Report Card on Reserve Adequacy — A+ or C-

2012 Casualty Loss Reserve Seminar

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Ground-Rules for our Discussion
Including Disclaimers

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Agenda

- Views on current industry reserve adequacy
- Observations by line
- Potential influences on reserve adequacy
- Where is reserve adequacy going?

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Lines reflected in Towers Watson analysis represent approximately 90% of U.S. P/C premium and reserve volume

- Personal lines included:
  - Private passenger auto liability
  - Homeowners
- Commercial lines included:
  - Workers' compensation
  - Commercial auto liability
  - Commercial multi-peril
  - Other liability occurrence
  - Products liability
  - Other liability claims made
  - Medical malpractice
  - Assumed casualty reinsurance

- All U.S. companies filing P/C statutory annual statements
- Loss plus defense and cost containment expense reserves
- Undiscounted
- Data was compiled from SNL
- Analysis is generally performed in aggregate (not by company)
- Analysis is performed as an internal initiative, and not on behalf of any clients

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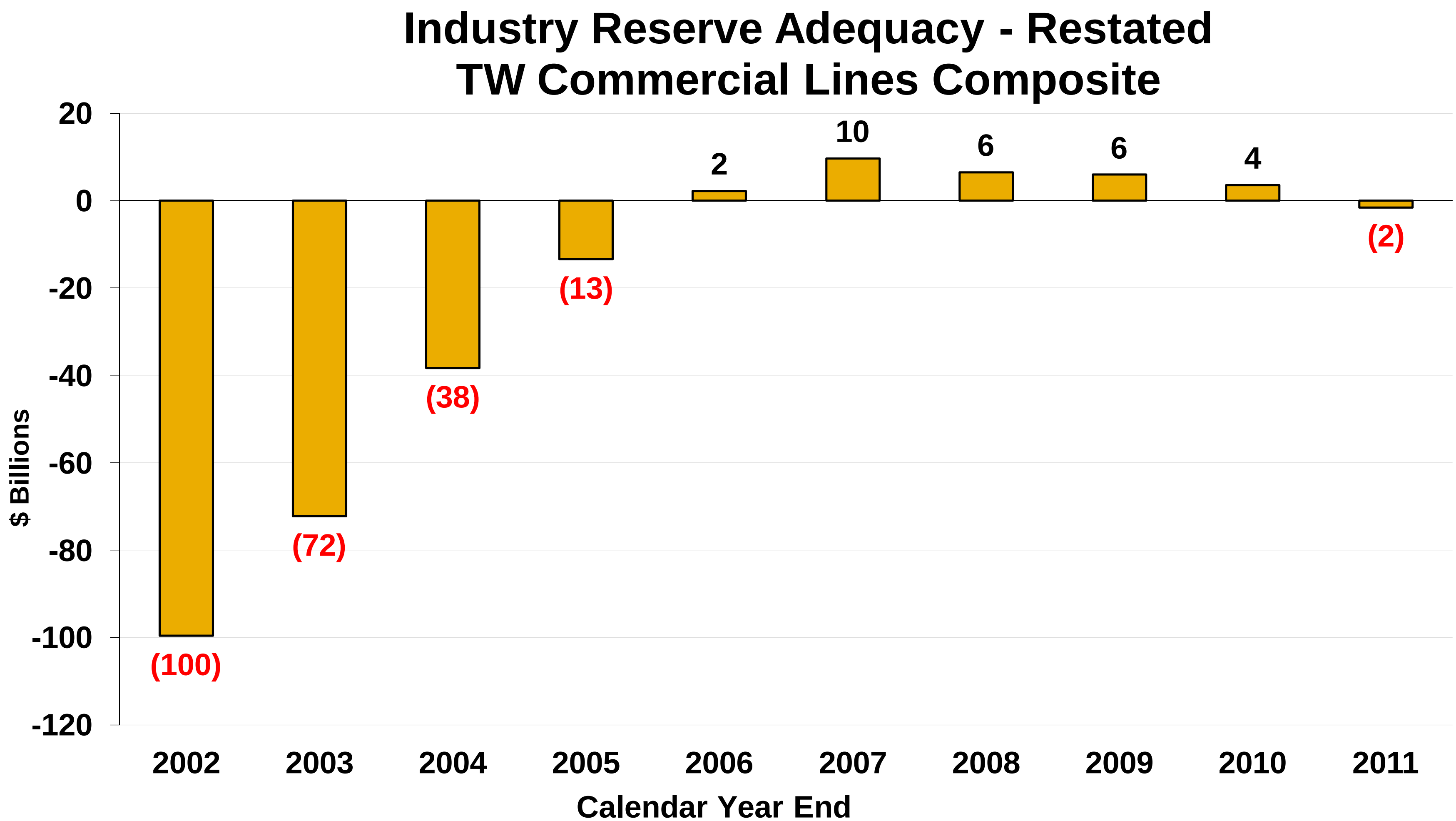
For commercial lines in total, our analysis indicates that reserve adequacy has been declining since 2007



Source: SNL 2012, Towers Watson analysis

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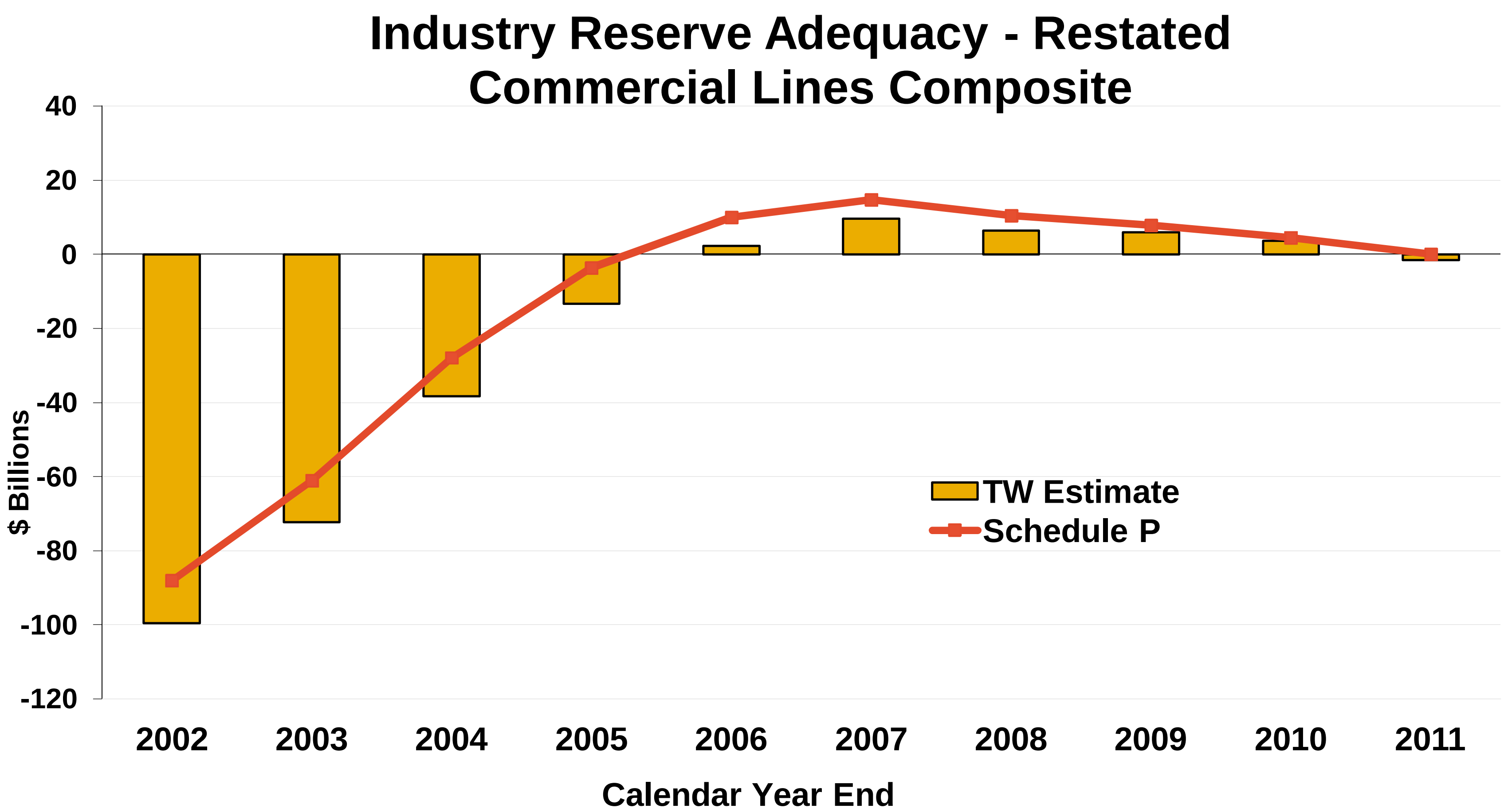
View based on Schedule P shows similar trend



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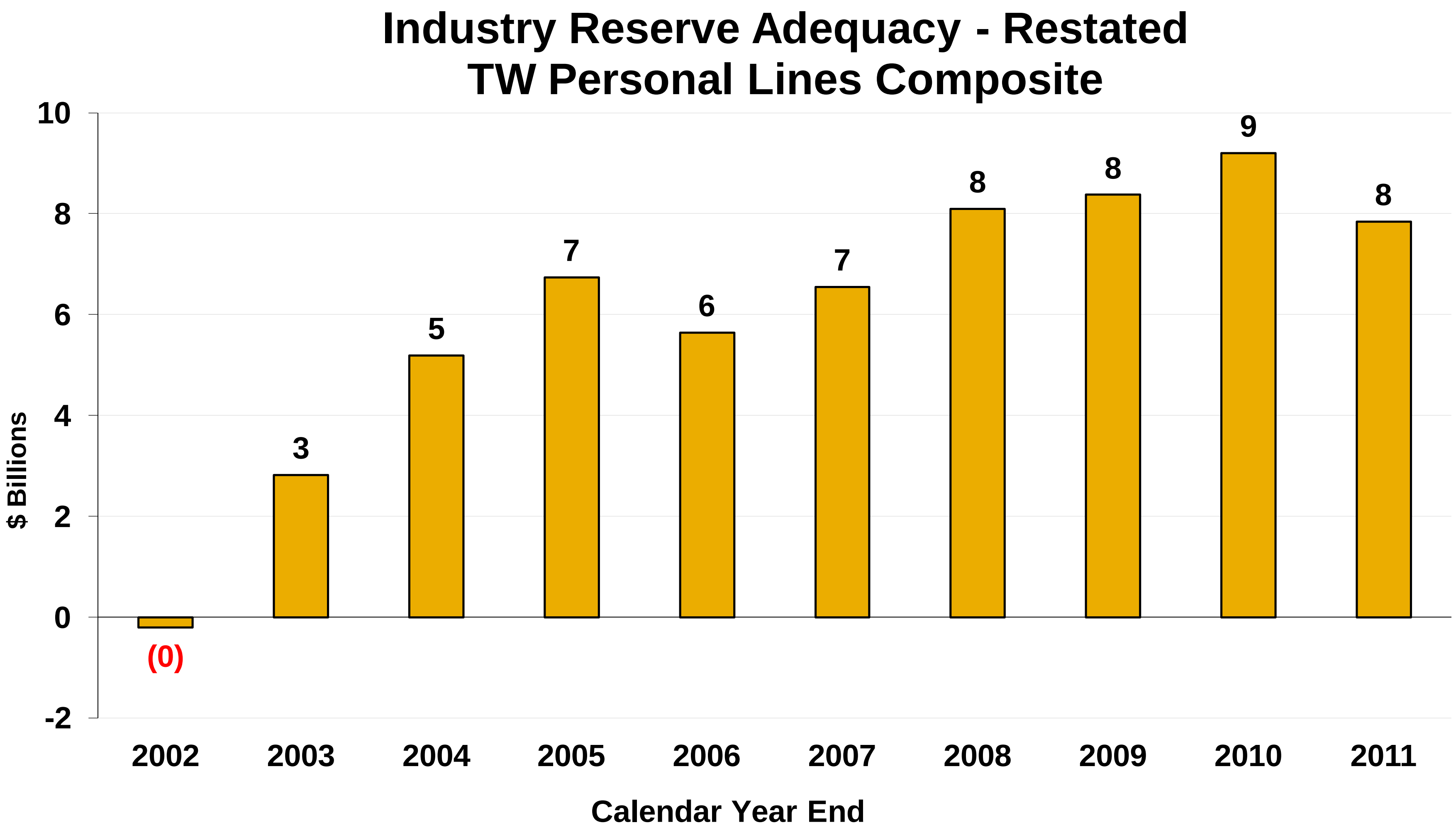
Our estimate is that personal lines has been reserved conservatively for many years



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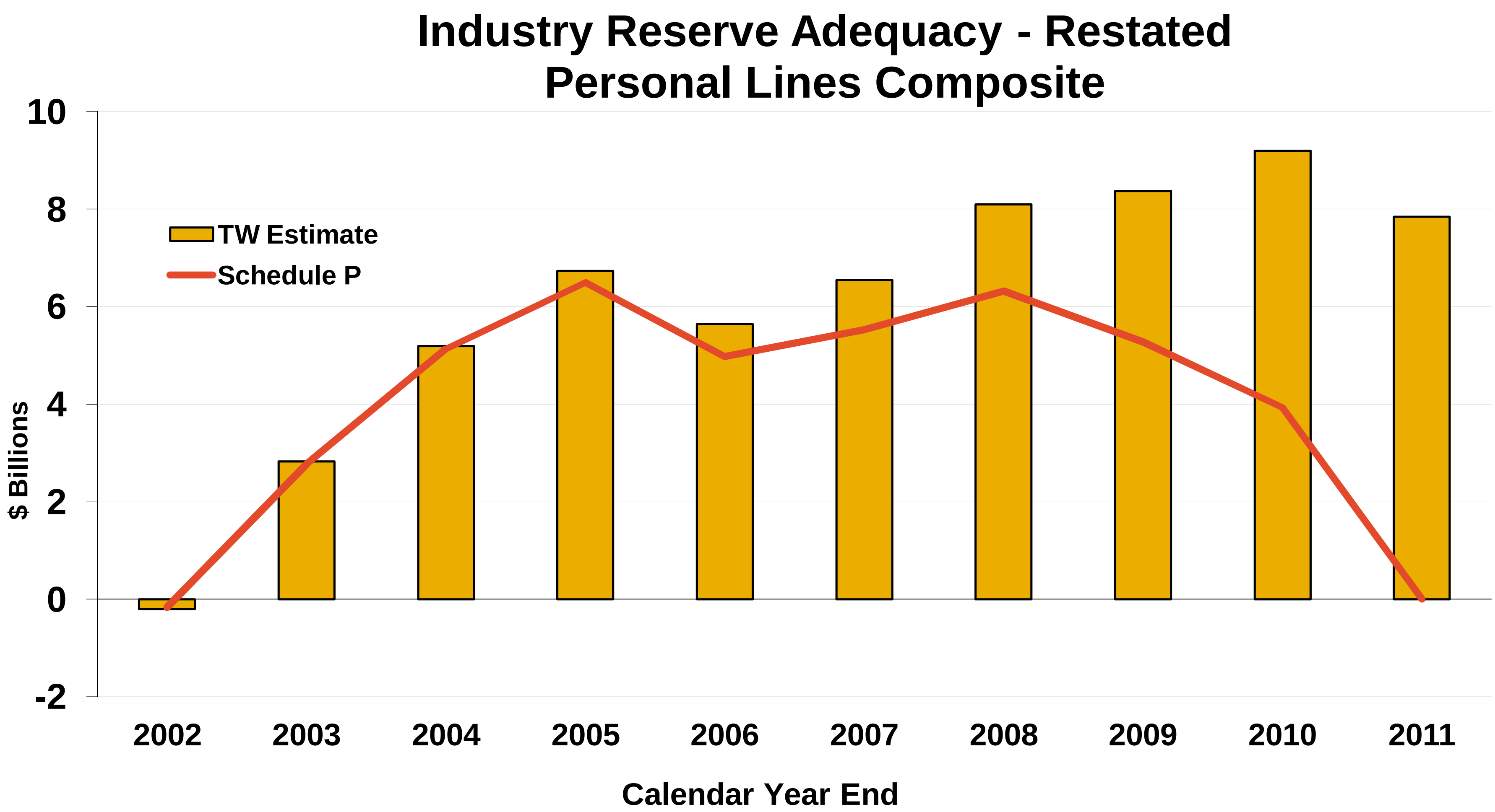
Schedule P hindsight shows that reserves were conservative and we expect that 2011 will be similar



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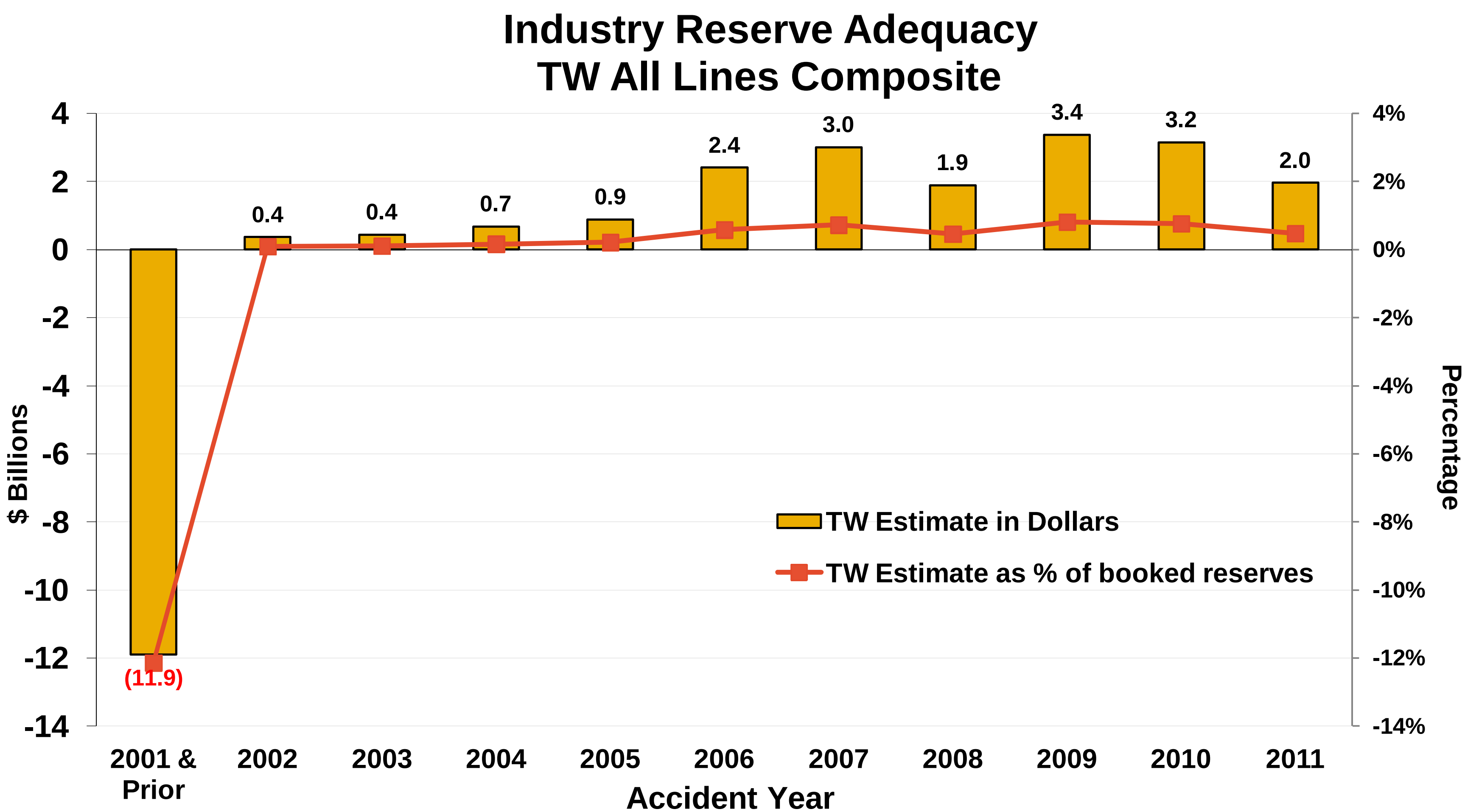
Current view is that reserves for all recent accident years are slightly conservative overall, with deficiency in the prior years



Source: SNL 2012, Towers Watson analysis

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Examples of lines viewed as conservatively reserved

- Private passenger auto liability
- Homeowners
- Medical malpractice
- Commercial auto liability
- Other liability occurrence – accident years 2002-2011

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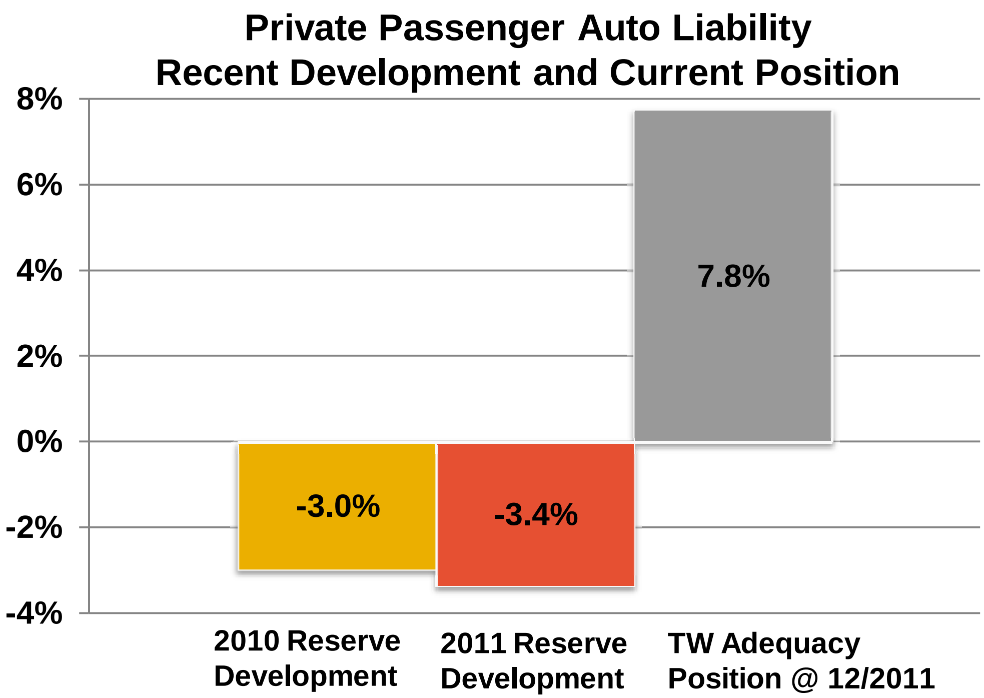
We view private passenger auto liability reserves as conservative, and expect further reserve releases



TW Loss Cost Trend Estimates		
	Mid 2010	Mid 2012
AY 2010	+4.1%	+2.5%
AY 2011	+1.7%	+0.1%

- Every accident year since 2001 has developed favorably
- Initial booked margin has been between 0 and 5 points each year
- Some companies don't take credit for anticipated salvage/subrogation
- Loss cost trends have emerged below expectations recently
  - But indications for 2012 severity are less favorable
- Case reporting patterns appear to have accelerated

Source: SNL 2012, Towers Watson analysis

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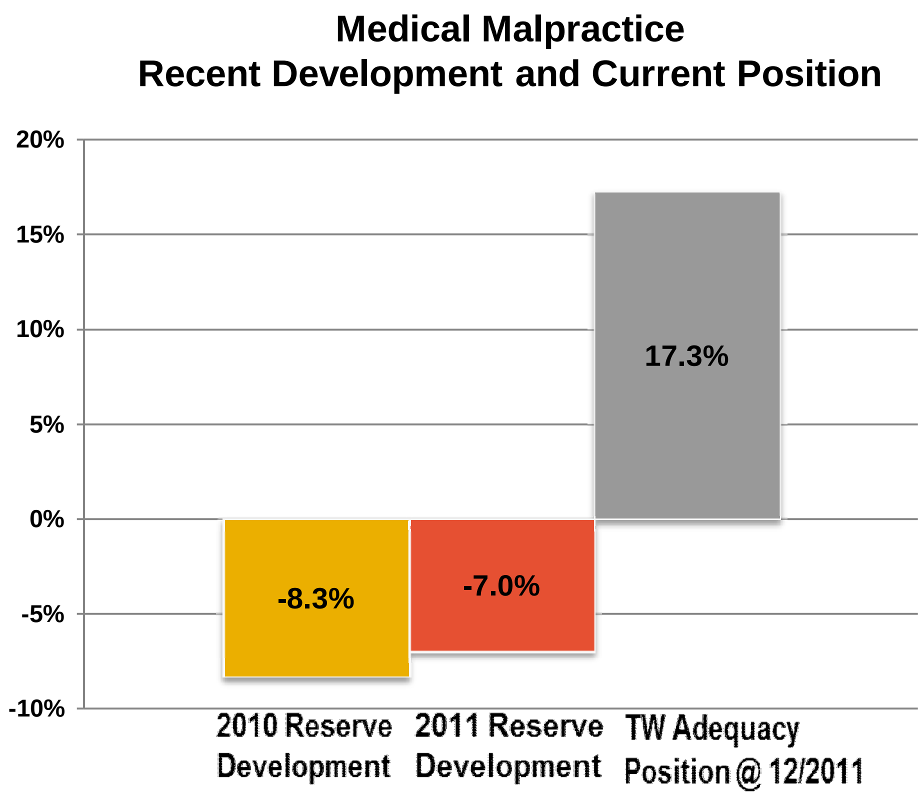
For several years, medical malpractice results have emerged much better than anticipated creating reserve redundancy



Source: SNL 2012, Towers Watson analysis

- Every accident year since 2003 has developed favorably
- Even older accident years are developing favorably recently
- Tort reform and patient safety efforts improved loss costs
- 2005-2008 reserves were originally set based on less favorable experience for prior years, then emerged much better than anticipated
- 2009 and subsequent AYs still appear to be booked conservatively

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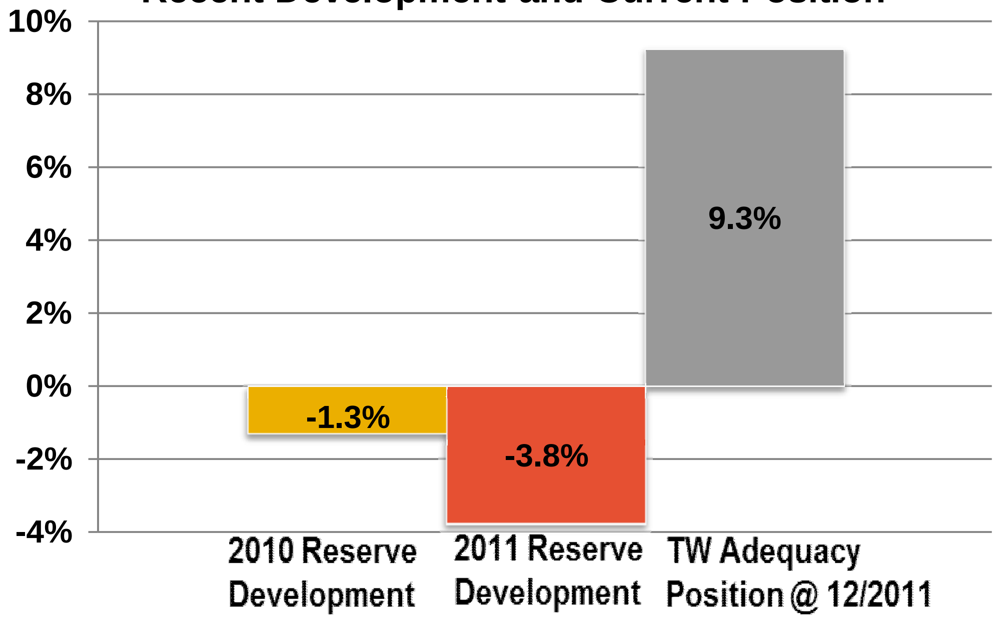
Other liability occurrence reserves have also been developing favorably for the most recent 10 accident years

Other Liability Occurrence – AY 2002 - 2011
Recent Development and Current Position



TW Loss Cost Trend Estimates

	Mid 2010	Mid 2012
AY 2010	+6.0%	+4.0%
AY 2011	+6.0%	+4.0%

- Accident years 2003 through 2009 have developed favorably
- Loss cost trends have emerged below expectations recently
- Analysis indicates that all accident years back to 2004 are still conservative
  - Although 2009-2011 are less conservative than 2006-2008
- Reserves for accident years 2001 and prior are viewed as deficient

Source: SNL 2012, Towers Watson analysis

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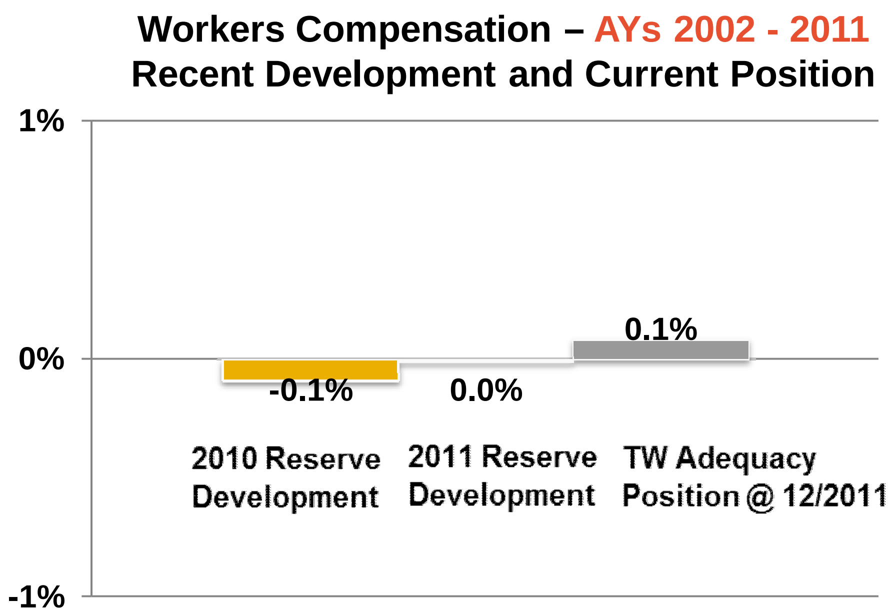
Excluding accident years 2001 and prior, our view is that workers compensation reserves are about right



TW Loss Cost Trend Estimates

	Mid 2010	Mid 2012
AY 2010	+4.4%	+3.1%
AY 2011	+4.4%	+2.1%

- Accident years 2003 through 2007 have developed favorably, but 2008 through 2010 have developed upward, causing recent overall emergence to be flat
- Loss cost (severity) trend has been better than expected, helping to maintain reserve adequacy,
  - Although early read on 2012 emergence is less favorable
- Concern that AY 2011 may be short

Source: SNL 2012, Towers Watson analysis

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Examples of lines viewed as optimistically reserved

- Workers comp – accident years 2001 and prior
- Products liability
- Other liability occurrence – accident years 2001 and prior
- Reinsurance B – accident years 2001 and prior

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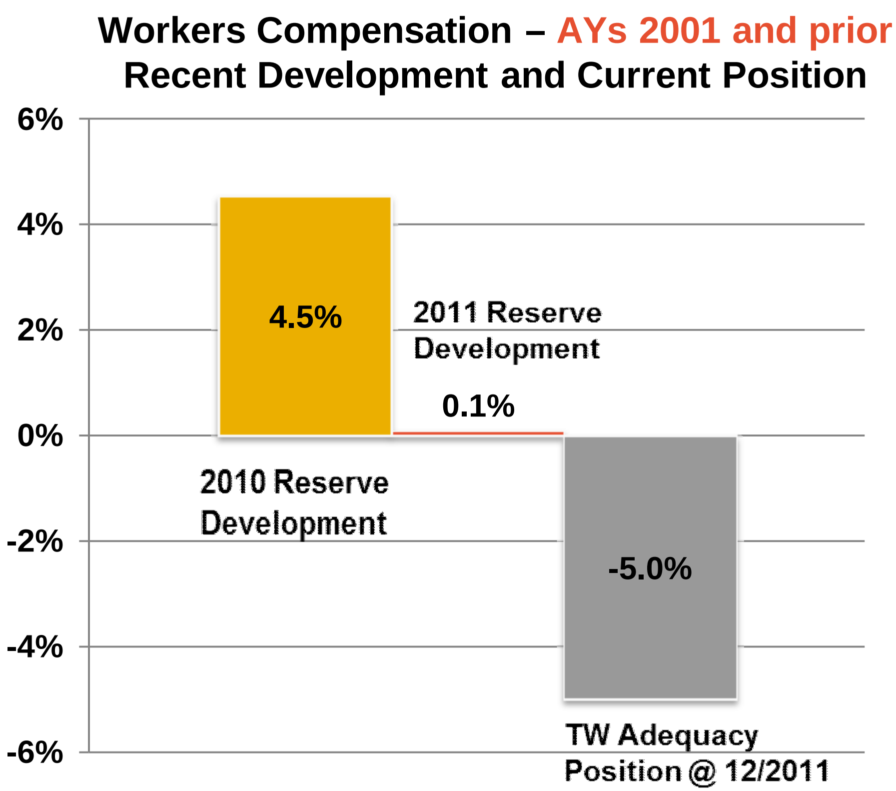
We still have a lingering concern about workers compensation tail development



- Prior years have a long track record of developing upward, even though emergence was flat in 2011
- Potential for an uptick in medical inflation, particularly for elder and end-of life care, is a concern
- Possibility that ever improving mortality experience is not fully reflected in reserve estimates

Source: SNL 2012, Towers Watson analysis

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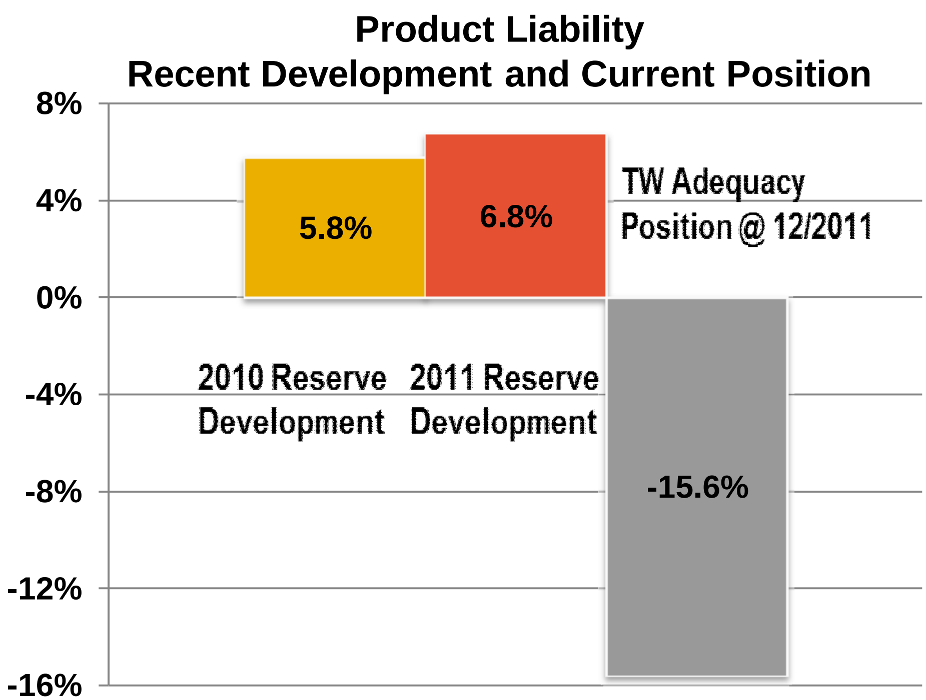
Products liability adverse development has been significant recently



TW Loss Cost Trend Estimates

	Mid 2010	Mid 2012
AY 2010	+8.0%	+8.0%
AY 2011	+8.0%	+8.0%

- Unfavorable reserve development has accelerated in recent years
- Analysis indicates that all accident years are deficient
  - Approximately 30% of the indicated deficiency is in the latest 10 AY's, 70% in prior years
- A&E emergence has continued
- AY 2011 reserves do not look stronger than AY 2010

Source: SNL 2012, Towers Watson analysis

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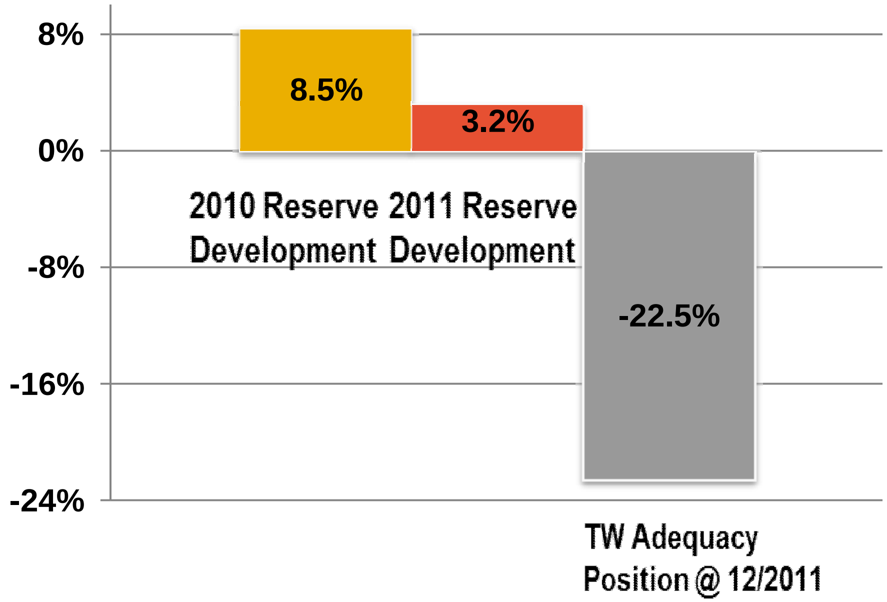
Ongoing emergence of asbestos and environmental claims drive an indicated deficiency in prior years for other liability occurrence

Other Liability Occurrence – AYs 2001 and prior
Recent Development and Current Position



- Both asbestos and environmental continued the adverse development in 2011
- In addition, there may still be some deficiency in the late 90's through 2001 AYs for non-asbestos and environmental reserves

Source: SNL 2012, Towers Watson analysis

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Does the underwriting cycle lead to a reserving cycle?

- Underwriting cycle is characterized by:
  - Swings in price levels/adequacy
  - Swings in availability/level of capital
  - Swings in coverage terms and conditions

- Examples of coverage terms and conditions that vary through phases of the underwriting cycle:
  - Broadening/narrowing of specific coverage extensions
  - Use/level of deductibles and retentions
  - Use/level of sublimits
  - Coinsurance requirements
  - Insurance to value and use of blanket coverage

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Potential effect of underwriting cycle on reserve indications – development patterns

- Development patterns are affected by changing coverage terms
  - Research in the UK, as well as analysis of U.S. RAA data, suggests that development patterns are longer in “soft-market” years characterized by broader coverage terms
  - If shifts in the patterns are not anticipated by the actuary, reserve indications could be understated for soft-market years and overstated for hard-market years
  - Even if shifts are detected, may be a tendency to rely on longer-term averages rather than reacting to recent shifts
- This issue would likely be most material in certain commercial lines characterized by cycles in coverage terms, e.g. general liability, D&O, E&O

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Potential effect of underwriting cycle on reserve indications – expected loss ratios

- Expected loss ratio trends may not be properly estimated if price monitoring processes do not capture the full effect of changing terms and conditions
  - Broadening of terms and conditions can in effect be a “price decrease”, or more precisely, an increase in coverage with no associated price increase
  - Effect on reserving is likely to understate expected loss ratios during periods when they are rising/higher, and overstate expected loss ratios during periods when they are falling/lower

- This issue could be material in any lines with significant changes in terms and conditions
  - General liability, D&O, E&O, Property lines

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Potential effect of underwriting cycle on selection of carried reserves

- Management is responsible for determining their best estimate of the loss and LAE liabilities

- Might there be more of a tendency for management to challenge actuarial assumptions when reserve estimates are different (higher or lower) than expected?

- Might there be a hesitancy, by management and actuarial, to make significant revisions to prior assumptions or selections without strong evidence?

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Why our current view (and the industry's) may be too low

- Will recent soft-market years (2008-2011) emerge similarly to the last cycle (significant adverse emergence)?
  - They have developed downward from initial estimates thus far!
  - Are we missing the boat on a longer tail that is coming?

- The fear of inflation
  - Especially on medical costs (workers comp, liability lines)
  - Unknown effects of health care reform
  - A permanent 1 point increase in annual medical inflation rate is worth $X billion (not sure what the number is, but it's big!)

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Mitigating factors – are we “better” than we used to be?

- Better price monitoring?
  - Probably, at least in many companies
  - More companies have formal price monitoring processes
  - Effort into and quality of price monitoring has improved
  - More companies are using the price monitoring results in reserving
  - Use of predictive modelling in underwriting may be allowing better price monitoring

- Better reserving technology?
  - Maybe! Better capabilities, tools, diagnostics, speed, but -
  - Is reliance shifting too much to the answer from the tool, at the expense of reasonability checks and business sense?
  - Do we still need to be very careful of the “garbage in – garbage out” concept?

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More potential mitigating factors

- Discipline brought about by Sarbanes Oxley?
  - Probably a meaningful improvement for some companies
  - Documentation of assumptions, rationale for decisions, explanation of material changes
- Discipline brought about by statements of actuarial opinion?
  - Probably a meaningful improvement for some companies
  - “Requires” carried reserves to be within reasonable range of indications
  - Although this requirement has been in place for some time
- Coverage terms and conditions appear to have “held up better” in the latest soft market vs. prior cycles
  - Underwriters’ education
  - Underwriters’ use of analytics
  - Focus by senior management

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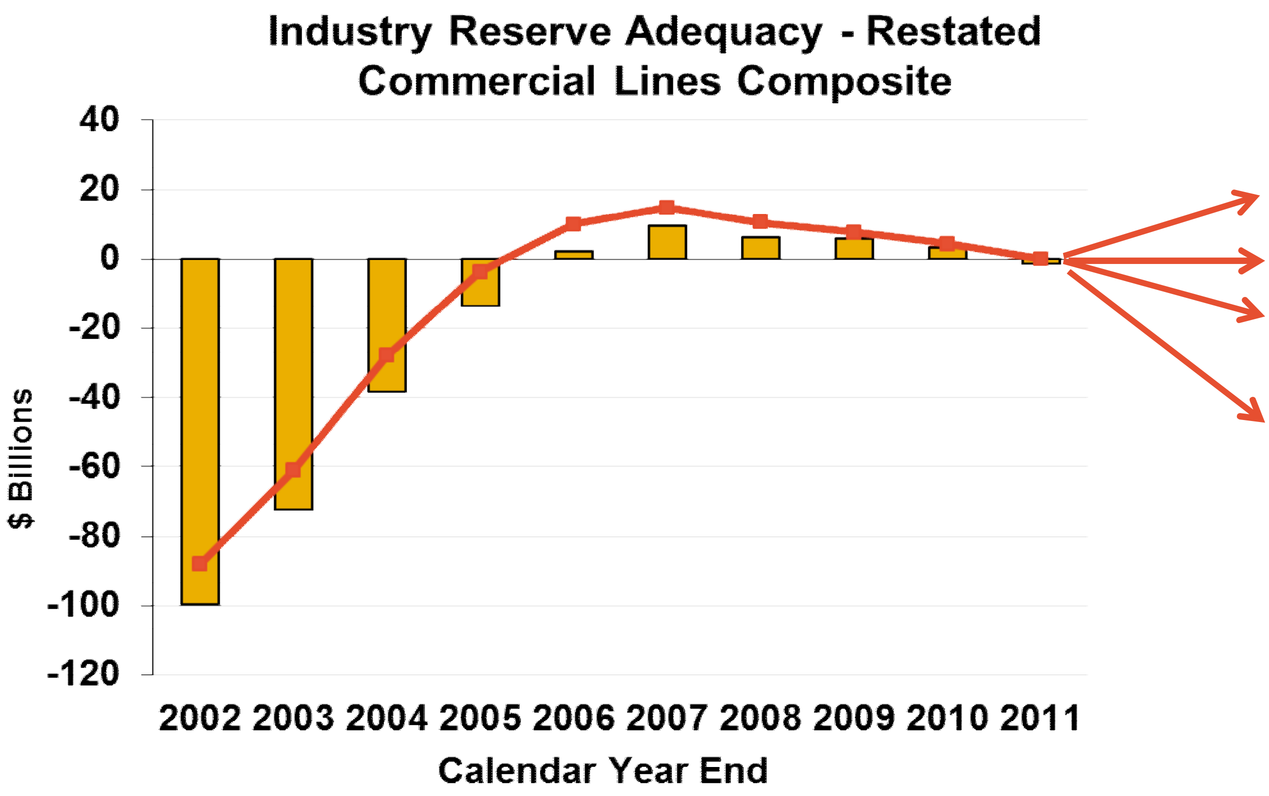
So, given where we've come from and current conditions, where is reserve adequacy going?



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Thank you

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