

Implications of Fair Value Accounting for Financial System Stability

Richard J. Herring

Director of the Lauder Institute

Co-Director, The Wharton Financial Institutions Center

herring@wharton.upenn.edu

Workshop on “Accounting, Risk Management &
Prudential Regulation”

BIS

November 11-12, 2005

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 insiders⁴

MS leaves a gap between market values & book values because it

- ✓ Fails to recognize Δ in value of l.t. instruments & loans due to Δ_i
- ✓ Delays recognition of \downarrow value due to \uparrow credit risk
- ✓ Fails to recognize Δ in value of liabilities
- ✓ Fails to recognize Δ 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

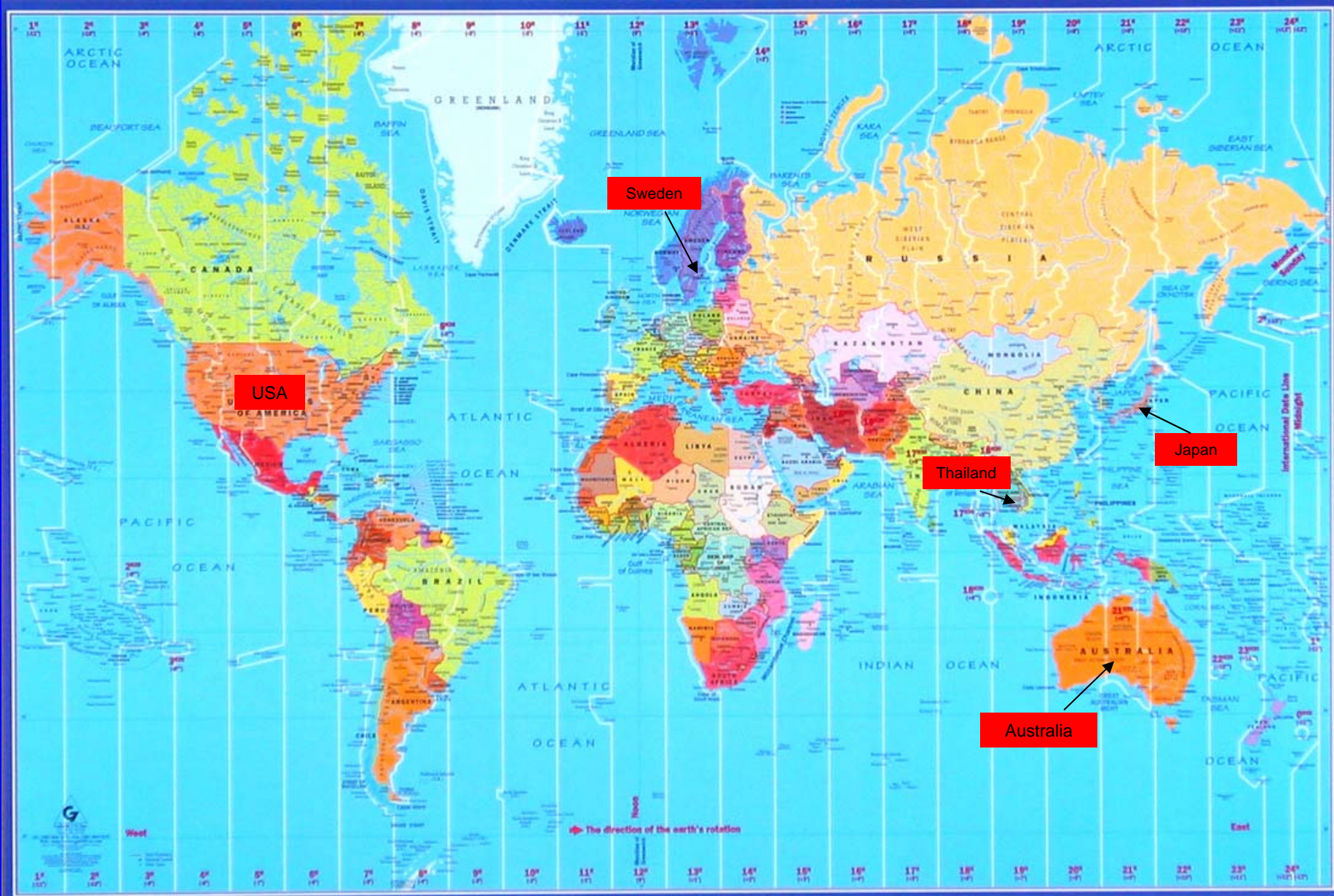
It shouldn't ... (cont'd)

- ✓ 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.

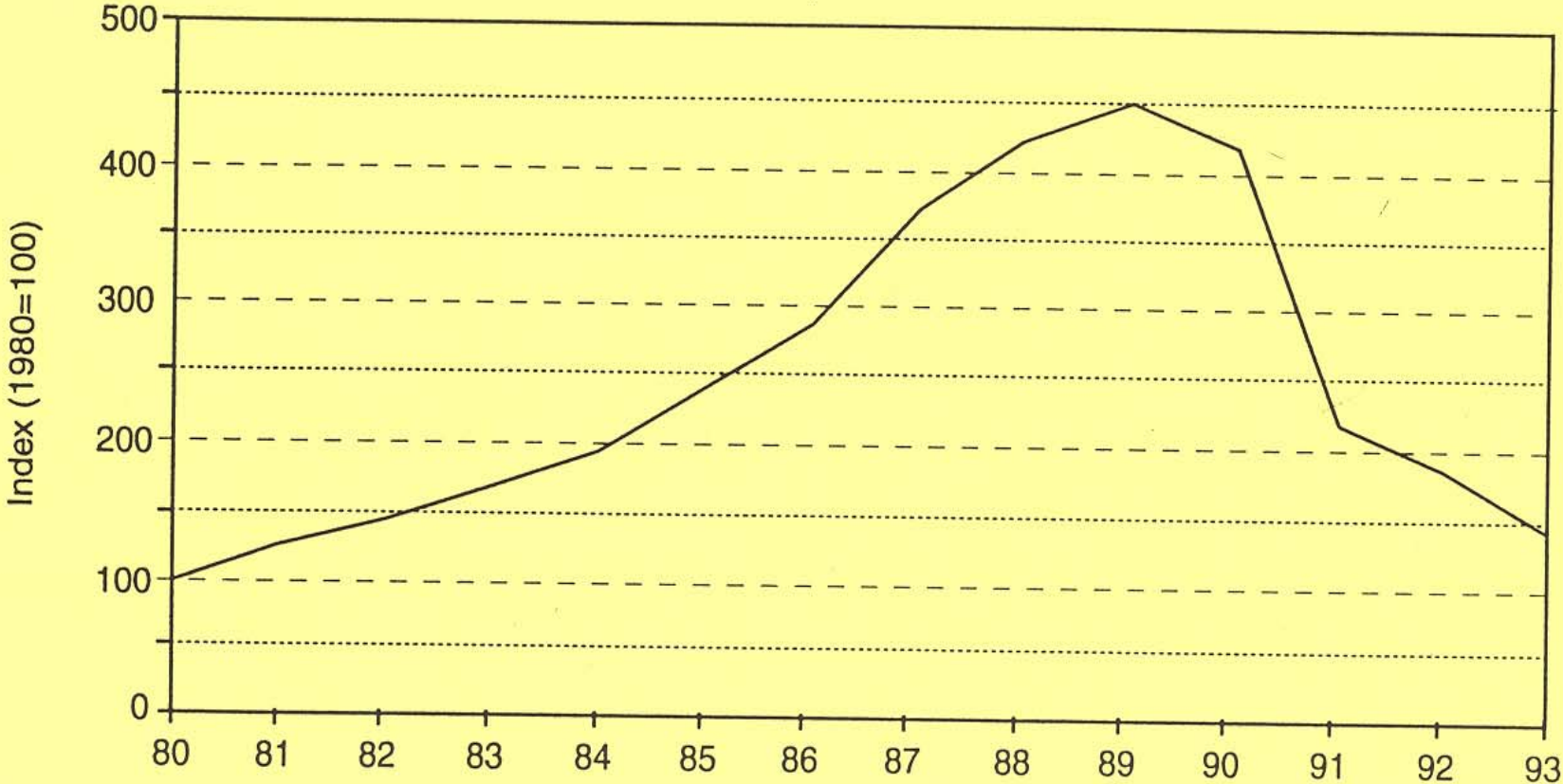
Example a market that has caused major banking problems in multiple countries: commercial real estate lending

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**



Sources: SCB (1994); BIS (1994) as demonstrated in Jaffee (1994, p. 67).

Figure 3. Index of Japanese Commercial Land Prices

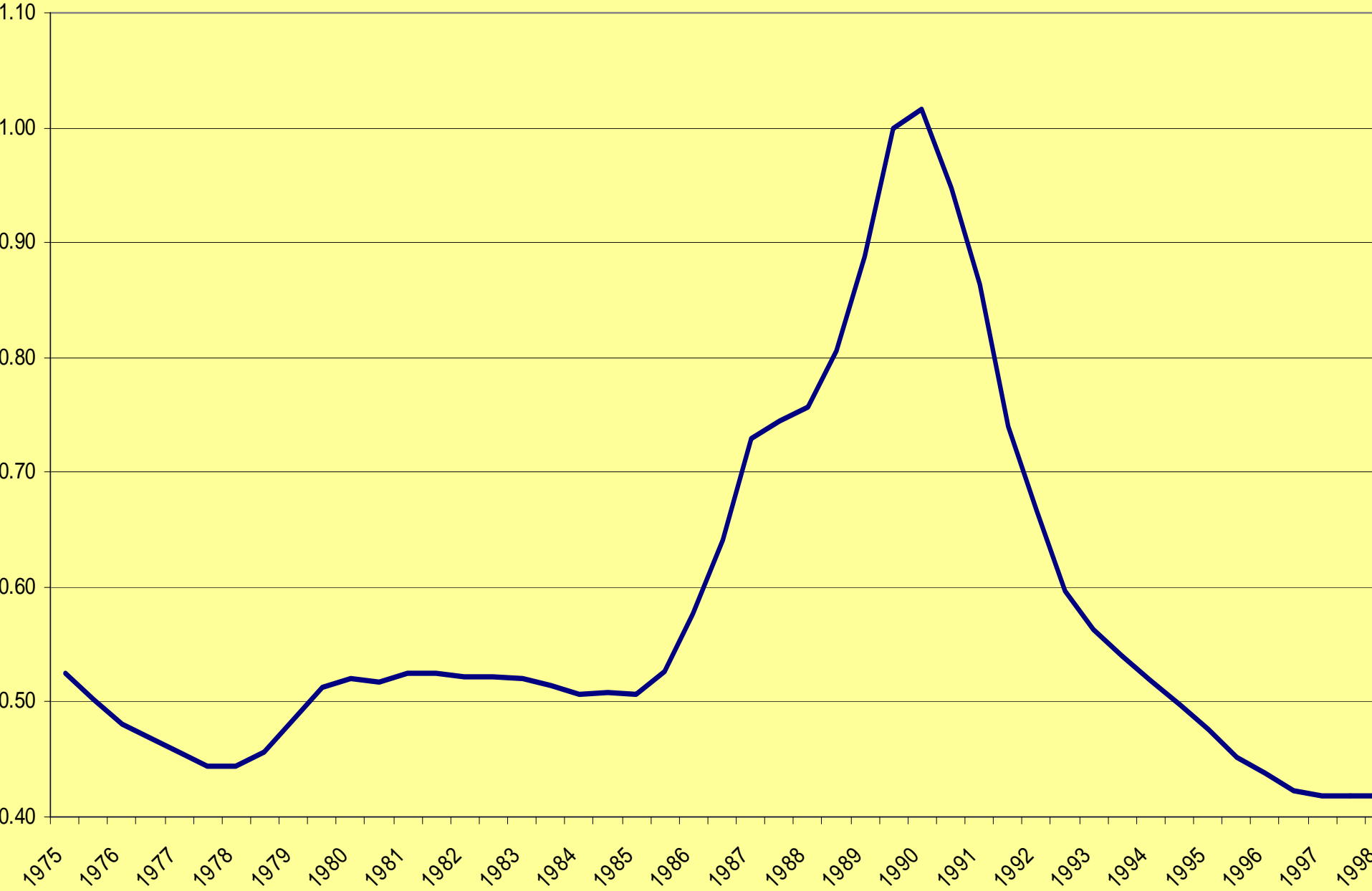
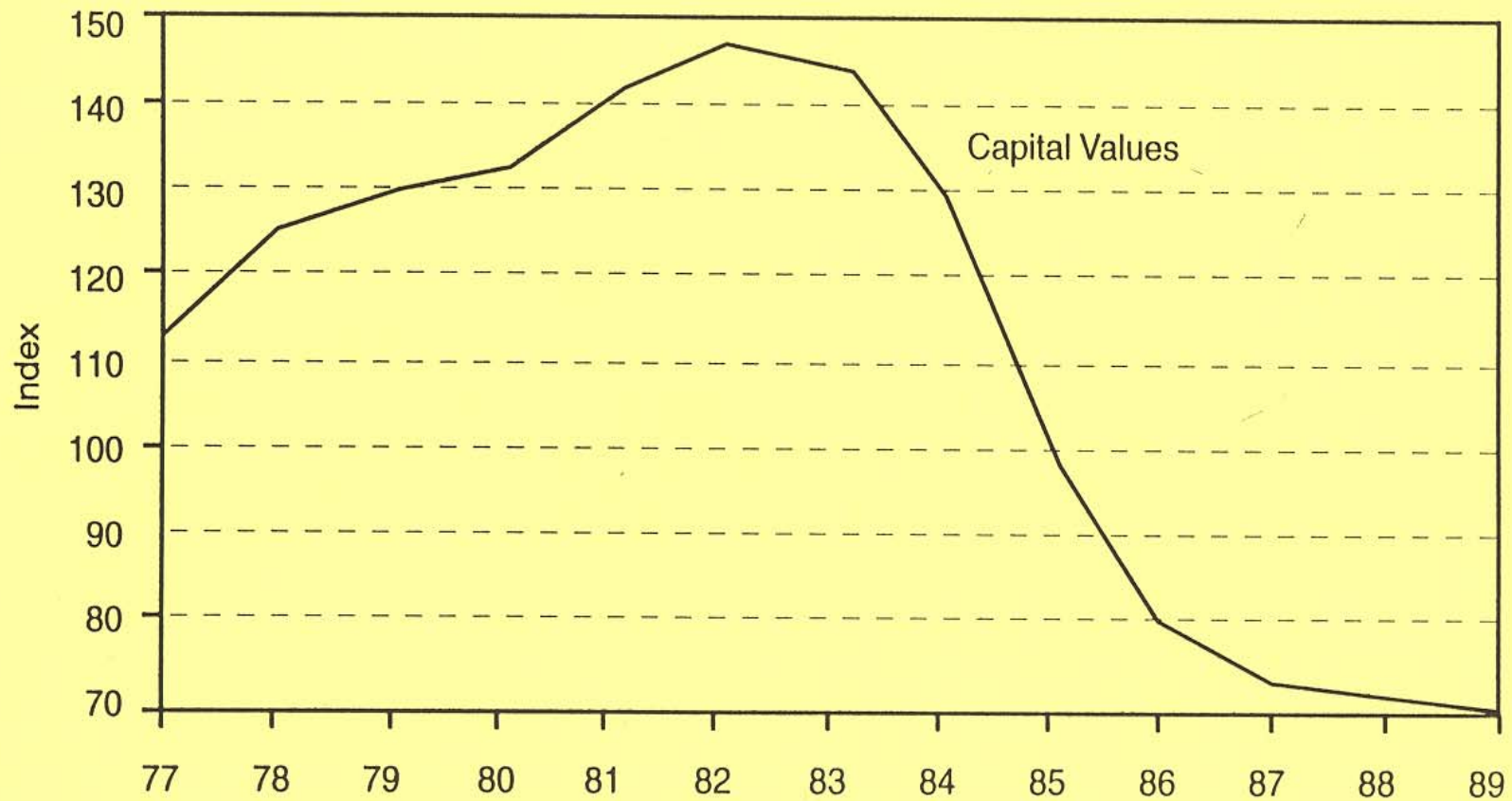
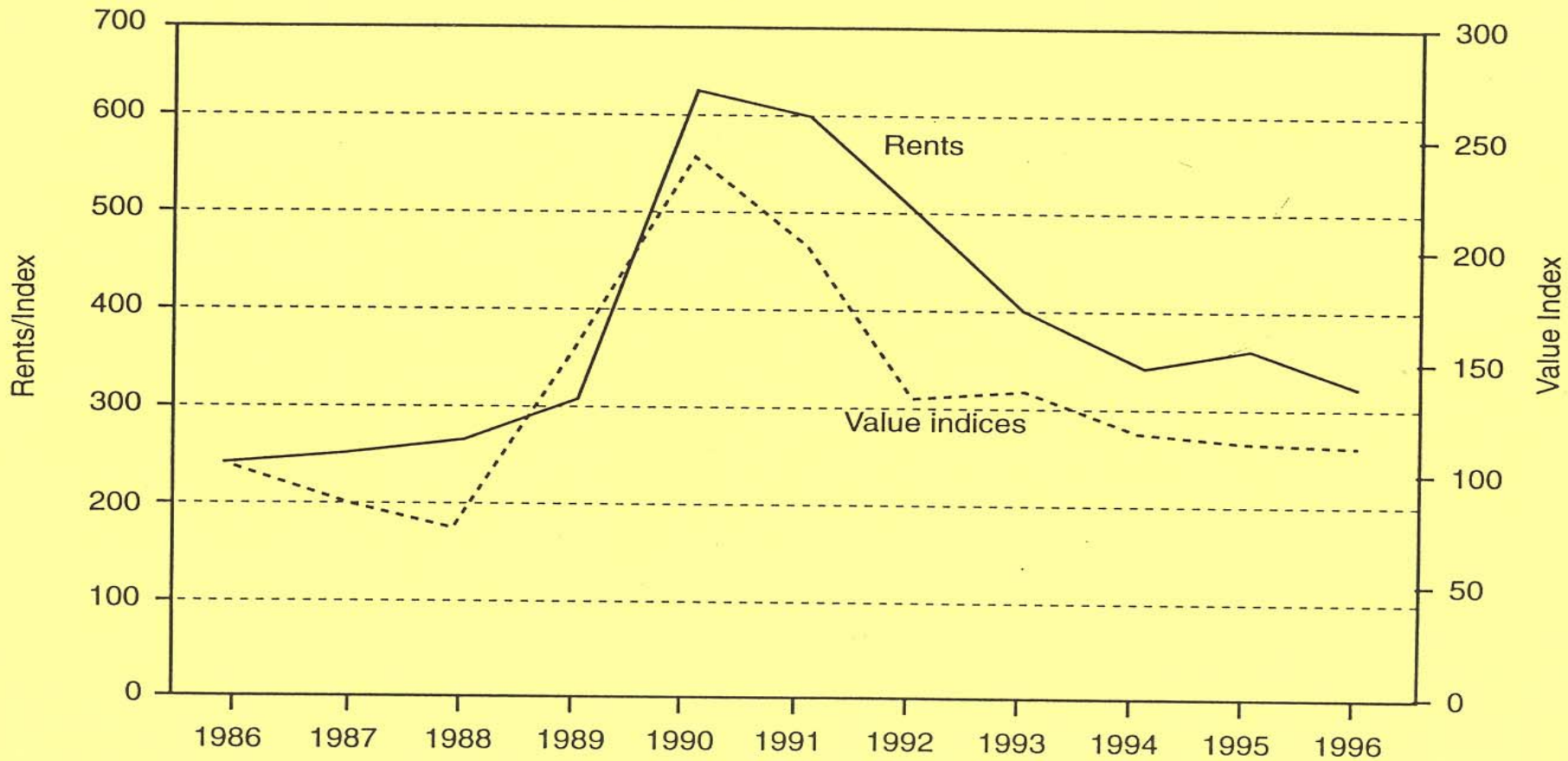


Figure 4. Boston Office Real Capital Values, 1977–89



Source: NCREIF (various years).

Figure 8. Real Commercial Property Rents and Value Indices, Bangkok, 1986–96



Source: Hillier-Parker for 1987–89; International Commercial Property Associates for 1990–93; Brooke Hillier Parker for 1993–97.

Commercial real estate markets are vulnerable to waves of optimism

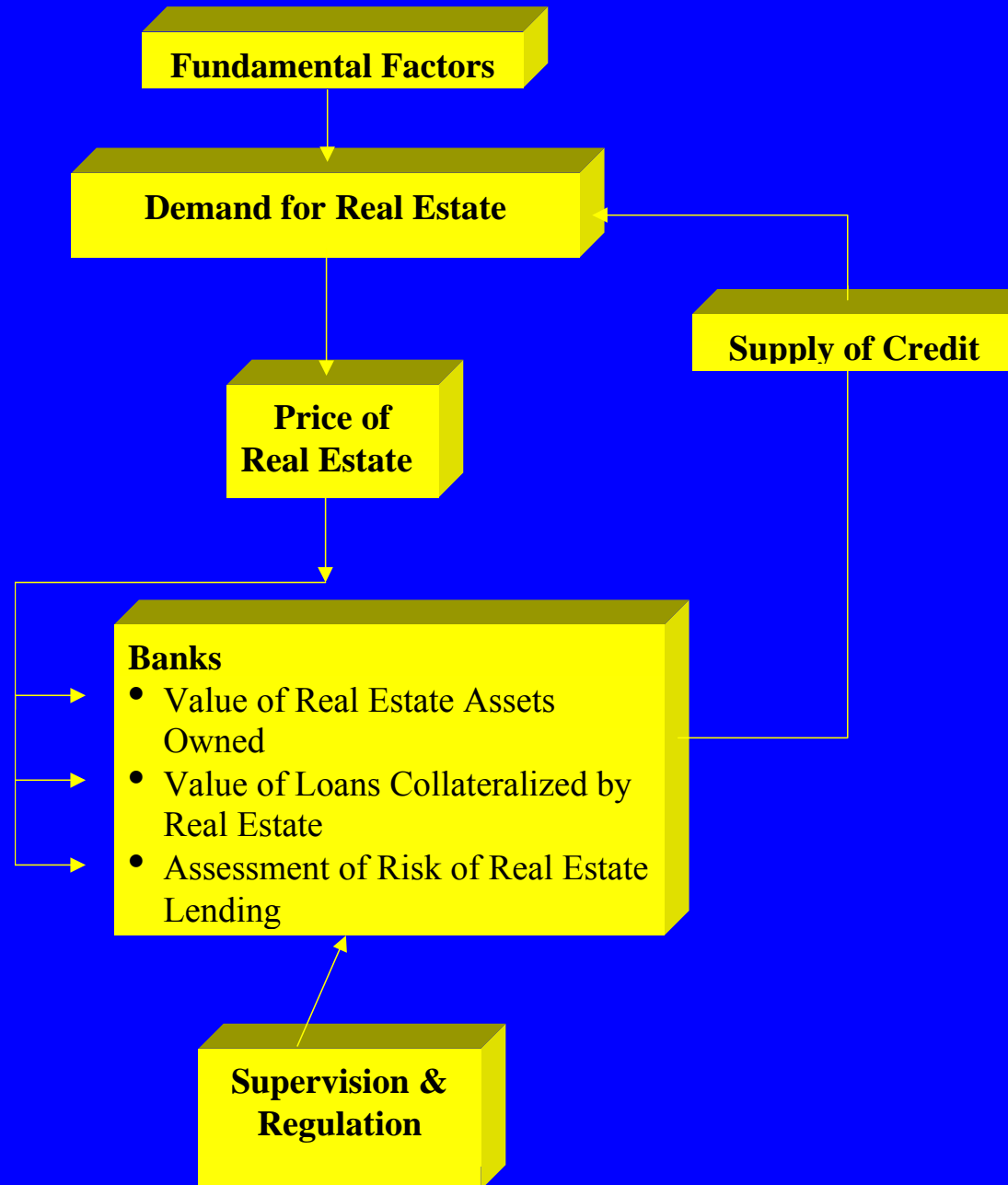
- ✓ Short sales are extremely difficult
- ✓ Supply increases only after a very long lag
- ✓ Mark Carey's model of land prices → prices increase with increases in
 - Increases in the fundamental price
 - Number of investors
 - Increases in the heterogeneity of beliefs
 - Financial resources available to investors

Assume banks maximize expected value subject to the constraint that the perceived risk of insolvency be no greater than γ ...

The Desired Loan Concentration...

- ✓ Increases as promised returns increase
- ✓ Increases as the expected probability of default (π) 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



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?

In the Up Phase, Higher Prices →

	MS	FVA
Larger loans, given loan-to-value ratio	✓	✓
Loan-to-value ratio often declines in boom	✓	✓
Equity-kicker → bank capital	✓	✓
↑ value of collateral → ↑ in credit quality of loan (likely to be de minimus)		✓
↑ value of collateral → ↑ in refinancings which may be used to buy more real estate	✓	✓
↑ in value of bank's own real estate → ↑ bank capital	✓ if realized	✓
↑ in interest rate → ↓ in loan value & ↓ in capital		✓
↓ loan value before failure to service		✓ 25

In the Down Phase, Lower Prices →

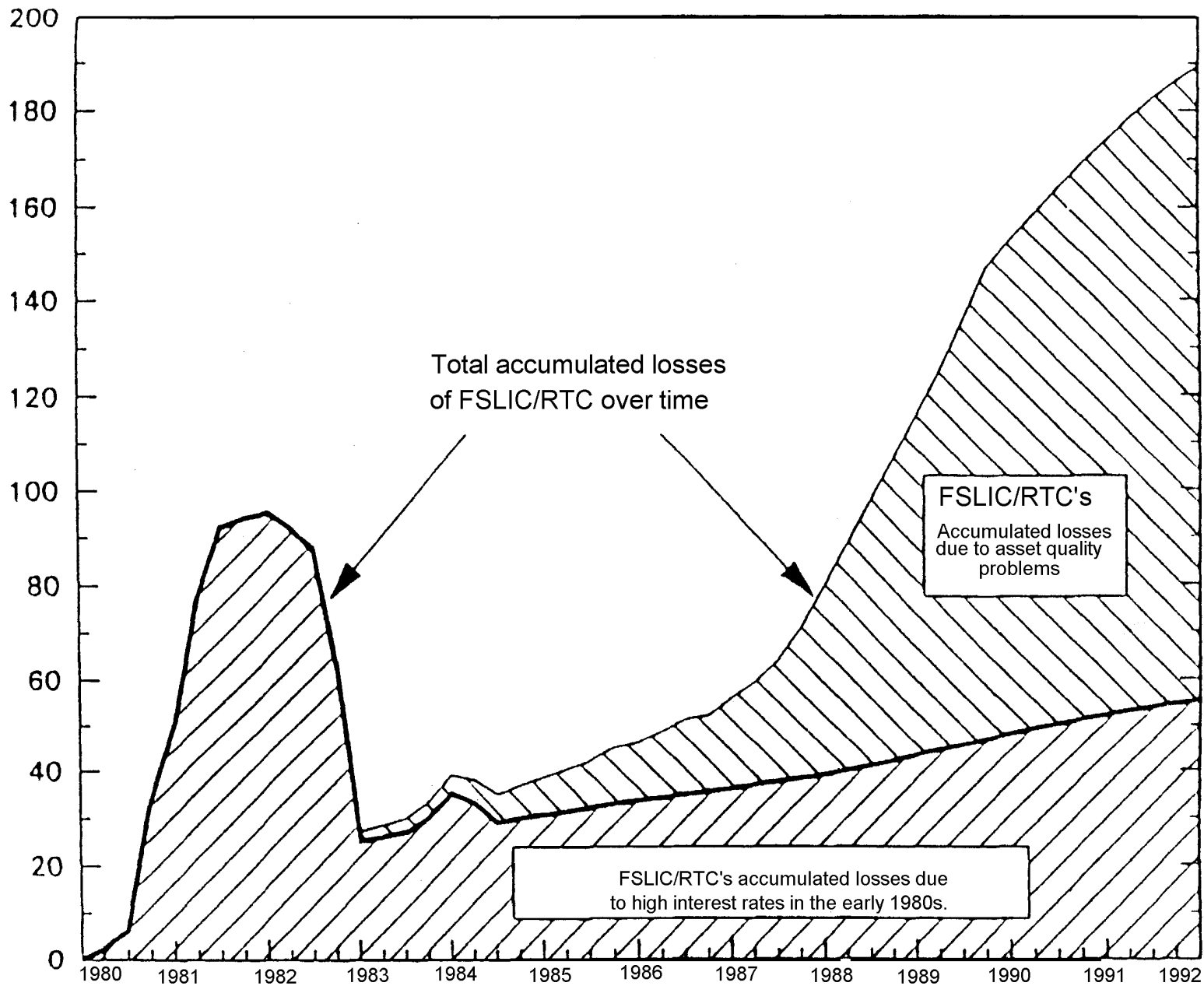
	MS	FVA
Smaller loans, given loan-to-value ratio	✓	✓
Loan-to-value ratio often increases in bust	✓	✓
Equity-kicker → ↓ bank capital	✓	✓
↓ value of collateral → ↓ in credit quality		✓
↓ value of collateral → ↓ in refinancings	✓	✓
↓ in value of bank's own real estate → ↓ bank capital	✓ if realized	✓
↓ in interest rate → ↑ in loan value & ↑ in capital		✓
Likelihood of evergreening	Greater	
Likelihood of supervisory forbearance	Greater	

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

Dollars in Billions



Total accumulated losses
of FSLIC/RTC over time

FSLIC/RTC's
Accumulated losses
due to asset quality
problems

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.