Implications of Fair Value
Accounting for Financial System Stability

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Shin's elegant model shows how FVA can affect the dynamics of asset prices

- Rising asset prices can strengthen b/s's of financial intermediaries
  - Stronger b/s's lead to greater lending
  - Greater lending leads to higher asset prices

- A decline in asset prices can set off the reverse dynamic
  - Leverage amplifies the impact of the initial price change
  - FVA speeds up the process.
Economists (and securities regulators) tend to prefer fair value accounting (FVA) relative to the current mixed system that includes elements of

✓ historical cost,
✓ the lower of cost or market value and
✓ fair value accounting.
Why?

✓ FVA tends to reduce the degree of asymmetric information between investors and managers
✓ FVA leads to more accurate and up-to-date information about investment opportunities, market conditions and the behavior of firms
✓ FVA facilitates more accurate stock prices, and alleviates the control problem between outside managers & firm insiders
MS leaves a gap between market values & book values because it

- Fails to recognize $\Delta$ in value of l.t. instruments & loans due to $\Delta i$
- Delays recognition of ↓ value due to ↑ credit risk
- Fails to recognize $\Delta$ in value of liabilities
- Fails to recognize $\Delta$ in value of intangibles
Yet, practitioners and bank and insurance regulators often prefer the current mixed system (MS) to FVA. Why?
It can’t be done

✓ Many financial instruments do not trade or trade only in very thin markets

✓ Marking to model is difficult to verify and may facilitate manipulation of earnings
It shouldn’t be done

✓ Institutions will shorten the duration of their portfolios
  – The quality and quantity of l.t. finance will suffer

✓ FVA would introduce unnecessary and misleading volatility in income statements
  – Until recently many banks were encouraged to smooth reported earnings thru use of hidden reserves
  – FVA may increase volatility in share prices
It shouldn’t… (cont’d)

- Market prices may diverge from long run values for extended periods
  - FVA would distort the capital positions of core institutions
  - Departures from l.t. values are amplified and sustained by bank lending behavior
It shouldn’t … (cont’d)

- It may undermine the stability of the financial system by exacerbating losses at core FIs
  - Exposures become excessive inadvertently during sustained departures from equilibrium prices
  - Inevitably, shock causes decline in asset prices
  - FIs with excessive exposures become insolvent
    - Deterioration in capital positions may occur so rapidly that no remedial action is possible
    - Insolvencies may become contagious because of
      - Direct exposures among core FIs
      - Perceived exposures among FIs
The toughest case for FVA is when market prices make sustained departures from equilibrium. 

Example a market that has caused major banking problems in multiple countries: commercial real estate lending
Real estate booms often followed by banking crises
Price Dynamics are Remarkably Similar Across Countries
Figure 2. Inflation Adjusted Office Property Prices in Stockholm, 1980–93

Figure 3. Index of Japanese Commercial Land Prices
Figure 4. Boston Office Real Capital Values, 1977–89

Source: NCREIF (various years).
Figure 8. Real Commercial Property Rents and Value Indices, Bangkok, 1986–96

Commercial real estate markets are vulnerable to waves of optimism

- Short sales are extremely difficult
- Supply increases only after a very long lag
- Mark Carey’s model of land prices → prices increase with increases in
  - Increases in the fundamental price
  - Number of investors
  - Increases in the heterogeneity of beliefs
  - Financial resources available to investors
Assume banks maximize expected value subject to the constraint that the perceived risk of insolvency be no greater than $\gamma$ ...
The Desired Loan Concentration...

- Increases as promised returns increase
- Increases as the expected probability of default ($\pi$) decreases
- Increases as perceived correlation with the rest of the portfolio decreases
- Increases as the capital position increases
Bank lending helps drive real estate prices

Fundamental Factors

Demand for Real Estate

Price of Real Estate

Supply of Credit

Banks
- Value of Real Estate Assets Owned
- Value of Loans Collateralized by Real Estate
- Assessment of Risk of Real Estate Lending

Supervision & Regulation
Why were banks willing to assume such heavy concentrations of exposure to real-estate related lending?

Risk were underestimated

- Poor data and inadequate analysis
- Disaster myopia

✓ Risks were ignored
- Perverse incentives
Remedies?

✓ Measures to confront disaster myopia
✓ Eliminate perverse incentives
✓ Upgrade the quality of data and analysis re: real estate investment
✓ Improve the functioning of commercial real estate markets
  – REITs may help bring more equity to industry
  – Real estate derivatives may reduce influence of optimists
How does the choice between FVA and the MS affect the price dynamics of a commercial real estate boom?
<table>
<thead>
<tr>
<th>In the Up Phase, Higher Prices →</th>
<th>MS</th>
<th>FVA</th>
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<tbody>
<tr>
<td>Larger loans, given loan-to-value ratio</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Loan-to-value ratio often declines in boom</td>
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<tr>
<td>Equity-kicker → bank capital</td>
<td>√</td>
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<td>↑ value of collateral → ↑ in credit quality of loan (likely to be de minimus)</td>
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<tr>
<td>↑ value of collateral → ↑ in refinancings which may be used to buy more real estate</td>
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<td>↑ in value of bank’s own real estate → ↑ bank capital</td>
<td>√</td>
<td>if realized</td>
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<td>↑ in interest rate → ↓ in loan value &amp; ↓ in capital</td>
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<td>↓ loan value before failure to service</td>
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<td>MS</td>
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<td>Smaller loans, given loan-to-value ratio</td>
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<td>Loan-to-value ratio often increases in bust</td>
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<td>Likelihood of evergreening</td>
<td>Greater</td>
<td></td>
</tr>
<tr>
<td>Likelihood of supervisory forbearance</td>
<td>Greater</td>
<td>26</td>
</tr>
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</table>
Main Difference: The Down Phase

✓ Under FVA
  – Bubbles are likely to end sooner
  – Evergreening may be less likely
  – Supervisory forbearance may be less likely
  – Resolution and restructuring likely to happen more quickly
Total accumulated losses of FSLIC/RTC over time

FSLIC/RTC’s accumulated losses due to high interest rates in the early 1980s.
A Danish example?

- Denmark was the only Scandinavian country that did not experience a severe banking bust in the wake of a boom in commercial real estate
- Denmark was the only Scandinavian country that practiced FVA
- Could the two facts be related?
How might FVA *enhance* the stability of the banking system?

✓ ↑ incentives to diversify
✓ ↑ incentives to hedge
✓ ↑ incentives to impose stop-loss procedures
✓ ↑ incentives to hold capital

➢ While this may shift risks to other market participants, it may mean that bank behavior is less likely to be the source of instability.