

GSE Nation: How Bailouts and Nationalization Change the US Banking Model

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Shattered Consensus

- Global financial markets have seen the consensus with respect to pricing and risk management of many complex financial instruments and even generic corporate debt collapse.
- Why? Untimely adoption of fair value accounting (FVA), a lack of transparency in OTC markets, excessive leverage -- all stem from failure by Congress and federal regulators to supervise and limit financial “innovation.”

Lessons of the Crisis

- Price \neq Value
- Markets are neither complete nor stable
- Investors/markets are rational until they are not

Consequences of the Crisis

- Dozens of banks and non-bank financial firms have failed and/or been purchased in the past 18 months. Several primary dealers have been merged into other dealers, including Bear Stearns, Lehman Brothers, Merrill Lynch, and Countrywide.
- GSEs placed into a conservatorship. Washington Mutual resolved via receivership and sale to JPM wiping out parent company shareholders, creditors. Wachovia sold to Wells Fargo in open bank deal.

Consequences of the Crisis

- The Federal Reserve System has expanded its balance sheet to over \$2 trillion dollars to support markets from commercial paper to interbank loans. Likely to swell further in near term as liquidity role increases.
- Markets for low-risk assets from municipal bonds to commercial paper to conventional mortgage pass-through paper disrupted due to continued uncertainty about price vs. “value” and reluctance of firms to place capital at risk.

Government Intervention

- The US Treasury has taken hundreds of billions in equity stakes in several dozen US commercial banks and, along with the Fed of NY, owns a majority interest in AIG.
- These equity stakes allow Treasury to modify corporate compensation and effectively force participating banks to lend and take other corporate actions. Large portion of US banking assets, deposits now “at play” politically.

Washington's Heavy Hand

Example: The share purchase agreement used for these transactions gives the Treasury the power to unilaterally amend in the future any provision in the Agreement to conform with future changes in law that Congress enacts.

5.3 Amendment. No amendment of any provision of this Agreement will be effective unless made in writing and signed by an officer or a duly authorized representative of each party; *provided* that the Investor may unilaterally amend any provision of this Agreement to the extent required to comply with any changes after the Signing Date in applicable federal statutes. No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative of any rights or remedies provided by law.

Where Are We in the Credit Adjustment?

- Our view of the US banking and credit sectors is that the credit adjustment process is nearing half way.
- Subprime collateral will see loss rates peak in 2009, while losses for prime, high yield and C&I categories likely to peak in 2009-2010 timeframe.
- Loss rates, NPLs reported by US banks in Q3 2008 continue to climb rapidly. Provisions flowing into loan loss reserves at more than 2x current charge-off rates.

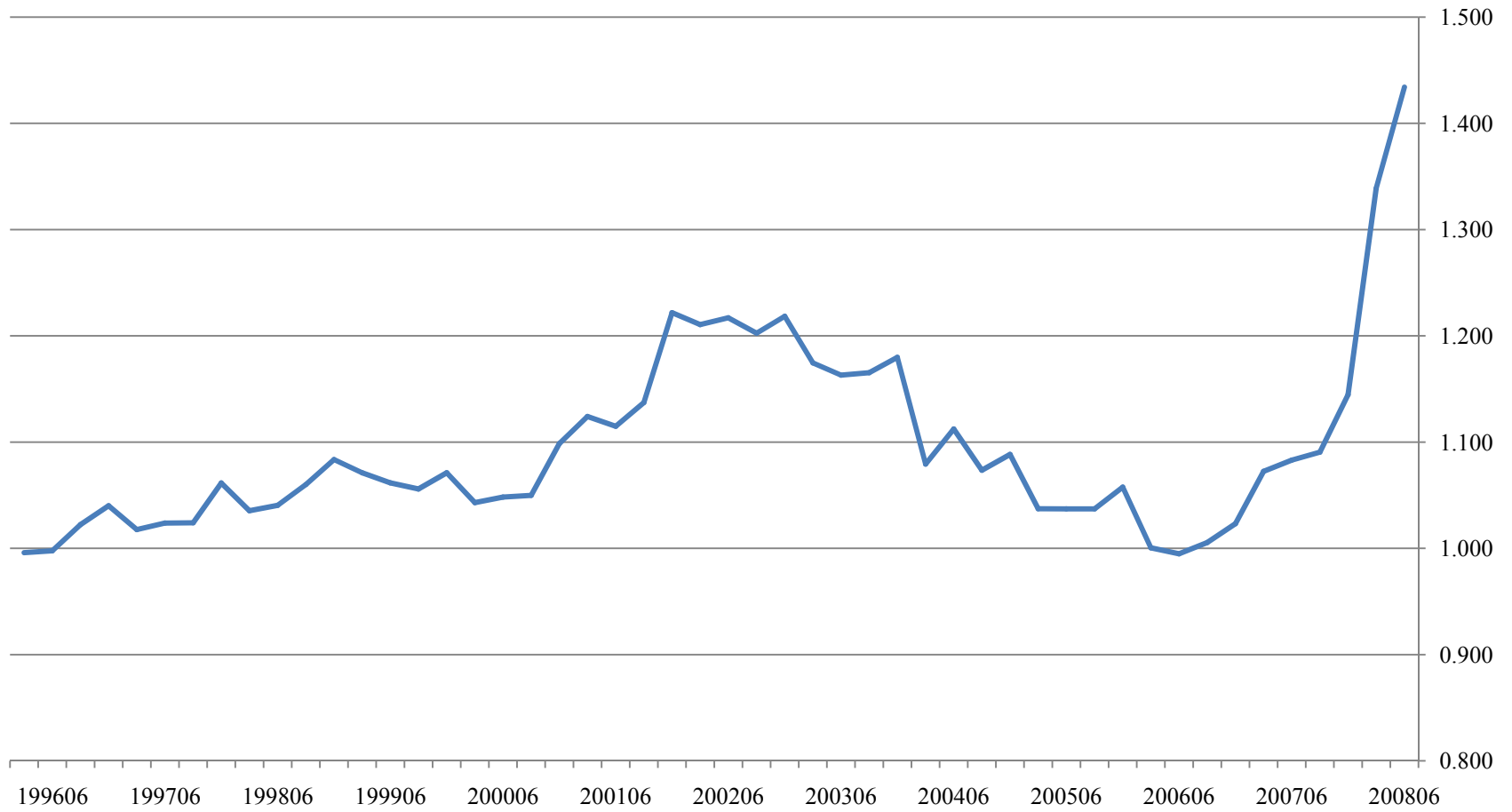
Where Are We in the Credit Adjustment

- The first portion of the crisis, starting from the collapse of New Century Financial early in 2007, was about recognition of economic loss, mostly due to effect of and reaction to FVA.
- Second phase of the crisis is more focused on loss realization, that is, sale of distressed assets and the charge-off of bad or doubtful credits. Large portion of subprime paper remains on the books, however.

Where Are We in the Credit Adjustment?

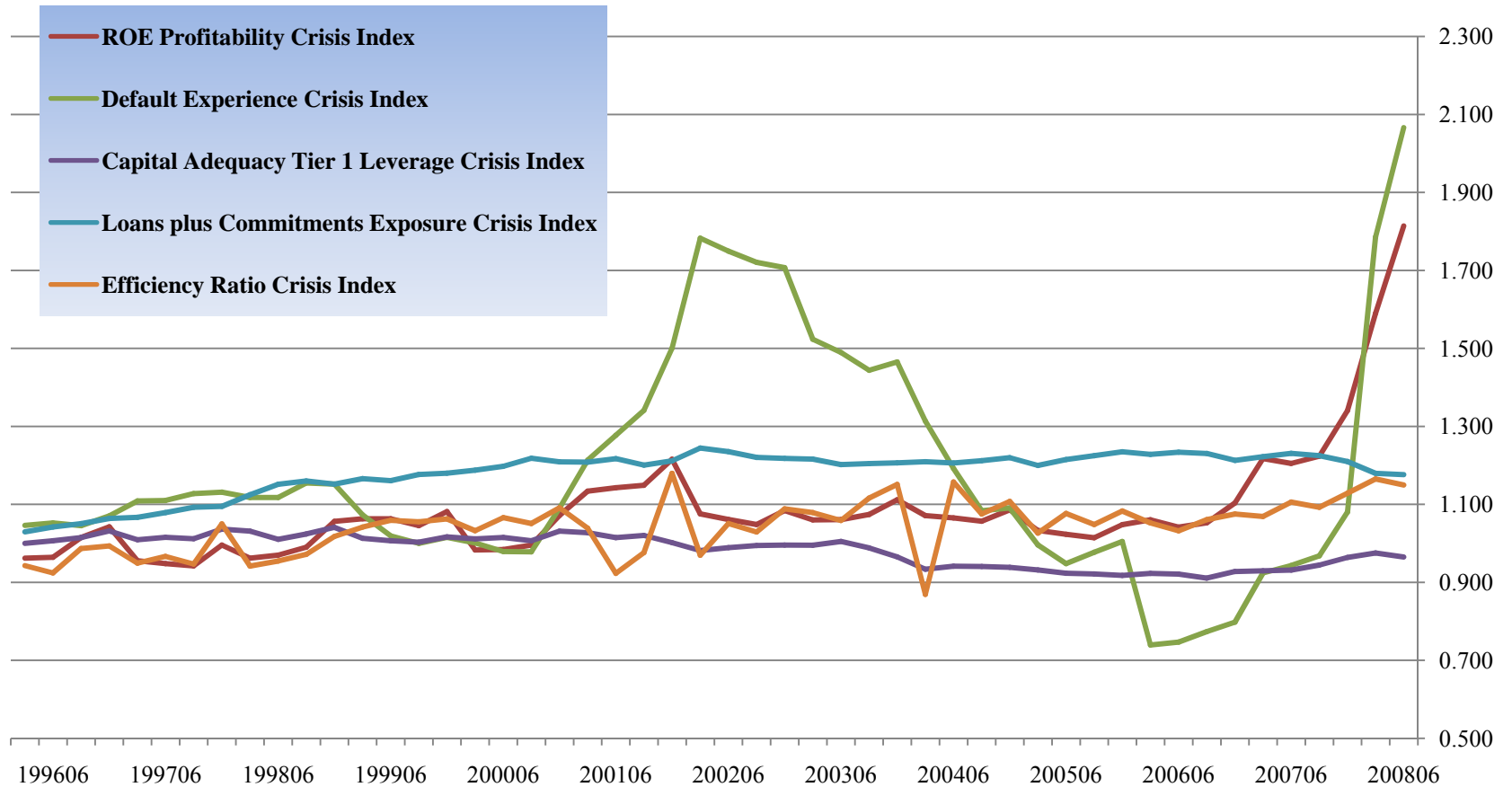
- Third phase of the crisis involves a broadening of losses from asset classes such as mortgages and financials into a more general credit loss peak cycle affecting entire economy.
- Before new lending can occur, funding needs for financial institutions are going to be dominated by first loss absorption, then reserve/capital replacement, and finally funding payouts on OTC derivatives contracts.

Credit Crisis Index



Source: FDIC/IRA Bank Monitor

Banking Stress Indices

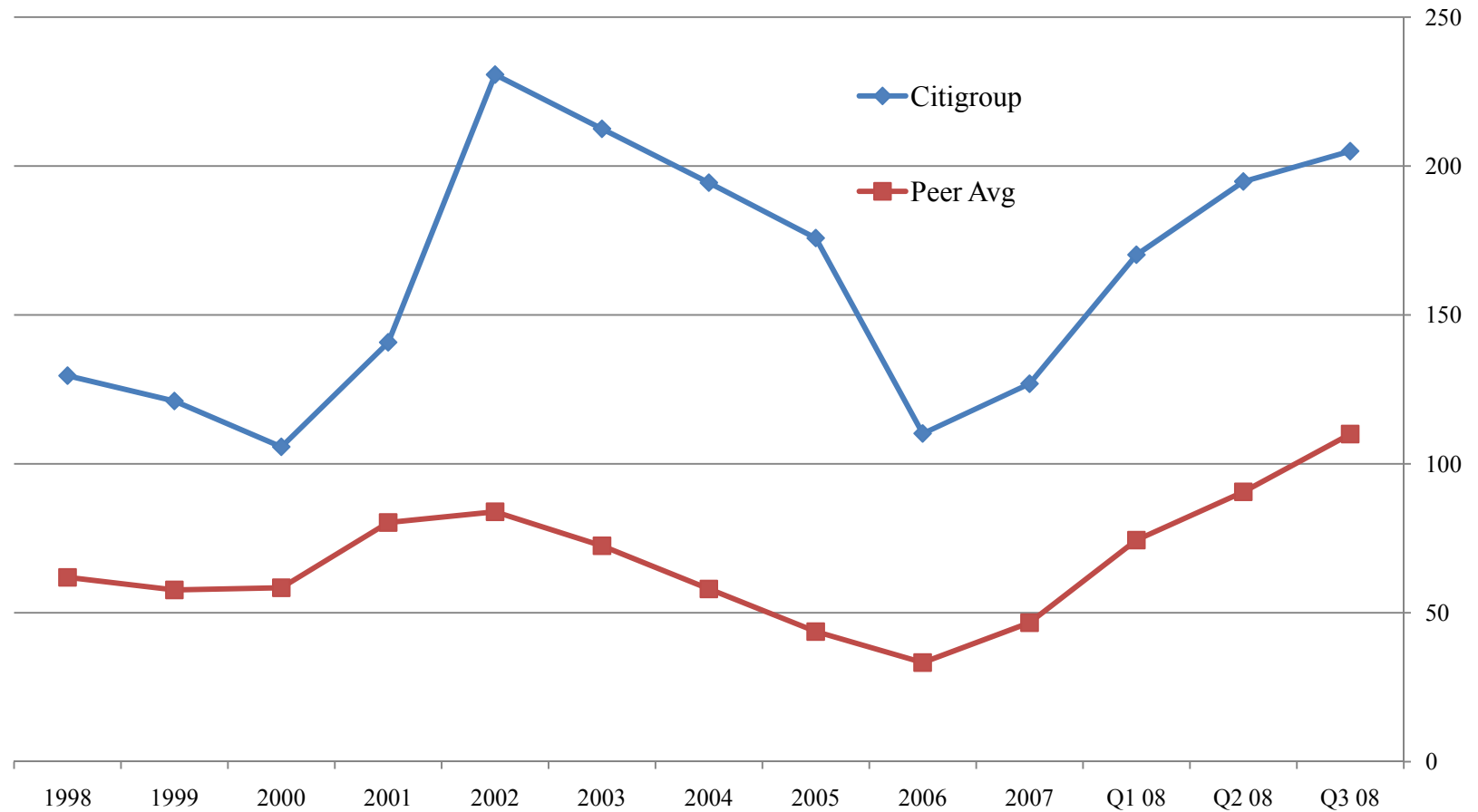


Source: FDIC/IRA Bank Monitor

Outlook for 2009

- We expect to see charge-offs by all US banks peak in Q2 2009, but timeframe could be affected or the duration of peak losses experienced lengthened by worsening economic trends.
- Depending on severity of recession, bank loss rate peak in 2009-2010 could exceed loss rates seen in 1990-91 recession by 1.5 to 2x in our worst case scenarios.
- Big Q: Will skew up in losses be as severe as skew down in risk indicators over past five years?

Gross Defaults: Citi vs. Peers (bp)



Source: FDIC/IRA Bank Monitor

Outlook for 2009

- A loss rate peak in the 2x 1990-91 range implies that additional capital injections may need to be made into some of the largest banks, beyond investments to date.
- In this event, Washington may be in explicit control of a large portion of US banking assets, raising public policy question of how to best liquidate stake.
- Breaking up larger institutions may be best course for industry in terms of competition, safety and soundness.

Near Term Outlook/Issues

- Outlook & Issues for the US Banking Industry
- First, how do we address the immediate problem of fear of counterparty risk among banks? What steps need occur to address fear of failure?
- Second, what model of market structure should private institutions, exchanges embrace and advocate in dialogue with regulators, politicians?

Immediate Issue: Unwind the OTC Leverage Pyramid

- One factor driving the continuing CP risk fears and thus the need for government capital support of large banks is stress caused by on and notional off-balance sheet obligations. As notional become real, payments must be funded à la AIG's CDS sinkhole.
- The full weight of the funding required to liquefy/subsidize OTC credit default and other derivatives – illustrated by AIG rescue -- still not acknowledged publicly by Fed, G-7 central banks. This liquidity drain suggests the fourth leg of the crisis, namely unwind of derivatives.

CDS & Counterparty Risk

"NOTHING the Government does will work until they get rid of these nightmares. Letting credit default swaps ("CDS") redefine insolvency as failure to post collateral means systemically critical counterparties such as Lehman Brothers or Bear are certain to fail once they wobble and, even worse, that there will be NOTHING LEFT for traditional creditors (including commercial paper) when they do. This has seized up the money markets, which no longer function without government assistance. This means the Government picks winners and losers, encourages investors NOT to underwrite and incents those "chosen" to sit on the money they can raise and keep credit velocity at zero. As long as CDS exist in bilateral form there is structural uncertainty in what it means to have a balance sheet. For everybody. CDS should be DOA."

A reader of The IRA
November 17, 2008

CDS Overhang & Liquidity Risk

- There are some \$50 trillion in outstanding CDS contracts. As default rates rise and these heretofore little understood or noticed instruments go into the money and must be funded, demands for liquidity will grow significantly.
- The threat from CDS is not from a default-type event as many fear, where a netting agreement fails, but rather in the normal operation of this market as with AIG, Lehman. Payout of extant CDS at face value suggests vast liquidity requirement for financial institutions/markets.

Resolving OTC Hangover: Quick or Slow

- AIG Model: Muddle along, borrow money from the Fed & Treasury, try to buy-back CDOs upon which AIG wrote CDS protection. A death by a thousand cuts, CP risk issues remain unresolved as some OTC derivatives are honored at face value while others fester.
- Bankruptcy Model: Put AIG into a bankruptcy and force all CDS holders to accept negotiated “tear up” of extant contracts under authority of the bankruptcy court. Use this as template for wider mandatory exchange program to buy-in OTC derivatives and CDOs at discount.

Resolving OTC Hangover: Quick or Slow

- We may need an asset purchase program after all. Instead of voluntary program allowing banks to tender assets to the Treasury, Congress should legislate a mandatory exchange program to remove all of the extant CDS and complex structured assets from the global financial system.
- So serious and enduring are the negative effects of OTC financial instruments such as CDS, CDOs and other complex structured assets, that only way to save the patient and restore function to global economy and financial system is mandatory surgery – cut the cancer out.

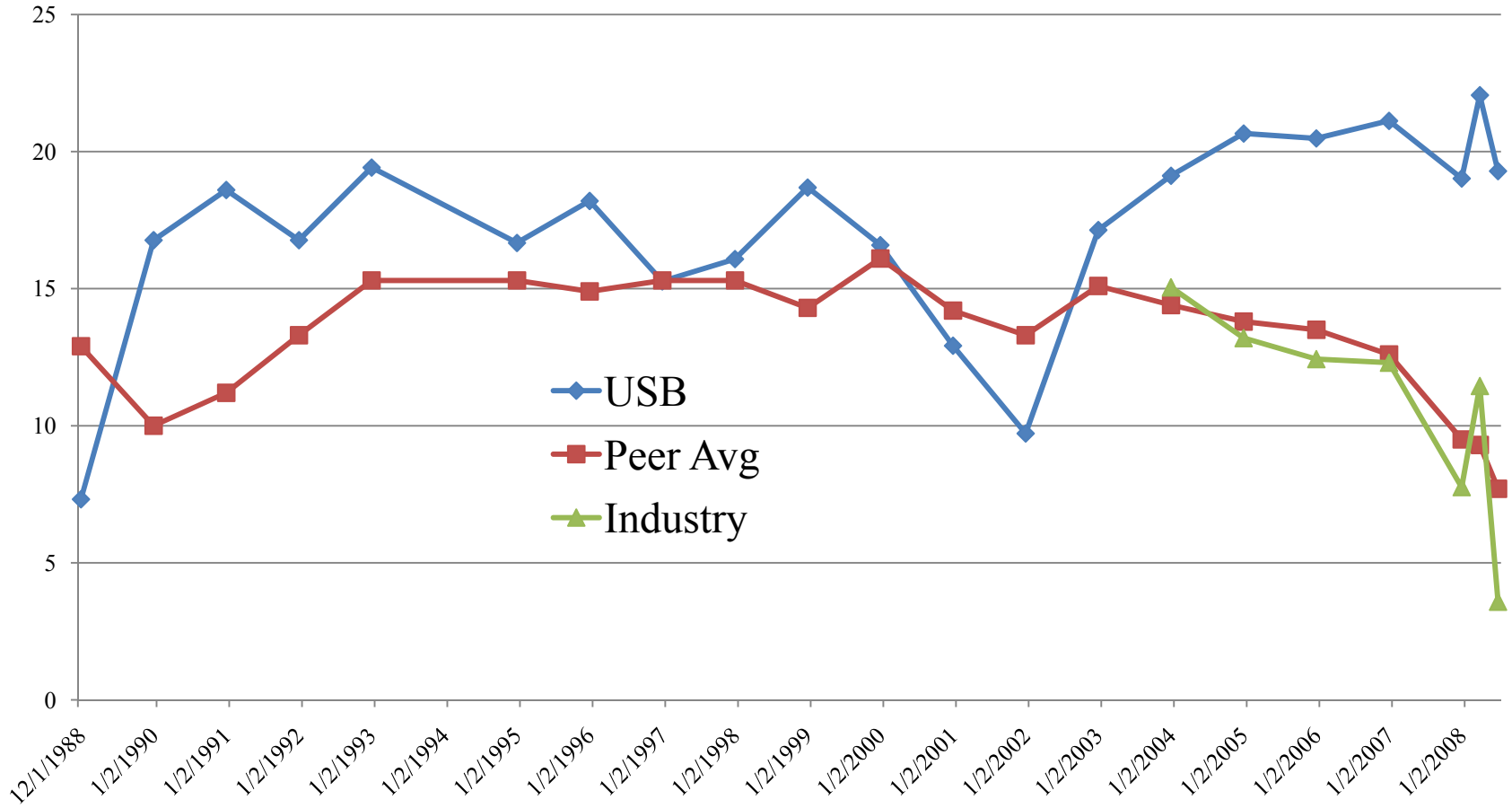
Long Term Issues

- What is the Business Model for Banks?
- What is the Regulatory Model for Banks?
- How do issues such as FVA, market structure, impact first two?

What is the Business Model?

- Falling risk-adjusted returns suggest that investor expectations for banking industry profits may be significantly overstated.
- Whereas over the past decade, it was reasonable to assume mid-teens or low 20% ROE's for the larger, better-managed banks, future returns could be far lower.

Return on Equity (%)

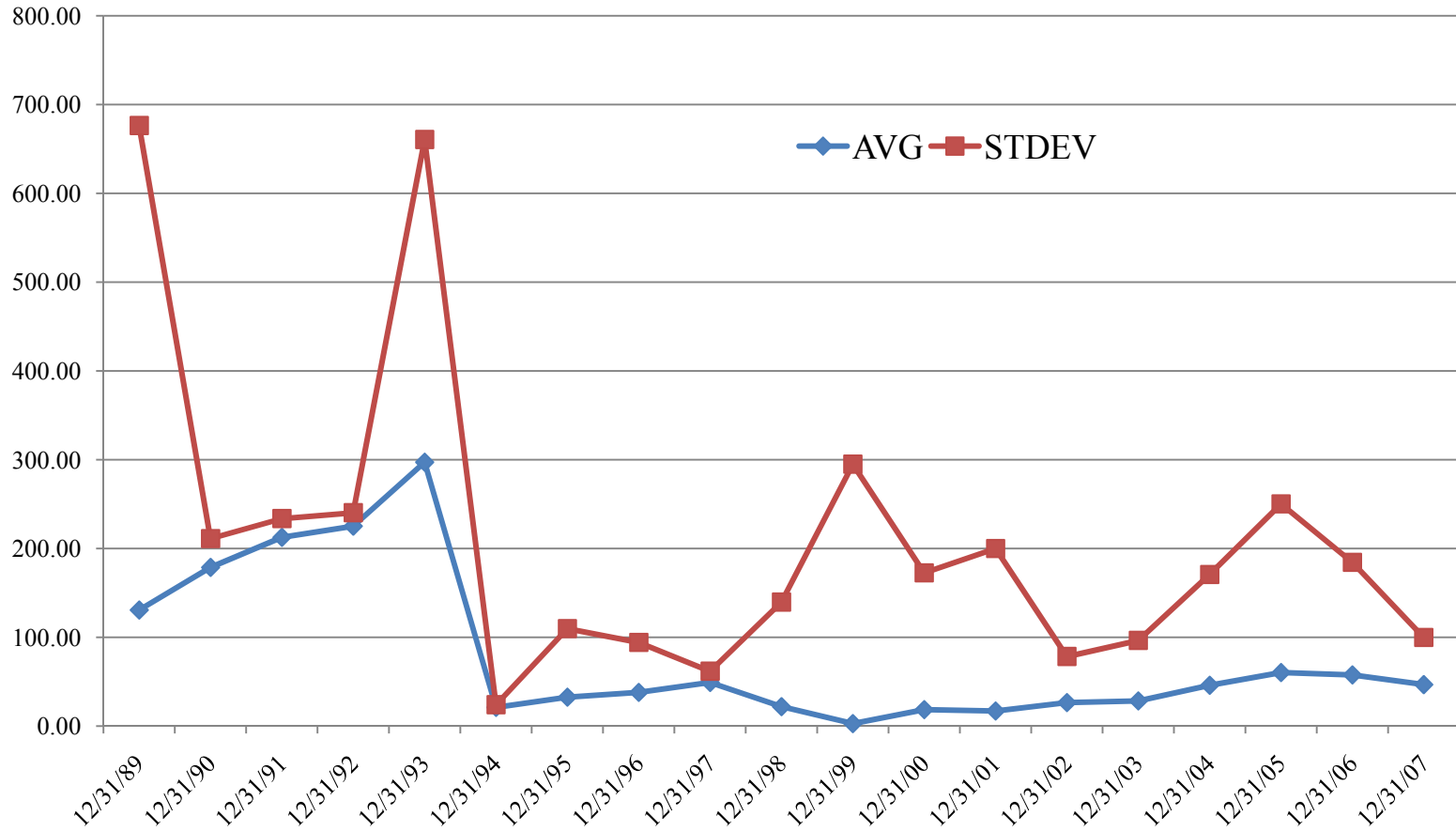


Source: FDIC/IRA Bank Monitor

Risk Adjusted Returns

- If we assume that in the future, leverage will be lower and capital requirements higher, then it seems clear that risk-adjusted returns for the industry will fall further.
- Since nominal returns are already falling and are likely to remain negative for some time, the question comes: how to attract investors back to the financial sector – especially so long as FVA remains in effect?

RAROC (%) -- Top 100 Banks



Source: FDIC/IRA Bank Monitor

What is the Regulatory Model?

- Given the setbacks suffered by the US banking and financial system, and the risk community more generally, Basel II capital adequacy framework must be abandoned as ineffective.
- Key questions for future: Given ROA/ROE outlook for industry, what types of activities will be permitted within a regulated, deposit-taking entity? With what capital requirements, measured how? How will we risk weight assets/exposures of banks?

A New Bank Risk Paradigm

- In future, risk-based models will be used to model explicit factors rather than merely using mathematical short-cuts stolen from physical sciences.
- Far more fundamental data will be collected by regulators and demanded by investors. SNC, Credit Cards, Basel II reporting all in the pipeline.
- Future leverage likely to be lower, but banks will be forced back to an unfamiliar world of allocating credit availability based upon cash flows rather than optionality at least within regulated banks.

Market Structure is the Key

- Once toxic CDO/CDS instruments are removed from the markets and banned from future use by regulated banks/insurers/pensions, then industry must construct a new protocol for structured assets and option-like products such as CDS. Q: Is CDS insurance or security?
- You fix issues like FVA by fixing market structure, not the other way around. The banking/finance/risk industry needs to start an internal discussion about the nature of these reforms so that we may shape the course of the political debate in Washington. Risk managers cannot leave these decisions to the politicians and regulators alone.

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