

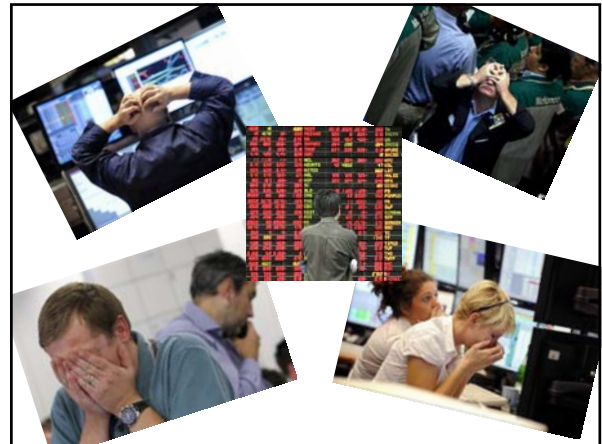
The Economy and Capital Markets: Effect on the Cost of Capital to Utilities



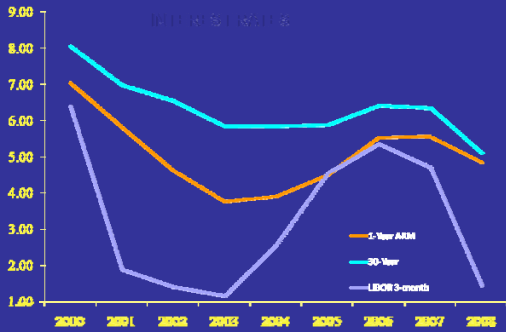
Reena Aggarwal

McDonough School of Business
Georgetown University

Society of Utility and Regulatory Financial Analysts 2009 Financial Forum, Thursday, April 16

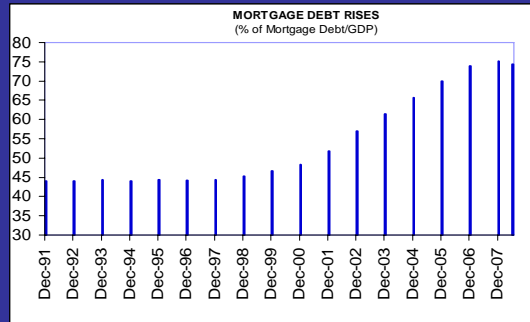


CHEAP ACCESS TO CAPITAL

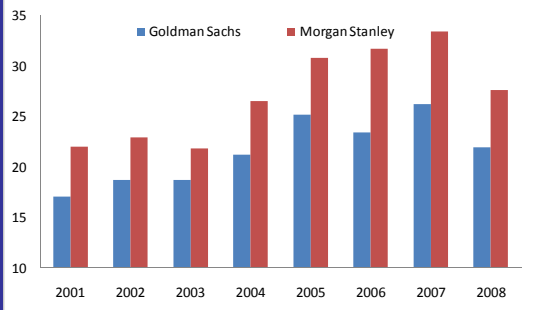


Source: Bloomberg
As of 12/31/2008

CHEAP ACCESS TO CAPITAL

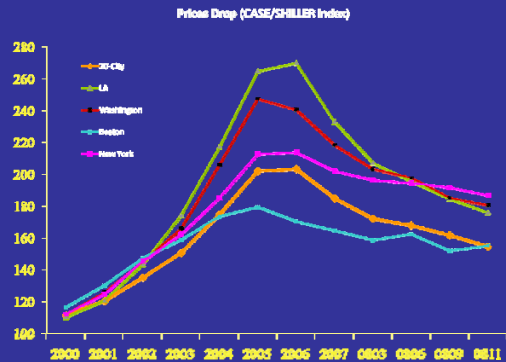


LEVERAGE INCREASES

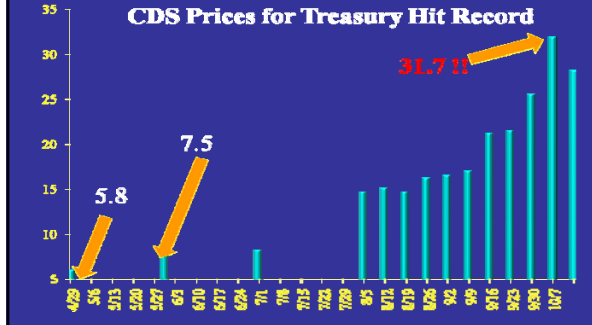


Source: Bloomberg
As of 03/2008

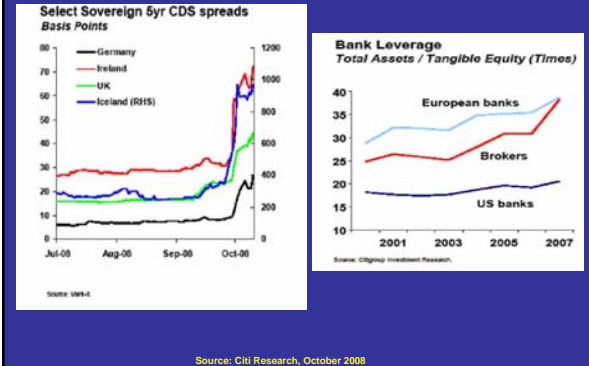
HOUSING PROBLEMS CONTINUE



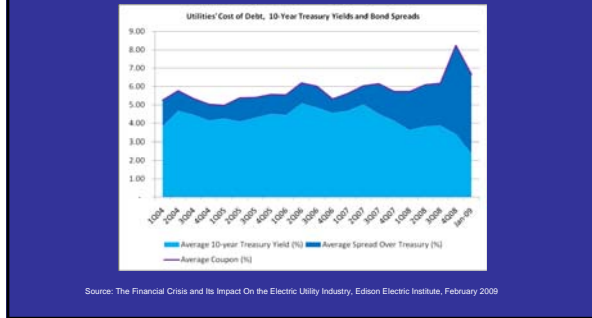
Credit Markets Came to a Halt



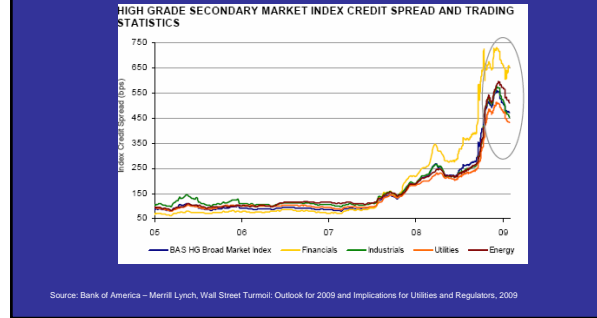
Global Problem



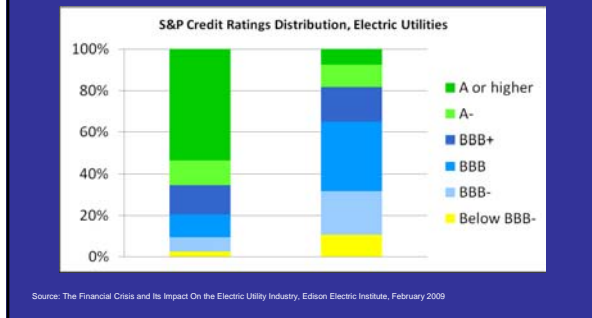
Utility Spreads Widen



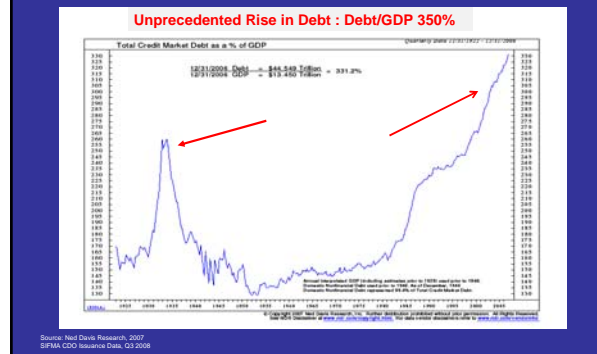
Credit Spreads Widen



Utility Ratings Decline 1992 vs 2008



DELEVERAGING WILL BE PAINFUL AND WILL TAKE TIME



Global Markets Impacted

MSCI World Index

2008

US	-40%
ASIA	-52%
LA	-61%
EE	-62%

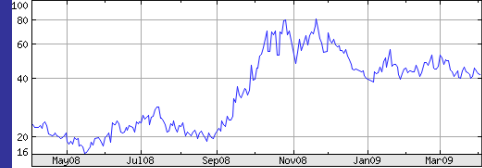


Source: Bloomberg
As of February 11, 2009

Market Volatility is High

BOE SPY MARKET VOLATILITY INDE

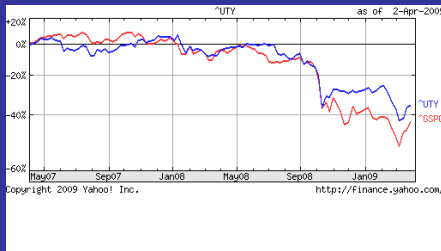
as of 2-Apr-2009



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Utility Index Down



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Utility Free Cash Flow Projections

Free cash flow deficit (\$bn)

2005A	2006A	2007A	2008E	2009E	2010E	Cumul. '08-'10E
(7.0)	(11.0)	(16.0)	(25.6)	(18.3)	(16.2)	(60.1)

Source: 2005–2007 numbers reflect equity research, 2008E–2010E numbers reflect equity research projections for 52 select utility companies. Free cash flow = cash flow from operations - capex - dividends

Source: J.P. Morgan, February 2009

Market Risk Premium

Sep 01	Dec 07	Jan 09	Jan 09 – U.S.	Jan 09 – Europe
4.7%	5.96%	6.2%	6.5%	5.3%

Source: Several surveys by Ivo Welch & 2009 survey by Pablo Fernandez

TARP



Source: <http://projects.nytimes.com/credicrisis/recipients/table>

Unemployment

Source: http://www.forbes.com/2009/01/09/january-layoffs-4-es-lead-co_m_0109january09layoffs.html

Road to Recovery Job Losses Continue

Soaring unemployment

7.6%

Worst annual job losses

Year	Job Losses
2008	2,590,000
1945	2,750,000
1982	2,130,000
2001	1,760,000
1949	1,510,000

Source: <http://money.cnn.com/>

Road to Recovery Skyrocketing Federal Debt is a Threat

*estimate; Source: Budget of the United States Government, Fiscal Year 2009, White House

Road to Recovery Interest rates are as low as possible

Shaded areas indicate US recessions as determined by the NBER.
2009 Federal Reserve Bank of St. Louis: research.stlouisfed.org

Recovery will be Slow Deficit Expected to Soar

Off the Deep End

Total annual deficit or surplus as a share of GDP

2009 CBO estimate without stimulus
2009 Strategas Group estimate with stimulus and TARP

Sources: Congressional Budget Office; Strategas Group
Source: Wall Street Journal

Recovery will be Slow GLOBAL ECONOMIC SLOWDOWN

	2010e	2009e	2008	2007
World	3.0	0.5	3.4	5.2
U.S.	1.1	-2.0	1.1	2.0
India	6.5	5.1	7.3	9.3
China	8.0	6.7	9.0	13.0

Source: IMF Survey, January 2009

When will we hit bottom?



Finally.... history will repeat itself
1928-2007

	T-Bills	T-Bonds	Stocks
1928-2007	3.91%	5.26%	11.69%
1967-2007	6.05%	7.66%	11.98%
1997-2007	4.13%	6.71%	9.39%
1928-2007	\$2,081	\$5,007	\$178,150

Better times will return !