Modern finance: current crisis and policy debates III

Gary Dymski
Professor of Applied Economics
Leeds University Business School
Email: g.dymski@leeds.ac.uk

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Map of topics

1. "Classical"l vs. Keynesian macro logics
2. Bretton Woods system - Financial stability without globally-induced macro stimulus
3. Financial markets and large banks: escape from regulation, phase 1
4. Hyman Minsky's financial instability hypothesis:
5. After the breakdown of Bretton Woods – a cold plunge into Neoliberal era
6. Minsky's theory of crisis and crisis resolution in historical context
7. Financial crisis in the global South: Orthodox and heterodox explanations
8. The Neoliberal overseas lending/crisis cycle
9. Power in Finance 1: Hegemonic power and TBTF
10. **The Subprime Crisis: From financial exclusion to predatory inclusion**
11. **Power in Finance 2: Financial exploitation and access to credit**
12. **Post-crisis pressures, debate, and reform efforts**
13. Impacts of the global financial crisis on economies in development
14. Shadow banking: escape from regulation, phase 2
15. Power in Finance: Challenges of global regulation
16. Financial regulation

Lecture 3: Subprime lending and the exercise of power in finance

10. The Subprime Crisis: From financial exclusion to predatory inclusion
11. Power in Finance 2: Financial exploitation and access to credit
12. Post-crisis pressures, debate, and reform efforts

10. The Subprime Crisis: From financial exclusion to predatory inclusion

- Era of "particle finance" (Chas Sanford, Bankers Trust, 1993)
- Competitive deregulations in London, NY, Tokyo led to the creation of new funds (hedge, private equity) seeking to beat the market.
- Financial "inclusion" of formerly excluded by new predatory financing instruments, including subprime loans, the securitization of which – in SIVs and CDOs – met these new 'investors' demands.
- The new originate-and-distribute lending model, facilitated by credit default-swaps and corrupt credit-rating practices, invisibilized risk-taking and permitted the mega-big to get bigger.
- Rise of derivatives based on 'synthetic' subprime contracts, the multiplication of contracts, and the hyper-optimization of available liquidity created unsustainable financial fragility.

Retooling the Mortgage Markets in the 1980s

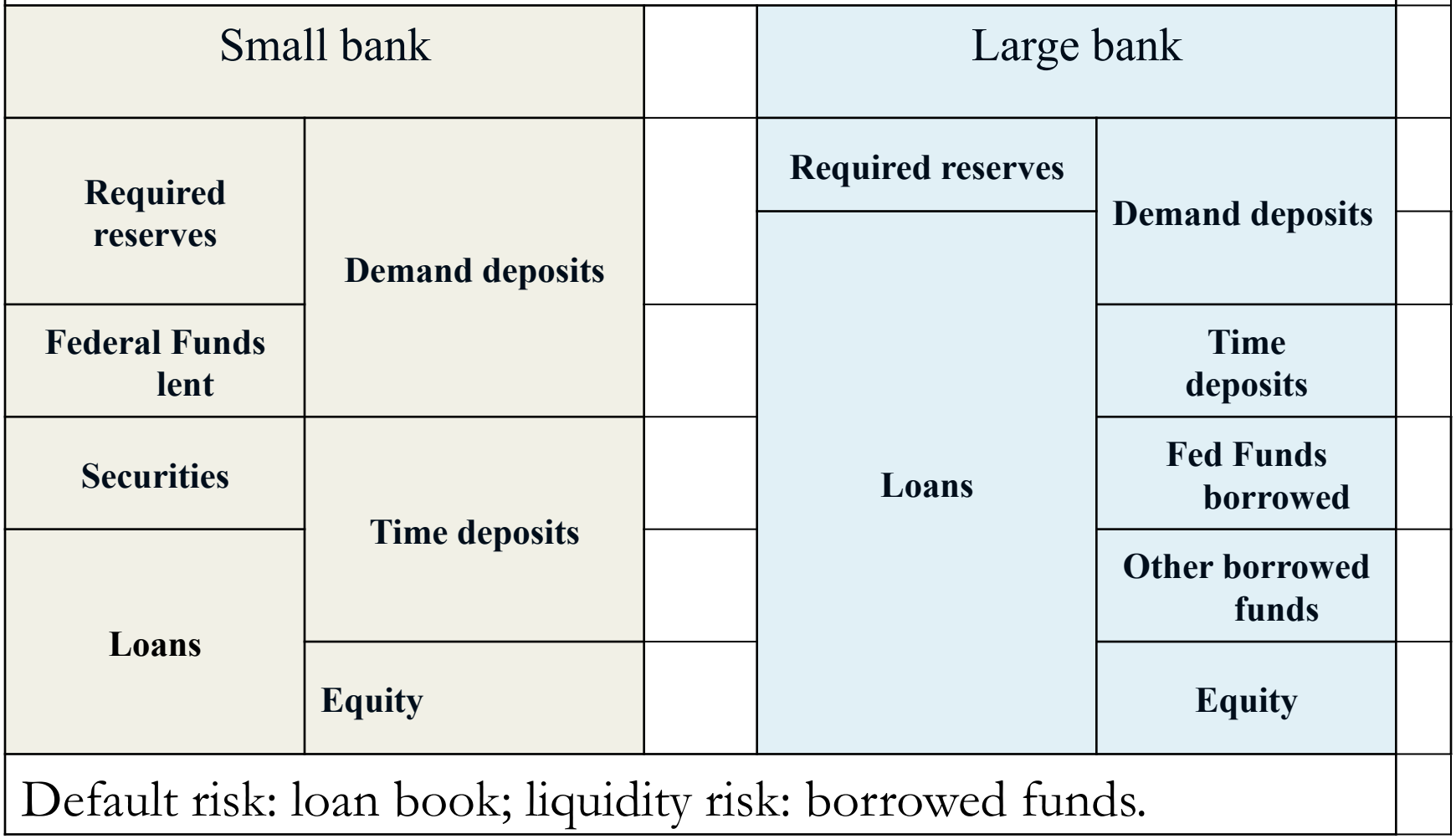
- Loan crises and deregulation in the 1980s led to many US bank and thrift failures.
- US mortgage finance was radically reshaped: lenders made loans to sell them, thereby also offloading financial risk. The process of originating, servicing, and holding mortgages was split up and priced separately.

- Banks were transformed: instead of making profits by interest-margin on homogeneous loans to an undifferentiated set of customers, banks began focusing on how to make fee-based income from different segments of a customer base with different financial-product needs and profiles.

Historical emergence and the evolution of "de-risking"

- Banks perform two economic functions: they supply credit and provide liquidity, and take on default risk and liquidity risk. Tensions between these two functions create "brakes" on expansionary bank behavior.

Figure 1: Bank structural relationships in the liability-management era



Default risk: loan book; liquidity risk: borrowed funds.

Transformation of US Banking & Mortgage Markets

- Mortgages were supplied in a protected circuit until 1980s, primarily by savings & loan institutions ("thrifts").
- Many price and product restrictions on bank holding companies.
- Macro "stagflation," restrictive monetary policy destroyed the old system.
- The thrift system disappeared. Banks & mortgage companies took over their market share.
- "Pass-through" securitization underwritten by FNMA stabilized the markets.

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

<table>
<tr><th colspan="3">Thrift (mortgage originator)</th><th></th><th colspan="2">Mortgage-investment pool</th></tr>
<tr><td rowspan="2">Reserves</td><td rowspan="2">Demand deposits</td><td></td><td rowspan="5">Mortgage loans (by maturity of payment date)</td><td rowspan="3">Investments from pension, trust funds (maturity matched)</td></tr>
<tr><td></td></tr>
<tr><td>Securities</td><td rowspan="2">Time deposits</td><td></td></tr>
<tr><td rowspan="2">Mortgage loans</td><td></td></tr>
<tr><td>Equity</td><td></td><td>Shares or equity</td></tr>
</table>

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)

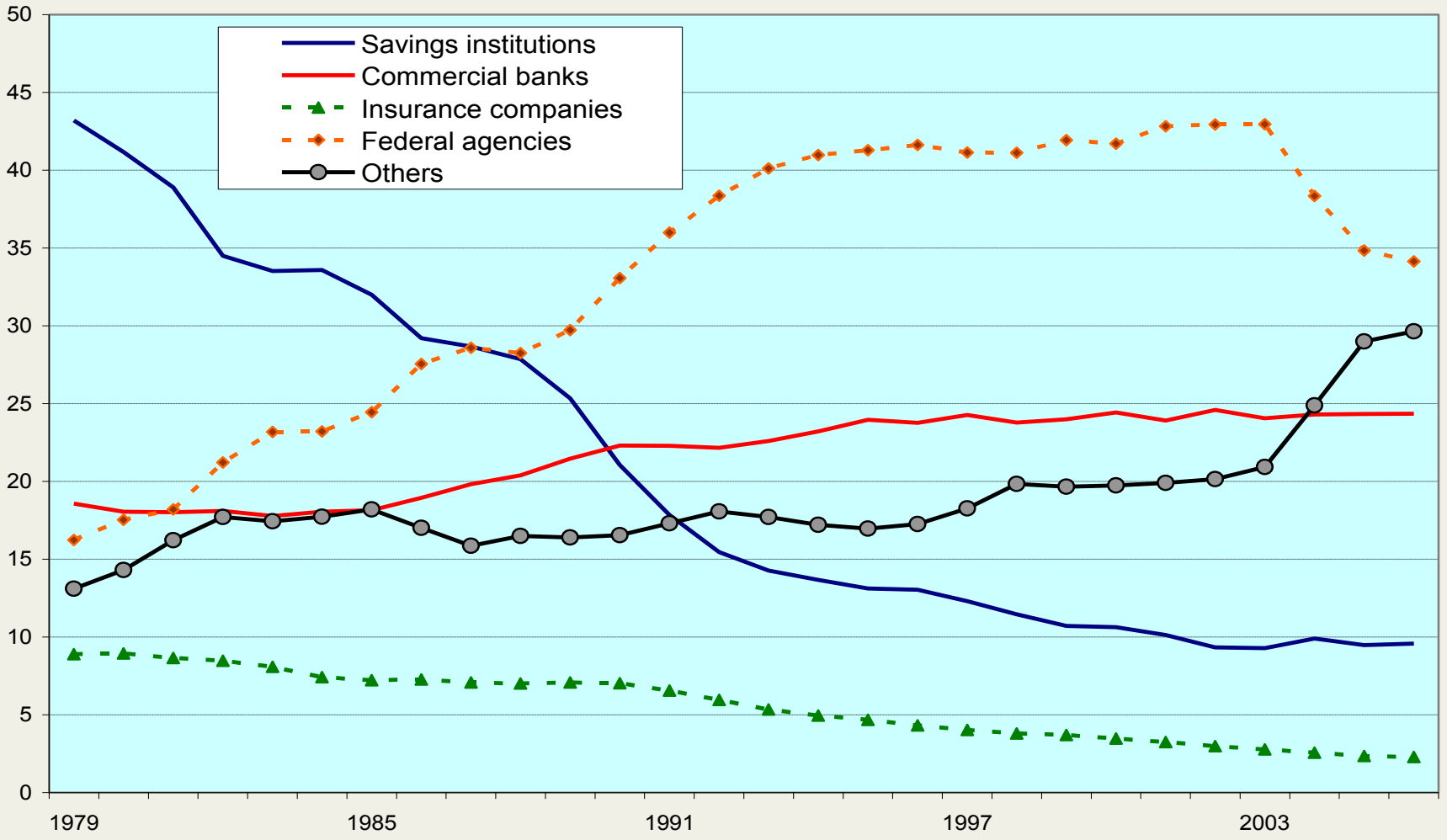
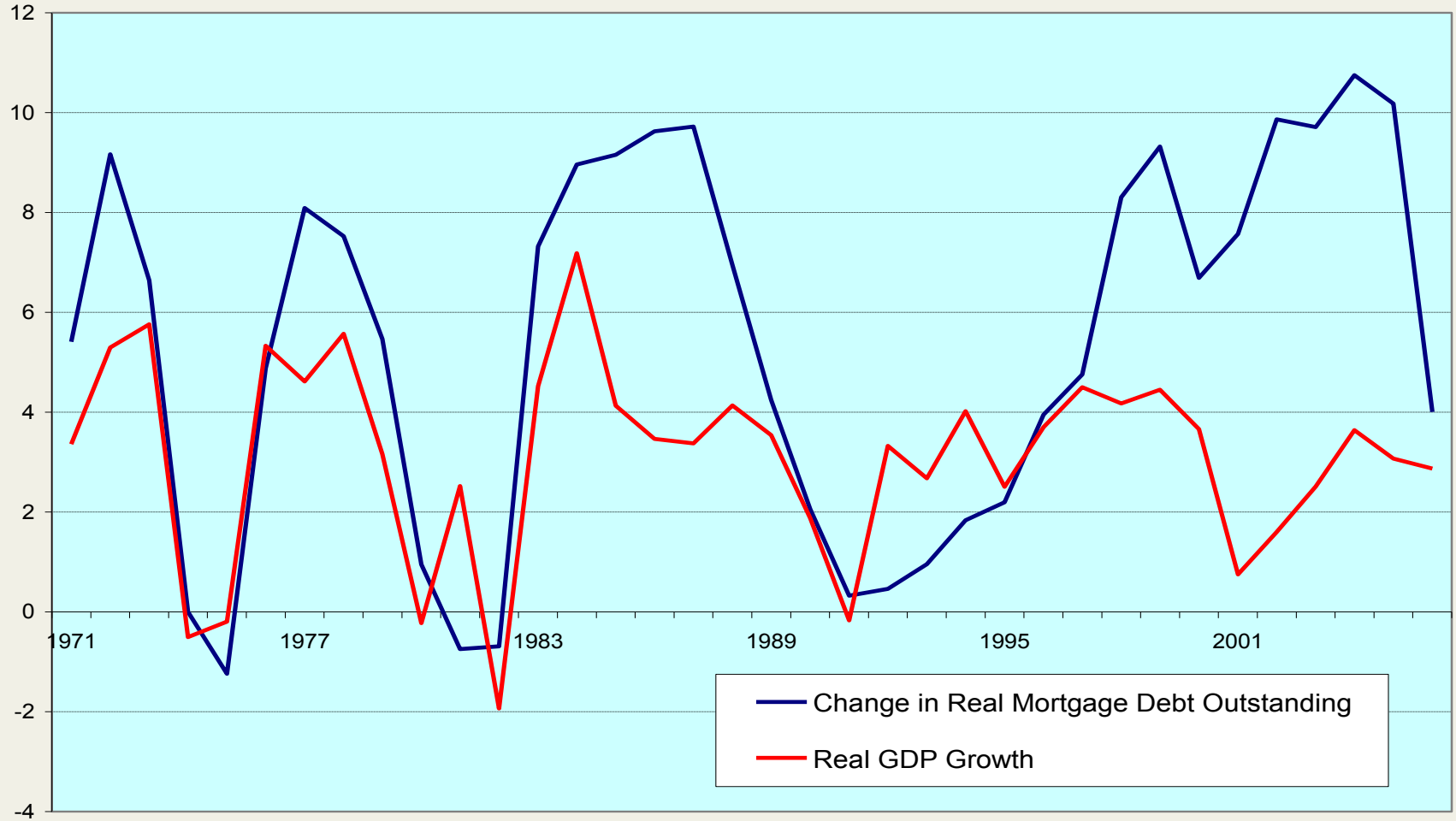


Figure 4: Growth Rates of Real GDP and Mortgage Debt Outstanding, US, 1971-2006 (%)



The emergence of mass-scale securitization: Mortgage-backed securities in the 1980s

A securities-based system of housing finance required the commodification of risky mortgage assets. This required two steps:

1. **Standardization of the instruments** being bundled, which meant standardized mortgage-eligibility criteria.
2. The **separation of loan-making from risk-bearing**. The ready availability of quasi-public and private mortgage underwriting assured a robust secondary market for qualifying mortgages.
3. **More invisibly: the persistent US current-account deficit from the mid-1980s on.**

The use of securitization in a system of intermediary-originated mortgages drastically alters the distribution of financial risk.

The evolution of financial exclusion

- US banks have systematically excluded ethnic-minorities & poor people for many years ("Redlining," "discrimination")
- But … Low-income families are increasing; and many migrant workers are in the US.
- Banks want fees – from loans to low-income families, from remittances (only 3% of market in 2002), etc.
- So low-income markets have become strategic targets for the banks, even large ones.
- Banks become institutions that widen income, wealth gaps between rich and poor, via "non-productive" credit

The evolution of financial exploitation

- Markets for credit and capital excluded racial minorities and lower-income and minority areas for many years.
- The federal government collaborated in this exclusion. EG, FHA program.

- Civil rights and community-reinvestment laws pushed change by the federal government and by banks. Banks were asked to meet credit needs.

- Their behavior improved but racial discrimination and redlining continued. Why?

Figure 6: "Rational" bank redlining in the pre-securitization era

Banks A, B avoid inner-city			Bank A lends in inner-city (not B)	
Reserves	"Inner-city" and "Suburban" demand deposits		Reserves	"Inner-city" and "suburban" demand deposits
Securities			Securities	
"Suburban" mortgage loans	"Suburban" time deposits		"Suburban" mortgage loans	"Suburban" time deposits
			"Inner city" mortgage loans	Borrowed funds
	Equity			Equity

Note the coordination problem – in the form of prisoner's dilemma – affects banks considering "where to lend"

The evolution of financial exclusion

In the 1990s, subprime loans were made exclusively in redlined areas: primarily to homeowners with housing collateral, for extra cash-flow.

- By 1998, 1/3 of mortgage loans to African Americans were subprime; 1/5 of loans, to Latinos and low-income.
- Subprime lending grew 900% between 1993 and 1999 in "inner-city" areas, while other mortgage lending fell.
- Payday loans also exploded in these same areas: more than 22,000 outlets (vs. 60,000 bank branches).

Banks nurtured a securitization market:

- Large investment banks bought in - $80B in subprime paper by 1998
- Bank holding co's acquired subprime-lender subsidiaries
- Hedge funds, private-equity funds provided demand

From the Urban Margin to the Core of Global Finance

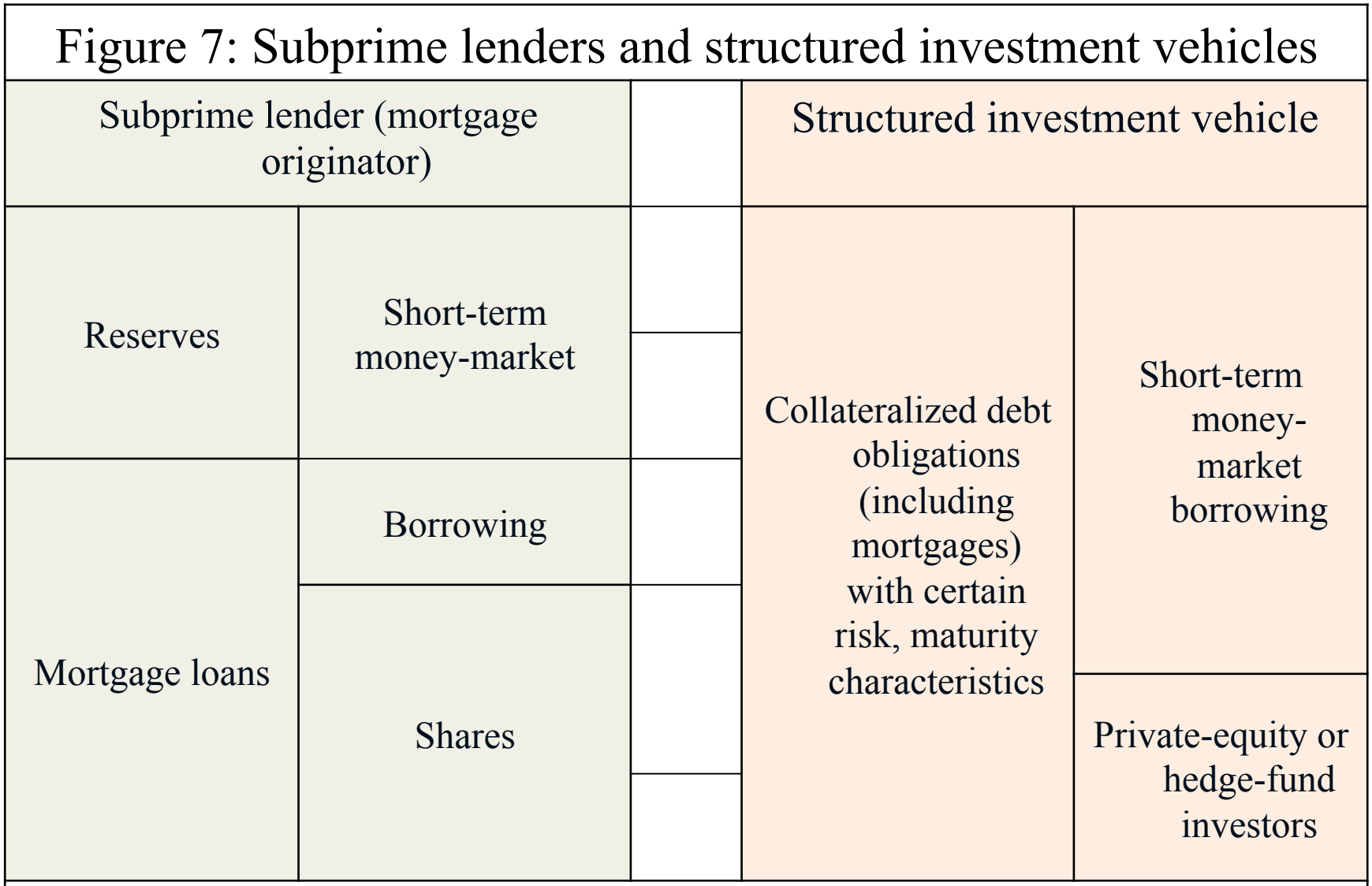
- Subprime loans were always made with risk being high. High loan-income levels were increasingly rational with anticipated high growth rates in home prices.
- As the housing bubble grew, the possibility that longer-run housing-price appreciation would permit a reset of unviable loan conditions.
- Rising housing prices made subprime loans a necessity: income fell far behind housing prices.
  - 2001-03: $9.0t mortgage originations, 8.4% subprime, of which 55% securitized
  - 2004-06: $9.0t mortgage securitizations, 20% subprime, of which 79% securitized.
- Another factor: hyper competition among megabanks.

The evolution of financial exploitation

- Banks did not want to hold subprime and payday loans on their balance sheets. They nurtured a securitization market for this paper.
  - Lending technology and computability improved.
  - Banks earned fees from securitization, from servicing loans, from various services related to loans they or others had sold.
- Banks developed a business model for "core banking" for lower-income/low-wealth customers: high fees, high NSF (not-sufficient fund) charges, minimum deposit amounts. Otherwise: get a rechargeable debt card.
- Banks' model for subprime loans was based on high loan rates, short maturities, high application fees and high penalties for non-compliance.
  - Even if the loan was not viable in the long run, it could be profitable in the short run.

5. From the Margins of the City to the Core of Global Finance

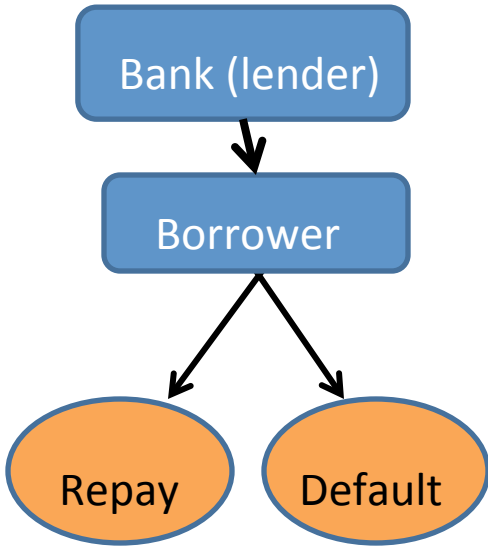
Figure 7: Subprime lenders and structured investment vehicles



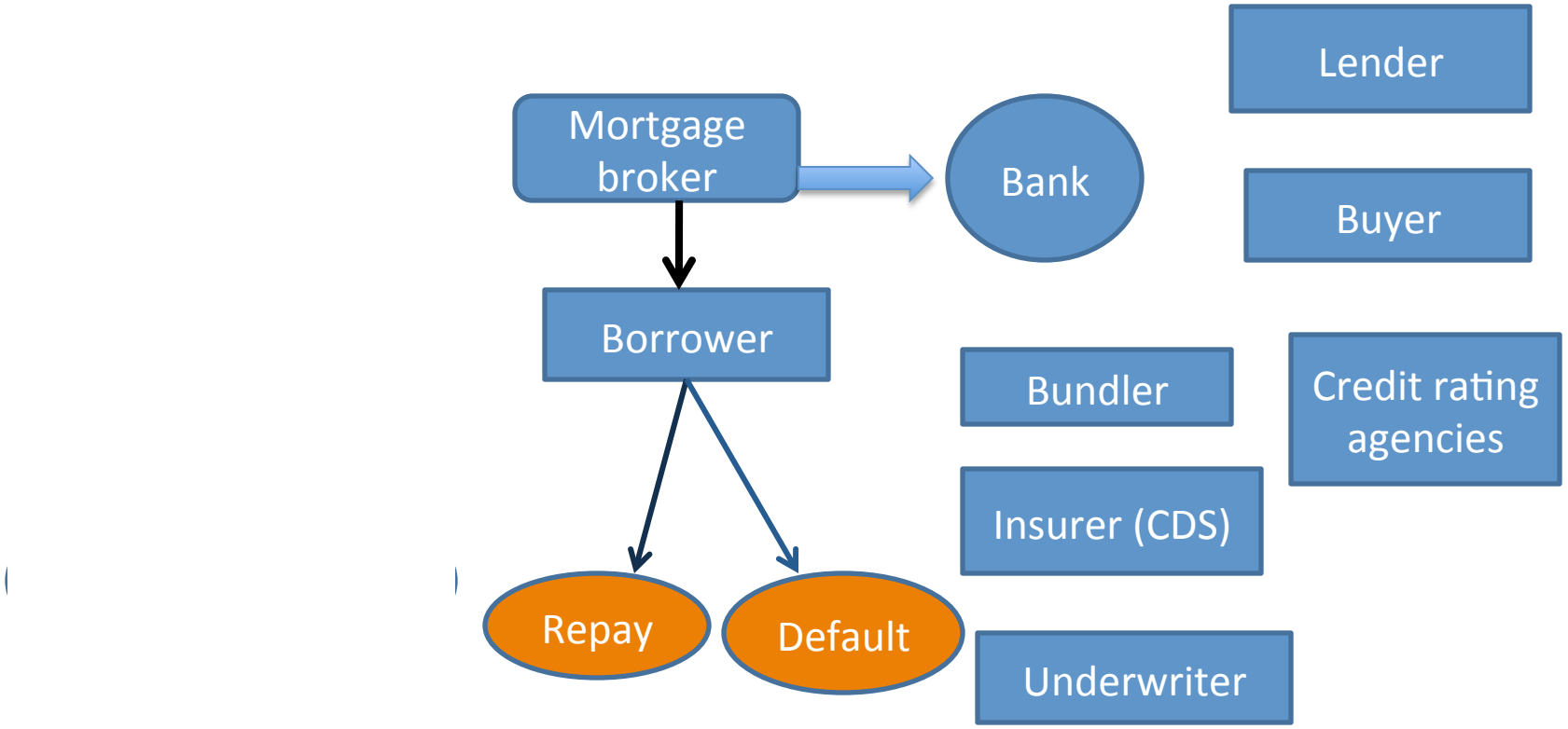
Note: Light-grey shading indicates default risk, and dark-grey shading, liquidity risk.

Subprime loans go mainstream: housing bubble and bust in the 2000s

- Mortgage securitization in the 1980s had required risk homogenization & borrowers with low default risk.
- Now heterogeneous assets with substantial default risk were being bundled into privately-backed securities. The system for originating & distributing risk – as well as re-insuring it – broadened far beyond housing finance.
- So the machinery needed for a robust subprime industry extending beyond the socially-excluded was ready when the housing bubble made it a necessity.
- The housing market in the US and UK:
  - The home as the source of saving, security, status
  - The erosion of public housing alternatives, and their cultural devaluation ('chavs')
  - The desperate lunge to not be left behind on the last train departing for financial security: not a job, but a home.



Banks in the old system

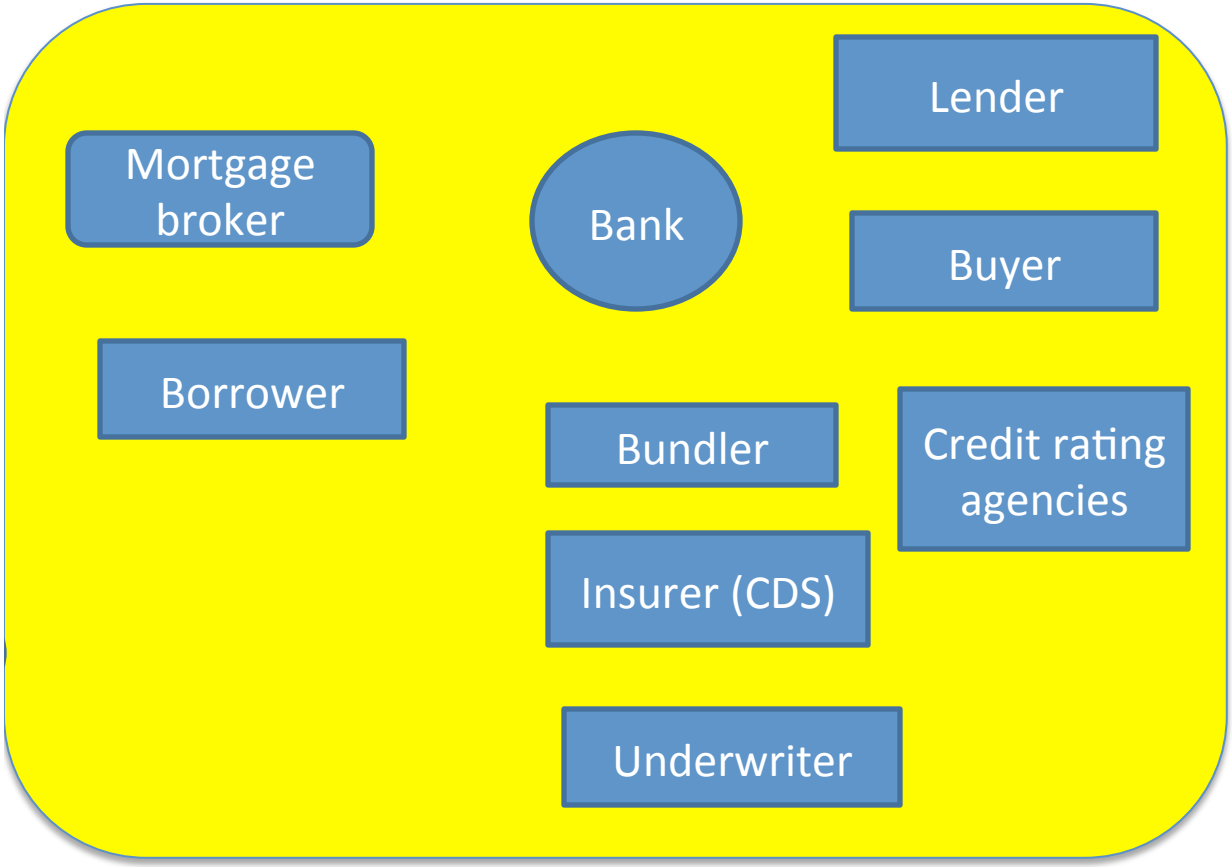


Banks in the new lending system

Hedge Funds

Private equity funds

Traders



Megabanks at the heart of the new lending system, which is partly a “shadow” system

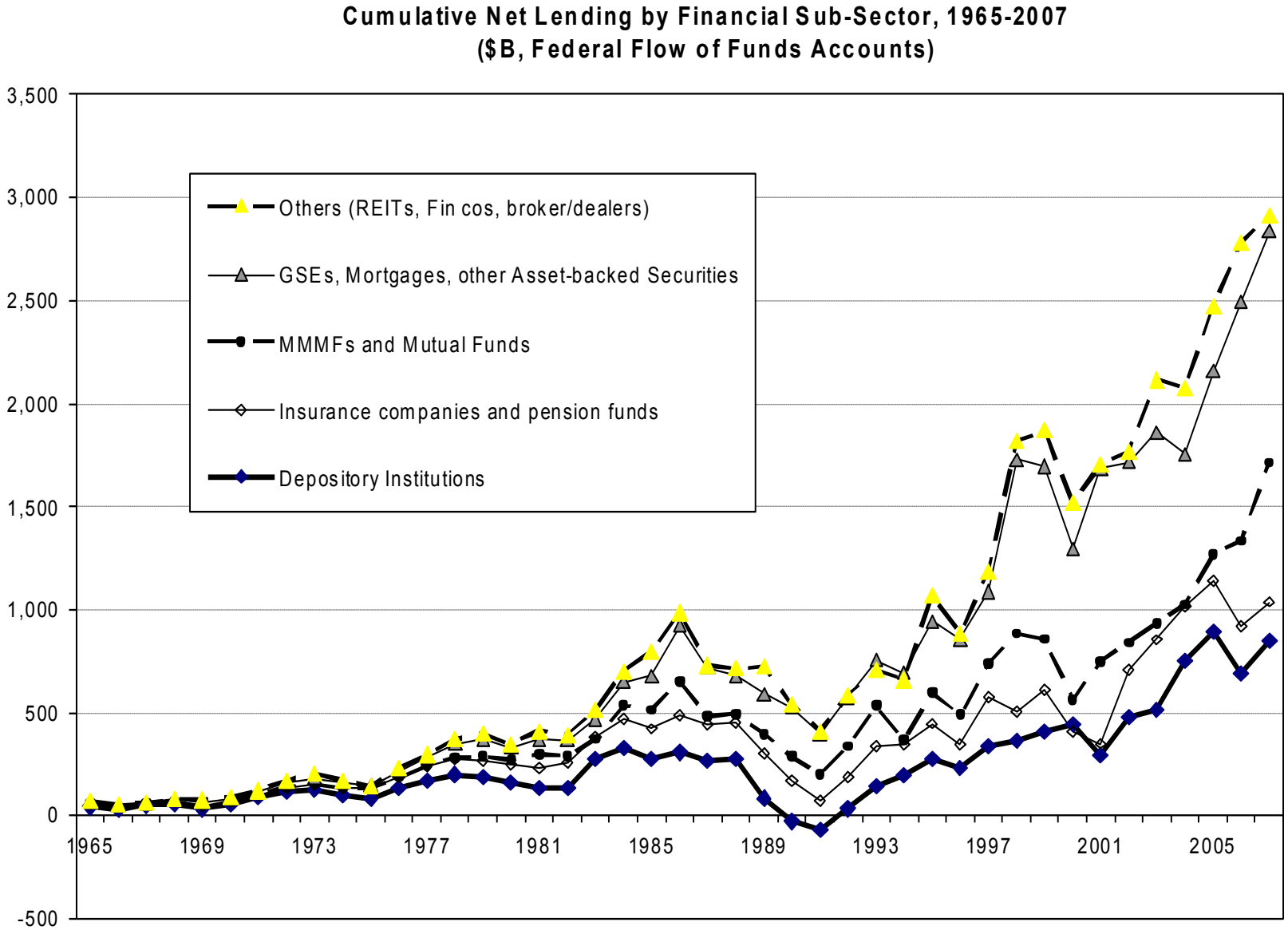
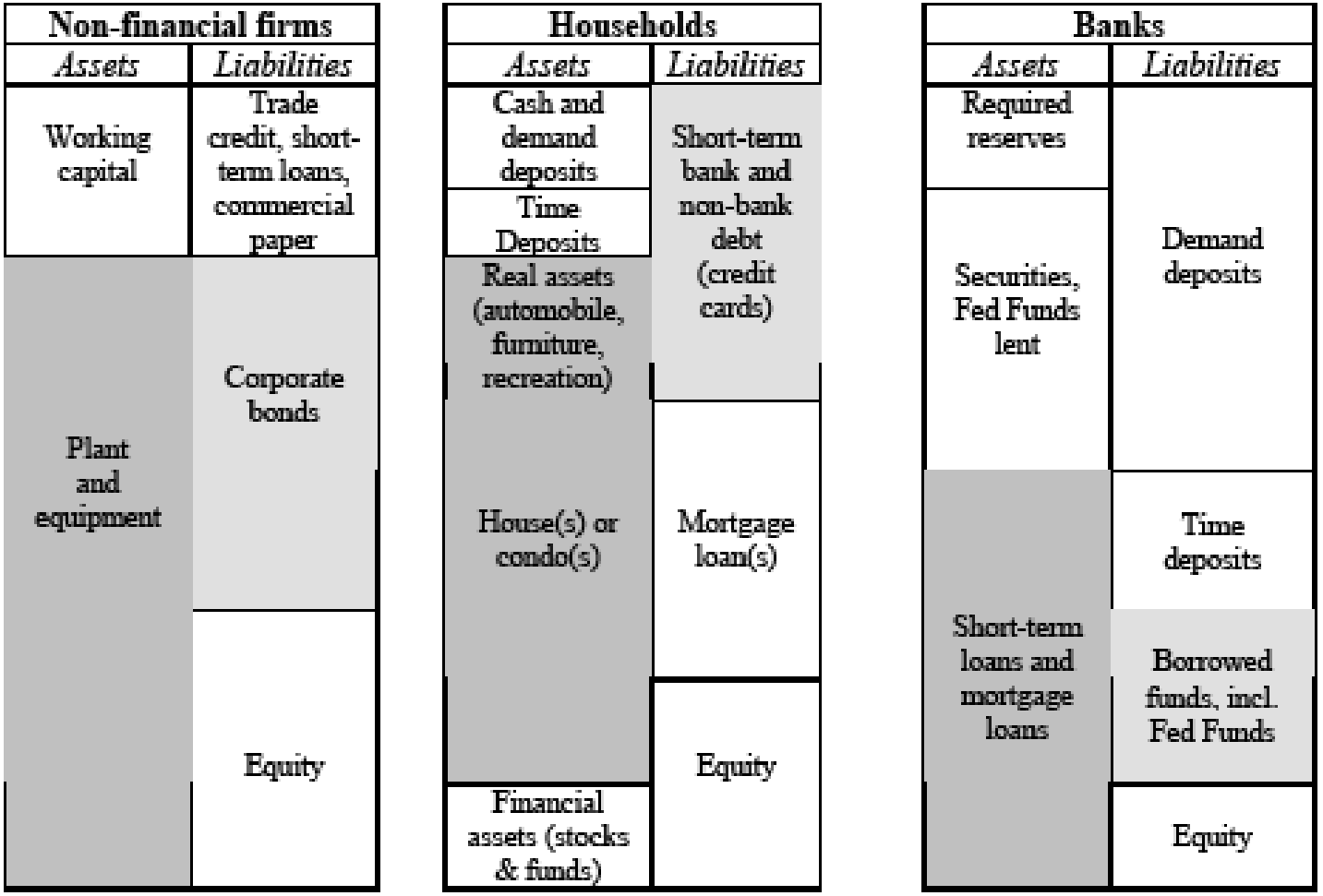
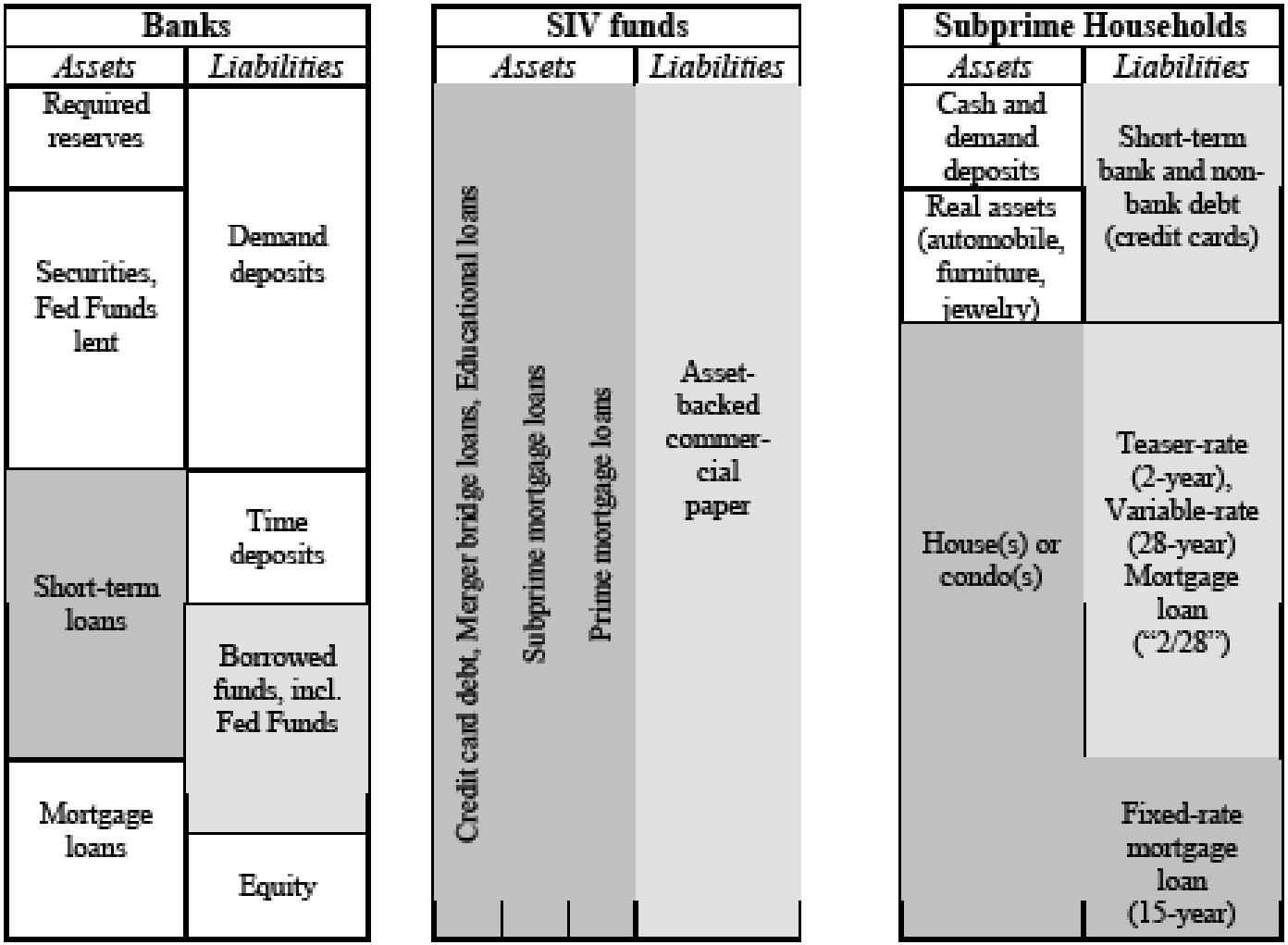

Cumulative Net Lending by Financial Sub-Sector, 1965-2007
($B, Federal Flow of Funds Accounts)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
-500
1965
1969
1973
1977
1981
1985
1989
1993
1997
2001
2005
Others (REITs, Fin cos, broker/dealers)
GSEs, Mortgages, other Asset-backed Securities
MMMFs and Mutual Funds
Insurance companies and pension funds
Depository Institutions

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



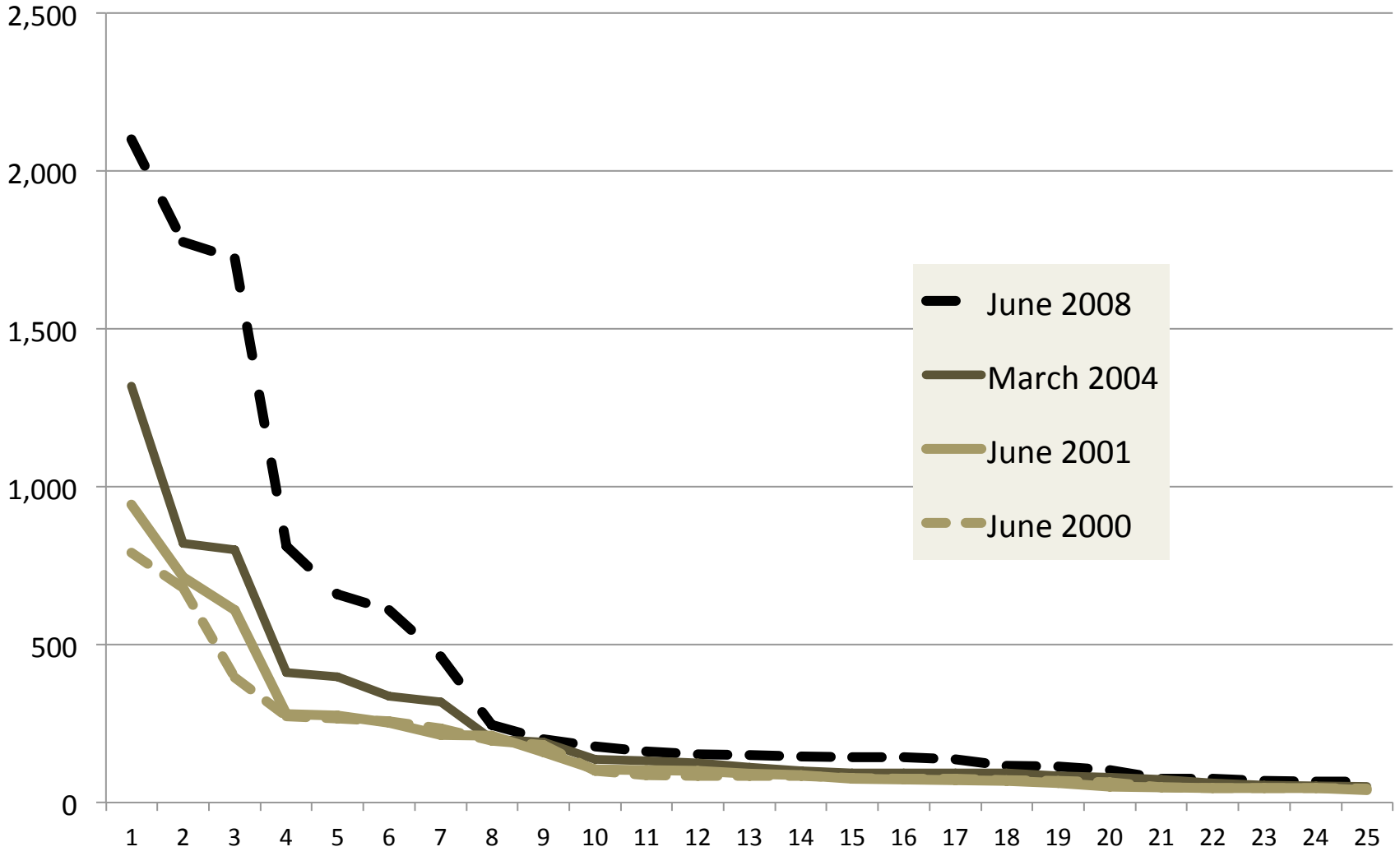
Note: Dark gray indicates locii of default risk; light gray indicates locii of liquidity risk. Household

Figure 5: Banks, structured investment vehicles, and households: Subprime balance sheets



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

The 25 Largest US Commercial Banks, June 2000 - June 2008, rank-ordered by asset totals ($B, FFIEC)



Subprime loans go mainstream: housing bubble and bust in the 2000s

- Was this risky? Weren't housing prices going up forever? Wasn't "this time different"?
- It was thought that rapid housing-price appreciation would allow unviable loan conditions to be reset.
- In any case, in some areas, rising housing price/income ratios made subprime loans a necessity:
  - either because of falling incomes (Cleveland and Detroit, cities in the "rustbelt" midwestern states)
  - or because housing prices skyrocketed (Arizona, Nevada, California – the area of the "sunbelt boom")
- Megabanks' monopoly over systemic liquidity made them too-big-to-fail in any systemic credit crisis; and megabanks had learned in the 1980s crisis that they could use a systemic crisis to increase their control over the banking system.

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

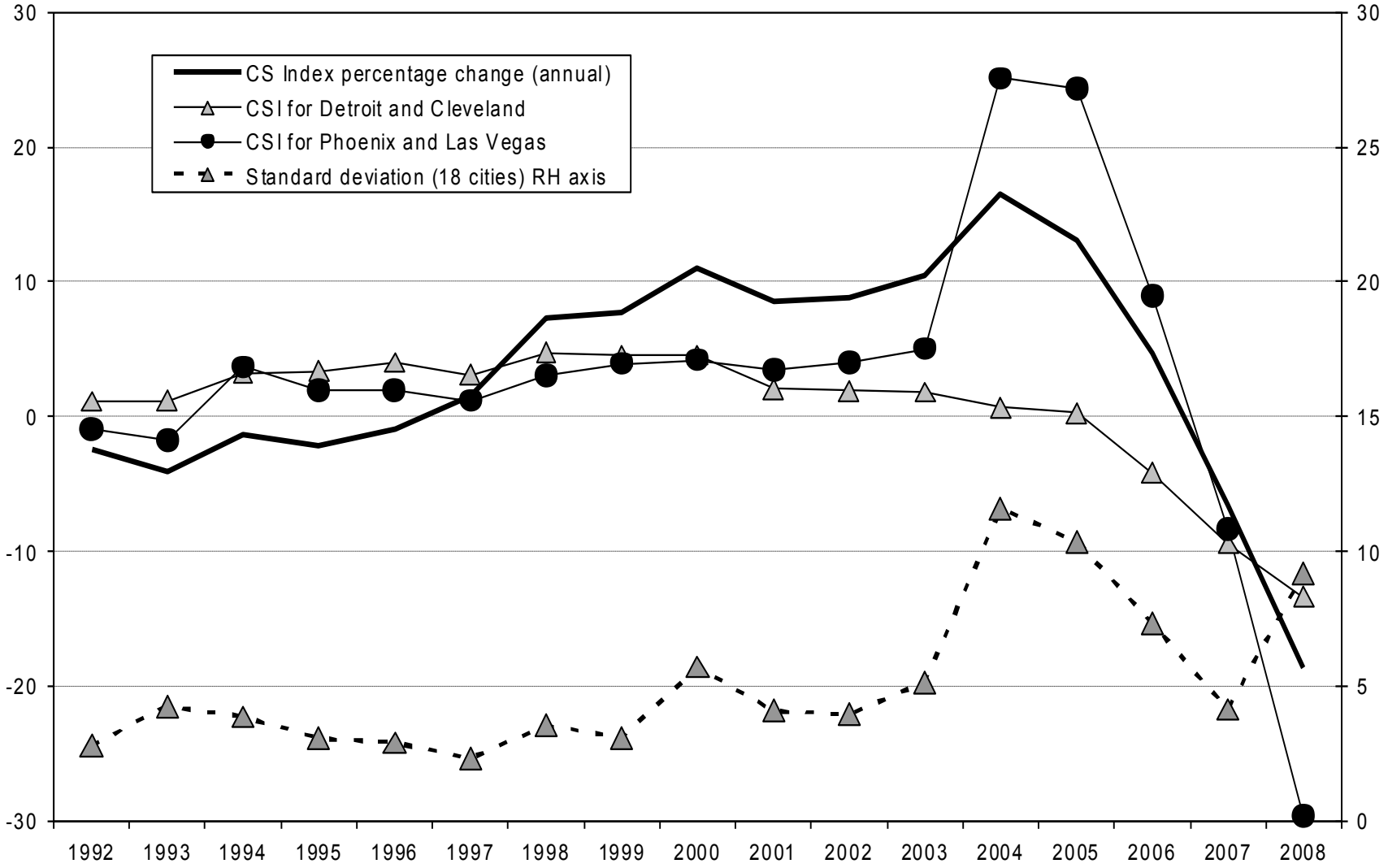


Figure 1: Raw Case-Shiller Housing Index Values:
Month-to-month percentage change (annualized), Nov 2003-Dec 2008

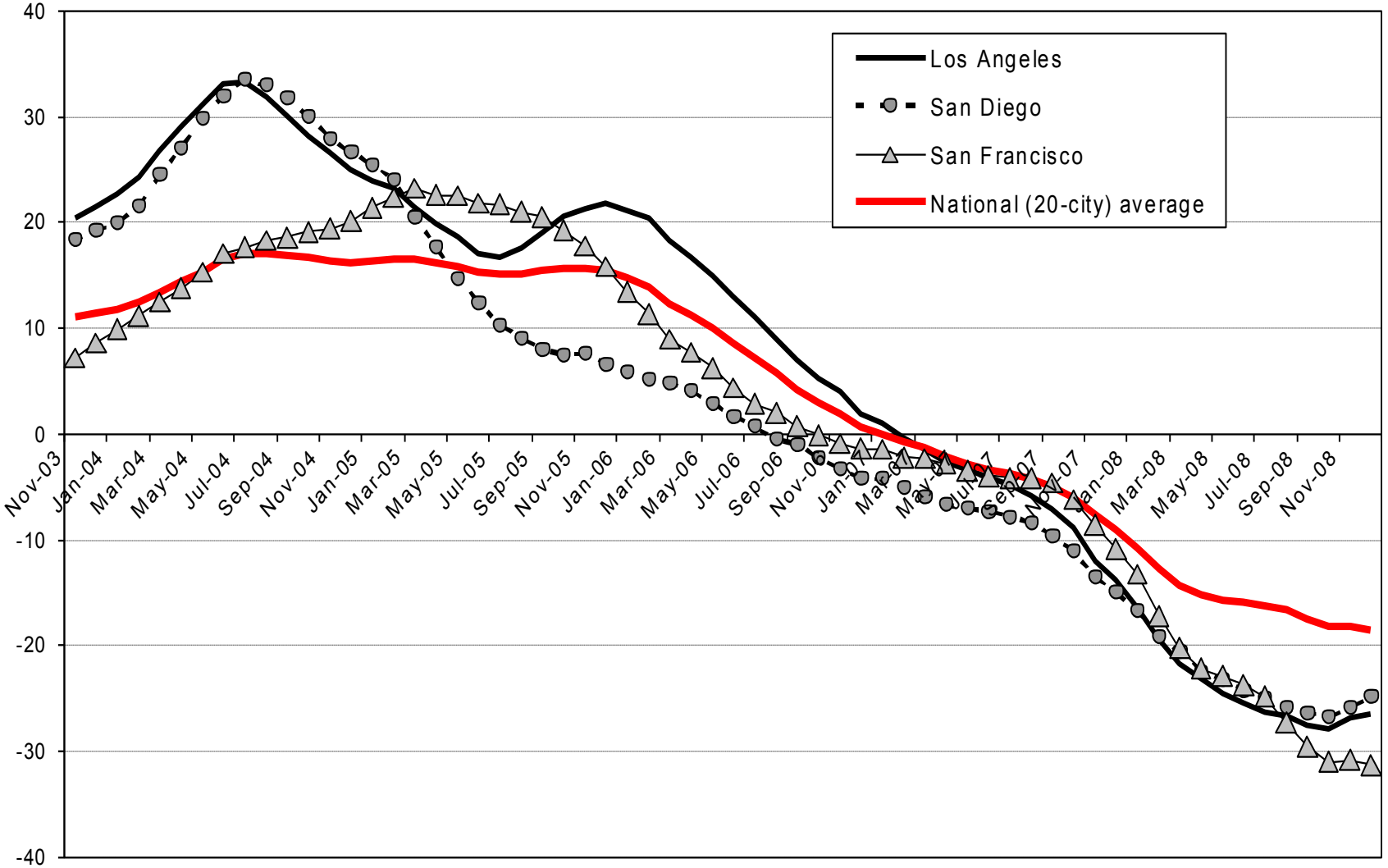
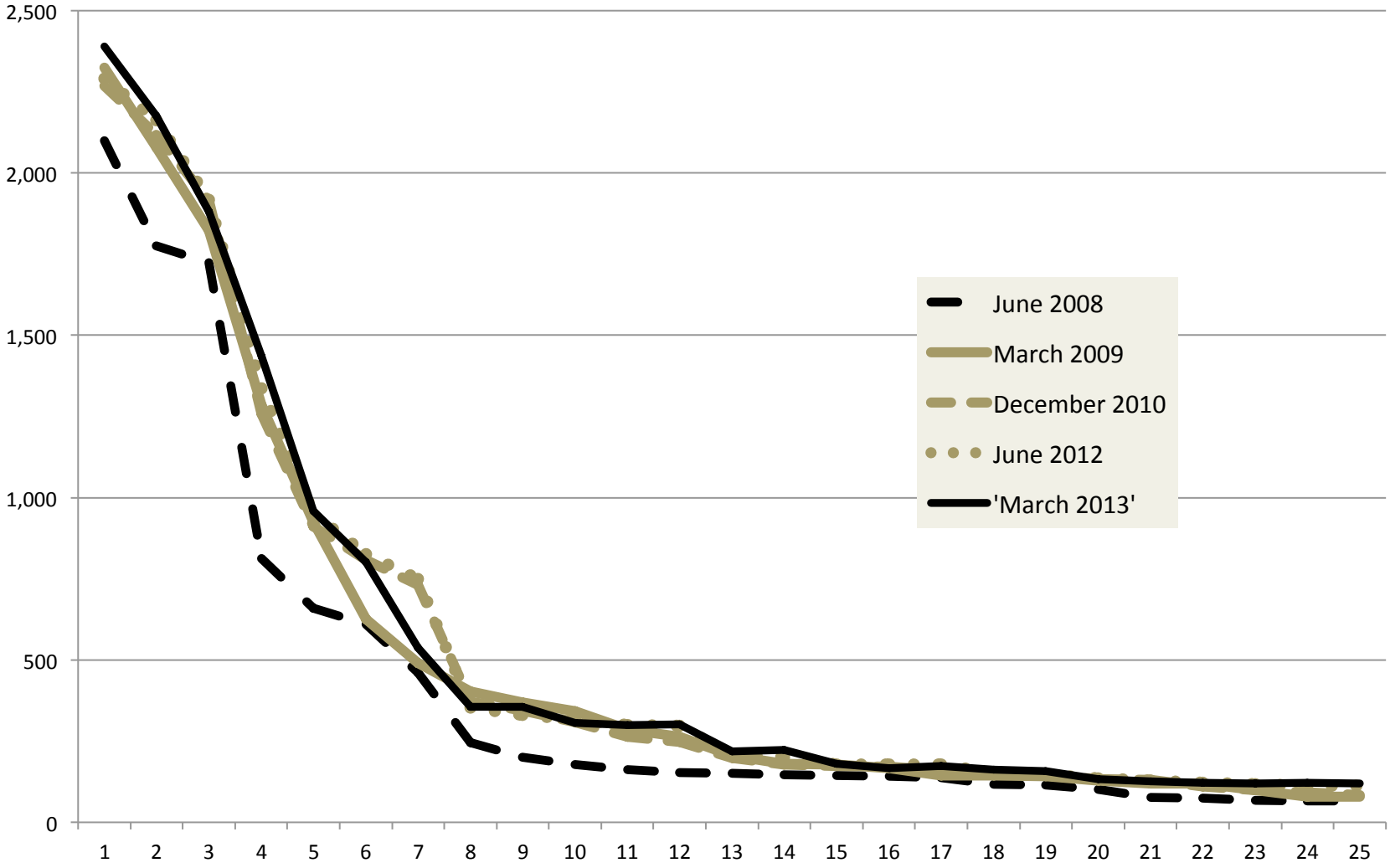


Figure 5: The 25 Largest US Commercial Banks, June 2008-June 2012, rank-ordered by asset totals ($B, FFIEC)



11. Power in Finance 2: Financial exploitation and access to credit

- This brings us back to the problematic of power. We have already linked hegemonic power to the ability of nation-states to designate their megabanks as too-big-to-fail.
- We see the flexing of this power in the subprime crisis, whose victims included many smaller banks and even some big banks, but not the megabanks listed in 1983.
- However, power was exerted at the micro level as well, in the very existence of predatory lending – including much subprime lending.
- We begin with the latter, differentiating the locus and forms of power.

11. Power in Finance 2: Financial exploitation and access to credit

The locus of power:

(1) relational - unfolding within a time-using economic process, such as a borrower-creditor contract.

(2) transactional - involving only the moment of exchange.

(3) structural – arising when the outcomes of agents' interactions, whether transactional or time-using, are forced by a set of determining parameters

The nature of power in finance: Access to credit

Forms of power:

(a) exit-power (Hirschman 1970) – when one agent can undo its commitment without damaging net revenue streams, while the other agent would suffer losses from such a break.

(b) private knowledge - when one agent in a relationship or transaction has private knowledge relevant to the terms and conditions of that transaction, but the other agent does not.

(c) network power – when one agent in a relationship is more (or more powerfully) interconnected with economically-valuable external partners or activities, so that the other will suffer reduced access to other valued contacts if the link is severed.

(d) asymmetric resilience - when one agent has a greater ability to suffer losses or to renew resources.

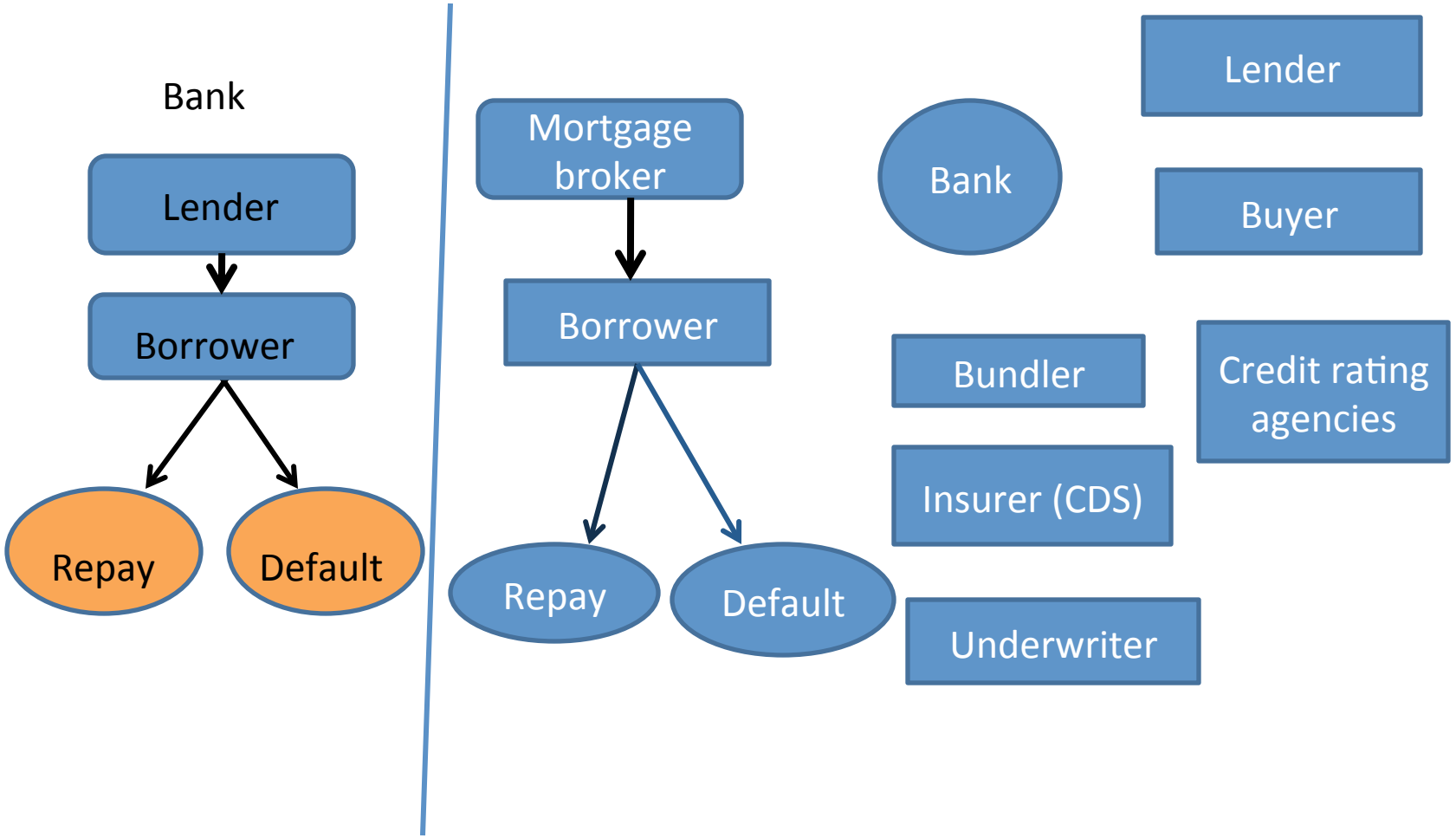
The nature of power in finance: Access to credit

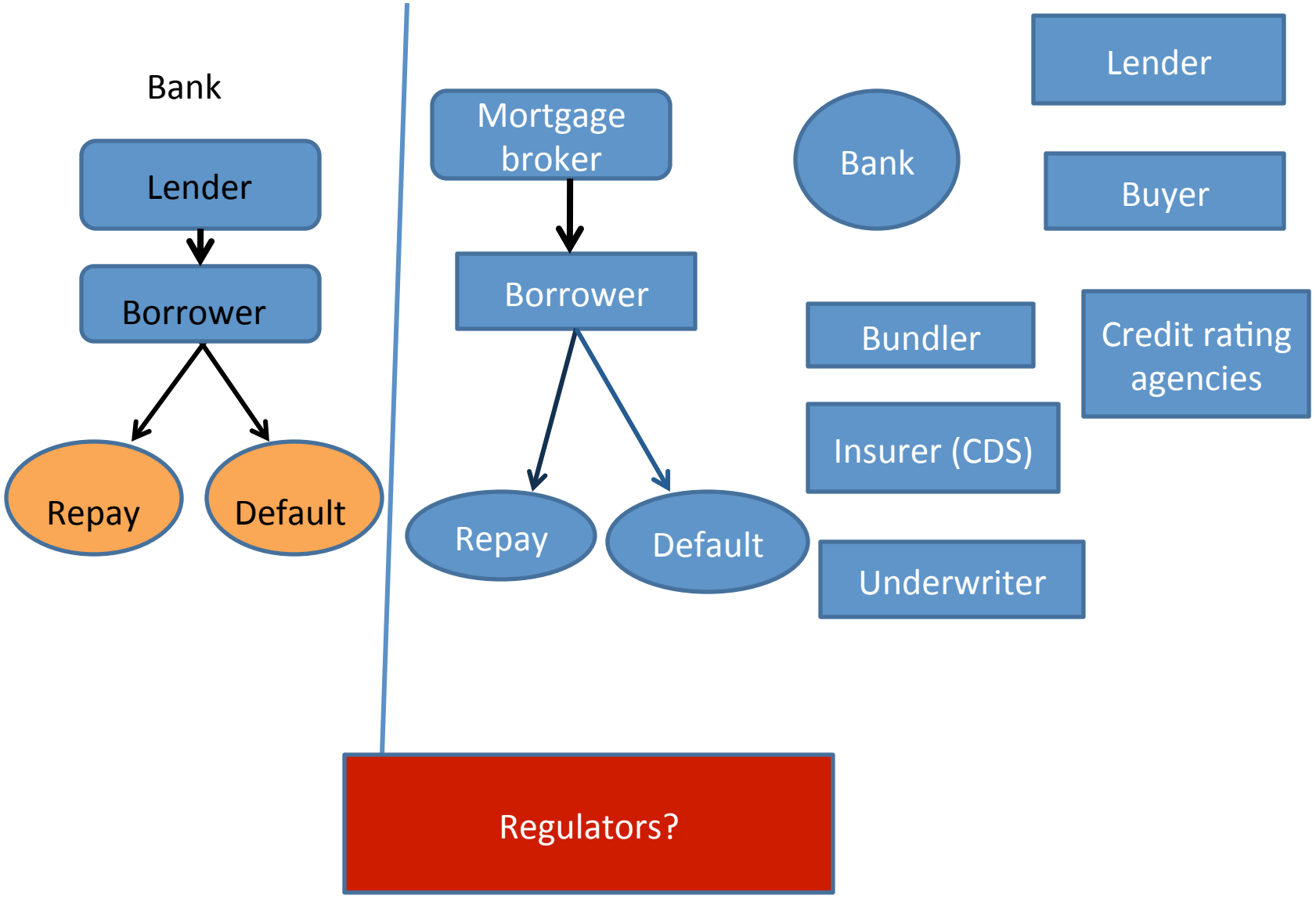
Received theory: imagines that both parties to a transaction can freely leave it; problems arise because one party has private information but no incentive to disclose it truthfully.

- This is the moral hazard situation.

- Deregulation and enhanced competition should have leveled the playing field; but it did not.

One key reason: the strategic transformation of banking, and the emergence of "originate-and-distribute" lending. This new system completely restructured lending and created a network in which power could be exercised.


Bank
Lender
Borrower
Repay
Default
Mortgage broker
Borrower
Repay
Default
Bank
Lender
Buyer
Bundler
Credit rating agencies
Insurer (CDS)
Underwriter


Bank
Lender
Borrower
Repay
Default
Mortgage broker
Borrower
Repay
Default
Regulators?
Bank
Lender
Buyer
Bundler
Credit rating agencies
Insurer (CDS)
Underwriter

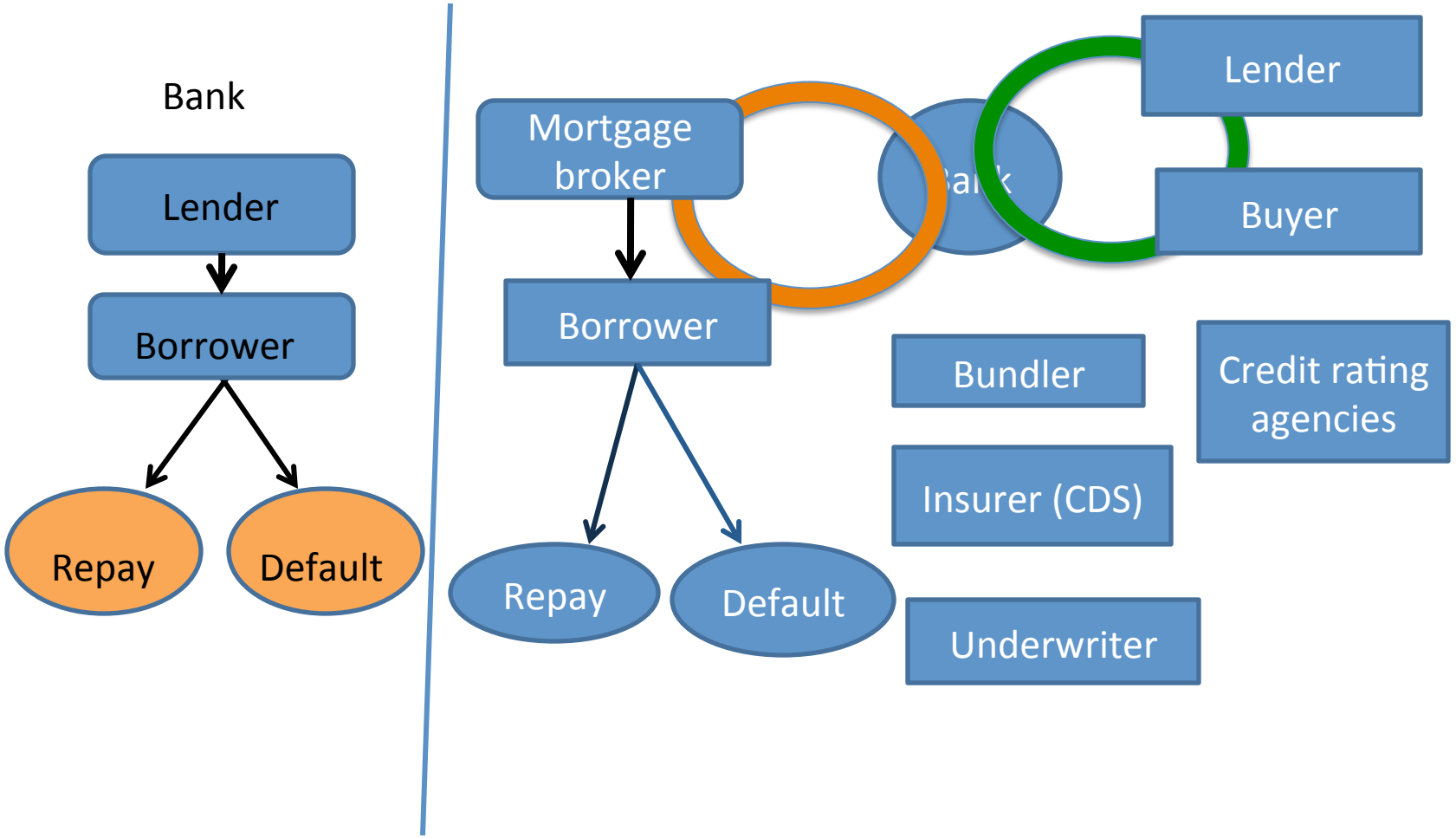
The nature of power in finance: Access to credit

The megabanks, dominant in this network system, exercised two forms of power within it:

Network-based positional power at two choke points in networks that recruit and fund [or deny] borrowers:

(i) the link between the loan brokers, finance-company workers, and loan officers who proposed loan packages to prospective borrowers (savvy/isolated borrowers);

(ii) megabanks controlled access to secondary markets for lenders and loan brokers –megabanks had informational advantages regarding underwriters' and loan distributors' risk-tolerance levels.


Bank
Lender
Borrower
Repay
Default
Mortgage broker
Borrower
Repay
Default
Lender
Buyer
Bundler
Credit rating agencies
Insurer (CDS)
Underwriter

The nature of power in finance: Access to credit

Transactions-based arbitrage power:

1. Megabanks share in the rents that lenders extracted from borrowers by charging high fees for providing securitization, underwriting, and/or servicing for these loans.
2. They exploit interest-rate differences in different locales at the same point in time, so as to earn arbitrage-based income (across borders = carry trade).

The nature of power in finance: Access to credit

Forms of power in subprime lending:

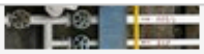
(a) exit-power – lenders/brokers over socially-excluded borrowers.

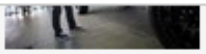
(b) private knowledge – banks/lenders over uninformed borrowers.

(c) network power – banks over brokers, insurers, and borrowers – they controlled access

(d) asymmetric resilience – megabanks were TBTF

Wall Street Journal – Brooks and Simon 3 Dec 2007



LEADER (U.S.)

Subprime Debacle Traps Even Very Credit-Worthy

As Housing Boomed, Industry Pushed Loans To a Broader Market

By **RICK BROOKS** and **RUTH SIMON**
Updated Dec. 3, 2007 11:59 p.m. ET

One common assumption about the subprime mortgage crisis is that it revolves around borrowers with sketchy credit who couldn't have bought a home without paying punitively high interest rates. But it turns out that plenty of people with seemingly good credit are also caught in the subprime trap.

An analysis for The Wall Street Journal of more than $2.5 trillion in subprime loans made since 2000 shows that as the number of subprime loans mushroomed, an increasing proportion of them went to people with credit scores high enough to often qualify for conventional loans with far better terms.

In 2005, the peak year of the subprime boom, the study says that borrowers with such credit scores got more than half -- 55% -- of all subprime mortgages that were ultimately packaged into securities for sale to investors, as most subprime loans are. The study by First American LoanPerformance, a San Francisco research firm, says the proportion rose even higher by the end of 2006, to 61%. The figure was just 41% in 2000, according to

The nature of power in finance: Access to credit

Forms of power in subprime lending:

(a) exit-power – lenders/brokers over socially-excluded borrowers.

(b) private knowledge – banks/lenders over uninformed borrowers.

(c) network power – banks over brokers, insurers, and borrowers – they controlled access

(d) asymmetric resilience – megabanks were TBTF

TBTF and the 2007-09 Subprime Crisis

- "Too big to fail" (TBTF) banking policy involves the extension of implicit public insurance guarantees to a small set of large financial institutions. TBTF policy has evolved from a tool used by government authorities to maintain financial-market stability, into a constraint imposed by a megabanking complex on financial and regulatory policy.

- Regulators and analysts favoring TBTF have attempted to draw a line between the more restricted and more expansive versions of this policy: on one hand, a guarantee that prevents bank runs, and on the other, a pre-commitment to preserve some financial firms as operational entities, no matter the economic damage their risk-taking may have caused.

TBTF and the 2007-09 Subprime Crisis

- A bank "wobble" in early 2007, then Bear Stearns failure in May-June 2007, then the collapse of the asset-backed commercial paper market (Sept 2007), Lehman Brothers in September 2008.
- Mergers to save the system: Merrill Lynch to Bank America, Wachovia to Wells Fargo.
- Inclusion of new institutions under the TBTF umbrella, by designating them as bank holding companies (Goldman Sachs, Morgan Stanley, Metlife)
- The use of TARP monies to bolster these institutions' balance sheets.
- And what has been the result? Let's go to some graphs….

Figure 5: Outstanding loans at US commercial banks, by loan category, in trillions of 2005 dollars, 1984-2011

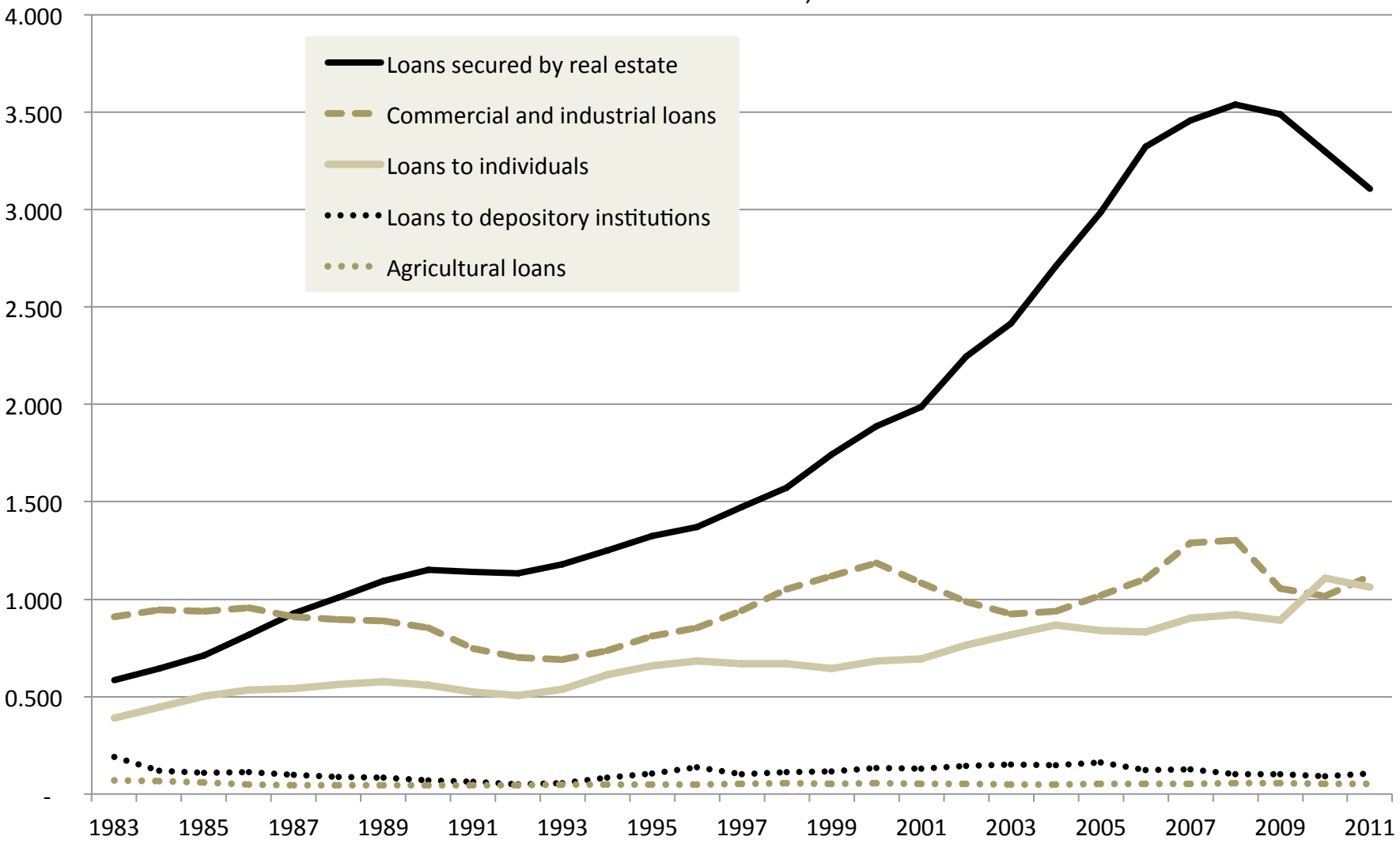


Figure 4b: Outstanding commercial and industrial loans at "Big Four" and all other US commercial banks, in trillions of 2005 dollars, 2002-2011

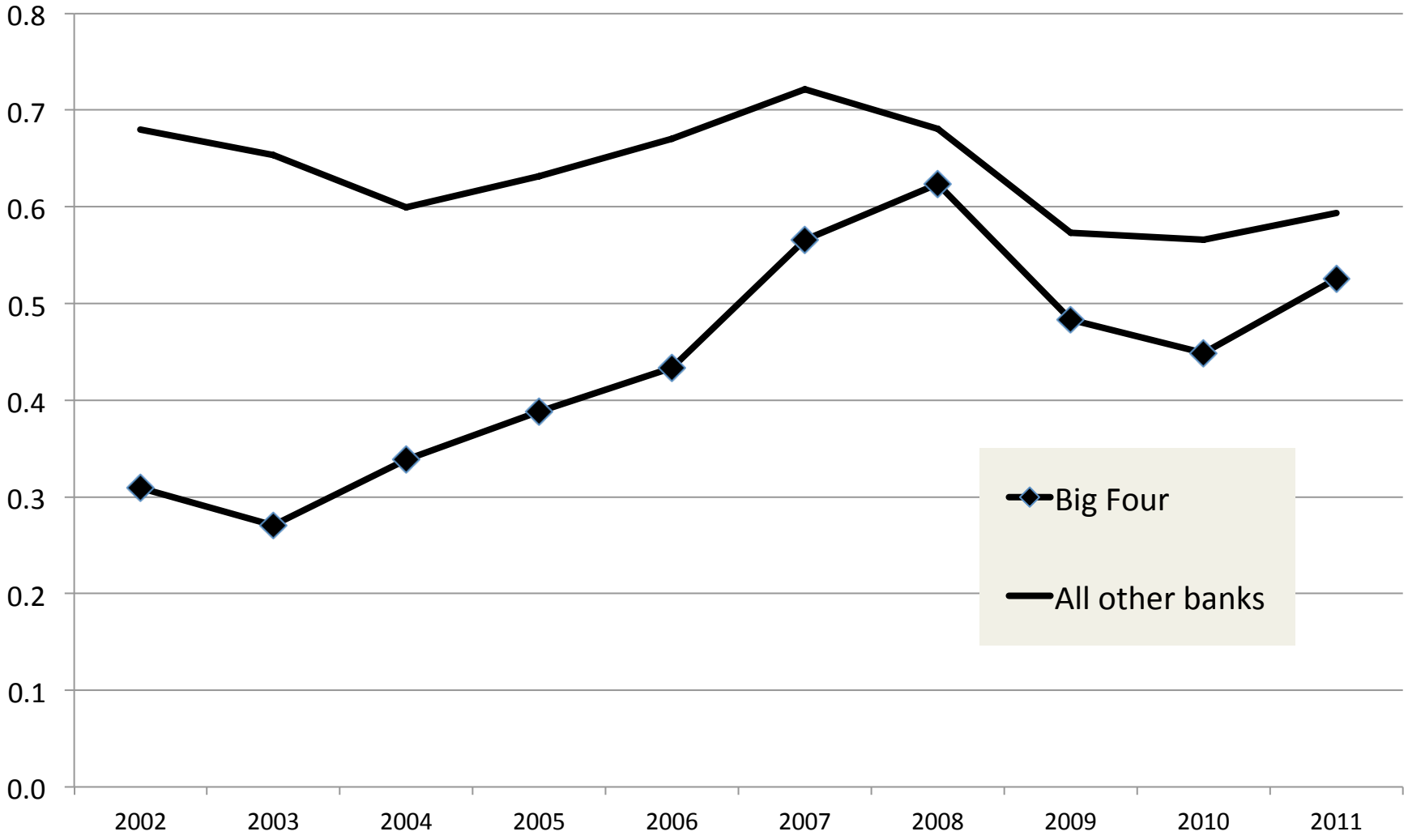
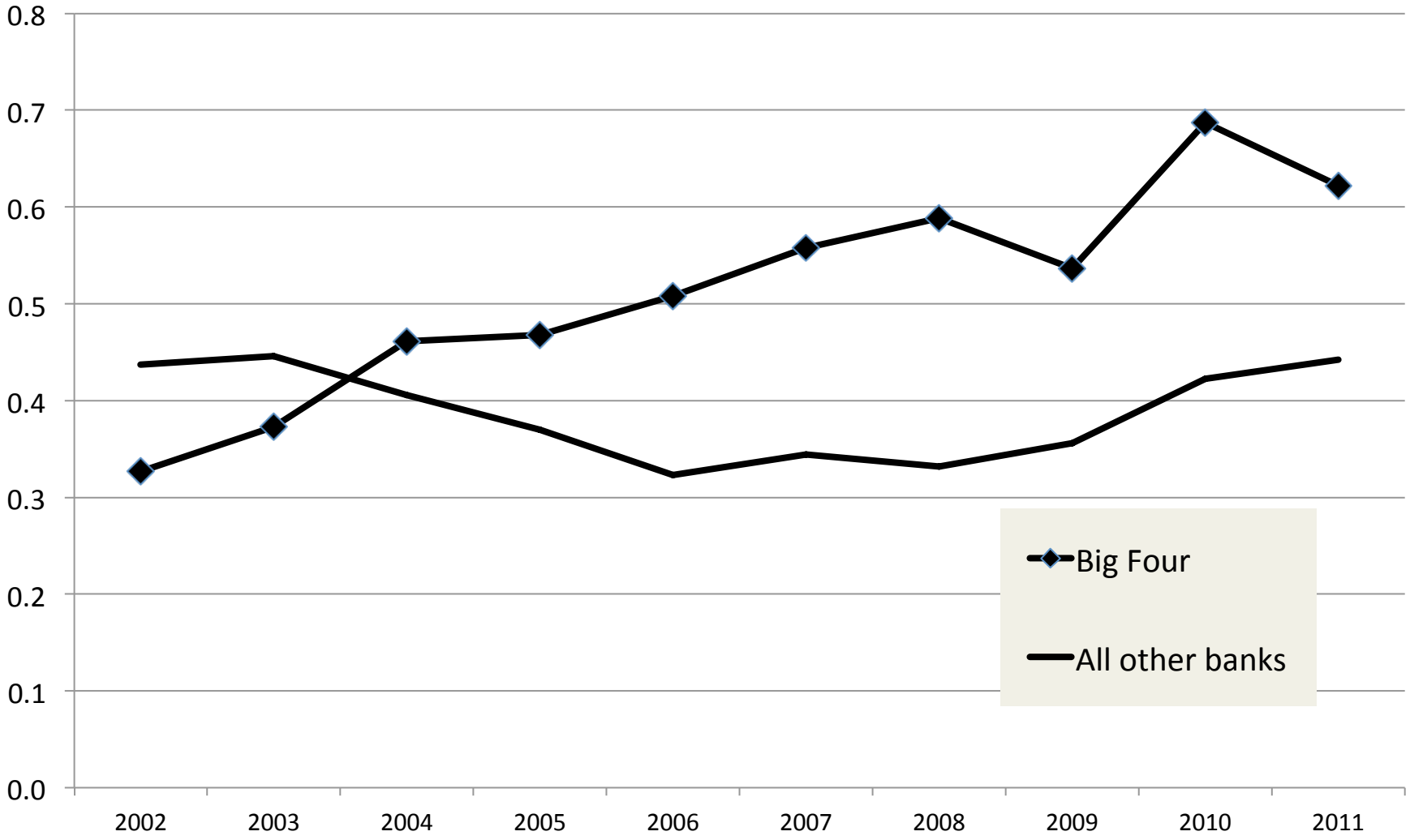


Figure 4c: Outstanding loans to individuals at "Big Four" and all other US commercial banks, in trillions of 2005 dollars, 2002-2011



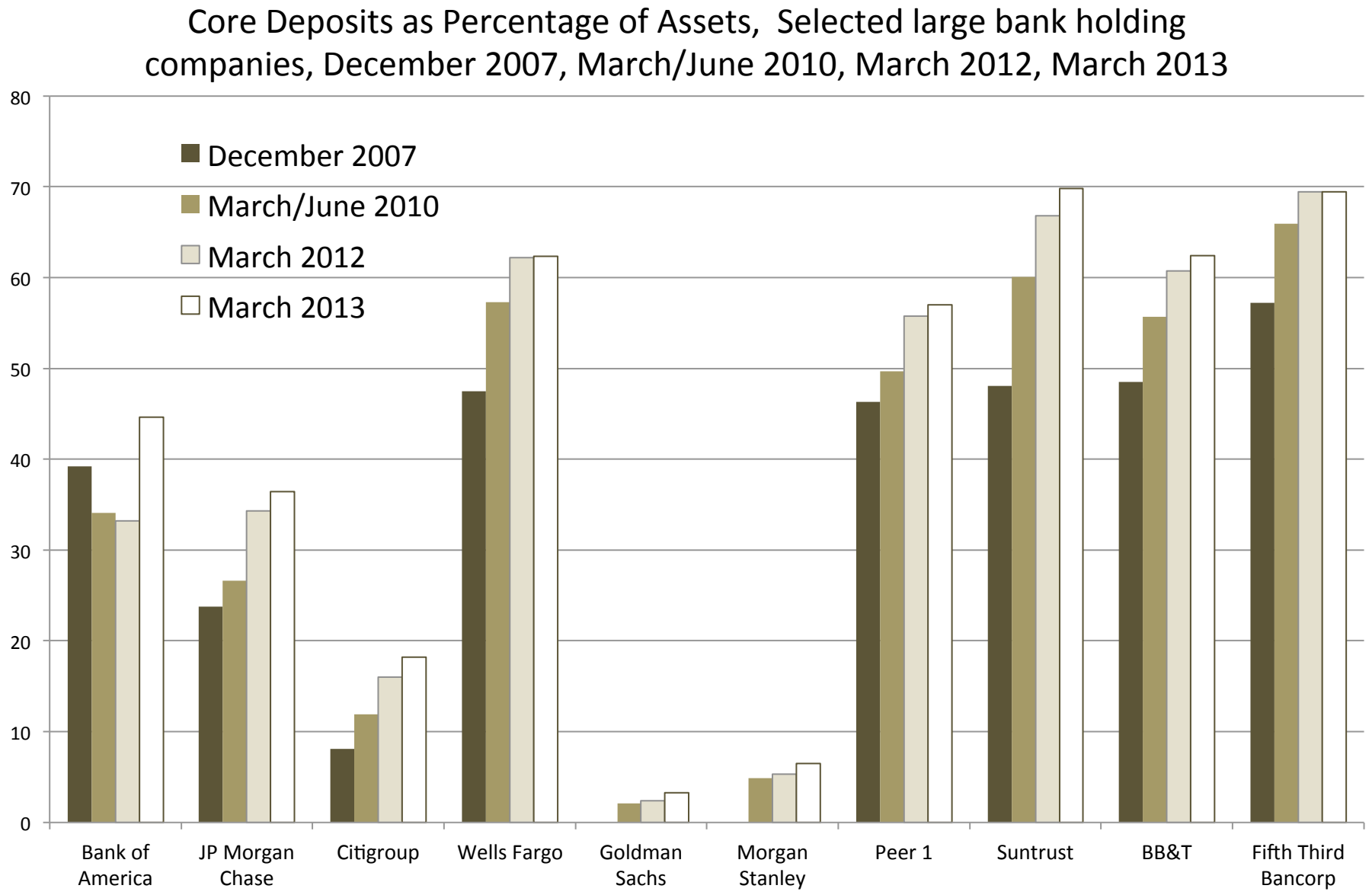

Core Deposits as Percentage of Assets, Selected large bank holding companies, December 2007, March/June 2010, March 2012, March 2013
80
70
60
50
40
30
20
10
0
December 2007
March/June 2010
March 2012
March 2013
Bank of America
JP Morgan Chase
Citigroup
Wells Fargo
Goldman Sachs
Morgan Stanley
Peer 1
Suntrust
BB&T
Fifth Third Bancorp

Figure 3: Net Loans and Leases as Percentage of Assets, Selected large bank holding companies, December 2007, March/June 2010, March 2012, March 2013

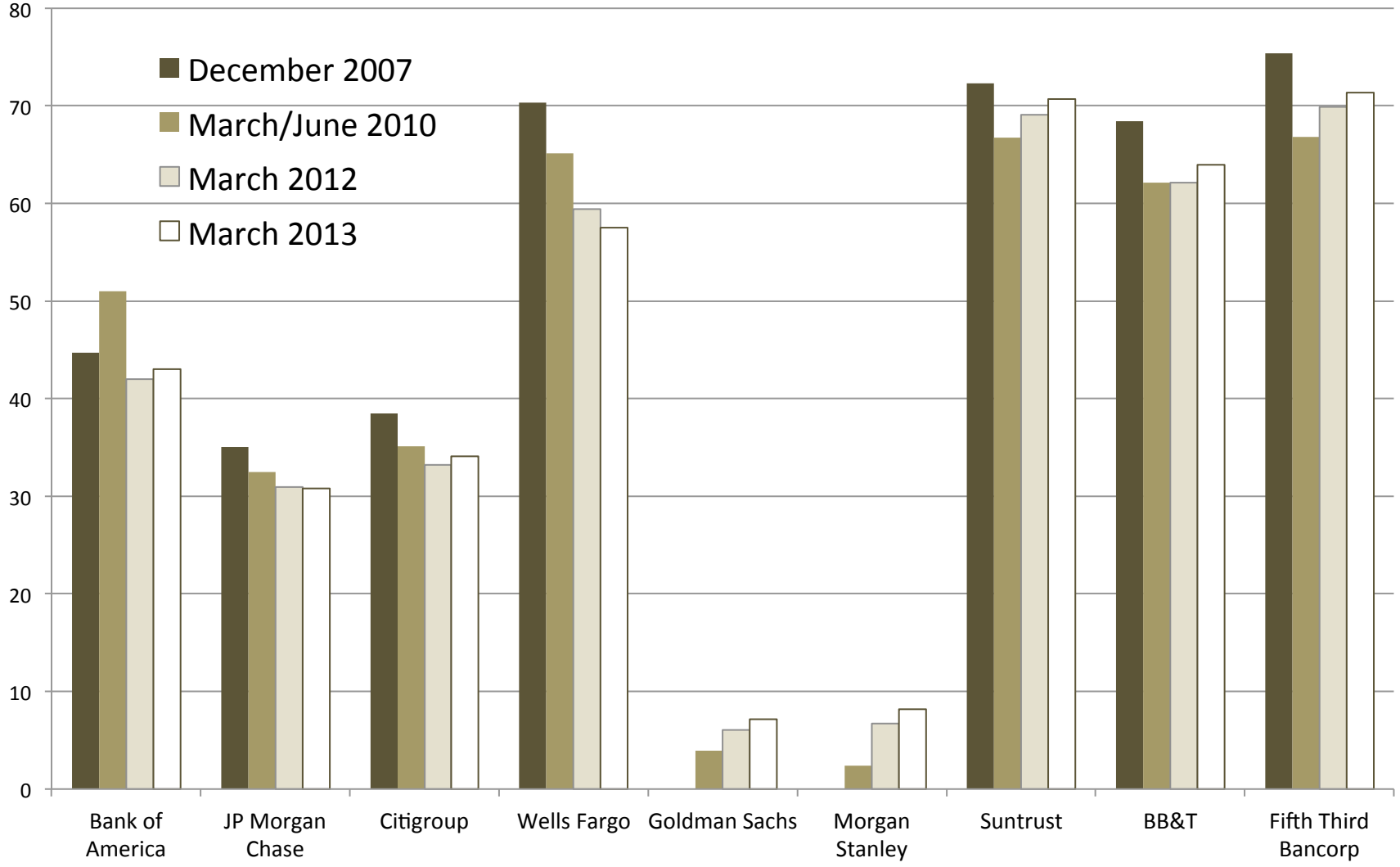
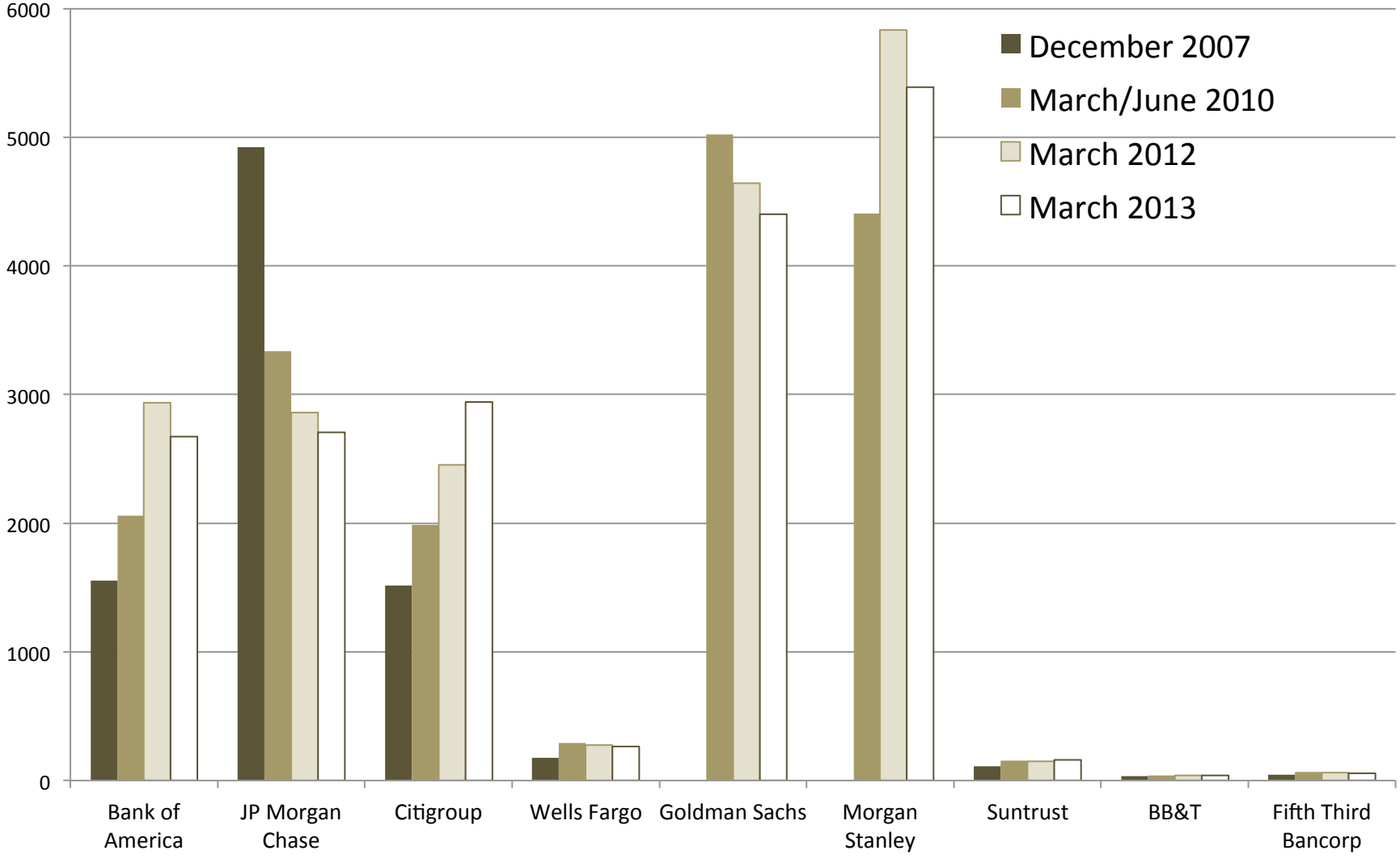
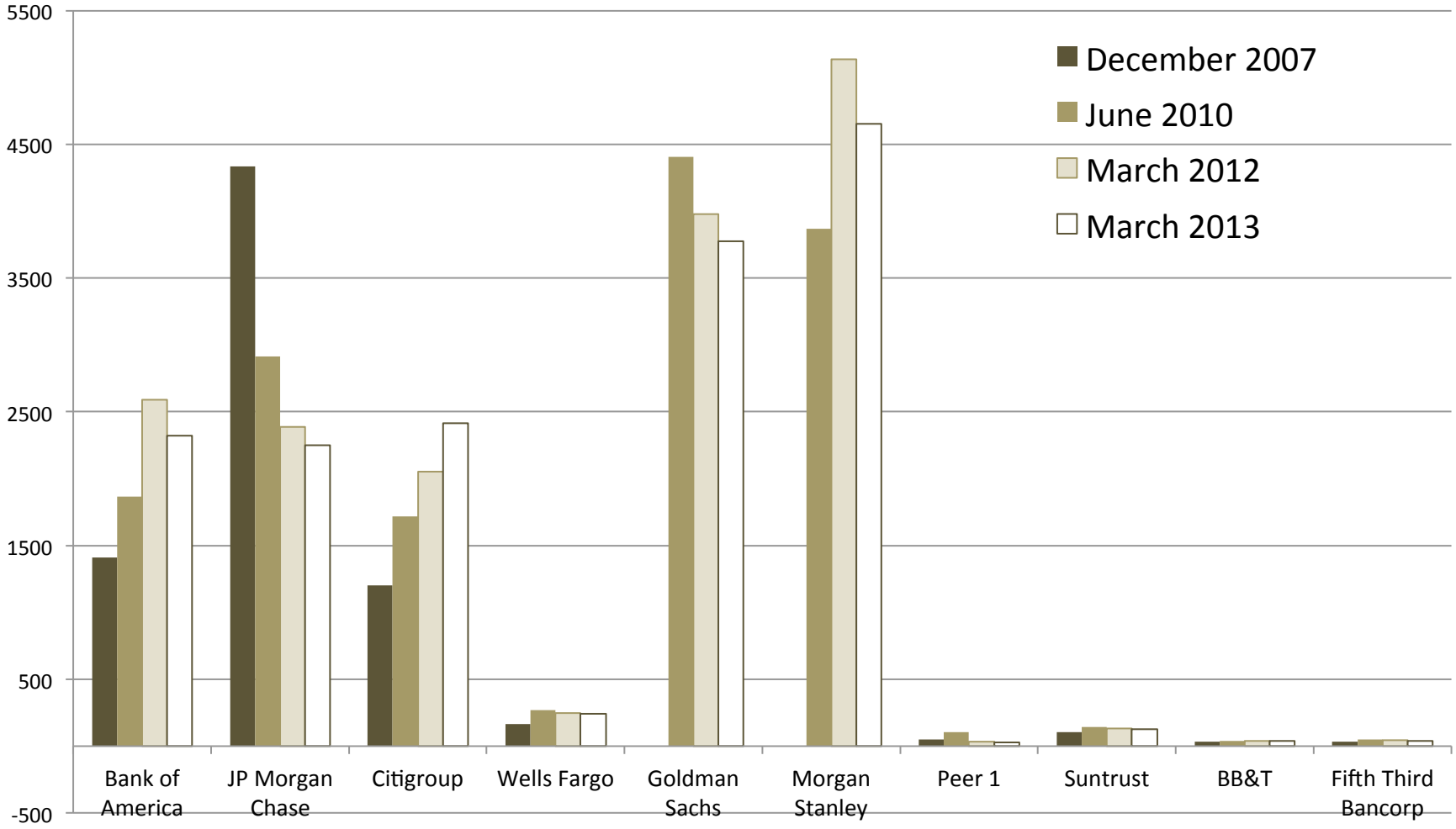


Figure 4: Derivatives as Percentage of Assets, Selected large bank holding companies, December 2007, March/June 2010, March 2012, March 2013



Interest-rate Contracts (Swaps) as Percentage of Assets, Selected large bank holding companies, December 2007, March/June 2010, March 2012, March 2013



TBTF and the 2007-09 Subprime Crisis

- The Shadow Committee has painted itself into a corner. The market-equilibrium view that constitutes its foundation has been knocked asunder. Indeed, the very definition of the term "competitive financial market" is unclear, after it was systematically weakened in defense of megafirms' right to take larger shares in ever more markets.
- The beneficiaries of expanded TBTF protection, even in their weakened post-crisis condition, have argued that financial reforms aimed at controlling systemic risk will prevent the resumption of normal loan-making activity.

- This argument fails: the economic functionality of the financial system has not been restored, and is unlikely to be if megabanks are permitted to oligopolize banking with 'light-touch' regulation.

TBTF and the 2007-09 Subprime Crisis

- Assessments of the nature of TBTF and of the threat posed by TBTF policy to financial stability and economic prosperity have lagged the institutional evolution of banking. Experts have focused largely on how TBTF interferes with market discipline, forgetting that the strategic transformation of banking has unfolded in the evolving regulatory environment created by TBTF interventions.
- Ironically, most analysts have argued until recently that overcoming the adverse consequences of TBTF is best done by giving banks maximum freedom of action, including mergers and acquisitions; yet precisely this freedom of action has permitted megabanks to create a more institutionally entrenched version of TBTF.
- A growing number of economists see the need for regulation that prevents financial firms from taking systemic risks. The question is how to put the genie back into the bottle.

12. Post-crisis pressures, debate, and reform efforts

- Pressures for reform: two Congressional investigations
- The SFRC had competition; eg., Acharya and Richardson (2009), criticizing LCFIs (large complex financial institutions):

> "The legitimate and worthy purpose of securitization is to spread risk. … But especially from 2003 to 2007, the main purpose of securitization was not to share risks with investors, but to make an end run around capital-adequacy regulations. The net result was to keep the risk concentrated [and] … at a greatly magnified level, because of the overleveraging that it allowed.
>
> … They managed to do so by getting around the capital requirements imposed by regulators—who, in turn, were hoping to diminish the chance that deposit insurance, and the doctrine of "too big to fail," might cause LCFIs to take just such risks."

Post-crisis pressures, debate, and reform efforts

What to do? Diverse views:

- "Dealer banks have been viewed, with good reason, as 'too big to fail.' The destructiveness of the failure of Lehman Brothers in September 2008 is a case in point." (Duffie 2011, page 5)
- Richardson, Smith, and Walter (2011): The only companies that can operate sustainably without triggering TBTF interventions eventually are smaller, specialized intermediaries that focus on a small set of financial functions.
- Johnson and Kwak (2010): an explicit rule limiting the size of all financial intermediaries as a share of GDP.

Post-crisis pressures, debate, and reform efforts

What to do? Diverse views:

- French *et al.* 2010 and Duffie 2011:) is to permit wide-ranging activities by financial conglomerates, but to design incentive or punishment mechanisms in the various sub-areas of financial activity to avoid dangerous excess.
- Shiller (in Kroszner and Shiller 2010): the key problem is not in the size or complexity of the firms serving the market, but instead in the structure of markets available to meet banking needs. Simplify financial contracts and establish futures and derivatives markets that allow everyday people to hedge their bets (such as a hedge against falling house prices in one's hometown)

Post-crisis pressures, debate, and reform efforts

Tim Geithner in 2008 (Sorkin 2008, *Too Big to Fail*), jogging in Manhattan:

> "Those ferries, freighted with office workers, gave him pause. This is what it is all about, he thought to himself, the people who rise at dawn to get in to their jobs, all of whom rely to some extent on the financial industry to help power the economy. Never mind the staggering numbers. Never mind the ruthless complexity of structured finance and derivatives, nor the million-dollar bonuses of those who had made bad bets. This is what saving the financial industry is really about, he reminded himself, ordinary people with ordinary jobs." (Sorkin, Chapter 17).

Post-crisis pressures, debate, and reform efforts

Dodd-Frank Act (2010) embodied these contradictory impulses; its "Volcker Rule" (no 'proprietary trading' by bank holding co's) drew a furious response by LCFIs.

Tim Geithner, then US Treasury secretary, in a banking conference at Atlanta in June 2011:

> "The US financial system is recovering because of the "tough choices we made to fundamentally restructure the system .. we put in place the reforms necessary to preserve those changes, with a better balance of stability and innovation ... The weakest parts of the U.S. financial system – the firms that took the most risk – no longer exist or have been significantly restructured.

Post-crisis pressures, debate, and reform efforts

Jamie Dimon, CEO of JP Morgan Chase, at that Atlanta conference in June 2011, confronting Treasury Secretary Geithner regarding the higher capital requirements for large banks such as Mr. Dimon's own:

> "Has anyone bothered to study the cumulative effect of all these things? .. And do you have a fear, like I do, that when we look back on them .. they will be the reason that it took so long that our banks, our credit, our businesses, and most importantly, job creation started going again?"

In May/June 2012, JP Morgan Chase lost $2 billion in unwise speculative bets in the London over-the-counter derivatives markets, resulting in a $16-billion hit to Chase's equity-market value.

Post-crisis pressures, debate, and reform efforts

The Wall Street complex, a "plutocracy" (Johnson and Kwak 2010) has not restored the economic functionality of the US financial system.

The best feasible outcome now is to defend the weak reforms of Dodd-Frank, not to unwind the complexity of a system controlled by "dealer banks."

To the contrary, Capital Markets Union in Europe and trends in emerging economies are going in the same direction.

Many economists are blind to the fact that the transformation of TBTF has been accompanied by and encouraged the transformation of banking. There are economists on both sides of these opposed views. But banks' lobbying money weighs in on only one side.