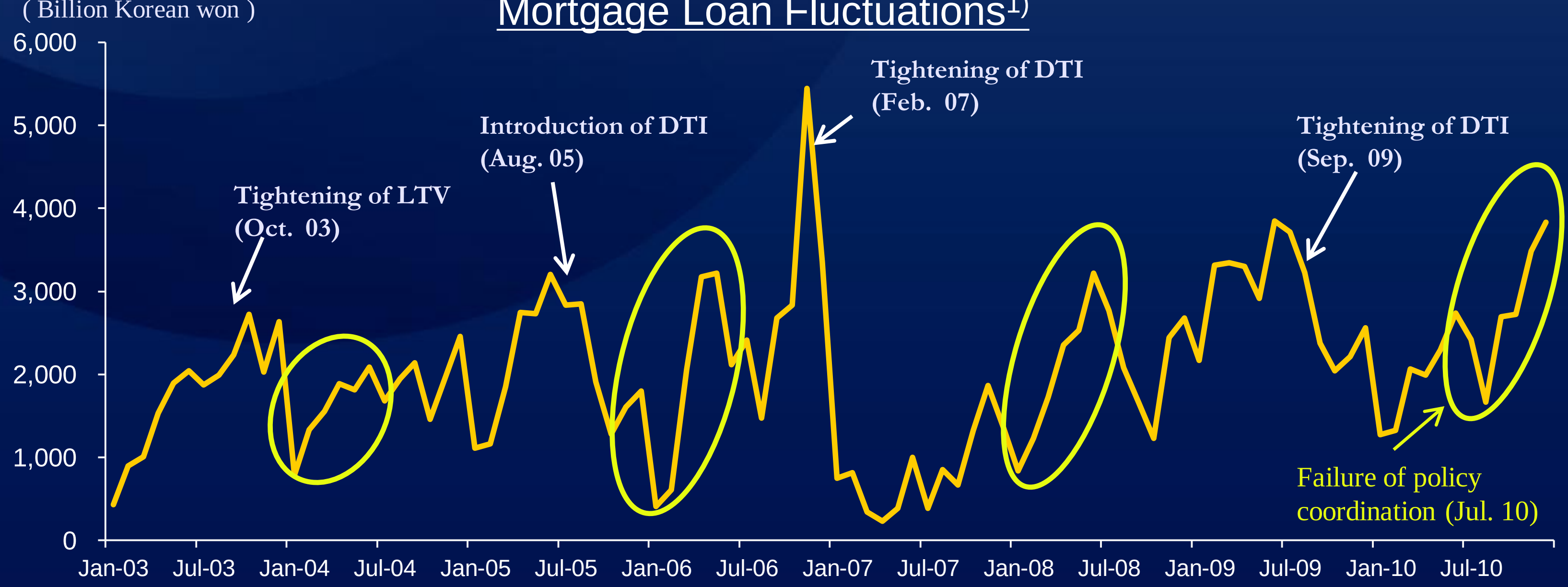
Coordination Failure

- 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.

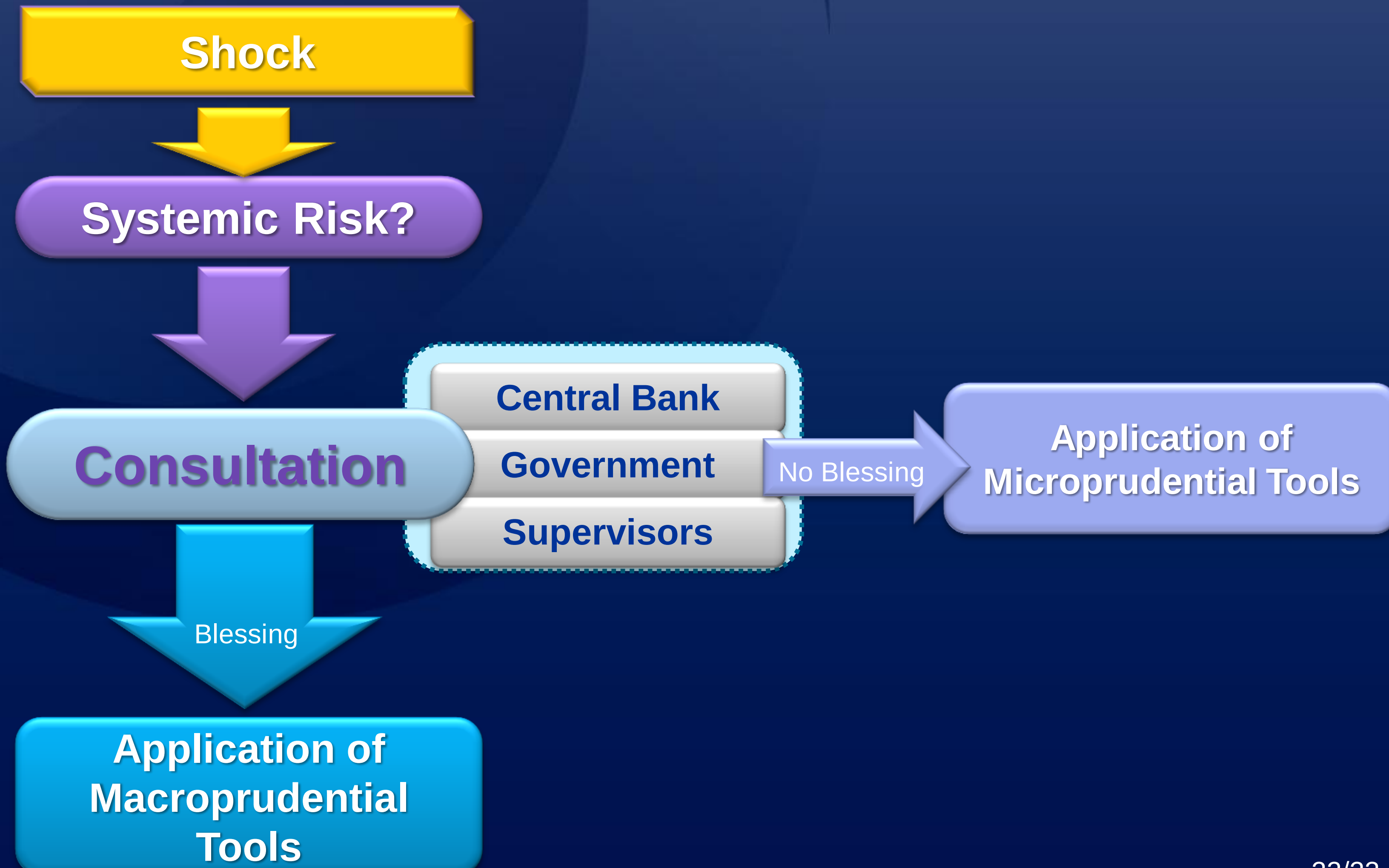
5 Macroprudential Policy Effect Offset: Bounce Back

- ✓ 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**

Mortgage Loan Fluctuations[1)]



Way Forward for Separate Framework:
Policy Coordination



Rebuilding Financial Stability Framework: Amendment of BOK Act (31 Aug, 2011)

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!!

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