



We're in a Recession, Now What? Bouncing Back

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Scottsdale AZ
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Agenda for the Day

- Section 1 – Let's Talk About Recession
- Section 2 – Risk
- Section 3 – A/E Industry Challenges
- Section 4 – Applying Insight



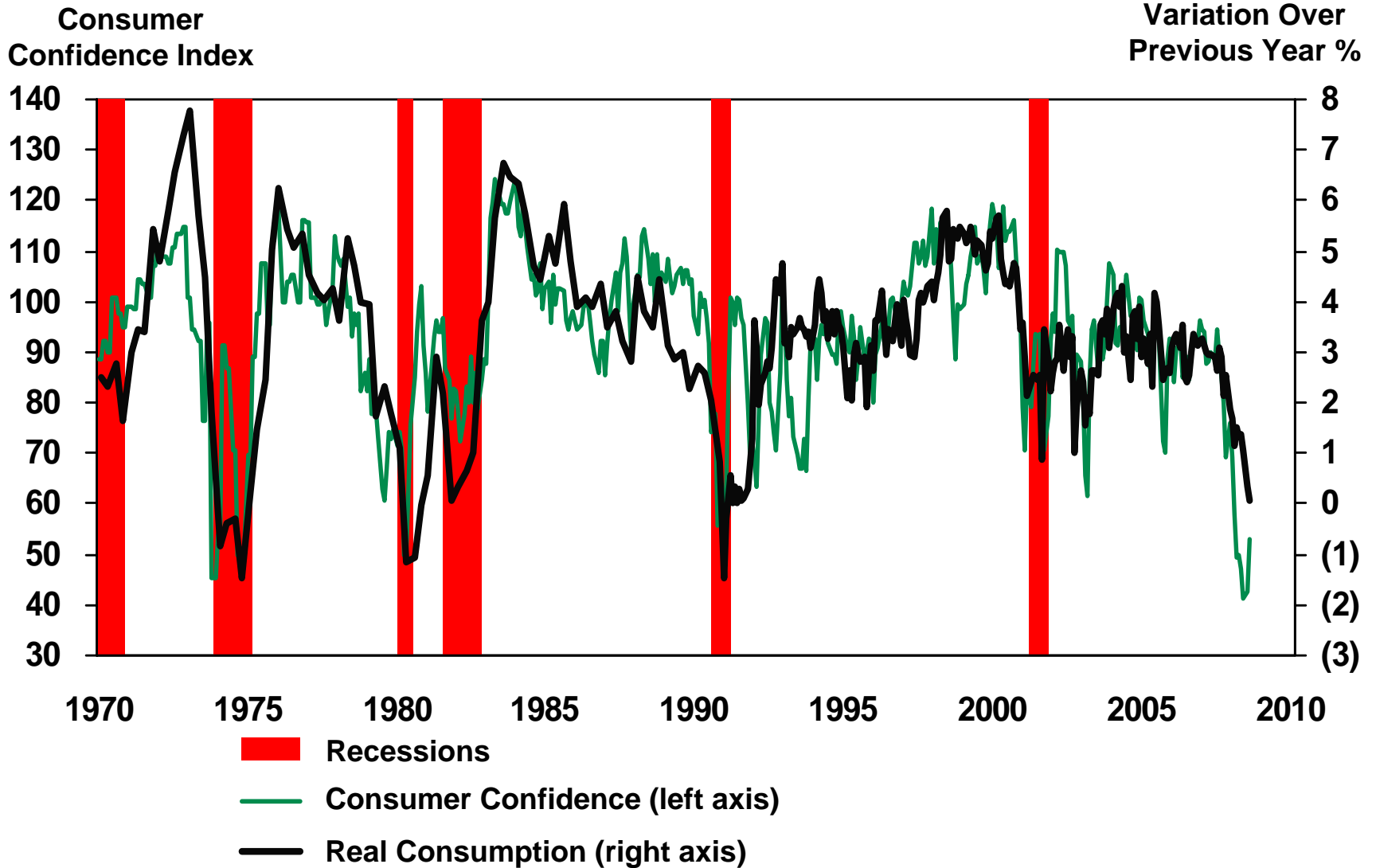


Section 1

Let's Talk About the Recession

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The Long Cycles



Slide 4

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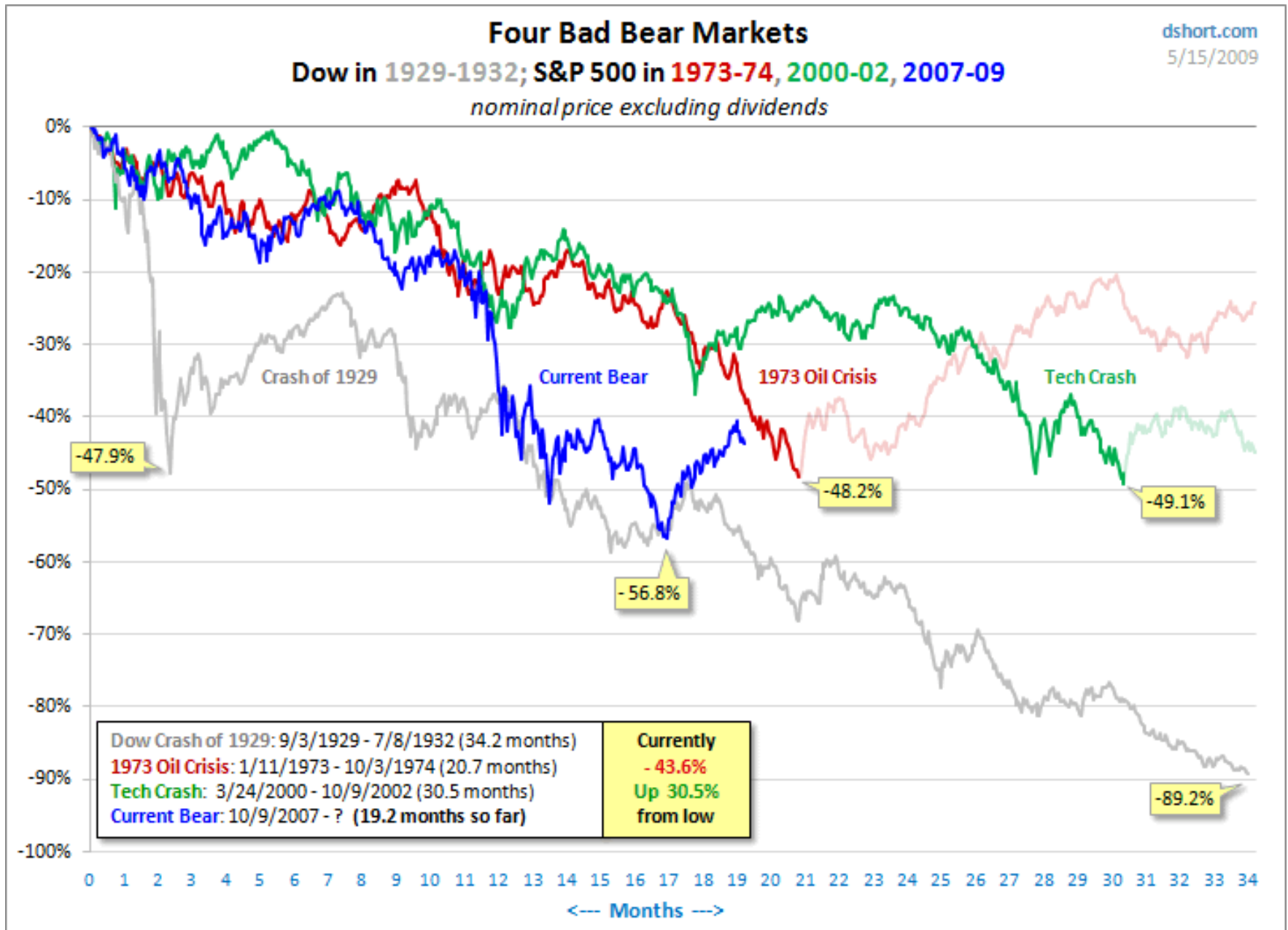
This chart needs to be sharpened. I found the source chart on the fdic site at <http://www.fdic.gov/bank/analytical/fyi/2006/032306fyi.html>

Chart data is at: http://www.fdic.gov/bank/analytical/fyi/2006/032306chart1_dlink.html

I cannot replicate the complexity of this chart. Need help from corp. comm.

dmika, 6/6/2006

How Bad Is This One?

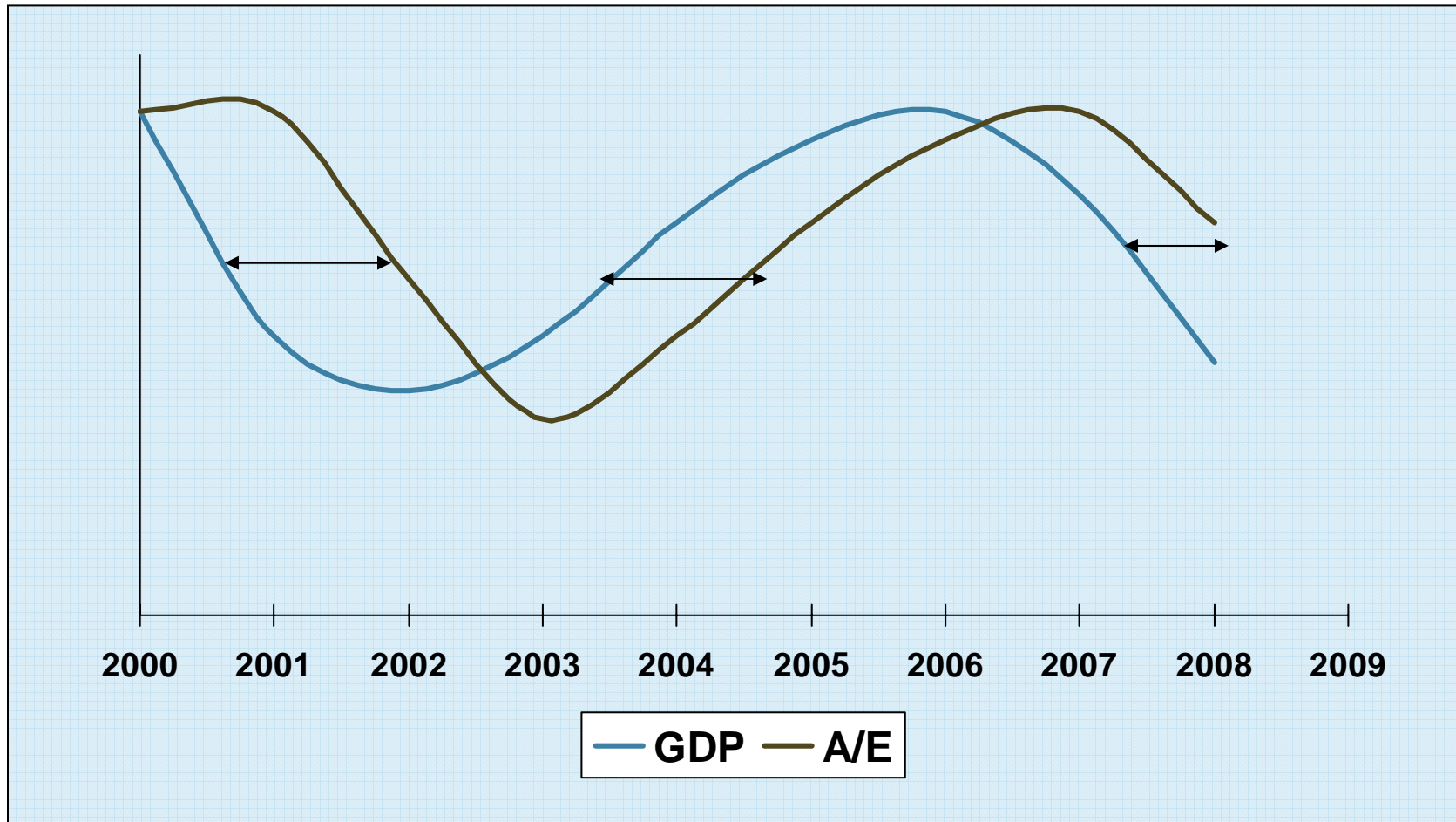


Not All Sectors Effected (Just Now)

- Many firms report that things are fine
 - Larger firms
 - Long-term projects
 - Fearful of “replacement in the pipeline”
- Housing market is dead, we know
 - Subsidiary markets as well
 - Think of the source of money



Lagging the Economy

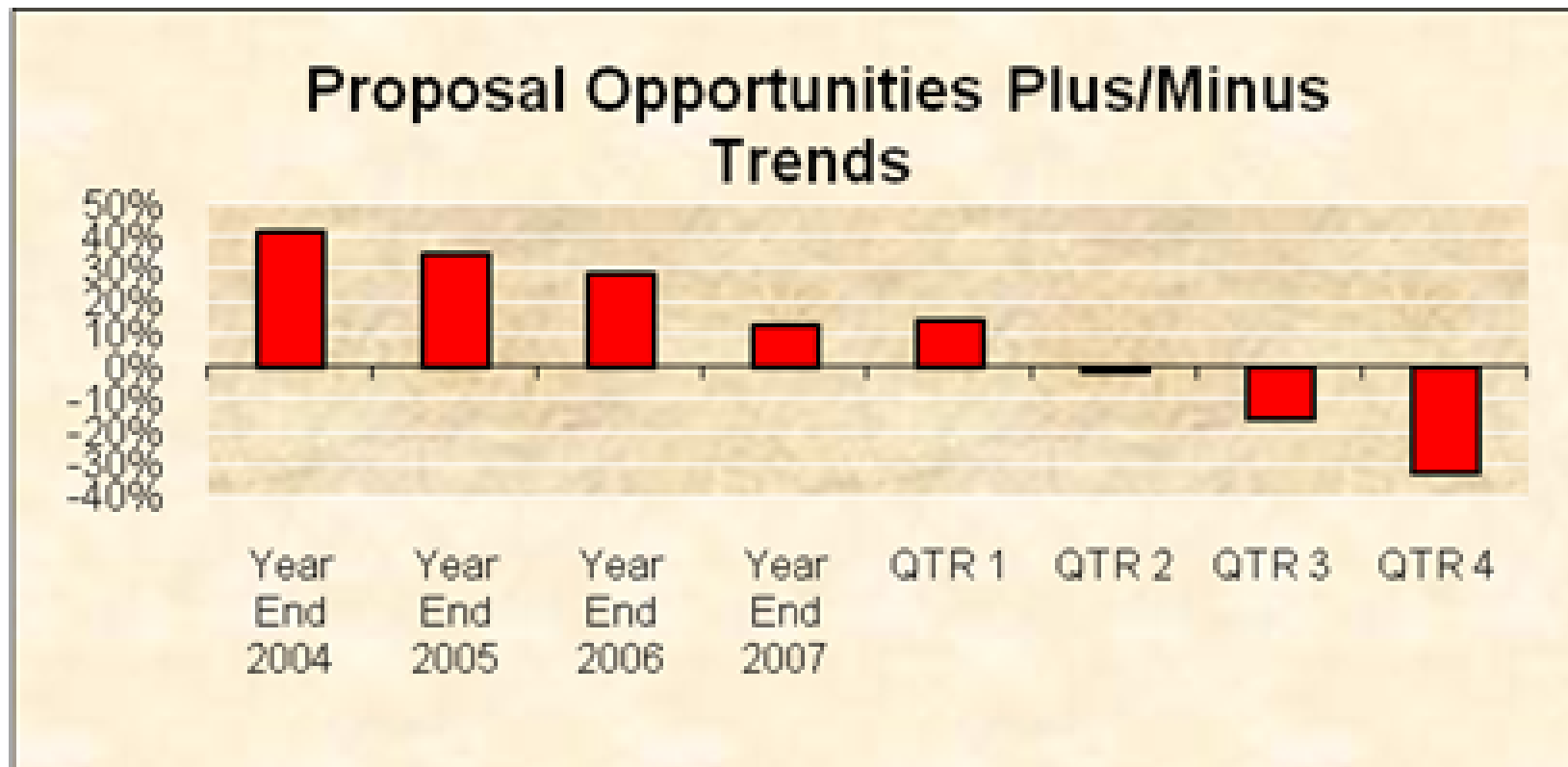


PSMJ's Survey (January 2009)

- Less than 20% of firms report an increase in proposal activities in the 4th quarter vs. the 3rd quarter.
- More than 50% of firms report a decrease in proposal activities in the 4th quarter vs. the 3rd quarter.
- Overall proposal opportunities are continuing the decline that began in the 2nd quarter of 2008



What PSMJ's Results Look Like:



PSMJ Reports Strong Markets, Though:

- Bridges, especially in the northeast and Midwest
- Railway work in the western U.S. and Canada
- Utility distribution, throughout the U.S.
- Resource management, especially in the South and Midwest
- Air pollution control, especially in the South and in Canada
- Wastewater reuse, throughout the U.S. and Canada



What Is the Commonality Here?

- It is all public work
- It is mostly infrastructure work
- It is somewhat “green” work

What lesson can we learn?

Follow the money...





Section 2

Risk

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What is Risk?

- Derives from the old Italian word *riscare*: to dare
 - In this sense risk is a choice rather than a fate
(Bernstein, Against the Gods)
- In quality terms, the consequences of variance *outside* the tolerance limits
 - “Consequences” can be cost, legal, moral, or societal

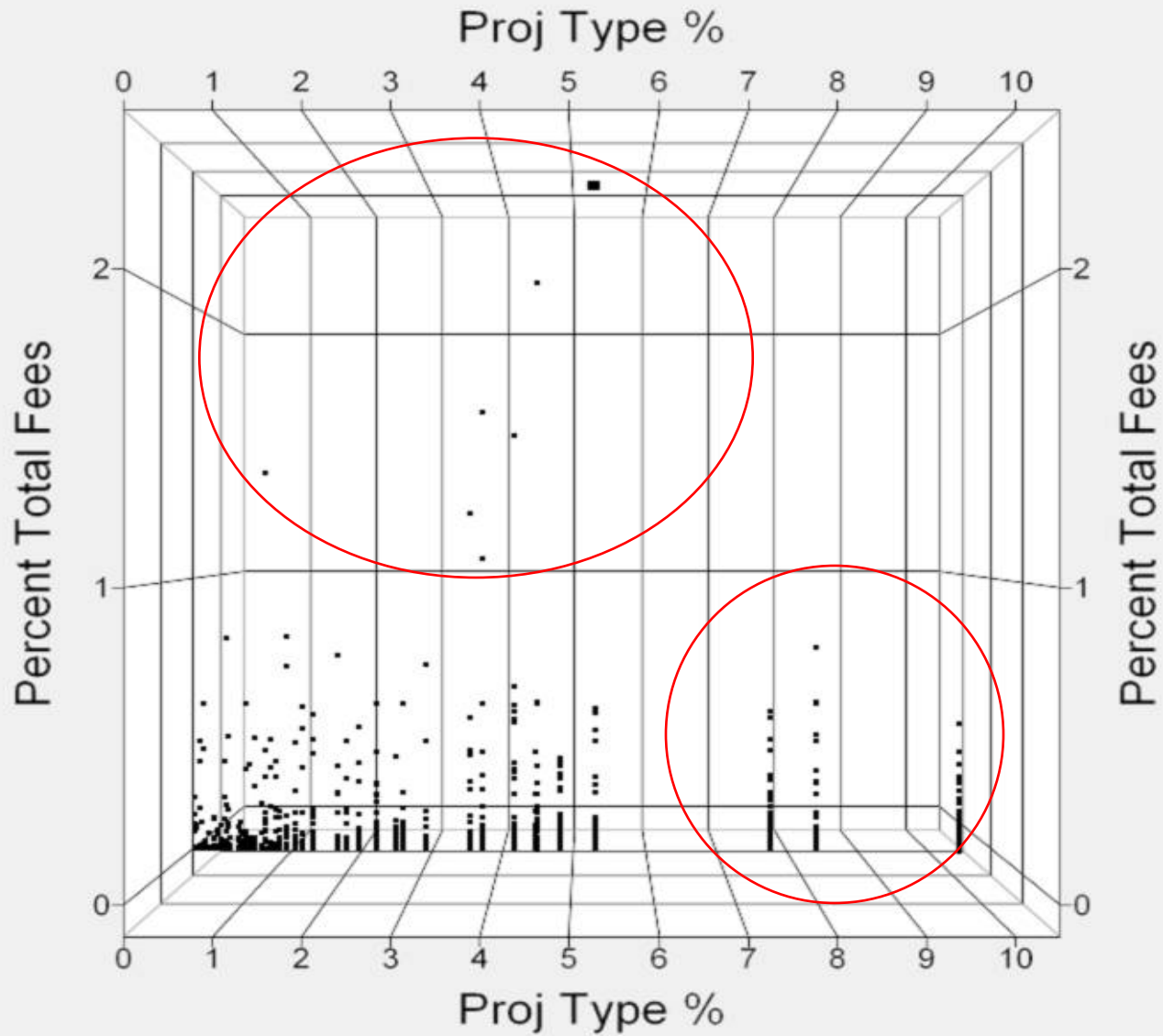


A/E Specific Risk

- External Risk
 - Because of cyclical, external risk is somewhat predictable
 - New markets present themselves continuously, old markets sometimes dry up
- Internal risk
 - Hiring shortages
 - Outmoded delivery processes
 - Training and quality assurance



Scatterplot of Frequency vs. Severity in Project Types



The Frequency vs. Severity Issue

- You have to know *why* these issues occur
- What is it about these projects that makes them more risky than others?
- What is it about your internal processes that makes some projects (or clients) more risky than others?



Managing Risk

- External
 - Business planning
 - Anticipating cyclicalities
 - Anticipating client demands
- Internal
 - Training & Monitoring
 - Hiring
 - Internal work processes
 - Contracts



Transferring Risk

- Primary professional liability insurance
 - “first line of defense” – legally transfers risk to someone who “buys” that risk
 - A bet on your performance
 - “Insurance is for the unlucky, not for the careless”
 - May just be insurance but may also offer contract review, training, other services which add to value
- Excess liability insurance
 - Secondary insurance beyond your primary layer
 - May be with another carrier



Things You Need to Know about Risk Transfer

- Insurance is cyclical, too
 - “Soft” vs. “Hard” market
- Underwriting rates vs. investment income
- What do you get for your money?
- What is your continued risk?





Section 2

A/E Industry Challenges

Bouncing Back

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Major Questions for Design Firms

- If you know you can see ahead in the economy, how can you position your firm to anticipate the cycles?
- Will your firm be measurably better at the end of the next cycle (or are you just riding the cycles up and down)?



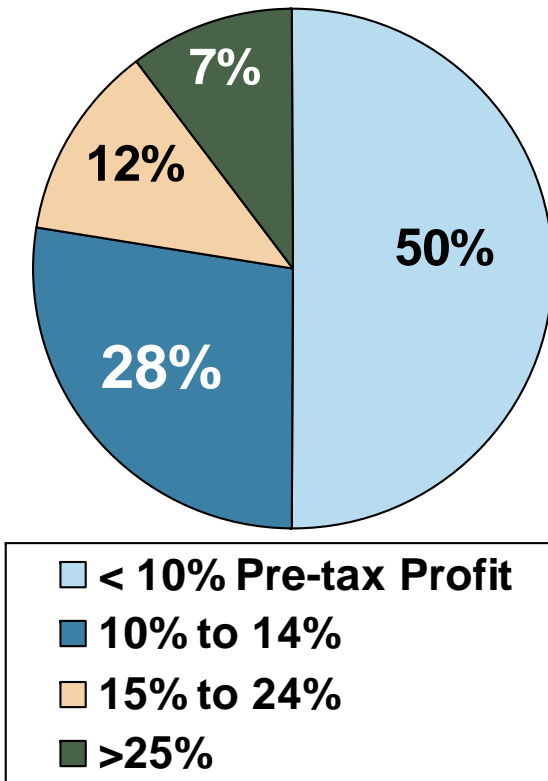
A/E Risk Challenges

- Internal
 - Profitability
 - Scope Management
 - Quality Management
 - Staff Management
- External
 - Market Changes
 - Hiring (Resource Sourcing)
 - Economic Forces
 - Risk Transfer Weaknesses



Profitability

Breakdown of Firms



- 50% of the firms have less than 10% net pre-tax profit
- Only 19% of firms have greater than 15% net profit
- Less than 10% of firms have profits greater than 25%

Scope Management

- XL Design Professional study showed a many firms are losing 5%-7% of project profit on write-offs, many due to scope creep.
- Scope management also involves management of client expectations at the outset and the conclusion of the project
- Tight scopes allow lump-sum pricing on some projects.



Quality Management

- Not QA/QC alone, but an attitude of continuous improvement
- Measure success, measure failure.
- You have to know why things happen right and why things happen wrong

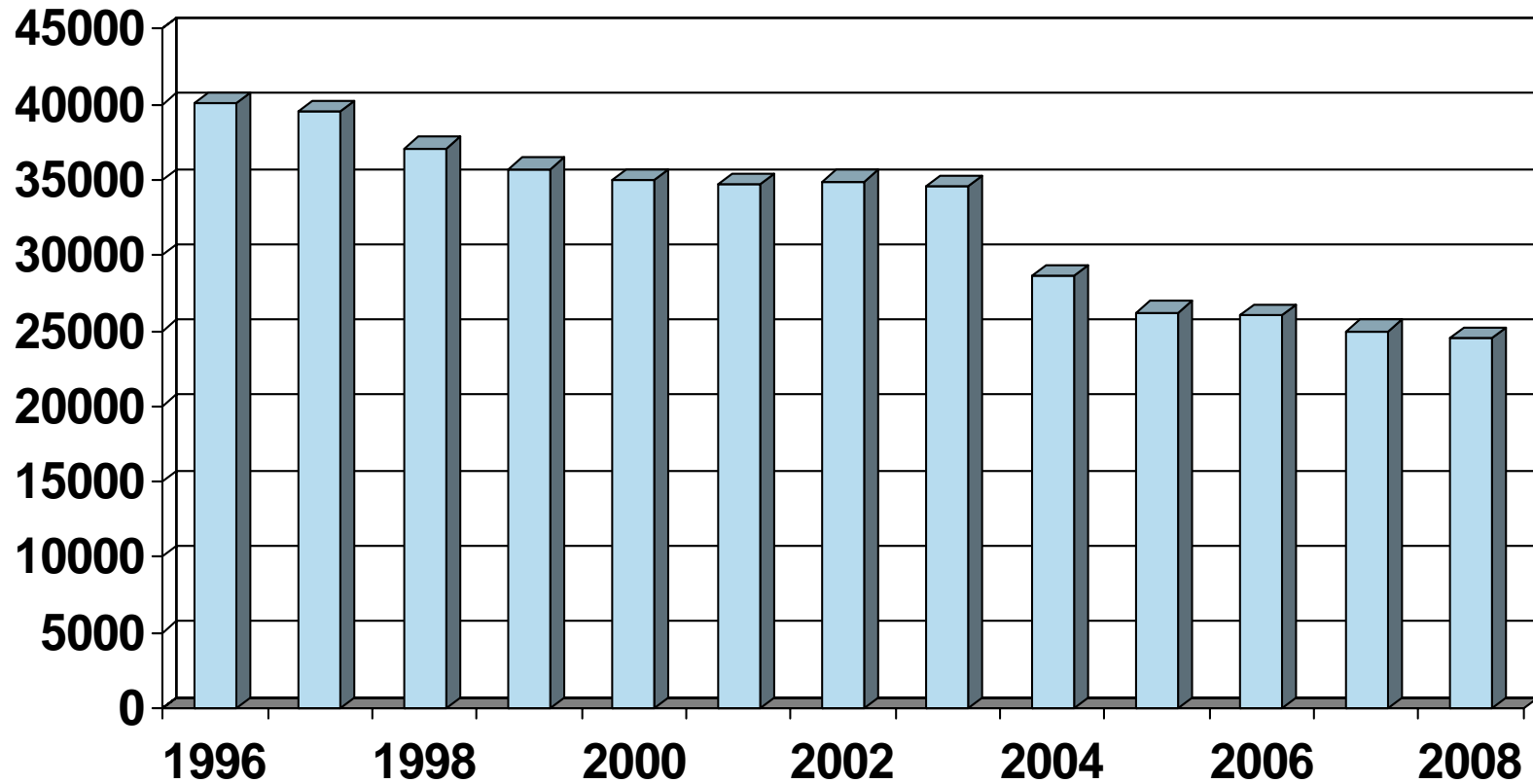


Staff Management

- Be a “contrarian” investor in your firm
 - Maintain constant discipline
 - Take a longer-term view
 - Use a fiscally conservative approach
- Drive your firm towards the client drivers
- Manage the cycles



Number of US Engineering Graduates





Section 4 Applying Insight

What Can You Do?

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Positive Things To Do

- Enforce cash management
- Look for sectors that will be developing
- Train for the rebound, now!



Cash Management

- For engineers who work with architects, a huge problem
- How can you implement a solution?
 - Retainers
 - Credit
 - Insistence and monitoring



Note from Finance Class

Profit is an opinion

Cash is a fact



New Sectors

- Watch for state & federal appropriations
- Diversify or specialize

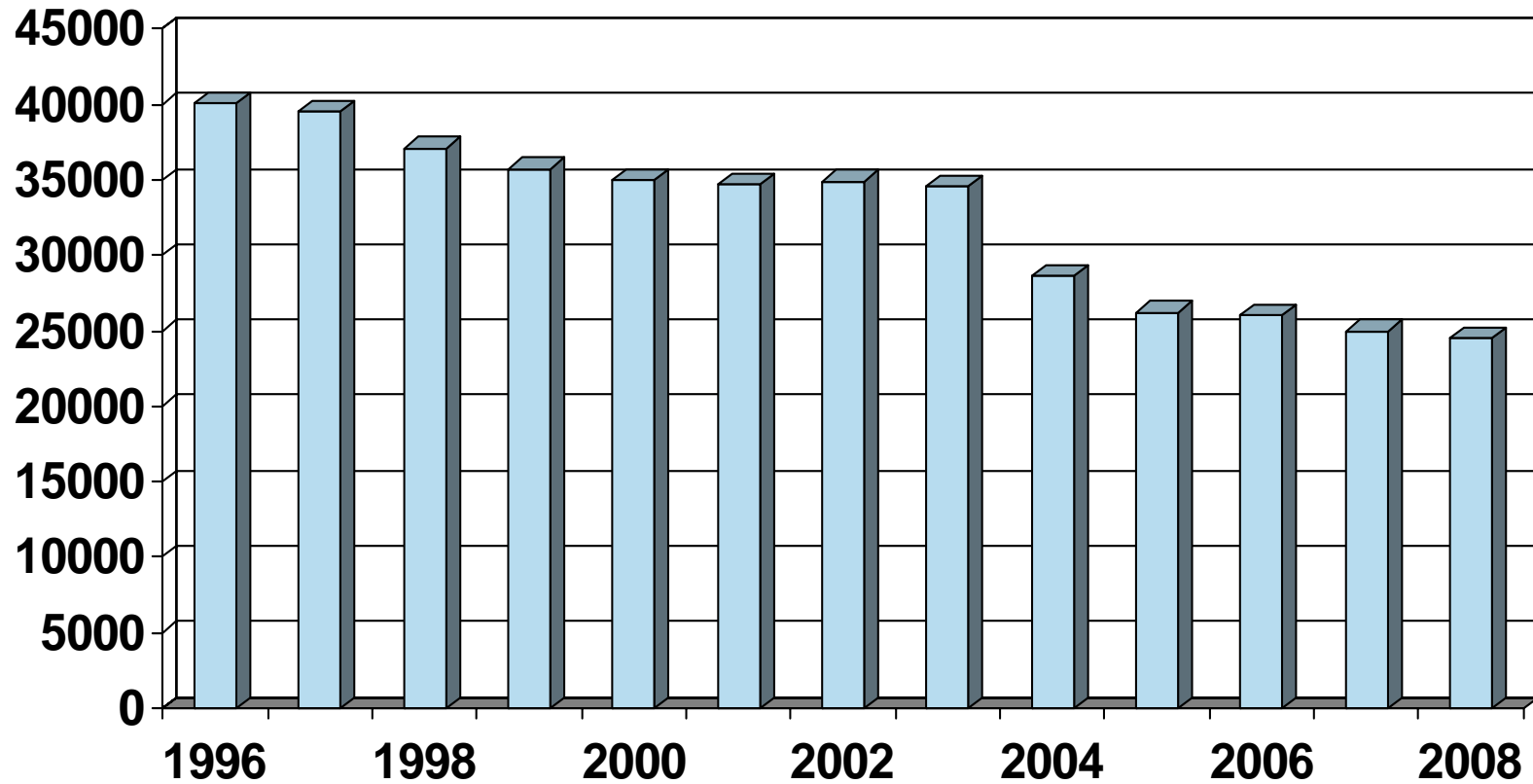


Train, Now!

- Where will new engineers come from if you lay them off now?



Number of US Engineering Graduates



How Do You Expect Me to Pay For This?



Where Money Comes From (another note from finance class)

- There are only three sources of capital:
 - Debt Capital – money you borrow
 - Operating Capital – money you earn
 - Equity Capital – money which is invested

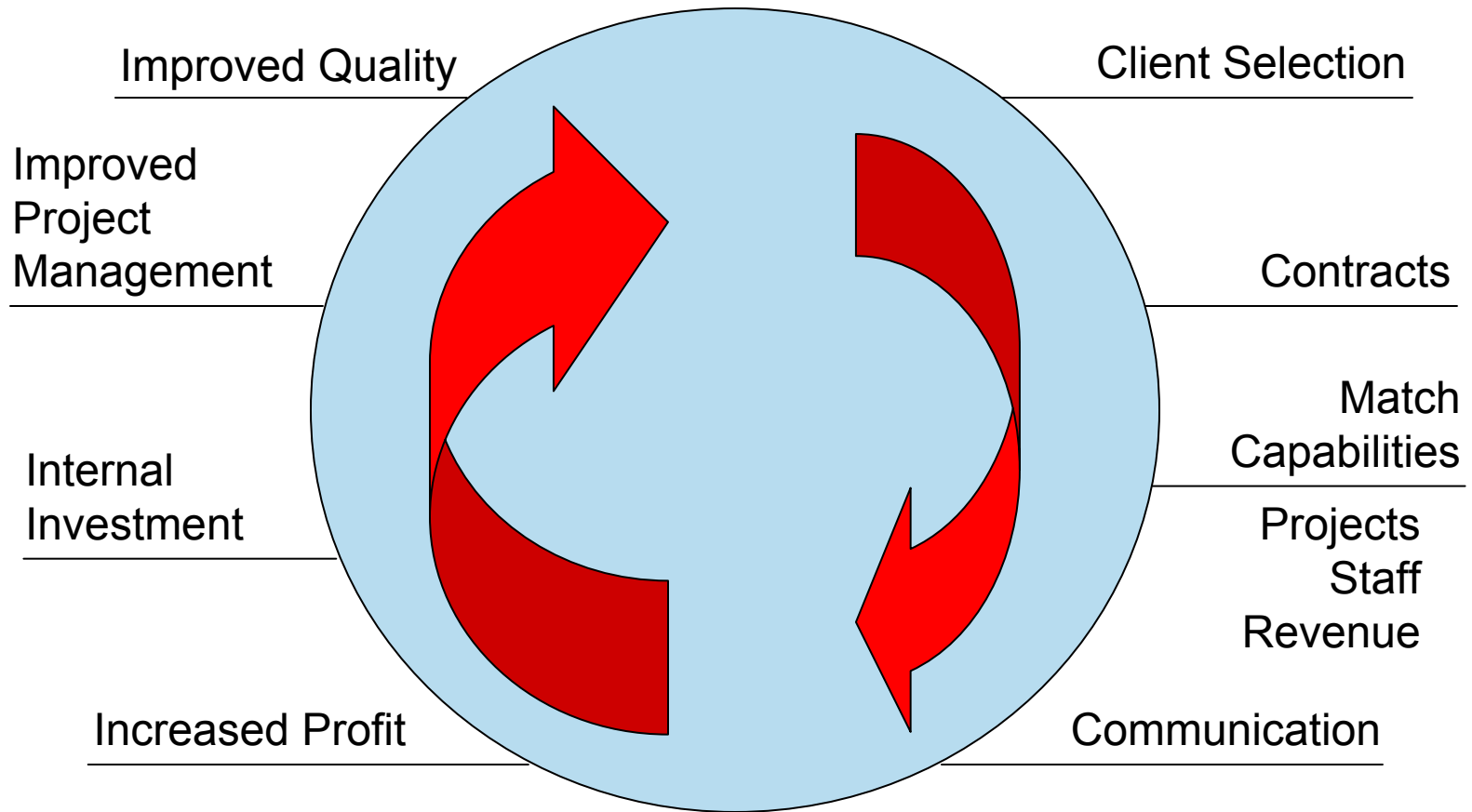


Think About the Power of Money

- If you borrow the money, you owe the lender
 - The lender has the power, you have the obligation to repay
 - You are under pressure
- If you earn the money, you have the power
 - But you can also be as sloppy as you want to be
- If you have investors, you have powerful critics of your business practices
 - Because they are legal owners of the business



Risk Management Cycle



dm8

Needs speaker's notes.

dmika, 6/7/2006

What direction will your firm take?

- Will you come out of the recession in better shape for the next run?
- Are you preparing now to bounce back?





Questions?

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