Crisis Management Lessons: Japanese Case

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Outline

1. Brief Review of Japan's Financial Crisis
2. Lessons from Japan's banking crisis
3. Japan-US Comparisons: Background of financial failures
4. The US Financial Crisis
5. Conclusion

1. Brief Review of Japan's Financial Crisis

1.1. Causes of the financial crisis: bursting of the bubble

Creation of the bubble:

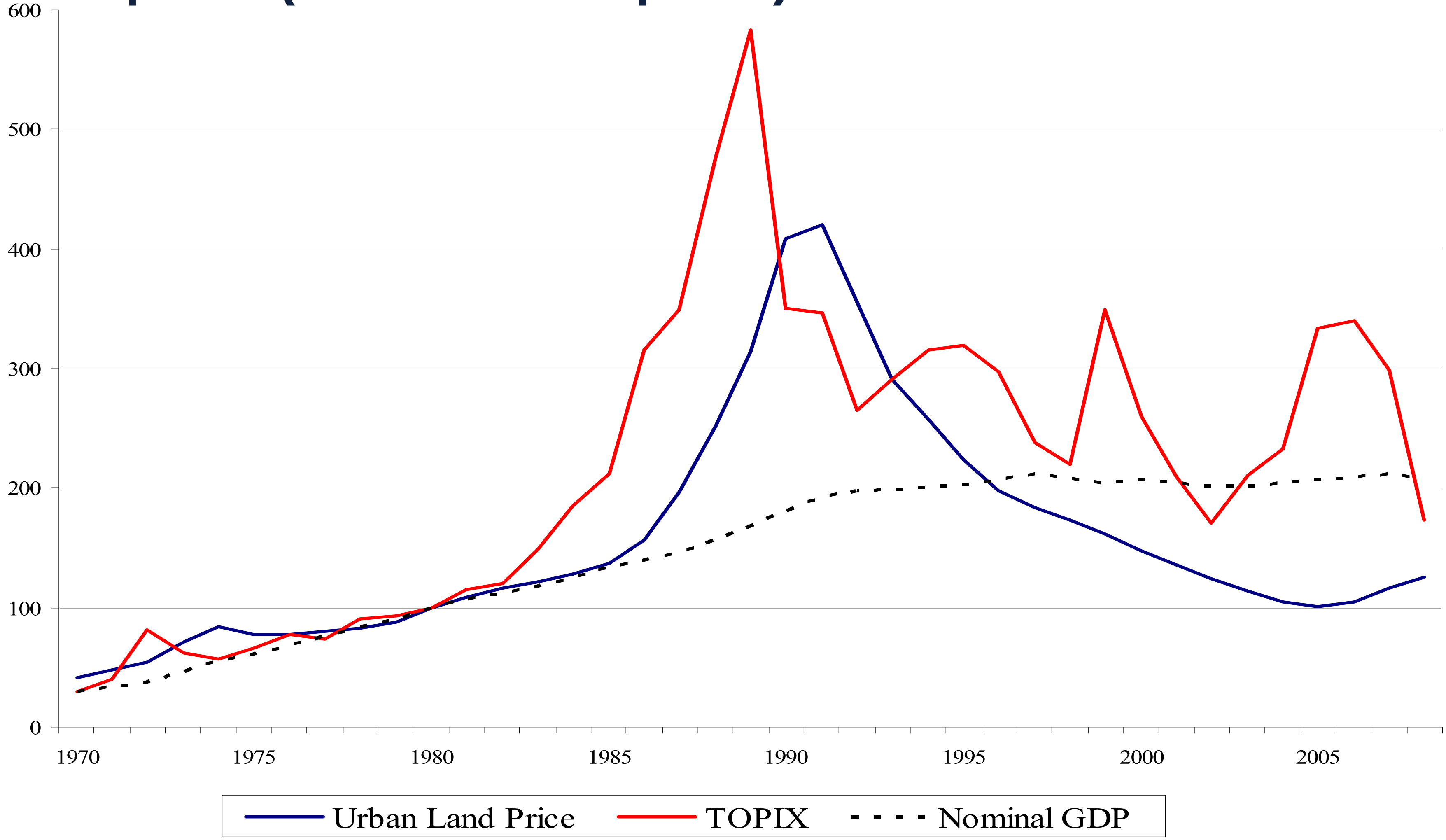
- High concentration of banks' portfolio on loans extended to the real estate, non-banks and construction industries
- De-regulation and unregulated players played important roles

Post-bubble:

- Economic slowdown in the 1990s (TFP declines?)
- Delays in decisive actions both in the public and private sectors to contain financial troubles

Japan's asset prices

Asset prices (stock and land prices) and nominal GDP 1980=100



Bank loans outstanding by industry

(billion yen,%)

(year end)	total bank loans (outstanding)						total bank loans / GDP
		manufacturing	construction, financial, and real - estate			household	
				financial	real-estate		
1980	173.3	52.4	27.2	6.0	11.4	21.3	0.719
		30.3%	15.7%	3.5%	6.6%	12.3%	
1984	250.8	64.7	51.3	17.4	19.3	26.4	0.833
		25.8%	20.5%	6.9%	7.7%	10.5%	
1990	408.8	61.5	114.7	45.4	48.5	65.3	0.929
		15.0%	28.1%	11.1%	11.9%	16.0%	
1995	512.7	75.2	149.4	54.9	62.3	85.4	1.032
		14.7%	29.1%	10.7%	12.1%	16.7%	
1984 → 1990	-	-2.1%	40.1%	17.7%	18.5%	24.6%	
1984 → 1995	-	4.0%	37.4%	14.3%	16.4%	22.5%	

Source: Bank of Japan HP, ESRI Cabinet Office

Timeline of the Crisis

US

Summer 06
- Housing Bubble peak-out

2～3Q/07
- Mortgage failed
- MBS Funds crisis
- Northern Rock bank-run

4Q/07
- Large losses; Citigroup, Merrill, UBS etc

1Q/08
- JP Morgan Chase → Bear Sterns

3～4Q/08
- GSE bail out
- Lehman shock
- AIG bail out
- Bank of America →Merrill Lynch

Government Capital Injection
(Partial) Nationalization

FRB TALF and other lending facilities

1Q/09

Public-Private Investment Program

JPN

End-1989
- Stock price peak-out

1991 ~ 1996
- Failure of small financial institutions

Fall 1997
- Yamaichi, Sanyo-Securities failure (97/11)

1998
- Two long-term credit banks failed (98/10,12)
- 1st Capital Injection (98/3 \1.8 tril)
- 2nd Capital Injection (99/3 \7.5 tril)

1Q/2005

Financial Revitalization Program(02/10-)

NPL ratio 8.4% → 4%

Pre-Crisis	Crisis	Capital Injection / Asset Purchase	Restructuring of Banks and failed firms

1.2. Lost years: phase 1(1991-1997)

(1) The initial policy based on protection and regulatory forbearance to support ailing banks

(2) Failures of small institutions dealt with conventional deposit insurance system

(3) Financial resources used to encourage healthy institutions to merge troubled institutions

(4) In 1995-96, the government used 680 billion yen to bail out specialized housing loan companies (*Jusen*) but encountered strong public backlash

(5) In 1996, blanket guarantee of deposits for 5 years

(6) In fall 1997, failures of several large institutions, leading to a systemic financial crisis

1.3. Recapitalizing operations and decisive actions: phase 2 (1998-2002)

(1) 1997-98 systemic crisis forced the government to take more decisive policy actions using public funds

(2) Public recapitalization of banks in March 1998 (1.8 trillion yen) and March 1999 (7.5 trillion yen)

(3) In 1998; Financial Revitalization scheme was applied to 2 failed long-term credit banks (Oct & Dec. 1998) , which were transferred to temporary nationalization

- Asset purchase from the solvent banks started, supported by public funds
- Introduction of Prompt Corrective Measure in 1998 and a release of authorized financial inspection manual in 1999, both by FSA

(4) In 2001, the law to reduce bank shareholdings to 100% of tier-I capital (by 2006) was approved

(5) Special inspection of bank loans in March 2002, leading to tighter loan classification for 142 borrowers, and another one in March 2003 focusing on 167 borrowers

1.4. Final phase to resolve NPL problems: 2002-2005

In October 2002, the FSA introduced the Program for Financial Revival, a strategy to accelerate bank restructuring:

(1) Loan classification and loan loss provisioning to be strengthened, starting in FY2003, with measures to improve the classification of loans to large borrowers

(2) Banks to remove 50% of new NPLs within one year and 80% within two years, with a target of reducing major banks' NPLs by half by March 2005 from its level of 8.4% in March 2002.

(3) Industrial revitalization was also a part of the total program

1.5. End of the crisis

(1) It was after 2003 that Japanese banks' capital strengthened and profitability bottomed out, and the stability and functioning of the financial system began to improve

(2) Japan's economy returned to a full-fledged recovery path supported by export-led growth due to global economic expansion

(3) Japanese banks incurred cumulative losses of some 96 trillion yen, equivalent to 20% of Japan's GDP

(4) Recovery of Japanese public money has been 53% (recovery of 25.1 trillion yen out of 47.1 trillion yen spent)

2. Lessons from Japan's banking crisis

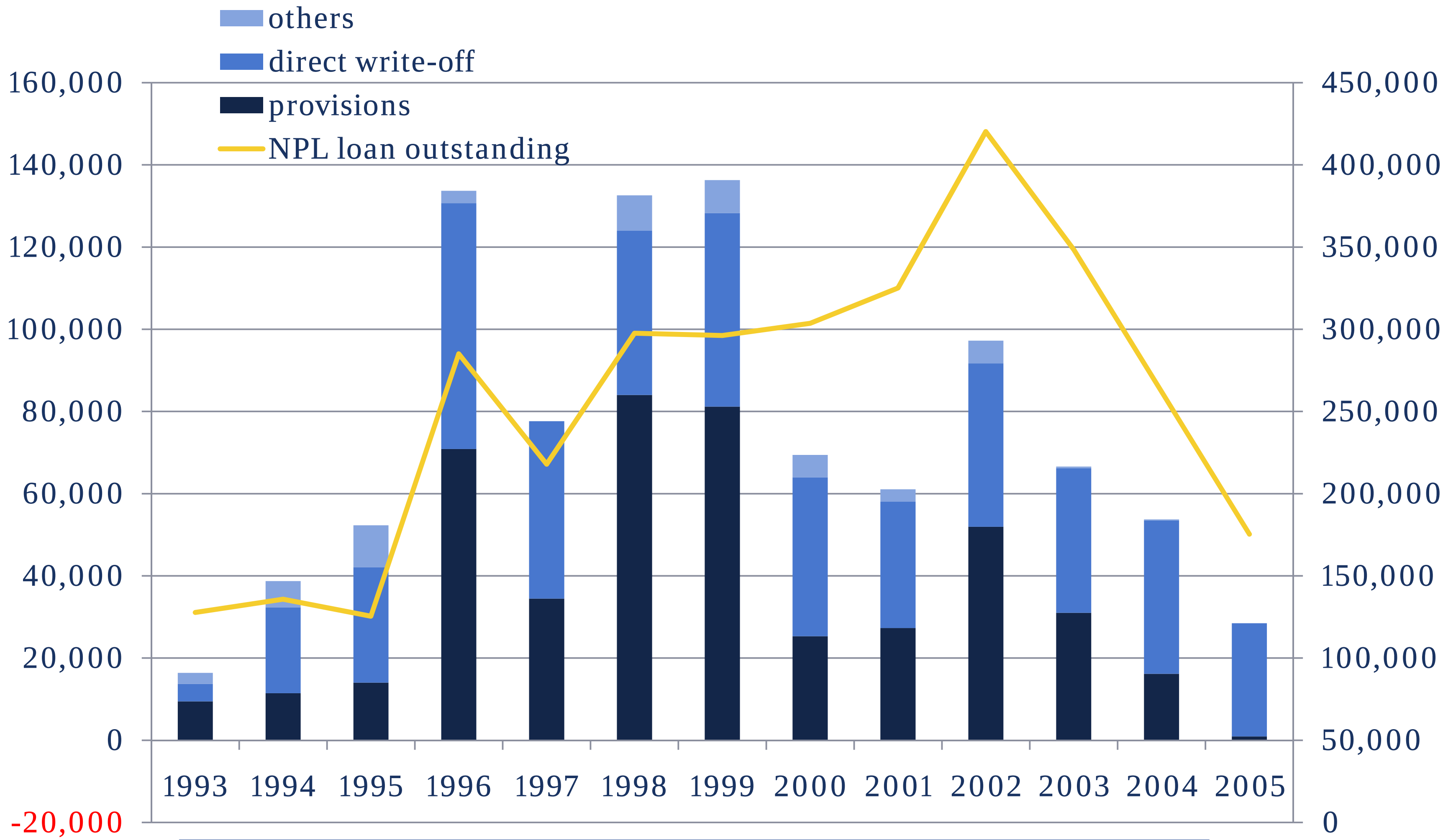
2.1. Delay in decisive action should be avoided

- The authorities underestimated the nature and severity of the banking problem, delaying early recognition of losses with lingering fears about bank solvency
- Forbearance in initial accounting and disclosure standards delayed proper identification of the incurred losses of banks. This did not give sufficient incentive to banks to promptly address the NPL problem
- The authorities could not resolve troubled financial institutions in a timely manner, due to the delay in establishing a resolution framework. The legal framework of resolution, regulatory procedure for NPL disposal, and public funds to cover a capital shortage are vital for crisis resolution
- It is extremely important to convince the politicians how important it is to contain the problem at an early stage even it involves public money

2.2. Reasons for the delay in decisive action

- The initial approach was based on the expectation that a resumption of economic growth would restore financial health of banks and their clients
- Keynesian fiscal policy supported minimum aggregate demand and helped insolvent corporations survive, particularly in the construction sector
- There was no domestic pressure (high savings, no inflation, low unemployment, and no social unrest) nor external constraint (large foreign exchange reserves, no capital flight, no balance of payments difficulties, no currency crisis)
- Crisis development was slow and gradual

Bank Response to NPL Loan Losses



Total Losses on Disposal of NPLs of All Banks:
Mar. 93 ~ Mar. 05 96.4 trillion yen

2.4. Policy evaluations : recapitalizing operations

Role of Public Funds

(trillion yen)

end of FY	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05
amount of capital raised	0	0	0.2	0.1	0.8	2.1	9.3	0	0	0.2	1.8	2	1.3	0.1
public funds	-	-	-	-	-	1.5	7.3	-	-	-	-	2	-	-
market-based	0	0	0.2	0.1	0.8	0.6	2	0	0	0.2	1.8	0	1.3	0.1
capital adequacy ratio(%)	9.3	9.8	9	9.2	9.1	9.6	12	12.3	11.7	10.8	9.4	11.1	11.6	12.2

(deferred tax?)

Source: Sato eds.(2007)

Policy evaluations : Bank Assets Assessment

Differences in official and self-assessment of bank assets

A. Misclassification of loans

(billion yen, %)

Fiscal Year	number of banks inspected	Self-assessment (a)	FSA inspection (b)	difference (c)=(b)-(a)	ratio (c)/(a)
2000	8	15,763	21,634	5,870	37.2
2001	10	28,587	35,857	7,270	25.4
2002	11	37,081	39,909	2,828	7.6
2003	11	33,551	35,395	1,844	5.5
2004	7	20,511	23,027	2,516	12.3

Source: FSA

Differences in official and self-assessment of bank assets

B. Insufficient write-offs and provisions

(billion yen, %)

Fiscal Year	number of banks inspected	Self-assessment (a)	FSA inspection (b)	difference (c)=(b)-(a)	ratio (c)/(a)
2000	8	4,975	6,479	1,504	30.2
2001	10	8,049	12,105	4,056	50.4
2002	11	11,826	13,056	1,230	10.4
2003	11	11,211	12,672	1,461	13.0
2004	7	8,497	10,012	1,514	17.8

Source: FSA

Status of Financial Assistance and Recovery

(as at September 30, 2008[preliminary])

(trillion yen)

Financial assistance items	Financial assistance implemented	The cumulative amount of recoveries, etc.	Net
(1) Monetary grants	18.9	-	[▲10.4]*
(2) Purchase of assets	9.8	9.7	0.1
(3) Capital injection	12.4	10.5	1.9
97-01	10.4	-	-
02-06	2.0	-	-
(4) Other	6.0	4.9	1.1
Of which lending to the bank under special crisis management	4.2	4.2	0.0

*) \10.4 trillion out of monetary grants is financed by tax payers.

Source: Deposit Insurance Corporation of Japan

2.5.Well-designed policy package needs to be set

- Financial Revitalization Program became effective because of the preceding efforts of capitalization, strict inspection and related legal framework.
- Asset purchase from non-failed banks may be combined with capital injection to share possible upside of these banks.

Phase	Policy Tool
Liquidity Crisis	Liquidity provision by central banks
Solvency Concern	1) Capital injection / preferred stock (with warrants) 2) Asset assessment / Stress-testing 3) Asset purchase
Bail-out	Legal framework / FDIC/DIC

3. Japan-US Comparisons: Background of financial failures

Common Aspects:

1 expansionary monetary policy

2 asset price bubble

3 expanded share of unregulated financial institutions

JP: *Jusen* (mortgage non-bank lenders)

US: mortgage lenders and brokers, investment banks, hedge funds & SIVs

Different Factors

	Japan	US
Products	Only loans →problem deepened slowly	Loans and securitized products →forced the US government to react quickly
Accounting	Annual/conventional	Quarterly/mark-to- market
Financial regulation	Relatively tight	loose
Local or Global	Purely domestic	Spread rapidly to the global markets
Role of the Central Bank	Passive	Very Active/Cooperative with Treasury

Timeline : Policy Response

US	Spring 2008	Fall 2008 Bush Administration →	09/03 ← Obama Administration
(Assessment)			A Comprehensive Stress Test - - - - - - - - - - - - ->
(Capital Injection)		①TARP1 (max $700.0bil.) ②08/11 Citigroup, AIG, Bank of America ③09/1 〃	TARP2 : A Comprehensive stress-testing
(Asset Purchase)		AIG Support	Public-Private Investment Fund (max $500 bil.~1 trillion)
(Others)	FRB : Liquidity Enhancement Credit Enhancement	(11 programs)	

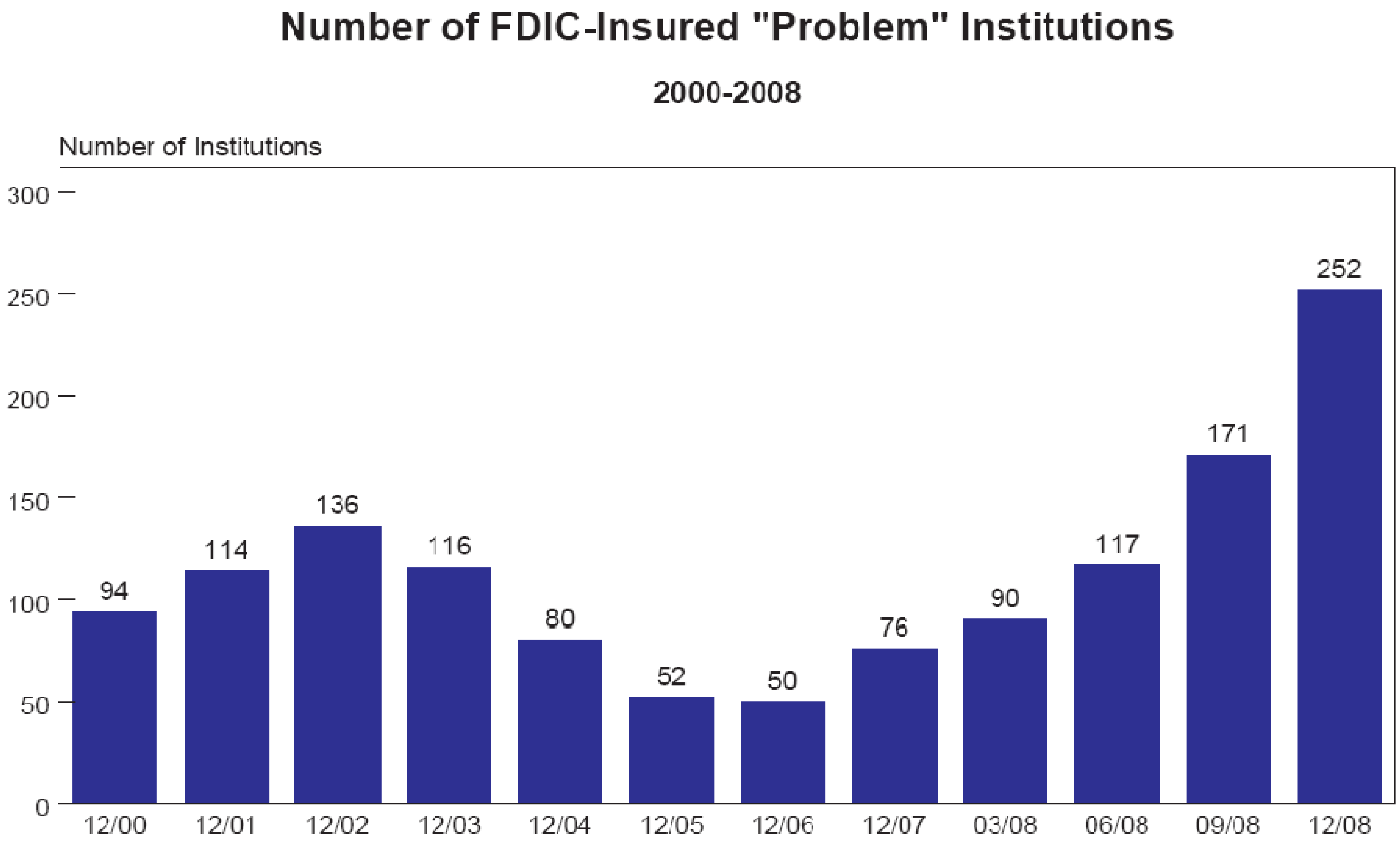
JAPAN		1998	2002
(NPL disclosure)	Underestimate of NPL figures	Definition by Financial Revitalization Act, Prompt Corrective Measures (98.4~)	02.10~ Strict Self-Assessment of NPL / Financial Revitalization Program
(Capital Injection)		①98/3 \1.8 trillion (21 banks) ②99/3 \7.5 trillion (15 banks)	
(Asset Purchase)	CCPC (93.1~01.3)	Purchase based on Article 53 with public fund (98.10~05.3)	BOJ and Banks' Shareholdings Purchase Corporation: Purchases of Stocks held by banks (02/11~04/9)
(Others)		NPL purchase by RCC using public fund (99.4~)	

Crisis Calendar

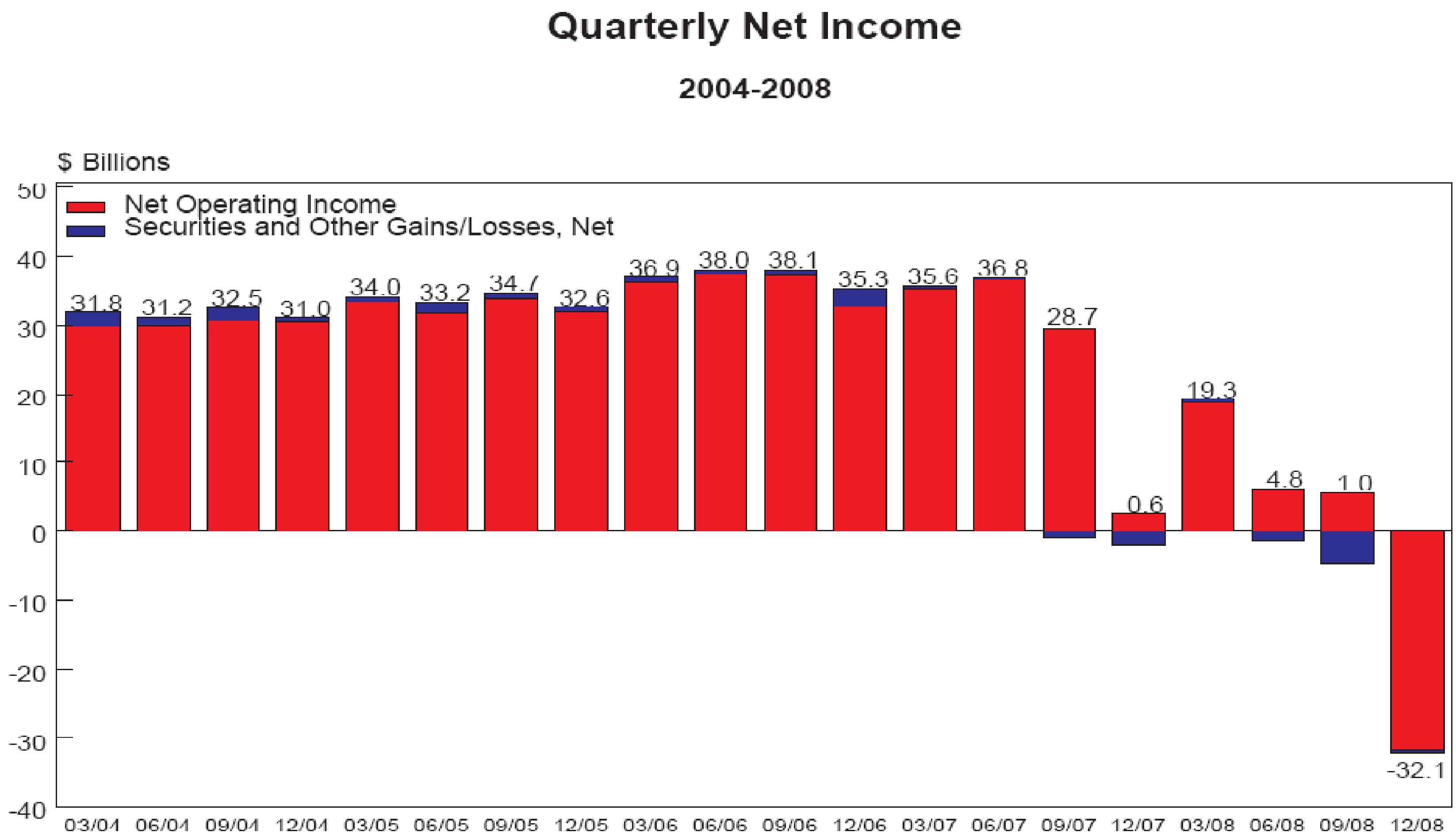
	Japan	US
Bubble peak-out	From end -1989 (stock prices) to 1991 (real estate price)	Summer 2006
Initial policy response	(Private) Asset purchase Forbearance	Liquidity provision
Crisis event	Nov. ‘97: Yamaichi and Sanyo failures Fall ‘98: 2 long-term credit banks failures	Sep. ’08: 2 GSEs, AIG bailed out and Lehman failed
Policy response to crisis	・ Capital injection (Mar.’98,99) ・ Temporary full coverage of deposit insurance ・ Asset purchase from solvent banks ・ prompt corrective measures	・ Capital injection (Oct. Nov.) under TARP1 ・ Comprehensive stress testing under TARP2 ・ Asset purchase of legacy loan/securities
Final stage	・ ’02~ Program of Financial Revitalization/Strict inspection	???
Duration	1991-2005 (1998 – 2005)	2007 - 2014?

4. The U.S. Financial Crisis

4.1 Performance of the U.S. Banking System



Earnings of commercial banks and savings institutions



Reserve coverage ratio: 220% in 2005 → 80% in 2008

4.2. "Stress test" shows large capital shortfall

(USD bil.)

	Case A (FDIC baseline)	Case B	Case C	Case D	Case E
Assumptions:					
(1) Coverage ratio	0.750	1.000	1.000	1.000	1.000
(2) NPL ratio	0.029	0.080	0.080	0.080	0.080
(3) Capital ratio	0.147	0.147	0.150	0.200	0.250
Loans	7,873	7,873	7,873	7,873	7,873
Current Loans	7,642	7,243	7,243	7,243	7,243
Noncurrent Loans	231	630	630	630	630
Tier-1 Capital	1,296	1,695	1,716	2,078	2,441
Tier-1 LLR	173	630	630	630	630
Tier-1 Other	1,123	1,065	1,086	1,449	1,811
Tier-1 Capital Shortfall	**0**	**399**	**420**	**782**	**1,145**

Note: (1) Coverage ratio = Total loss reserves (LLR)/Noncurrent loans; (2) NPL ratio = Noncurrent loans/Loans;
(3) Capital ratio = Tier-1 capital excluding LLR/Current loans.

Source: Authors' calculation, extending assumptions made by Michael Pomerleano who used FDIC data

4.3. Troubled Asset Relief Program(TARP1)

(For Period Ending Mar. 20, 2009)

1) Capital Purchase Program

Total number of cases: 520

Total price paid for purchasing Preferred Stock w/Warrants: $1,985.5 million

2) Systemically Significant Failing Institutions

11/25/2008 AIG $400 million

3) Automotive Industry Financing Program

Total number of cases: 5 , Total amount : $247.8 million

4) Targeted Investment Program

12/31/2008 Citigroup Inc. $200 million , 1/16/2009 Bank of America $200 million

(Total) $400 million

5) Asset Guarantee Program 1/16/2009 Citigroup Inc. $50 million

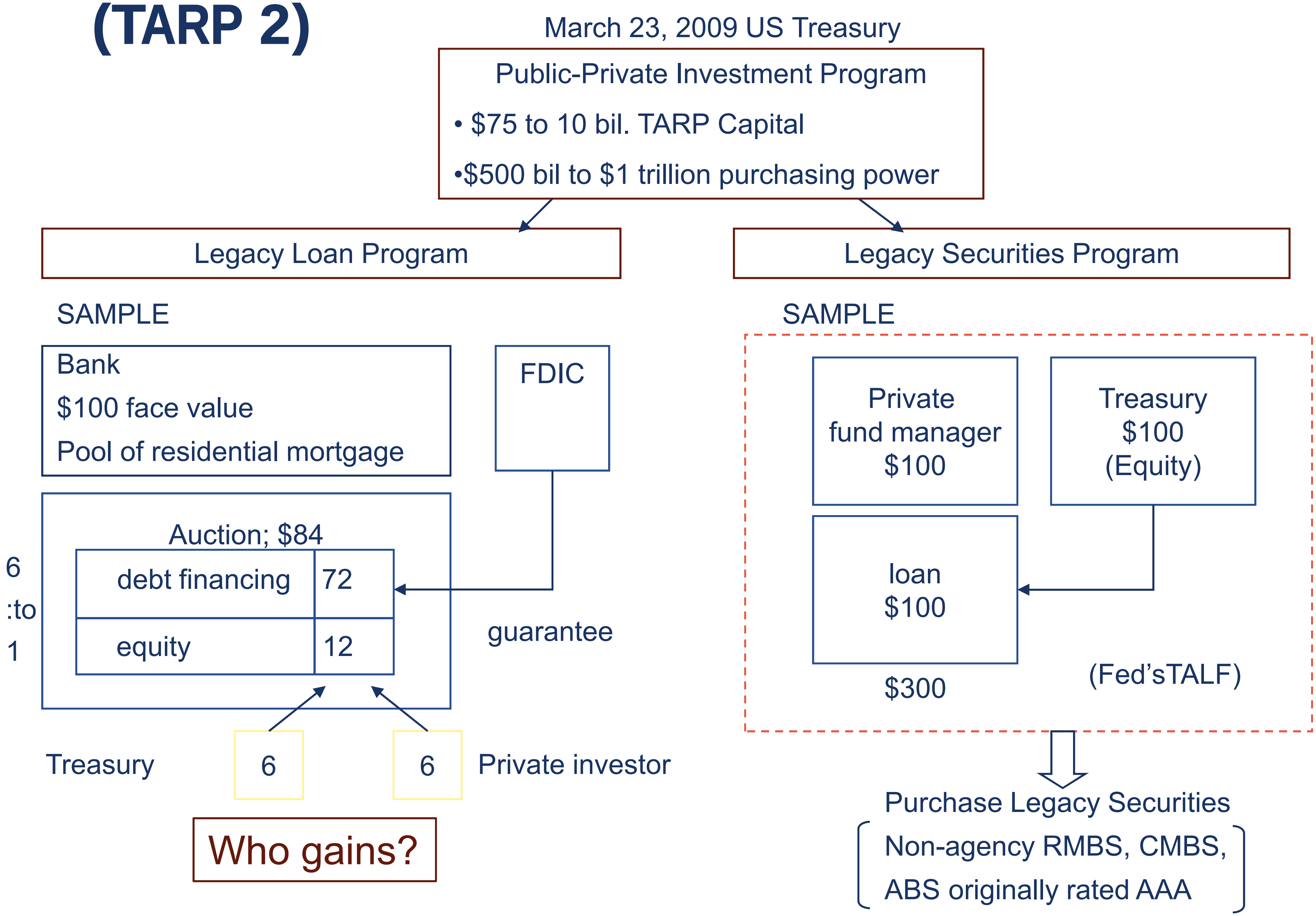
6) Consumer and Business Lending Initiative Investment Program

3/3/2009 TALF LLC $200 million

4.4. TARP2 (Geithner-Summers)

- The PPIP (public private investment program) for legacy assets provides a guarantee to potential investors, and by so doing, it boosts their bid prices thus facilitating the removal of troubled assets from banks' balance sheets.
- By removing the uncertainty associated with these assets from banks' books, they will be willing to take more new risks through lending
- "Stress tests" are supposed to be based on stringent assumptions to identify losses and capital shortfalls
- With insufficient capital, a bank needs to raise capital from the market and, if necessary, will be capitalized with public funds

US Asset Purchase Scheme (TARP 2)



4.5. Problems with PPIP (Geithner-Summers)

- One of the problems of PPIP is that banks with troubled assets may not have sufficient incentives to sell them to investors. The banks do not have to accept the bid, and they will do so only when the bid is higher than they want
- The CDOs and other securities are probably reserved and marked to market and available for sale. But CDOs are very hard to dispose of (due to aggregation problems)
- The real problem is in the banking book that is much higher (60%) and is not marked to market, and not adequately provisioned
- Another criticism is that PPIP will create massive transfer from the taxpayer to the private investors

5. Conclusion

- The Japanese government failed to tackle the problem early and quickly because of: (1) the slow development of the crisis; (2) underestimation of the seriousness; (3) optimistic expectations of growth; (4) sustained fiscal spending; and (5) lack of domestic and external constraints.
- A comprehensive framework for bank resolution put in place after the 1997-98 systemic crisis was more decisive: (1) public capitalization of weak but viable banks; (2) temporary nationalization of non-viable banks; (3) tighter loan classification through stringent “special inspection”; (4) aggressive NPL reduction through a regulatory program; and (5) new institutions for corporate debt restructuring

5. Conclusion (continued)

- Recognition of the severity of the problem (potential losses) is the first step towards crisis resolution. The ongoing "stress tests" of the US largest banks are a good starting point - - Lesson's from Japan's crisis
- In asset purchase, which is better, by joint program such as TARP2 or by public funds? - - may depend on the financial infrastructure
- The US government may have to resort to tight regulatory measures to force banks to reduce NPLs, or may even have to nationalize many banks
- An appropriate legal resolution framework is critical - - bail-outs of non-insured financial institutions turn out to be costly: Japan's 2 long-term credit banks consumed large amount of public funds, US failed investment banks caused serious market panic

5. Conclusion (final)

- It took Japan 7 years (from 1998 to 2005) to fully recover from the banking crisis. One of the problems was that new NPLs were constantly created because of the economic stagnation. But Japan was fortunate to use external demand to grow and get out of the crisis.
- It is hard to believe that external demand will revive for the US so that it can recover from the crisis in the way Japan did.
- The US needs to resolve the financial sector crisis on its own for sustainable economic recovery, otherwise it can take more than 7 years to fully recover.

Thank you
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