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From Subprime Meltdown to Global Financial Crisis: Causes and Consequences

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A Map

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2. Economic Roles of Banks and Finance
3. Transformation of US Bank Strategy & Mortgage Markets
4. Racial Inequality & Banking: Exclusion to Exploitation
5. From Urban Margin to Global Financial Crisis
6. A Crisis Timeline: 2007-2008-2009-...
7. Why Policy has Failed
8. Restoring the Social Efficiency of Banking
 - The State of the Banks vs. the State of Banking
 - “Financial Citizenship” vs. Financial Inclusion

1. Introduction

Three narratives shape media/public understanding:

- 1: Unwise or cheating subprime borrowers and misbegotten regulations (the Community Reinvestment Act → subprime loans → foreclosure crisis)
- 2: Greed and overreach by mega-banks: the latest in an historically recurring pattern of financial crashes: the "Minsky Moment"; Kindleberger per *Manias, Crashes, & Panics*.
3. Subprime/financial crisis as the end of days. US profligacy are coming home to roost ..
Overindebtedness and overconsumption and SUVs ...
Jack Nicholson courtside for the Lakers ...
Manny Ramirez in Dodger Blue...

HSBC Trims U.S. Consumer Unit (Wall Street Journal, March 2, 2009)

HSBC Holdings PLC plans to curtail its foray into U.S. consumer lending by pulling back from key businesses, ... a move that comes as the British bank prepares to raise billions of pounds to shore up capital and possibly hunt for acquisitions.

... HSBC is largely throwing in the towel on the 2003 purchase of Household International Inc., a \$14 billion deal that saddled it with a U.S. subprime lender whose results have worsened amid the housing downturn. HSBC had already ceased originating new U.S. auto loans; now... it will stop providing personal loans, while continuing to offer credit cards. HSBC's move comes as U.S. banks are under pressure to lend more money to consumers, and it could signal that HSBC believes the downturn in the U.S. has a long way to go.

The Deal That Fueled Subprime – New York Times, By FLOYD NORRIS 3/6/09

There are times when a corporate takeover has importance far beyond the companies involved.

The 2002 agreement for HSBC, the London-based international bank, to buy the biggest American finance company, Household International, seemed at the time to be such a merger. And it was.

The merger established that lending to subprime customers was a respectable business. Finance companies like Household and its corporate sister, Beneficial, had long had slightly disreputable reputations. They lent money to homeowners who could not get financing from normal banks, and they engaged in collection methods that might seem aggressive to more timid financiers.

Not long before the merger, Household had agreed to pay \$484 million to settle claims it was a predatory lender. Its borrowing costs had risen and its stock was at a seven-year low.

“This sector’s been beat up on a regular basis,” said Robert K. Cole, the chairman and chief executive of New Century Financial, then a fast-rising subprime lender. “So it’s refreshing when a highly qualified suitor sees value.”

This week, HSBC conceded defeat. It will close the remaining 800 offices of Beneficial and Household Financial, and it will stop making loans. "With the benefit of hindsight, this is an acquisition we wish we had not undertaken," Michael F. Geoghegan, HSBC's chief executive, understated.

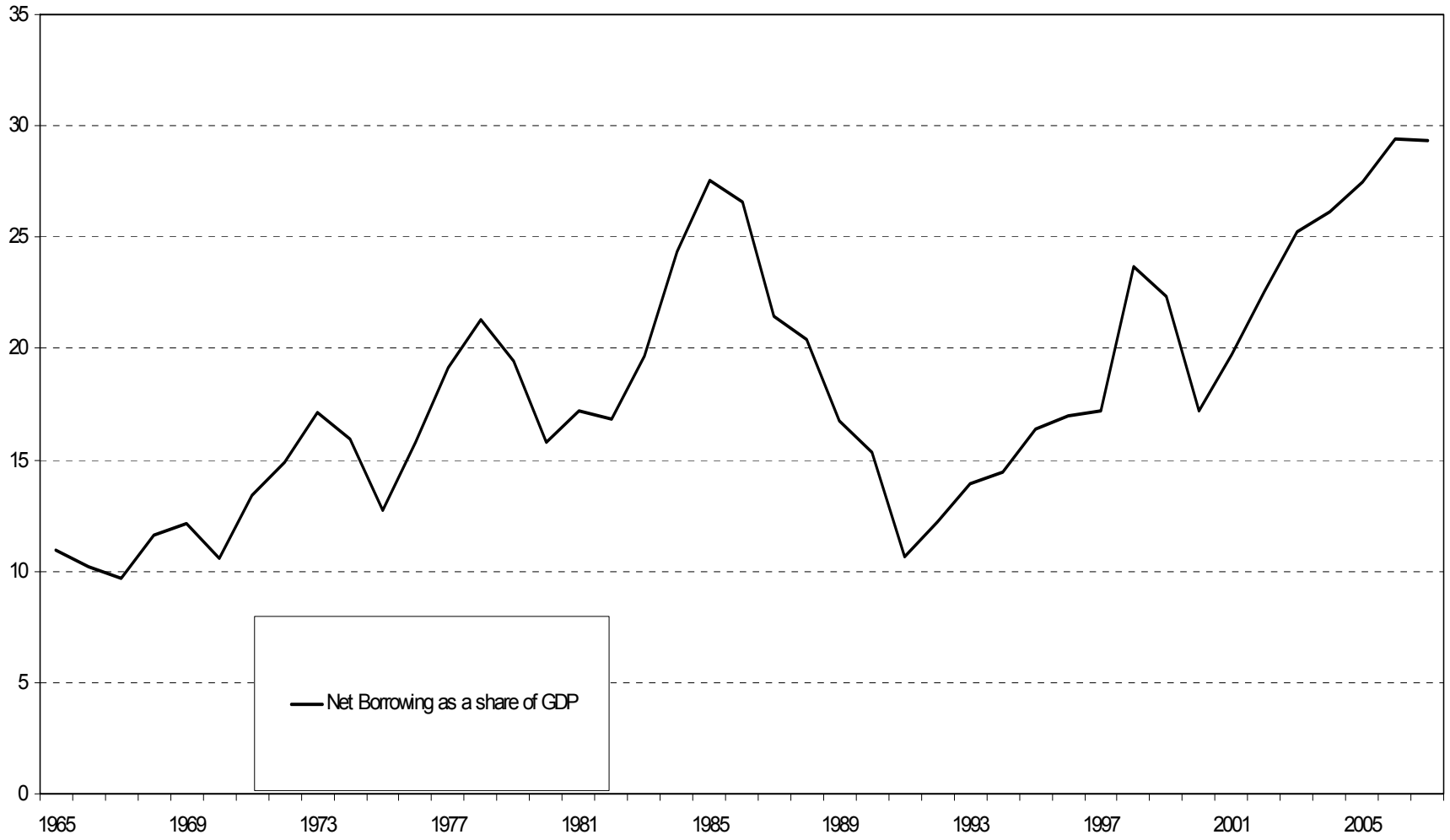
What would have happened if HSBC had walked away from the deal before it was completed in 2003? John Hempton, an Australian hedge fund manager who lost money betting HSBC would do just that, thinks things would have been very different, with Household perhaps failing then and investors being more hesitant about what he calls "dodgy mortgage paper."

HSBC, he says, "provided the assurance that got this subprime mortgage thing really rocking. They are who you should blame."

1. Introduction

1. Subprime lending is rooted in the sort of financial exploitation that the Community Reinvestment Act tries to block, not to foster.
 - Mega-banks were perpetrators, not victims
 - **We will summarize this history...**
2. Financial crises do recur; but *which history is repeating itself?*
 - Financial crises did **not** lead to worldwide macroeconomic declines in 1982 (Latin America), 1994 (Mexico), 1997 (Asia), or 1999 (LTCM).
 - **So why do we see the global spread of depression now, not in earlier in the neoliberal era (1980 onward)?**

Net Borrowing / GDP (%), US, 1965-2007



1. Introduction

3. RE: US profligacy. We focus not on consumer spending per se, nor on the curse of Mike Piazza, but on the limits of the US's post-hegemonic hegemony.

- If the US is global lender-of-last resort, why did its actions fail now?

Responding to points 2 and 3 will require an encounter with the ideas of financial instability and stabilization developed by Hyman Minsky. He wrote, "The Sky Did Not Fall in 1982". It did now. Why?

1. Introduction

1. The financial crisis invites an interpretation that blames victims and concludes, "*what failed was government.*"
2. The notion that all financial crises can be fit into one frame must be challenged if truly bold and imaginative policies are to be proposed and implemented.
3. The roots of the subprime crisis are in banks' strategic reorientation in the neoliberal era, & their patterns of racial exclusion in lending markets.
4. Banking and finance is broken. This forces a rethinking of what banking IS – vs. what it should be. This can be done on elitist or populist grounds.

2. Economic Roles of Banks and Finance

- Banks *should* perform two “functions” for the economy: they supply credit and provide liquidity, and incur default and liquidity risk.
- The non-bank financial system *should* provide insurance.
- There are tensions between the returns and risks associated with the expansion of lending and of insurance. These *should* “brake” credit growth as an expansion lengthens.
- Then: “who makes risk, bears risk.”
- Regulators should balance (economic/social) functionality and risk.

2. Economic Roles of Banks and Finance

Two broad paths to a functional system:

- An “East Asian” approach – highly leveraged, with directed credit and limited scope for financial-market action
- An Anglo-American approach - well-capitalized banks operating autonomously with clear lending principles and careful enforcement, and with effective limits on financial-market activities of banking firms
- Contrast between ‘French’ model (Rousseau) requesting new activities vs. ‘Common law’ model (Locke) of freedom to innovate.

3. The Transformation of US Banking & Mortgage Markets

Banks and thrifts in deep trouble in the late 1970s, early 1980s.

Disintermediation due to high interest rates, emergence of money-market mutual funds

Loss of large corporate loan customers (commercial paper, bond markets)

Loans to developing countries, esp. Latin America, in late 1970s, early 1980s

The commodity boom was perceived as having no default risk; and "Countries don't go bankrupt." (Walter Wriston, Citibank)

3. The Transformation of US Banking & Mortgage Markets

Latin American debt crisis 1982

Savings and loan crisis 1982

“Oil-patch” US bank crisis 1982

Continental Illinois failure, 1984

Result: Banking deregulation from 1980 on:

A shift in banks' business model from interest-margin to fee-based income. The initiation of “upscale retail banking”

Housing finance: the US savings & loan system was largely destroyed.

But a “safe securitization” solution was found for housing finance.

3. The Transformation of US Banking & Mortgage Markets

Figure 5: Thrift / mortgage-investor balance sheets with securitization

Thrift (mortgage originator)			Mortgage-investment pool	
Reserves	Demand deposits		Mortgage loans (by maturity of payment date)	Investments from pension, trust funds (maturity matched)
Securities	Time			
Mortgage loans	deposits			
	Equity			Shares or equity

Note the ambiguity about who is bearing risks in the securitization model! And note the principal-agent problem associated with the mortgage pool...

Figure 2: Holders of U.S. Mortgage Debt, 1979-2006 (% of total)

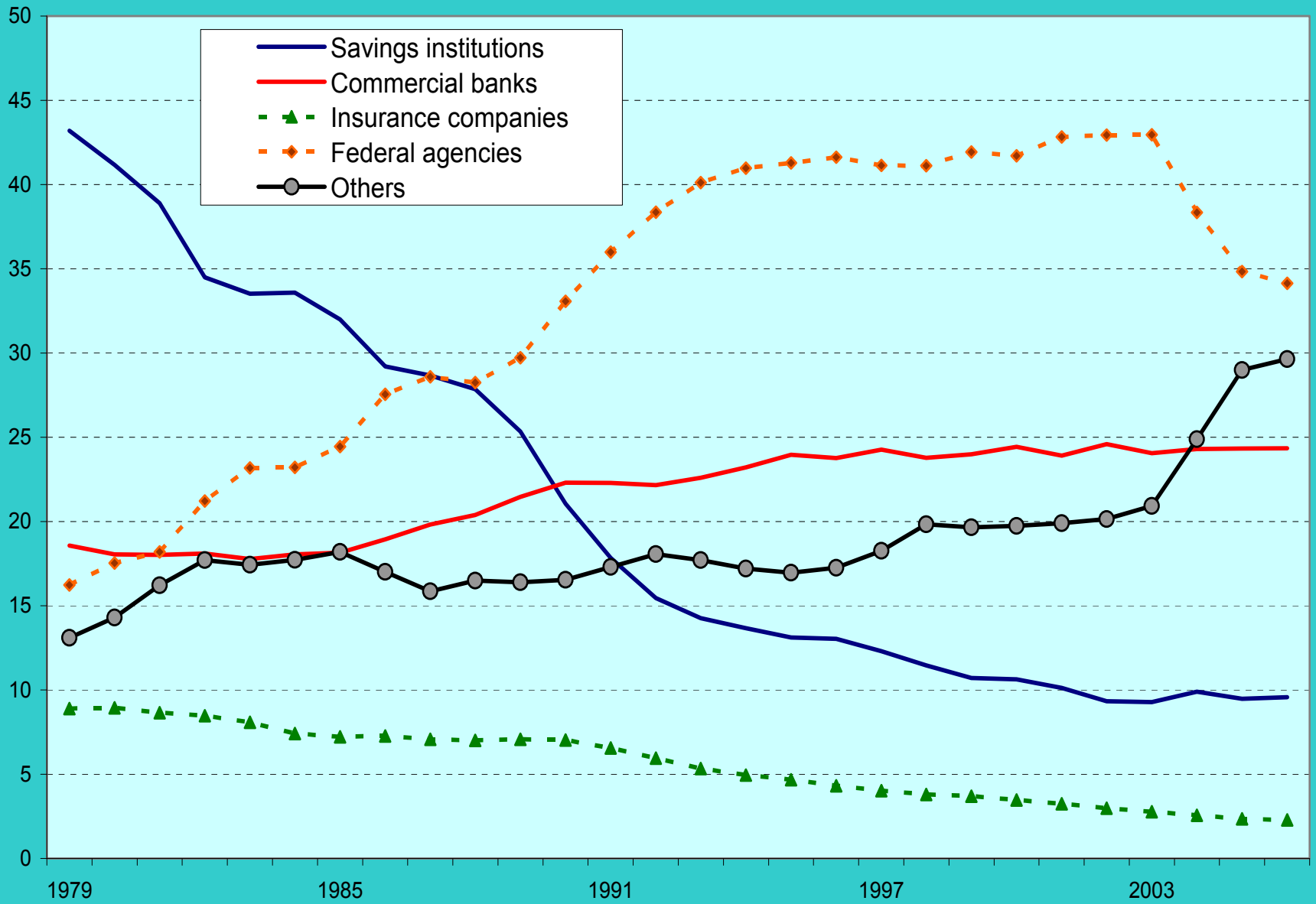
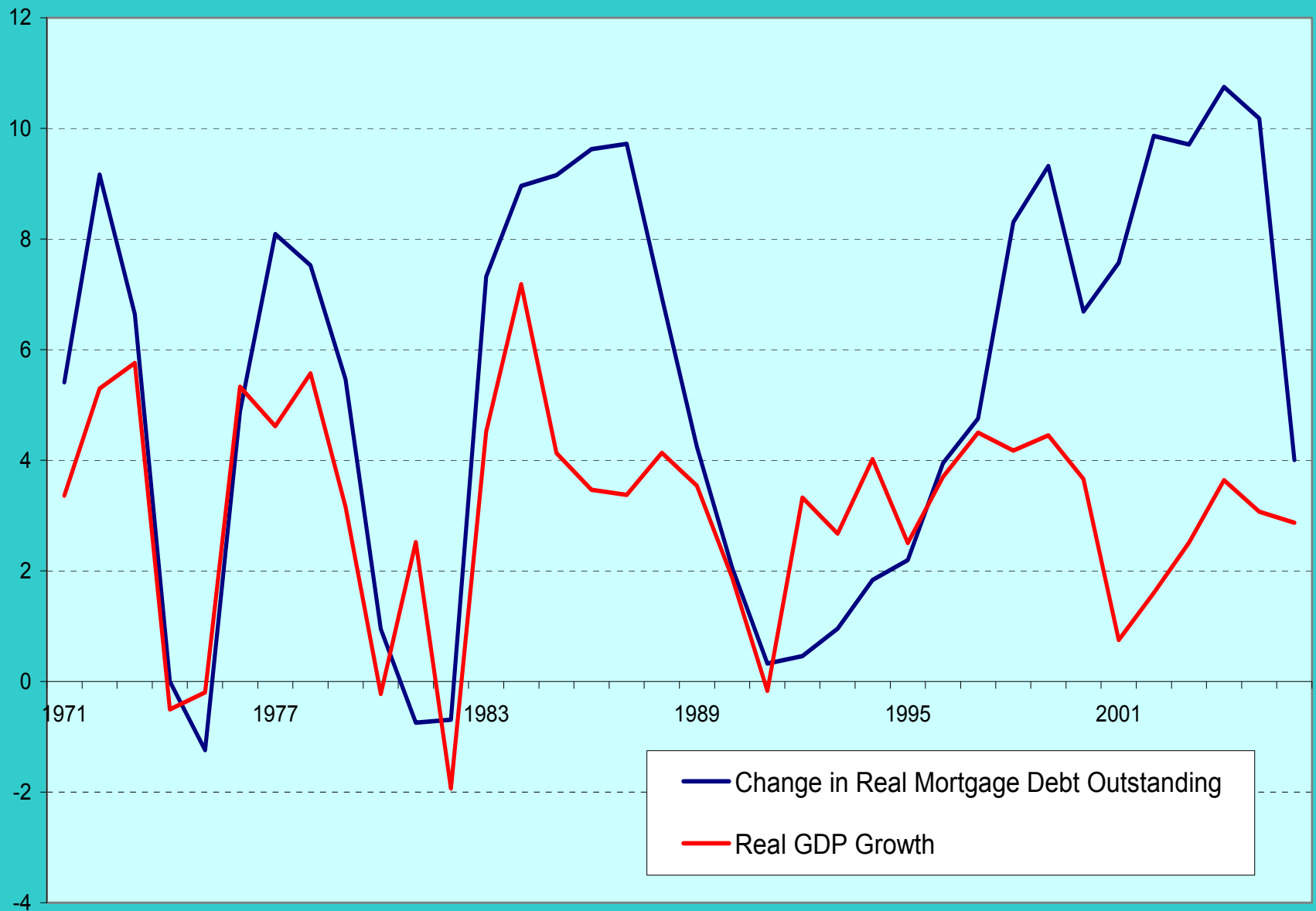


Figure 4: Growth Rates of Real GDP and Mortgage Debt Outstanding, US, 1971-2006 (%)

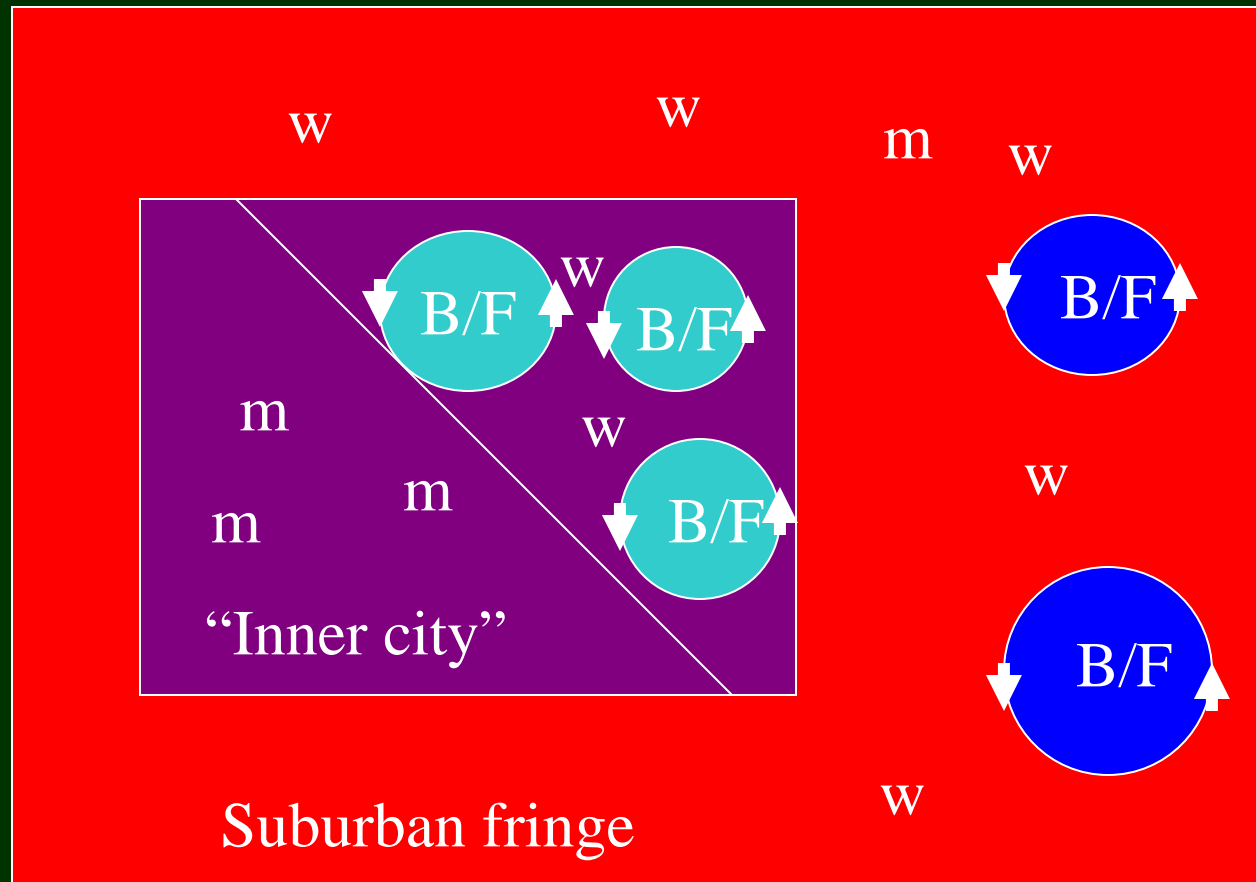


4. Racial Inequality & Banking: Exclusion to Exploitation

- Markets and government programs for credit and capital excluded racial minorities and lower-income and minority areas from the 1930s New Deal forward.
- Civil rights & community-reinvestment laws forced changes by the government and banks. Community reinvestment laws passed in 1975, '77.
- Banks' behavior improved ... but then racial exclusion was transformed into racial exploitation in these markets.
- Banks increasingly developed products for lower-income markets, such as pay-day loans, consumer-durable credit, debit cards, and
- .. **Subprime loans.**

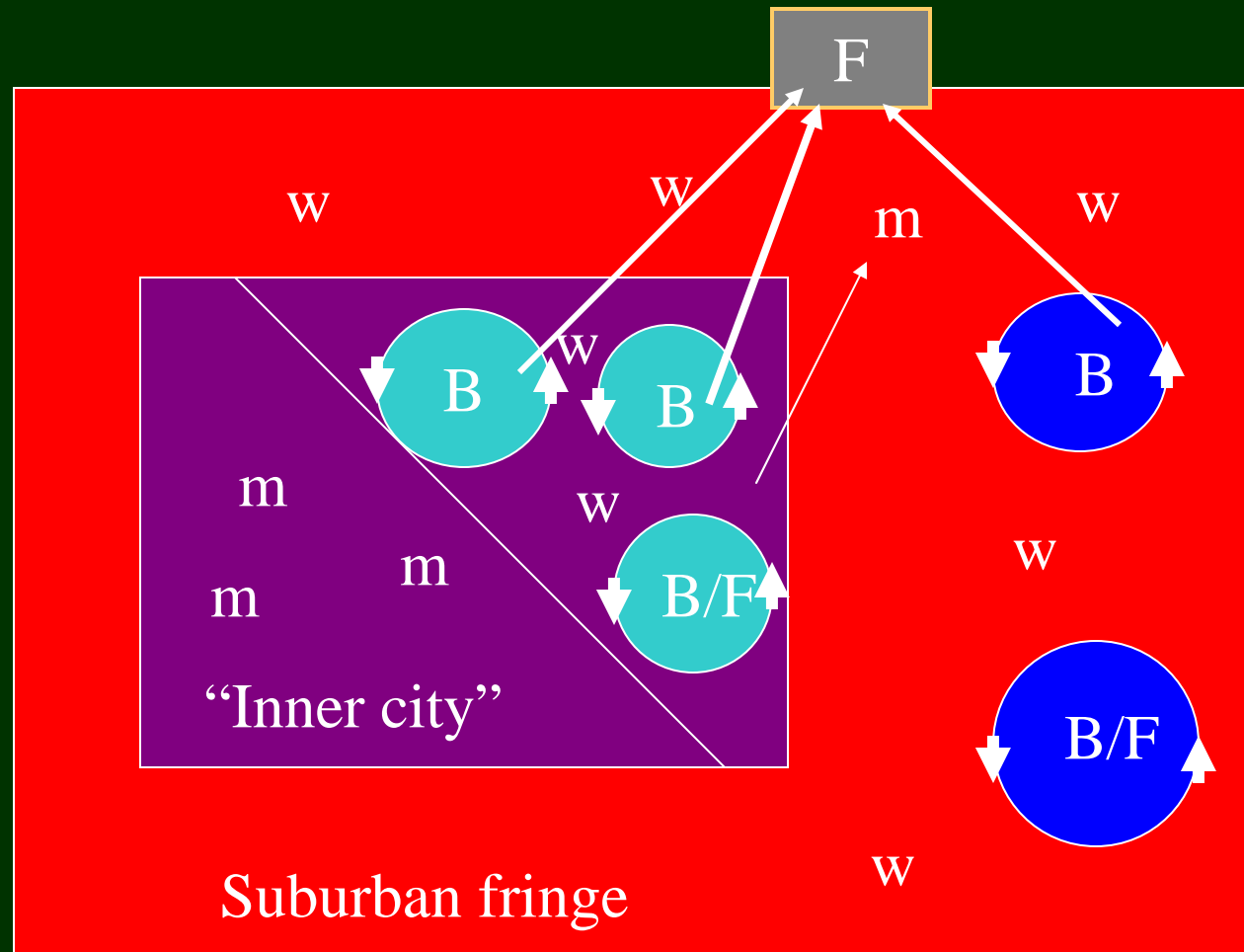
A visual representation of the New Deal banking system

B = banks;
F = financial
assets
w = whites;
m = minorities



A visual representation of breakdowns in New Deal banking

B = banks;
F = financial
assets
w = whites;
m = minorities



A visual representation of a new banking era

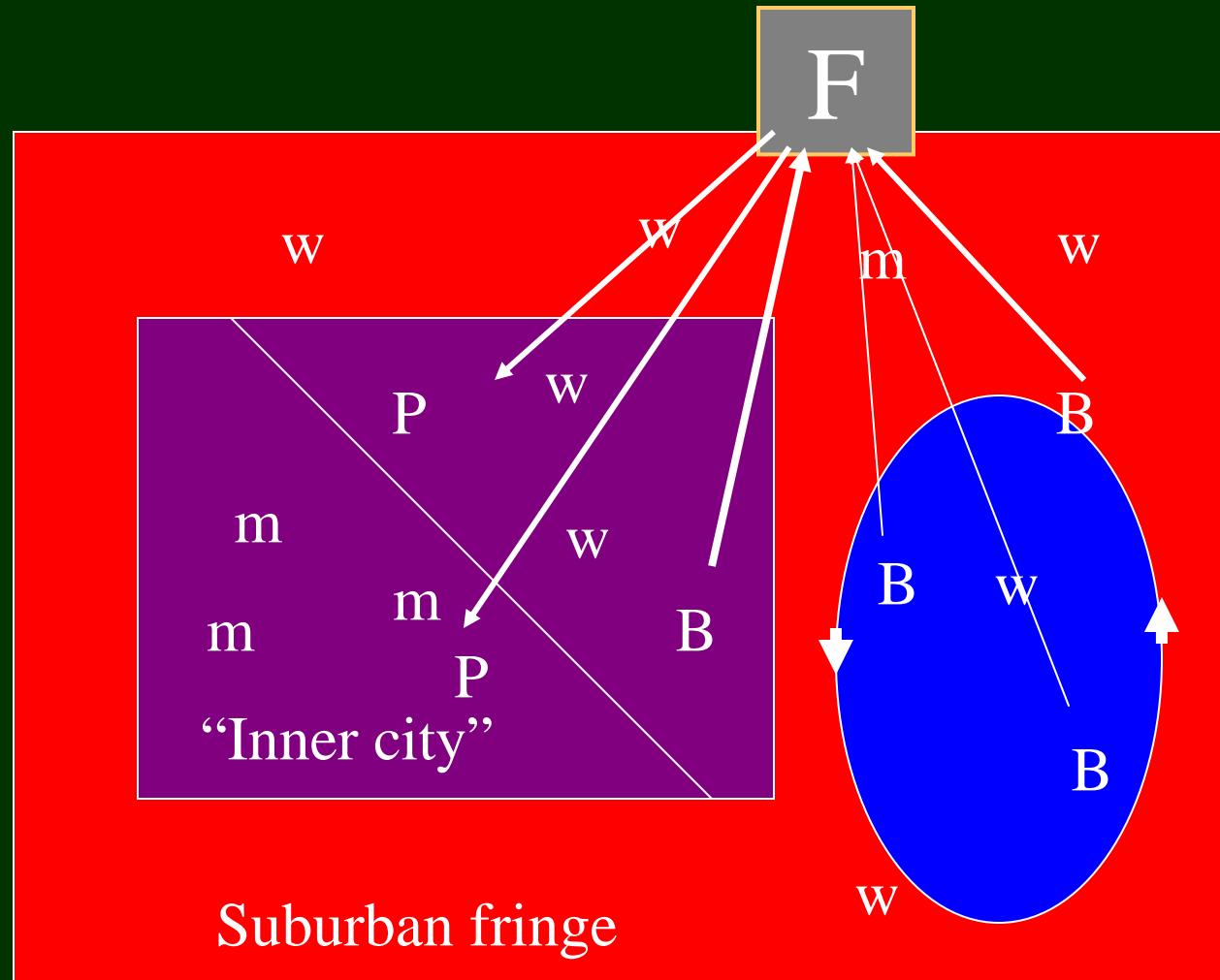
B = banks;

F = financial
assets

P = payday
loans

w = whites;

m = minorities



4. Racial Inequality & Banking: Exclusion to Exploitation

- Initially, subprime loans were made to homeowners in redlined areas.
 - By 1998, one-third of all mortgage loans made to African Americans were subprime; and one-fifth of mortgage loans to Latinos and low-income people.
 - Subprime lending grew 900% between 1993 and 1999 in “inner-city” areas, while other forms of mortgage lending fell.
- Payday loans also exploded in these same areas: more than 22,000 outlets (vs. 60,000 bank branches).

4. Racial Inequality & Banking: Exclusion to Exploitation

This involved a business model for “subprime lending”: high loan rates, high application fees & non-compliance penalties, with short maturities.

- *A loan that was not viable for a borrower in the long run could be profitable in the short run. ... Especially if it could be moved “off the balance sheet.”*

The thrift crisis had highlighted “Recourse risk.”

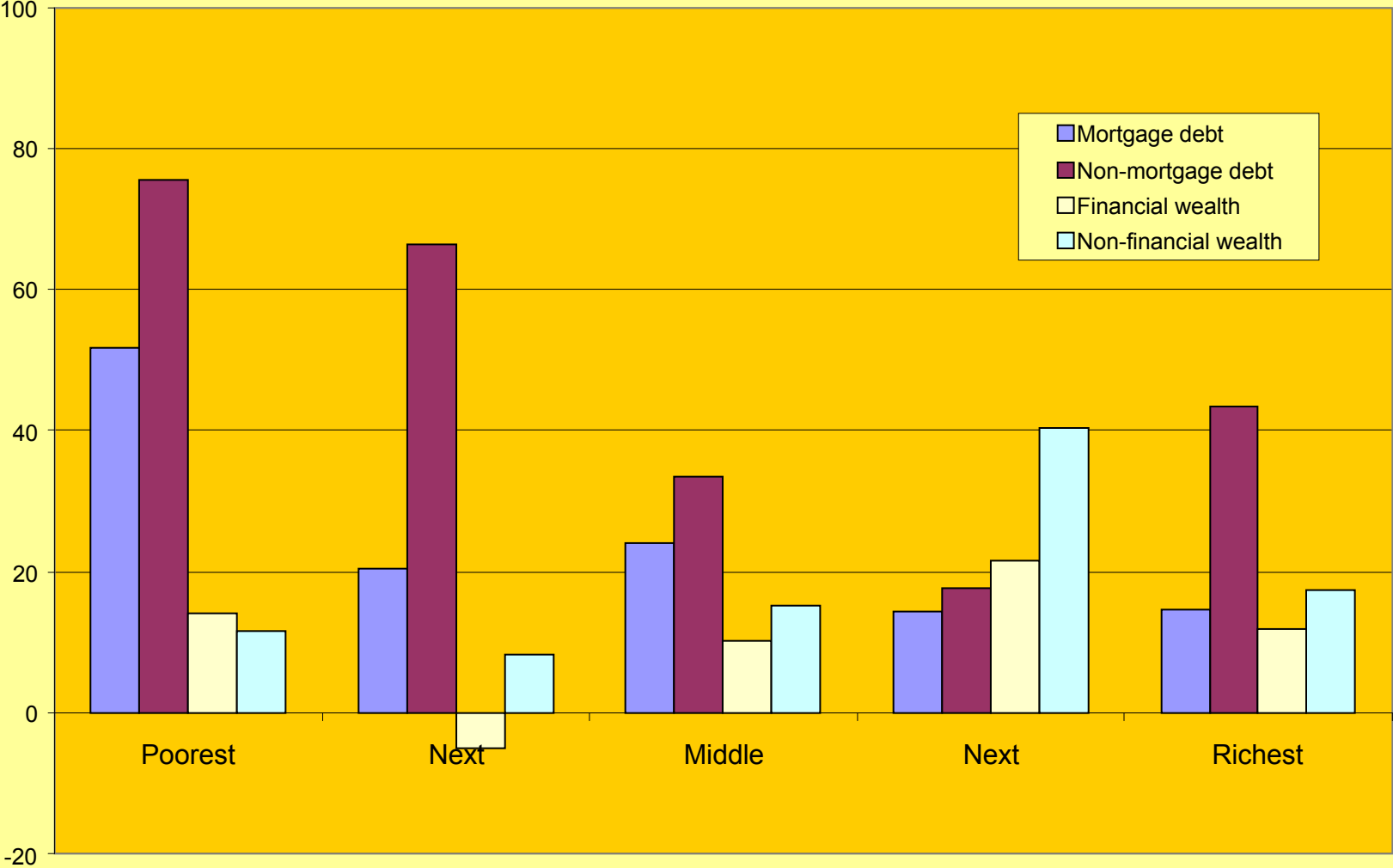
- *It seemed that this could be handled by creating markets that could insure against excessive default (this evolved into credit-default swaps).*

4. Racial Inequality & Banking: Exclusion to Exploitation

Banks did not want subprime/payday loans on their balance sheets, & nurtured a securitization market:

- Large investment banks provided \$80 billion annually in 1998 and 1999, with Wall Street insurers backing these subprime mortgage-backed securities [*Henriques and Bergman, "Profiting From Fine Print With Wall Street's Help," Wall Street Journal, March 15, 2000.*]
- Large bank holding companies acquired subprime-lender subsidiaries to obtain access to fees:
 - First Union Bancorp bought Money Store in 1998
 - Citicorp bought Associates First Capital in Sept 2000, expanding CitiFinancial to 20 nations
 - HSBC bought Household Finance in 2003

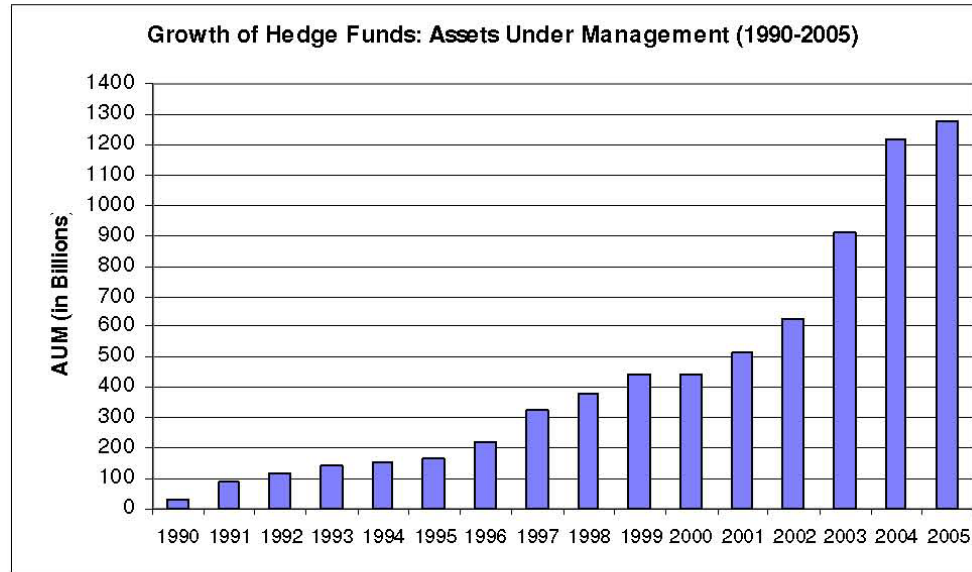
**Avg 3-Year Growth Rates, Assets and Debt, '89-'04,
Survey of Consumer Finances, FRB (by quintile)**



5. From Urban Margin to SIVs to Global Financial Crisis

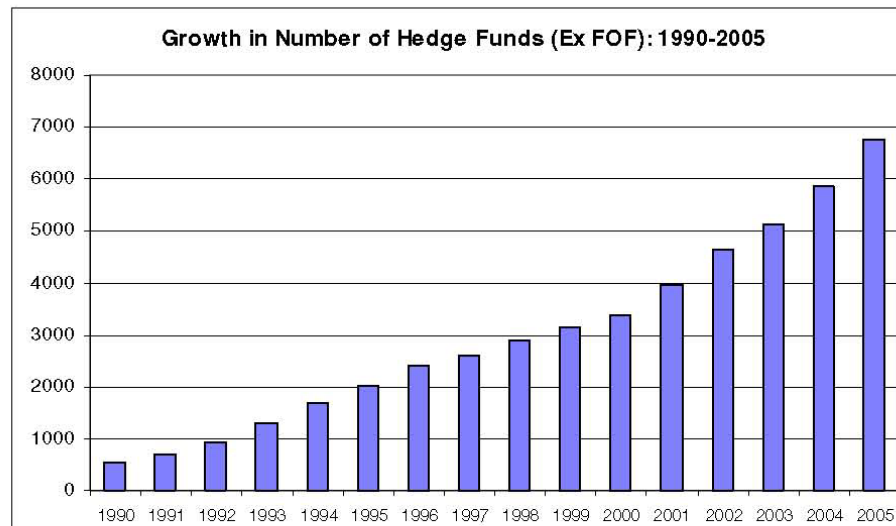
- The machinery needed for a robust subprime industry extending beyond the boundaries of the inner-city area was now in place:
 - Lenders, borrowers, bundlers and underwriters;
 - A market demand for securitized high-risk debt, heightened by the **growing number of hedge funds and private-equity funds**;
 - Abundant liquidity in short-term credit markets. This last was **guaranteed by the unique macro position of the US economy – global reserve currency, global lender-of-last-resort.**

Exhibit 1



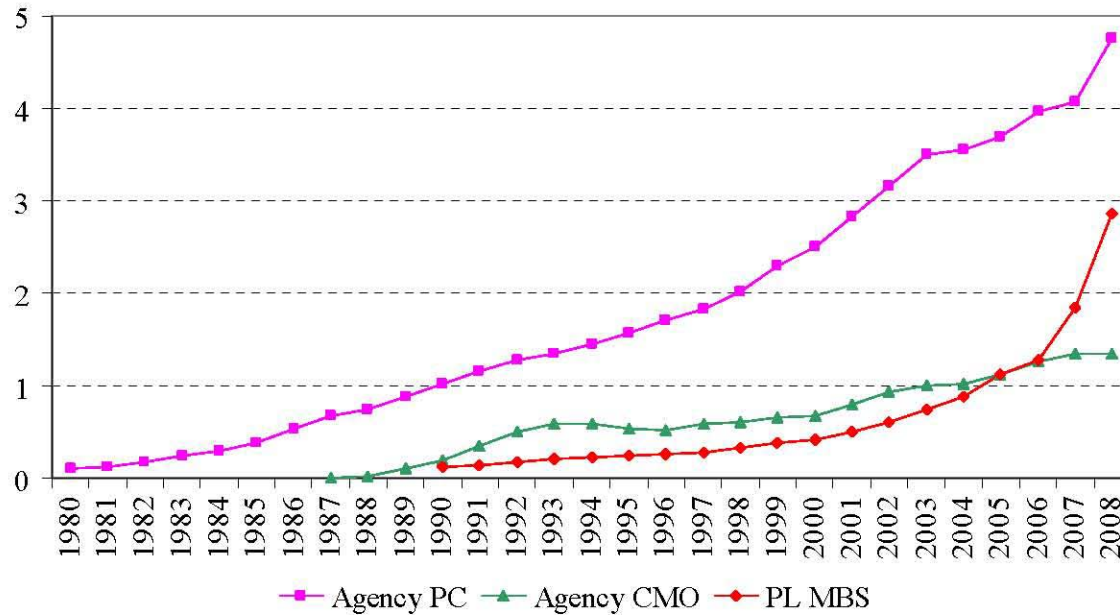
Source: CISDM

Exhibit 2



Source: CISDM

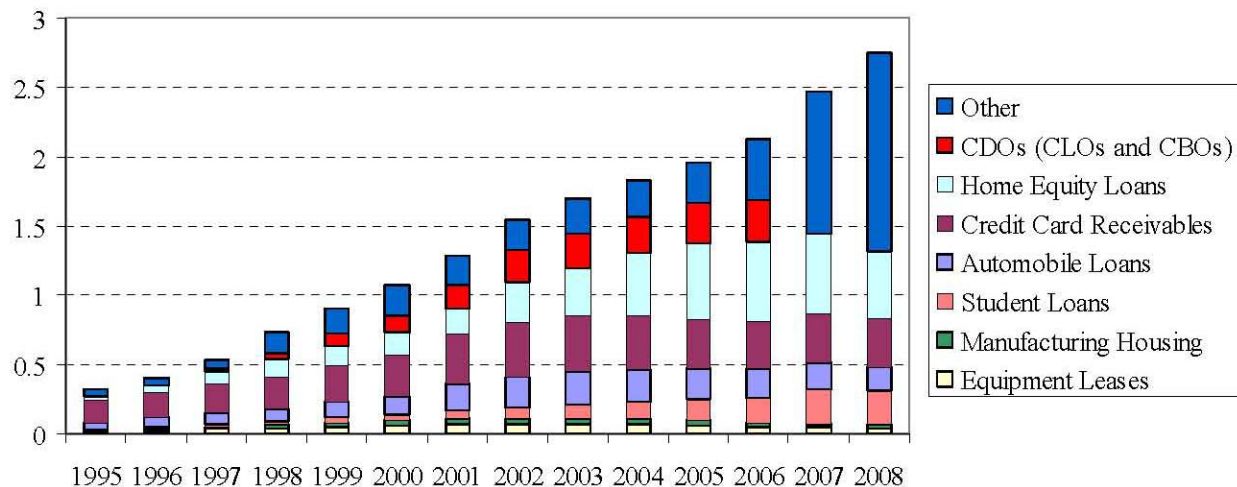
Figure 15: Outstanding Volume of Mortgage-Related Securities (Trillions of Dollars)



Sources: BMA, SIFMA, GNMA, FNMA, FHLMC.

Note: Average of first two quarters for 2008. By convention, agency MBSs and CMOs include those issued by FNMA and FHLMC even though they are private corporations.

Figure 16. Types of Financial Claims Backing Outstanding Asset-Backed Securities, Excluding Mortgage-Backed Securities (Trillions of Dollars)



Source: SIFMA, Bond Market Association.

Note: Average of the first three quarters for 2008. From 2007, CDOs are included within "Other," which includes auto leases, small business loans, trade receivables, claims on intangibles, non-performing and other miscellaneous financial claims.

5. From Urban Margin to SIVs ...

Figure 7: Subprime lenders and structured investment vehicles

Subprime lender (mortgage originator)		Structured investment vehicle	
Reserves	Short-term money-market	Collateralized debt obligations (including mortgages) with certain risk, maturity characteristics	Short-term money-market borrowing
Mortgage loans	Borrowing		
	Shares		Private-equity/ hedge-fund investors

Note: Light-grey shading indicates default risk, and dark-grey shading, liquidity risk.

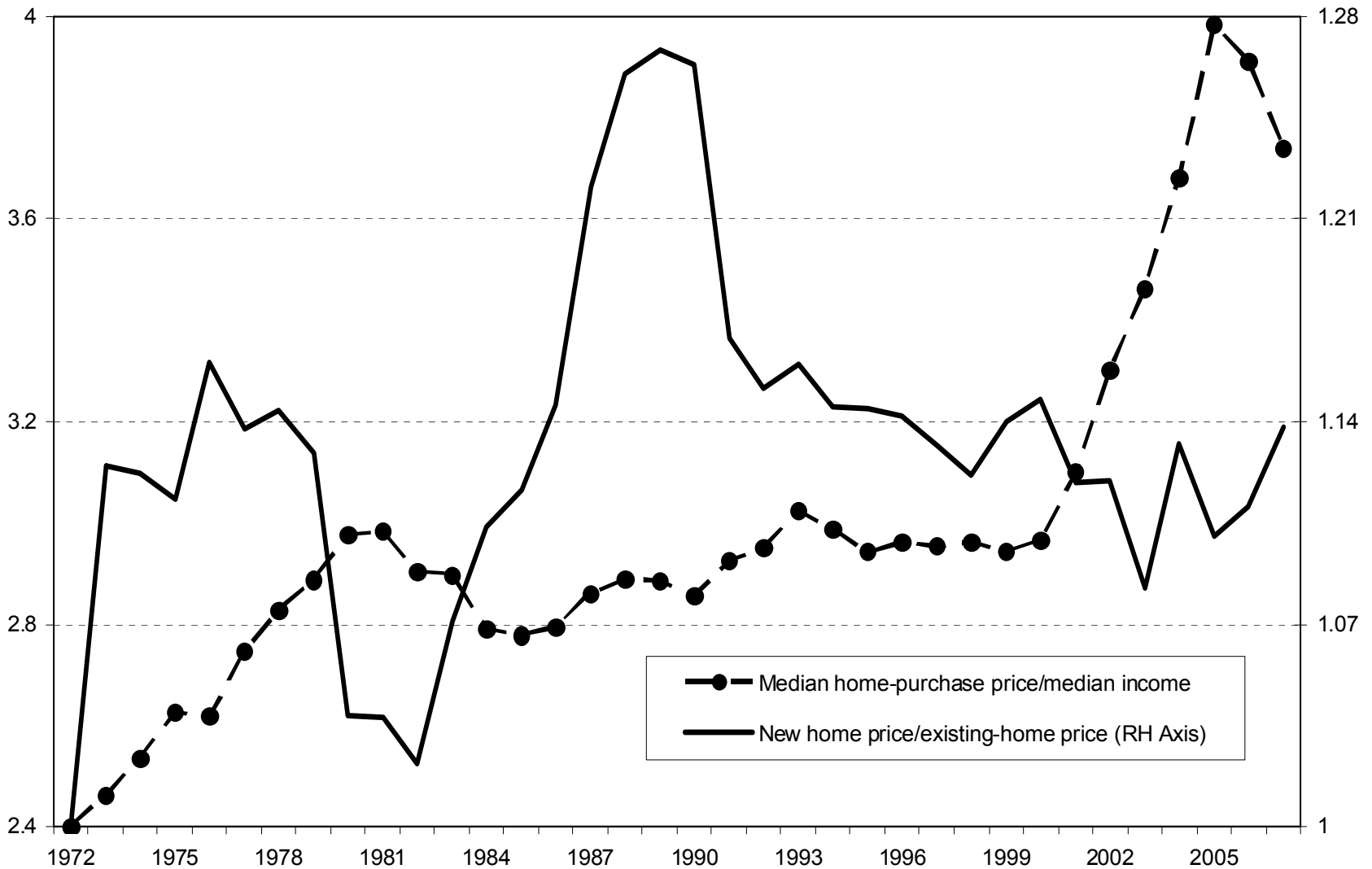
5. From Urban Margin to SIVs ...

- As the housing bubble grew, the idea grew that longer-run housing-price appreciation would permit a reset of unviable loan conditions.
- In some areas, rising housing prices made subprime loans a necessity: income fell (Detroit) or housing prices skyrocketed (California).
 - 2001-03: 8.5% of mortgages were subprime
 - 2004-05: 14% subprime
 - 2006: 32% subprime (45% variable-rate loans, 23% conventional)
 - 2005-06: California – 50% of home-acquisition loans are zero down-payment

Figure 3: US homeownership rate and real median household income, 1970-2008 (% of all housing units occupied year-round)



**Figure 5: Housing Price-to-Income Ratio and
New-Home/Existing-Home Price Ratio, 1972-2008**



5. From ... SIVs to Global Financial Crisis to Global Turndown

The pressure on housing markets in “hot” areas to increase in value while not generating unsustainable housing-price/income ratios became too great.

The housing market began an internal collapse:

- first the Subprime and Alt-A paper, linked to the terms/conditions attached to mortgages, and high prices;
- then the overall market, due to collapsing prices;
- then the securities created from this paper ..

Table 1

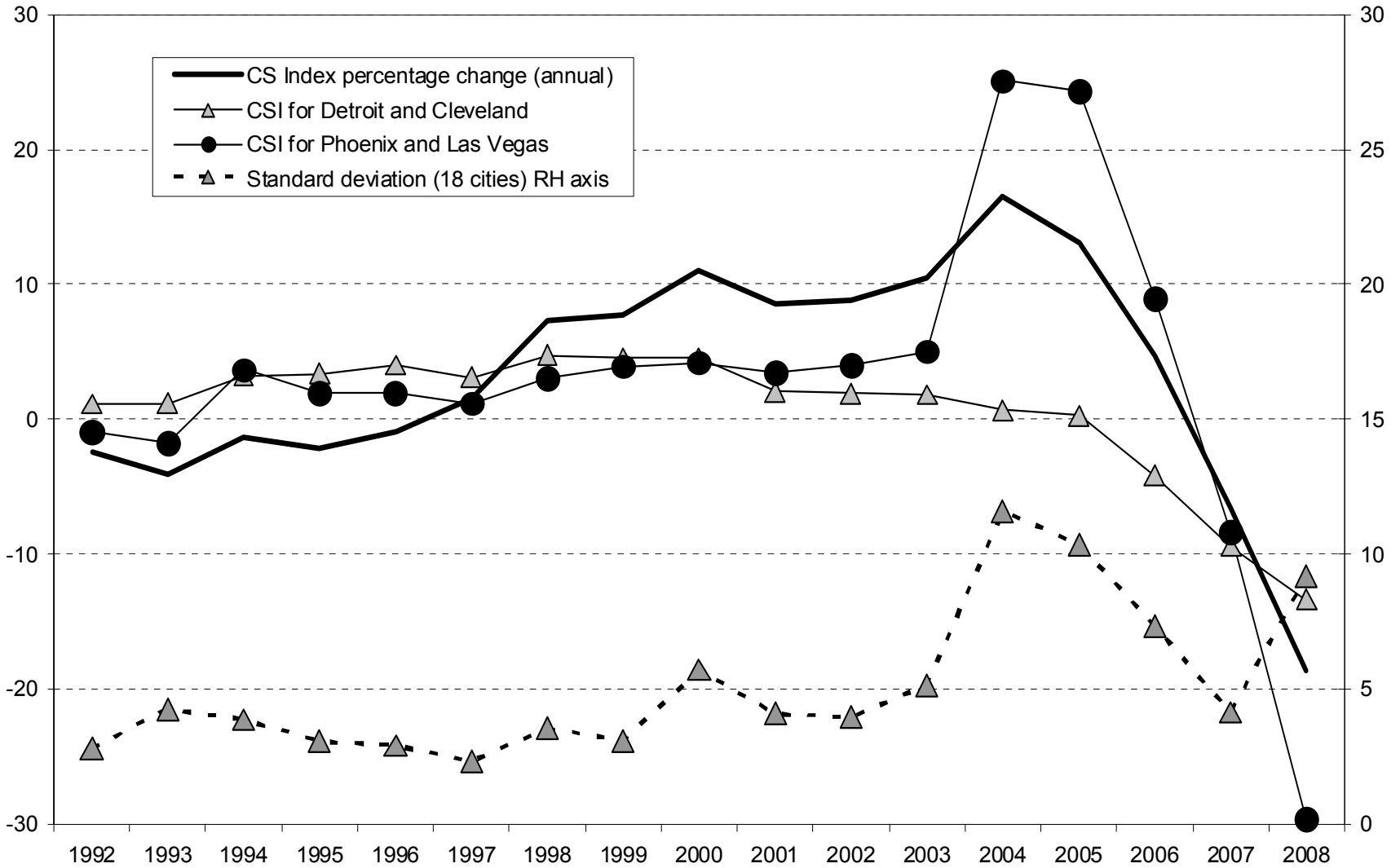
Table 1. Foreclosure Rates, Population Growth, and Median Owner-Occupied Housing Value to Median Family Income Ratios

State	Foreclosure	Population Growth (rank)		Median Housing Value to Median Family Income Ratio (rank)
	Rate (rank) 2008	1990-2000	2000-2007	2007
Nevada	4.10 (1)	66.3 (1)	27.1 (1)	5.13 (3)
California	2.57 (2)	13.8 (18)	7.5 (18)	8.30 (1)
Arizona	2.26 (3)	40.0 (2)	22.7 (2)	4.25 (9)
Florida	1.99 (4)	23.5 (7)	13.7 (7)	4.24 (10)
Illinois	1.61 (5)	8.6 (34)	3.3 (34)	3.17 (21t)
Colorado	1.38 (6)	30.6 (3)	12.3 (8)	3.60 (16)
Utah	1.03 (7)	29.6 (4)	17.9 (3)	3.24 (20)
Idaho	0.79 (8)	28.5 (5)	15.4 (5)	3.17 (21t)
Oregon	0.68 (9)	20.4 (11)	9.2 (13)	4.23 (11)
Connecticut	0.65 (10)	3.6 (47)	2.6 (38)	3.82 (14)
U.S. Avg.	0.79	-	-	3.16

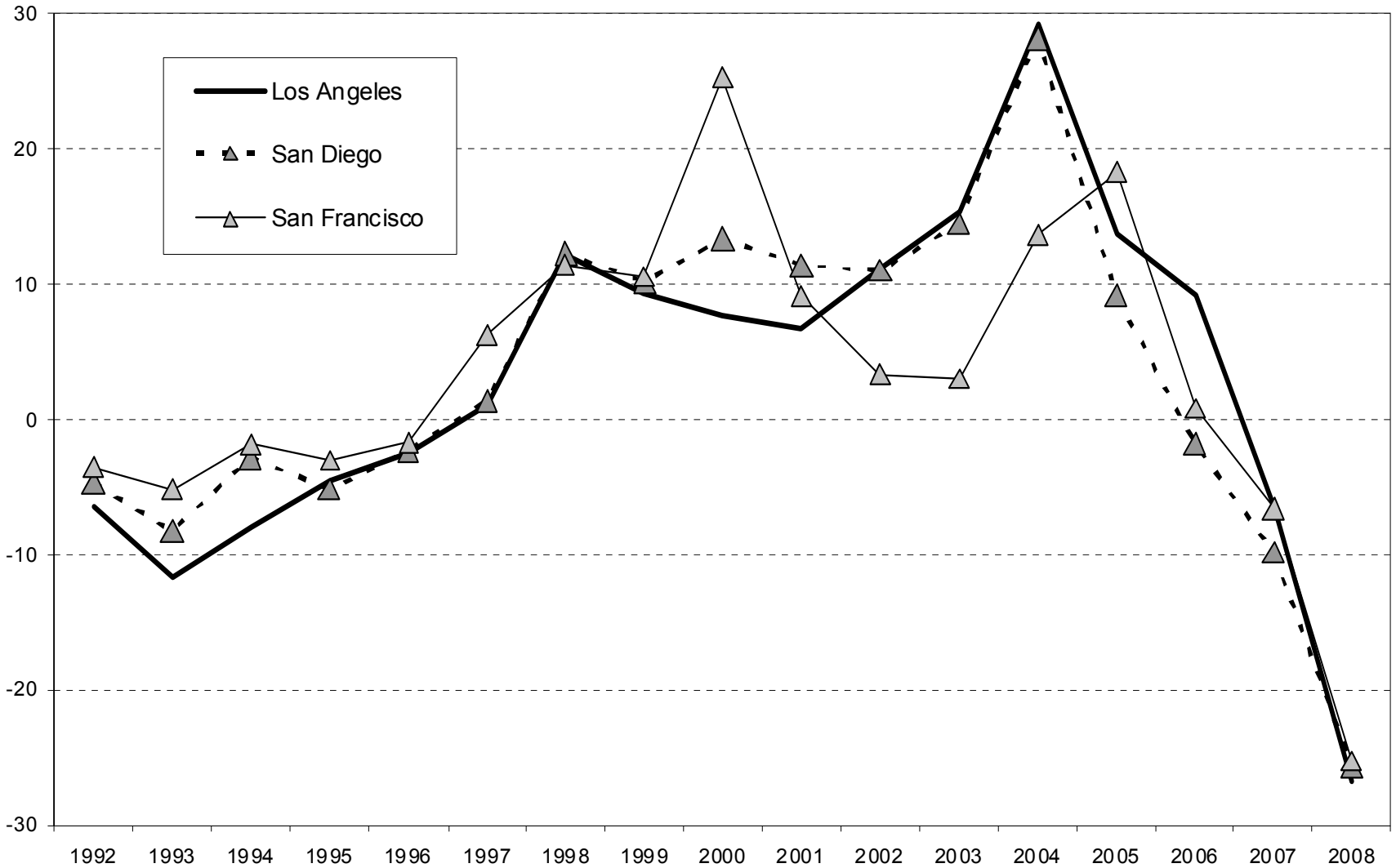
Sources: foreclosure.com, U.S. Bureau of the Census, American Community Survey 2007, and Metropolitan Policy Center of the Brookings Institution 2008

“Foreclosures in States and Metropolitan Areas: Patterns, Forecasts, and Pricing Toxic Assets,” William Lucy and Jeff Herlitz, Univ of VA, February 2008

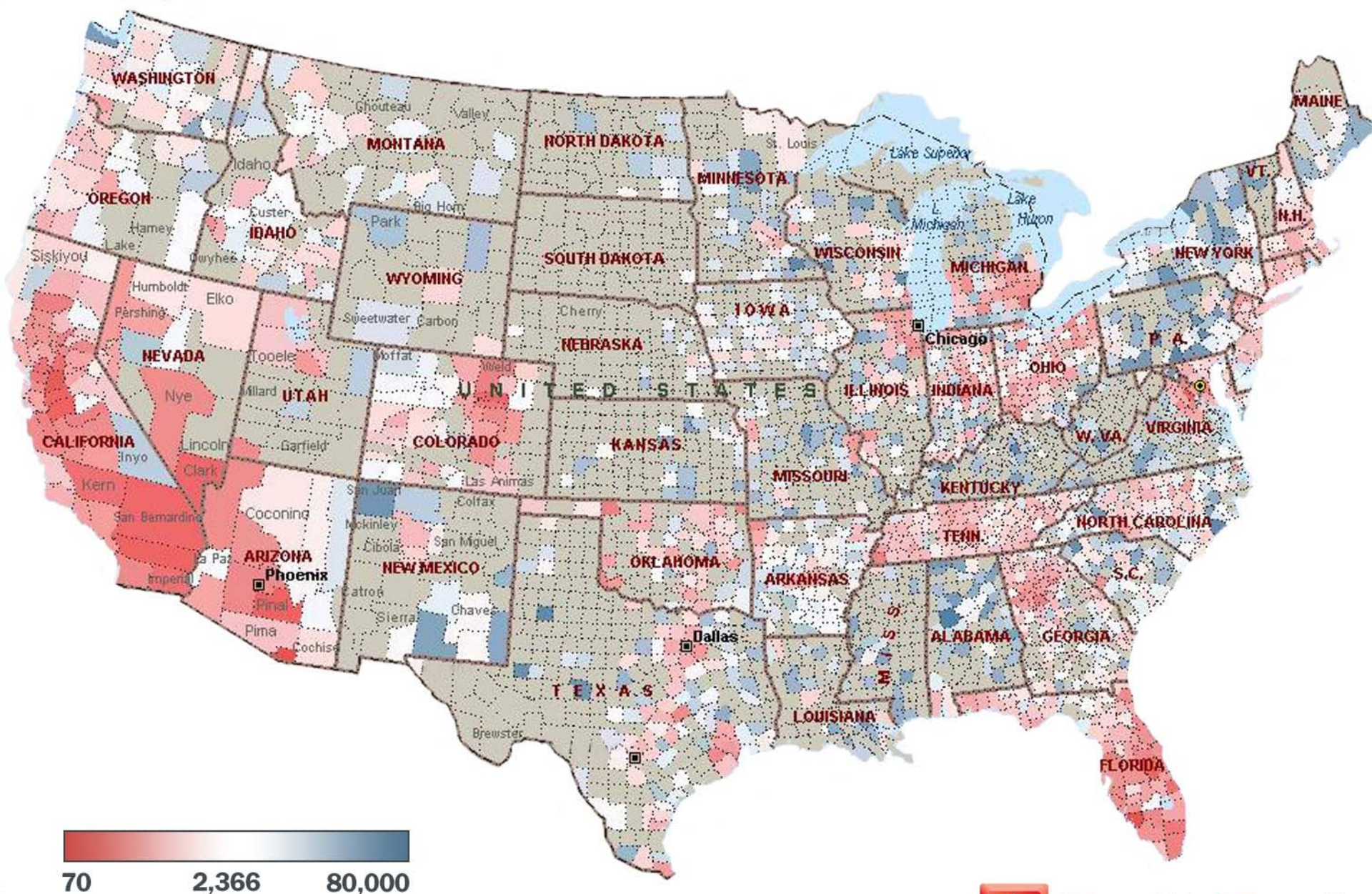
**Figure 3: Inflation-adjusted Case-Shiller Housing Index Values:
Annual percentage change, June 1992-June 2008**



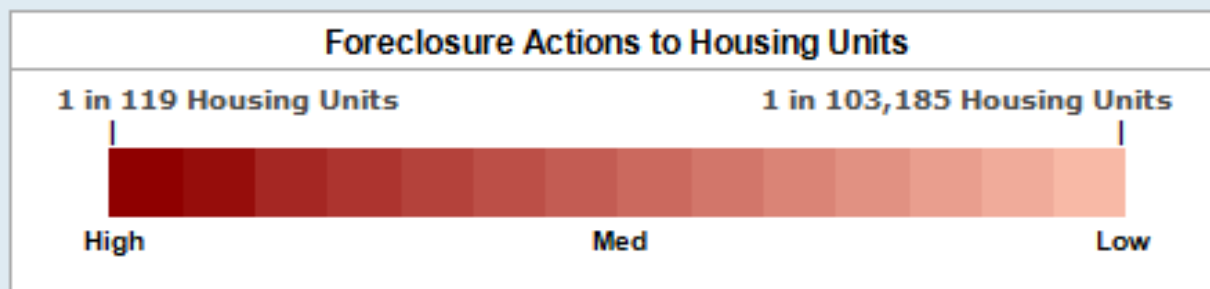
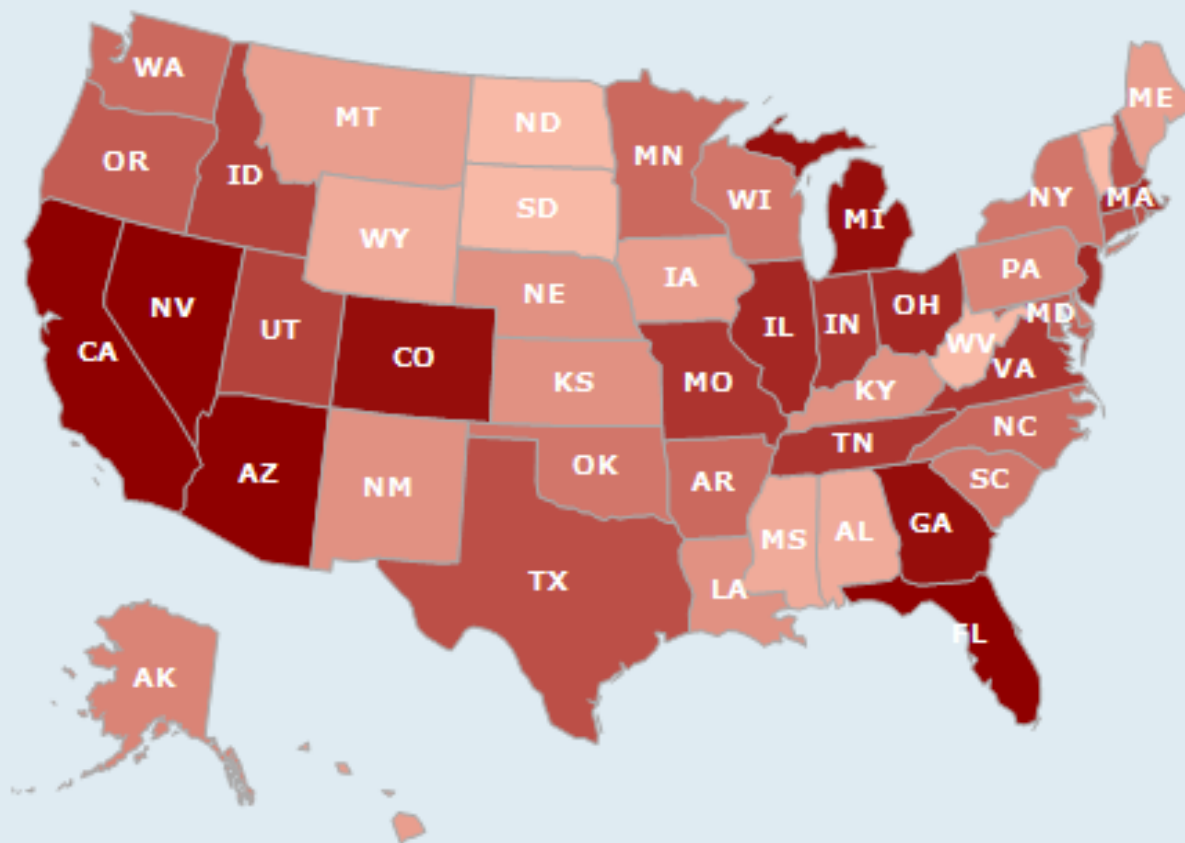
**Figure 3: Inflation-adjusted Case-Shiller Housing Index Values:
Annual percentage change, June 1992-June 2008**



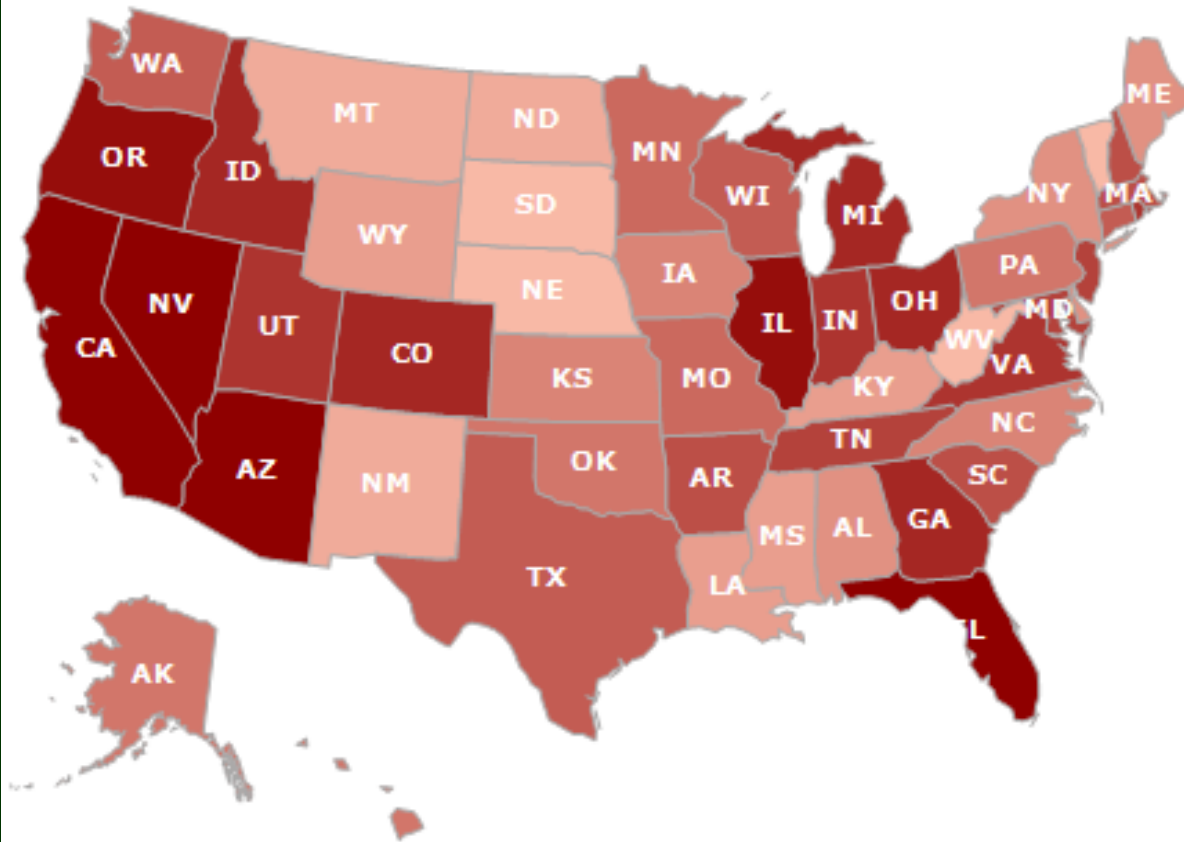
Households per Foreclosure Action – February 2008



Foreclosures By State for May, 2008



January 2009 Foreclosure Rate Heat Map



Foreclosure Actions to Housing Units

1 in 76 Housing Units

1 in 51,905 Housing Units



High

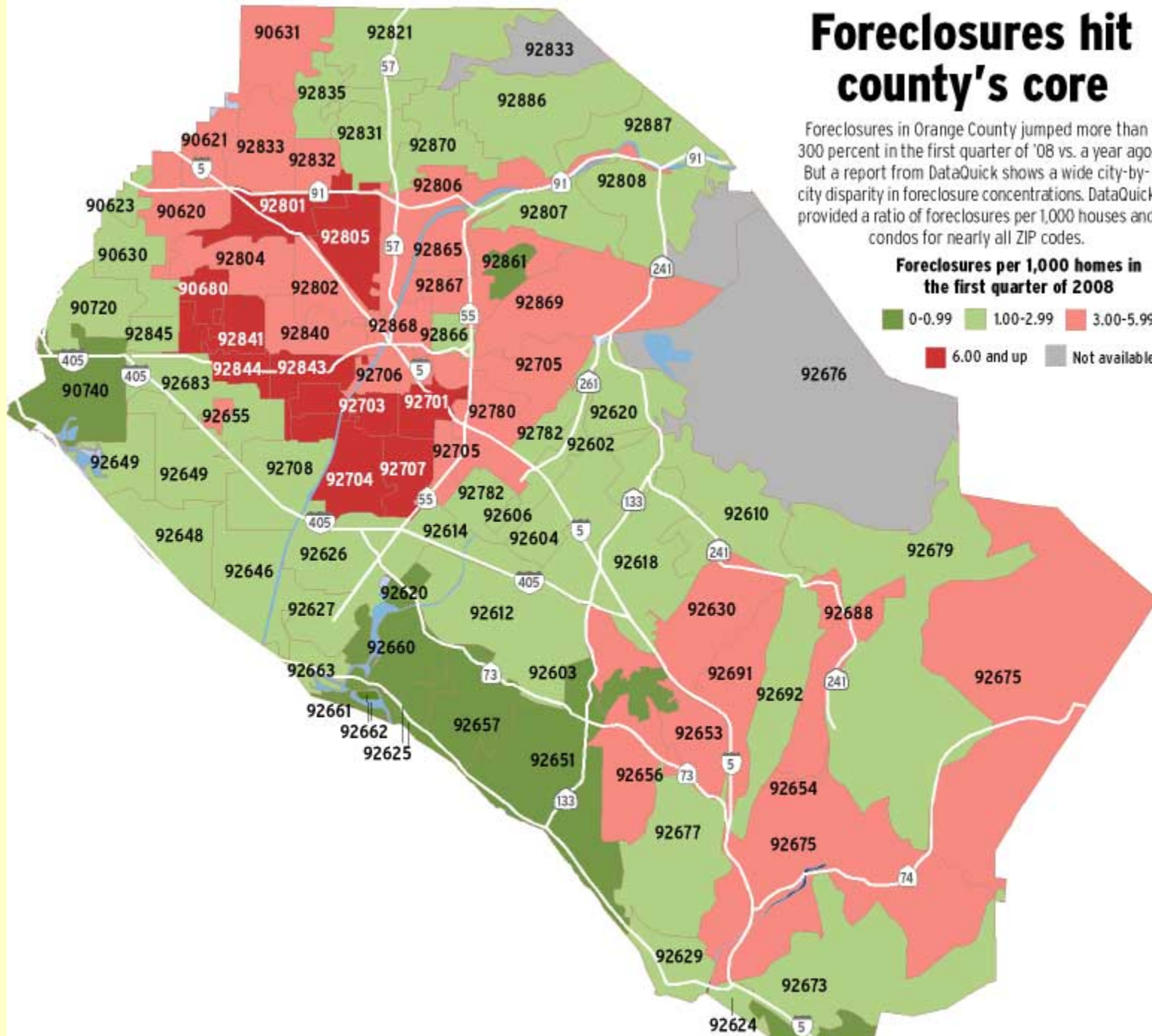
Med

Low

Foreclosures hit county's core

Foreclosures in Orange County jumped more than 300 percent in the first quarter of '08 vs. a year ago. But a report from DataQuick shows a wide city-by-city disparity in foreclosure concentrations. DataQuick provided a ratio of foreclosures per 1,000 houses and condos for nearly all ZIP codes.

Foreclosures per 1,000 homes in the first quarter of 2008



NEGATIVE-EQUITY HOMES

The estimated percentage of Sacramento County homes in which the owners owe more than the property is worth.

Percentage of negative-equity homes

BY ZIP CODE

- Over 50%
- 40% to 50%
- 30% to 40%
- 15% to 30%
- Under 15%

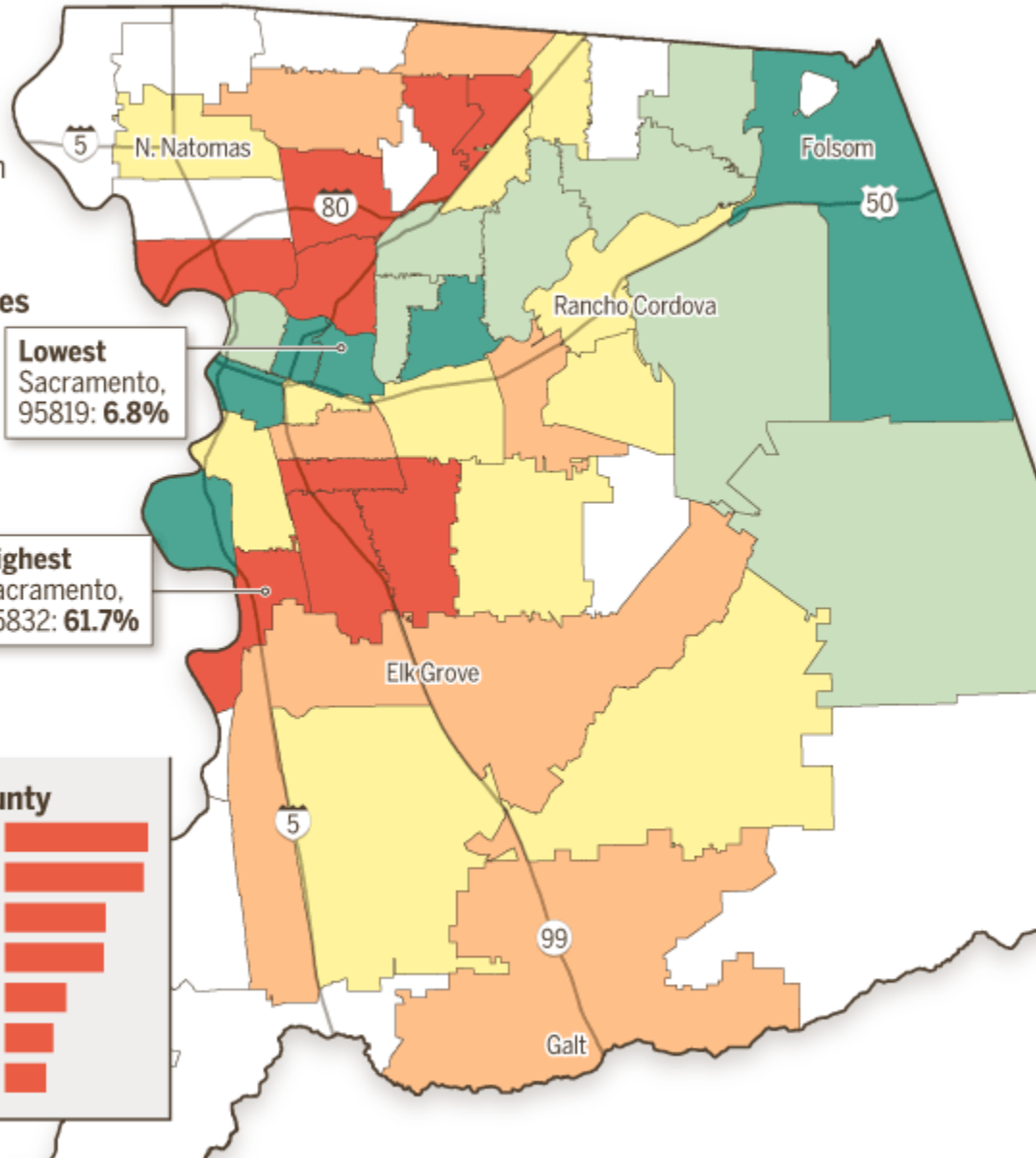
No data for ZIP codes with fewer than 500 homes

Lowest
Sacramento, 95819: **6.8%**

Highest
Sacramento, 95832: **61.7%**

Percentages by county

Yuba	37.2%	■
Sacramento	36.1%	■
Statewide	26.1%	■
Sutter	25.6%	■
Placer	15.9%	■
Yolo	12.5%	■
El Dorado	10.6%	■

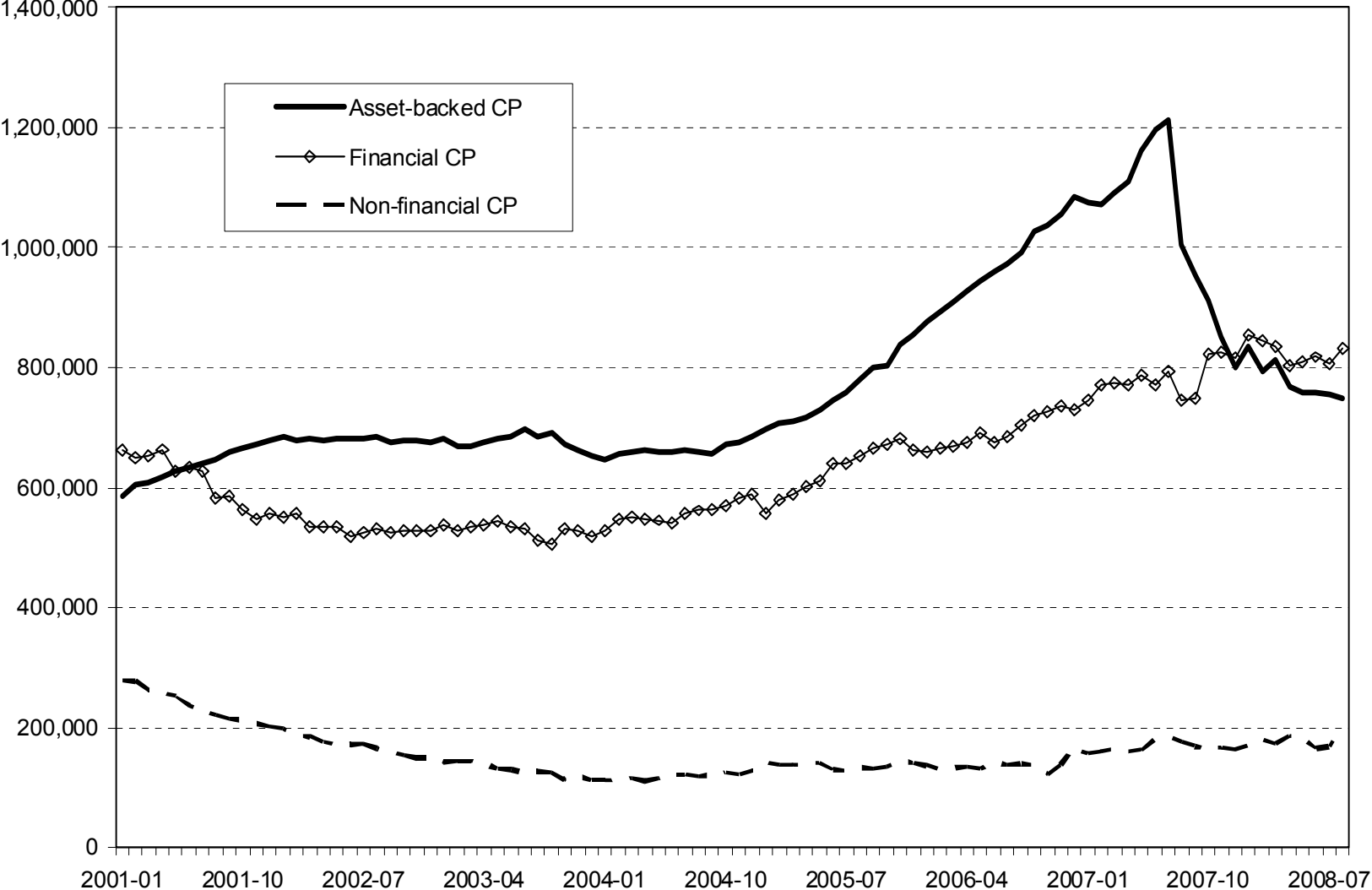


6. A Timeline of the Subprime Crisis

Federal loan-renegotiation measures, Feb 07, Feb 08 (cumulative impact <2% of mortgages)

- *Bear-Stearns SIV failures, May 07*
- *Liquidity crisis, Aug-Sept 07*
- *Freezing of the asset-backed commercial paper market, Sept 07*
- *The run on Great Northern, Sept 07*
- Sept-Oct 07: Treasury (Chase/Citi/BofA) \$100/200B "superfund" idea – proposed & abandoned
- Federal Reserve expands its liquidity-provision program, Nov '07 (again in Mar 08, June 08)
- The Bush Administration's Tax-Rebate Program, January 2008 (signed February 13, 2008)
- *Bear-Stearns failure, March 08*

Commercial paper outstanding 2001-08 (\$M)



6. A Timeline of the Subprime Crisis

2nd Qtr 2008: Consumer-spending and macro growth

Sept/Oct 08:

- *Lehman Brothers failure*
- *Breakdown in liquidity markets; the interbank market freezes up*
- *FNMA/FHLMC "receivership"*
- *Washington Mutual failure & takeover by Chase*
- *Wells Fargo's takeover of Wachovia*
- *AIG "receivership"*

Henry Paulson's \$700B "rescue" fund

(toxic-asset removal – borrowing channel – megabank capital injection – selective bank capital competition)

- Widening Fed liquidity injection
- **Widening domestic recession and global slowdown**

6. Timeline of the Banking Crisis: *Toward Banking without Capital*

Collapse of liquidity forces off-balance sheet commitments (SIVs, CDOs) back onto banks' balance sheets

Declaration of loan losses push bank net worth below safety thresholds (**Subprime/Alt-A/variable-rate/credit-card ..**)

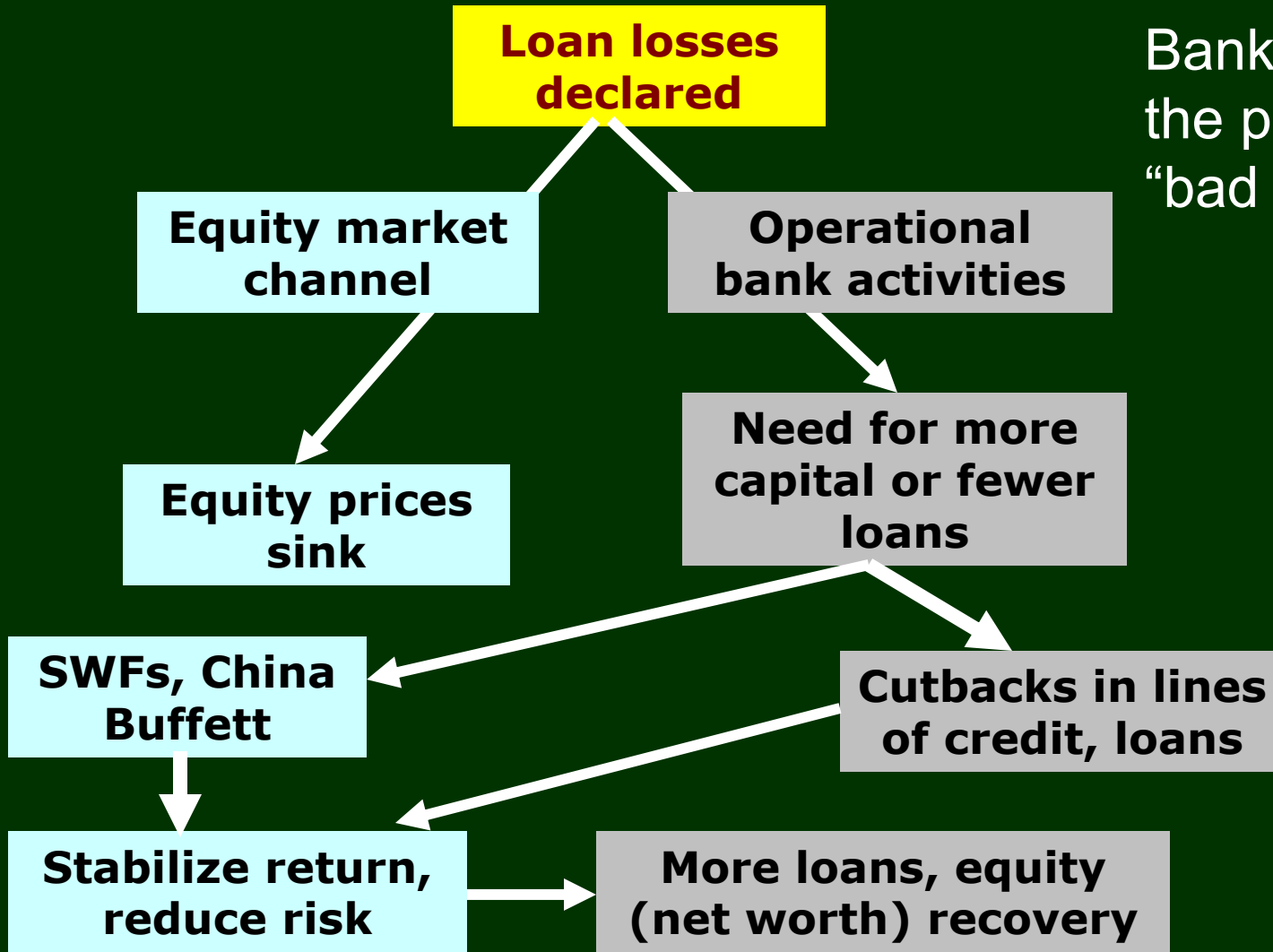
(a) Stock prices plunge as normal 'investors' flee bank stocks

(b) Creating a need for banks to sell new capital

Banks turn to new capital 'partners': **sovereign wealth funds, Chinese banks, government**

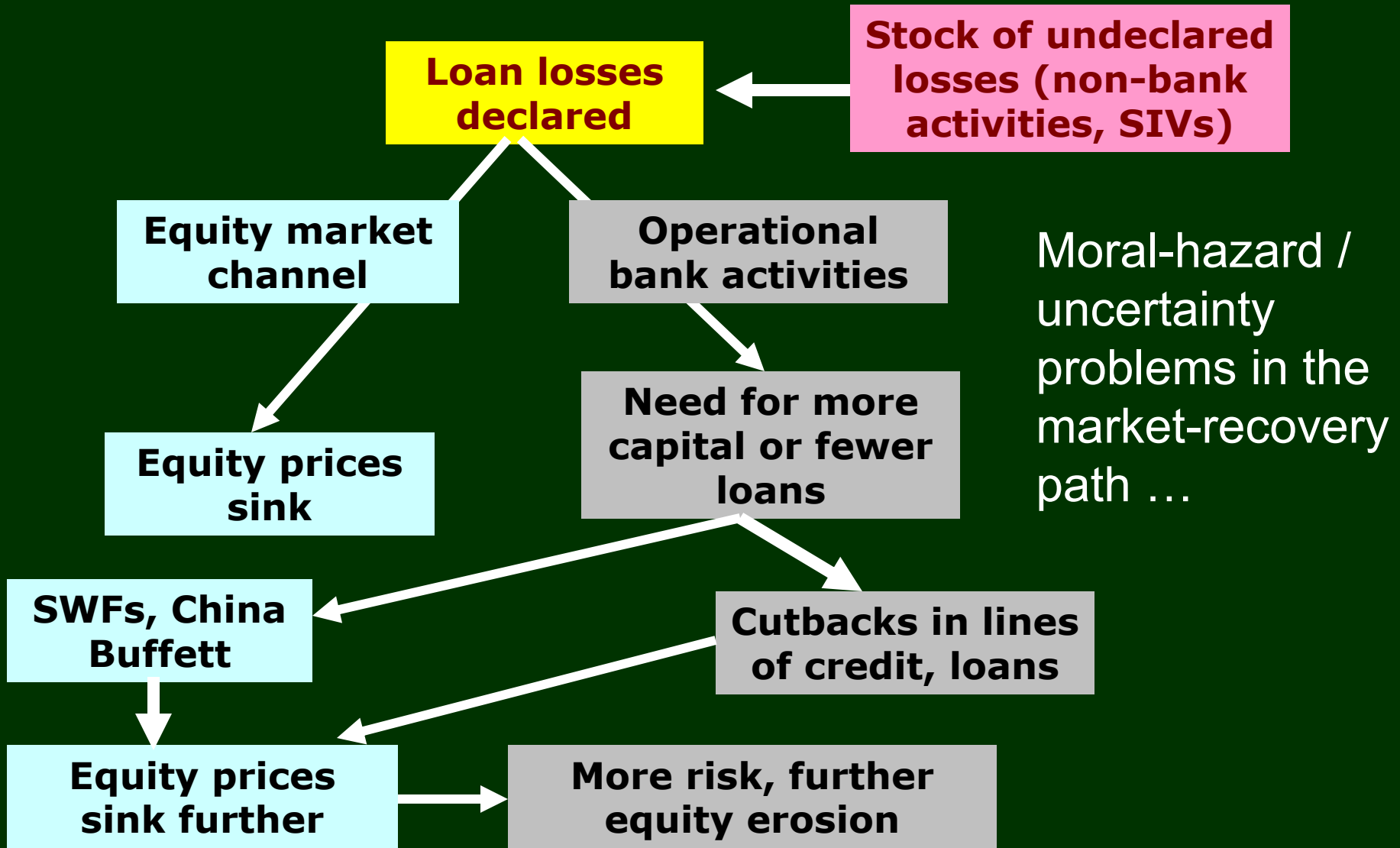
Bank lending slows (capital and loan-loss constrained)

A scheme of the banking meltdown: 1

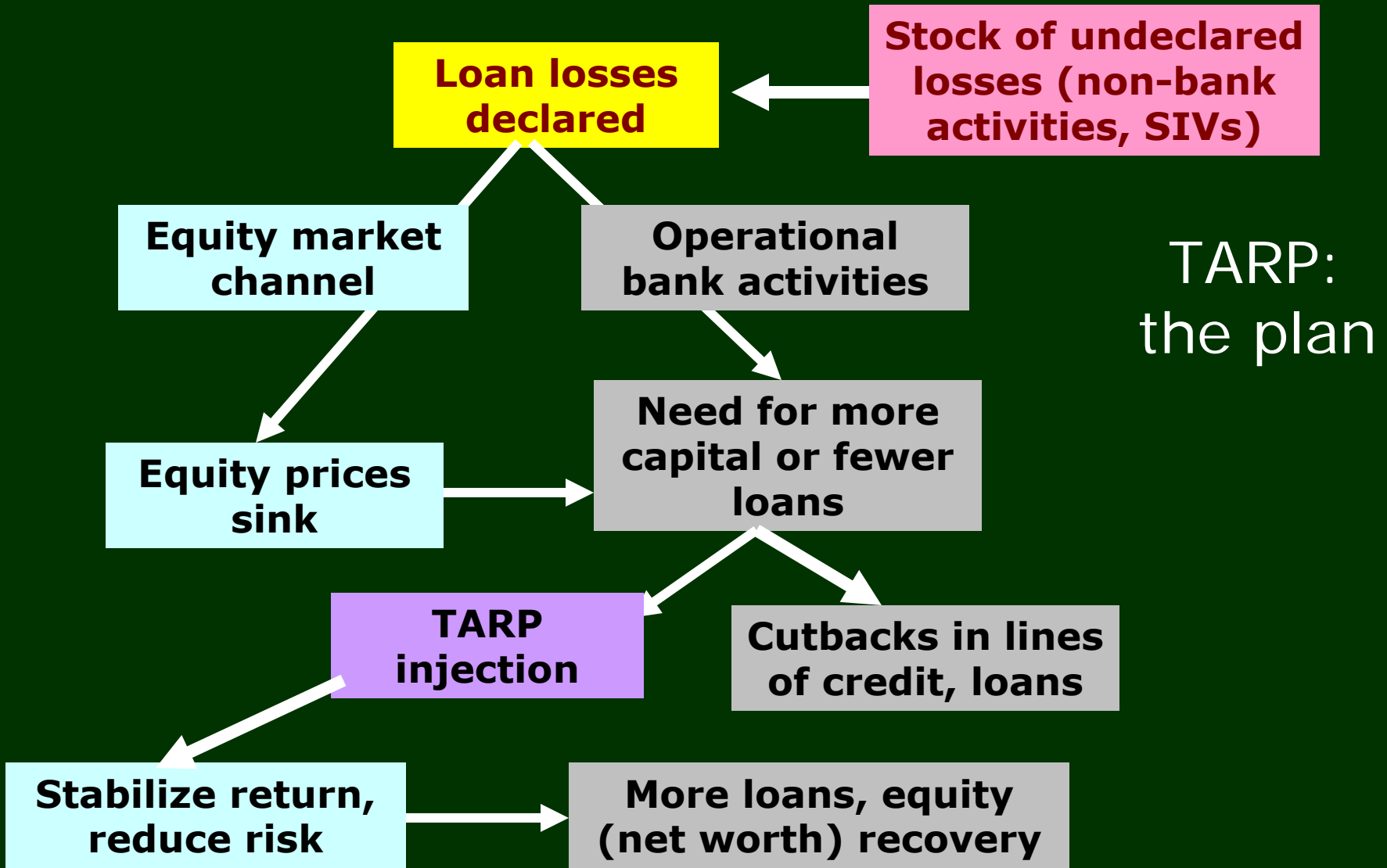


Banks' intention:
the privately-held
"bad bank" model

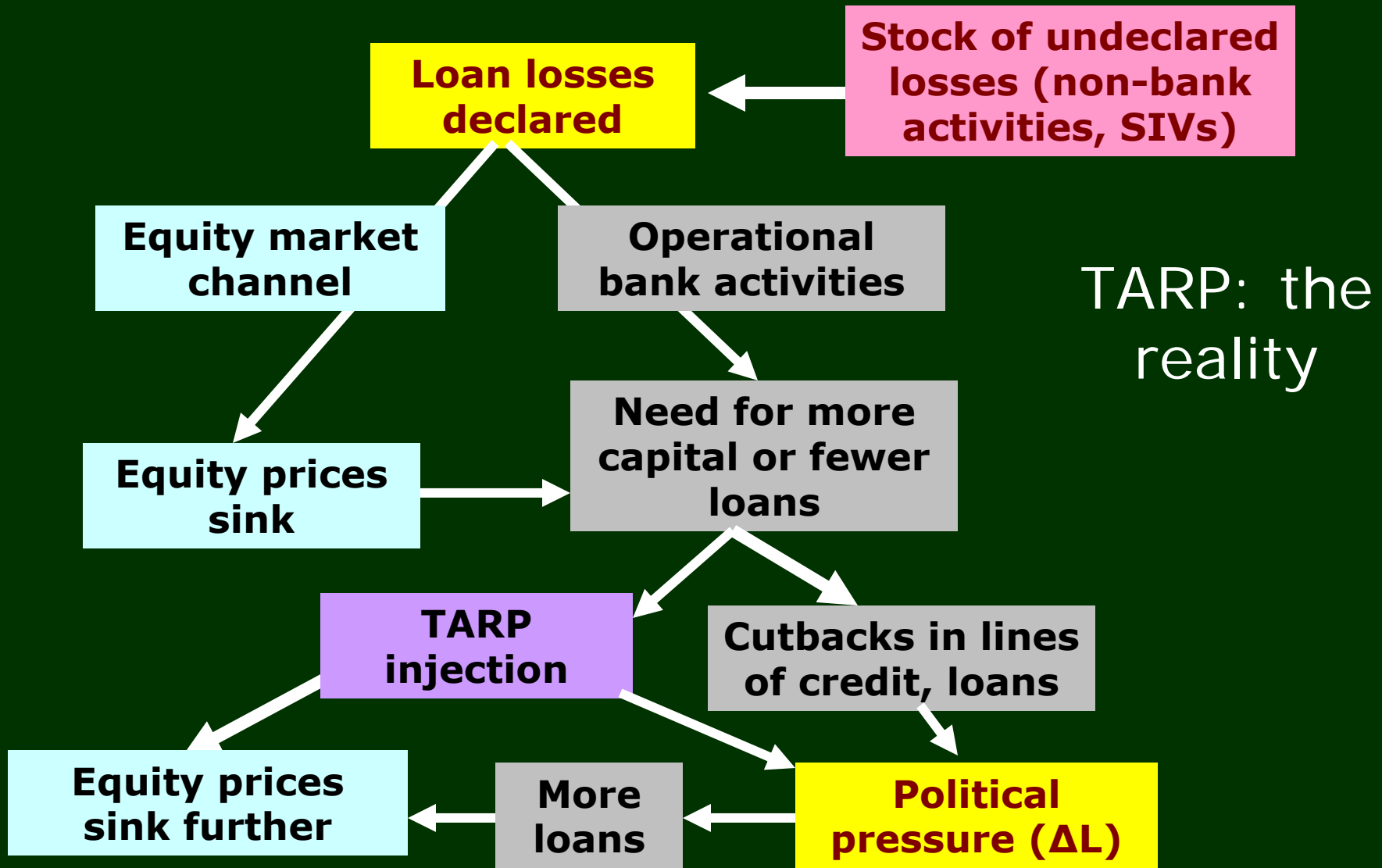
A scheme of the banking meltdown: 2



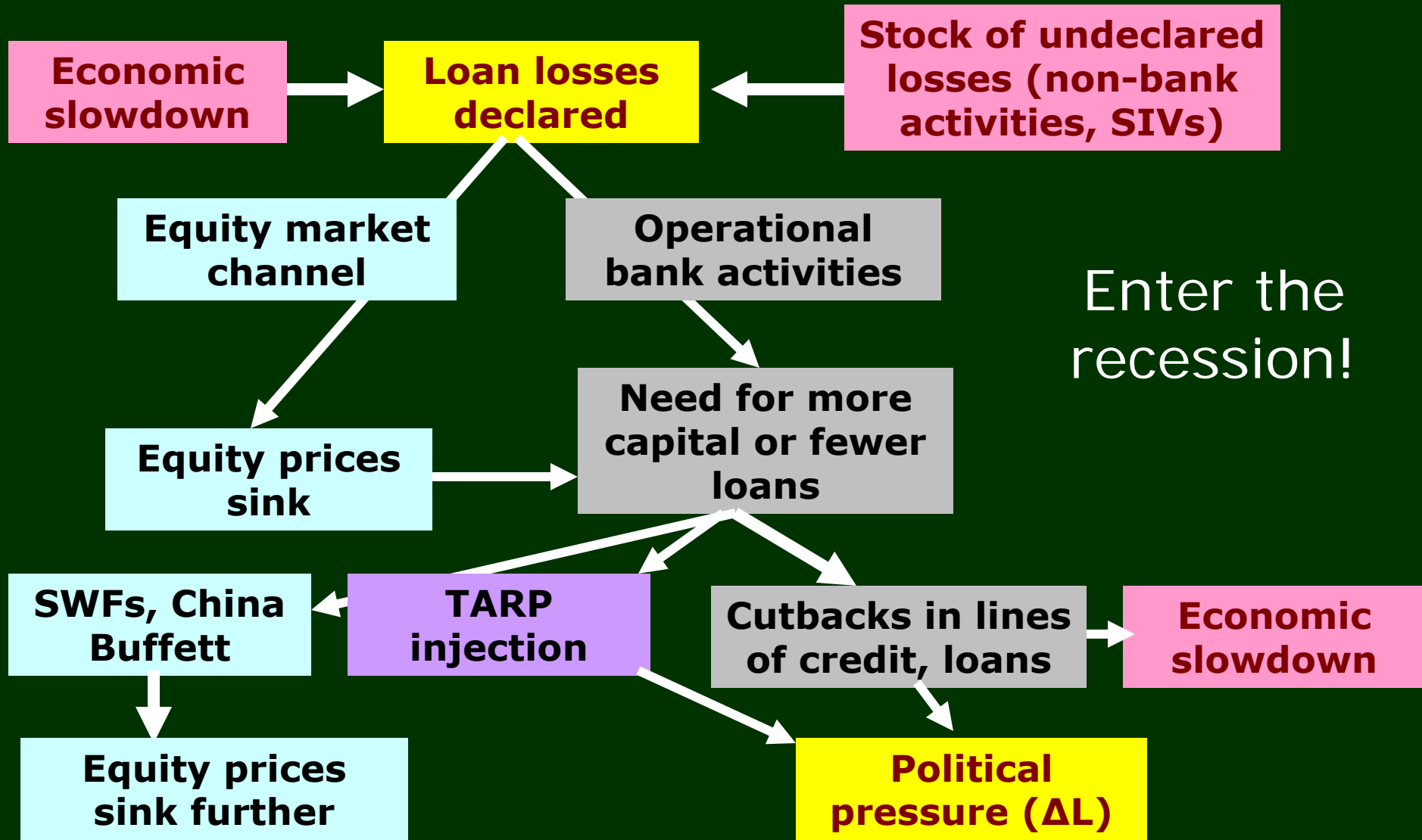
A scheme of the banking meltdown: 3



A scheme of the banking meltdown: 4



A scheme of the banking meltdown: 5



7. Why Policy has Failed (thus far)

Governments are simultaneously confronting:

A meltdown in global employment and production;

Short-term and *long-term* policy questions about banking;

Short-term and *long-term* policy questions about housing;

Crises in global currency and Polanyi hegemony.

Banking short-term problem: *how to maintain active payments and credit systems using existing banking firms?*

Banking long-term problem: *how to rebuild the system of finance so that speculative excess is squeezed and banks and finance again play a socially and economically productive role?*

7. Why Policy has Failed (thus far)

Housing short-term problem: *how to avoid massive homelessness, foreclosures, and bankruptcy declarations?*

Housing long-term problem: *how to rebuild an institutional framework in which all people can find affordable housing at sustainable rents and prices?*

Here we first discuss:

the role of US hegemony in the neoliberal era;

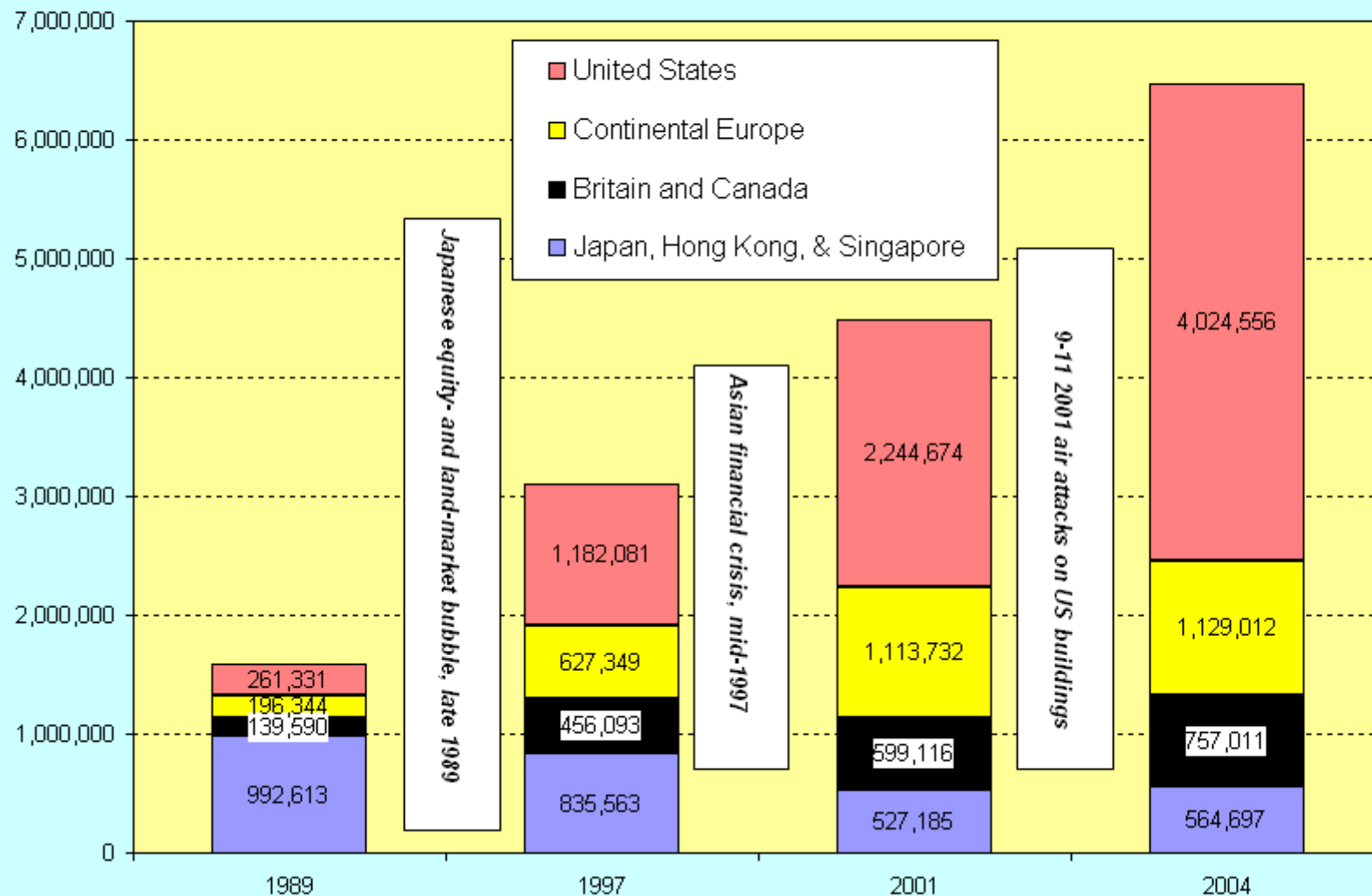
then the Federal Reserve/Treasury efforts to “fix” the banking system;

Then the failure of “lender-of-last-resort” policy in the context of Minsky’s theory.

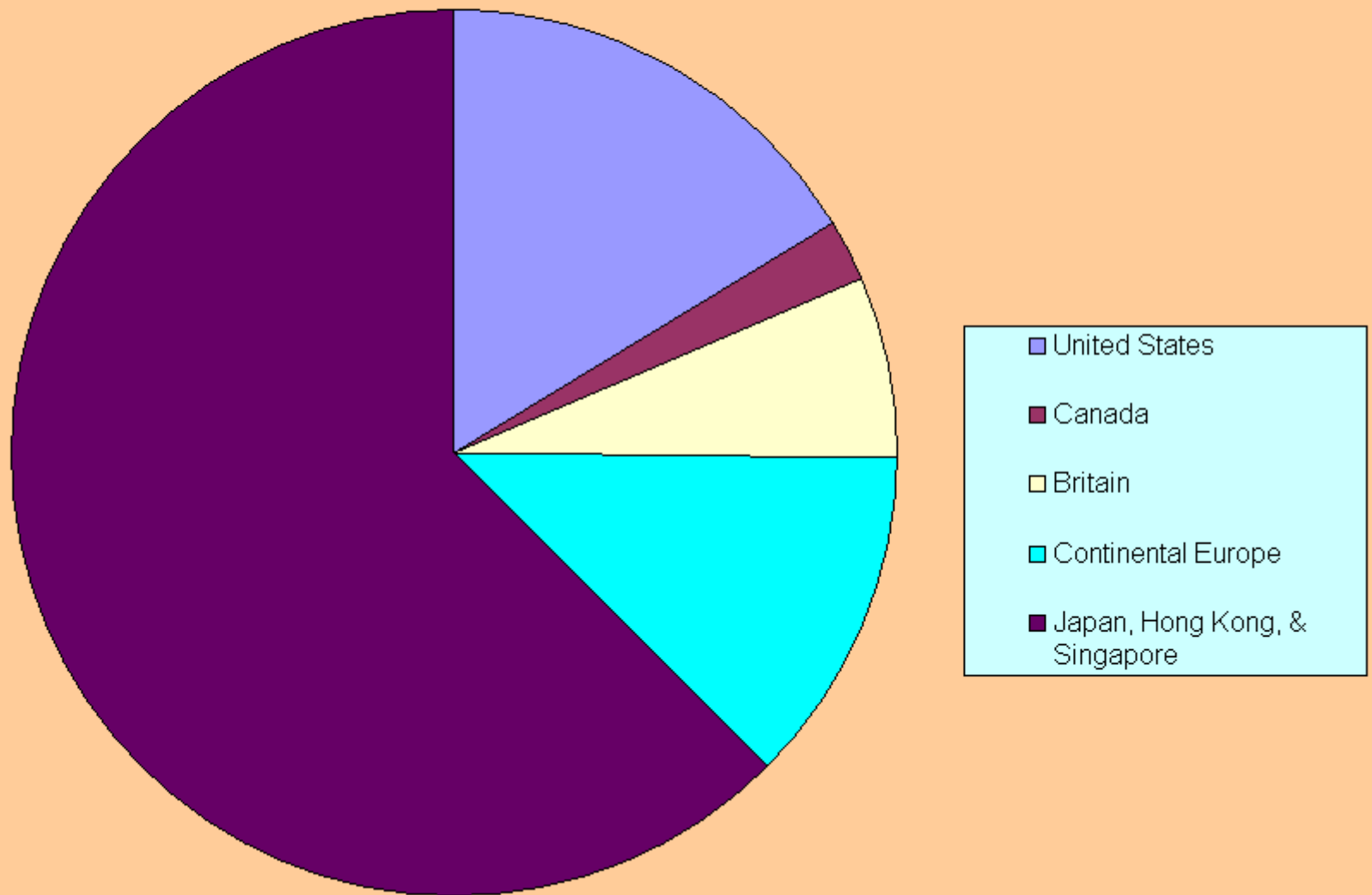
5. From Urban Margin to SIVs to Global Financial Crisis

- But why did it all go wrong so quickly? And .. Why was risk evaluated as being “riskless”?
- This has something to do with the US’s cross-border imbalances ...
- Years of current-account deficits = capital-account surpluses
- US as a “global liquidity sink” – so that Wall Street prices continually go up, with cheap short-term credit
- Data from the Business Week ‘Global 1000’, maintained 1989-2004 – largest companies on basis of privately-held equity shares, worldwide.

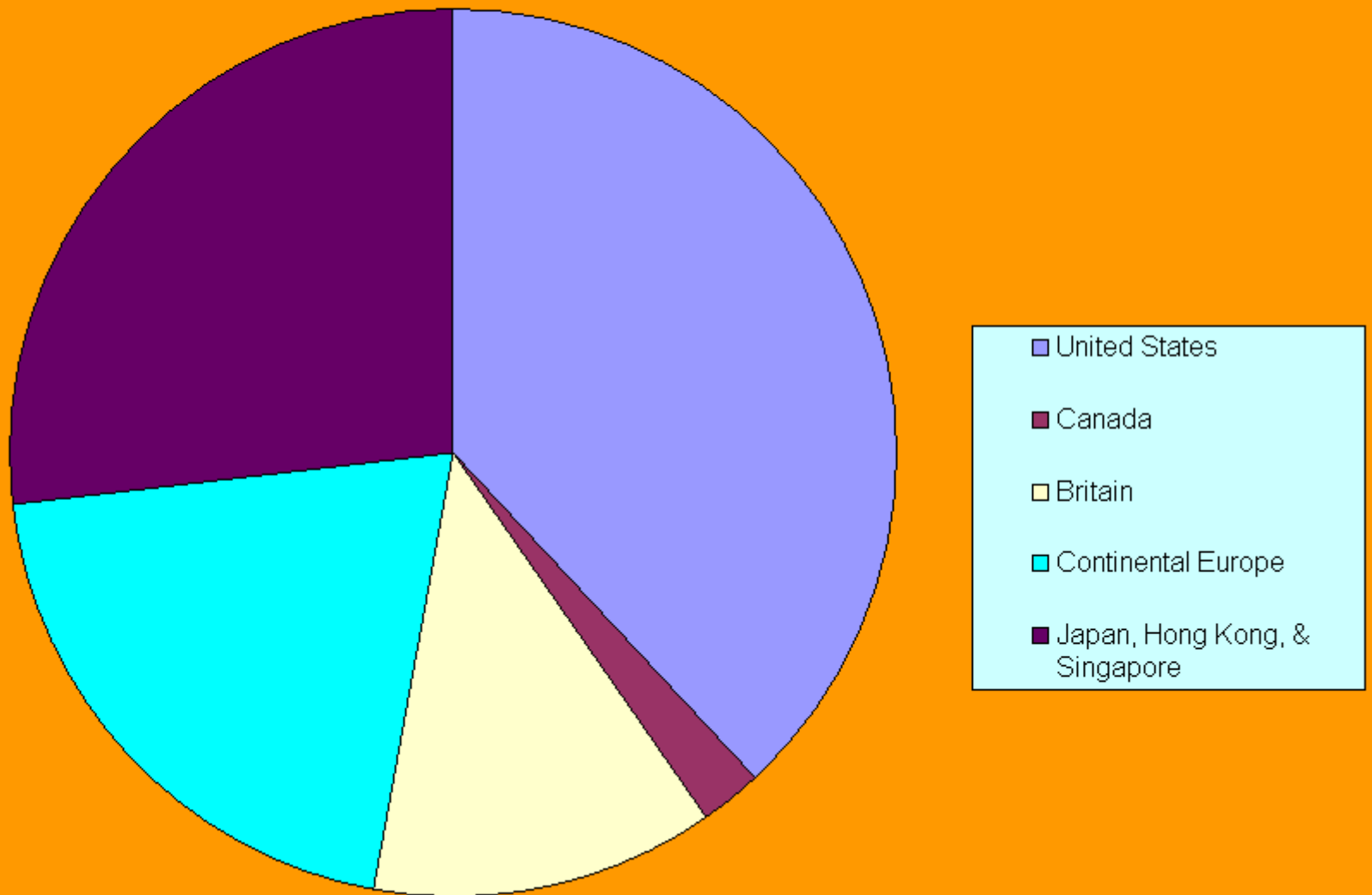
Figure 9: Market value of financial firms listed in Business Week 1000, by global areas, 1989-2004 (US \$M)



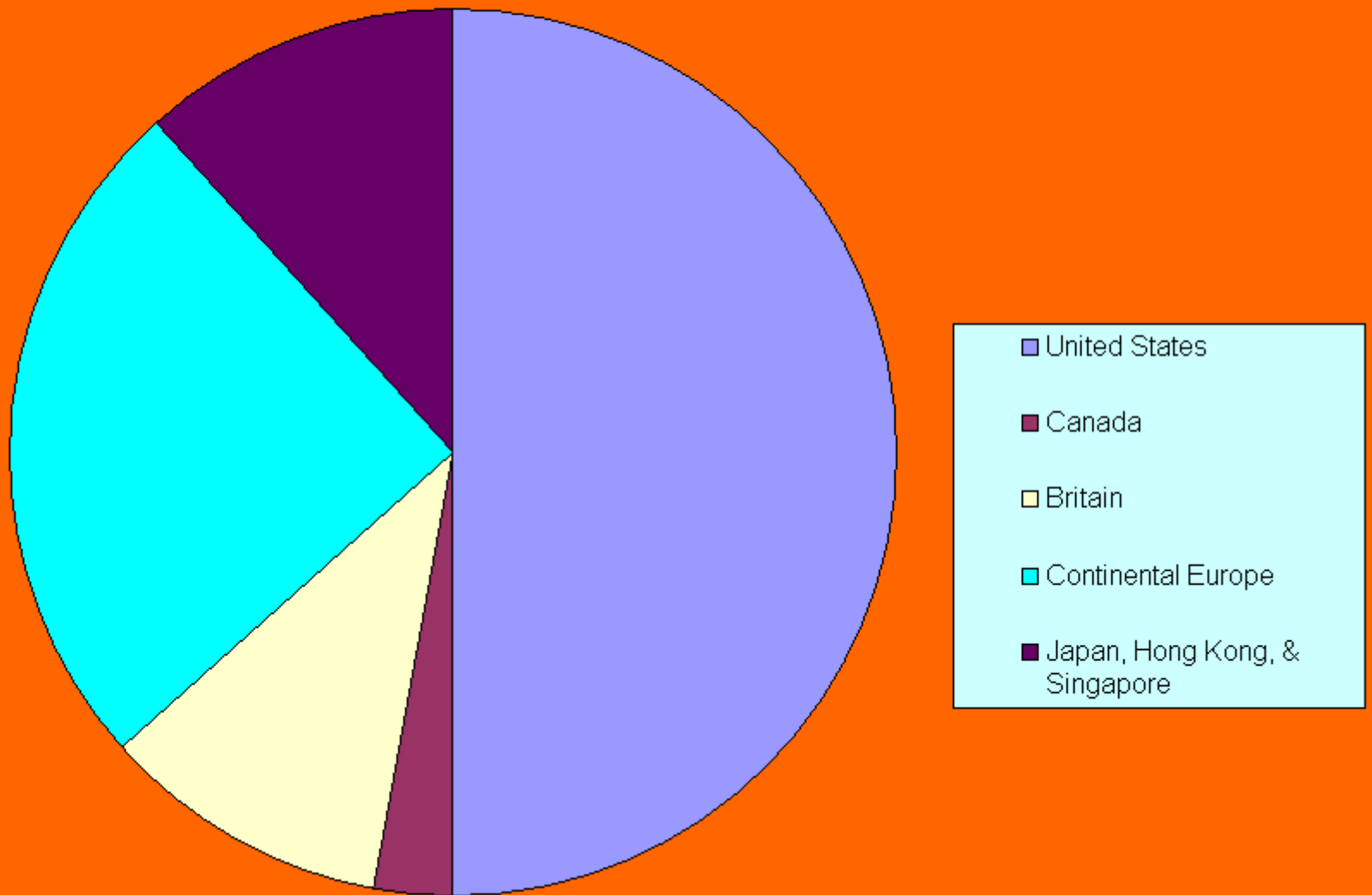
Market value of financial firms, BW 1000, May 1989



Market value of financial firms, BW 1000, May 1997



Market value of financial firms, BW 1000, May 2001



Market value of financial firms, BW 1000, May 2004

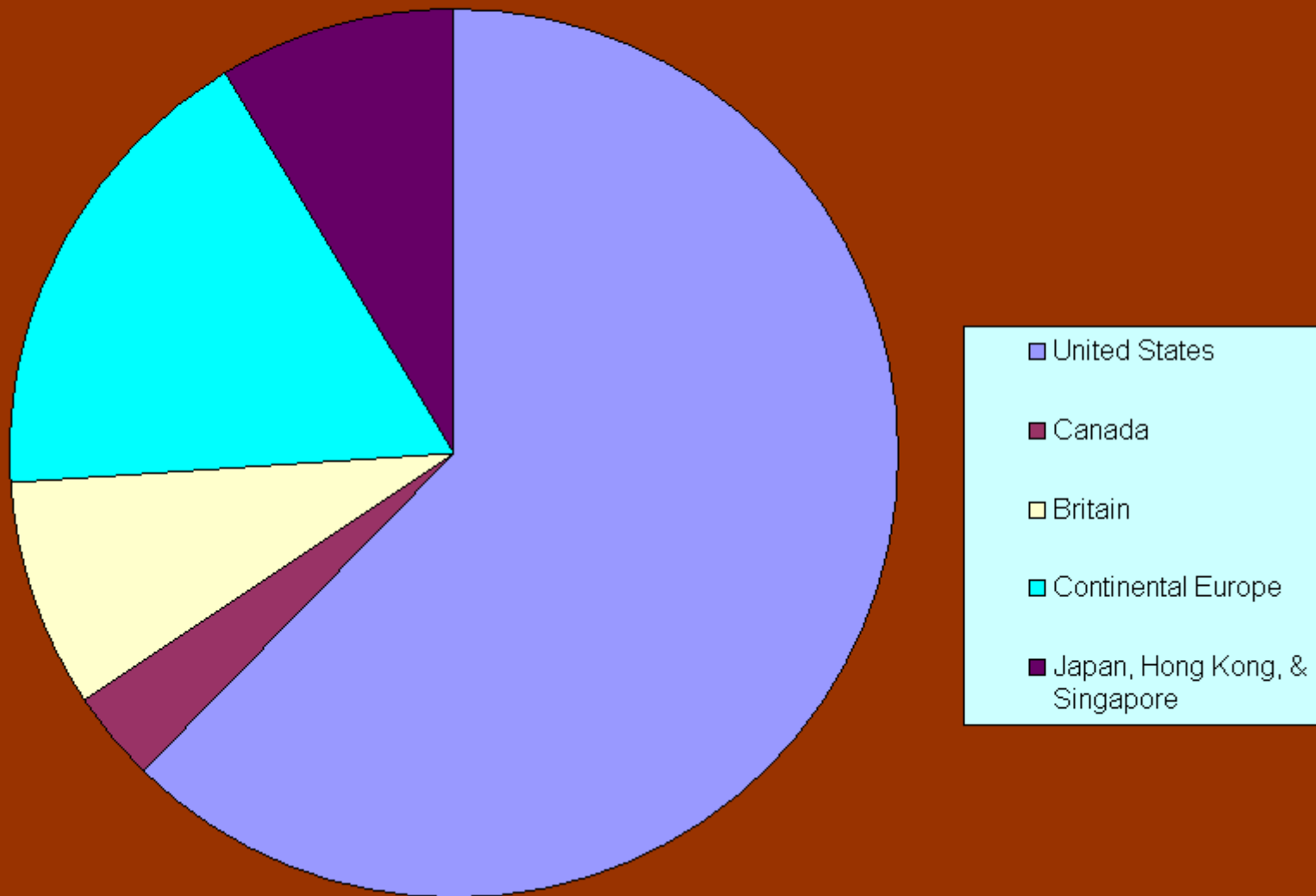
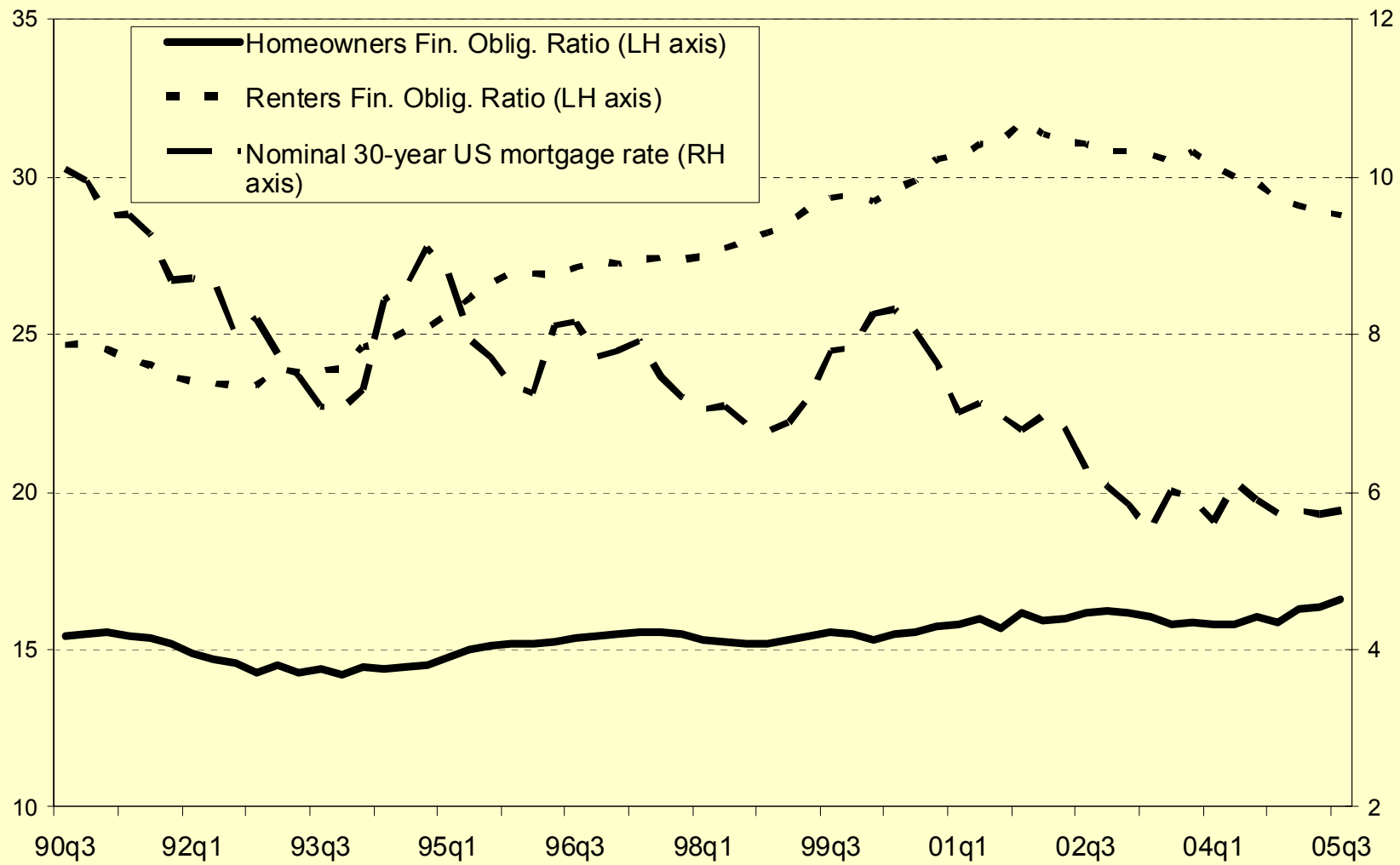


Figure 14: Homeowner and Renter Financial Obligation Ratios vs. 30-year Nominal Mortgage Rate, 1990-2005



Source: Federal Reserve Board.

7. Why Policy has Failed (So Far)

Another possibility is moral hazard:

- Banks forced by Community Reinvestment Act into making overly-risky loans
- Borrowers of subprime loans were gamblers
- Regulators unable to keep track of the many bankers they oversee
- Legacy of inefficient localized banks in the US lingers and invites excessively risky loan-making
- In this story, the Wall Street/mega-banking system made a huge miscalculation, but remains a source of US competitive advantage and must be rescued. Indeed the reform imperative begun in 1981 must be continued: Consolidation for efficiency.
- In sum, the banking system has been disadvantaged by excess capacity for years, and continues to be .. So this is an opportune time to clean things up.

7. Why Policy has Failed (Thus far)

- Ben Bernanke, LSE (WSJ, 1/13/09): "In my view, however, fiscal actions are unlikely to promote a lasting recovery unless they are accompanied by strong measures to further stabilize and strengthen the financial system.
- "Mr. Bernanke said the government may need to provide more capital injections to financial firms to help stabilize the markets considering the worsening of the economy's growth prospects. Additionally, guarantees may become necessary 'to ensure stability and the normalization of credit markets,' he said..."

7. Why Policy has Failed (Thus Far)

- Robert Shiller:
 - *Irrational Exuberance*
 - *The Subprime Solution*
- Argument: There was a “mechanism design” flaw in the modern financial world. The “risk-assessment” and “risk-management” systems were years behind “financial-risk creation and distribution” systems.
- Solution: Create a new index market or set of markets for risk(s). If risk is publicly priced, no one will be surprised.

Figure 4E: 24 Largest U.S. Megabanks, December 31, 1997
(Assets in US \$000)

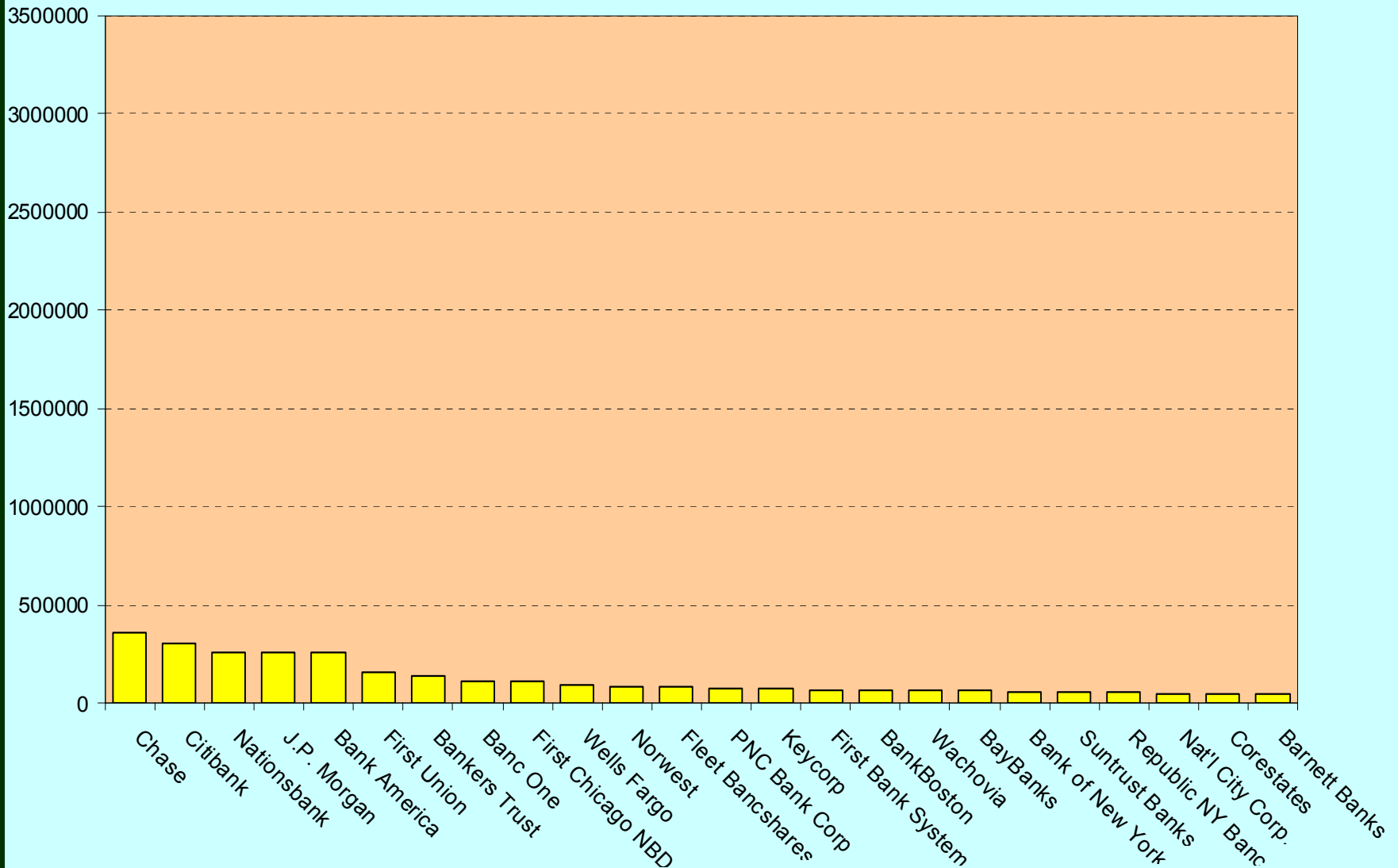


Figure 6: The Size-Distribution of the 24 Largest U.S. Megabanks in 1997 as of 2004, including Patterns of Consolidation (Assets in \$000)

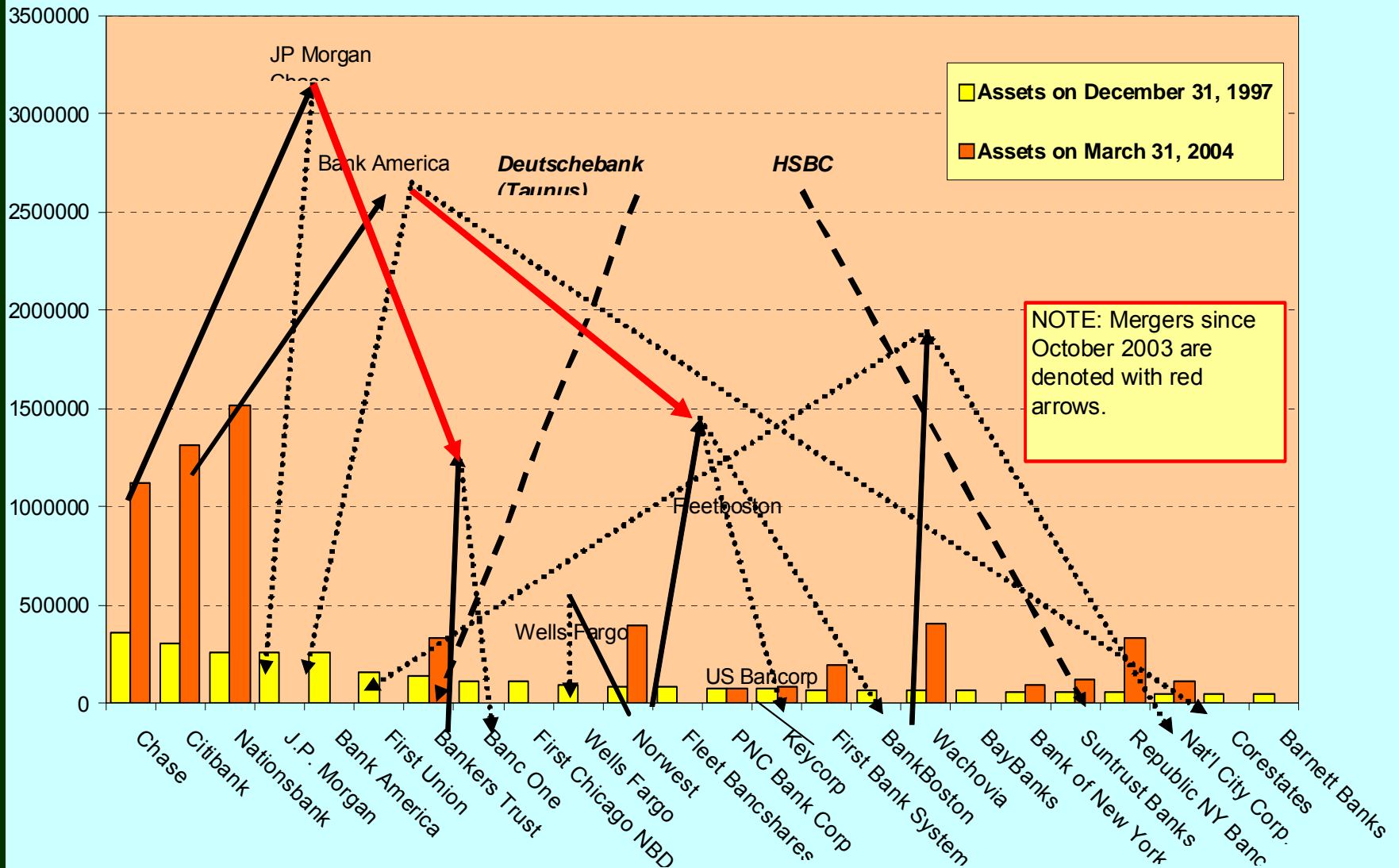


Figure 6E: Surviving U.S. Megabanks, March 2004, of the 24 Largest Megabanks as of December 1997 (Assets in US \$000)

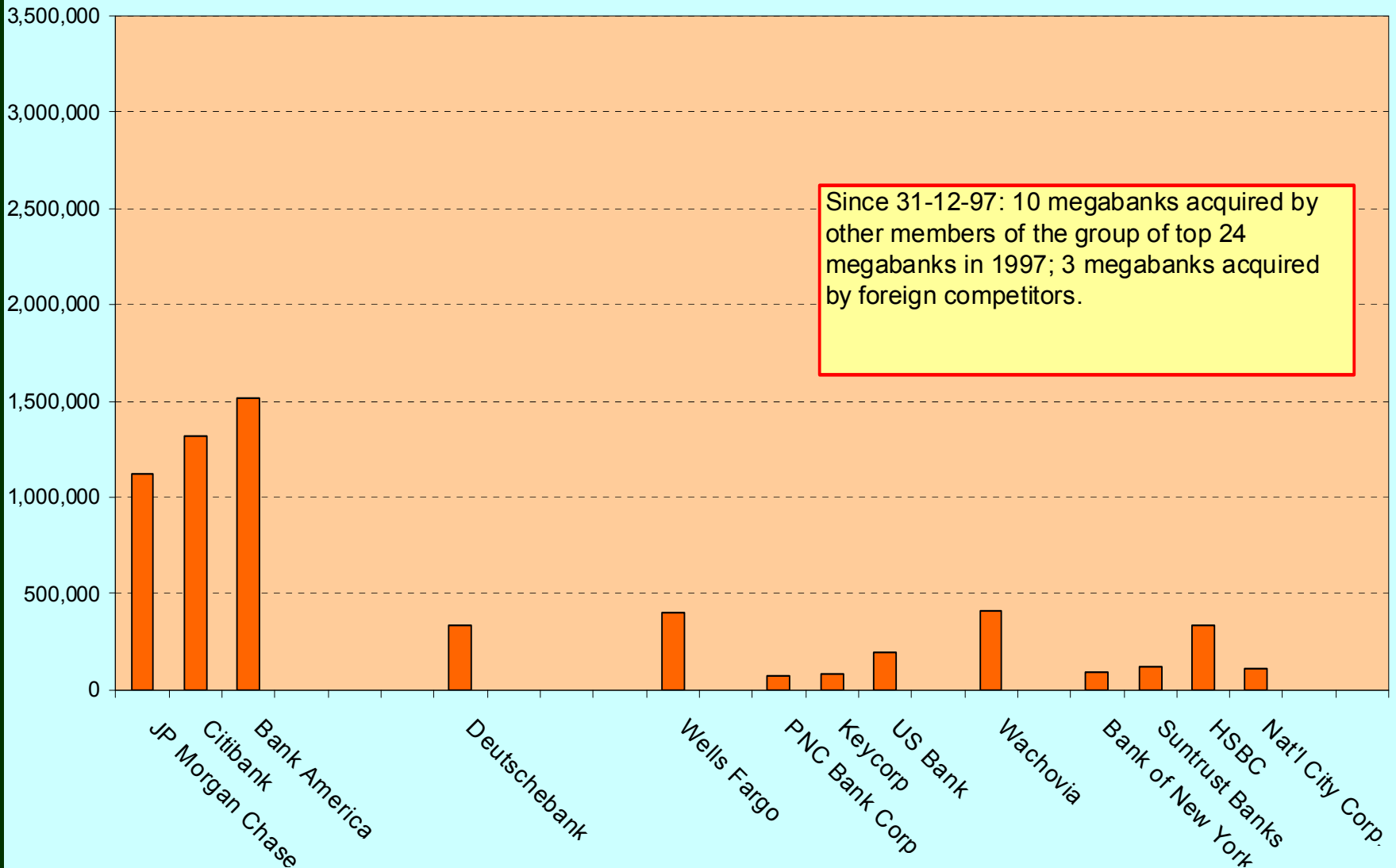


Figure 6E: Surviving U.S. Megabanks, March 2004 and June 2008 (after Citi-Wachovia merger), of the 25 Largest Megabanks as of December 1997 (Assets in US \$000)

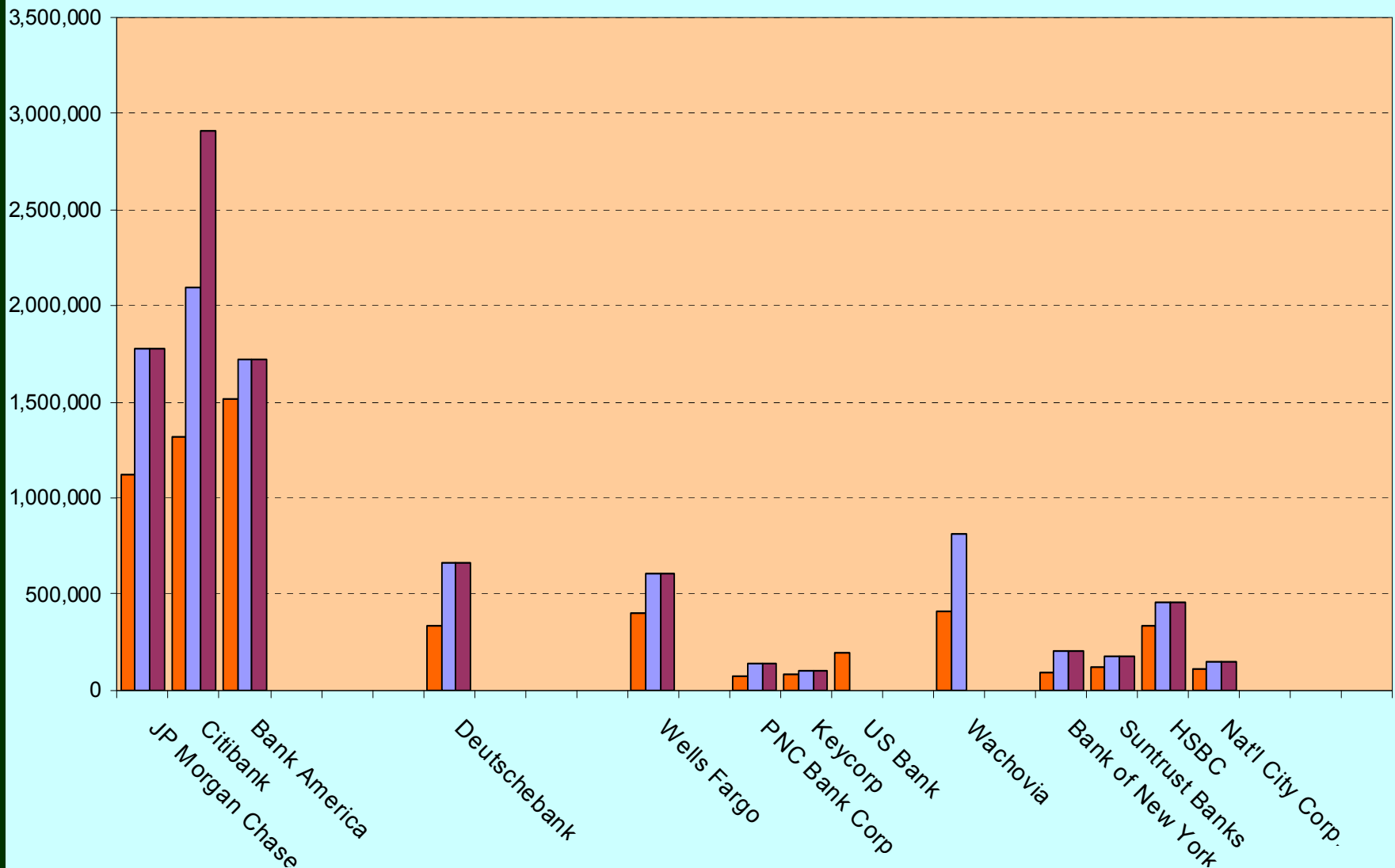
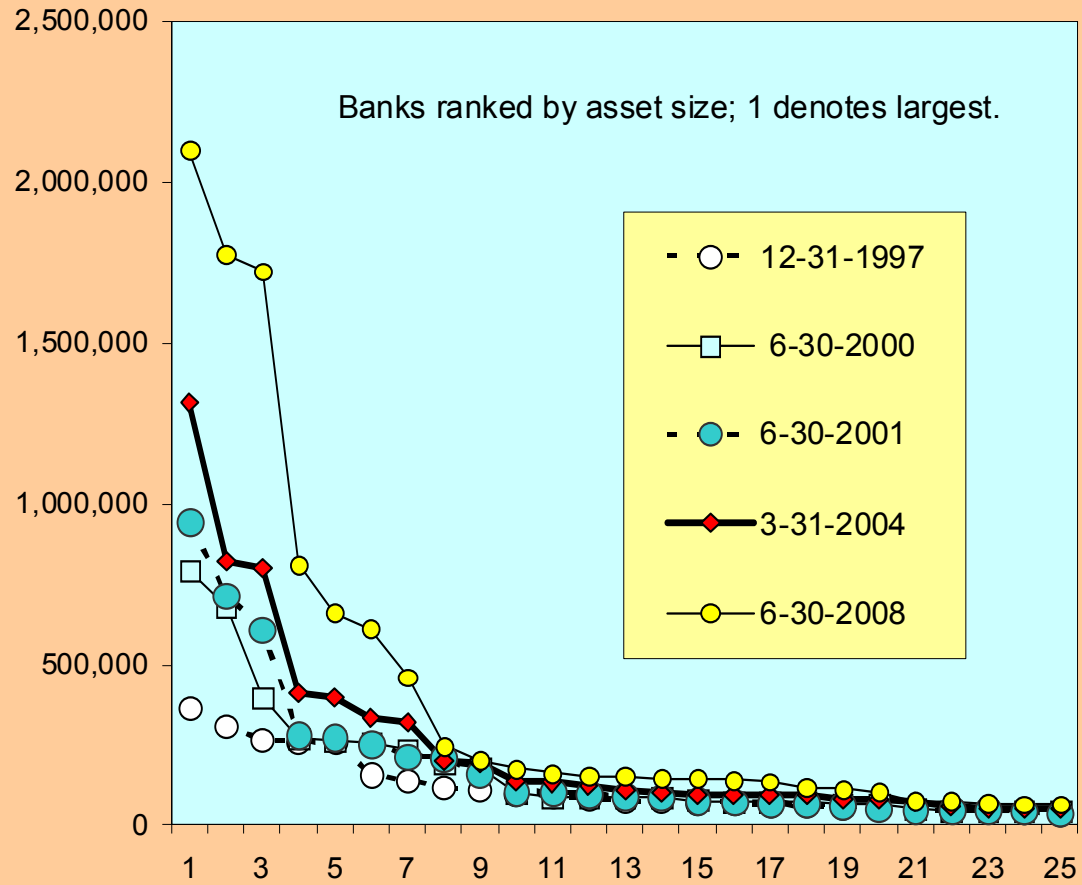
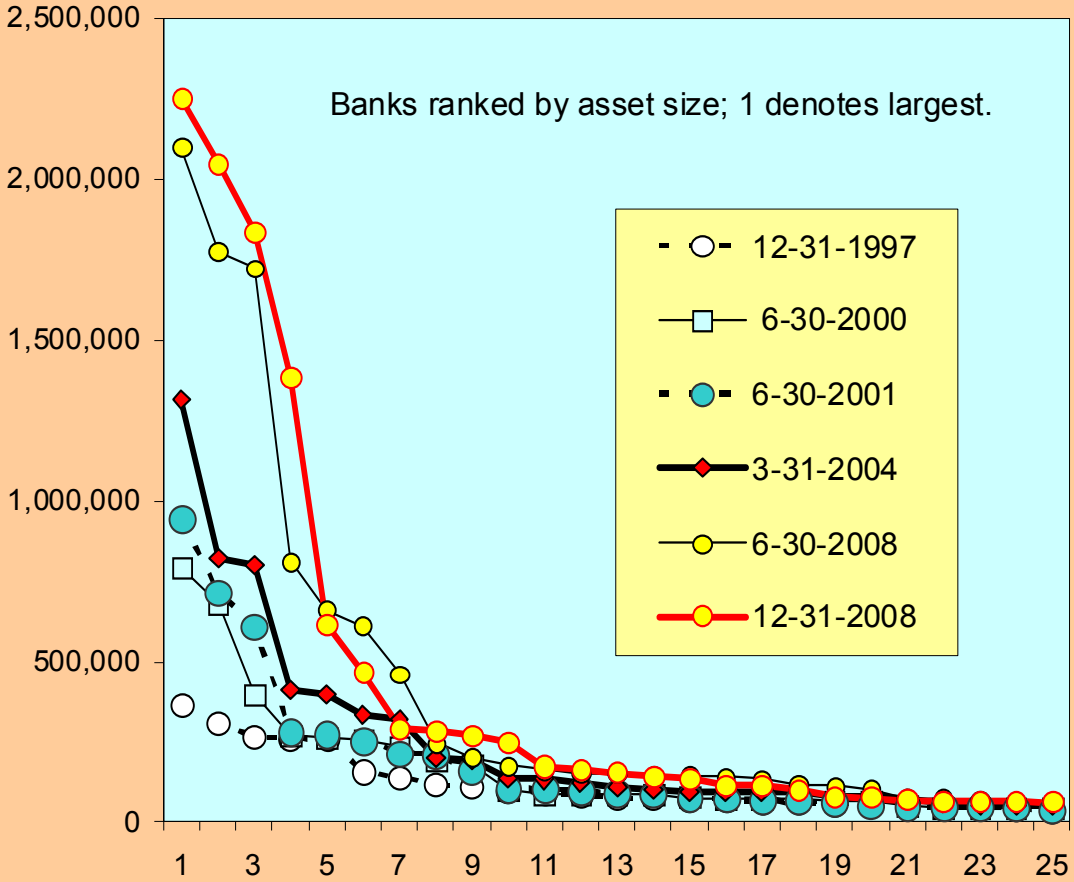


Figure 7: Asset Size of Top-25 Bank Holding Companies, Dec. 1997 to June 2008 (US \$000)



Source: National Information Center, FFIEC; FDIC.

Figure 7: Asset Size of Top-25 Bank Holding Companies, Dec. 1997 to Dec. 2008 (US \$000)



Source: National Information Center, FFIEC; FDIC.

Figure 7: Capital Injections for Top-25 Bank Holding Companies from TARP, January 10, 2009 (\$000)

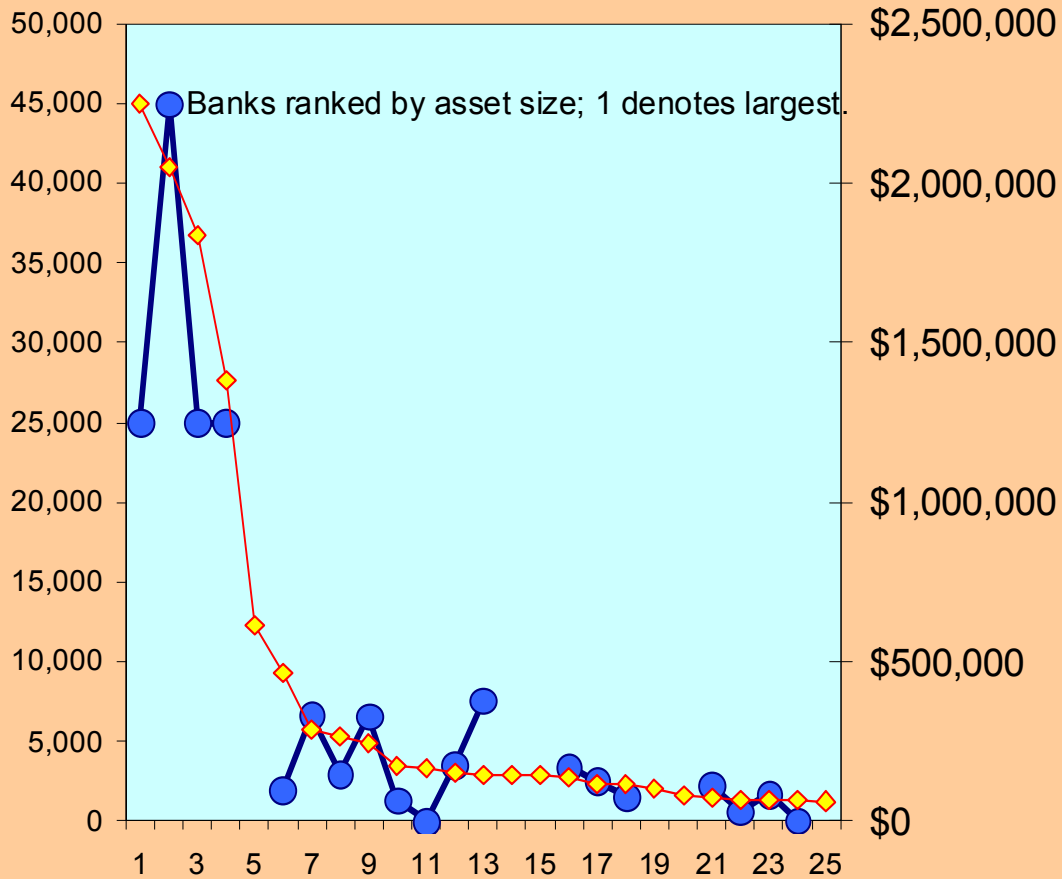
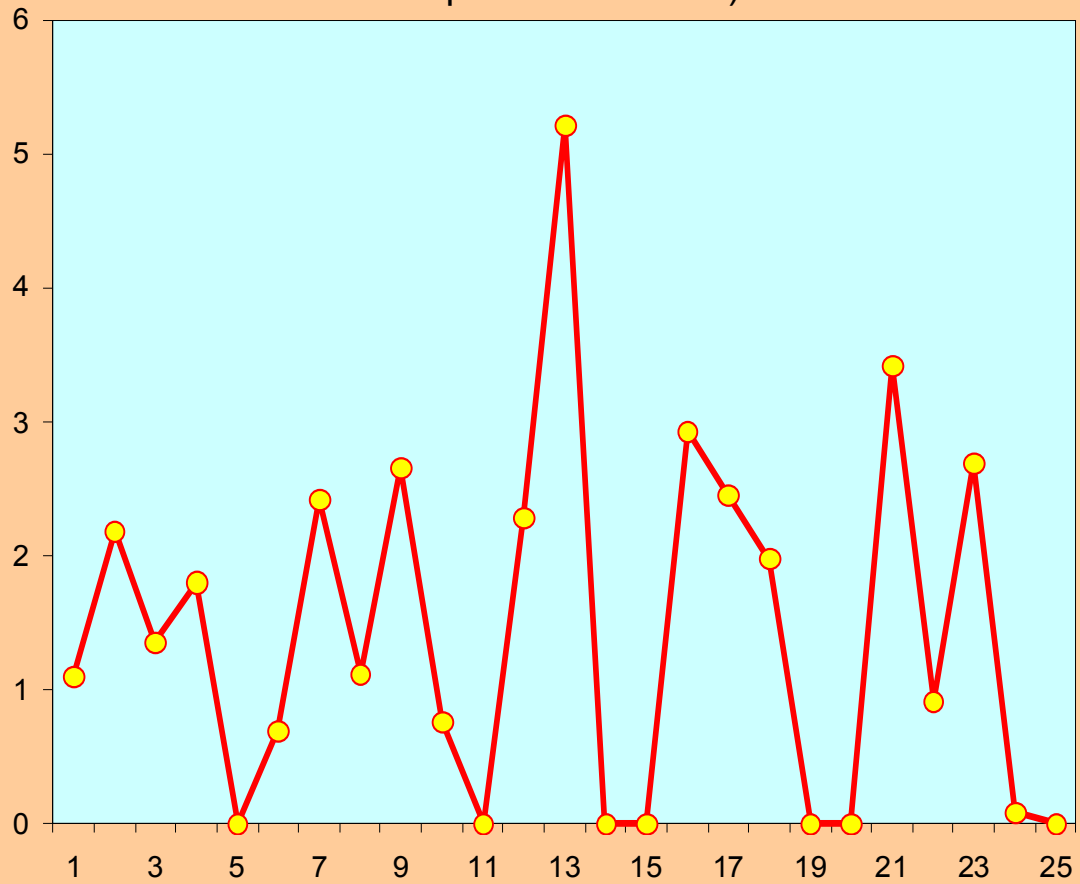


Figure 7: Capital Injections for Top-25 Bank Holding Companies from TARP, January 10, 2009 (Percentage of capital on 12-31-08)

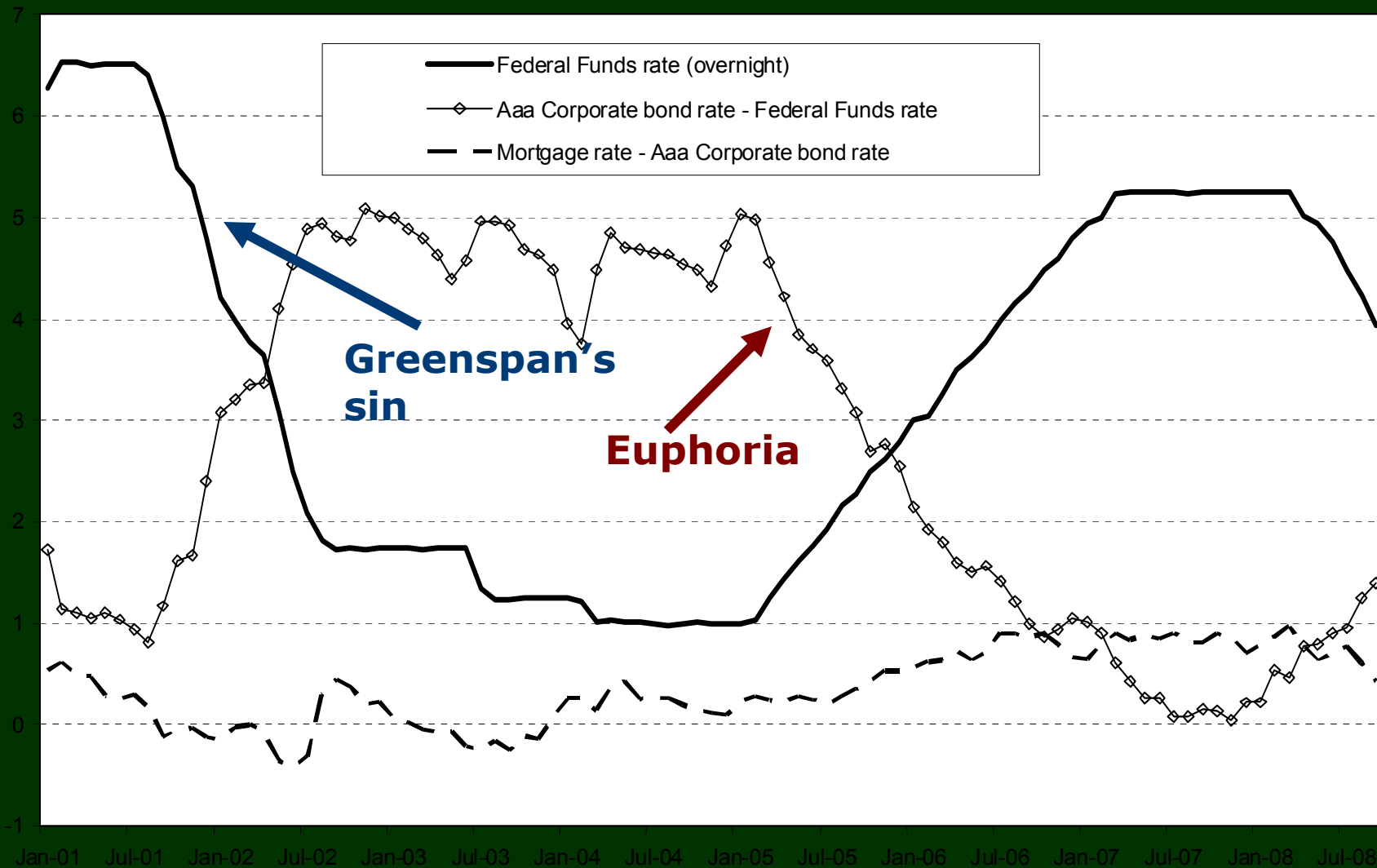


Sources: WSJ, FFIEC.

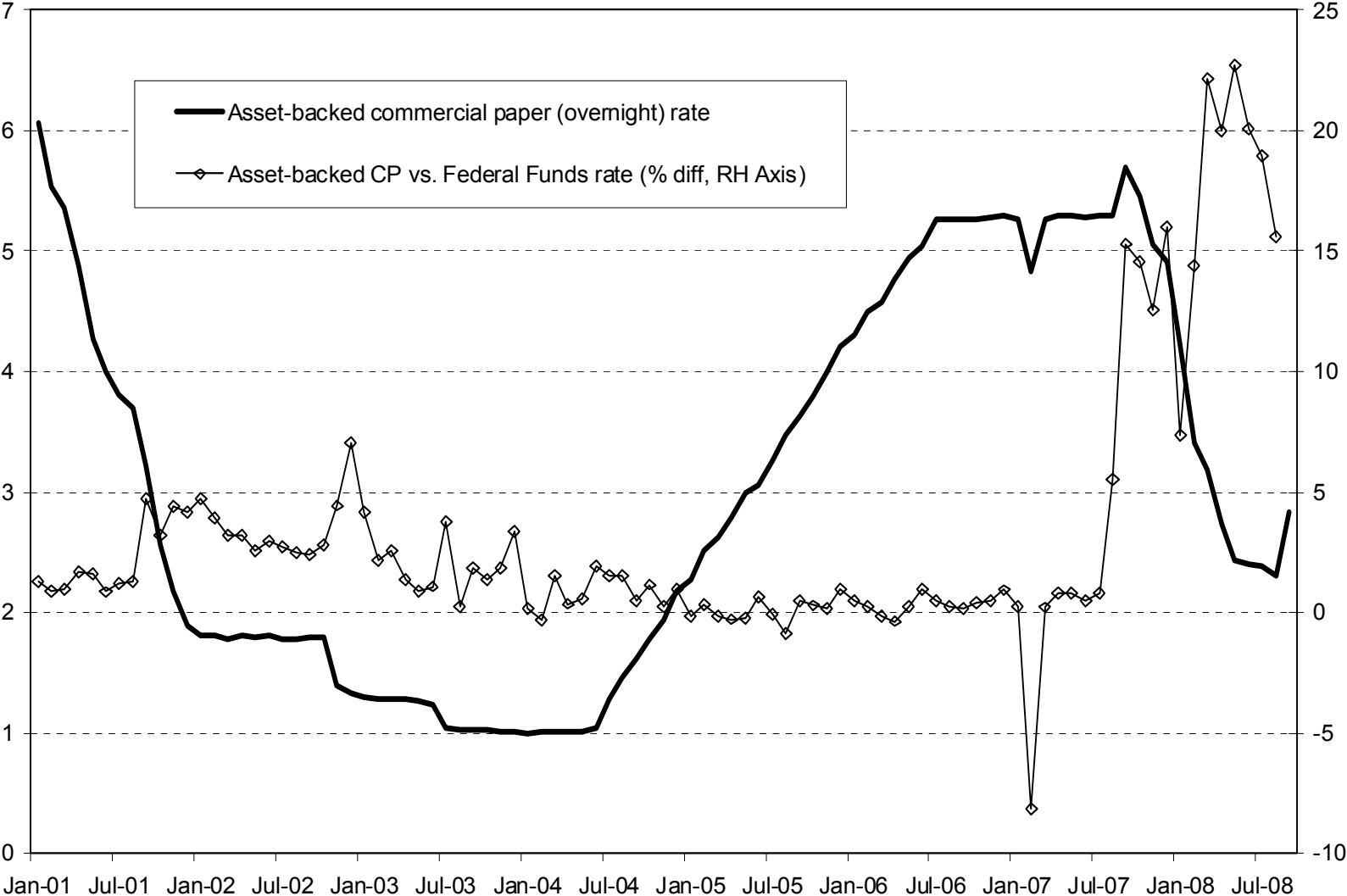
7. Why Policy has Failed (Thus Far)

- But wait! Why is any of this needed? According to established practice, lender-of-last-resort policy should have worked.
- Bad monetary policy, in this reading, “did it” and good monetary policy could “undo it”
- But for this to be enough, the markets have to be “smart” and we need to be in “normal times” ...
- And we weren't.

Federal Funds rate and two interest-rate differentials,
monthly averages, 2001-08



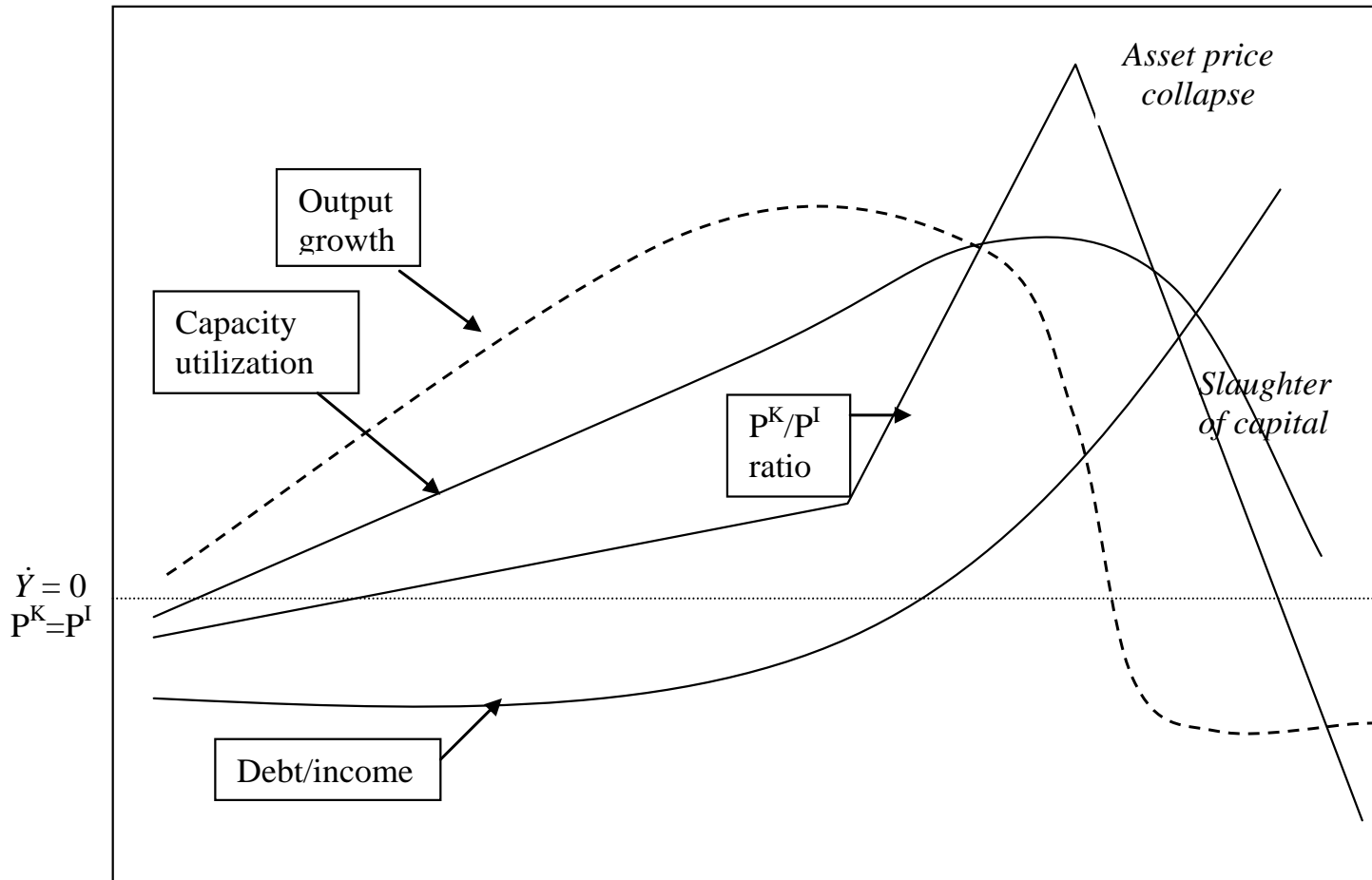
Commercial paper outstanding 2001-08 (\$M)



Reflections on Minsky: Beyond the Boom-Bust Big Govt/Big Bank Scenario

- Big govt/big bank (lender-of-last-resort) policies were the secret for Hy Minsky – use these to solve the problems left by episodes of financial instability. But these don't work anymore – both at the macro level and at the micro level – in the way Minsky imagined.
- Let's take a look – focusing on micro dynamics.

Figure 1: A stylized picture of a Minsky crisis



Stages: Robust \longrightarrow Fragile \longrightarrow Ponzi \longrightarrow Collapse

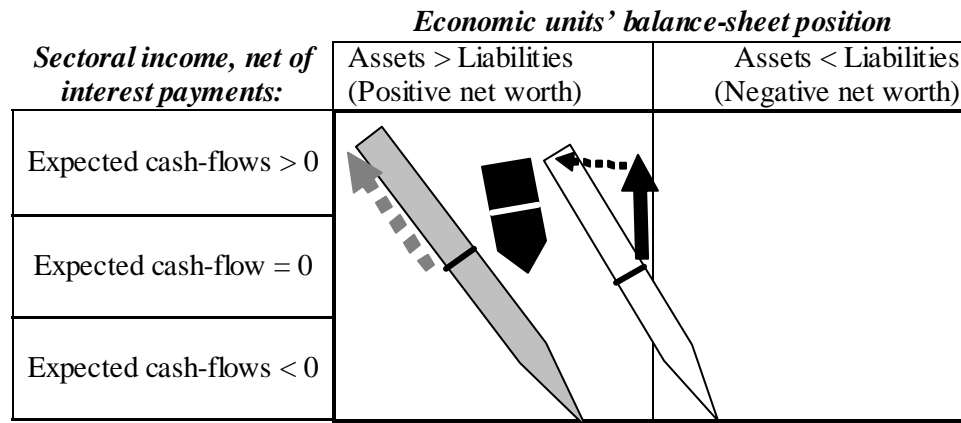
NOTE: The variables shown are measured against cyclical trend, with time elapsing from left to right in the diagram.

Figure 1: Firms, households, and banks: pre-deregulation balance sheets

Non-financial firms		Households		Banks	
<i>Assets</i>	<i>Liabilities</i>	<i>Assets</i>	<i>Liabilities</i>	<i>Assets</i>	<i>Liabilities</i>
Working capital	Trade credit, short-term loans, commercial paper	Cash and demand deposits	Short-term bank and non-bank debt (credit cards)	Required reserves	Demand deposits
Plant and equipment	Corporate bonds	Time Deposits		House(s) or condo(s)	
		Real assets (automobile, furniture, recreation)	Mortgage loan(s)		
	Equity	Equity	Financial assets (stocks & funds)	Equity	Short-term loans and mortgage loans
				Borrowed funds, incl. Fed Funds	
				Equity	

Note: Dark gray indicates locii of default risk; light gray indicates locii of liquidity risk. Household

**Figure 2: Cash-flow and Balance-sheet Dynamics
in Pre-Subprime Minsky Cycle**



KEY: Gray arrow = non-financial firms; black arrow = households with “plain vanilla” mortgages; white arrow = banks. See text for further explanation.

Figure 3: Securitization with “plain vanilla” mortgages: a balance-sheet view

Mortgage originator (bank, thrift, etc.)		Mortgage-investor	
<i>Assets</i>	<i>Liabilities</i>	<i>Assets</i>	<i>Liabilities</i>
Reserves	Demand deposits	Bundled “plain vanilla” mortgage loans	Investments from pension, trust funds (maturity-matched)
Securities			
Non-mortgage loans	Time deposits		
Mortgage loans (held prior to sale)	Borrowed funds		
	Equity		
		Loan loss allowance	Equity tranche

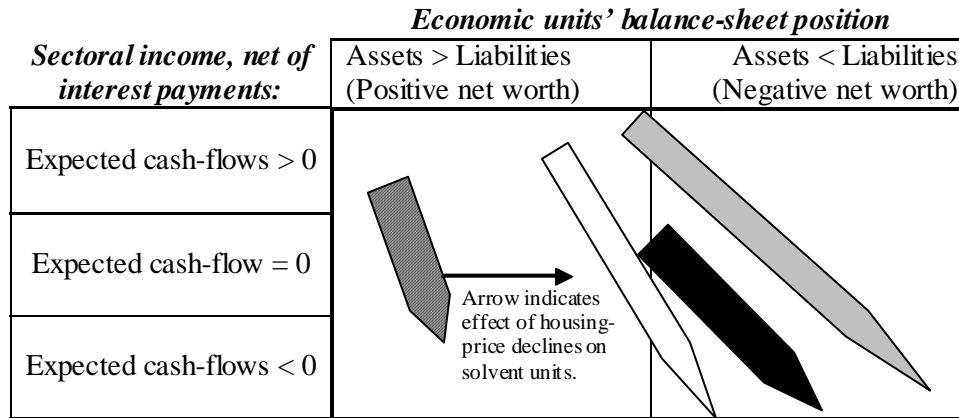
Note: Light-grey shading indicates default risk, and dark-grey shading, liquidity risk.

**Figure 4: Banks, structured investment vehicles, and households:
Subprime balance sheets**

Banks		SIV funds				Subprime Households	
<i>Assets</i>	<i>Liabilities</i>	<i>Assets</i>		<i>Liabilities</i>		<i>Assets</i>	<i>Liabilities</i>
Required reserves	Demand deposits	Credit card debt, Merger bridge loans, Educational loans	Subprime mortgage loans	Prime mortgage loans	Asset-backed commercial paper	Cash and demand deposits	Short-term bank and non-bank debt (credit cards)
Securities, Fed Funds lent						Real assets (automobile, furniture, jewelry)	
Short-term loans	Time deposits					House(s) or condo(s)	Teaser-rate (2-year), Variable-rate (28-year) Mortgage loan ("2/28")
	Borrowed funds, incl. Fed Funds						
Mortgage loans	Equity	Fixed-rate mortgage loan (15-year)					

Note: Dark gray indicates locii of default risk; light gray indicates locii of liquidity risk. No equity tranche is shown for SIV funds.

Figure 5: Cash-flow and Balance-sheet Dynamics in Subprime Meltdown



KEY: Gray arrow = SIVs; diagonal-filled arrow = households with conventional mortgages; black arrow = households with subprime mortgages; white arrow = banks. See text for further explanation.

So Minskyian interventions were not sufficient – the growth of subprime lending had undercut the logic of the banking/lending system as he knew it.

- Further, there are macro changes in terms of how the economy responds to “Big Government” interventions ... the story for another day.

7. Why Policy has Failed (Thus Far)

So Minskyian interventions were not sufficient – the growth of subprime lending had undercut the logic of banking & lending as he knew it.

Further, there are macro changes in terms of how the economy responds to “Big Government” interventions ... the story for another day.

A Keynesian warning .. *Liquidity is an endogenous property of markets, not an exogenous characteristic of assets.*

- *Financial risk, once created as an aspect of a financial asset, has to be borne. It can be shifted or insured against, but some unit must bear the risk.*

8. Restoring the Social Efficiency of Banking

Policy choices that preclude debt-deflation and avoid wholesale reform of finance/ banking sector are:

- A. Inject capital into the banking sector to prop up its equity, and avoid balance-sheet reductions in non-financial sectors as well
- B. Maintain banks at the same size as before, but with less capital (other sectors do not shrink)
- C. Let banks shrink but take further measures to insure that other sectors do not shrink

Problems:

- A. Policy-maker does not control equity-market dynamics, can lose credibility
- B. Banks are much more risky (Δ moral hazard)
- C. Need to build up a substitute finance capacity

8. Restoring the Social Efficiency of Banking

Banking has been increasingly problematic in capitalist dynamics:

1. Large banks have withdrawn from practices of using **localized information** to make loans that build business working capital or expand their market potential.
2. Banks nurture longer-term relationships with customers **selectively**, engaging in predatory and risk-enhancing practices with the more financially vulnerable.
3. Banks no longer moderate liquidity risk; they accentuate it, designing **liquidity-intensive strategies** based on large-scale applications of razor-thin margin plays.

8. Restoring the Social Efficiency of Banking

That is, the focus of bank profit strategies has shifted away from servicing the real sector and toward contingent contract exchanges in integrated financial markets.

Financial insurance markets have become unreliable – they are more focused on multiplying fees from derivatives and swaps than on meeting root commitments.

In short, the banking system does not deepen opportunity or growth, nor does it respect the rights of all individuals ... It is not *socially efficient*.

So we need a socially-efficient banking system, focused on the development of sustainable, robust units in the real sector.

8. Restoring the Social Efficiency of Banking

We must get away from equating the “state of banks” with the state of banking” and ask what these systems do and mean.

“Financial Citizenship” vs. Financial Inclusion

What are the rights of any person in an exchange with a firm offering financial services?

What guarantees or arrangements can assure small-medium enterprises the best chance of survival and growth?

What hurdle rate of return is sufficient for banks and financial firms?

9. Establishing a Socially Efficient Financial System

To think this, we need something else, a social criterion...

Something more than just "access to financial services" -

- **The notion of a "socially efficient banking system"**
 - Social efficiency in banking: A banking system is socially efficient insofar as it facilitates overall prosperity based on the full use of capabilities and assets, and based on the attainment of new capacities and assets by lower-income households within the community.
 - It will also avoid social discrimination – against minorities, women, the socially excluded
 - And it will not engage in financial exploitation.

9. Establishing a Socially Efficient Financial System

- So any assessment of the adequacy of any bank's or financial market's functioning can consider three ethical/behavioral criteria:
 1. Does the institution in question enhance or detract from the social efficiency of banking in the affected community? (communities)
 2. Does this institution engage in socially discriminatory behavior? ("financial citizens")
 3. Does this institution engage in financial exploitation? (lower-income customers)

9. Establishing a Socially Efficient Financial System

Policy choices that achieve a socially-efficient banking sector:

- A. What policies will insure that every person will have access to non-exploitative financial services, including credit for productive purposes or income-smoothing?
- B. What forms of credit and capital are needed to renew the sources of financial capacity for the emerging sectors and SMEs in the economy?
- C. What forms of insurance for financial contracts are socially and economically valuable? Which units need them, which do not?
- D. What are the social responsibilities of a bank that is too big to fail?

9. Establishing a Socially Efficient Financial System

Problems/Challenges:

- A. How to spread the costs of financial inclusion fairly
- B. How to insure that loans to riskier units do not disadvantage the banks that make them; and how to make these loans less risky through guidance/capacity building.
- C. How to develop a broader financial system that provides insurance through risk-sharing but does not make risk-accumulation an end in itself?
- D. What are the social responsibilities of socialized, socially-protected megabanks?

In short, what is a bank, post-crisis?

9. Establishing a Socially Efficient Financial System

Alternatives: reduce risk exposure of system or increase functionality of banks?

- 'Narrow' banks that protect transactions function, offload credit function
- Public ownership of a portion of bank equity
- Nationalization of portions of the banking system
- Support for socially-functional banks (smaller 'niche' banks, ethnic banks, 'community development financial institutions' such as microfinance lenders)

9. Establishing a Socially Efficient Financial System

Challenges: reduce risk exposure of system or increase functionality of banks?

- 'Narrow' banks: let the securities markets take care of credit and credit risk?
- Public ownership: training a cadre of public bankers who work in the market? (Brazil – BNDES)
- Nationalization: changing the commanding-heights view of what banking is.
- Support for socially-functional smaller banks: a serious mechanism for augmenting their capacity.

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