TORT ISSUES FOR GENERAL INSURANCE ACTUARIES

Society of Actuaries Study Note for Exam GI-FRE
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INTRODUCTION

Torts represent civil wrongs that consist of some act (or omission of an act) by the defendant that causes harm to the claimant. As noted in *Business Law for Insurance Professionals:* "torts are civil (or private) wrongs, as distinguished from crimes, which are public wrongs." [1]

Tort law represents a branch of law that compensates a not-at-fault claimant and punishes the at-fault defendant. It also serves as a deterrent against similar civil wrongs in the future. Defendants can protect themselves from the financial consequences of a tort judgment by purchasing a liability insurance policy from a general insurer.

This study note covers current issues with respect to tort cost trends, tort reform, mass torts, and toxic torts. While these topics have garnered a great deal of attention in the United States, they are important around the world because legal precedents in U.S. courts influence court decisions abroad. Issues in tort liability are important to general insurance actuaries because tort costs are normally borne by liability insurance.

TORT COST TRENDS

The issues of tort costs and tort cost trends are hotly debated. Debate normally centers on the efficiency of the system as it pertains to its two primary functions, compensation of those harmed and deterrence of activities that do harm. To properly evaluate the efficiency of the tort system, a full cost-benefit analysis would be required. There is also debate about what costs to include and sources of data to use.

To estimate tort cost trends, one must have a proper measurement of tort costs over time. The following table summarizes key costs of the tort system.[2]

Direct Costs	• Amounts paid to compensate claimants • Legal expenses • Claim adjustment expenses • Administrative expenses associated with managing torts

[1] Popow, D. (editor), *Business Law for Insurance Professionals*, The Institutes, 1st edition, 2010, page 6.3
[2] *The Economics of U.S. Tort Liability: A Primer*, A CBO Study, The Congress of the United States, Congressional Budget Office, October 2003, Chapter 4 http://www.cbo.gov/publication/14835

Indirect Costs	• Amounts spent to reduce potential liability claims • Opportunity costs of products/services that are withdrawn from markets (or never introduced) due to concerns over potential liability claims • Opportunity costs of products/services that have decreased demand due to price increases on the products/services arising from liability issues • Economic costs from bankruptcy/job losses due to direct liability costs or liability concerns

Benefits of the tort system include its two primary functions, compensation of those harmed and deterrence of activities that do harm. Another benefit of the tort system is that it makes those that cause harm financially responsible for their actions.

Benefits and indirect costs of the tort system are not easily measured. The focus of this study note is on tort issues from the perspective of general insurance actuaries and not on a full cost-benefit analysis of the tort system. Insurance ratemaking is a key actuarial function and the cost of liability insurance is based on direct costs of the tort system.

Measuring all of the direct costs of the tort system is more straightforward than measuring indirect costs but it is not a trivial process. It is not as simple as aggregating insurance statistics because some direct costs are not included in general insurance industry liability statistics:

- Some costs are excluded from insurance contracts through policy provisions;
- Some costs are covered by self-insured retentions, not insurance policies; and
- Some costs are amounts above insurance policy limits.

Direct tort costs encompass amounts paid to compensate plaintiffs plus any associated expenses. As noted in the Towers Watson report, *2011 Update on U.S. Tort Cost Trends*, amounts paid to plaintiffs are determined from a resolution of the dispute along the following continuum:

- "Before a lawsuit is filed, by mutual agreement or through arbitration
- After a lawsuit is filed, but prior to a trial
- As a result of a verdict in a trial (as well as potential subsequent appeal)" [3]

All of these amounts are not easily aggregated. Agreements before a tort case is filed are usually kept private, some settlements are kept private and court awards are not recorded centrally (i.e., they are recorded by the jurisdiction of the court).

[3] *2011 Update on U.S. Tort Cost Trends*, Towers Watson, January 2012, page 2 http://www.towerswatson.com/en/Insights/IC-Types/Survey-Research-Results/2012/01/2011-Update-on-US-Tort-Cost-Trends

Tort cost trends[4] are important to pricing liability insurance. If an actuary does not properly adjust historical liability claims for tort cost trends, the developed rates may not reflect the cost level of the policy period that is being priced.

Overall price trends in the economy can be estimated with the Consumer Price Index (CPI). Without other information, CPI could be used as a proxy to estimate tort cost trends. However, tort costs do not necessarily trend at this rate.

Tort awards often include amounts to compensate plaintiffs for bodily injury; these amounts usually represent a substantial portion of the damages awarded. Pecuniary damages[5] for bodily injury include large amounts for medical care. Figure 1 compares the growth in medical care costs to the growth in CPI since 1980.

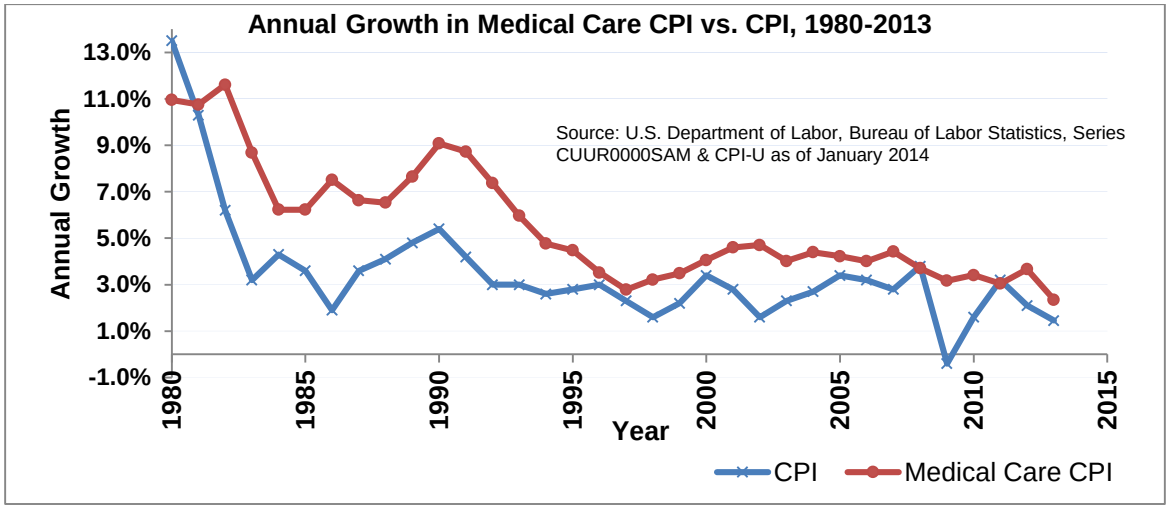

FIGURE 1

As can be seen in Figure 1, from 1980 to 2013 the growth in medical care costs has outpaced the growth in CPI. Over this time period, CPI increases have averaged 3.5% annually while medical care cost increases have averaged 5.6% annually. If CPI is used to adjust historical liability claims to the policy period being priced, the resulting rates will be inadequate (on the assumption that medical cost trends are a better measure of tort cost trends than CPI). The gap between these two cost indices has decreased over time. Over the time period from 1995 to 2013, CPI increases have averaged 2.4% annually while medical care cost increases have averaged 3.8% annually.

It has been argued that medical care cost trends may not truly reflect tort cost trends because medical costs represent only a portion of direct tort costs. Since 1985, Towers Watson has periodically published studies (and updates on studies) on tort cost trends in the United States. The Towers Watson studies attempt to capture the direct costs of the tort system using data

[4] References to tort cost trends in this study note are for direct costs only.
[5] Pecuniary damages refer to those that can be easily quantified in monetary terms (e.g., medical costs for bodily injury, property damage, lost wages). Non-pecuniary damages cannot be easily quantified in monetary terms (e.g., pain and suffering, loss of enjoyment of life).

compiled from the insurance industry (excluding medical malpractice liability), various estimates of self-insured amounts, and internal Towers Watson estimates of medical malpractice tort costs.[6]

From the Towers Watson study, tort costs have risen an average of 6.3% annually from 1981 to 2010 and 3.7% annually from 1995 to 2010. Figure 2 overlays the Towers Watson annual increases in tort costs with the indices in Figure 1.

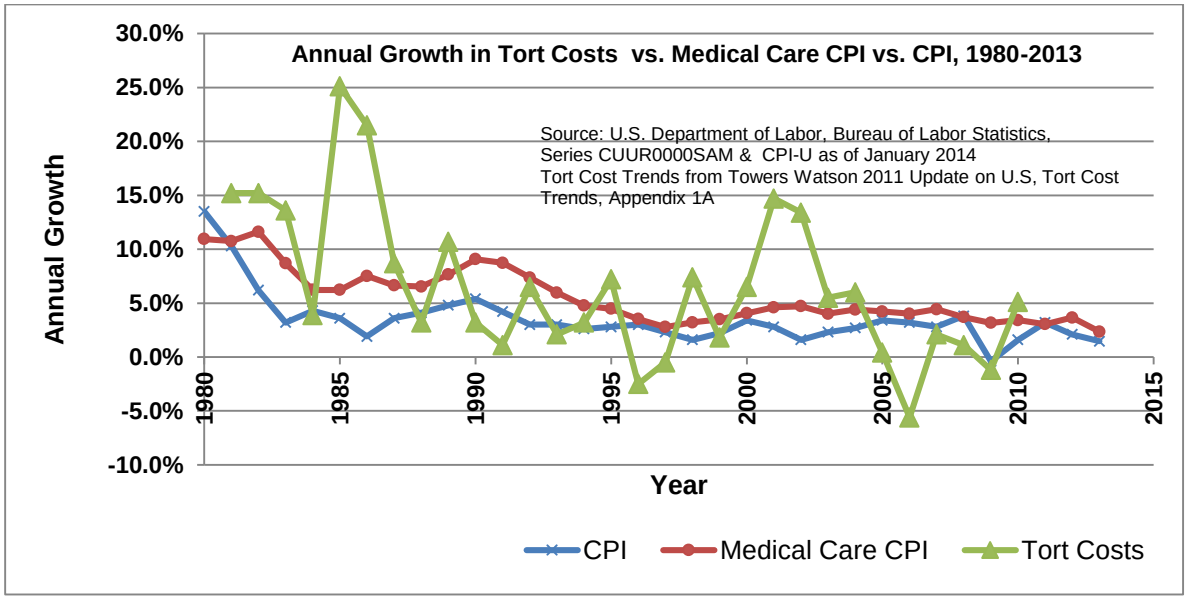

FIGURE 2

As seen in Figure 2, tort cost trends (as measured by Towers Watson) are far more erratic than Medical Care CPI or CPI. Another way to examine trends in tort costs is to examine how they vary relative to the nation's Gross Domestic Product (GDP).

[6] Towers Watson has excluded certain extraordinary tort costs from its analysis (e.g., the settlement between tobacco manufacturers and attorneys general from various states in 1998). Towers Watson also excludes no-fault benefits from automobile liability and workers compensation because they are first party benefits and not part of the tort system. *2011 Update on U.S. Tort Cost Trends*, Towers Watson, January 2012, pages 9-10

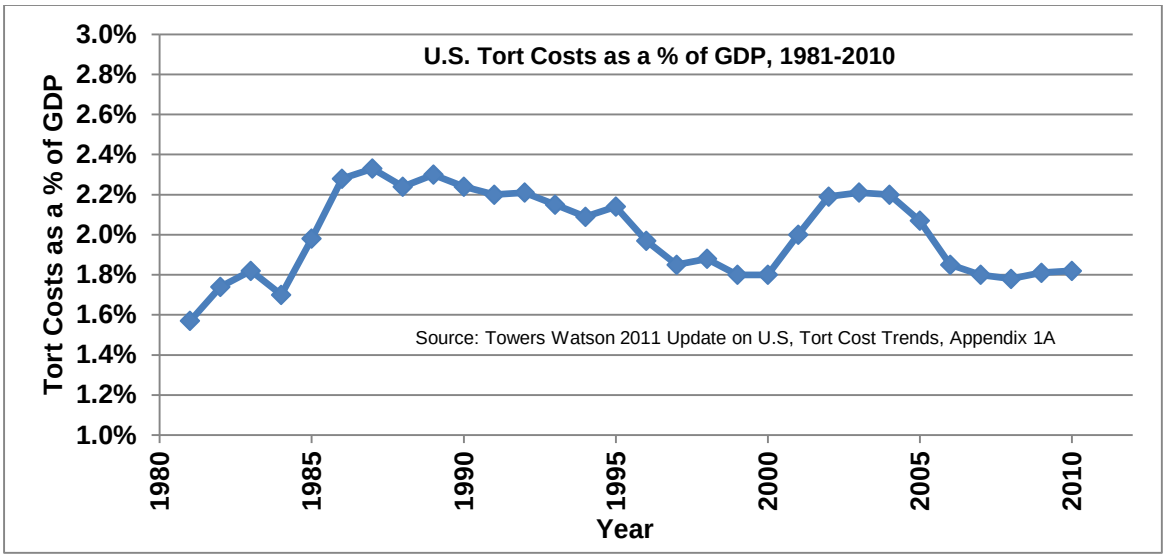

FIGURE 3

Figure 3 reveals that U.S. tort costs have fluctuated around 2% of GDP since the mid 1980s (after rising from 0.6% in 1950 to 1.0% in 1960, and from 1.0% in 1960 to 1.5% in 1980).

Great care needs to be taken when applying trends from aggregated statistics, such as those shown in Figures 1 to 3, to insurance loss data for a specific block of business. Different types of torts have different costs and different drivers of cost trends.

- Routine torts are frequent with relatively low severity (e.g., automobile liability, homeowners liability);
- Higher stakes torts are less frequent but with relatively high severity (e.g., medical malpractice, commercial liability);
- Mass torts are infrequent with the potential for extremely large awards (e.g., asbestos, mold, tobacco).

Compared to other countries, the U.S. has the highest tort (liability) costs as a percentage of GDP. The following table summarizes liability costs as a percentage of GDP for a number of countries in Asia, the E.U. and the Americas.[7]

Country	Liability Costs as a % of GDP
China	0.3%
Japan	0.3%
Netherlands	0.4%
Belgium	0.4%
Portugal	0.4%
Denmark	0.5%
France	0.6%

[7] *International Comparisons of Litigation Costs: Canada, Europe, Japan, and the United States*, U.S. Chamber Institute for Legal Reform, June 2013 Update, Addendum, page ix http://www.instituteforlegalreform.com/uploads/sites/1/ILR_NERA_Study_International_Liability_Costs-update.pdf

Brazil	0.6%
Spain	0.7%
Germany	0.7%
Italy	0.8%
Ireland	0.8%
U.K.	1.1%
Canada	1.2%
U.S.	1.7%

Some of the differences in tort costs between countries can be attributed to differences in government spending on social programs, such as those providing disability benefits or covering healthcare expenses, which might otherwise be compensated through the tort system.

TORT REFORM

Tort reform refers to legislation enacted to modify costs through various rules on liability and damages. Reforms can have a significant effect on the costs of the tort system. General insurance actuaries should understand reforms that have been enacted as well as reforms that are being considered because they may have a material effect on the frequency and severity of tort claims covered by liability insurance. The following is an overview of tort reforms that have been implemented in the U.S. at the state level, where most significant tort reform occurs.[8]

Tort reform is not a new topic. The shift from tort liability to a no-fault compensation system in the early 1900s for workplace injuries was a form of tort reform. In the 1950s, the tort system generally favored defendants. Reforms were introduced that shifted the system to be more favorable for plaintiffs (e.g., comparative negligence). In the 1980s, the tort system was perceived by some to have become too favorable for plaintiffs initiating reforms meant to reduce tort costs.

Some examples of tort reform that have been enacted over the past 25 years include: [9]

- Joint and several liability reform
- Collateral source rule reform
- Punitive damages reform
- Noneconomic damages reform
- Prejudgment interest reform
- Product liability reform
- Class action reform

Joint and Several Liability Reform

The rule of joint and several liability ensures that an injured plaintiff can be fully compensated even when one of the defendants (when there is more than one) is unable to pay (e.g., because of bankruptcy). It allows a plaintiff to recover damages from a collection of defendants or

[8] A number of states have had some of their reforms declared unconstitutional.
[9] This section uses information available from the American Tort Reform Association (ATRA) Tort Reform Record, September 2013. http://www.atra.org/

individually from each defendant. Technically, joint and several liability could permit a plaintiff to recover an entire award from a defendant that is minimally at fault. This raises the issue of fairness.

Forty states have enacted some form of joint and several liability reform that usually includes some restriction on the application of the rule of joint and several liability or the introduction of some form of proportionate liability. Examples include:

- California bars application of the rule for recovery of noneconomic damages.
- Minnesota does not allow the rule to apply to defendants less than 50% at fault.
- West Virginia bars the rule for defendants determined to be 30% (or less) at fault, in which case the defendant only pays a percentage of the award based on the percentage of fault.

Collateral Source Rule Reform

The collateral source rule bars the admissibility of evidence at trial to show that a plaintiff's losses have been compensated from other sources, such as the plaintiff's insurance or workers compensation. The purpose of the collateral source rule is to ensure that at-fault defendants pay the full amount of damages for which they are responsible. However, it allows the plaintiff to potentially make a double recovery.

Twenty-four states have enacted legislation that modifies or eliminates the collateral source rule. Examples include:

- Illinois allows for awards to be reduced for collateral source payments over $25,000 as long as the reduction does not reduce the full award by over 50%.
- New York permits awards to be reduced for collateral source payments.
- Washington allows collateral source payments to be taken into account in medical liability torts.

Punitive Damages Reform

Punitive damages are not compensatory amounts. They are amounts to punish the defendant for intentional or malicious misconduct and to deter future acts of similar misconduct. Punitive damages awards are in addition to compensatory damages awards.

Punitive damages have become very difficult to predict, with extremely large amounts being awarded on occasion. While still infrequent, punitive damages appear to be applied to more torts than in the past. Punitive damages reform currently focuses on capping punitive damages awards (usually relative to the compensatory damages award) and applying stricter criteria on when punitive damages can be awarded.

Thirty-three states have enacted legislation that restricts punitive damages awards. Examples include:

- Colorado prohibits punitive damages awards unless the evidence shows a willful or wanton action justifying the claim.
- New Jersey limits most punitive damages to the greater of $350,000 or five times the compensatory damages award.
- Texas requires a unanimous jury verdict to award punitive damages.

Noneconomic Damages Reform

Noneconomic damages are for compensatory amounts that do not allow precise measurement. They are to compensate for pain and suffering, loss of enjoyment of life, emotional distress and other intangible injuries. Without any legislated guidance, awarding of noneconomic damages is extremely unpredictable in frequency and severity.

Twenty-three states have enacted legislation that restricts noneconomic damages awards. Examples include:

- Idaho limits noneconomic damages awards to $250,000 in personal injury cases.
- Michigan limits noneconomic damages awards to $280,000 in ordinary medical liability cases and $500,000 in medical liability cases that meet certain conditions.
- Ohio limits noneconomic damages awards for noncatastrophic injuries to the greater of $250,000 and three times economic damages capped at $350,000 per plaintiff and $500,000 per occurrence. Less restrictive limitations apply to medical liability cases.

Prejudgment Interest Reform

Prejudgment interest was not generally allowed in tort actions until statutes were introduced that specifically permitted it. Prejudgment interest is awarded to compensate plaintiffs for the time between the event causing injury and the actual payment of the tort award because this time lag is often measured in years. It can encourage earlier settlement, but may result in overcompensation if the interest rate is excessive.

Twenty states have enacted legislation to reform the rules for prejudgment interest. Most of these reforms set a rule for the selection of the interest rate based on prevailing rates.

Product Liability Reform

Product liability law provides for compensation to those injured by defective products. However, its scope has expanded beyond manufacturers to include retailers, and manufacturers have been held liable for unknown risks.

Nineteen states have enacted legislation to reform product liability. Examples include:

- Alabama prohibits product liability actions against those who were not the manufacturer of the product.
- California prohibits product liability actions for products that are inherently unsafe and known to be inherently unsafe by ordinary consumers (e.g., alcohol, tobacco, high-cholesterol food).
- Wisconsin only permits product liability actions alleging defective design of a product if there is evidence of a reasonable alternative design.

Class Action Reform

Class actions refer to cases that join a large number of plaintiffs with similar injuries sustained under similar circumstances into one action. The plaintiffs are generally represented by a small number of law firms. For claims to be joined into a class action, the state must certify that the case meets the requirements for class-action status.

Combining similar claims in a class action allows for an increase in efficiency because the presentation of facts and determination of fault need only be done once. It also allows for smaller claims to be brought forward that might not otherwise have been, due to the costs of presenting a case significantly outweighing the potential award.

There exist concerns that class actions are straying from the intended purpose of increasing efficiency in the system. Large class actions can provide plaintiffs' attorneys with millions of dollars in fees while distributing minimal awards to the injured plaintiffs.

Class action reforms are an attempt to balance the interests of plaintiffs and defendants. Eleven states have enacted legislation to reform class actions. Many of these reforms involve the defining of rules for class certification and providing an interlocutory appeal of class action certification. Florida enacted legislation to reduce venue shopping by restricting out-of-state residents from filing class actions in the state. Texas enacted legislation that requires attorney fees to be based upon actual time and expenses, not a percentage of the award.

Other Types of Tort Reform

There are many other types of tort reform that have been enacted over the past 25 years including:

- Appeal bond reform
- Attorney retention sunshine
- Contingent fee reform
- Forum and venue reform
- Jury service reform
- Statute of limitations reform

MASS TORTS AND TOXIC TORTS

Mass torts generally refer to class actions and collections of individual actions that are very large in scope regarding the number of claimants and the amount of damages. Mass torts usually deal with claims from product liability torts, toxic torts and torts from large disasters. Toxic torts refer to torts claiming injury from exposure to hazardous substances (e.g., pharmaceutical products, chemicals, asbestos, mold, tobacco).

Mass torts are a relatively new development in tort law. The origins of mass torts go back to the structured representation of plaintiffs from air travel disasters in the 1960s. The 1970s saw the origins of toxic torts resulting from exposure to the chemical Agent Orange.[10] The first class action for Agent Orange exposure began in 1980. Through the 1980s and 1990s class actions became a more common approach to settling toxic torts.

Asbestos Torts

The most notable mass torts (toxic torts) are for asbestos exposure. Asbestos is a fibrous mineral that is strong and resistant to heat and fire. These qualities made its use widespread in the construction of buildings and the manufacture of products subject to high heat (e.g.,

[10] Agent Orange is a herbicide/defoliant that is known for its use by the U.S. military during the Vietnam War. The toxicity of Agent Orange is due to high levels of dioxin. It has been established that dioxin is a dangerous chemical responsible for serious health issues and ecological risks. See Andy Birchfield's article, "Introduction and History of Mass Torts," Beasley Allen, et al., 2007. http://www.beasleyallen.com/webfiles/Introduction%20and%20History%20of%20Mass%20Torts.pdf

insulation, floor tiles, ceiling tiles, pipe covering, fireproofing compounds, and motor vehicle parts). Unfortunately, inhalation of asbestos fibers is related to diseases such as asbestosis,[11] lung cancer, and mesothelioma.[12] These diseases normally occur through prolonged exposure to asbestos fibers. There is also a lengthy latency period for development of these diseases. Because of this, many years can go by from the time of exposure, to the time of injury, to the time an action is filed by the plaintiff(s).

Asbestos tort cases in the U.S. began in 1966. The number of asbestos cases began to rise dramatically through the 1980s. Through the mid-to-late 1990s the number of new asbestos cases decreased significantly. This changed in 1999 when a new wave of asbestos cases began as actions were allowed to proceed even before manifestation of any disease occurred.[13] There was a push to get these claims before the courts because many defendants had gone bankrupt and there was a concern that if one waited too long there would not be enough viable defendants to pay all the claims.

There are major differences between asbestos torts and other torts that have an influence on liability insurance. These include:

- There exists a large pool of actual and potential claimants due to its widespread usage until the 1970s.
- Exposures in a single cause of action can be from multiple sources and numerous defendants.
- The prolonged exposure period involves multiple policy periods and multiple insurers, even for the same defendant.
- The latency period for the disease can be several decades.
- Products liability coverage (with set aggregate limits) has often been reinterpreted by courts to be premises and operations liability coverage, exposing insurers to potentially unlimited liability.

The following chart shows insurance industry calendar year incurred asbestos losses in the U.S. from 1996 to 2012.[14]

[11] Asbestosis is a disease caused by breathing in asbestos fibers in which the lungs are permanently scarred making it difficult to breathe.
[12] Mesothelioma is an aggressive form of cancer that affects the membrane lining of the lungs and abdomen (starting in the mesothelial cells).
[13] These claimants usually had some nonmalignant scarring of lung tissue but had not yet developed asbestosis, mesothelioma or lung cancer.
[14] Data from Towers Watson, Insights, "Summary of U.S. Property & Casualty Insurers' Asbestos Claim Reserves at Year-End 2012," December 2013 (and the prior report from November 2011)
http://www.towerswatson.com/en/Insights/Newsletters/Americas/americas-insights/2013/insights-us-property-casualty-insurers-asbestos-claim-reserves
http://www.towerswatson.com/en/Insights/Newsletters/Americas/americas-insights/2011/Insights-Summary-of-U-S-Property-and-Casualty-Insurers-Asbestos-Reserves-at-Year-End-2010

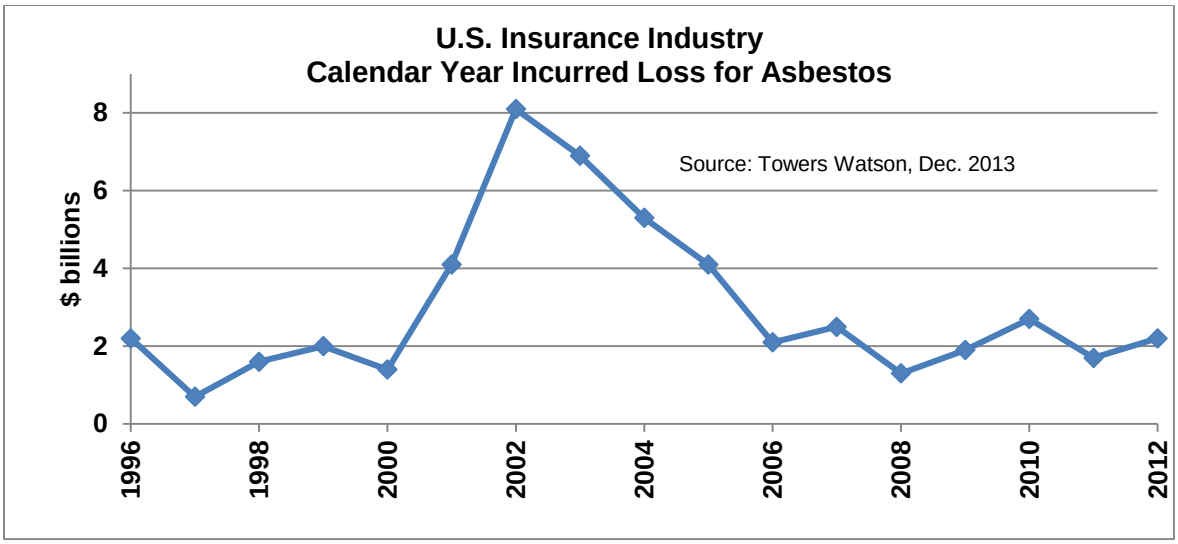

FIGURE 4

Since 2001-2004, the amount of asbestos tort claims has dropped significantly. This drop has been attributed to a number of factors including:

- Tort reforms enacted by state legislation;
- A 2005 U.S. District Court decision to dismiss 10,000 silicosis lung disease diagnoses on the grounds that they were manufactured and inadmissible;[15] and
- Courts investigating fraud in newer asbestos claims.

Given the long latency period, it is expected that new asbestos tort claims will continue for a number of years into the future, though not at the rates that were seen in the past.

According to an A.M. Best estimate as of December 2012, the U.S. insurance industry's ultimate incurred losses from asbestos in the U.S. will be $85 billion.[16] As a frame of reference for the significance of this amount, $85 billion is more than double the total insured losses for the terrorist attacks of September 11, 2001.

Many sources are available for a more detailed summary of issues with asbestos torts including:

- American Academy of Actuaries public policy monograph "Overview of Asbestos Claims Issues and Trends," August 2007 http://www.actuary.org/pdf/casualty/asbestos_aug07.pdf

[15] Silicosis is a form of lung disease caused by inhalation of silica dust. It is similar to asbestosis. Plaintiffs' attorneys used similar strategies in asbestos and silica torts. A judgment on the admissibility of evidence in a silica tort created precedence for admissibility of evidence in asbestos torts.
[16] From the Insurance Information Institute issue update "Asbestos Liability" http://www.iii.org/issues_updates/asbestos-liability.html. Amounts are on a net of reinsurance basis and are for U.S. insurers only. The full amount of the costs of asbestos personal injury claims in the U.S would be greater than $85 billion, perhaps significantly. The American Academy of Actuaries public policy monograph "Overview of Asbestos Claims Issues and Trends" refers to estimates of the ultimate costs arising from U.S. exposure to asbestos that range from $200 billion to $265 billion.

- Insurance Information Institute issue update "Asbestos Liability" http://www.iii.org/issues_updates/asbestos-liability.html
- Mark Behrens' paper "What's New in Asbestos Litigation?," The Review of Litigation, Volume 28, Number 3, Spring 2009, pages 502-557 http://lawprofessors.typepad.com/tortsprof/2009/04/behrens-on-whats-new-in-asbestos-litigation.html
- Michelle White's paper "Asbestos and the Future of Mass Torts," Journal of Economic Perspectives," Volume 18, Number 2, Spring 2004, pages 183–204 http://www.econ.ucsd.edu/~miwhite/asbestos-jep-final.pdf
- RAND research brief, "Bankruptcy Trusts, Asbestos Compensation, and the Courts," 2011 http://www.rand.org/pubs/research_briefs/RB9603.html
- RAND monograph, "Asbestos Litigation," 2005 http://www.rand.org/pubs/monographs/MG162.html

Developing Issues in Mass Torts and Toxic Torts

Over the years, there have been a number of mass torts that have had the potential to rival asbestos torts. While some were significant, they did not have the same longevity in the courts. For example, consider the case of tobacco, which had widespread long-term use and has been linked to a number of serious diseases. Tobacco companies were sued by state attorneys general over public-health costs linked to their products. In 1998, 46 states settled with the tobacco companies in an historic $246 billion settlement.[17] This did not, however, lead to long-term ongoing litigation against tobacco manufactures.

At one time, mold exposure was considered a possible area for asbestos-level litigation. This has not occurred because of strict standards for admissibility of evidence.

Securities and pharmaceutical products will produce their fair share of litigation on an ongoing basis. But there does not appear to be any great concern in the insurance industry that these types of actions will spiral out of control.

Predicting the products for future mass torts is speculative. However, the following products could be candidates given their widespread usage and potential link to serious health issues:

- Benzene
- Bisphenol A (BPA)
- Genetically modified organisms (GMOs)
- Nanotechnology
- Radiofrequency energy (from cell phone use)

With respect to large scale natural disasters, there is some thought that they could be linked to the effects of climate change, which could bring forth significant litigation against those

[17] Insurance Information Institute issues update, "Liability System" http://www.iii.org/issues_updates/liability-system.html

perceived to be responsible. Large scale man-made disasters, such as major spills of oil or toxic chemicals, could also bring forth significant litigation.