

**Workshop on Housing Finance  
in South Asia (Jakarta, Indonesia)**

# **The Evolution of Mortgage and MBS Markets in Korea**

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# Agenda

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## **I. Government's Countermeasures to House Price Changes**

- House Price Changes since Asian Financial Crisis
- Recent House Price Changes
- Countermeasures to House Price Decline in 1998
- Policies to Curb House Price Rise (2002~2007)
- New Government's Efforts to Revitalize Property Market

## **II. Updates on Korean Mortgage Market**

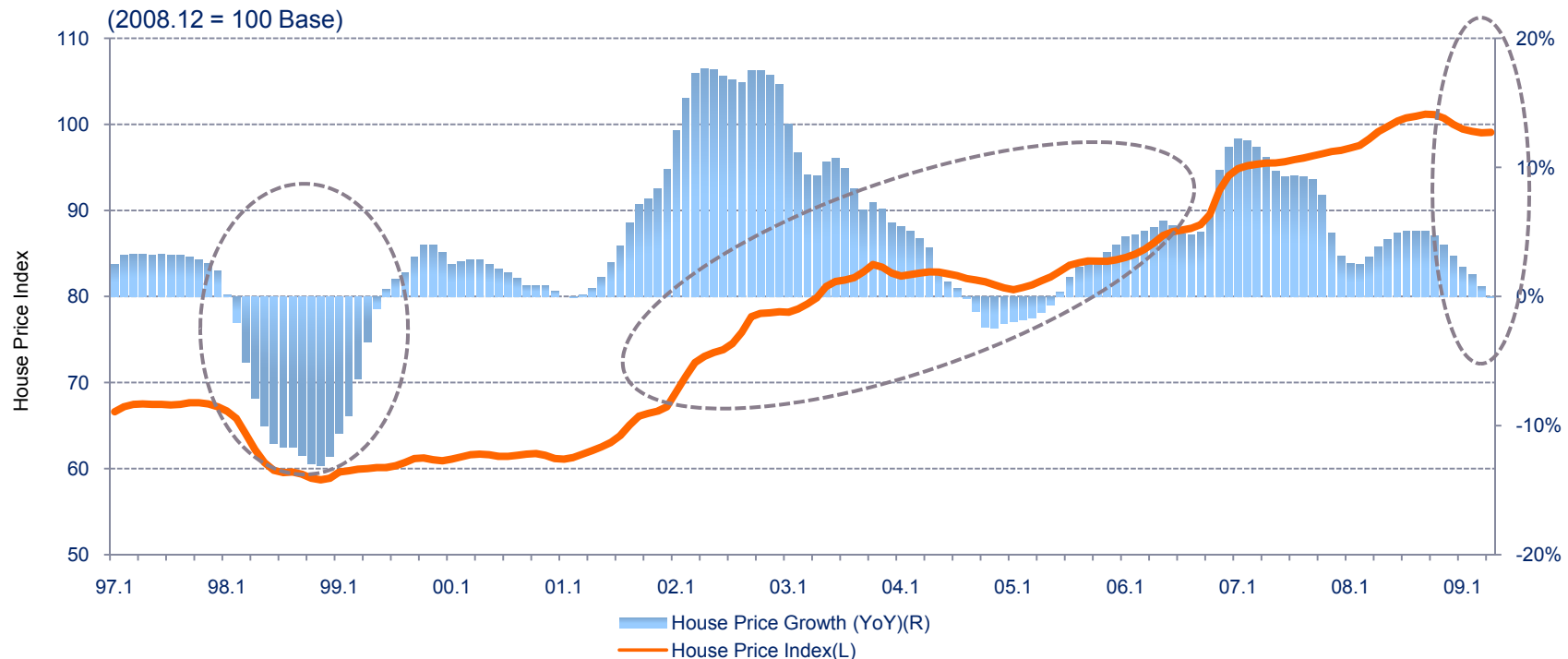
## **III. Korean MBS Market**

## **IV. KHFC's Mortgage Securitization Business**

## **V. Lessons from Korean Markets**

## House Price Changes since Asian Financial Crisis

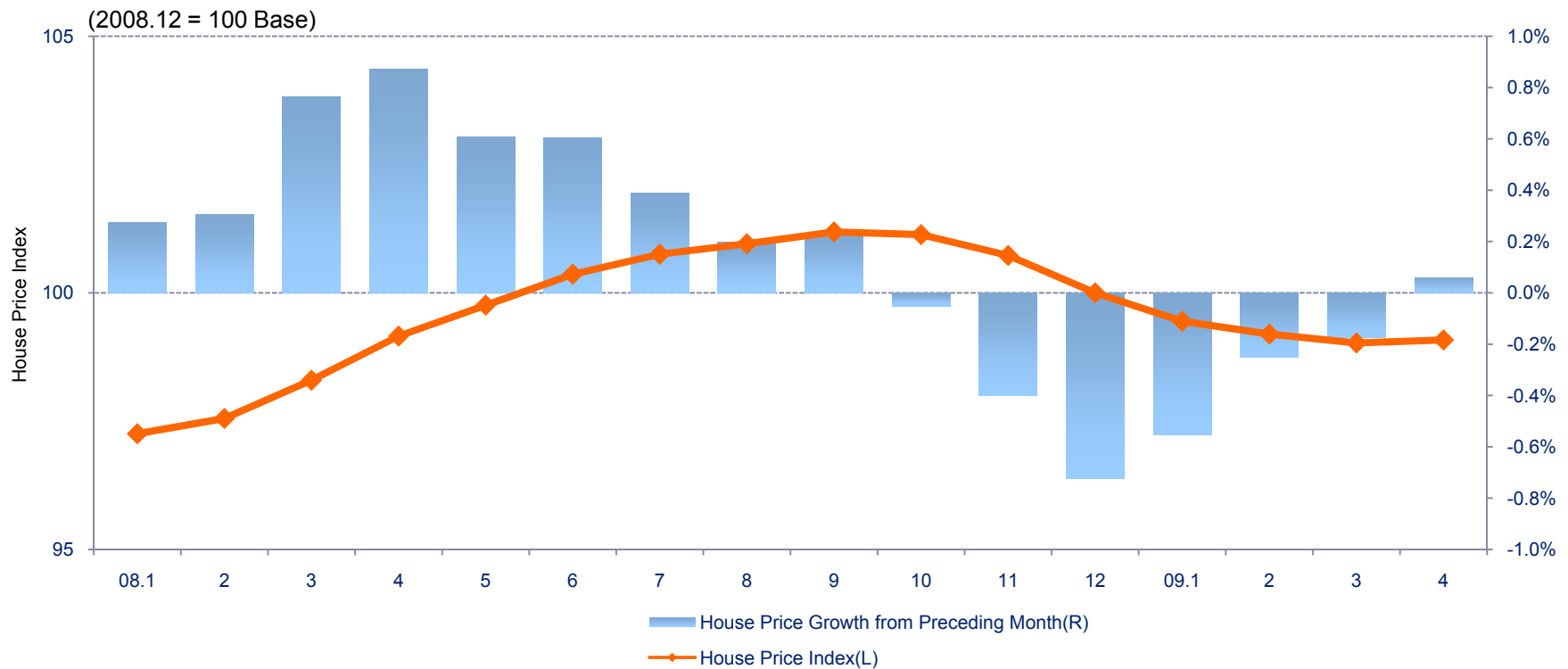
- After 1997 Asian financial crisis, the house price dropped sharply.
- From 2001, it showed a strong upward trend for about 8 years.
  - Government tried to keep the housing market under control in various ways.
- From Oct. 2008, the house price has been on the decline mainly due to the economic downturn.



Source : Kookmin Bank

## Recent House Price Changes

- The monthly house price growth rate in 2008 decrease from 2Q and **it turned negative in Oct.**
- In Apr. 2009, the growth rate showed a slight positive number.
  - It is expected that the **nationwide house price stabilization or upward turn** will be available only when **the global economic situation firmly improves.**



Source : Kookmin Bank

## Countermeasures to House Price Decline in 1998

	Key Countermeasures
Capital Gains Tax	<ul style="list-style-type: none"> <li>• Tax exempted for purchase of new house (Size <math>\leq 85\text{m}^2</math>) for 5 years</li> <li>• Shortened min. required holding period for tax exemption for household owning a single unit from 3 years to 1 year</li> </ul>
Acquisition & Registration Tax	<ul style="list-style-type: none"> <li>• 25% tax cut for purchase of new house(Size : 60~ 85m<sup>2</sup>)</li> </ul>
Loans to Borrowers for Installment Payment	<ul style="list-style-type: none"> <li>• Size <math>\leq 85\text{m}^2</math> : KRW 30~50 million</li> <li>• Size <math>&gt; 85\text{m}^2</math> : Max. 50% of purchase price &amp; Max. KRW 60 million</li> </ul>
Financial Support to Construction Companies	<ul style="list-style-type: none"> <li>• 6,000 unsold completed houses(Size <math>\leq 85\text{m}^2</math>) purchased by Korea National Housing Corp.</li> <li>• Loan for operation provided to construction companies which held unsold completed houses</li> </ul>
Real Estate Finance	<ul style="list-style-type: none"> <li>• Enacted Asset-backed Securities Act</li> </ul>
Deregulations (Property Market)	<ul style="list-style-type: none"> <li>• Removed the sales price ceiling on apartments to be built by private construction companies</li> <li>• Abolished restriction period on resale of purchase right for new apartments under construction</li> <li>• Cut obligatory purchase amount of National Housing Bonds by 50%</li> </ul>

## Policies to Curb House Price Rise (2002-2007)

	Key Policies
Capital Gains Tax	<ul style="list-style-type: none"> <li>Lengthened min. required holding period for tax exemption for household owning single unit from 1 year to 3 years</li> <li>House price ceiling of KRW 600 million required for tax exemption</li> <li>Raised tax rate for household who owns multiple houses</li> <li>Imposed tax based on transaction price rather than base market price</li> </ul>
Property Tax	<ul style="list-style-type: none"> <li>Raised taxable amount by 5%p per year starting from 2008</li> <li>Raised tax rate gradually from 0.12% in 2003 to 0.27% in 2008</li> </ul>
New Holding Tax (2005)	<ul style="list-style-type: none"> <li>Introduced comprehensive real estate holding tax</li> <li>Imposed tax based on summation of house prices owned by a household, not by a person</li> <li>Threshold price for house set at KRW 600 million</li> </ul>
Speculation Zone (2002)	<ul style="list-style-type: none"> <li>Designated "Overheated Speculation Zone" extensively, in which resale of purchase right for new apartment is restricted</li> <li>Designated "Speculation Zone" extensively, in which tax imposition is made based on transaction price rather than base market price</li> </ul>
Regulations (Property Market)	<ul style="list-style-type: none"> <li>Applied sales price ceiling on apartments to be built on private land</li> <li>Extended restriction period on resale of purchase right for new apartments under construction in metropolitan region</li> </ul>

## Policies to Curb House Price Rise (2002-2007) (cont'd)

	Key Policies
LTV ratio (2002)	<ul style="list-style-type: none"> <li>● Introduced Max. Loan to Value(LTV) ratio at 60% and tightened further</li> <li>● LTV ratio guidelines set by loan maturity, property type, location, property value</li> <li>● Lowered Max. LTV ratio to 40% for mortgage loans collateralized by apartment in Speculation Zone</li> <li>● Max. 70% LTV ratio applicable to FRMs (grace period <math>\leq</math> 1 year, DTI ratio <math>\leq</math> 40%) which are scheduled to be securitized within 1 year</li> </ul>
DTI ratio (2005)	<ul style="list-style-type: none"> <li>● Max. 40% DTI ratio requirement applied to mortgage loans collateralized by apartment in Speculation Zone or in metropolitan region of Overheated Speculation Zone</li> <li>● Not applicable to mortgages loans originated after 3 months from purchase date</li> </ul>
Number of Mortgage Loans (2005)	<ul style="list-style-type: none"> <li>● Enforced strict restrictions on multiple mortgages in Speculation Zone, allowing only one mortgage loan per borrower</li> </ul>
Regulatory Changes (2007)	<ul style="list-style-type: none"> <li>● Increased loan loss provisioning requirement for consumer loans, including mortgage loans</li> <li>● Required banks to focus more on mortgage applicant's ability to repay than on property value</li> </ul>

# New Government's Efforts to Revitalize Property Market

	Key Policies
Capital Gains Tax	<ul style="list-style-type: none"> <li>Exempted tax for unsold houses in non-metropolitan region for 5 years</li> <li>Raised threshold house price for higher taxation to KRW 900 million from KRW 600 million</li> <li>Eased Heavy taxation on household who own multiple houses, applying regular taxation</li> </ul>
Comprehensive Real Estate Holding Tax	<ul style="list-style-type: none"> <li>Eased threshold house price from KRW 600 million to KRW 900 million</li> <li>Cut tax rates(1~3%→0.5~1%)</li> </ul>
Acquisition & Registration Tax	<ul style="list-style-type: none"> <li>50% tax cut for acquisition and registration of unsold houses(1%→0.5%)</li> </ul>
Support to Construction Companies	<ul style="list-style-type: none"> <li>Unsold houses purchased by Korea Housing Guarantee Co.</li> <li>Supported issuance of primary-CBOs to provide liquidity</li> <li>Provided tax benefits to REITs investing in unsold houses</li> </ul>
Deregulations (Property Market)	<ul style="list-style-type: none"> <li>Eased restriction period on resale of purchase right for new apartments in metropolitan region (5~10 years→1~5 years)</li> <li>Speculation Zones &amp; Overheated Speculation Zones released, except only 3 districts in Seoul</li> </ul>
Regulatory Changes	<ul style="list-style-type: none"> <li>Max. LTV ratio raised to 60% and DTI ratio released nationwide except 3 districts in Seoul</li> </ul>



# Agenda

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## I. Government's Countermeasures to House Price Changes

## II. Updates on Korean Mortgage Market

- Government Initiative in Mortgage Market
- Total Mortgage Loans Outstanding
- Banks' Mortgage Origination Activities
- Characteristics of Mortgage Loans
- Loan-to-Value(LTV) ratio Guidelines
- Overall Soundness of Mortgage Market
- Major Findings from Mortgage Market

## III. Korean MBS Market

## IV. KHFC's Mortgage Securitization Business

## V. Lessons from Korean Markets

## Government Initiative in Mortgage Market

### ■ Promoting Long-term Mortgages with Installment Payment terms

- Short-term & Bullet Payment Mortgages were the major product.
- Higher Max. LTV ratio was applied to Long-term Mortgages.

### ■ Increasing the supply of Fixed-rate Mortgages

- ARM share has been excessively high, still reaching about 95%.
- KHFC acts as an effective funding source for the origination of FRMs.

### ■ Promoting the Mortgage Securitization

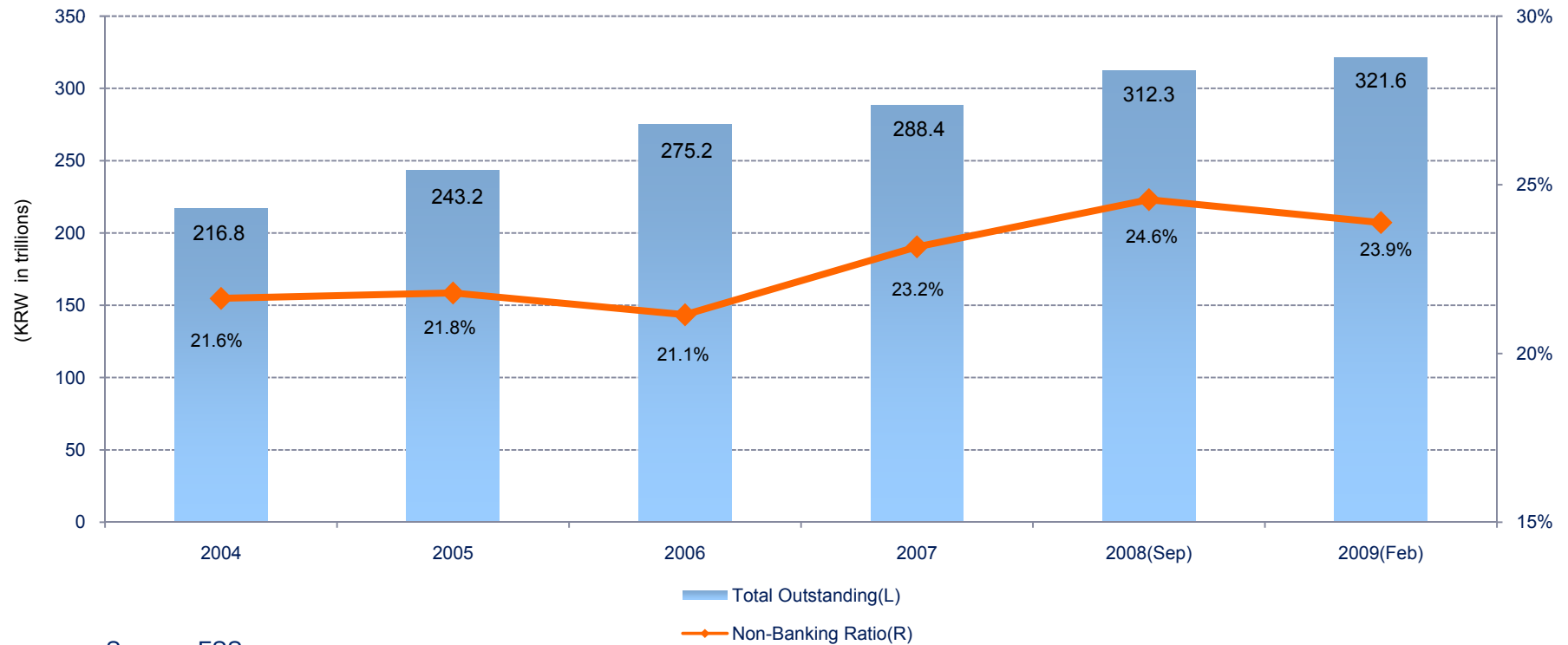
- Deposits have been the major funding source.
- KHFC has taken a leading role in domestic MBS issuance.

### ■ Implementing prudent Regulations on Mortgages

- Detailed regulatory framework has been prepared and implemented.
- The regulations proved to be effective in dealing with excessive demand for housing finance.

## Total Mortgage Loans Outstanding

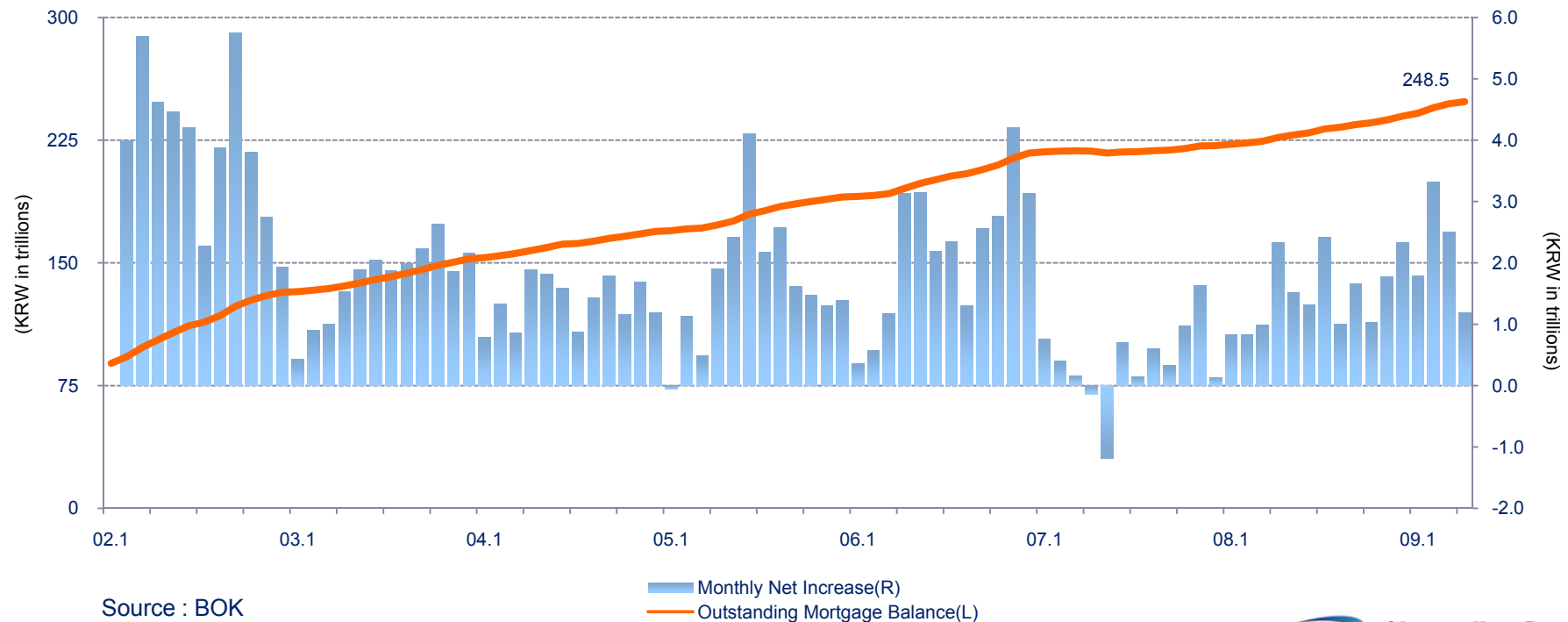
- Total mortgage loans steadily increased to **KRW 321.6 trillion**.
  - ◆ 48% up from 2004
- **Banks are dominant** covering **76%** of the market.
  - ◆ Since 2007, **the share of non-banking institutions** has shown an increasing trend due to the tightening of regulations on banks' mortgage business.



Source : FSS

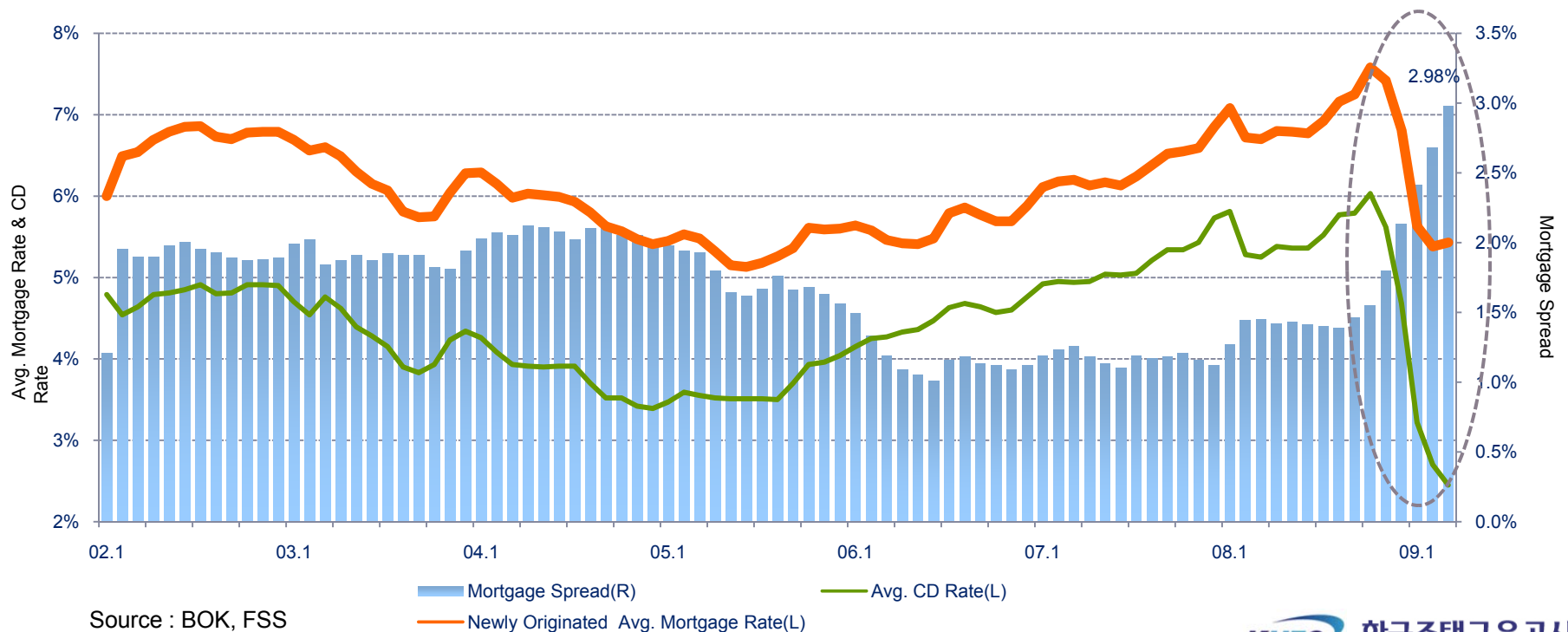
## Banks' Mortgage Origination Activities

- Banks' mortgage business **dramatically increased reaching KRW 249 trillion.**
  - All banks aggressively entered into mortgage business from 2001.
  - Banks recognized mortgages as an asset class for **increasing asset size** without sacrificing their credit quality in the upward trend of house price.
  - Mortgages/Household Loans ratio is 63% as of the end of Apr. 2009.
- Origination amount has been fluctuating following **government measures**, including mortgage regulations, or **the change of house price.**



## Banks' Mortgage Origination Activities (cont'd)

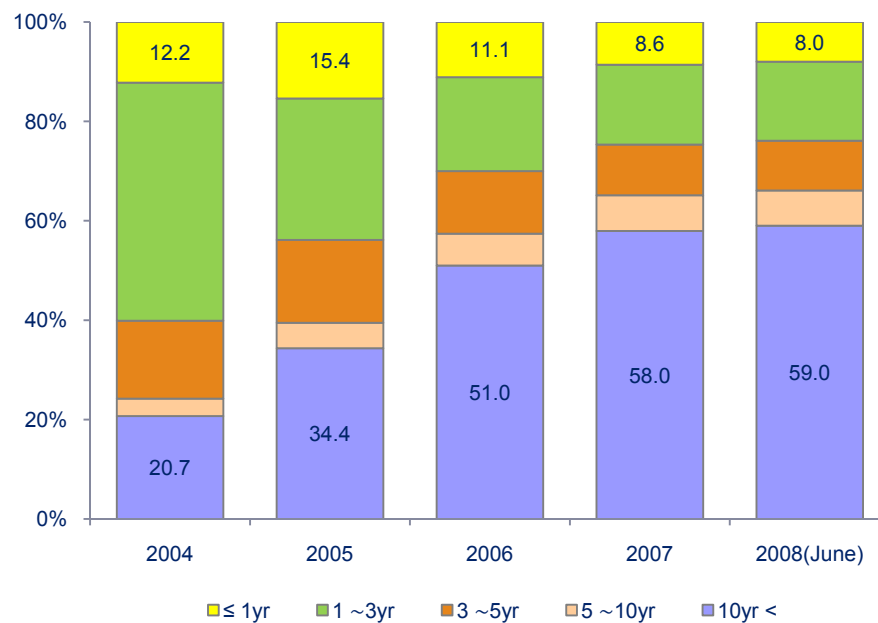
- Banks' mortgages are mostly **ARMs indexed to 91-day CD rate**.
- Recently **mortgage spread sharply increased to 3% level**.
  - During 3Q 2008, **mortgage rate increased as CD rate went up**.
  - As BOK lowered **Base Rate** from Oct. 2008, **CD rate** also went down.
- CD only covers banks' small portion of funding.
  - **High mortgage spread** may deepen the deterioration of borrowers' ability to repay, in case interest rate goes up in the future.



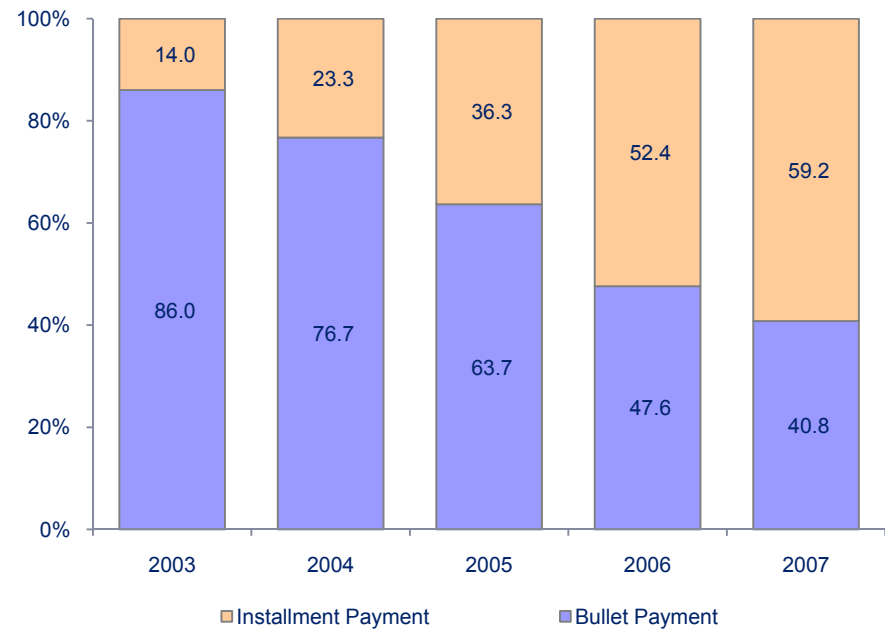
## Characteristics of Mortgage Loans

- **Maturity has lengthened** mainly due to the regulatory initiative allowing higher LTV ratio for longer-term mortgages.
  - Over 10 year maturity share reached **59%** as of the end of June, 2008.
- **The share of mortgages with installment payment term increased** and stood at **59.2%** as of the end of 2007.
- **FRMs still covers only around 5%** of total mortgages.

Mortgage Loans by Maturity



Mortgage Loans by Repayment Type



Source : FSS

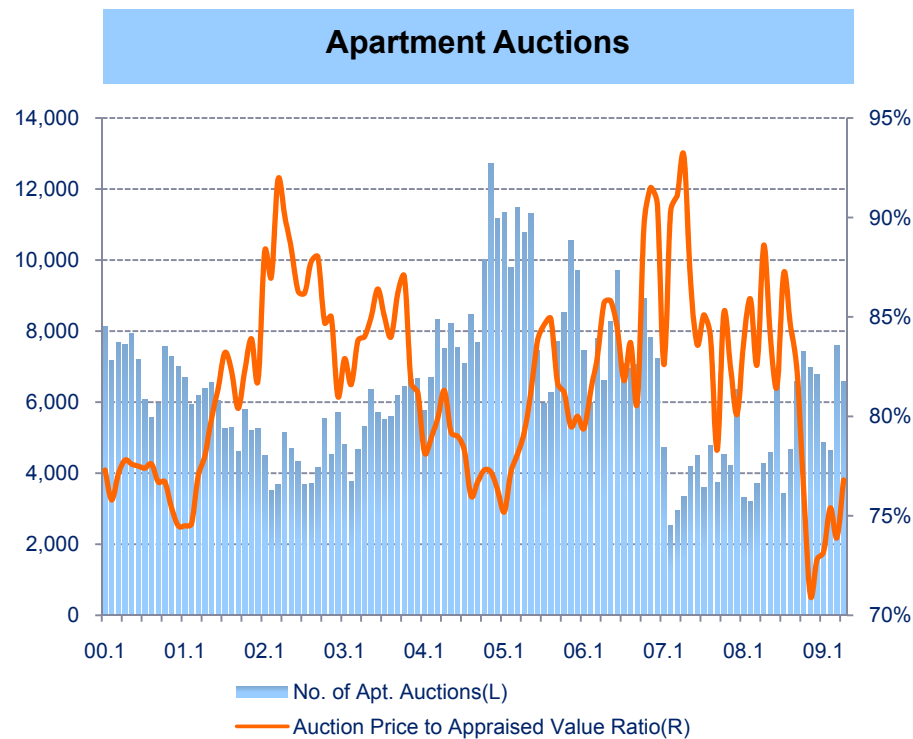
## Loan-to-Value (LTV) ratio Guidelines

		Speculation Zone <sup>1)</sup>		Overheated Speculation Zone <sup>2)</sup>		Other Region	
		Others <sup>3)</sup>	Apt.	Others	Apt.	Others	Apt.
≤ 3 yrs		50%	40%	50%	50%	60%	60%
≤ 10 yrs		60%	40%	60%	60%	60%	60%
> 10 yrs	Property Value > KRW 600 mm	60%	40%	60%	60%	60%	60%
	Property Value ≤ KRW 600 mm	60%	60%	60%	60%	60%	60%
≥ 10 yrs & Installment Payment <sup>4)</sup>		70%	70%	70%	70%	70%	70%

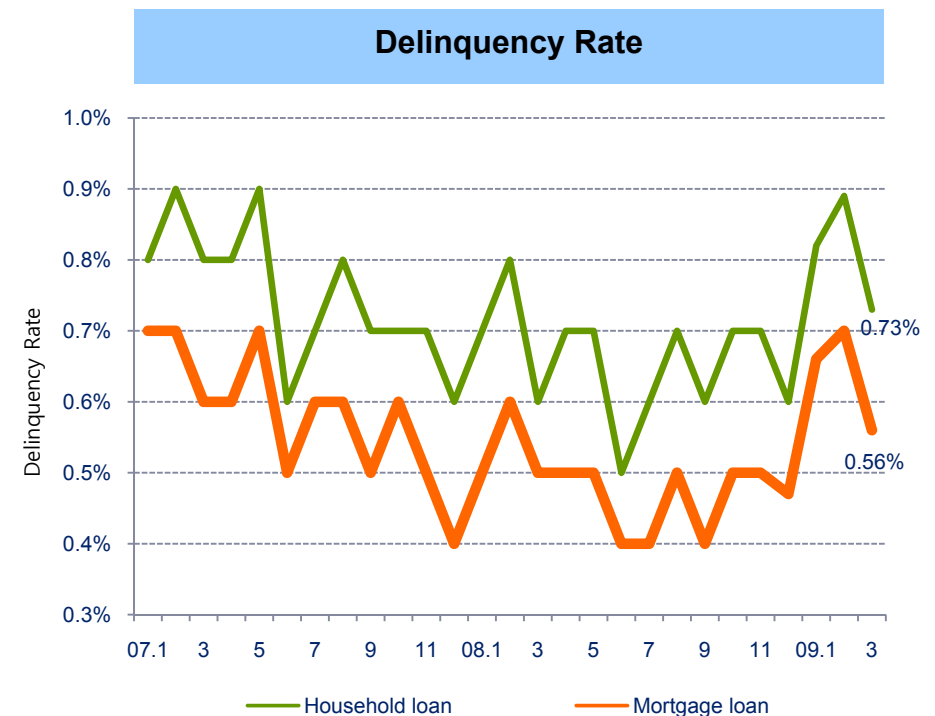
- 1) Ministry of Strategy and Finance may designate it in the region where house price growth rate is higher than national consumer price growth rate and has rapidly increased or high house price growth rate is expected.
- 2) Ministry of Land, Transport, and Maritime Affairs may designate it in the region where house price growth rate is higher than national consumer price growth rate and there exists worries over speculation considering subscription rate for new apartments.
- 3) Other types of residential properties excluding apartments
- 4) FRMs to be sold to KHFC or scheduled to be securitized within 1 yr, grace period ≤ 1 yr, DTI ratio ≤ 40%

## Overall Soundness of Mortgage Market

- **Delinquency rate** shows stable trend amidst economic downturn.
  - It is likely that delinquency rate will rise in case interest rate goes up again.
- **The number of auction for apartments** shows modest changes recently.
  - The auction price to appraised value ratio has fallen down.
- **Severe credit concern is not expected** mainly due to tight regulations so far.
  - Credit issue may arise from non-banking sector.



Source : [www.infocare.co.kr](http://www.infocare.co.kr)



Source : FSS



## Major Findings from Mortgage Market

### ■ ARMs share excessively high.

- In case interest rate goes up, it may cause high default rate, deterioration of financial soundness and hard landing of property market.

### ■ The supply of FRMs on the modest rise, not dramatic so far.

- Financial institutions originate Long-term FRMs and sell those mortgages to KHFC for its MBS issuance.

### ■ Mortgage Securitization on the rise.

- Banks recently started to diversity funding sources and focus more on issues such as liquidity, credit risk and the efficient use of their capital.
- But still mortgage business is regarded as a way to build up their asset.

### ■ Govn't measures to lesson borrower's payment burden implemented

- Under economic slowdown, over 90% of maturities of bullet household loans due and 50% of grace periods of installment payment mortgages were extended since Nov. 2008.

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### III. Korean MBS Market

- MBS Issuance since 2004
- KHFC's MBS Issuance Activities
- Investor Base for KHFC MBS
- Investor Base Highly Concentrated
- Issues and Challenges in Developing MBS Market

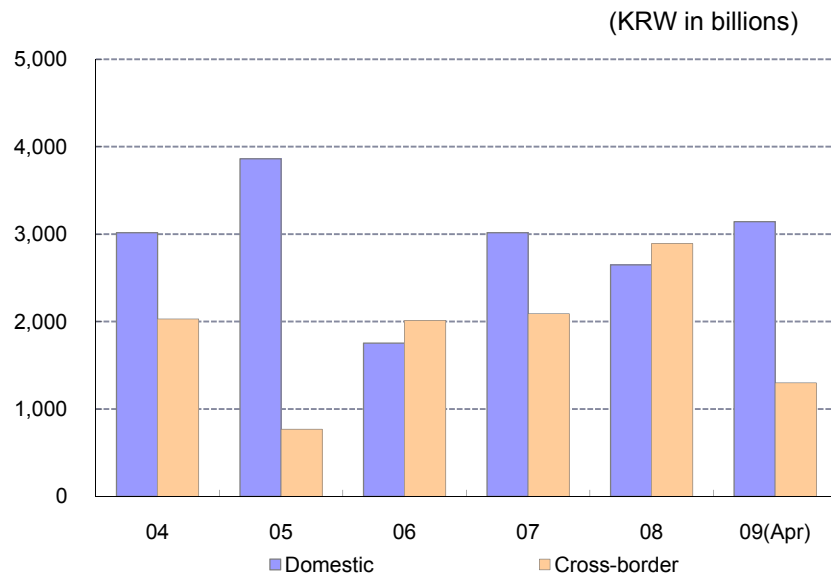
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## MBS Issuance since 2004

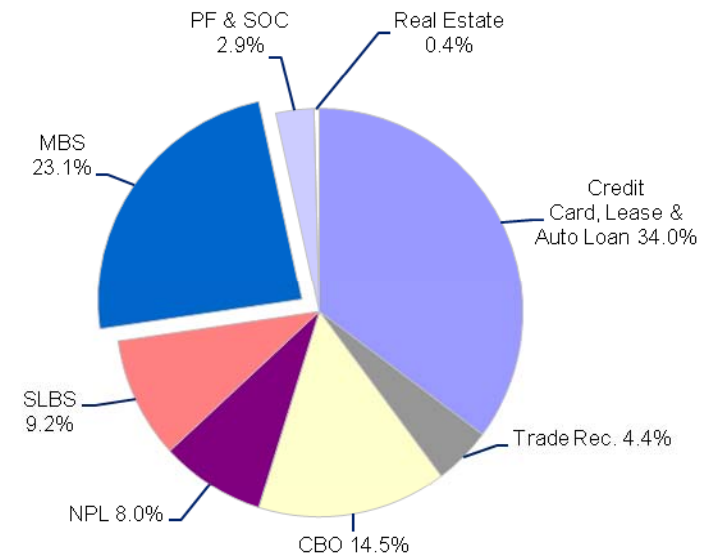
- Since 2004, **KHFC** has been the only issuer of domestic MBS.
  - **KHFC MBS** is backed by FRMs originated by financial institutions.
  - KHFC completed two **Mortgage-MBS Swap** transactions in 2009 backed by ARMs held by banks.
- Four banks have completed **cross-border MBS** transactions.
  - One cross-border Covered Bond transaction was closed in May 2009.

### Domestic MBS vs. Cross-border MBS



Source : FSS

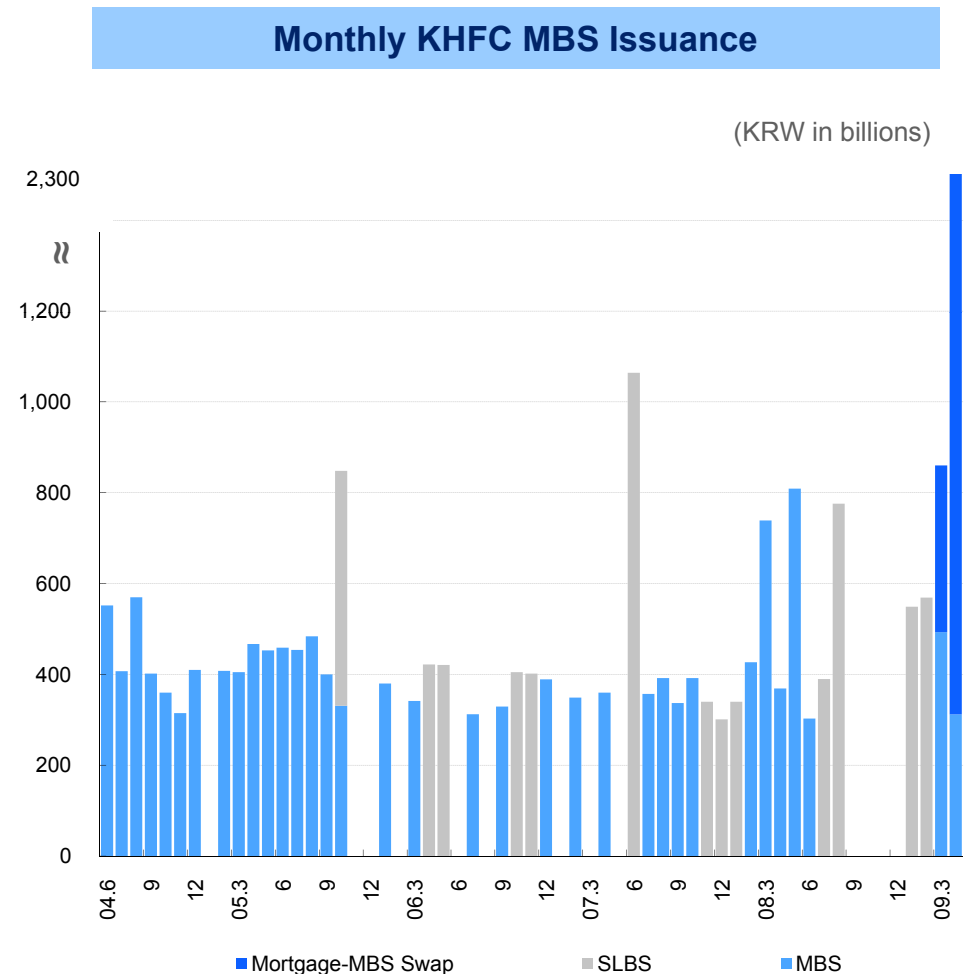
### MBS Share of Total ABS Issuance



Source : FSS (2008~Apr.2009)

## KHFC's MBS Issuance Activities

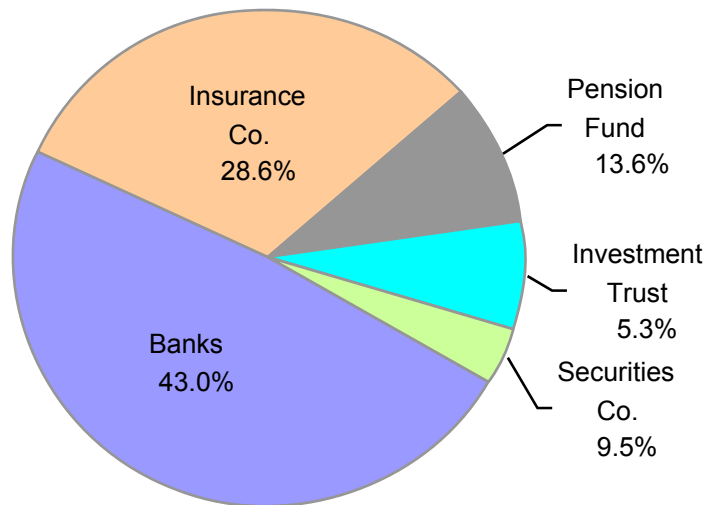
- KHFC completed 38 MBS deals.
- Underlying assets are FRMs originated by participating lenders under KHFC securitization commitment program.
- In case of two Mortgage-MBS Swap deals, ARMs are underlying assets.
- Total Issuance : KRW 16.6 trillion
- Mortgage Portfolio Business
- KRW 2.2 trillion (Apr. 2009)



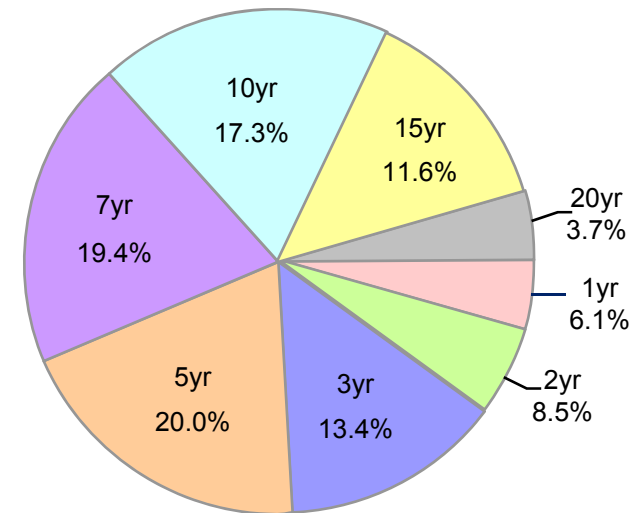
## Investor Base for KHFC MBS

- Investor base has been widened to **77 institutional investors**.
- KHFC issued KRW 7.4 trillion of **Long-term Fixed-rate MBS( $\geq 7$ yr)**.

MBS Placement by Investor Type



MBS Issuance by Maturity

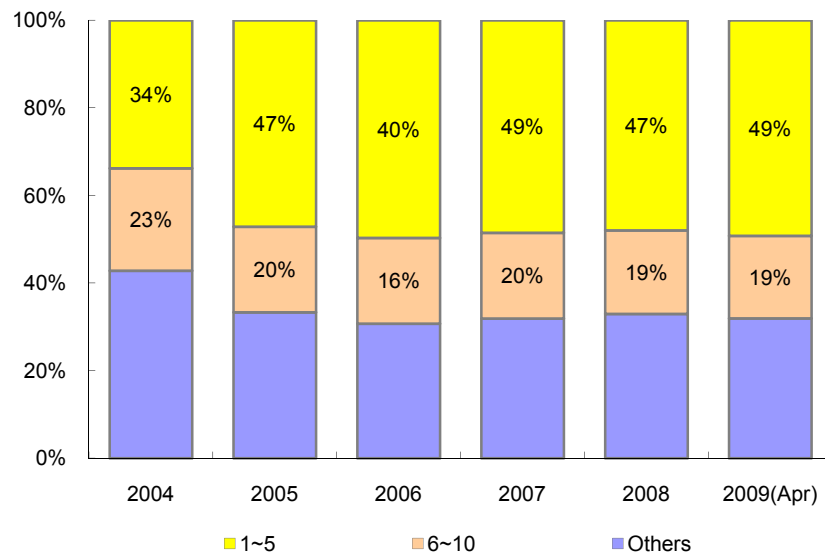


\* Note: Mortgage-MBS Swap deals (KRW 2.3 trillion) not considered

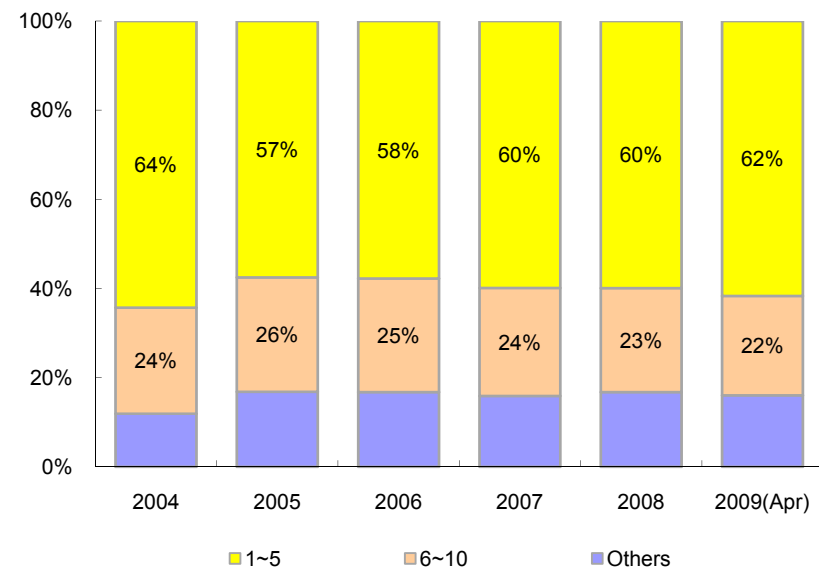
## Investor Base Highly Concentrated

- Top ten investors' investment covers **68%**.
- Top ten investors' share for long-term MBS(≥10yr) is **84%**.
  - **Long-term MBSs** are mostly purchased by insurance companies and pension funds.

Top 10 share for MBS



Top 10 share for Long-term MBS (≥10yr)



\* Note: Mortgage-MBS Swap deals (KRW 2.3 trillion) not considered

# Issues and Challenges in Developing MBS Market

## ■ MBS trading in the secondary market underdeveloped

- Investors' buy and hold strategy

## ■ Development of MBS issuance structure

- Economics of MBS transaction (Bullet, Callable, Path-through)

## ■ MBS Pricing

- Prerequisite for active trading

## ■ Stable supply of eligible mortgages for MBS

- Standardization of documents and underwriting guidelines

## ■ Expansion of investor base for long-term MBS

- High concentration ratio

## ■ Investor base for Floating-rate MBS

- Critical hurdle in securitizing ARMs

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## IV. KHFC's Mortgage Securitization Business

- Overview of KHFC
- Securitization Commitment Program
- Eligible FRMs and Underwriting Criteria
- Supply of KHFC FRMs (Bogeumjari Loan)
- KHFC MBS Issuance Structure
- KHFC MBS vs. Mortgage-MBS Swap
- Terms of KHFC MBS

## V. Lessons from Korean Markets



# Overview of KHFC

## ■ Government-run Secondary Mortgage Market Enterprise

- KHFC was established on Mar. 1, 2004

## ■ Capital Base & Government's credit support

- **Paid-in Capital: KRW 1,076.6 billion** (Authorized Capital: KRW 2 trillion)
- **Contributors of the capital**
  - MoSF(61%), BOK(29%), National Housing Fund(10%)
- **Government provides the strongest form of credit support**
  - Losses, in excess of reserves, to be covered by government (KHFC Act)

## ■ Major Line of Business

Supply of  
Long-term  
Fixed-rate Mortgages

Issuance of  
MBS & SLBS  
(Mortgage Portfolio)

Housing Finance  
Credit Guarantee  
Fund

Reverse Mortgage  
Guarantee  
Fund

# Securitization Commitment Program

- The Program was developed to promote the origination of **Long-term FRMs** and to secure those mortgages for securitization.
- **Participating lenders** originate FRMs by following underwriting guidelines and procedures directed by **KHFC**.
  - Mortgage terms, including mortgage rate, LTV & DTI requirement, loan documentation, etc.
- **Pre-commitment**
  - KHFC is obligated to purchase mortgages from participating lenders at prescribed terms.
  - Participating lenders commit to originate eligible FRMs and transfer them to KHFC.
- Participating lenders take the role of **Servicer** after the transfer of the mortgages.
- **Expansion of applicable mortgage products**
  - Subsidized FRMs for lower income people( $\Delta 0.5\% \sim \Delta 1.0\%$ )
  - Hybrid Mortgage

## Securitization Commitment Program (cont'd)

- **Mortgage Rate**
  - Subject to change by KHFC
  - It differs by maturity, application method(e-mortgage vs. off-line), etc.
- **Frequency of Commitment**
  - New commitment to be signed on a quarterly basis
- **Servicing Fee**
  - Annual fee, Upfront fee
- **Purchase Price**
  - At par (= mortgage loan balance plus accrued interest amount)

**Participating lenders** are free from both credit risk and market risks.

**KHFC** prescribes the underwriting guidelines in a prudent way and hedges the market risks with derivatives transactions.

- **KHFC MBS serves as a funding source for expanding the supply of FRMs.**
  - KHFC is poised for serving financial institutions' needs to raise funds from the capital market at competitive conditions.

## Eligible FRMs and Underwriting Criteria

### ■ Major Terms of Eligible FRMs

Maturity	<ul style="list-style-type: none"> <li>▪ 10, 15, 20, 30 years</li> </ul>
Mortgage Rate	<ul style="list-style-type: none"> <li>▪ Fixed Rate           <ul style="list-style-type: none"> <li>➢ Base Mortgage Rate (subject to change by KHFC)               <ul style="list-style-type: none"> <li>- 6.1%(10yr), 6.2%(15yr), 6.3%(20yr), 6.35%(30yr) as of May 20, 2009</li> <li>- 0.2%p discount available for e-mortgage loan application</li> </ul> </li> <li>➢ 0.10%p discount available respectively in case borrower pays               <ul style="list-style-type: none"> <li>- Expenses related to Mortgage Registration</li> <li>- 0.5% of Upfront Discount Fee by taking interest rate discount option</li> </ul> </li> </ul> </li> </ul>
Repayment Terms	<ul style="list-style-type: none"> <li>▪ Monthly P&amp;I level payment           <ul style="list-style-type: none"> <li>➢ Max. 3 years of Grace Period (Interest only) available</li> </ul> </li> <li>▪ Full Amortization Basis           <ul style="list-style-type: none"> <li>➢ Partial Amortization (25%(10yr), 40%(15yr), 50%(20yr), 70%(30yr)) available</li> </ul> </li> </ul>
Prepayment Penalty	<ul style="list-style-type: none"> <li>▪ For the first 12 months(2.0%), 13 to 36 months(1.5%), 37 to 60 months(1.0%)</li> </ul>

## Eligible FRMs and Underwriting Criteria (cont'd)

### ■ Summary of Underwriting Criteria

<b>Loan Purpose</b>	<ul style="list-style-type: none"> <li>▪ Purchase, Refinancing</li> </ul>
<b>Maturity</b>	<ul style="list-style-type: none"> <li>▪ 10 years (Max. 30 years)</li> </ul>
<b>Max. LTV Ratio</b>	<ul style="list-style-type: none"> <li>▪ Apartment(70%), Other types(65%)</li> <li>- Non-qualified borrower for DTI requirement : Max. 60% (CB 8<sup>th</sup>~9<sup>th</sup> grade : Max. 50%)</li> </ul>
<b>Max. Loan Amount</b>	<ul style="list-style-type: none"> <li>▪ KRW 500 million</li> </ul>
<b>Max. DTI Ratio<sup>1)</sup></b>	<ul style="list-style-type: none"> <li>▪ DTI<sub>1</sub> : 33%, DTI<sub>2</sub> : 40%</li> </ul>
<b>Collateral</b>	<ul style="list-style-type: none"> <li>▪ Residential properties, excluding multi-household house for rental purpose</li> <li>▪ Max. Appraisal Value = KRW 900 million</li> </ul>
<b>Mortgage Lien</b>	<ul style="list-style-type: none"> <li>▪ First (Second lien is only allowed for limited cases)</li> </ul>
<b>Borrower</b>	<ul style="list-style-type: none"> <li>▪ Not registered in KFB's Delinquent Debtor DB</li> <li>▪ CB grade is within 1<sup>st</sup> to 9<sup>th</sup> grade (CB companies: KIS, NICE)</li> <li>▪ Number of houses owned by the borrower ≤ 1</li> <li>▪ Income proof required</li> </ul>

\* 1) DTI<sub>1</sub> = {(Monthly P&I Payment Amt) / (Monthly Income)}

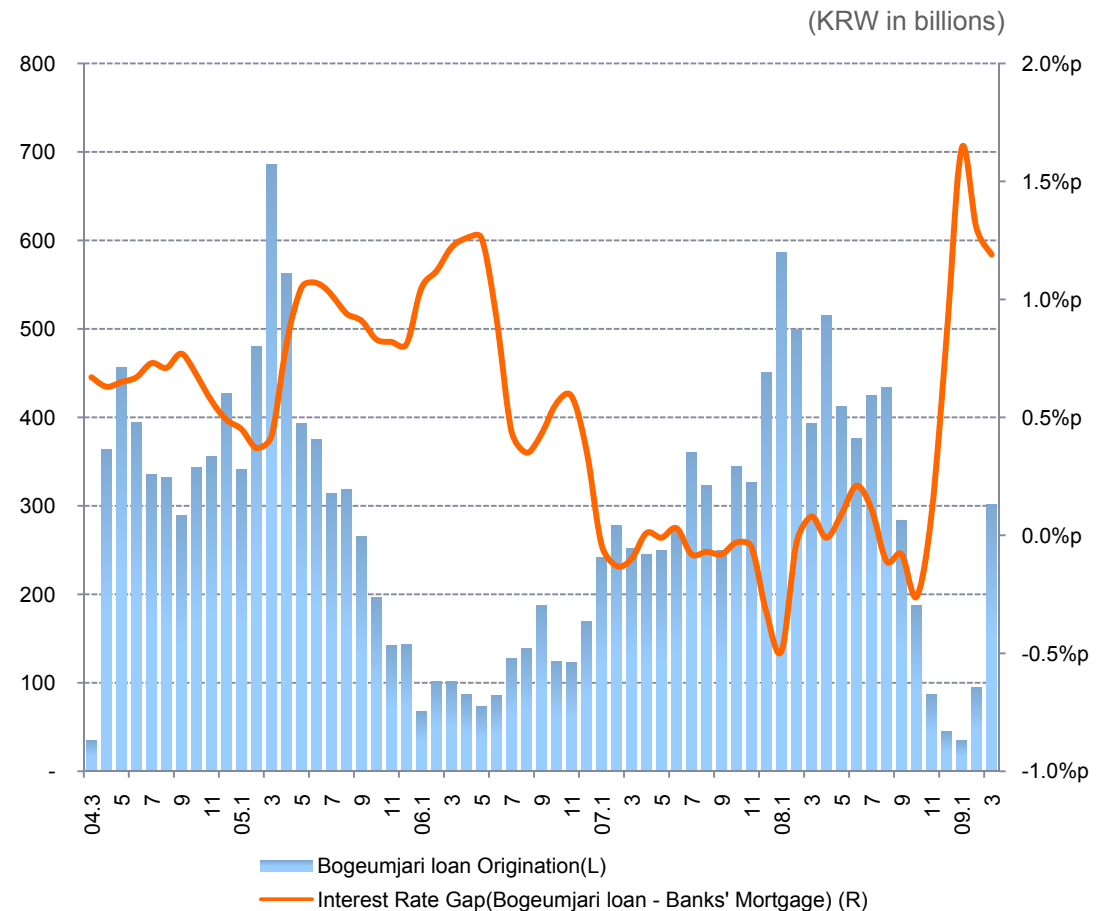
DTI<sub>2</sub> = {(Monthly P&I Payment Amt + Estimated\* Interest Payment Amt of Other Debts) / (Monthly Income)}

\* Estimated Interest Rate = Weighted Avg. Loan Interest Rate published by Bank of Korea

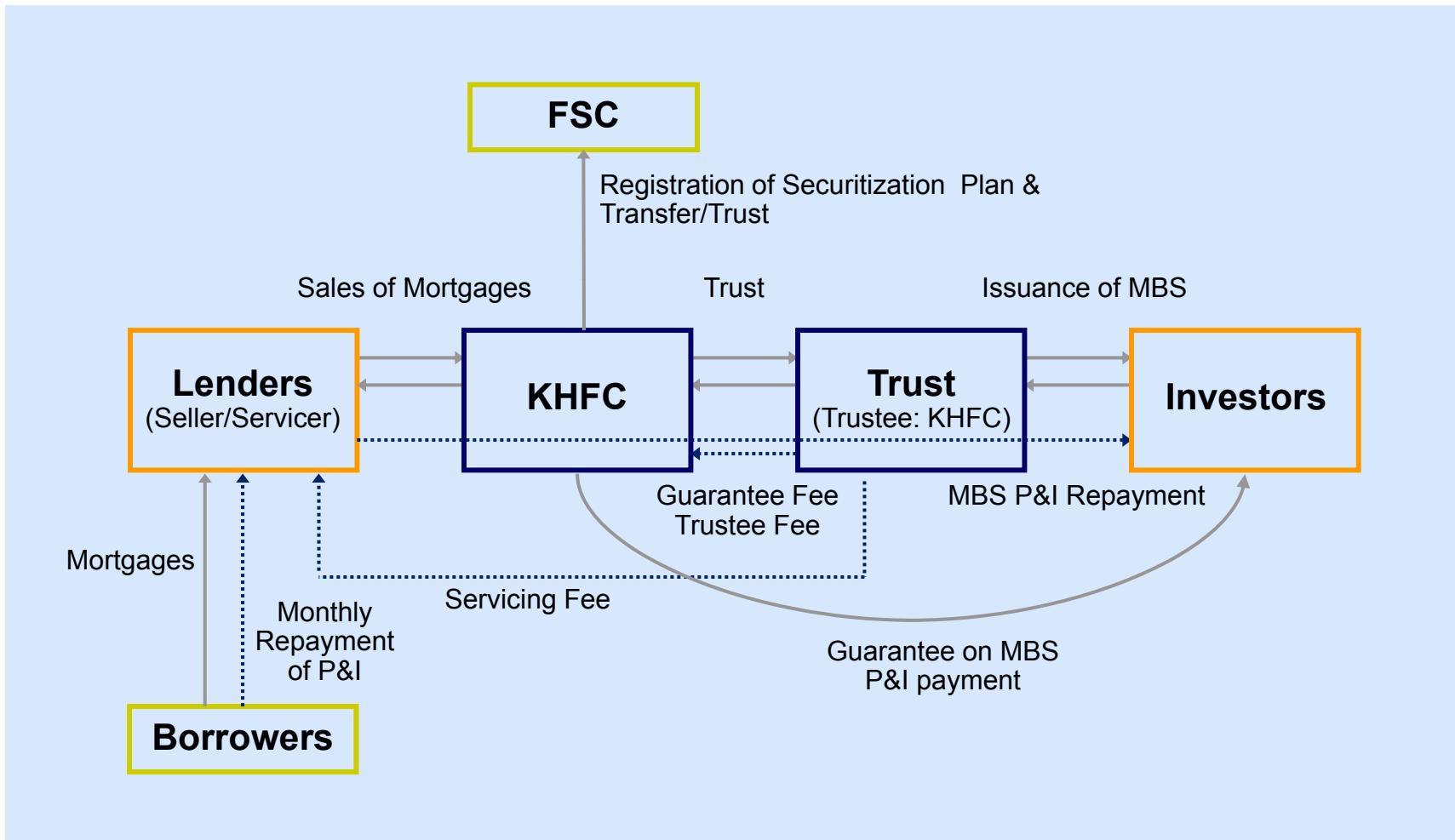
# Supply of KHFC FRMs (Bogeumjari Loan)

- **20 Participating Lenders**
  - 15 Banks
  - 3 Life Insurance
  - 2 Fire & Marine Insurance
- **About 220,000 mid-to-low income families used Long-term FRMs.**
  - **KRW 17.7 trillion**  
(as of Apr. 30, 2009)
- **e-mortgage application adds value to the supply of FRMs.**

Monthly Mortgage Origination by Participating Lenders



# KHFC MBS Issuance Structure



## KHFC MBS vs. Mortgage-MBS Swap

	KHFC MBS	Mortgage-MBS Swap
<b>Underlying Assets</b>	<ul style="list-style-type: none"> <li>FRMs</li> <li>Maturity : 10,15,20,30 years</li> </ul>	<ul style="list-style-type: none"> <li>ARMs indexed to CD rate</li> <li>Maturity : 3 ~ 30 years</li> </ul>
<b>Coupon Payment</b>	<ul style="list-style-type: none"> <li>Quarterly coupon payment</li> </ul>	<ul style="list-style-type: none"> <li>Monthly coupon payment</li> </ul>
<b>MBS Tranching</b>	<ul style="list-style-type: none"> <li>Multiple tranches with different maturities</li> </ul>	<ul style="list-style-type: none"> <li>Single tranche(Pass-Through)</li> </ul>
<b>MBS Terms</b>	<ul style="list-style-type: none"> <li>Fixed-rate MBS : Govn't Bond Yield + Spread</li> <li>AAA Credit Rating</li> </ul>	<ul style="list-style-type: none"> <li>Floating-rate MBS : CD rate (91-day) + Spread</li> <li>AAA Credit Rating</li> </ul>
<b>Credit Enhancement</b>	<ul style="list-style-type: none"> <li>100% guarantee on P&amp;I by KHFC</li> </ul>	<ul style="list-style-type: none"> <li>100% guarantee on P&amp;I by KHFC</li> </ul>
<b>Call Option</b>	<ul style="list-style-type: none"> <li>Quarterly exercise of call option</li> <li>Noncallable 1,2,3 yr tranches</li> </ul>	<ul style="list-style-type: none"> <li>Monthly exercise of call option</li> <li>Clean-up call after the 7<sup>th</sup> year</li> </ul>
<b>Issuer</b>	<ul style="list-style-type: none"> <li>Trust(Trustee:KHFC)</li> </ul>	<ul style="list-style-type: none"> <li>Trust(Trustee:KHFC)</li> </ul>
<b>Servicer</b>	<ul style="list-style-type: none"> <li>Participating Lenders</li> </ul>	<ul style="list-style-type: none"> <li>Lenders</li> </ul>



## Terms of KHFC MBS (2009-4, KRW 311.6 billion)

Type	Maturity	Amount (in billions)	Coupon <sup>1)</sup> (Fixed)	Base <sup>2)</sup> Rate	Spread	Call Option	
Senior	1 yr	36.6	2.93%	2.40%	53bps	-	
	2 yrs	40	3.83%	3.13%	70bps	-	
	3 yrs	40	4.41%	3.61%	80bps	-	
	5 yrs	70	5.16%	4.23%	93bps	Fast-Pay Partial Call <sup>3)</sup>	
	7 yrs	50	5.23%		100bps		
	10 yrs	45	5.49%	4.76%	73bps	Sequential Partial Call	from 3 yrs
	15 yrs	20	5.58%		82bps		from 4 yrs
	20 yrs	10	5.66%		90bps		from 5 yrs
		<b>Total</b>	<b>311.6</b>	<b>5.22%</b>			
Sub. <sup>4)</sup>	21yrs						

\* 1) Quarterly payable (Sub. Tranche : lump-sum payment on principal payment date by simple method)

2) Govn't Bond Yield with the same maturity (5yr Yield → 5, 7yr tranches, 10yr Yield → 10, 15, 20yr tranches )

3) While 5yr tranche is callable from 3 months, 7yr tranche is callable from 2 yr but only when 5yr tranche is fully repaid(Exercise amount : multiple of 1% of issuance amount of each Tranche)

4) Subordinated Tranche represents the right to get residual value, if any, and is held by KHFC.

# Agenda

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**I. Government's Countermeasures to House Price Changes**

**II. Updates on Korean Mortgage Market**

**III. Korean MBS Market**

**IV. KHFC's Mortgage Securitization Business**

**V. Lessons from Korean Markets**

## Lessons from Korean Markets

### ■ Prudent mortgage regulations required

- Mortgage regulations are prerequisite for prudent lending.
- Government needs to have a tool to control excessive demand for mortgages which may be used for speculation on houses.
- Timely combination of mortgage regulations, tax policies and property market regulations needs to be implemented to cope with volatile property market.

### ■ Government initiative required to promote FRMs

### ■ Focusing on the key value which mortgage securitization can create

- Providing the funding source to financial institutions for their origination of long-term FRMs has been the key value in Korea.

### ■ Financial and credit support to SMME from government required

### ■ Roles of SMME & market participants required for developing MBS market

### ■ Without stable supply of eligible mortgages, no MBS issuance