

IMPACT OF THE CREDIT CRUNCH ON CAPITAL MARKETS

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# Executive Summary

Economic contraction continues

- The current economic crisis is both severe and global
  - Despite government intervention, the duration of the crisis may be protracted
  - Markets have tumbled across all asset classes and regions, suggesting that risk has been fundamentally re-priced

Available capital is constrained

- Capital availability is constrained, due to...
  - Declining free cash flow
  - Record refinancing needs as debt matures
  - Reduced capacity in the bank loan and commercial paper markets
  - Equity capital deemed too expensive for many issuers

## Executive Summary (continued)

### M&A remains challenging

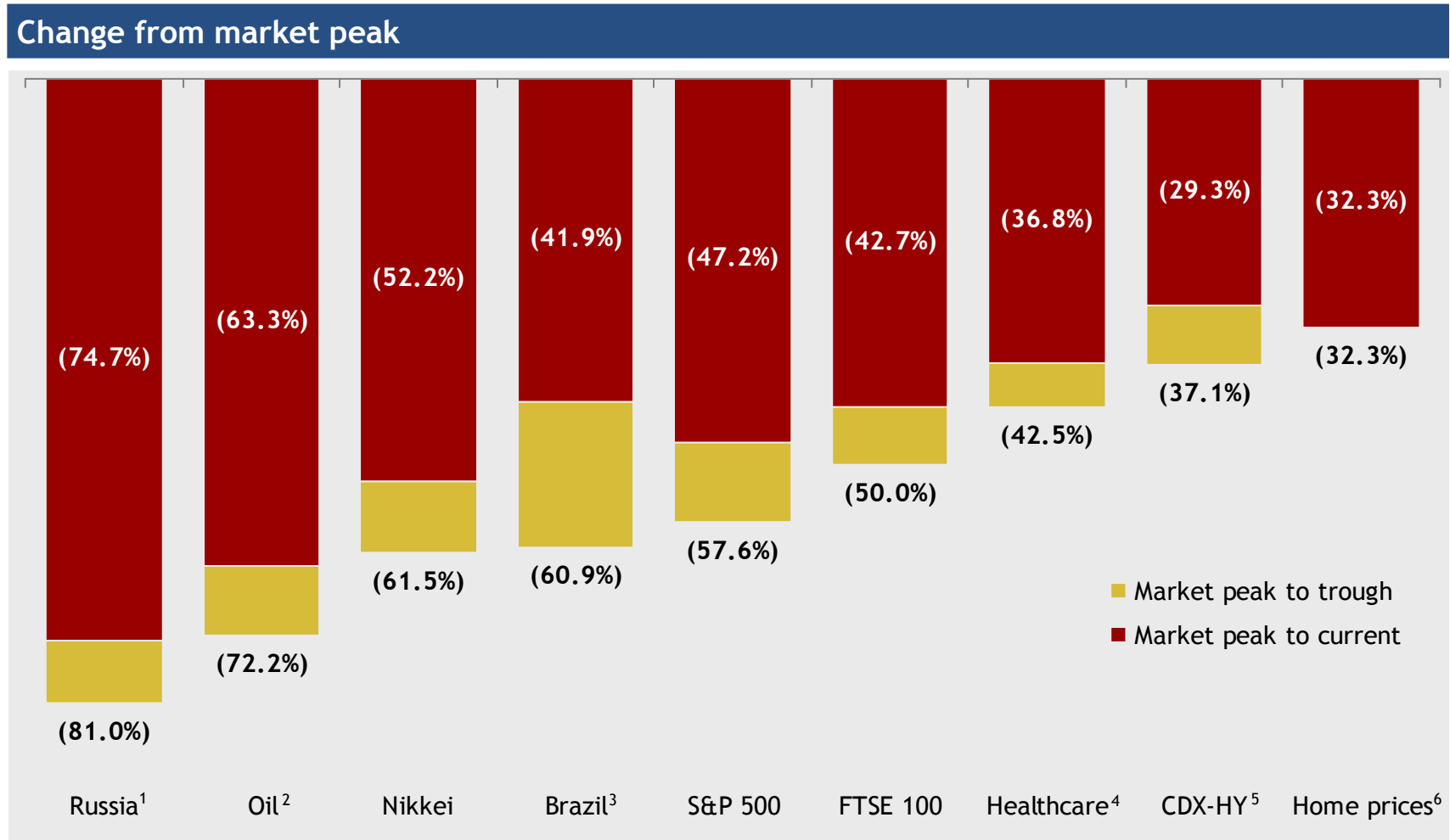
- Buyers and sellers having difficulty agreeing on valuation
- M&A activity bifurcated between mega-cap deals and small deals
- Financial sponsors focusing on their existing portfolios

### Access to capital has become a strategic issue

- Companies should continue to plan conservatively
  - “V-shaped” recovery unlikely
  - Outcomes are asymmetrical
- Companies should continually monitor their liquidity and access to capital
  - In most cases, all financing options should be considered

# Escaping the market crisis has been difficult

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Source: Bloomberg, J.P.Morgan as of Q1 2009. All figures in real terms adjusted for local consumer price changes

<sup>1</sup> Russian RTS index

<sup>2</sup> WTI crude futures

<sup>3</sup> Brazil BOVESPA stock index

<sup>4</sup> S&P 500 Healthcare Index

<sup>5</sup> Dow Jones CDX North America high-yield index

<sup>6</sup> Case-Shiller composite 20 index

# Current economic downturn is a global, synchronous recession reaching unprecedented levels in the post-World War II era

## Current state of the economy

**Financial sector**

- Lehman Brothers
- Fannie/Freddie, AIG, Citibank
- Merrill Lynch, WaMu, Wachovia, Bear Stearns

## Trend



**U.S. GDP**

- GDP fell 6.2% in Q4 2008
- J.P. Morgan predicts 2 additional quarters of negative GDP growth



**Inflation**

- Current trend is deflationary
- Government stimulus could increase longer-term inflation



**Worldwide economy**

- Euro zone inflation fell to 1.2% in February from 4.0% last July
- European banks under fire
- Japan's manufacturing sector contracted 25% last QUARTER alone (in contrast, U.S. down 5-6% TOTAL since recession began)

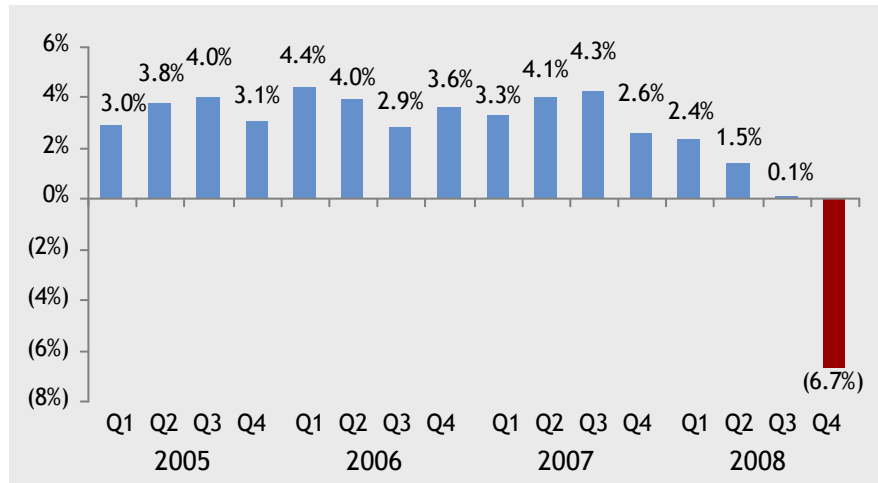


## US unemployment rate and real GDP growth



Source: Global Insight/DRI, Bureau of Economic Analysis; JPM projections as of Q1 2009  
<sup>1</sup> As of April 2009

## Global real GDP growth



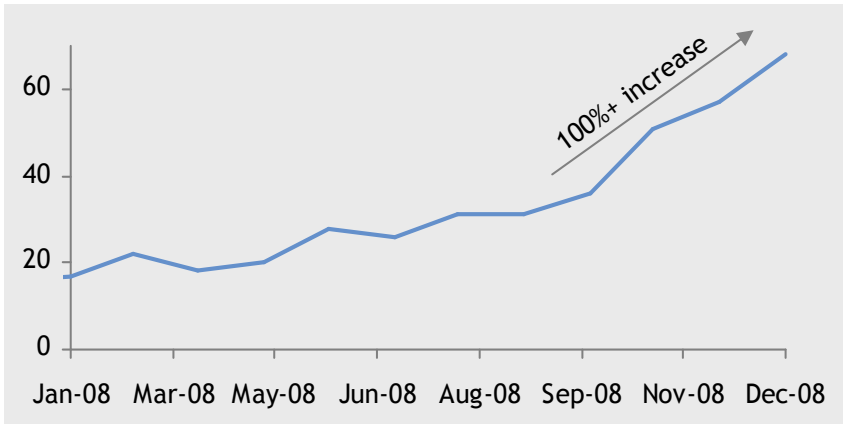
# The U.S. Government has been proactive with over \$3 trillion of initiatives...

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## Government initiatives

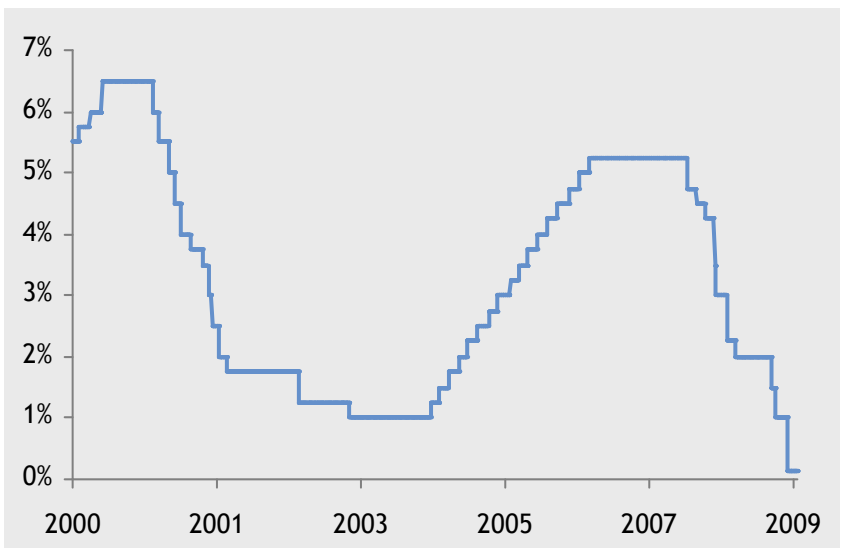
<b>Stimulus packages</b>	<ul style="list-style-type: none"> <li>2008: \$168bn package consisting of tax relief</li> <li>2009: \$787bn package (tax cuts and spending)</li> </ul>
<b>Decreasing rates</b>	<ul style="list-style-type: none"> <li>Fed cut rates to 0.00%-0.25%</li> </ul>
<b>Injection into world banking</b>	<ul style="list-style-type: none"> <li>September 2008: Fed led \$180bn injection into world financial markets</li> <li>Fed lent to Bank of England, ECB, Swiss National Bank, and the central banks of Canada and Japan</li> </ul>
<b>\$700bn bailout (TARP)</b>	<ul style="list-style-type: none"> <li>Capital injections into financial institutions to stabilize U.S. banking system</li> </ul>
<b>Individual company bailouts</b>	<ul style="list-style-type: none"> <li>Freddie Mac and Fannie Mae: taken over in September 2008</li> <li>AIG: \$150bn-\$180bn+ rescue</li> <li>Bear Stearns: Fed issued non-recourse loan of \$29bn to JPM, assuming risk of certain BS assets</li> <li>Citi: Add'l capital infusion of \$27bn post-TARP</li> </ul>
<b>CP Funding Facility (CPFF)</b>	<ul style="list-style-type: none"> <li>Federal Reserve buying CP and asset-backed CP to provide more liquidity</li> </ul>
<b>TALF</b>	<ul style="list-style-type: none"> <li>Federal Reserve to lend \$200bn to stimulate up to \$1tn of investment in ABS</li> </ul>

## U.S. Treasury rolling 12 month deficits (\$bn)



Source: U.S. Department of Treasury  
Note: Represents rolling 12-month average

## Fed funds



...however, history suggests that the crisis may be protracted

Peak-to-trough				
	Percent change		Duration in Years	
	Hist. average	Curr. crisis	Hist. average	Curr. crisis
Housing prices	-36%	-32%	6.0	2.5
Equity values	-56%	-57%	3.4	1.5
Unemployment rate	7.0%	4.1%	4.8	2.0
GDP per capita	-9.3%	-2.1%	1.9	0.5
Public debt	86%	16%	-	-

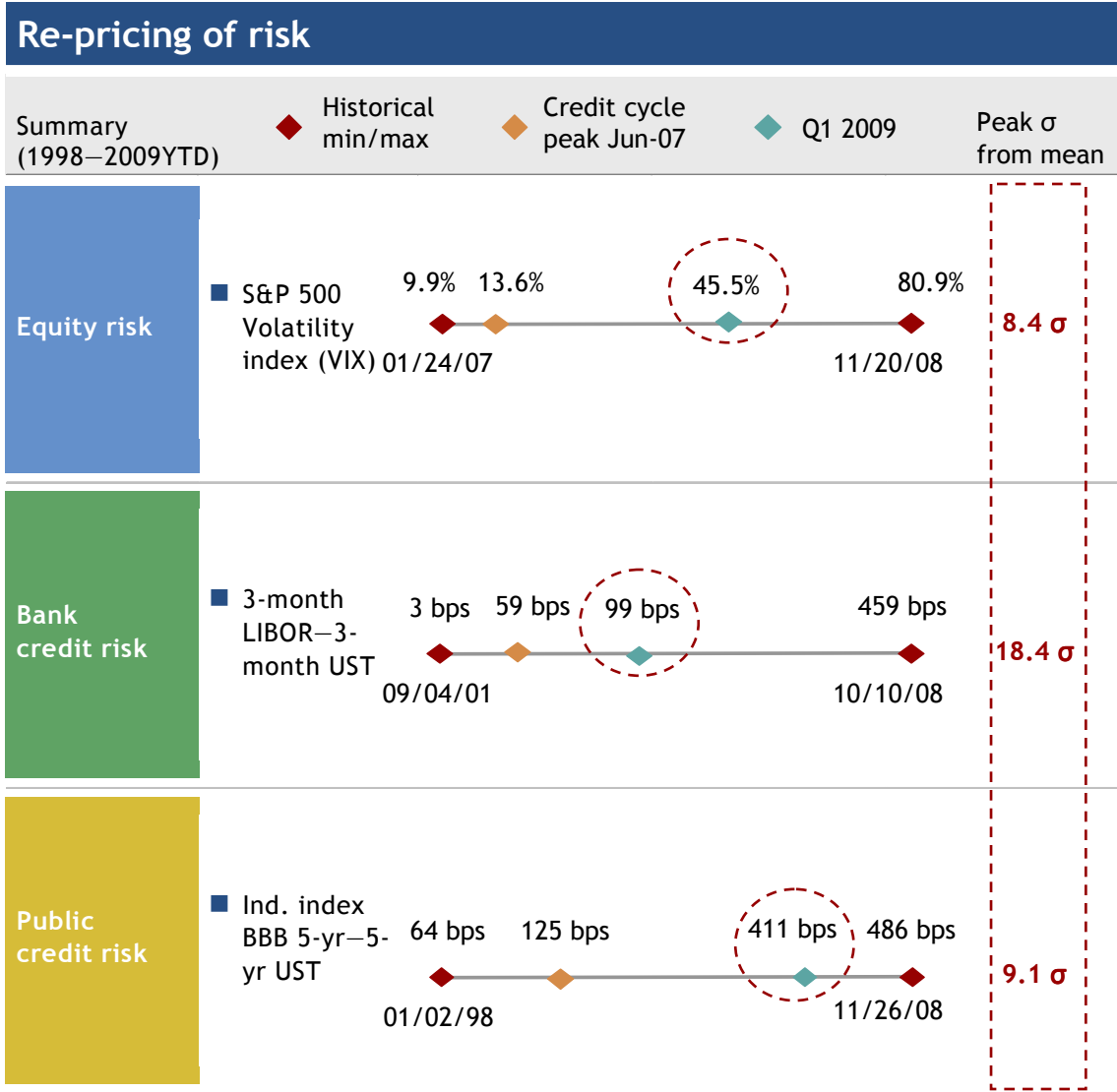
Historical bank crises include: Malaysia (97), Thailand (97), Korea (97), Argentina (01), Sweden (91), Japan (92), Norway (87), Spain (77), Indonesia (97), Finland (91), Colombia (98), Philippines (97), Hong Kong (97), US (29) and Norway (1899)

**An average increase in the unemployment rate would result in an 11.4% unemployment rate**

Source: Reinhart and Rogoff (2008) "The aftermath of Financial Crises", Bloomberg, J.P. Morgan  
 Note: Changes in housing prices, equity prices, GDP, and public debt are presented in real terms (CPI deflated).

# Risk pricing has reached record levels

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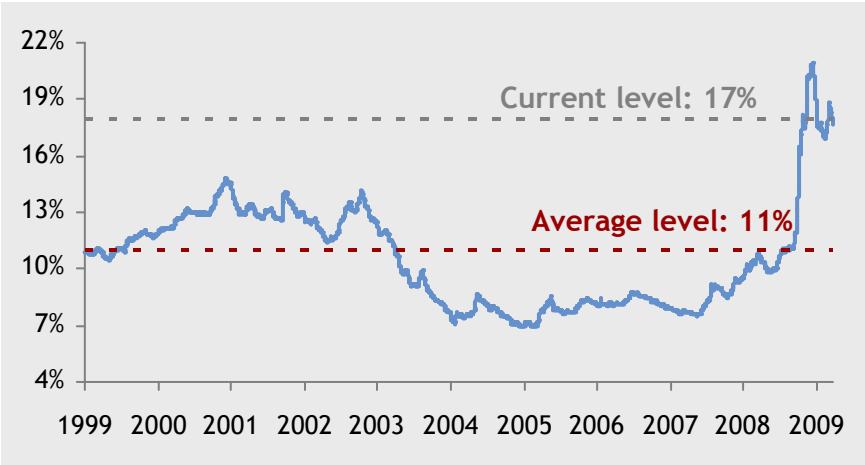
### Implications

- Higher cost of capital
  - Models indicate 8-10% equity risk premium (vs. 5-6% historically)
  - Cost of debt has increased as well, particularly for high yield issuers
- Projects/acquisitions that would make sense in “normal” markets difficult to justify based on expected returns
- Volatile outcomes suggest more conservative capital structures
- Credit spreads indicate greater need to focus on counterparty risk

# Debt markets remain severely stressed

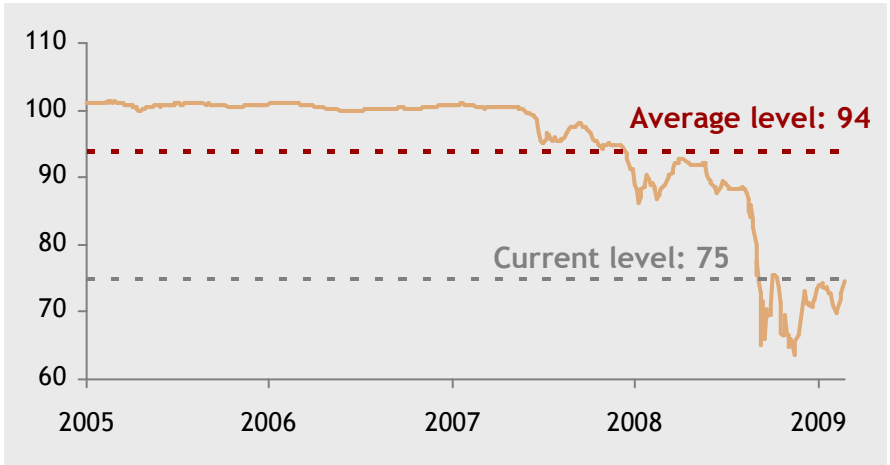
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**Historical J.P. Morgan Global HY Index YTW (%)**



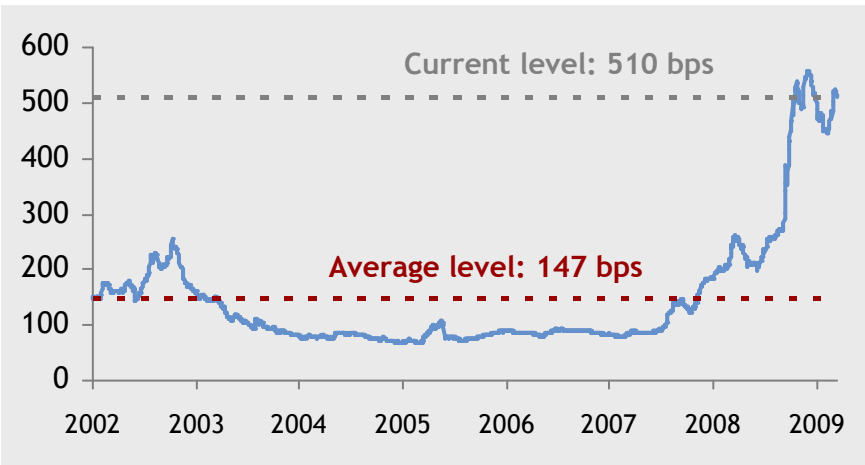
Source: J.P. Morgan

**Avg bid for selected large institutional flow loans (\$)**



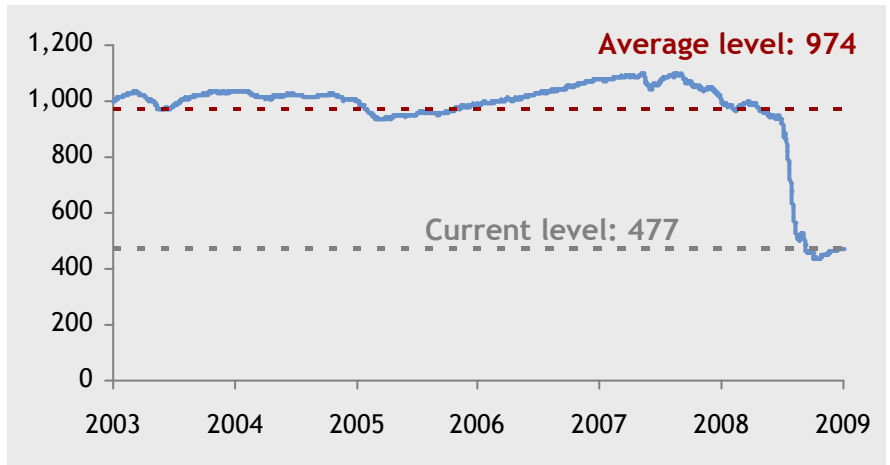
Source: S&P LCD (average rating: B); index rolled on 11/4/08

**Historical JULI Benchmark Spread (bps)**



Source: J.P. Morgan

**Convertible arbitrage index**

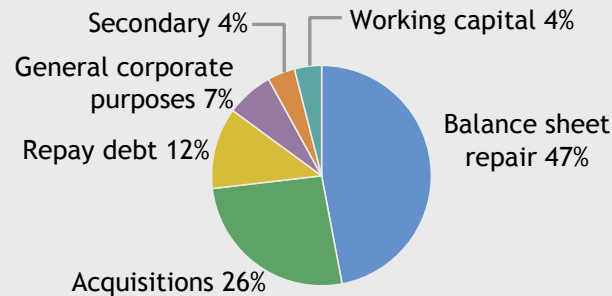


Source: Bloomberg

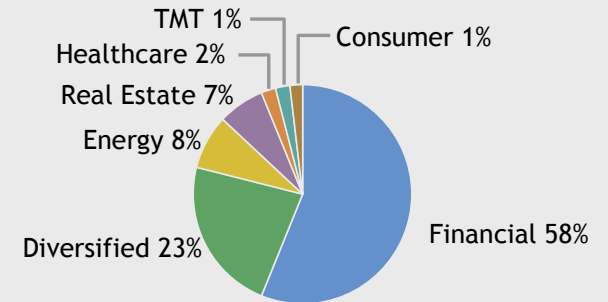
# While balance sheet repair is driving equity issuance, opportunistic capital raising has been better received

- Many companies are opting to raise equity pro-actively to prepare for a prolonged downturn and capitalize on strategic opportunities
- Management teams and boards are weighing the increased cost of equity versus the prospect of being undercapitalized to weather the downturn

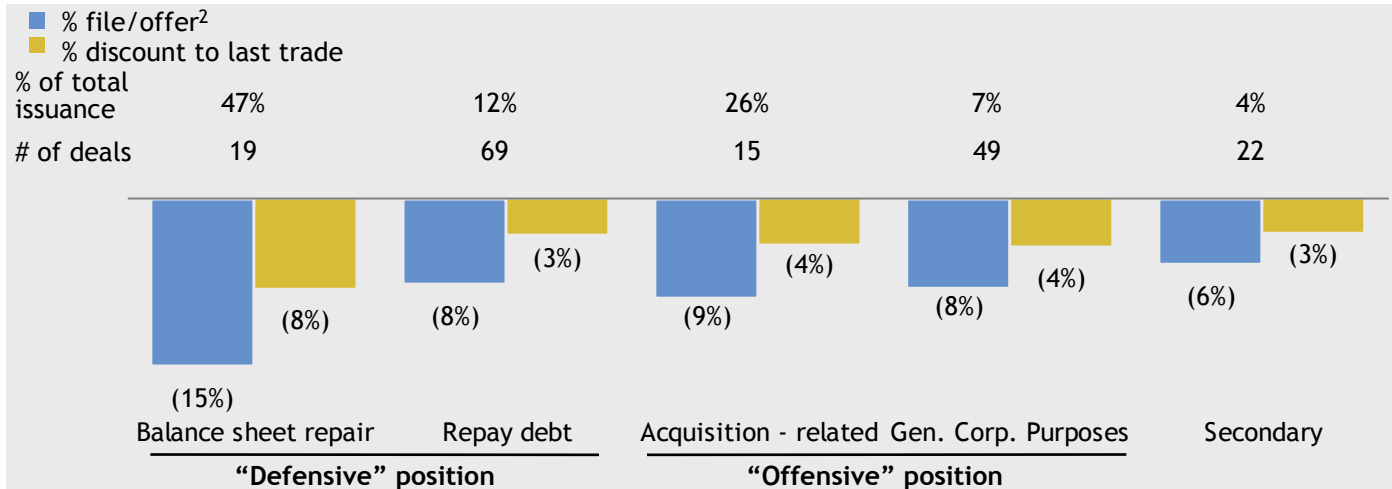
2008–2009YTD common equity follow-on issuance by use of proceeds<sup>1</sup>



2008–2009YTD common equity follow-on issuance by sector



Price impact by use of proceeds 2008–2009YTD<sup>1</sup>



Source: Dealogic

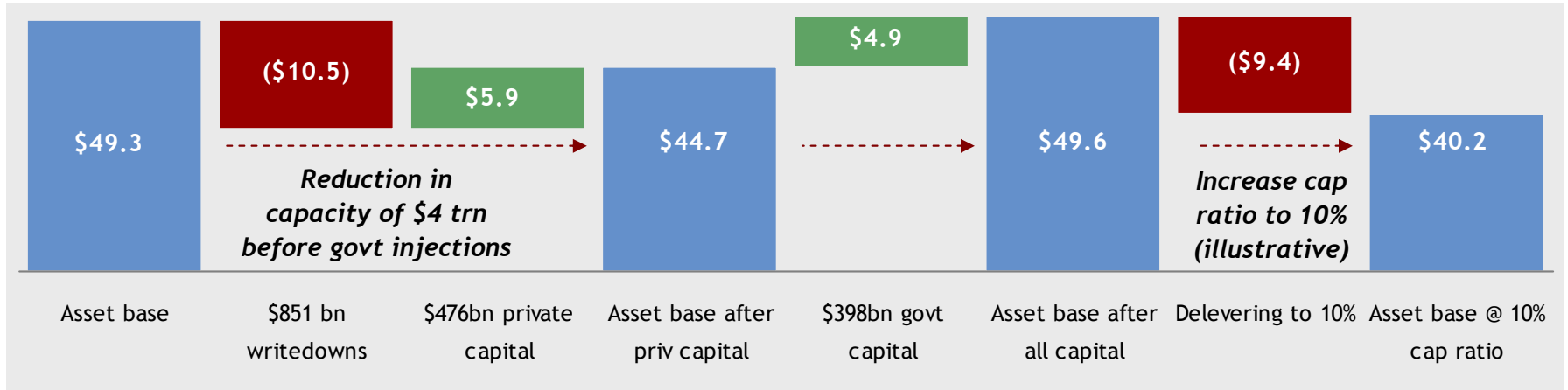
<sup>1</sup> Excludes block trades

<sup>2</sup> File/offer performance market-adjusted for S&P 500

# Bank and hedge fund capital are contracting

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## Global financials' asset base reduction<sup>1</sup> (\$ trillion)

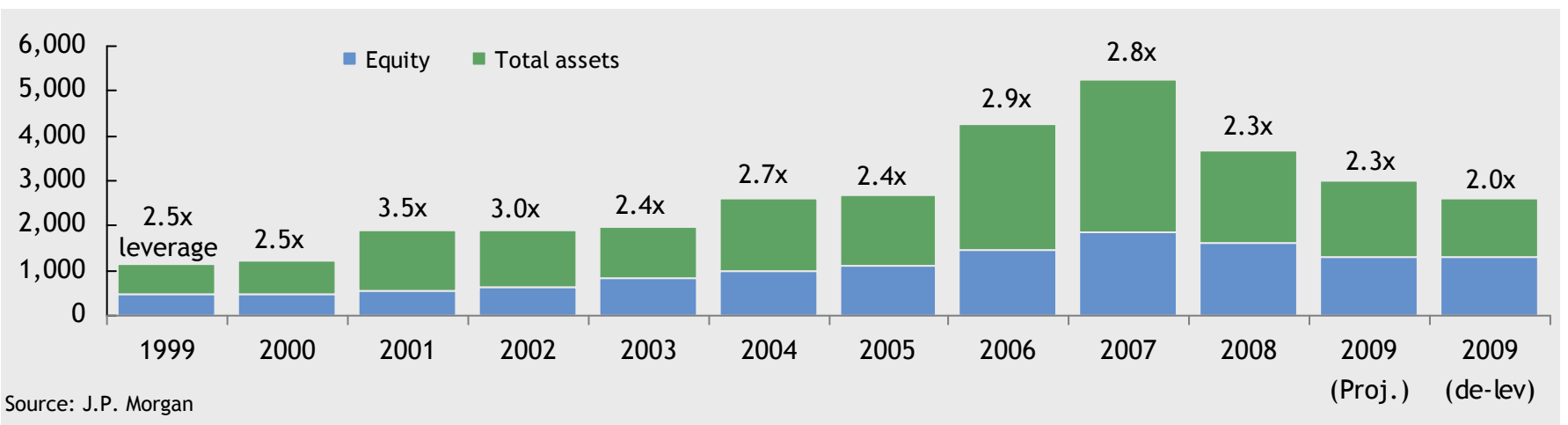


Source: Bloomberg; J.P.Morgan

Note: Total write-downs and capital raised as of Q1 2009

<sup>1</sup> Includes the 80 largest global banks/brokers by write-downs; Assumes core capital ratio of 8.1%

## Hedge funds (\$ bn)

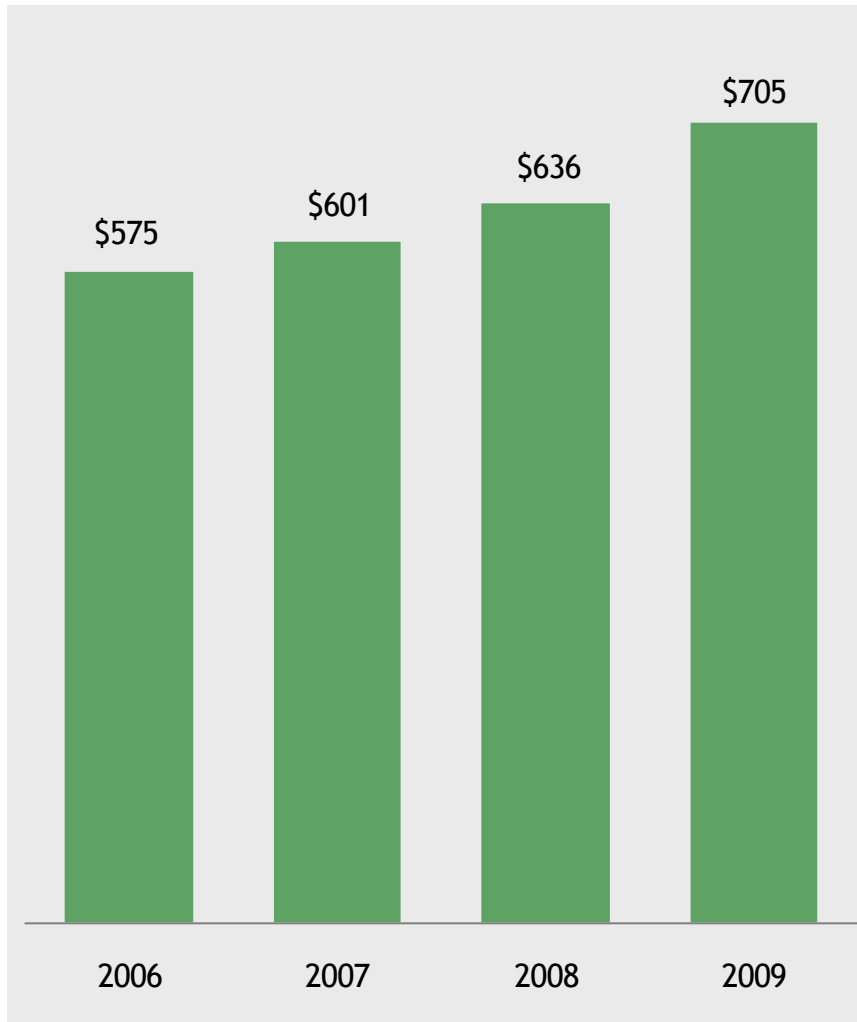


Source: J.P. Morgan

# Record debt maturities and a shrinking CP market in 2009...

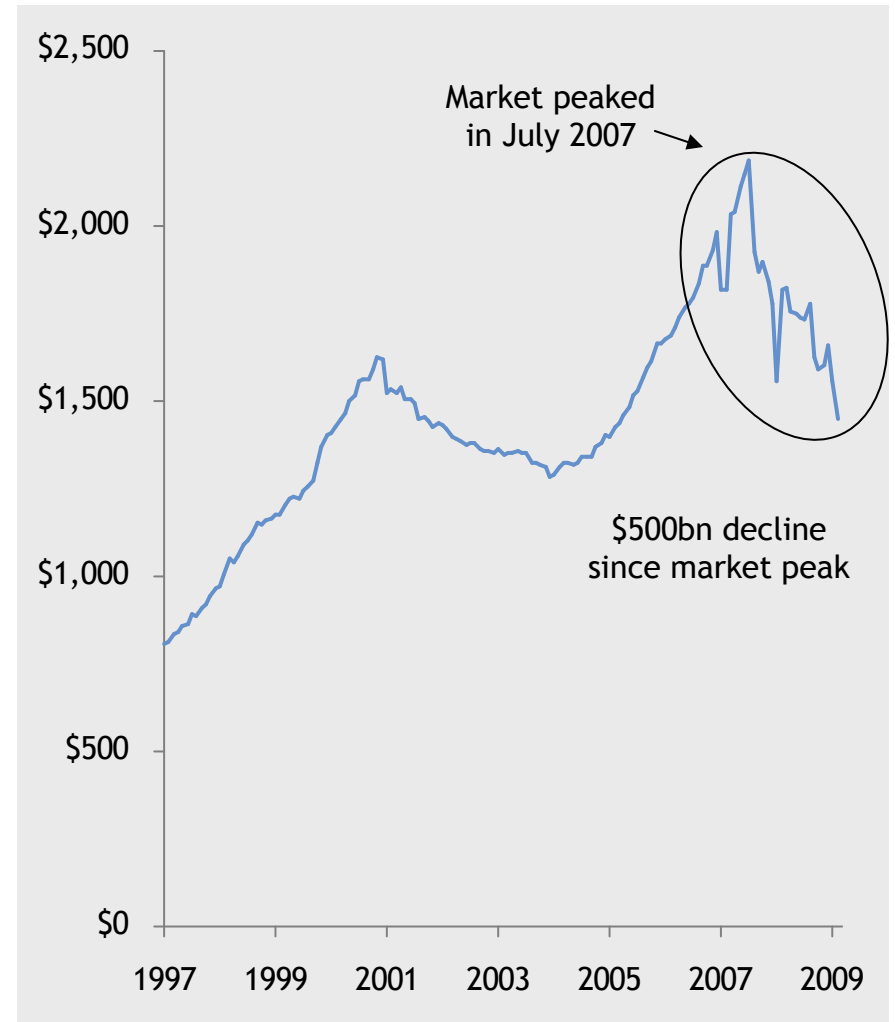
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Public debt maturities of US corporations (\$bn)



Source: FactSet. Includes all public non-CP US corporate debt. Outstanding maturities are as of 12/31 the previous year.

US commercial paper outstanding (\$bn)



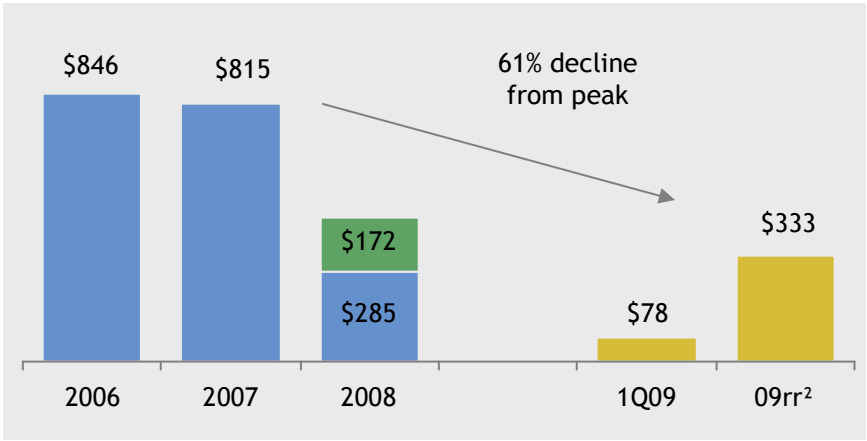
Source: Bloomberg

# ...may be accompanied by reduced capital markets capacity

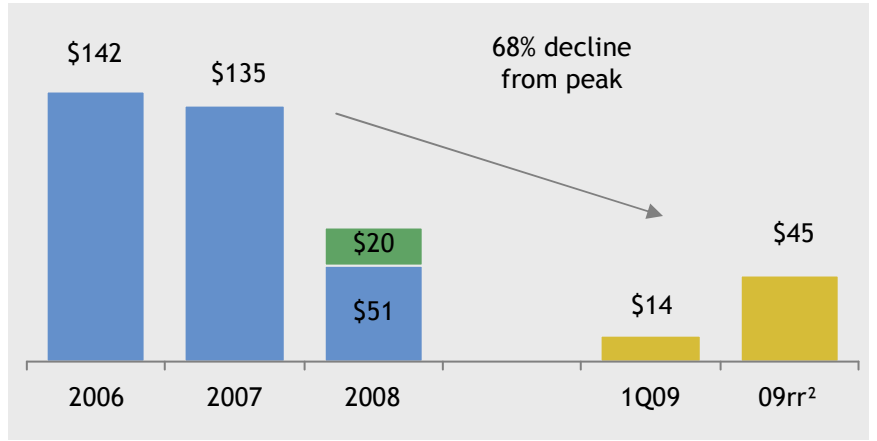
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## U.S. debt and convertible capital markets issuance volumes (\$ bn)

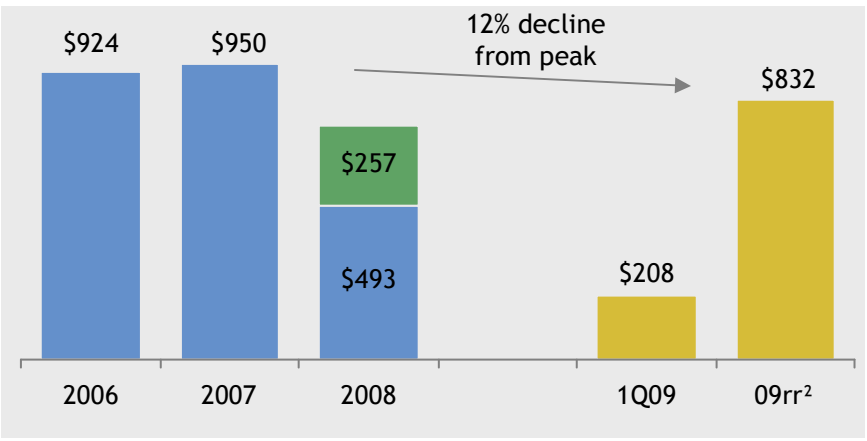
### Total syndicated loan<sup>1</sup>



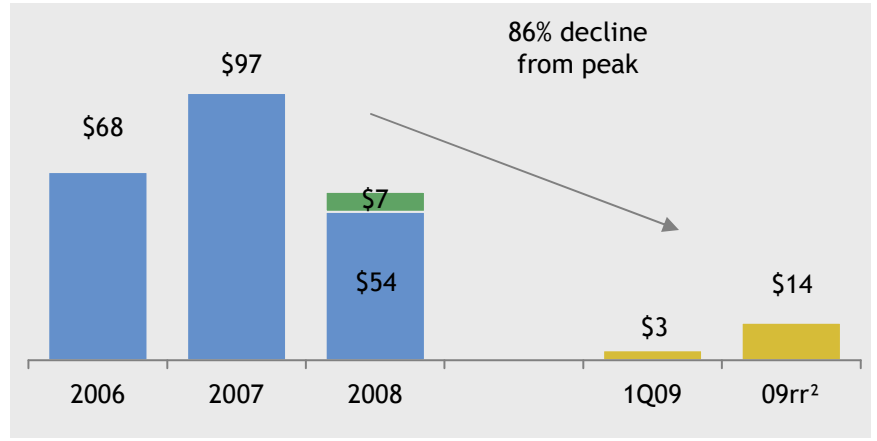
### High yield bonds



### Investment grade bonds



### Convertible bonds



Source: Bloomberg; J.P. Morgan

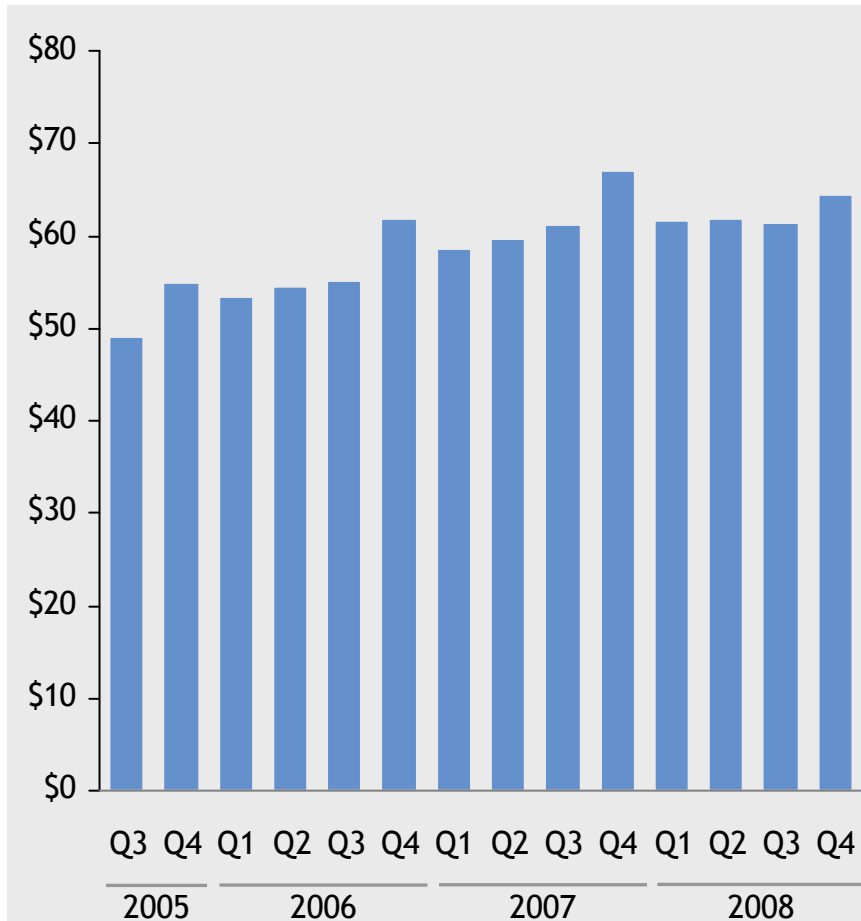
<sup>1</sup> Includes high grade and leveraged loans

<sup>2</sup> 09rr assumes 2009 issuance at last nine months run-rate, investment grade bonds at Q1 run-rate excluding government guaranteed supply

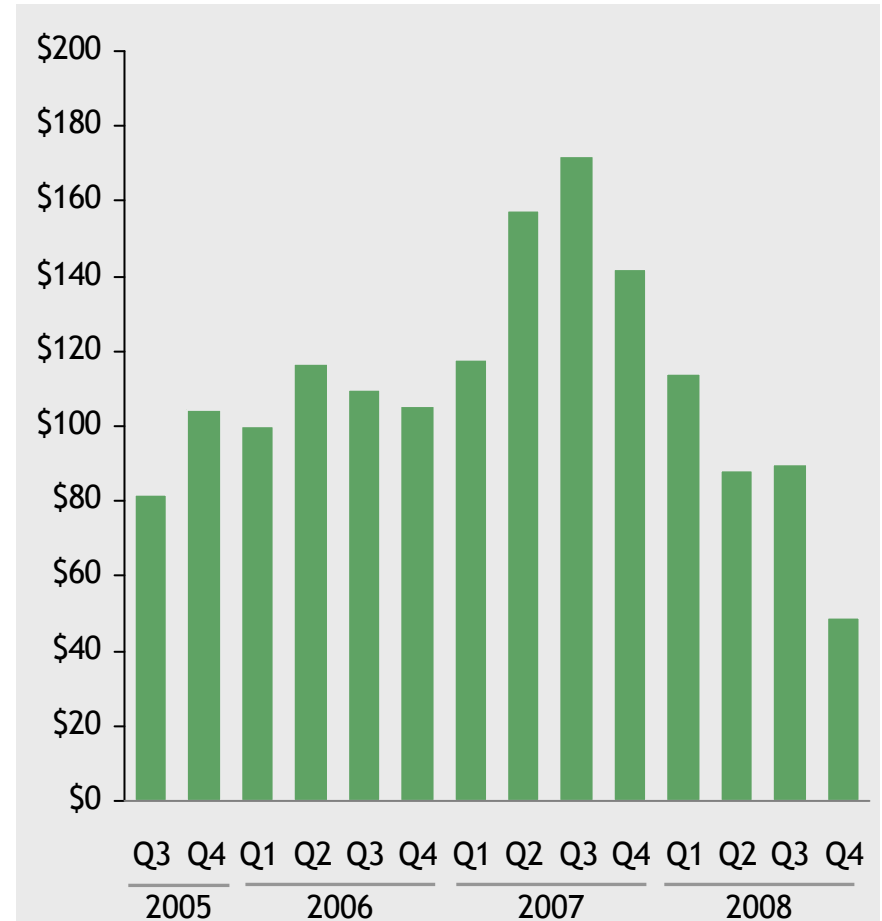
# Companies reduced share buybacks in 2008...

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**Historical dividends of S&P 500 companies (\$bn)**



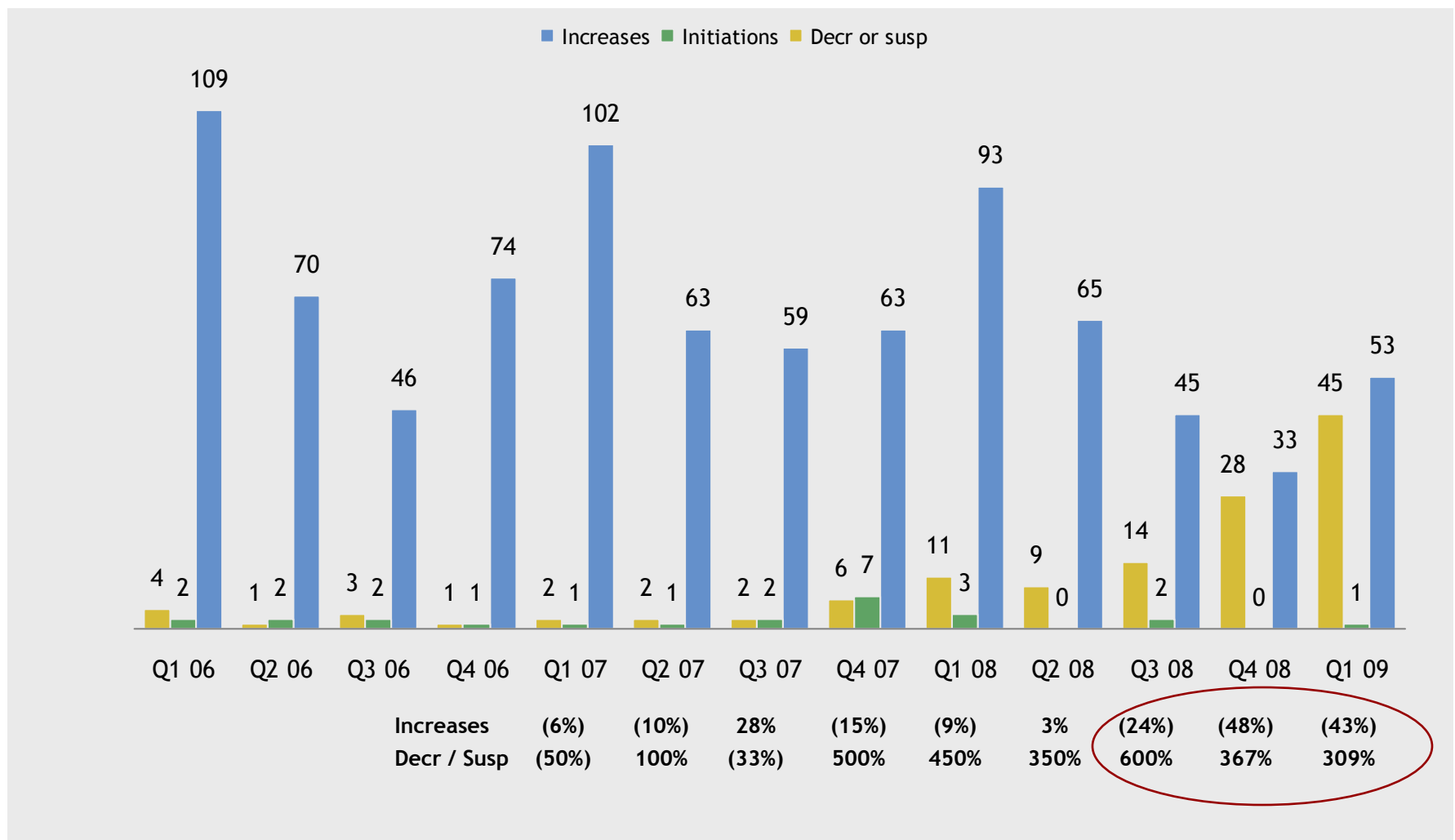
**Historical share buybacks of S&P 500 companies (\$bn)**



Source: Standard & Poor's, Bloomberg

# ...and announced dividend reductions in the first quarter of 2009

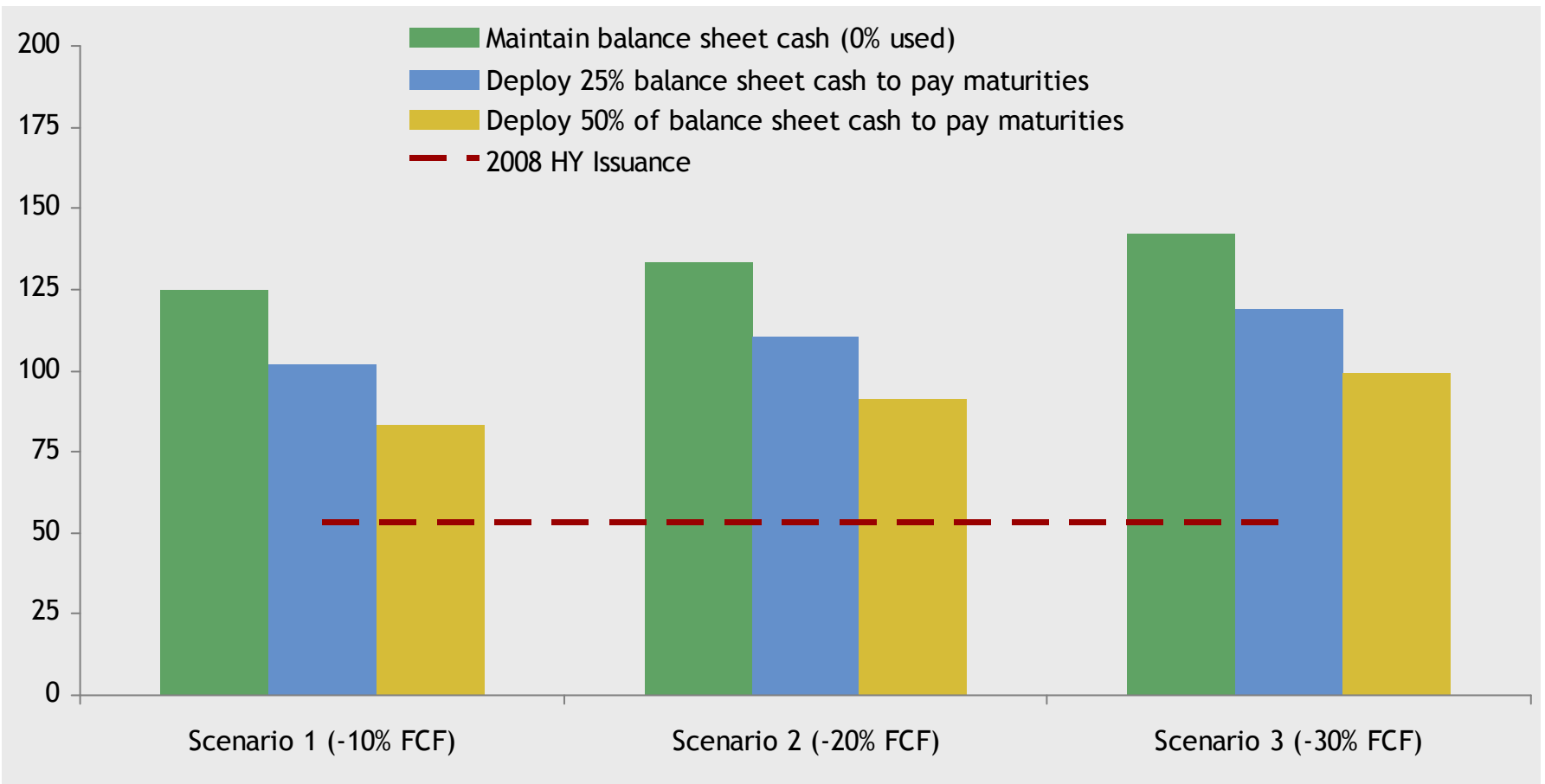
Dividend actions by quarter - 2006 through Q1 2009



Source: Standard & Poor's

# Many high yield companies are experiencing a liquidity shortage

## 2009 capital requirements of non-IG Russell 3000 firms



**Capital requirement definition: 2009 maturities + dividends - Free cash flow - % of balance sheet cash**

Source: Factset, J.P.Morgan. Excludes financial and utility firms. Does not include pension expenses. Free cash flow defined as OCF - capex. Figures presented represent the sum all capital deficits only which represents, in the worst case, 202 (43%) of the 472 firms in the sample

# Issuers should be open to various forms of capital

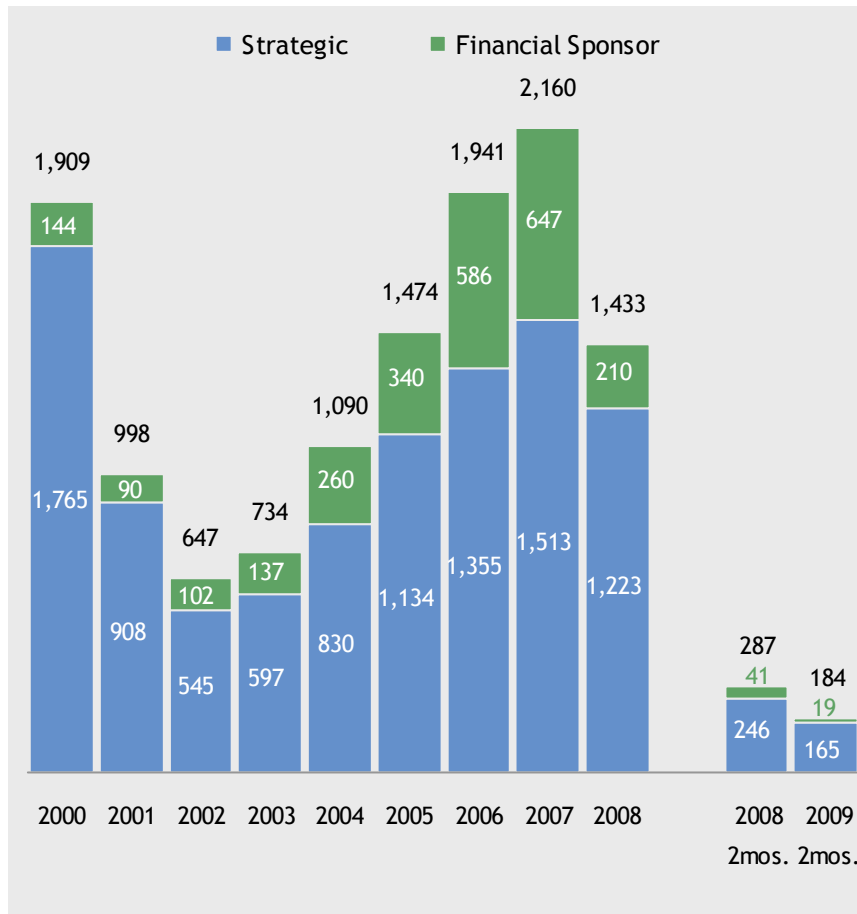
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## Drivers of investor demand are different in each market

	Credit quality	Bank capital/capacity	Covenants	Upside business prospects	Stock volatility	Stock liquidity	Regulatory issues	Drivers of market access / pricing
Public bonds	●	◐	◐	◐	○	○	○	<ul style="list-style-type: none"> <li>■ High grade issuance strong in Q1</li> <li>■ High yield market less liquid, can lead to extreme pricing of risk</li> </ul>
High grade loans	●	●	●	◐	◐	◐	◐	<ul style="list-style-type: none"> <li>■ Capital-constrained banks prioritizing relationships</li> <li>■ Tenor, facility size, and covenants important</li> <li>■ Transitioning towards market-based pricing</li> </ul>
Convertible bonds	◐	○	◐	◐	●	◐	●	<ul style="list-style-type: none"> <li>■ Recent market closure driven by Lehman bankruptcy and SEC ban on short-selling</li> <li>■ Market has reopened with resurgence of outright equity investors (versus hedge funds)</li> </ul>
Common equity	◐	◐	○	●	◐	◐	○	<ul style="list-style-type: none"> <li>■ Market remains open (at depressed levels)</li> <li>■ Macroeconomic data key to market sentiment</li> <li>■ Equity investors increasingly focused on stable capital structure</li> </ul>

# M&A volume has fallen significantly since 2007

N. American M&A volume by type, 2000–2009 (\$bn)



## Commentary

- M&A challenges include...
  - Shortage of acquisition capital
  - Greater hurdle rates
  - Sellers in denial of new market reality
  - Equity volatility causing difficulty in setting deal terms
- Sponsor deals have declined most significantly
- Market has become bifurcated:
  - Mega-deals: Large acquisitions by blue-chips
  - Forced sales: Smaller companies with limited alternatives forced to sell

Source: J.P.Morgan; Dealogic Enterprise Static as of March 3, 2009

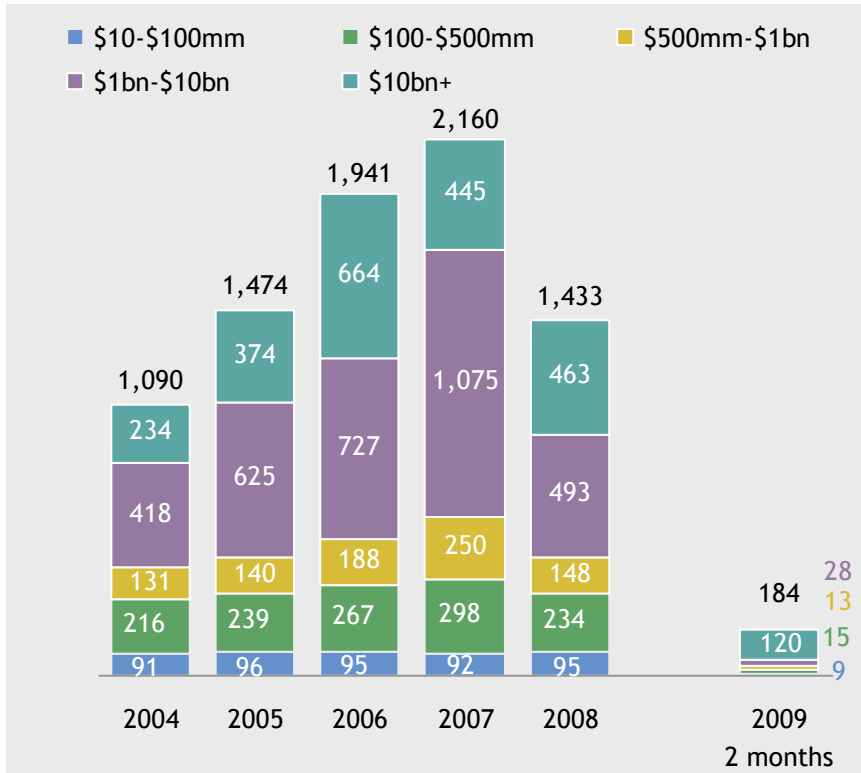
Note: North America includes any North American party involved; deals greater than \$10mm

Note: \$25bn investment in Citigroup by the U.S. Gov't included in February 2009 U.S. M&A activity+

# Deals in the \$1-10bn range have led the decline

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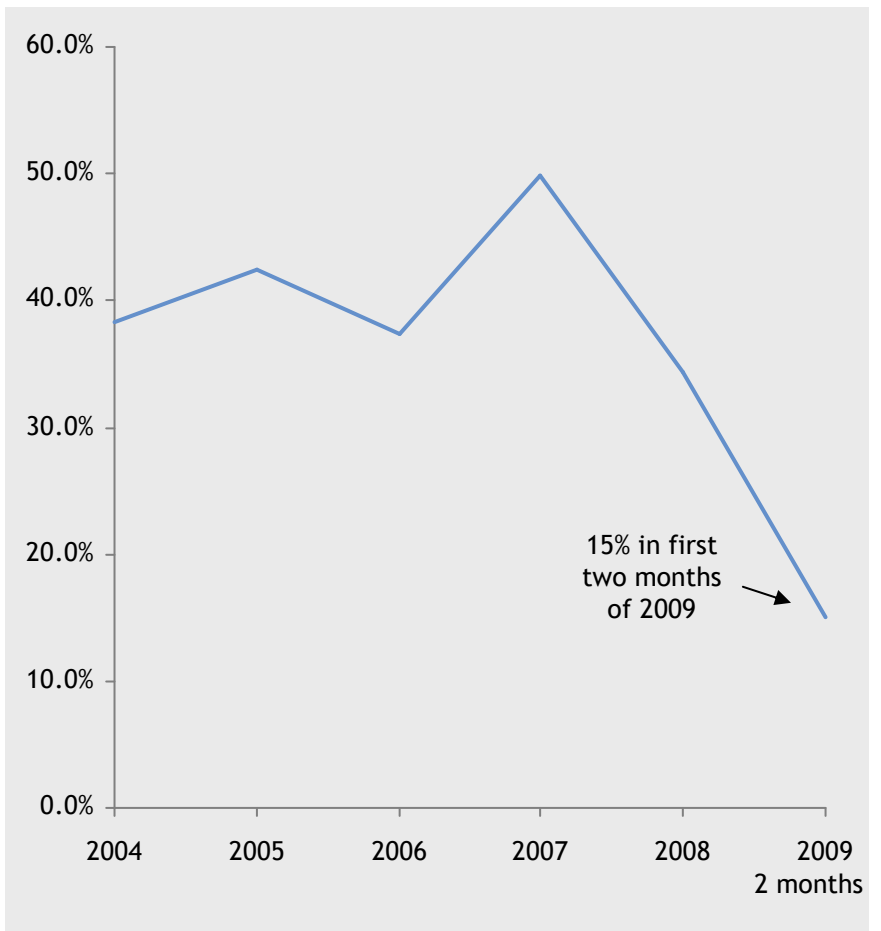
**North America volume by deal size, 2000–2009 (\$bn)**



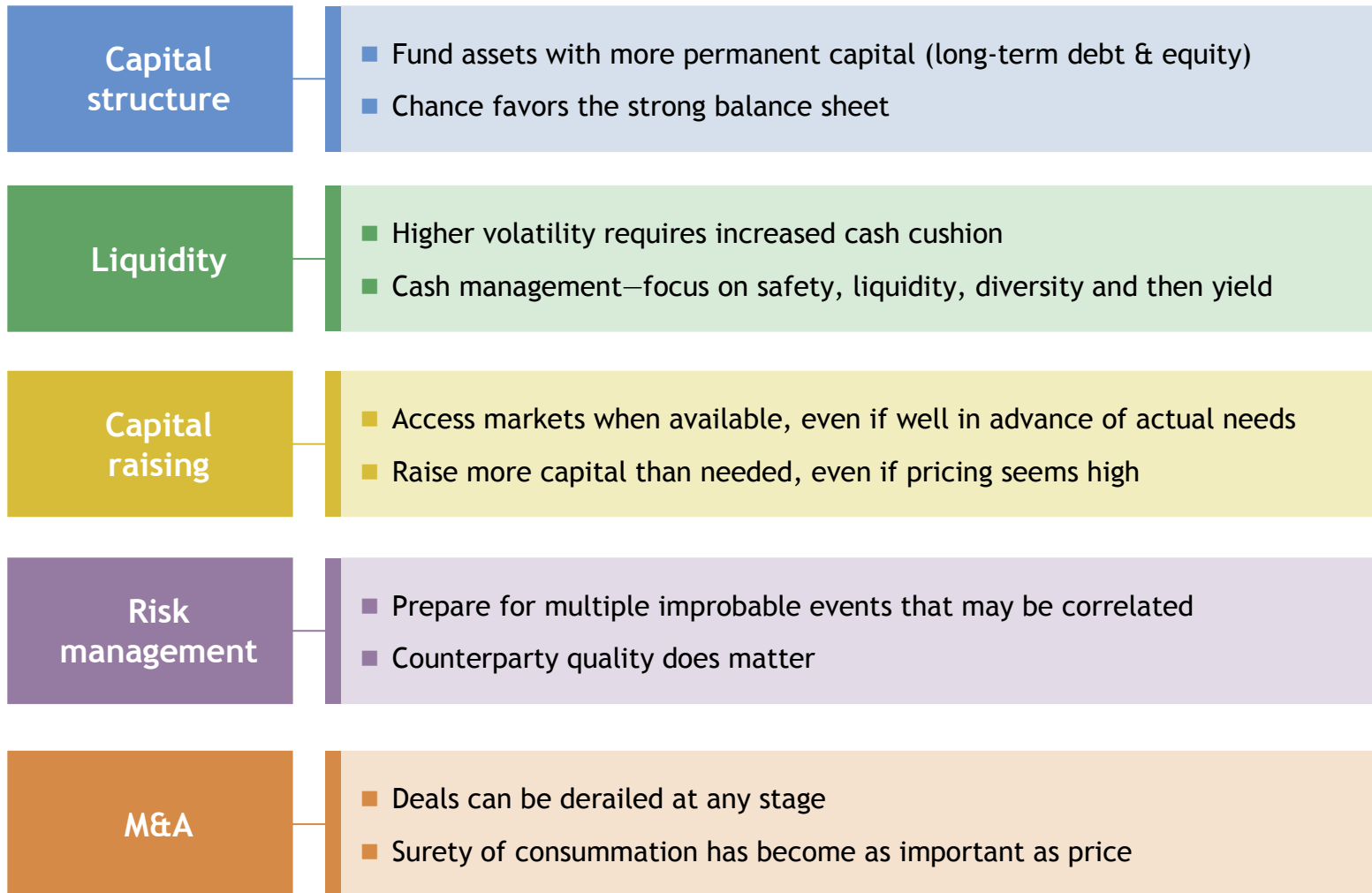
Number of deals						
>\$10bn	10	17	31	20	18	4
\$1–10bn	185	232	297	396	196	11
\$0.5–1bn	191	203	269	358	213	18

Source: J.P.Morgan; Dealogic Enterprise Static as of March 3, 2009  
 Note: North America includes any North American party involved; deals greater than \$10mm

**Mid-size (\$1-10bn) deal volume as % of total**



# Lessons learned from the credit market turmoil



# Actionable ideas



Action
■ Equify the balance sheet
■ Consider equity private placement
■ Induce conversion on existing convertibles
■ Exchange existing debt for new debt
■ Pre-fund near-term debt maturities
■ Review risk management policy
■ Repurchase existing debt
■ Repurchase shares
■ Prepare for acquisition of a lifetime

Rationale
■ Higher volatility -> conservative cap structure
■ May be appropriate in challenging markets
■ Reduce leverage without raising capital
■ Extend maturity to reduce liquidity risk
■ Market access more important than pricing
■ Hedge interest rates, currencies, counter-party risk
■ Take advantage of current depressed prices
■ Stocks have fallen in unison, some undervalued
■ Attractive valuations, targets forced to sell