

# The Future of Financial Risk Management

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# The Future of Financial Risk Management—Why and What for

- Financial Risk Management
  - It is fueled by future needs and losses in an increasingly complex and global financial world in turmoil.
  - The lingering effects of the financial crisis have expanded to the many facets of our economy and society underlying financial trends that can alter finance as we have lived it, rendering what was unlikely, to be likely.
  - That may threaten the existence of financial markets that are essential and useful for financial liquidity and economic efficiency.

# Essential trends with critical implications to the future of finance:

- (1) A flight from risk
  - at all levels of the financial landscapes with increased indeterminacy of financial markets—no risk takers, no risk exchange
  - dominance of insurance as market making for liquidity with two implications:
    - No financial markets but risk exchange (equivalent to a barter economy !!) with risk assumed by a third party (insurer)
    - Growth of power and information asymmetry in financial markets and therefore more counterparty risk, more moral hazard
  - Banks unbridled pursuit of risk free profits remain mere marketers with rights conferred by their charter
  - Large Financial Institutions become “polluters”. They become TBTF and produce Risk Externalities (Taleb-Tapiero, 2010)
- (2) A theoretical finance threatened
  - By financial default models without clear substitutes.
  - Unpredictability of future states
  - Financial markets instability

- (3) Global Strategic Finance--An evolving multi-polar global finance with
  - Competing financial markets in conflict with intervening sovereign states (some with a political agenda).
  - Unstable financial markets (as no dominant equilibrium can be found)
  - Global Politics, Power and Populations alter the world of Finance and its risks to multi-polar financial center no longer dominated by the US
  - Environmental, Climatic Changes with risks Too Big To Bear! And Too Big to seek protection from
  - The Price of Energy ....
  - Social upheavals and a “tyranny of minorities”, consuming productive economies
- (4) Persistence of complex financial products such as in credit, insurance.
  - Lacking alternatives, they remain the essential means to provide needed liquidity. In other words, increased non transparency as they remain “difficult to regulate”
- (5) The rise of the IT financial transformation
  - A new brand of technology risks and Oprisk,
  - bypassing both regulation and conventional finance.
- (6) The growth of “Management’s risks” and their moral hazard.
- (7) etc.

# Some essential elements

## The current situation

# The Lingering effects of the financial crisis

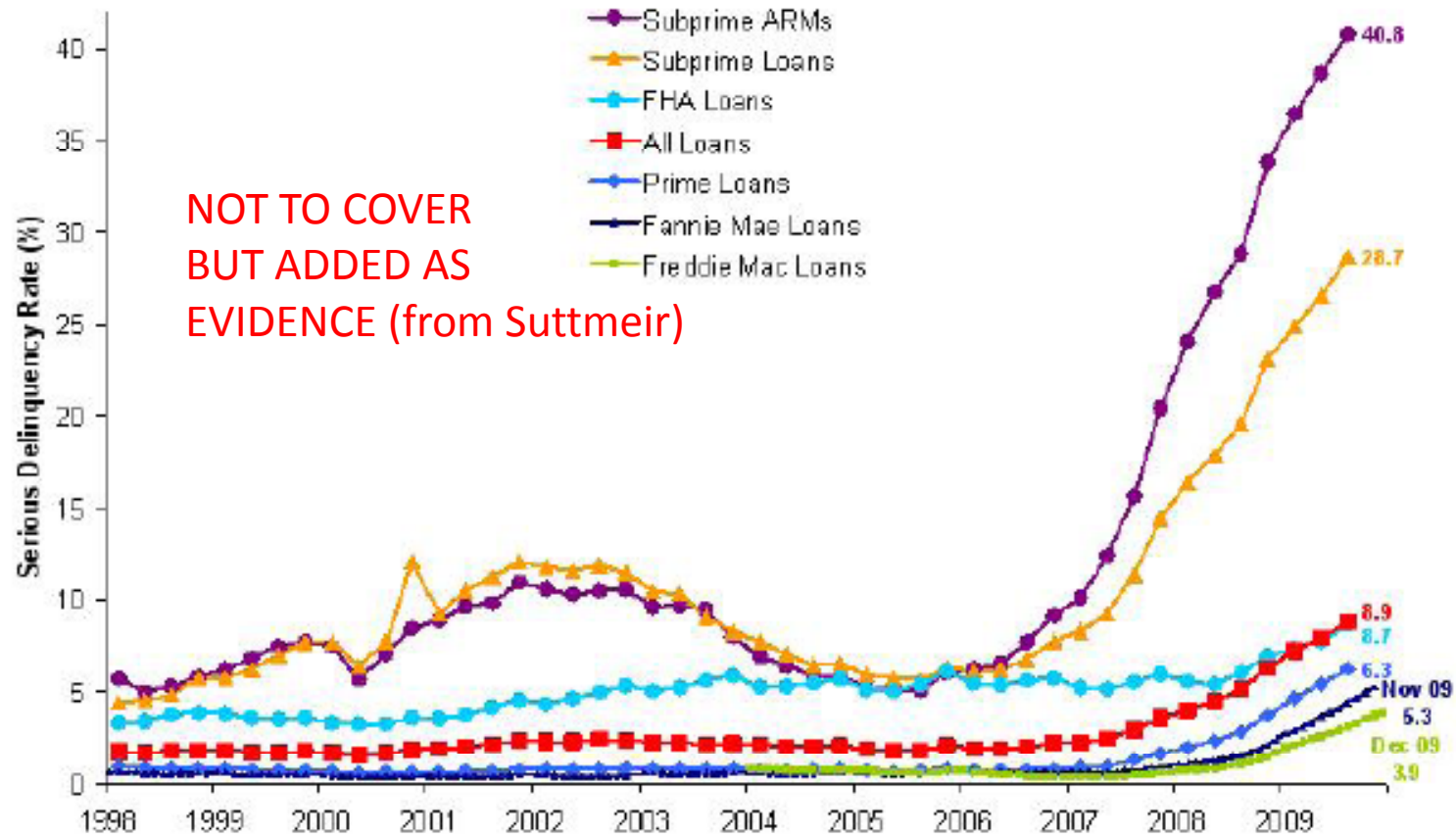
## The Current Situation

- Banks continue to fail while others have grown to be fewer and increasingly TBTF with uncontrollable powers .
- The profit share of non-producing financial firms continue to grow exponentially with no relief and FDIC overspent, Liquidity crisis continues.
- House Prices continue to decrease depleting most consumers fundamental assets
- Loan defaults continue unabated while Banks profits have returned to an exponential growth
- Government continue to overspend with China buying less US Treasury Bills and fails to pull the US out of its recession...the great danger is stagflation .... Following massive inflow of Govnmt expenditure, prices have not risen much !!! ...what does it mean?
- The stock market: uncertain and down and ups !! (not a stable and predictable market) ...

# Serious Delinquencies Rising Rapidly



Single-Family Mortgages  
Jan. 1998 - Dec. 2009



Sources: Mortgage Bankers Association, Fannie Mae, Freddie Mac.

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NOT TO COVER  
BUT ADDED AS  
EVIDENCE (from Suttmeir)

### Twelve-Month Loan Growth Rates

Percent



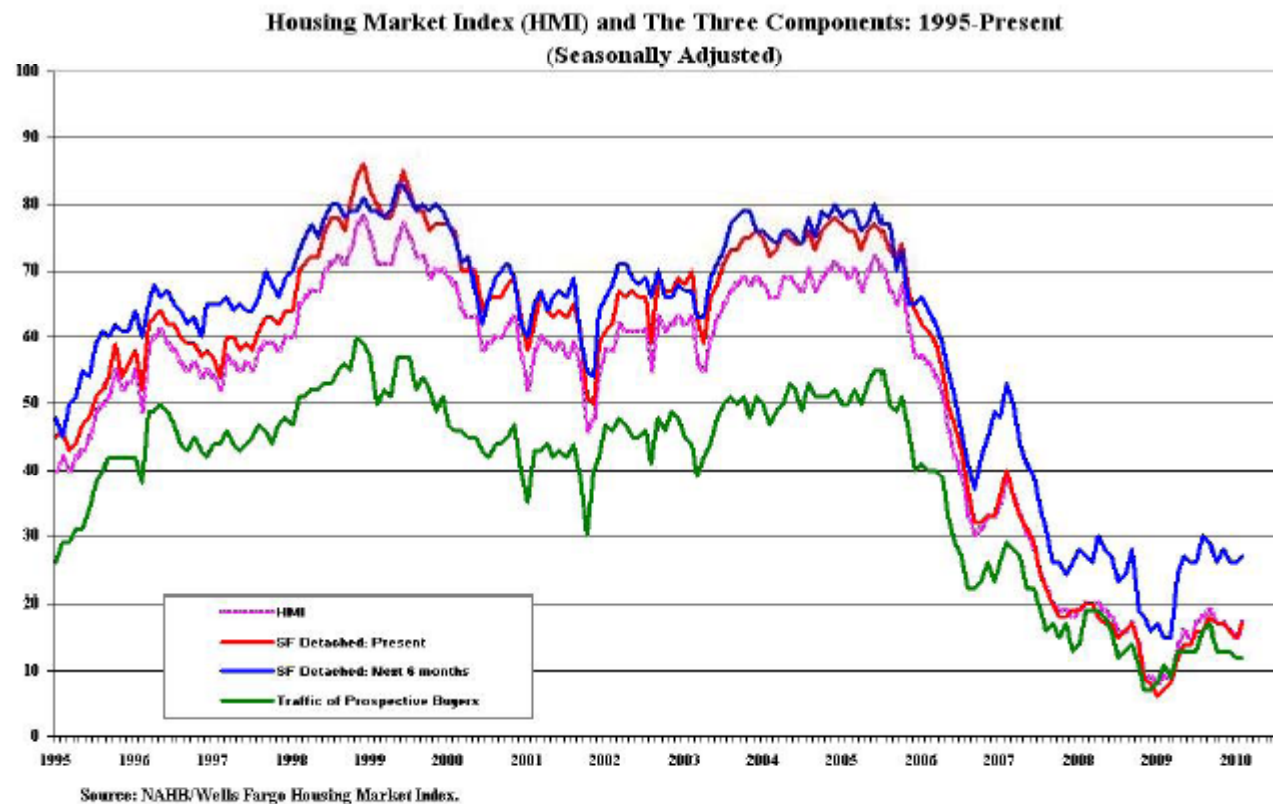
# *The Housing Index (HGX)*



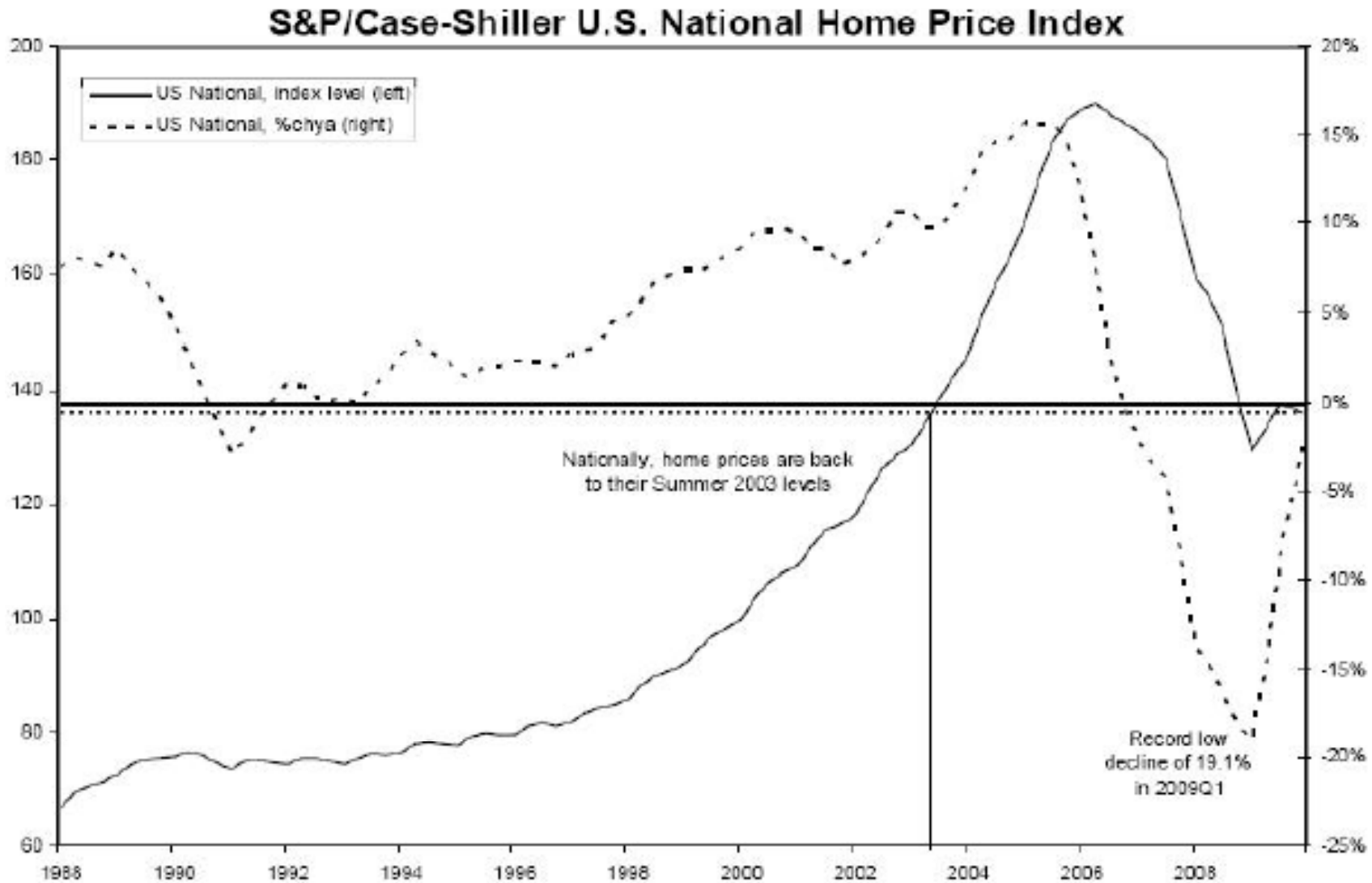
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## *The NAHB Housing Market Index*



# S&P / Case-Shiller Home Price Index



Source: Standard & Poor's and Fiserv

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 BUT ADDED AS  
 EVIDENCE (from Suttmeir)**

4/12/2010

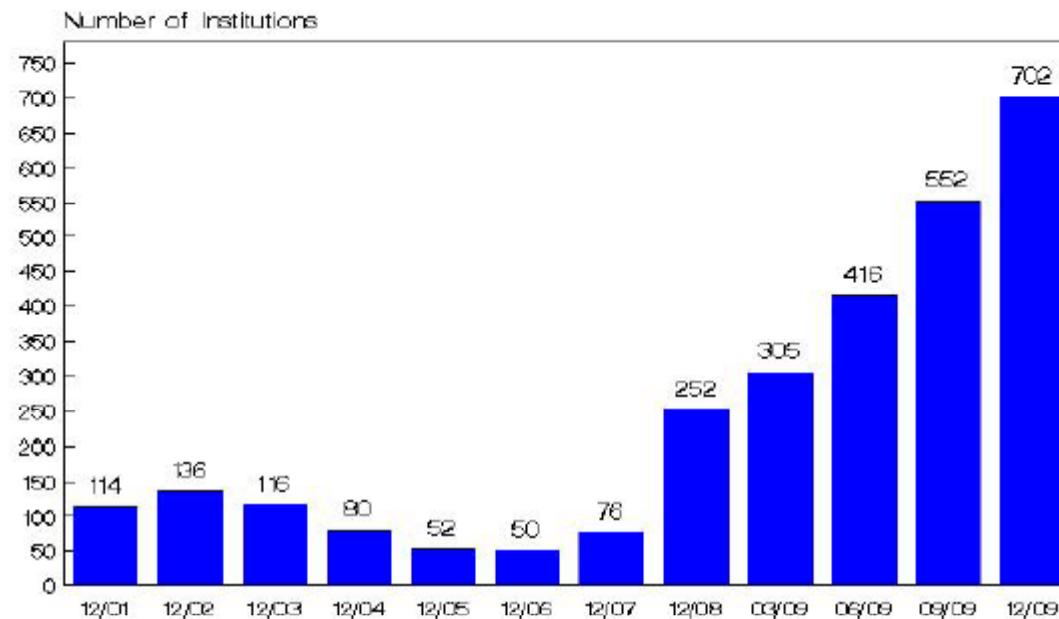
Third annual conference of the Cass-Capco  
 Institute on Risk, Cass Business School, City  
 University London

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## *The Number of FDIC-Insured “Problem” Banks Jumped 27% in the Fourth Quarter of 2009*

**Number of FDIC—Insured “Problem” Institutions**

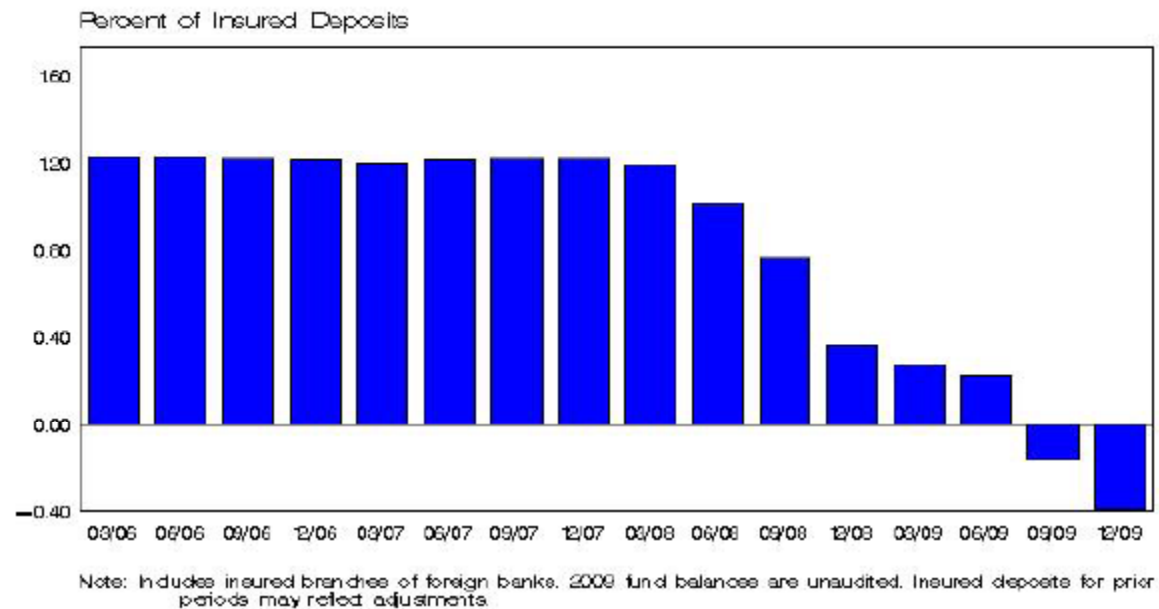
2001—2009



NOT TO COVER  
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EVIDENCE (from Suttmeir)

## The FDIC DIF is in the Hole by \$20.9 Billion

Deposit Insurance Fund Reserve Ratios  
March 31, 2006 – December 31, 2009



# How about regulation and the banking system

This is also a questionable and  
complex issue to reckon with .....

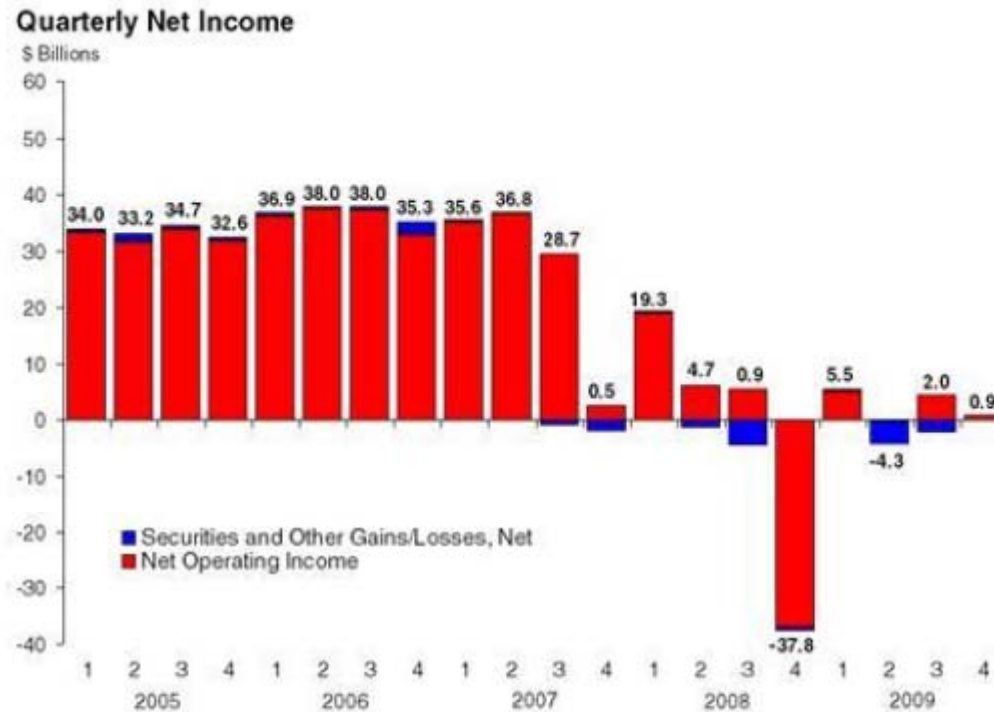
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## *ValuEngine's List of Problem Banks*

- There are 380 publicly traded banks overexposed the C&D loans, and another 372 overexposed to CRE loans only. That's 752 publicly traded banks that are candidates for the **ValuEngine List of Problem Banks.**
- Looking at all 8,012 FDIC-Insured Financial Institutions we find 1,514 overexposed to C&D loans, and another 1,312 overexposed to CRE loans only. That's 2,896 banks or 36.1% of the 8,012 at risk of failure.

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## Quarterly Net Income Continues to be Extremely Weak



# Less Banks, More Powerful

NOT TO COVER

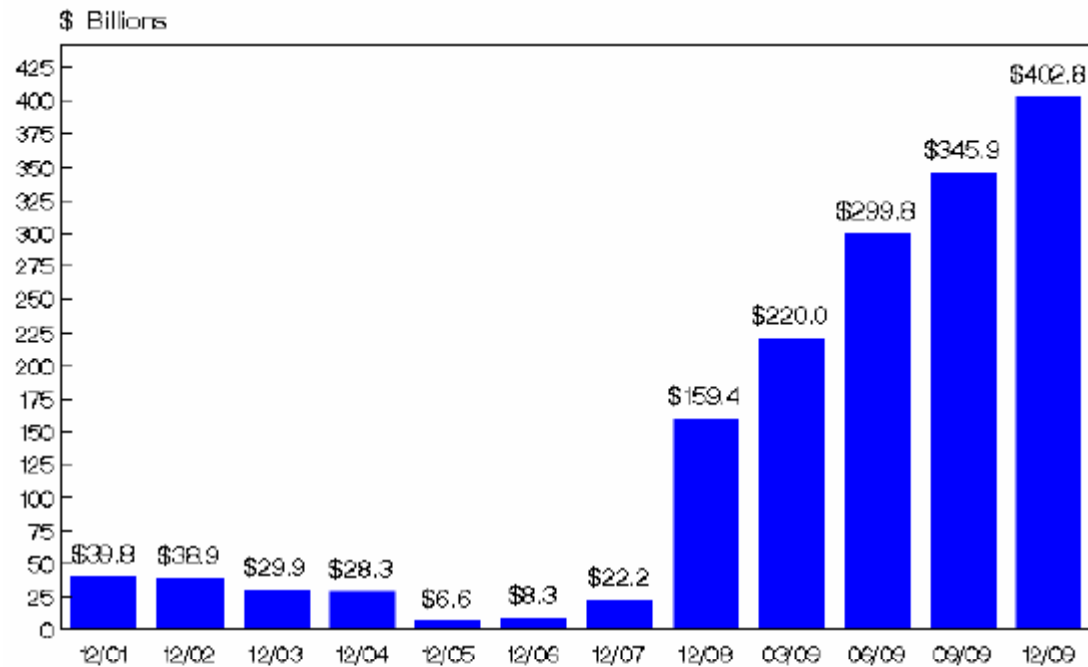
BUT ADDED AS

EVIDENCE (from Suttmeir)

*Assets Among the 702 Problem Banks is on the Rise*

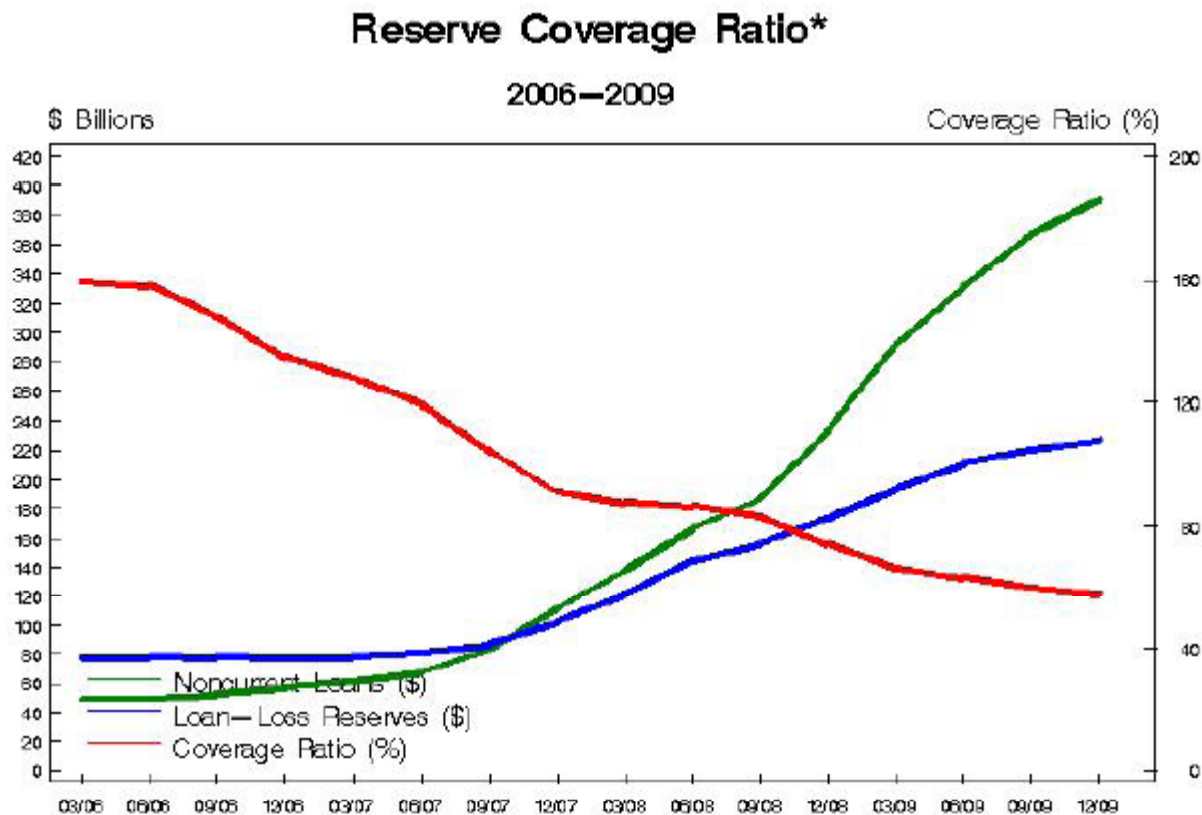
**Assets of FDIC—Insured "Problem" Institutions**

2001—2009



NOT TO COVER  
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## Reserves for Losses – not Keeping Pace with Non-Current Loans

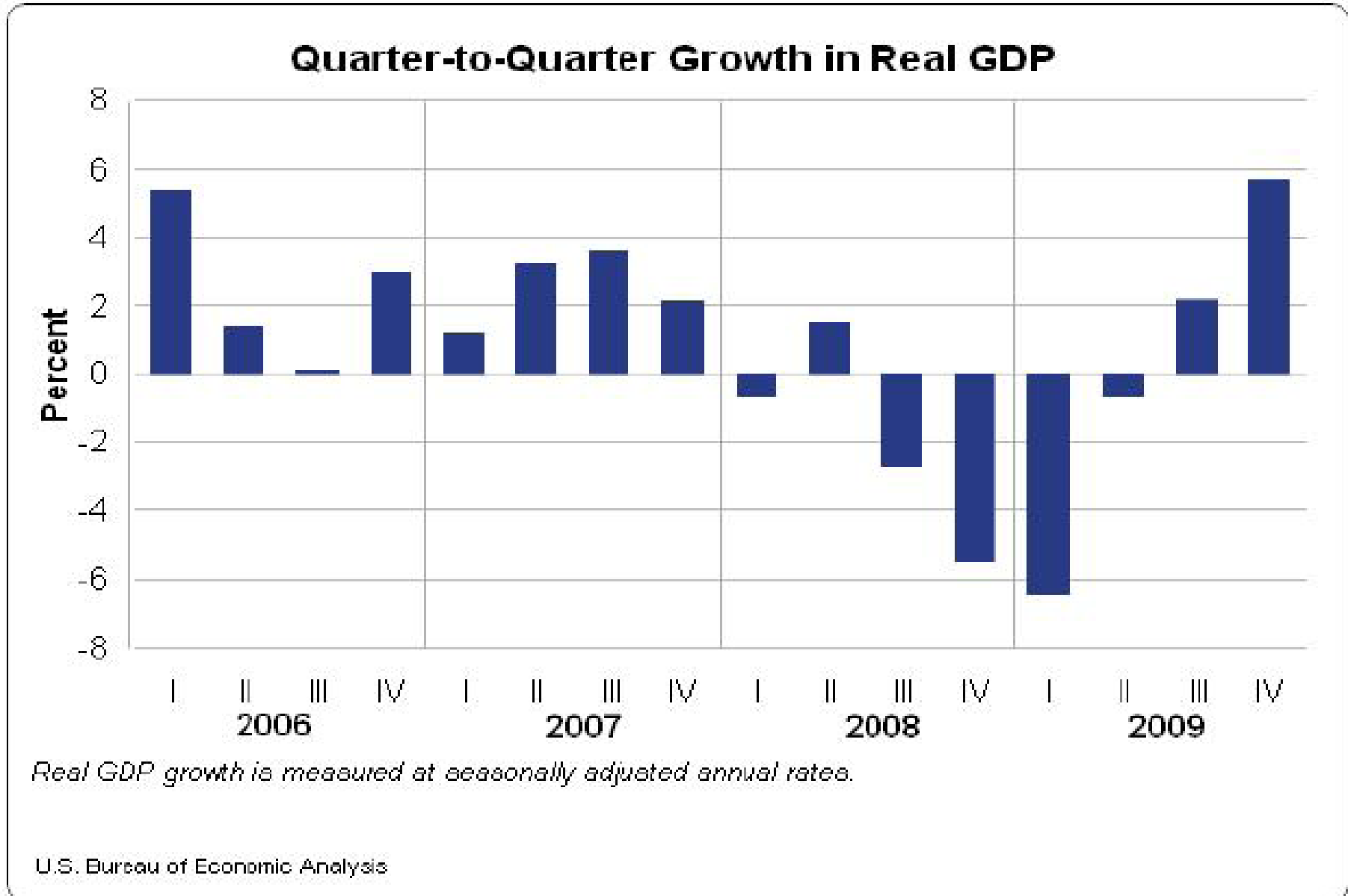


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## Sequential Deterioration in Key Asset Categories

	Q3 2009	Q4 2009	\$ Change	% Change	% YOY
Total assets	13,246,624,000	13,109,456,000	<b>-137,168,000</b>	<b>-1.0%</b>	<b>-5.3%</b>
1 - 4 Family residential mortgages	1,927,878,000	1,916,714,000	<b>-11,164,000</b>	<b>-0.6%</b>	<b>-6.3%</b>
Nonfarm nonresidential	1,090,000,000	1,091,386,000	1,386,000	0.1%	2.4%
Construction and development loans	492,995,000	451,511,000	<b>-41,484,000</b>	<b>-8.4%</b>	<b>-23.6%</b>
Commercial Loans	1,275,341,000	1,220,793,000	<b>-54,548,000</b>	<b>-4.3%</b>	<b>-18.3%</b>
Home equity loans	667,473,000	661,445,000	<b>-6,028,000</b>	<b>-0.9%</b>	<b>-1.0%</b>
Credit cards	392,971,000	422,095,000	29,124,000	7.4%	<b>-5.1%</b>
Totals Loans	5,846,658,000	5,763,944,000	<b>-82,714,000</b>	<b>-1.4%</b>	
Notional amount of derivatives	206,393,163,000	213,568,137,000	7,174,974,000	3.5%	0.7%
Courtesy of the FDIC					

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# FRM: What are the challenges?

## Challenges are Strategic

- FRM is tailored to protect one party against financial consequences ..... It may become more often than not, **strategic**, i.e. one party at the expense of the other (a zero sum game!!)
  - For example, protecting banks at the expense of their depositors or vice versa (through regulation)
  - Protecting the State at the expense of persons, corporate and productive entities and financial firms. Or vice versa!!!
  - Protecting persons??? How... by increasing or limiting choices ...
- FRM is therefore strategic, balancing competitive and conflicting needs with a profusion of moral hazard and adverse selection
- Implications ... to FRM are: \* Regulation with implied Political and implied social agenda \*\* Methodological (theoretical and empirical)

# FRM Methodological Challenge: Unpredictability and Black Swans

- The financial crisis has revealed what we should have expected, namely:
  - That the future may be unpredictable.
  - Non-transparency, complexity and ambiguity have also conjured with greed to induce “Management Risks” as being able to derail financial predictability and sustainability.
  - Financial models are not efficient as Bear Stearns and Lehman Brothers’ demise can testify. For example, off-balance sheet accounting, not derivatives (nor the use of securitization), have contributed to exuberant risk taking that resists regulation.
  - Financial firms have used their being “a locus of uncertainty absorption” (in the words of Herbert Simon), being at all the kernels of financial markets to become TBTF and producing risks for which they do not assume responsibility (Taleb/Tapiero, 2010)
- The first and most important collateral damage has been the loss of market liquidity with all its economic implications

# To appreciate the complexity of risks

- External risk? Can be rare, consequential, but occurring more often than our memory will let us believe!
- Endogenous and systemic risks? Occur due to the complexity of FM, non-transparency, globalization, moral and hazard risks, ....
- Dependence increases in everything and everywhere .... The World has moved from being Global to being a Global Village
- Our search for simplicity and predictability can be self-defeating

# FRM Challenges...Flight from risk, negation of finance ...back to a barter exchange

- The flight from risk implies that neither buyers nor sellers want to assume risks. This is particularly true for financial institutions that have assumed too much risk more by miscalculating or awareness of their investment and operational strategies.
- Agents (management) and principals (stock holders) used tools to justify the remuneration of agents have contributed to nonaligned, “agents’ risks”. These have contributed to an “unintended remuneration structure” resulting in immense agents risks with agents turning to be principal as well. (With principal turning away from these agents, losing faith in the structure of financial institutions)
- As a result: Investments (long) out, profits (short) up and through trades only...long run sacrificed by the short run.
- Conservative trading or long policies usually important for market stability become unsustainable

## FRM Challenge...Multi-Polarity in financial markets, political and geographical

- If the world loses faith in our financial markets, multi-polar, competing and strategic financial markets, resistant proof to regulation will necessarily thrive.
- Thus we will have created a finance “enslaved” by global TBTF firms that have no boundaries and no rules except the making of profits or enhancing their political agendas.
- Multipolarity also exists politically and geographically ... In the US, the left and the right pursuing each their own contradictions.

# What can FRM do ???

How can it change??

# FRM ...is more or less is needed?

- Regulation, what does it mean? Whom to protect? The Good, the Bad and the Very Ugly? “Local Regulation” will not counter systemic risks or Black Swan effects
- Better measurement-predictors of future ills, their analysis, ... for what purpose if the predictable is no longer relevant??
- Preventive-ex-ante FRM ...same ...what we can predict we can account for, what we cannot predict is what is important.
- This is not a new phenomenon. An ancient Greek school of thought claimed that future manifestations are unknown and unlikely—events are certain to occur but are unpredictable”. For this reason, VaR and market pricing techniques while “good” in “normal times” were unable to meet consequential risks. These failings may prove to have far reaching consequences.
- Yes--Recovery and Ex-post FRM designed to confront and overcome predicted risks can be useful. They may be pointless however since the risks that primarily matter most are unpredictable. In a predictable framework, there are no future risks, since their present costs can be accounted for and mitigated in the present, while risks that matter, are unpredictable. Recovery, is not only assets but overcoming!

# FRM's search for "Certainty" may be a mistake!!

- Traditional FRM techniques fueled by a need for "certainty" combined with an intolerance of ambiguity seeks to simplify-and over-simplify, everything.
- This will not provide any safety.
- Further, finance without risk is its own contradiction.
- In the credit risk and derivative debacle, financial managers have removed uncertainty through "certainty" models when risks were latent everywhere—in collaterals and financial products over rated and thereby "overpriced". "Information and ratings" contributed further to certainty and were tailored to meet corporate needs rather than be objective information sources.
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# A “more of the same” FRM...

- Will lead to more of the same.
- Tomorrows “losses”, with
  - far reaching strategic,
  - systemic and
  - risk externalities
- require therefore something else.

# What does it require?

## Towards a new focus

- A concern for the unlikely;
- Managing liquidity to be in tune with leverage risks
- Emphasize ex-post recovery, robustness and built-in abilities to overcome duress and
- Contain and confine financial IT risks.
- At the same time, confront the effects of the finance safety-net (TBTF) on the real sector and the consequences of flight-from-risk on needed investments.
- Finally, mitigate the “Integrated” and CEO-support essential to FRM that risks to be subjugated to the same engines of destruction that has emphasized the here and now at the expense of the thereafter.

# On theoretical side

- Awareness of lacunae in our financial models to value, price and hedge.
- While fundamental theories have served us well when financial markets are predictable, they fail in turbulent, complex, rare and unpredictable times.
- An effort to meet the many challenges of incomplete markets finance
- Perhaps the concept of a stable financial equilibrium is more harmful than useful (a discussion of mathematical implications)

# FRM: Tailored to needs not to methods

## Risk/Parties/Types/Multiple risks/dependence

Risk and Tools	Financial Parties	Risk Types
Ex-Ante	Personal	External, hazards, dependent risks
Ex-Post	Institutional Finance	Externalities (systemic)
Strategic	Sovereign	Endogenous
Robustness	Global	Systemic

# Galaxy of Risks



(Partial listing)



# Financial Future and Implications for Financial Risk Management

## SUMMARY ...Needed a Comprehensive FRM

Financial Future	FRM Implications
Flight from risks	Insurance-finance primes, insurance firms become market maker, banks are marketers, counterparty risks
Global and competitive multi-polar financial markets	Financial instability, dollar sub-primed, political conflicts,
IT finance risks	Moral hazard, financial individuation, financial litigation
Complete markets dogma threatened, complex credit and financial products innovation, default models.	Regulation, moral hazard, liquidity supply challenges, Mispricing, regulation, OTC, recurrent financial markets crises, liquidity crises
Management's risk, TBTF	Growth of moral hazards, Too To Big to Bear systemic risks and risk externalities