SNU Conference
in Honor of Lucas and Stokey

Panel Discussion

Causes of the Global Financial Crisis
And
The New System of Financial Regulation

Seoul National University

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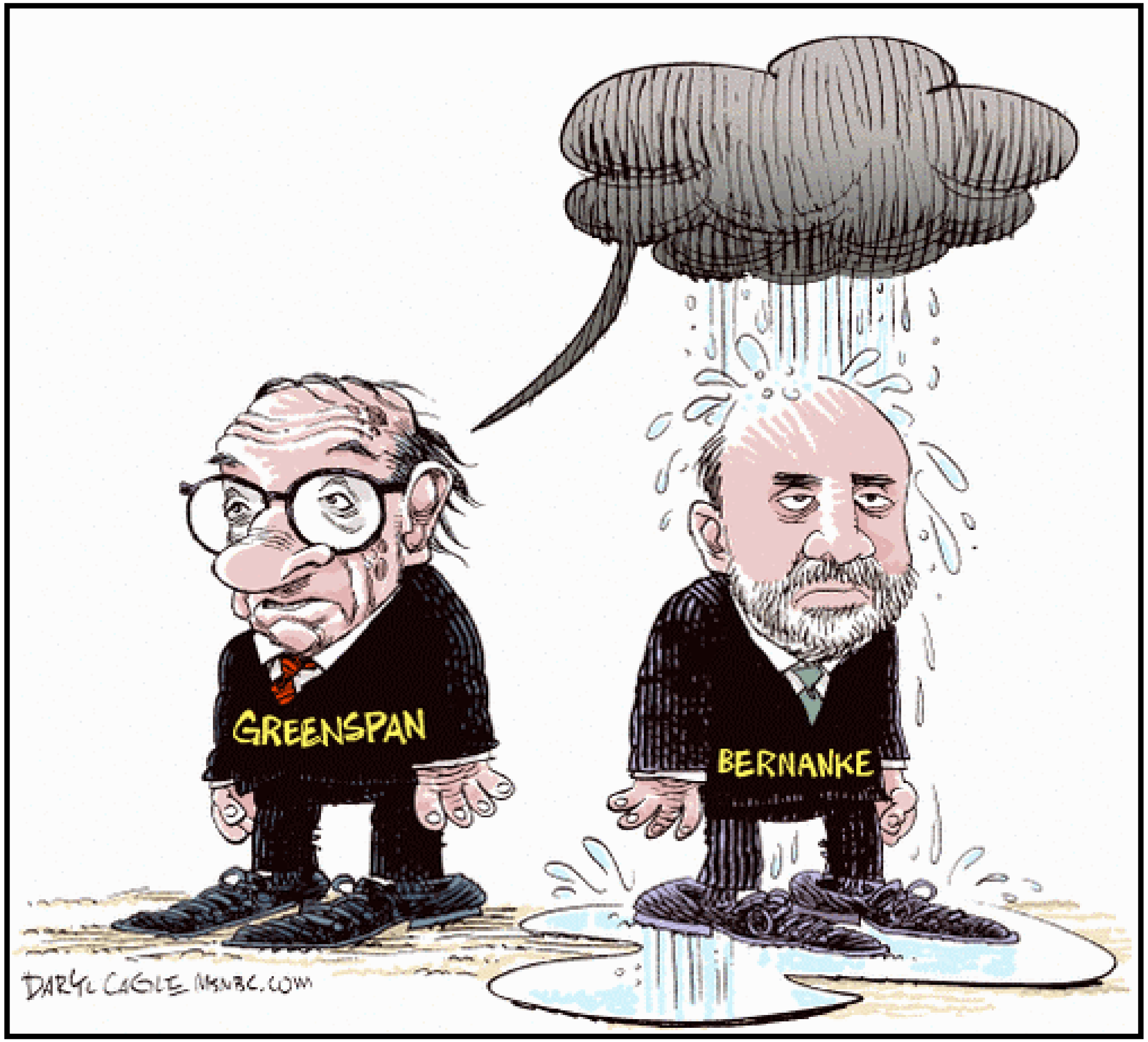
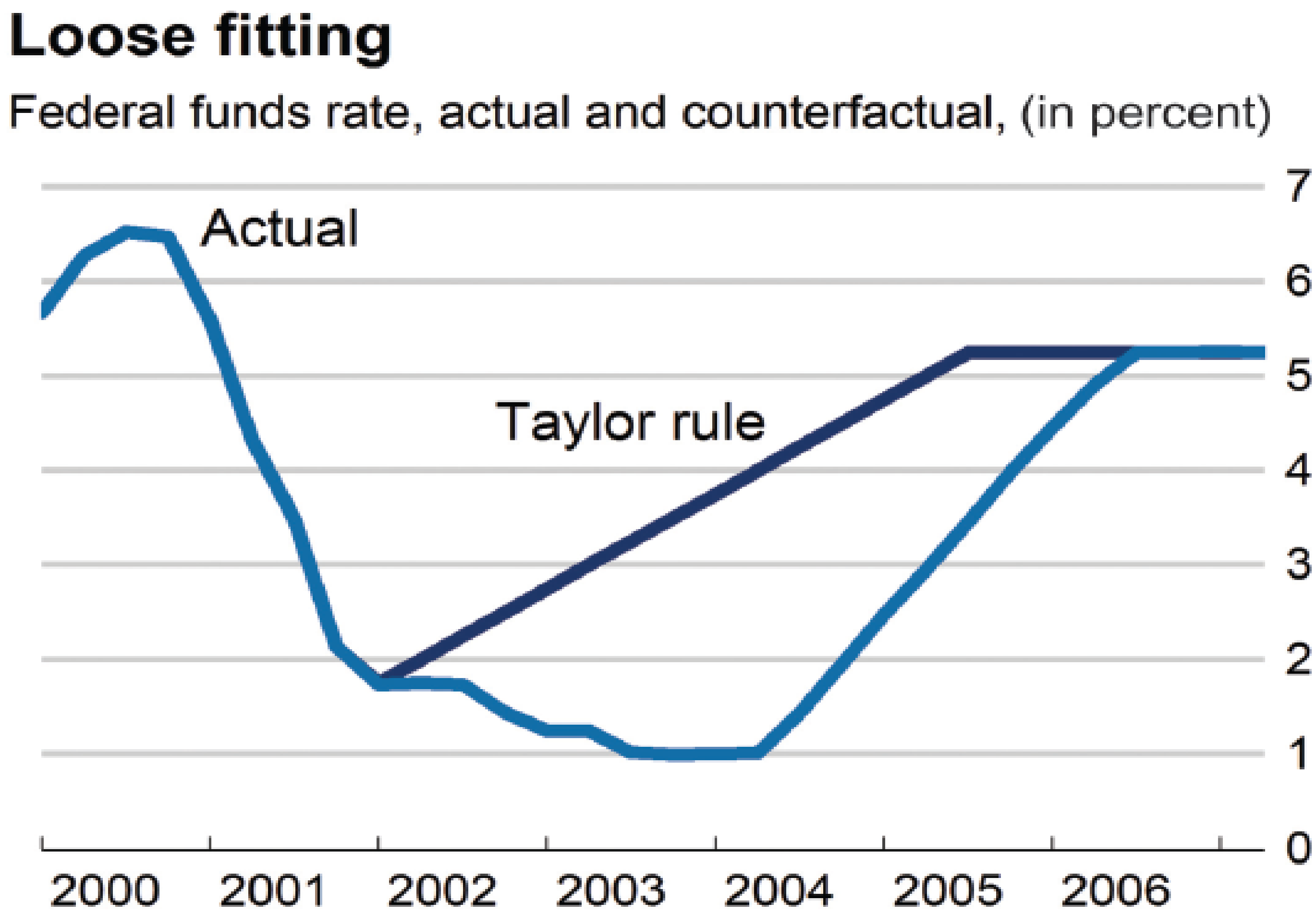
Cause 1: The Monetary Policy Failure



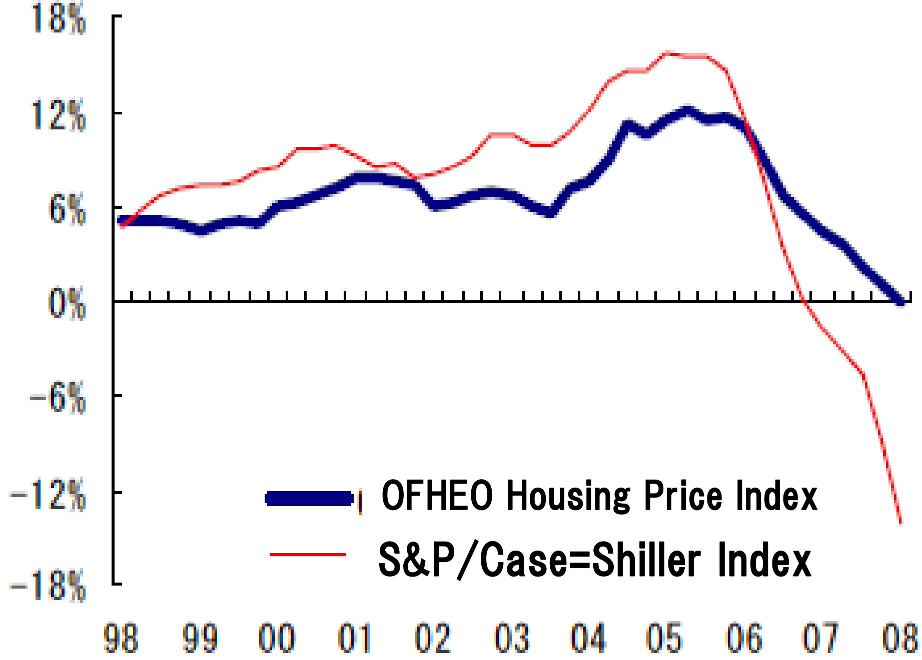
Afraid of deflation after the burst of IT bubbles.
Too low interest rate for too long



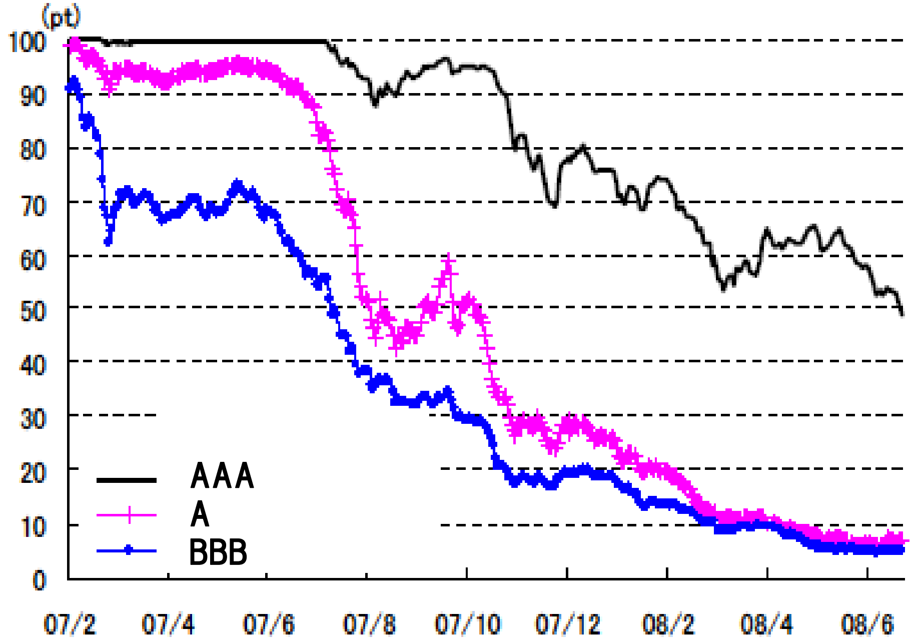
(Source: John Taylor: *Getting Off Track,* P.3.)

Cause 2: Too Much Government Intervention to the Housing market

Movements of the U.S. Housing Prices



Price Movements of Sub-Prime Loan CDOs



(Structured in Latter half of 2006)

The U.S. Policy : Since early 1990's

→ Promote home ownership of minorities and the poores

→ Applied Flexible Underwriting Standard

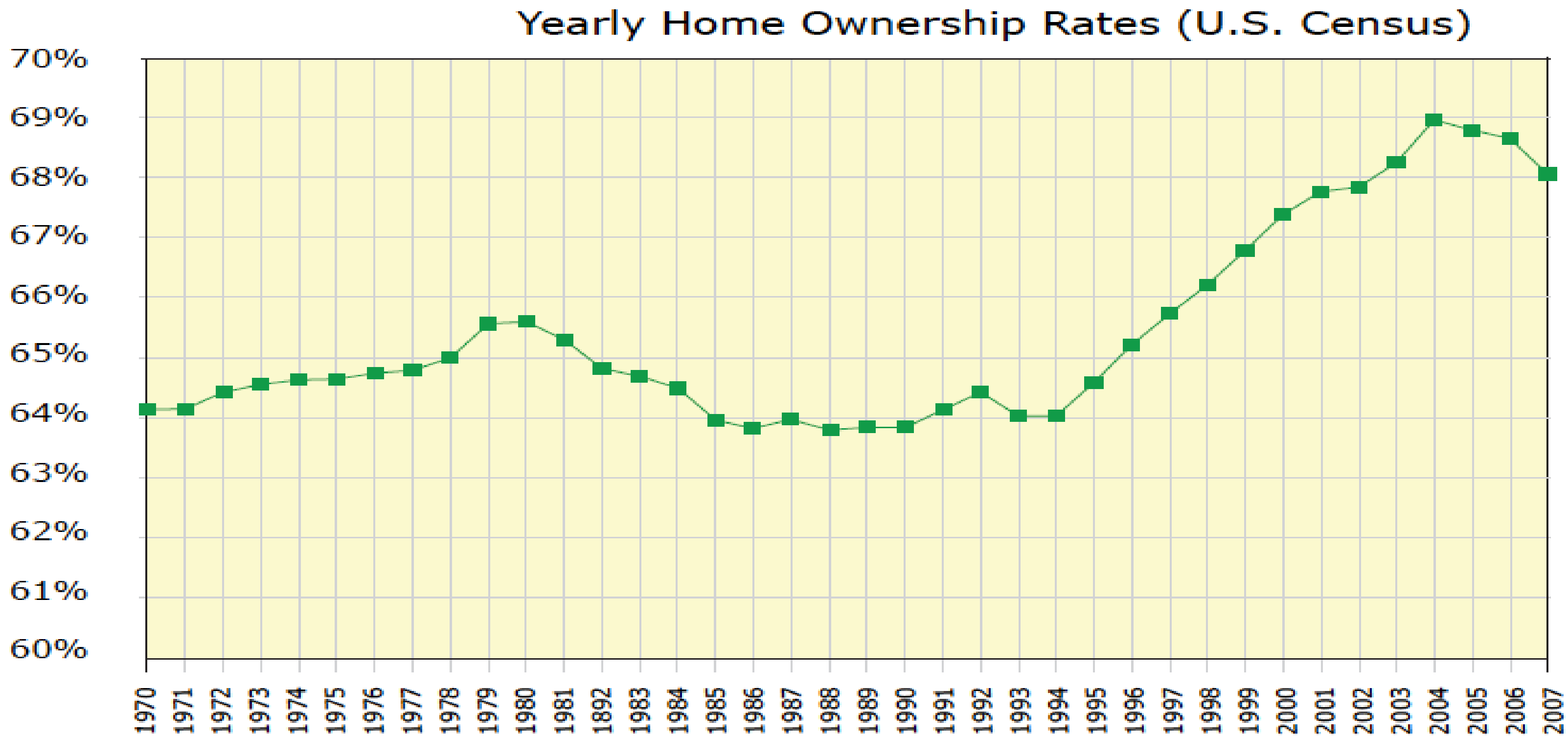
→ Government guarantee of mortgage securities

(Ginnie Mae, Fannie, Mae, Freddie Mac)

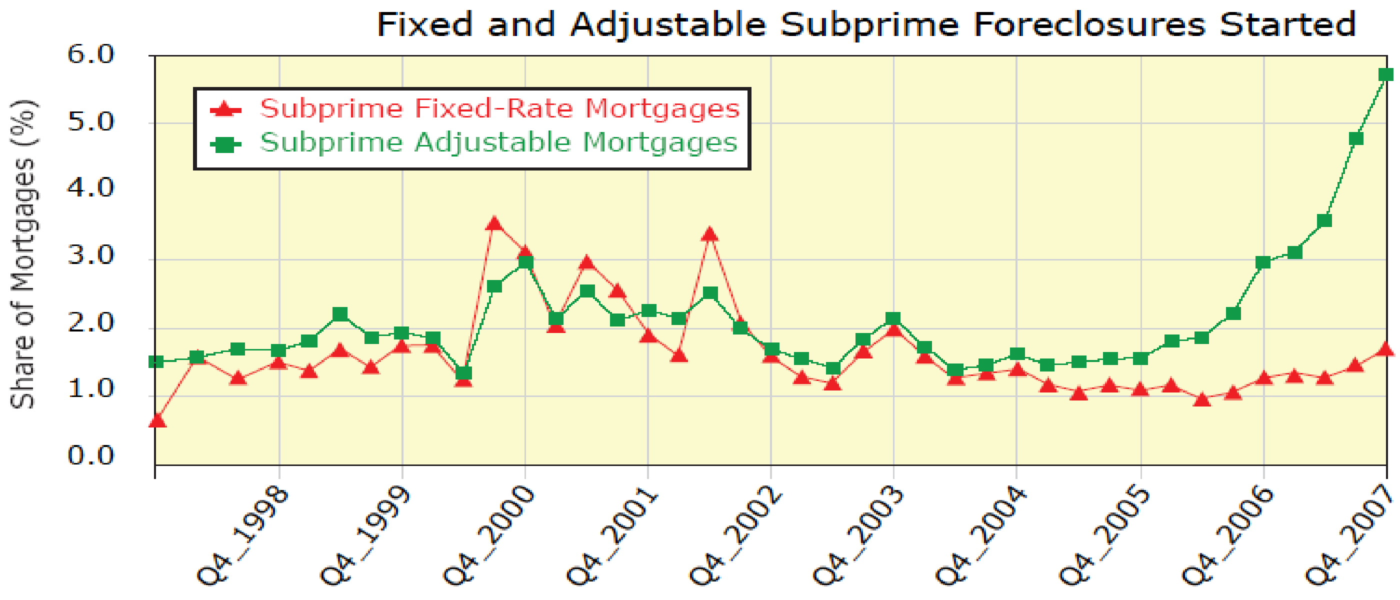
The U.S. mortgage loan＝ Home equity ＋ Non-recourse loan

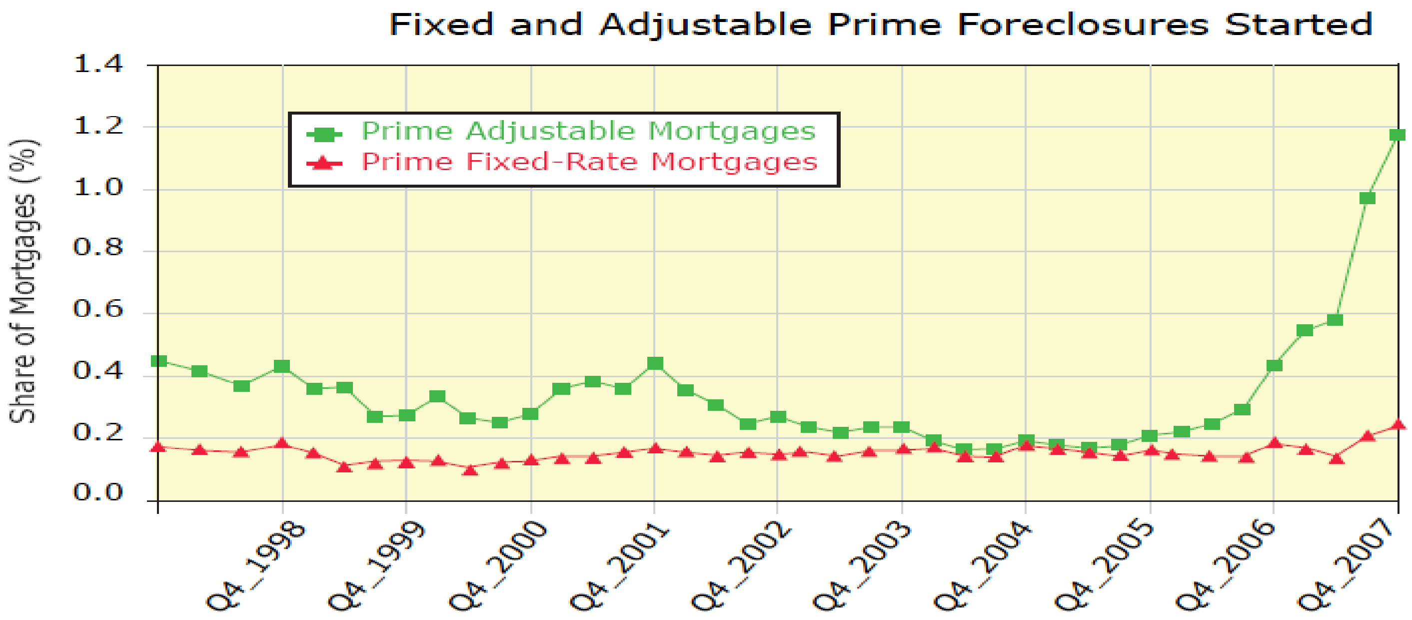
CRA : Community Reinvestment Act

→ Mortgage backed securities = CRA eligible



Both Prime and Sub-Prime People Speculated





The Most Important Cause 3:
BIS Bank Capital Regulation

"I THOUGHT WE WERE JUST BUYING A HOUSE!"

BIS Capital Regulation
→ Changed the Global Financial Markets

BIS Regulation ＝ Focuses only on the soundness of banks in a single consolidate financial and capital markets

Bank's Reaction

||

→ Regulatory Arbitrage

- **Financial Unbundling**
- **Securitization**
- **Off balancing Assets**
- **Establish unconsolidated SIVs**
- **Growth of Investment Funds**

Benefited banks in countries with large capital markets

→ Created International Competitive Inequality

→ Bank's risks spread to the whole financial system

→ True Risks have been covered up

Theoretical Expectation

Securitization →

Isolating Risks from Banks
Raise the BIS Ratio
Specialize High Return Business

} **Enhanced Bank Soundness**

Reality

Risk Isolation Impossible ← Un-separable & Complex Relationship between Banking and Capital Markets

- **Banks gave large loans to buyers of Securitized loans**
- **Banks established SIVs that hold Securitized loans**
- **Vague SIV Consolidation Standard**
  - **→ Cover up the Deteriorated Own Capital Ratio**
- **Accurate Valuation of Securitized loans Impossible**
  - **→ Un-transferable Risk Information**
  - **→ Poor Traceability to Original Assets**

Defects of the BIS Regulation:

→ Regulates only banks

in a consolidated single & larger financial market

→ No Theoretical Rationale for enhancing bank soundness

→ No Evidence for enhancing bank soundness

→ Actual Implementation diverts from the theoretical concept

Bank Management = To find the best mix of

- Rate of return
- Bad loan ratio
- **Own capital ratio** ← **Only this index is regulated**
- Many other management indices

→ **Pro-cyclicality** (enlarges business fluctuations) ← an unchanged & unique risk level of the financial market

→ Aggravates an economy at a time of macro-shock

Reality of the BIS Regulation

BIS Capital = { Tier I (Globally uniform basic items)
Tier II (Each country can define arbitrarily up to the amount less than Tier I)

- **Measures taken to keep the 8% capital ratio:**

→ Definition of Tier II has been kept enlarged

- 1988: 45% of unrealized profit from held equities,
- 1990: Subordinate debts
- 1998: 45% of revaluation of real estate properties
- 1999: Deferred tax assets (effective tax rate times the future expected taxable income for over 5 years)

→ 1998-1999: Public money Injection

→ This effort deserves credit.

- **Otherwise, Japanese economy must have been Much Worse!**

→ Same with the successive bailouts in the U.S. now

- **BIS Capital ratio**

- → Impossible for outsiders to know
- → Too complex
- → Use of own internal model are allowed for large banks
- → Does not reflect true bank soundness

Hard for regulators to assess the correct value

What is a Better Measure?

- **A Market-Valued Own Capital Ratio**

= (Total market value of the bank/Total asset)

→ A better & more transparent measure

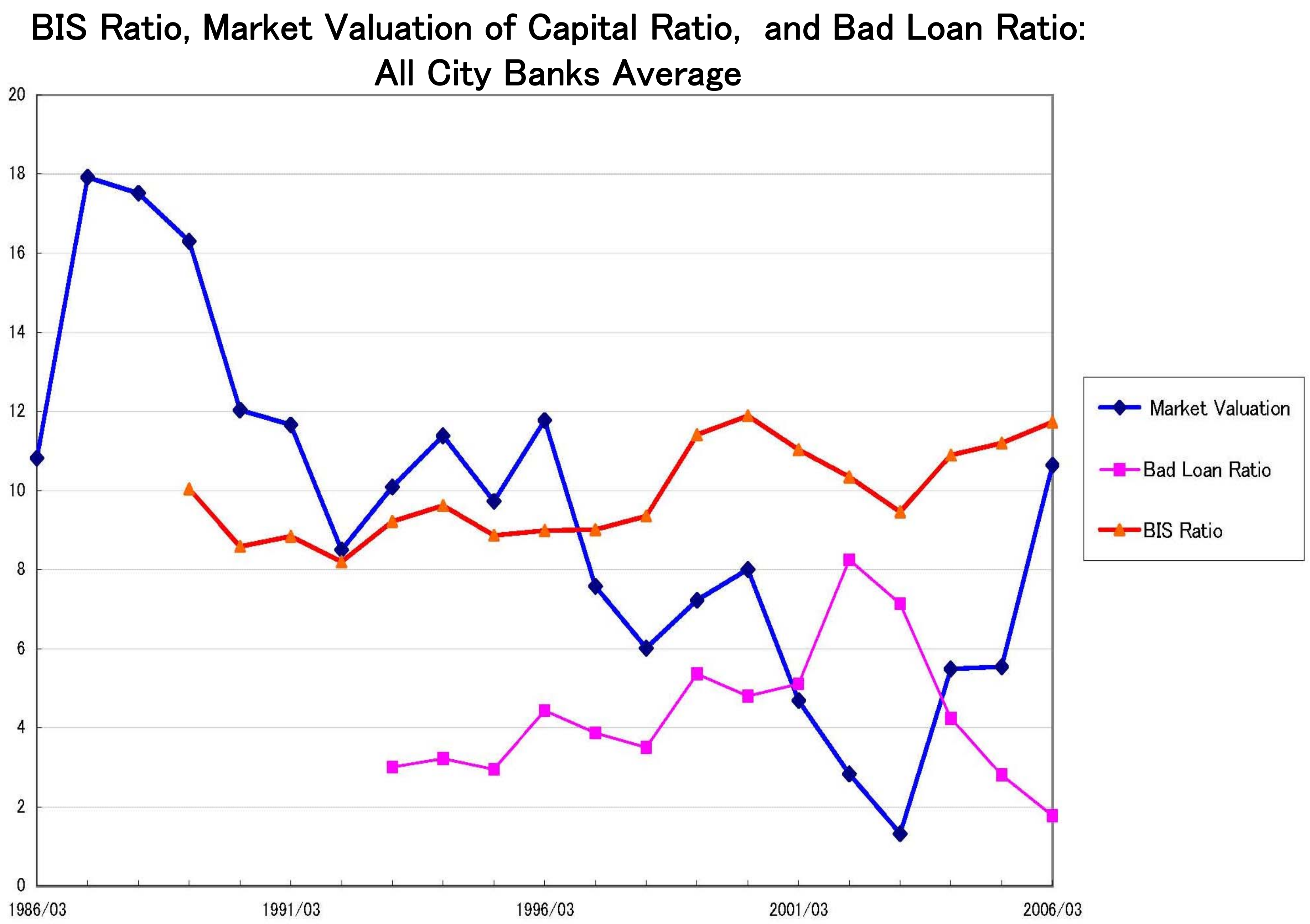
→ Reflects true bank soundness

→ Markets see through true bank soundness

→ A bank fails when it drops to 2%

→ Negatively correlated with bad loan ratio

Let's take a look of the data →



BIS Ratio, Market Valuation of Capital Ratio, and Bad Loan Ratio:
All City Banks Average
20
18
16
14
12
10
8
6
4
2
0
1986/03
1991/03
1996/03
2001/03
2006/03
Market Valuation
Bad Loan Ratio
BIS Ratio

Fig. 10 Hokkaido Takushoku Bank

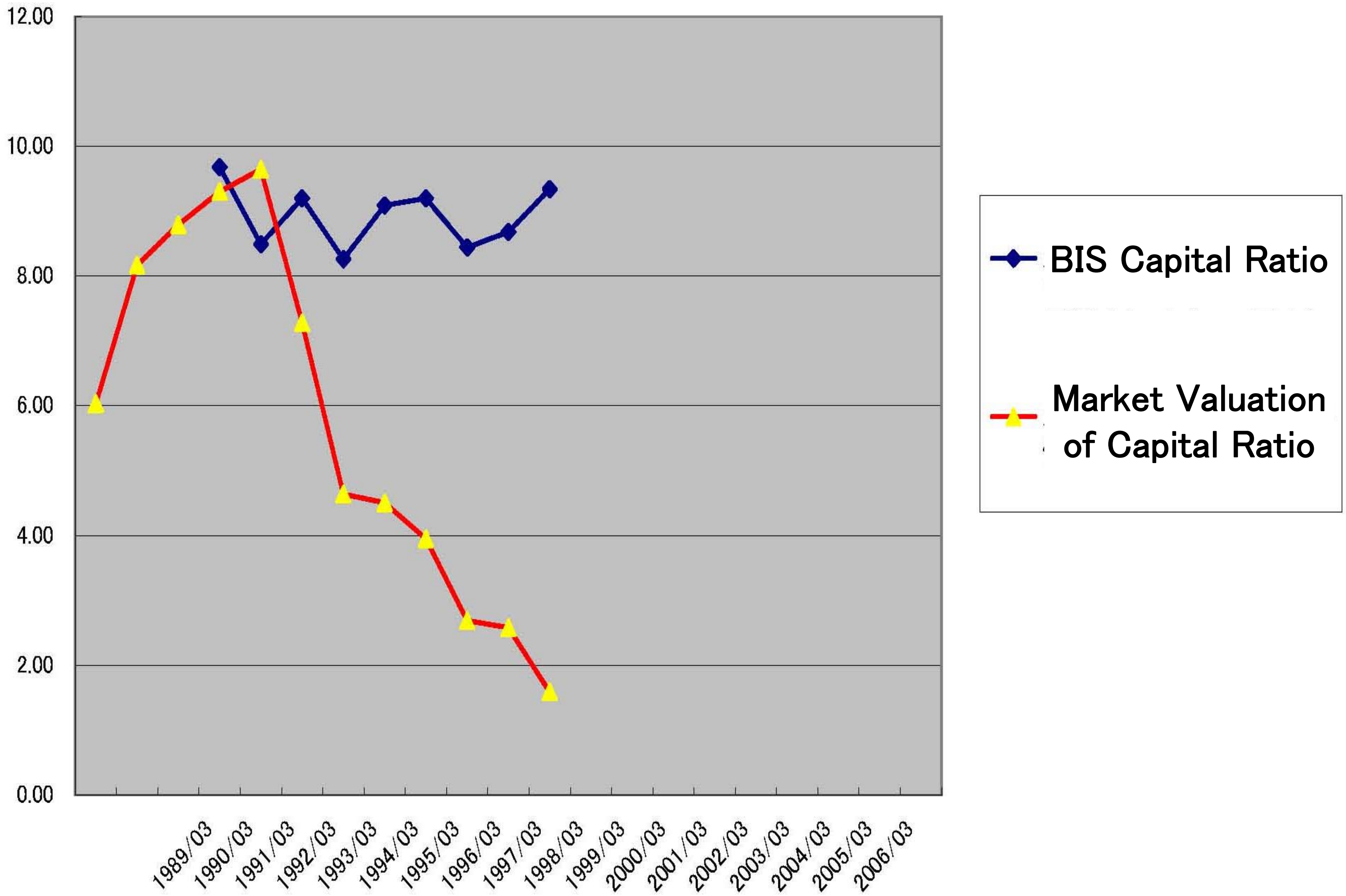


Fig. 11 Japan Long-term Credit Bank

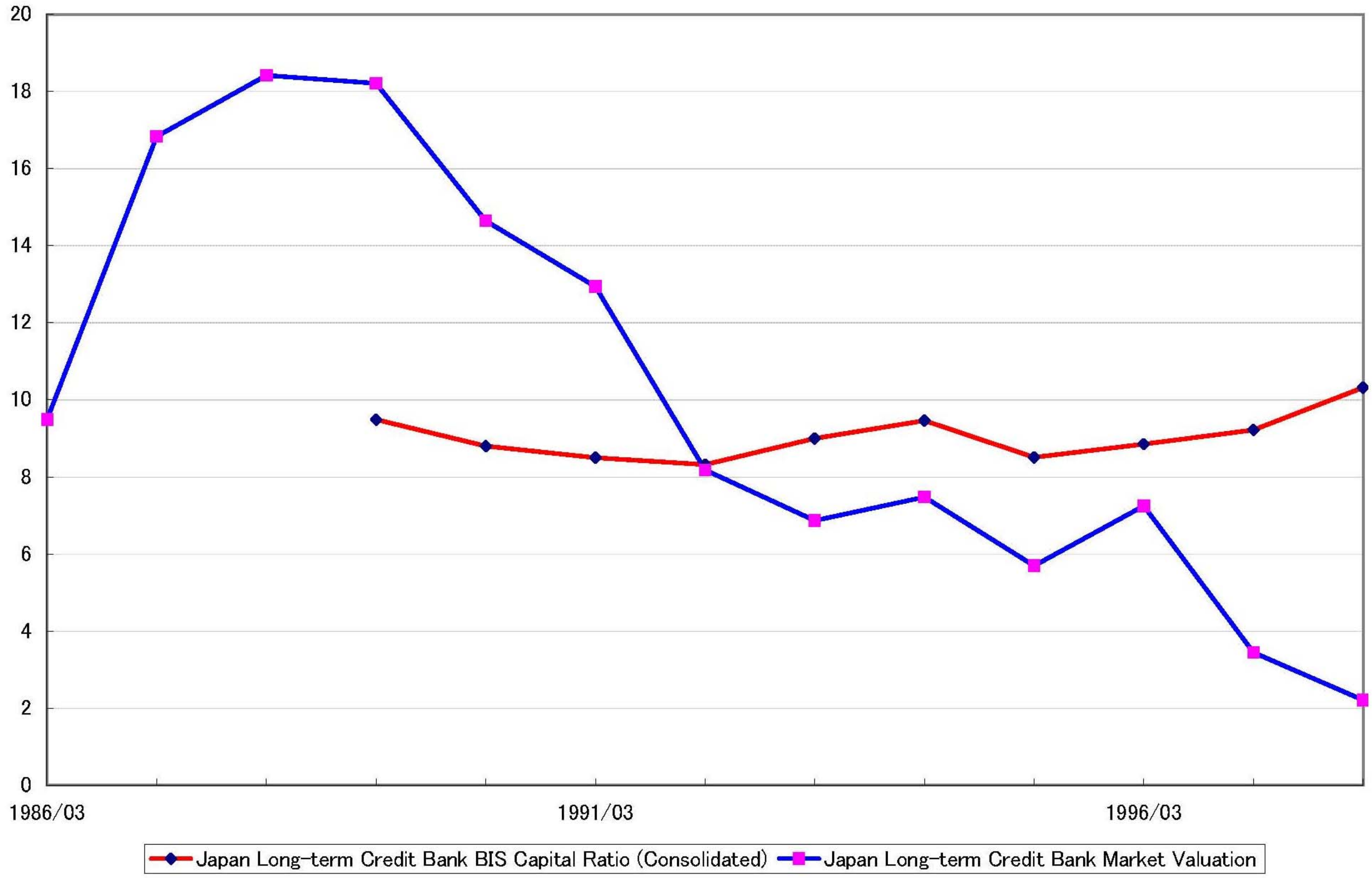


Fig. 12 Japan Credit Bank

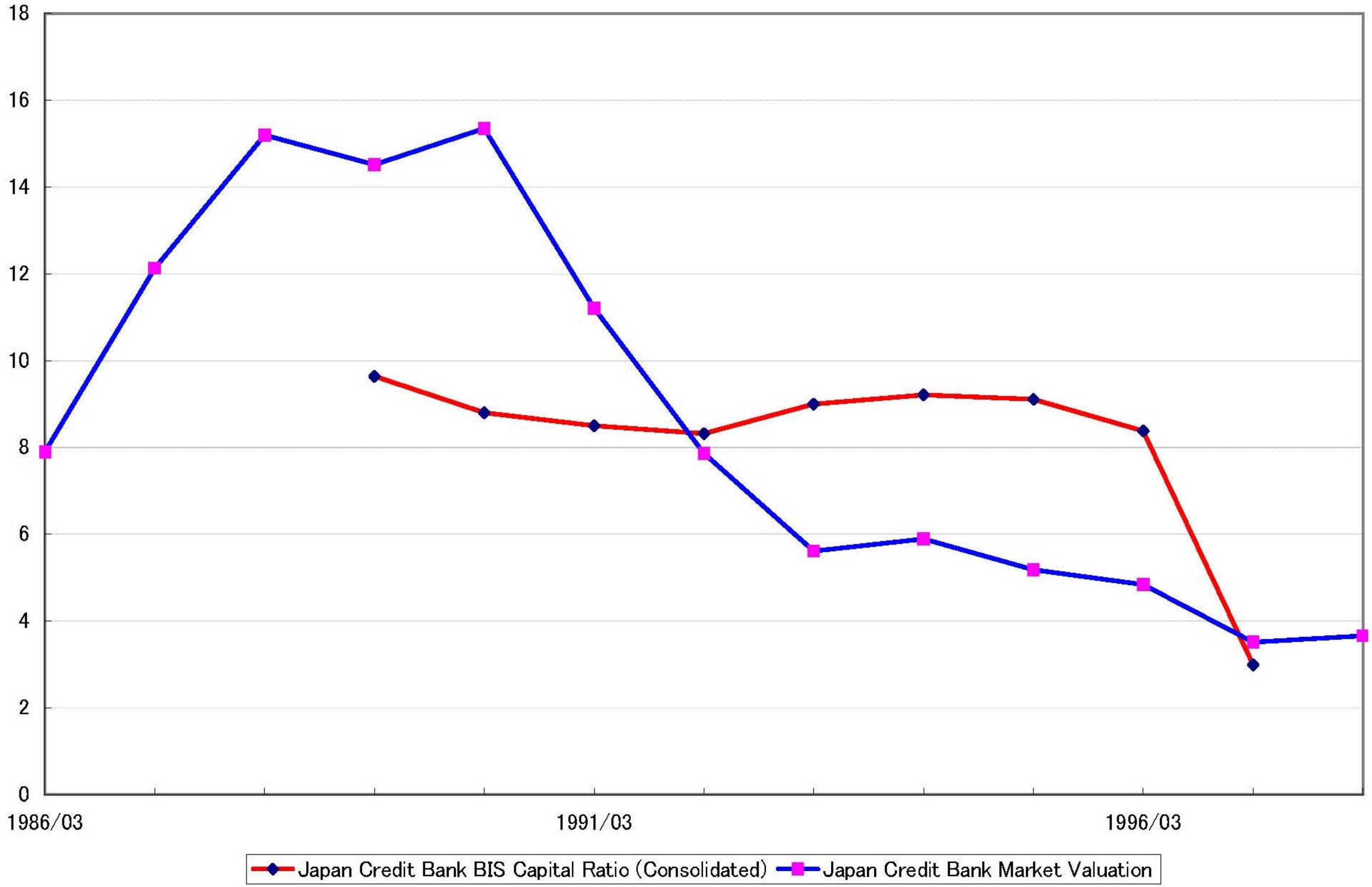
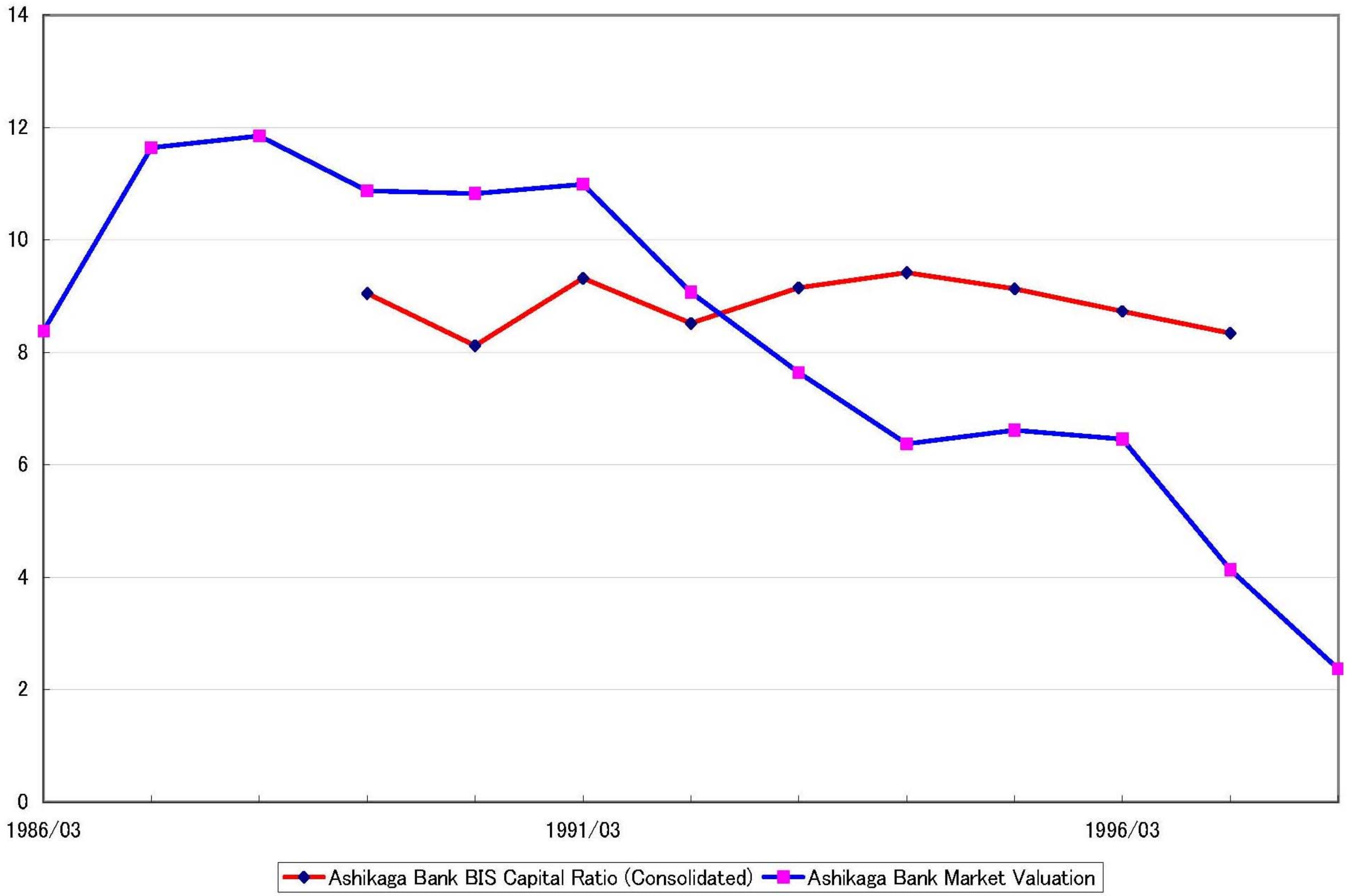
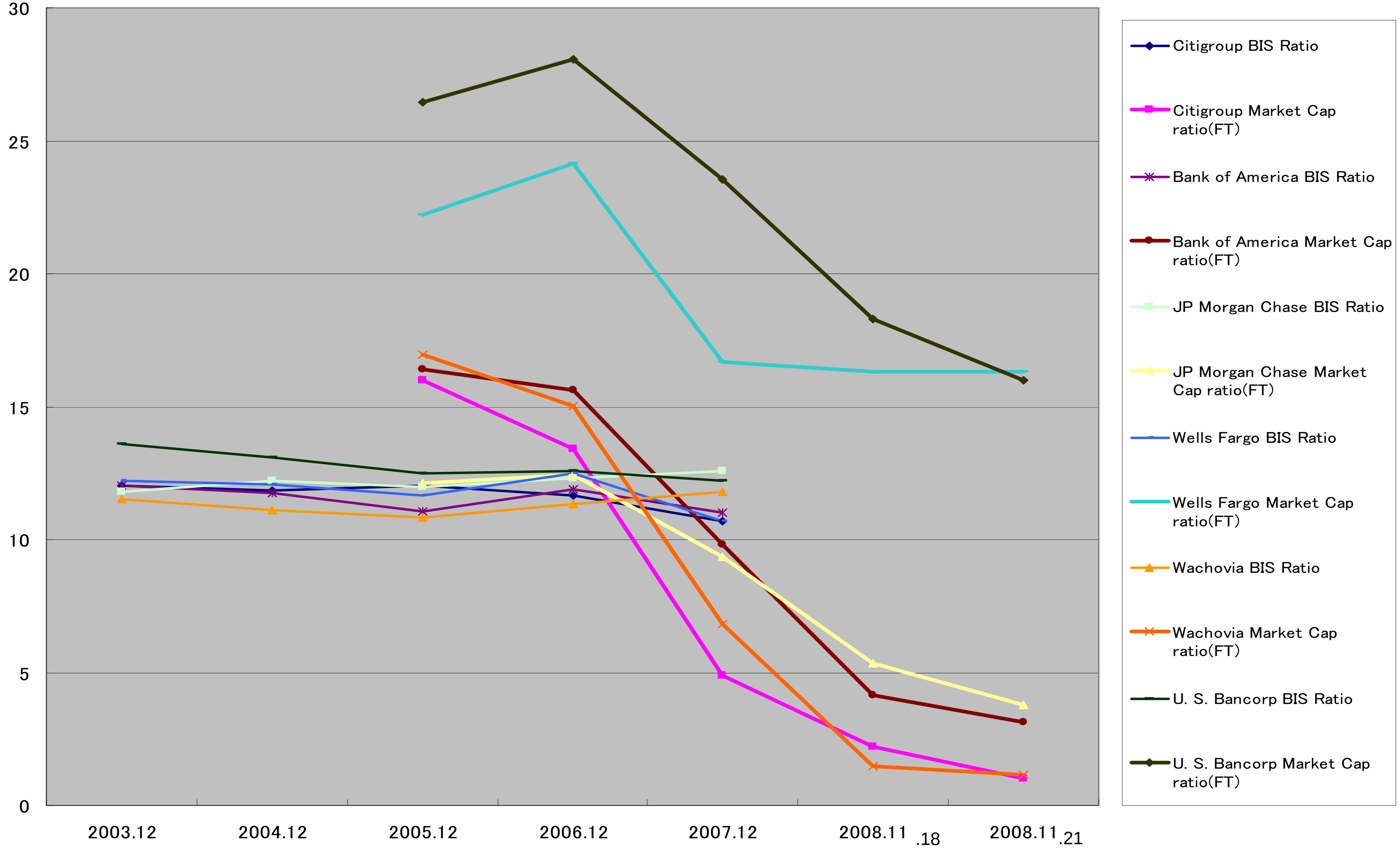


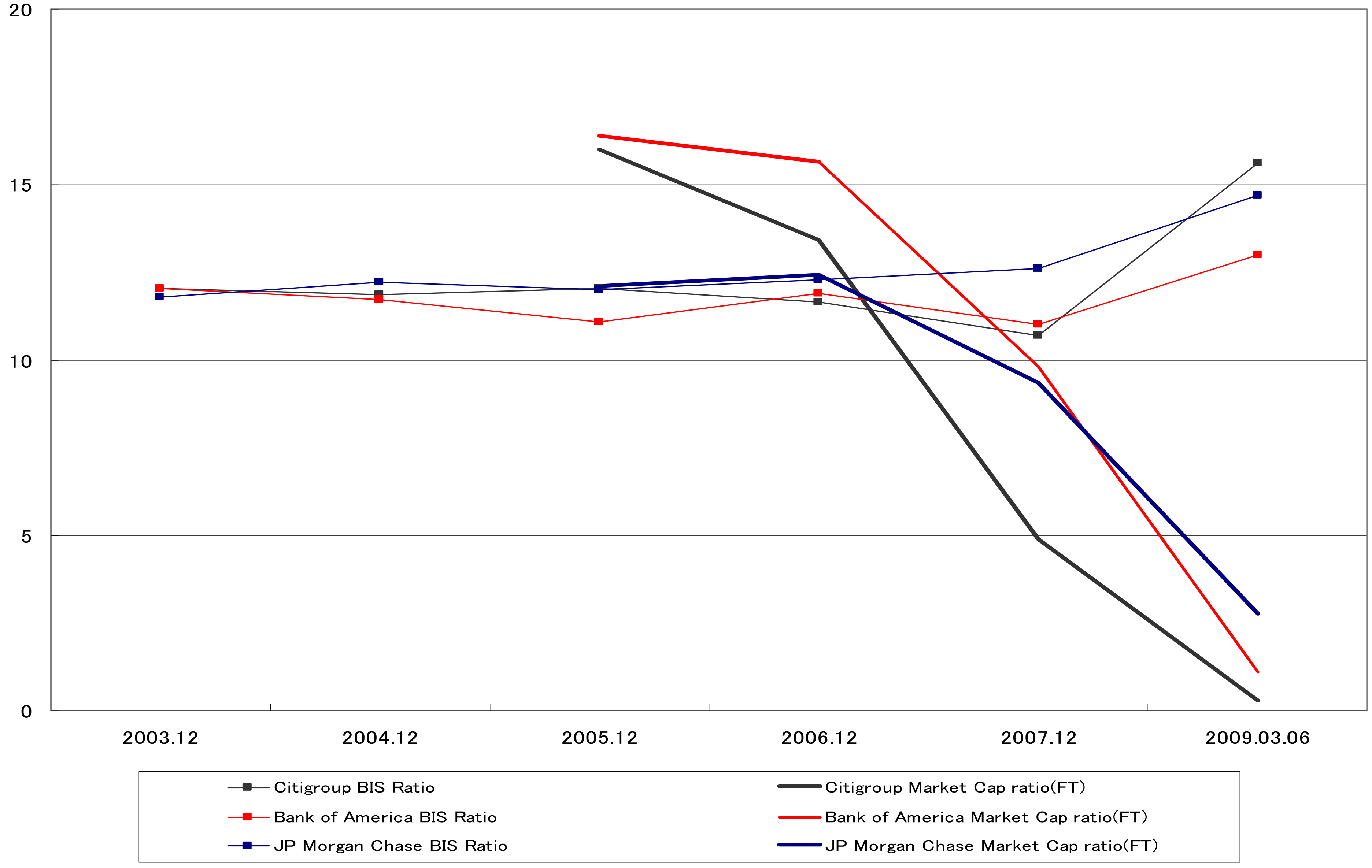
Fig. 13 Ashikaga Bank



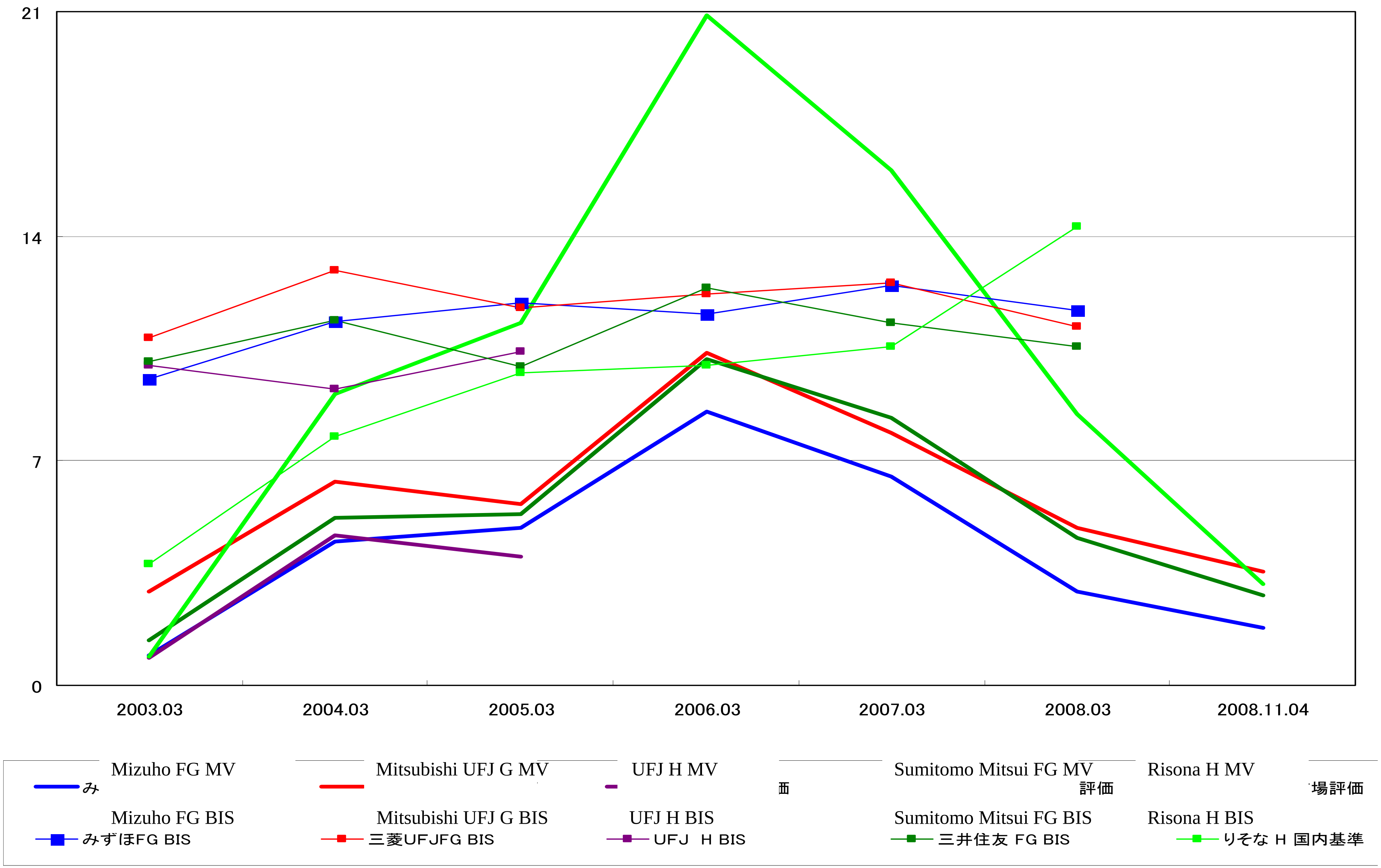
The BIS Ratio and the Market-valued Capital Ratio: U.S. Five Largest Banks



The BIS Ratio and the Market-valued Capital Ratio for the three largest U.S. Banks (March 6th, 2009)



The BIS Ratio and the Market-valued Capital Ratio: Japanese City Banks (After March 2003)



Lessons from the Japanese Financial Crisis

1. A central bank has to watch not only price indices such as consumer price index, but also asset prices carefully as well.
   Every great depression is initiated and lead by a burst of real estate bubbles. Real estate is the single largest asset for everybody.

2. A delay of couple of years to tighten monetary policy causes the worst part of speculative bubbles. The Bank of Japan failed to raise the discount rate in 1987 due to a pressure from the U.S. not to do so after the black Monday crush of stock prices in October.
   Their policy to raise the discount rate delayed until after the successful introduction of the exercise tax in April 1989, due to the lack of independence from the Ministry of Finance.
   This experience led to an enactment of the new central bank law to strengthen BOJ's independence.

3. A bank fails when its market-valued capital ratio falls below 2.0 due to its inability to borrow money in the market.

4. At this stage in the U.S., public money injection is already widespread, unfortunately.
   But, public money injection to failed banks is not enough. A bank can be rehabilitated only after the injected money is effectively used to write off bad loans. In the case of the U.S., it is hard at this stage, since the amount of bad assets cannot be determined until real estate prices start to recover after hitting the bottom.
   It took a decade in Japan for this to happen.

5. The regulatory authority need to watch the use of the injected tax money and enforce a strict rehabilitation plan of a bank that accepted the tax money.

6. The U.S. should focus on measures to reschedule and lessen the burden of mortgage payments. This was easier to do in a country with bank-dominated financial market rather than capital markets.

7. A burst of housing price bubbles in the U.S. was expected to come sometime.
→ Excessive pessimism prevails when the true amount of losses is unknown.

8. Repeated fiscal stimulus packages in 1990s that amounted to one trillion dollar did not work. It simply raised the government debts to the worst in the world (170% of GDP) , making Japan the country of a fiscal crisis.

9. How to stop moral hazard?
- To avoid "too big to fail", limit the size of financial institutions to a size that allows a bank to fail when things go bad.
- Keep the competitive environment in the financial markets by having many smaller financial institutions.
- Helps to solve "Pro-Cyclicality."

The Challenge of the Current Financial System

↓

Stop Pro-Cyclicality!

- BIS Capital Regulation (Basel II)
- Mark-to-market accounting
- Rating system
- Derivatives
- Risk evaluation based on the normal distribution
- Mega-size financial institutions in information society
  → No risk diversification + Counter party risk

Stop and/or revise the above aspects in a new financial regulatory system

Conclusion

The BIS capital regulation

→ has been obsolete through technical progress in the last 20 years

→ has facilitated number of financial innovations that led to international consolidation of financial markets (Bank loan markets, Capital markets,Real estate markets, etc…..)

→ has introduced a greater volatility to the global economy due to its pro-cyclicality.

→ has facilitated international spread of financial risks

→ has obscured the real risks

The Market-valued own capital ratio

→ is a more accurate & more transparent measure of bank soundness

→ **Let banks free to choose their own capital ratio**

→ **Once regulates, governments are captured**

→ **Let markets free to evaluate & control bank's behavior**

→ **Moral Hazard is ubiquitous!**

→ **Need to create global financial system free from moral hazard**