Post-Crisis Crises in Subsidized Housing Finance Systems

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Varied Impacts of the Crisis on Emerging Markets HF Systems

- Macro economic factors affect demand
  - Employment effects – high in export oriented countries
  - Level of consumer debt – banks exposure to increased credit risk
  - Foreign exchange effects
- Mortgage sector funding affected
  - Widened debt spreads, sharp decline in capital flows
  - Impact differs for deposit or capital market based lenders
  - --- And availability of subsidized funding
- Type and effectiveness of stimulus measures by state –
  - MCMV in Brazil focused on housing sector –> extraordinary growth
  - Massive Infrastructure spending in China
  - Affordable Housing Program in India etc.....
Post Crisis Attention is Turning to Subsidized HF Systems ---

- Often **only game in town** in countries with such systems
- Special status (regulatory and other) further crowds out private lenders affected by crisis
- Growing awareness of their risks and potential costs ---
  - Move to riskier products, e.g., developer loans, loans to riskier clients
- Yet **irresistible as lenders/ funders of last resort**
  - Implement housing policy numbers
  - Implementers of economic stimulus measures

Examples: FNMA/FreddieMac and FHA in US, Provident Funds in Mexico, Brazil’s SHF, and others
Federal agency outstanding mortgage liabilities have increased despite the crisis and despite the decrease in total mortgages outstanding.

FNMA/FreddieMac close to US$5 trillion in outstanding liabilities; just below total US Govt. liab; compare to FHA (MOH targeted programs) >US$5 billion in outstanding mortgages; GNMA liabilities >US$750 billion.

New originations predominantly through GSEs/FHA.

Needed for stimulus of housing sector.

Debate on the nationalized agencies beginning ....
Mexico’s Provident Funds Now Make Close to 90% of Housing Loans; but do not serve non-members which are >40% of population

Source: Asociacion Hipotecaria Mexicana, November 2009
Mexico: Construction Finance Dries Up Pressure on Infonavit to Finance Development

**Colocación Créditos Puente (Monto)**

- **Bancos**
  - A Septiembre 2008: 25,907
  - A Septiembre 2009: 20,286

- **Sofoles/Sofomes**
  - A Septiembre 2008: 15,881
  - A Septiembre 2009: 5,748

- **Total General**
  - A Septiembre 2008: 41,787
  - A Septiembre 2009: 26,034

*Source: Asociacion Hipotecaria Mexicana, November 2009*
Brazil’s Response to Crisis

- Brazil’s economy affected after Lehmann
  - Employment rate dropped from 53% to 52%
  - Informal employment stopped declining – now at 38%
  - But GDP growth resumed

- Stimulus program – MCMV- quick and preventive

- HF system not dependent on capital markets

- SFH funding--2009: >70% in R$; +/-80% in # loans

- Stimulus uses FGTS and budget funds for subsidies, FGTS for financing of loans (<6MW) and related construction finance

- CEF + other public bank are dominant lenders

Already high concentration in public sector will increase
Concerns

- Exceedingly high risks for governments post crises
- And for savers in the savings funds
- Further withdrawal / crowding out of private sector
  - no level playing field; no real competition / innovation (in primary or secondary market)

Current Crisis is an (Urgent) Opportunity:

- To better balance public and private HF systems
- While stimulus programs work their way through economy
- Countries that addressed their public HF systems after a crisis, for example Korea after Asian crisis, Thailand 1985/86, have seen healthy growth in HF afterwards
What we will discuss

- Inherent constraints of subsidized + segmented Housing Finance Systems
- Effects on housing policy, housing + labor markets
- Suggested components to balance HF systems
  - Neutralize access to funds across industry
  - Tax and budgetary re-allocations for housing
  - While retaining focus on savings for housing
  - Transforming household subsidies
  - Further regulatory and institutional change
- Case of Korea (time permitting)
Common Limitations of Subsidized HF Systems

- Conflict between subsidizing housing and savings remuneration for members in PF system
- Crowding out lending at market interest rates
- Inequitable distribution of benefits; not all members receive a loan, non members excluded -- Mexico
- Cheap funding can lead to misallocation/mis-pricing and high losses
- Fund allocations for loans/subsidies fluctuates- in Brazil SBPE with Selic; FGTS thru CC decision

⇒ Inefficiencies often limit overall size of mortgage market
Subsidized Systems Risks and Volatility

SFH - Financiamentos Habitacionais

Número de Unidades

Recursos do FGTS
Recursos da Caderneta
Inflação IPC-FIPE

Courtesy Marcus Vinicius Ferrero
Pre-crisis Growth in Government Selected Mortgage Markets Policies Matter

Mortgage Debt/GDP: Emerging Markets

Source: World Bank, Central Banks
Other Concerns (I)

- Dominance in Housing Policy Formulation
  - Subsidized lenders/funders become *defacto* housing policy decision-makers; but limited expertise
  - Mortgage loan is dominant subsidy instrument - blunt
  - Reduces need for budget allocations to Housing Ministries/ many deserving groups left out
  - *Other side*: Policy pressure on the Provident Funds can lead to high risk taking and inefficiencies on the lending side
Other Concerns (II)

- **Housing market effects**
  - Ownership focus; low investment in rental housing, upgrading
  - Developer focus => new housing on cheap land => locational distortions in urban areas – Mexico, Egypt

- **Labor market effects**
  - High labor taxes (MX 5%; Brazil 8%) on top of other charges contribute to high formal labor cost =>
  - Persistent labor informality +/-40%
  - OK in *import-substitution model* of economic development; not suitable in *global competitive markets*

Growing body of research on informal labor markets show relation with labor market inefficiencies (IMF 2009; Schneider 2005, 2009, Maloney 2004)
The Informal Economy is Growing in Many Countries

Ongoing System Reforms in Mexico and Brazil

- Combine indiv savings with private sector loan - MX
- Progressive structure of interest rates - MX+Brazil
- Use of complementary upfront subsidies - MX+Brazil but in Mexico from OGU, in Brazil from FGTS/OGU
- Make implicit subsidy costs transparent - start MX
- Lower top income/house-price brackets not to overlap with private market – MX+Brazil
- Part of subsidies to non-members - Brazil
- Improved collections, systems, reduced costs

And other……

But fundamental structure and constraints remain
Thinking Beyond the Crisis

Making fundamental changes to reduce system risks and expand private sector lending

Some suggestions for reform:

- Level the playing field to access funding
- Gradually decrease tax on formal labor and increase remuneration for workers savings
- Increase budget allocation for transparent household subsidies
- Improve institutional systems for private sector mortgage expansion to underserved
Leveling the Playing Field

- Fundamentally change system to access PF funds
  - E.g., Establish an independent liquidity facility with investments from the PF and possibly other parties
  - Use market rates on fund lending (complement with transparent OGU subsidies for on-lending to targeted groups)
  - Public and private lenders compete for funds at same terms
  - Feasible in Brazil; difficult in Mexico where PF is lender

- Regulations not to favor public lending or funding institutions--capital standards, provisioning, etc--

- Equalize other privileges -- access to fed & local govt guarantees/ insurance, access to pay-roll --
Rationalize Labor Tax and Savings Remuneration

- Gradually **reduce labor tax** – would increase formal labor pool if accompanied by other labor mkt regulatory improvements
- **Increase remuneration** on savings accounts -- charge mkt rates for funds, eliminate dir. subsidies
- Allow savings to be used as **down-payment** on mortgages made by any qualifying lender
- Allow part of PF and pension savings to be used as **collateral** for non-mortgage loans for housing
- **Long-term**; integrate (lower) special PF savings into pension savings
Increase Federal Budget Allocation for Transparent Subsidies

- OGU subsidies increased/prioritized by MOH/MOC
- Including for rental housing and upgrading
- Separate ownership subsidies into (PH in Brazil):
  - Sub to complement a market rate mortgage
  - Sub that subsidize housing/infra costs directly
- Use transparent subsidies for down-payment, transaction costs or buy-down of monthly payments fully disbursed to lenders upfront – a “must”
- Complement subsidies with savings, including PF savings, i.e., increase borrower equity
Components of Buy-Down Subsidy

- Market rate mortgage loan from bank
- Down-payment by household
  - Let us say 20%
- Upfront subsidy to assist qualifying borrowers with monthly payments;
  - “buy-down”* concentrated in early years of the loan when interest rate burden is highest
- Upfront subsidy can also be split in down-pmt and buy-down subsidy

*placed in custody account in financial institution/ but subsidy disbursed over time/ stimulates repayment
Support Necessary Institutional Improvements for Mortgage Lending

- Much progress in Brazil and Mexico (Brazil: see CEF presentation)
- Room for improvement; Topic of this conference
  - Facilitate establishment of private MI
  - Further decrease segmentation in funding markets- SBPE funding system, secondary market funding
  - Etcetera
Conclusion

- Many countries successfully **de-segmented** their mortgage system
- when GDP per capita allowed such
- Invariably housing **lending and housing production/quality increased** when done effectively – Chile, Thailand, Korea
- **Poor results** when strategy is **incomplete/half-hearted** – Indonesia 1998, US in 2003/05, Japan 2005, Nigeria various PF reforms etc.
- Needs strong leadership!

For Brazil to Seize this Post Crisis Moment
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Case of Korea: Overview

- Korea underinvested in housing in early phase of economic development
- Financial repression combined with rigid land use regulations
- Govt. suppressed demand to curb speculation
- Public supply increased since 1988 (2 million houses program) but supply remained inelastic
- Mortgage finance system liberalized after 1997/98 financial crisis
  - 1996 mortgage debt <$3billion; 8% of GDP
  - 2007 mortgage debt >$30billion; 35.7% of GDP
- Housing conditions and affordability improved
Korea: Housing Finance Reform

- National Housing Fund had a 50% market share in 1996; in 2007 it had 5% for deserving groups
- Private banks, depositaries and savings, dominate in the market >90%/ use ARMs (95%)
- In 2004, Korea Housing Finance Corporation was created and issues Mortgage-backed-Securities (small market share 2%)
- KHFC also runs a sizable mortgage insurance co.
- Initiation of private mortgage insurance in 2007; but little appetite with low LTVs
Korea’s Reforms after the Crisis of 1997/98 Increased Lending

<table>
<thead>
<tr>
<th>Table 1: 총주택대출 및 가계대출 잔액 (말잔 기준: 조원, %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>------------------</td>
</tr>
<tr>
<td><strong>A. 총 주택대출 (MDO)</strong></td>
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<tr>
<td><strong>총 민간 주택대출 (Total Private Lending)</strong></td>
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<td><strong>예금은행</strong></td>
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<td><strong>비은행 금융기관</strong></td>
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<td><strong>보험회사</strong></td>
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<td><strong>상호저축은행</strong></td>
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<td><strong>총 공공 주택대출 (Total Public Lending)</strong></td>
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<td><strong>국민주택기금 (NHF)</strong></td>
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<td><strong>한국주택금융공사 (KHFC)</strong></td>
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<tbody>
<tr>
<td><strong>B. 총 가계대출 (Total Consum</strong></td>
<td>151.0</td>
<td>186.0</td>
<td>165.8</td>
<td>241.1</td>
<td>303.6</td>
<td>449.4</td>
<td>650.4</td>
<td>650.4</td>
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<td></td>
<td>(33.7)</td>
<td>(37.7)</td>
<td>(34.3)</td>
<td>(41.7)</td>
<td>(48.8)</td>
<td>(67.7)</td>
<td>(64.9)</td>
<td>(64.9)</td>
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<tr>
<td><strong>A/B</strong></td>
<td>(24.1)</td>
<td>(23.2)</td>
<td>(26.7)</td>
<td>(21.6)</td>
<td>(30.9)</td>
<td>(63.4)</td>
<td>(64.3)</td>
<td>(64.9)</td>
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<td></td>
<td>(8.1)</td>
<td>(8.7)</td>
<td>(9.1)</td>
<td>(9.0)</td>
<td>(15.1)</td>
<td>(30.8)</td>
<td>(36.2)</td>
<td>(36.7)</td>
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</table>

a: 농협 등 신용협동기구 포함
b: 2000년 이전 통계에는 비은행금융기관에 포함
c: 소비자금융 (개인 주택구입자금, 전세자금) 포함, 건설회사 등을 대상으로 한 공공자 금융 제외
(괄호 안의 숫자는 퍼센트를 나타냄)
Korea: New House Construction since 1951

Source: NSO (National Statistics Office), Socioeconomic changes in Korea, 60 years since its foundation, 2008.8
## Korea: Indicators of Housing Quality

<table>
<thead>
<tr>
<th>Year</th>
<th>floor space (m²) per hh</th>
<th>floor space (m²) per person</th>
<th># persons per room</th>
<th># rooms per hh</th>
<th>modern kitchen (%)</th>
<th>modern toilet (%)</th>
<th>hot bath (%)</th>
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<tbody>
<tr>
<td>1970</td>
<td>35.9</td>
<td>6.8</td>
<td>2.4</td>
<td>2.2</td>
<td>-</td>
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<tr>
<td>1975</td>
<td>41.4</td>
<td>8.2</td>
<td>2.3</td>
<td>2.2</td>
<td>-</td>
<td>-</td>
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<tr>
<td>1980</td>
<td>45.8</td>
<td>10.1</td>
<td>1.8</td>
<td>2.2</td>
<td>9.7</td>
<td>12.3</td>
<td>4.3</td>
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<tr>
<td>1985</td>
<td>46.4</td>
<td>11.3</td>
<td>1.9</td>
<td>2.2</td>
<td>34.6</td>
<td>33.1</td>
<td>20.0</td>
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<tr>
<td>1990</td>
<td>51.0</td>
<td>13.8</td>
<td>1.5</td>
<td>2.5</td>
<td>52.4</td>
<td>51.3</td>
<td>34.1</td>
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<tr>
<td>1995</td>
<td>57.3</td>
<td>17.2</td>
<td>1.1</td>
<td>3.1</td>
<td>84.1</td>
<td>75.1</td>
<td>74.8</td>
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<td>2000</td>
<td>62.9</td>
<td>20.2</td>
<td>0.9</td>
<td>3.4</td>
<td>93.9</td>
<td>86.9</td>
<td>87.3</td>
</tr>
<tr>
<td>2005</td>
<td>66.2</td>
<td>23.0</td>
<td>3.6</td>
<td>97.9</td>
<td>94.0</td>
<td>95.8</td>
<td></td>
</tr>
</tbody>
</table>

Source: NSO
Sound and Persistent Policies and Leadership make an Impact

Cheonggyecheon in 1965. Taken by Kuwabara Sisei.
Cheoggyechoen in 2007
# International Comparison of Housing Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Korea ('05)</th>
<th>Japan ('03)</th>
<th>U.S. ('03)</th>
<th>U.K. ('02)</th>
<th>Germany ('02)</th>
</tr>
</thead>
<tbody>
<tr>
<td># of houses/# of households</td>
<td>105.9</td>
<td>109.3</td>
<td>108.5 ('03)</td>
<td>105.2</td>
<td>100.6</td>
</tr>
<tr>
<td># of houses /1000 persons</td>
<td>282</td>
<td>422</td>
<td>416</td>
<td>426</td>
<td>473</td>
</tr>
<tr>
<td>Average size of house (m²)</td>
<td>63.1 ('00)</td>
<td>94.9 ('00)</td>
<td>148 ('01)</td>
<td>87 ('01)</td>
<td>95</td>
</tr>
<tr>
<td>Per capita floor space (m²)</td>
<td>23.0 ('05)</td>
<td>33.8 ('00)</td>
<td>65.3 ('01)</td>
<td>44.0 ('01)</td>
<td>41.6 ('01)</td>
</tr>
<tr>
<td>Homeownership rate(%)</td>
<td>62.9 ('04)</td>
<td>61.2</td>
<td>68.3</td>
<td>70.4 ('03)</td>
<td>42.6</td>
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<tr>
<td>House price to income ratio</td>
<td>5.5</td>
<td>4.9</td>
<td>3.7</td>
<td>3.8</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Source: Kyung-Hwan Kim and Man Cho, 2009
Expansion of Household Credit and House-price Appreciation

Source: Kyung-Hwan Kim and Man Cho, 2009
Low Loan To Value Ratios in Korea Decrease Risk

Source: Kyung-Hwan Kim and Man Cho, 2009
Case of Korea: Policy Implications

- Macro-economic stability and housing market stability are intertwined
- Housing policy should facilitate supply of housing that is demanded at the time
- While providing transparent subsidies to those who deserve them
- Rental housing will always need to complement ownership
- Expanding housing finance while keeping supply inelastic will drive up prices