

July 22, 2014

VIA EMAIL

Stephen Johnson
Steven L. Yerger (syerger@pa.gov)
Pennsylvania Insurance Department
Bureau of Company Licensing and Financial Analysis
1345 Strawberry Square
Harrisburg, PA 17120

Re: In re Application for Approval to Acquire control of OneBeacon Insurance Company, Potomac Insurance Company, OneBeacon America Insurance Company and the Employers' Fire Insurance Company by Trebuchet US Holdings, Inc. 41 Pa. Bull. 1157

Dear Messrs. Johnson & Yerger,

I write in response to Pennsylvania Bulletin 44 Pa. Bull. 3824, dated June 21, 2014 providing notice of a "public informational hearing" as to the Application for Approval to Acquire control of OneBeacon Insurance Company, Potomac Insurance company, OneBeacon America Insurance Company and the Employers' Fire Insurance company ("Once Beacon") by Trebuchet US Holdings, Inc. I represent the Honorable Charles B. Renfrew (Ret.), the court appointed legal representative of future asbestos claimants pursuant to 11 U.S.C. 524(g)(4)(B)(i) (the "Futures Representative") in the *In re Plant Insulation Company* Case No. 09-31347 TC pending in United States Bankruptcy Court Northern District of California (the "Plant Bankruptcy").¹ Plant Insulation Company ("Plant") was insured by one of the OneBeacon companies during key years of its asbestos insulation operations. The Futures Representative joins in the objections of Bayside Insulation Company and Plant Insulation Asbestos Settlement Trust, and OneBeacon policyholders on the grounds that the actuarial analysis of projected returns, reserves and estimated asbestos losses underestimate the risk that the so called Run-off Companies will not have enough money to pay valid claims.² This would mean that there is a very high risk that valid claims made by future asbestos claimants that were exposed to

¹ *Order Authorizing Debtor to Employ and Retain the Honorable Charles B. Renfrew (Ret.) as the Futures Representative* [Docket No. 128].

² The Futures Representative joins in the objections of Olin Corporation and the Pennsylvania Manufacturers Association.

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Plant's substantial asbestos insulation operations will go unpaid. For this reason, the restructuring should not be approved in its current form unless OneBeacon contributes significantly more assets to the Run-off Companies. The Futures Representative like other OneBeacon policyholders was not provided access to OneBeacon confidential documents and therefore must rely for these comments on publicly available documents.

Plant Insulation Company

Plant was formed in 1937 to engage in the business of selling, installing and repairing asbestos, brick, cement, concrete, stone, and all other types of fire proofing and insulating materials.³ Plant was primarily an insulation contractor, meaning that its work regularly involved installing and removing asbestos products. Plant performed this work for a number of decades from its inception in the 1930s through the 1990s. From January 1948 through the 1990s, Plant was the exclusive Northern California distributor and contract applicator of certain insulation products manufactured by Fibreboard Corporation ("Fibreboard"). At all times through about September 1971, the Fibreboard products handled by Plant contained asbestos. Plant's installation of asbestos containing Fibreboard products likely ended sometime in 1972. As it had before 1972, Plant thereafter continued to repair, maintain, remove, and displace asbestos-containing materials at various job sites where it performed insulation work. In addition to its insulation contracting business, Plant also operated a wholesale distribution business pursuant to which it distributed certain insulation products to contractors and other parties. During the course of its asbestos operations, Plant exposed thousands of workers to asbestos at refineries, power plants and other locations. Those exposed will manifest asbestos related diseases over the next four decades, at a minimum.

Plant Insulation Company ("Plant") had as one of its primary insurers American Employers Insurance Company ("American Insurance"). American Insurance issued policies each year from 1965 to 1970 with "per occurrence" limits of \$1,000,000. American issued a three-year policy to Plant with a single "per occurrence" limit of \$250,000 for the 1970-1973 period and a three-year policy with a single "per occurrence" limit of \$250,000 for the 1973-1976

³ See *Second Amended Disclosure Statement for the Chapter 11 Plan of Reorganization of Plant Insulation Company*, Plant Bankruptcy [Docket No. 1157] at p. 6-7.

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period. American Insurance was later acquired by the OneBeacon Insurance Group. Plant and OneBeacon, among other insurers, have been engaged in a declaratory relief action with respect to Plant's rights under the OneBeacon policies since 2006. *Plant Insulation Company v. Fireman's Fund Insurance Company, et al.* (Case No. CGC-06-448618) pending in California Superior Court for the County of San Francisco. At the present time, OneBeacon is defending Plant in personal injury and wrongful death actions filed against Plant. There are no aggregate limits under these policies for Plant's asbestos operations.

OneBeacon Agrees that the Restructuring Must be Disapproved if the Financial Condition of the Run-off Companies Might Prejudice the Interest of Policyholders

OneBeacon, in response to other policyholder objections, stated that OneBeacon and the purchaser, Armour Group Holdings, Ltd. ("Armour"):

have initiated a process in which the Department's professional staff is required to *disapprove* the Transaction, if it finds that (in addition to the presence of certain other circumstances) the financial condition of Armour might "prejudice the interest of [the] policyholders" of the Runoff Companies, or if Armour's plans or proposals for those Companies "are unfair and unreasonable and fail to confer benefit on [those] policyholders ... and are not in the public interest." 40 P.S. §§ 991.1402(f)(i)(iii) and (iv).

Response to Substantive Comments, June 21, 2013, p. 19. To demonstrate that OneBeacon's proposed restructuring meets this standard, OneBeacon has retained Towers Watson to perform a confidential reserve and investment analysis for the Run-off Companies. *Id.* at p. 20. Only a summary report has been made available to the public.

Towers Watson's Analysis of the Run-off Companies Reserves is Far More Optimistic than OneBeacon's SEC Reporting About the Same Liability

Towers Watson after running all of its models predicts a 100% success rate in the first 10 years of Run-off Company operations that decreases to 90%

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over 30 years.⁴ Success is defined by Towers Watson as any scenario in which invested assets never fall below zero before the last claims is paid. *Id.* p. 4

But OneBeacon admits in its 2013 Form 10-K report, estimation of OneBeacon's asbestos liabilities is very difficult and could expose OneBeacon to significant additional liabilities:

Estimating our exposure to A&E claims is subject to a high degree of uncertainty and final ultimate loss and LAE could exceed coverage available under our reinsurance arrangements. The uncertainty regarding A&E exposure is driven by a number of factors, including policyholders that assert new theories of recovery and proposed state and federal legislation regarding A&E liability. Although we expect the number of our A&E related claims to decrease over time, these and other factors may increase our liability or number of claims. If we do not have adequate reinsurance protection and if we have not established adequate loss and LAE reserves to cover future claims, our results of operations and financial condition could be materially adversely affected.

OneBeacon Insurance Group, Ltd 2013 Form 10-K, page 20. OneBeacon goes on to qualify its estimation that it will be able to pay all of its asbestos claims:

OneBeacon's reserves for A&E losses at December 31, 2013 represent management's best estimate of its ultimate liability based on information currently available. However, significant uncertainties, including but not limited to case law developments, medical and cleanup cost increases and industry settlement practices, limit OneBeacon's ability to accurately estimate ultimate liability and OneBeacon may be subject to A&E losses beyond currently estimated amounts. In addition, OneBeacon remains liable for risks reinsured in the event that a reinsurer does not honor its obligations under reinsurance contracts. OneBeacon cannot reasonably estimate at the present time loss reserve additions arising from any such future adverse loss reserve developments and cannot be sure that allocated loss reserves, plus the remaining capacity under the NICO Cover and other reinsurance contracts, will be sufficient to cover additional

⁴ Stochastic Modeling of Run-Off Business Pro-forma Balance Sheet as of June 30, 2014 Summary Report, June 10 2014 p. 8

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liability arising from any such adverse loss reserve developments.

Id. at p. F-70. There is no explanation why Towers Watson optimism is justified as compared to OneBeacon's own analysis.

Towers Watson's Analysis of the Run-off Companies Reserves Does Not Adequately Take Into Account Significant Changes in the Asbestos Landscape

Towers Watson in its own *Insights Summary of U.S. Property & Casualty Insurers' Asbestos Claim Reserves at Year-End 2012* found the current estimation models underestimated the asbestos exposure facing the industry:

Claim forecasts based purely on early epidemiological models such as Nicholson may underestimate the number of current and future asbestos claims, as the early models were based on studies of workers becoming ill through occupational exposure. Some industry practitioners attempt to remedy the omission of bystander claims from the early models by rescaling their claim forecasts to the actual level of current claim filings. This may still result in under-projections of future claims, however, if bystander exposures and claims drop off more slowly than occupational exposure claims.

Id. at p. 3.

Moreover, Towers Watson argued in *Insight* that

The most optimistic scenario above, where current industry reserves are assumed to be adequate overall, appears intuitively unrealistic given the persistent and widespread reserve strengthening among insurers in recent years.

Id. at p. 7

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Here, at the root of its analysis, Towers Watson has relied upon the historical data from OneBeacon for all of its modeling.⁵ The only claim inflation they describe is for (1) wage and price; (2) medical inflation; and (3) superimposed component for litigiousness.⁶ There is no indication in Towers Watson's summary report or the report by Risk and Regulatory Consulting, that these models have adequately taken into account changes in the asbestos landscape since the actuarial models were developed.⁷ For example, changes in life expectancy of the exposed population, increased lung cancers in the exposed population and increasing numbers of bystander exposure (the "Third Wave of Asbestos Claims") all have led to consistent underestimation of asbestos liabilities and insurance company reserves.⁸ There is actually evidence that the Towers Watson modeling does not take these developments into account.

The RRC Report concludes that the Towers Watson model could result in exhaustion of the restructured entities' assets before all claims are paid:

However, *there are significant risks, some contemplated in the stochastic modeling and some not contemplated, that could result in the exhaustion of the Run-off Companies' assets before all claims were paid.*

RRC Report p. 3 (emphasis added). The RRC Report further cautions that:

However, based on our review of the actuarial literature, we believe the user should be cautioned that the statistical estimation of the variance that exists in a book of loss reserves is difficult to measure and may not be captured completely.

⁵ Stochastic Modeling of Run-Off Business Pro-forma Balance Sheet as of June 30, 2014 Summary Report, June 10 2014 p. 12

⁶ *Id.*

⁷ Report on Actuarial Review of "OneBeacon Insurance Group, LLC Stochastic Modeling of Run-Off Business Pro-Forma Balance Sheet as of June 30, 2014" as Prepared by Towers Watson Summary Report June 20, 2014 ("RRC Report")

⁸ See "A Third Wave In Asbestos Liabilities Lies Ahead: Actuarial Models Are Systematically Underestimating Exposures", Mitt and Zimmerman, Mealey's Asbestos Bankruptcy Report, Vol. 13. No. 8 March 2014

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Id. at p. 5. But even relying upon the model, the RRC Report concludes that the model shows a failure rate of 10% in the first 30 years and that if a lower failure rate is selected "additional capital would be required." *Id.* at p. 9 The RRC Report candidly admits that they are unable to predict the future of asbestos losses:

We are unable to predict the future of A&E losses, but if history is any guide, it would be prudent to expect further adverse development. If in fact there is a "third wave" of asbestos claims, this may well be considered a change in the litigation environment not explicitly incorporated in the modeling.

RRC Report p. 12. Moreover,

We caution that historical data may fall short in simulating future claim activity that is unprecedented and Towers modeling of the variability does not attempt to include this explicitly.

Estimating the aggregate future asbestos liability in the current environment is not easy. The RRC Report is hardly a ringing endorsement of the Towers Watson conclusions of 100% success rate in the first ten years and 90% in the first 30 years when all of the actual risks facing the Run-off Companies are taken into account. In fact, prudence dictates that Department conclude that the success rate will actually be much lower – even using the Towers Watson model.

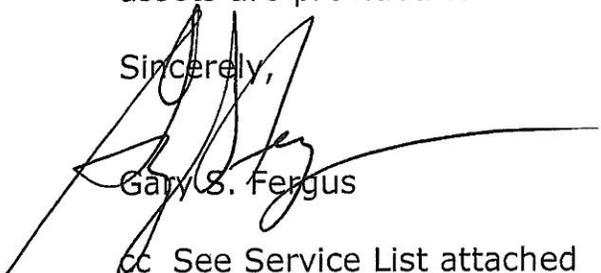
Conclusion

The standard agreed upon by OneBeacon and Armour is that the transaction should be disapproved "if the financial condition of Armour might "prejudice the interest of [the] policyholders" of the Run-off Companies, or if Armour's plans or proposals for those Companies "are unfair and unreasonable and fail to confer benefit on [those] policyholders". The publicly available evidence is that the Towers Watson model fails to take into account significant developments in asbestos claiming practices. But even for the risks that the model includes, the RRC Report concludes that there is a significant risk that Towers Watson's modeling has underestimated the asbestos losses such that the Run-off Companies will not have sufficient assets to pay claims (such as

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future asbestos claimants against Plant). Faced with this evidence, the Department must disapprove this restructuring unless significant additional assets are provided to the Run-off Companies.

Sincerely,



Gary S. Fergus

cc See Service List attached

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Service List

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Insights

Summary of U.S. Property & Casualty Insurers' Asbestos Claim Reserves at Year-End 2012

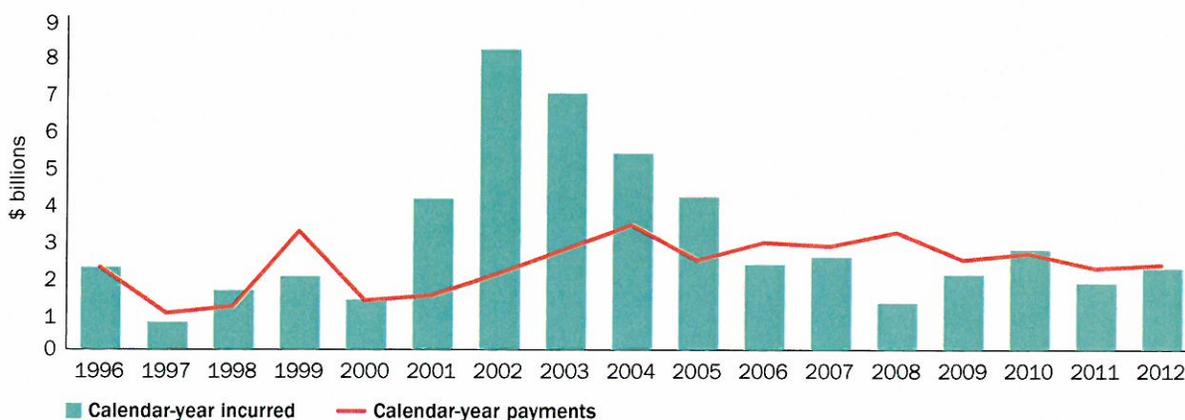
Industry losses through year-end 2012

Asbestos claims continued to bedevil the U.S. property & casualty (P&C) insurance industry in 2012. The industry incurred \$2.2 billion of additional asbestos losses* during 2012, similar to the increase in each of the preceding three years. Annual incurred losses have varied between \$1.8 billion and \$2.7 billion since hitting a low of \$1.3 billion in 2008 (*Figure 1*).

Loss payments for 2012 totaled \$2.3 billion, about the same as the \$2.2 billion paid during 2011, but less than the \$2.8 billion paid per year, on average, from 2003 through 2010.

On a cumulative basis, the industry has paid \$52 billion through 2012. Combining this with the \$23 billion in held reserves produces cumulative incurred losses of \$75 billion at year-end 2012 (*Figure 2*, page 2). In recognition of the continuing upward development of the industry's incurred losses, A.M. Best increased its estimate of the industry's ultimate asbestos claim costs from \$75 billion to \$85 billion in December 2012.

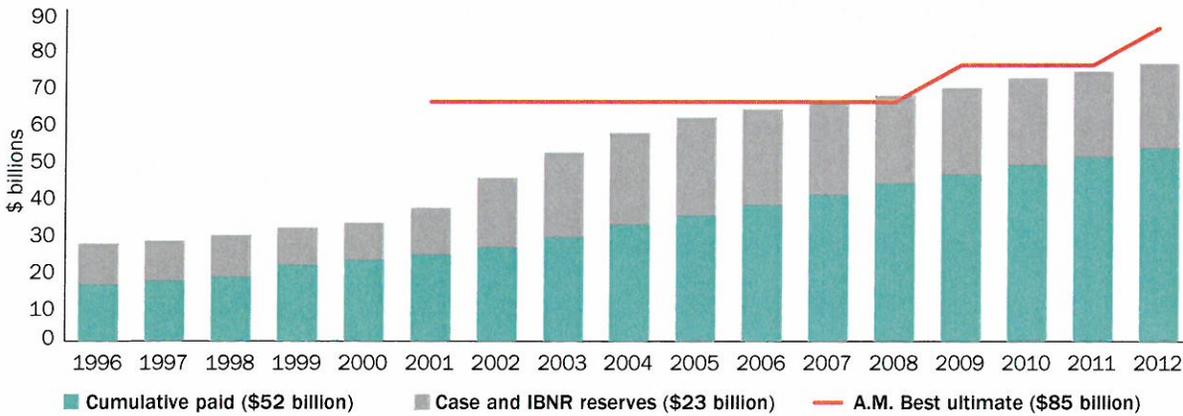
Figure 1. Annual incurred losses



Source: Towers Watson analysis of annual statement data compiled by A.M. Best and other industry data

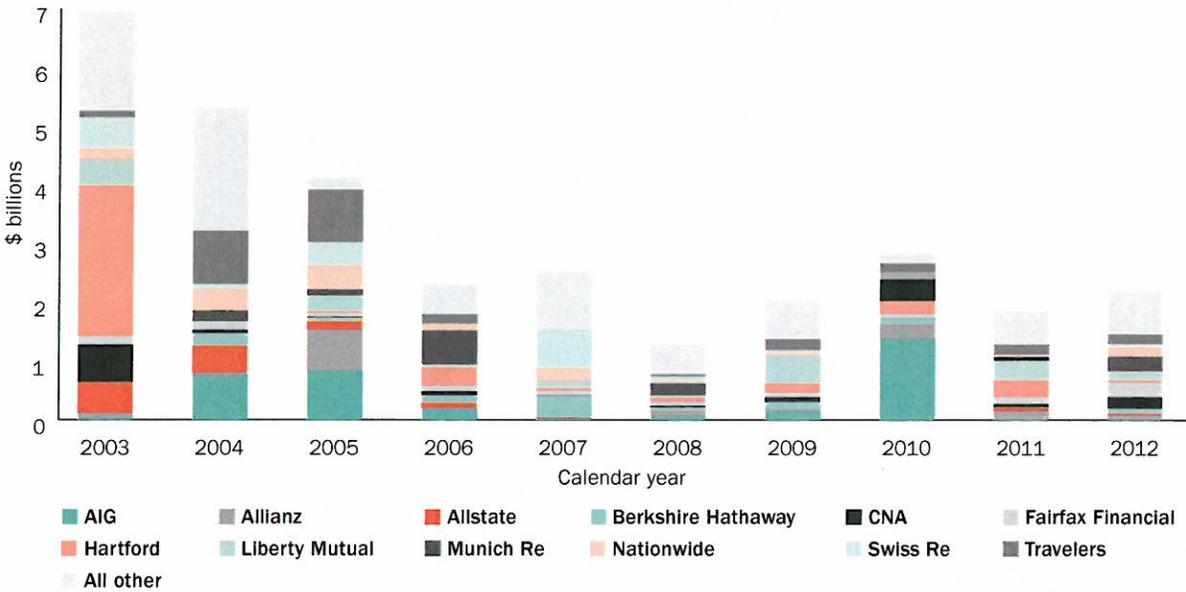
*This article uses the term "loss" to refer to loss and loss adjustment expense combined, unless otherwise specified. Also, figures in this article do not include workers compensation claims, as insurers typically do not include workers compensation claims in their reported asbestos losses. All loss figures in this article are calculated by Towers Watson based on analysis of financial statement data compiled by A.M. Best, as well as industry data from various other sources.

Figure 2. Cumulative incurred losses



Source: Towers Watson analysis of annual statement data compiled by A.M. Best and other industry data

Figure 3. Top 12 A&E insurers — Change in recognized asbestos net ultimate losses 2003 – 2012



Source: Towers Watson analysis of annual statement data compiled by A.M. Best and other industry data
Grossed up for amounts ceded by Fireman's Fund, Munich Re America and Swiss Re America to respective non-U.S. parents

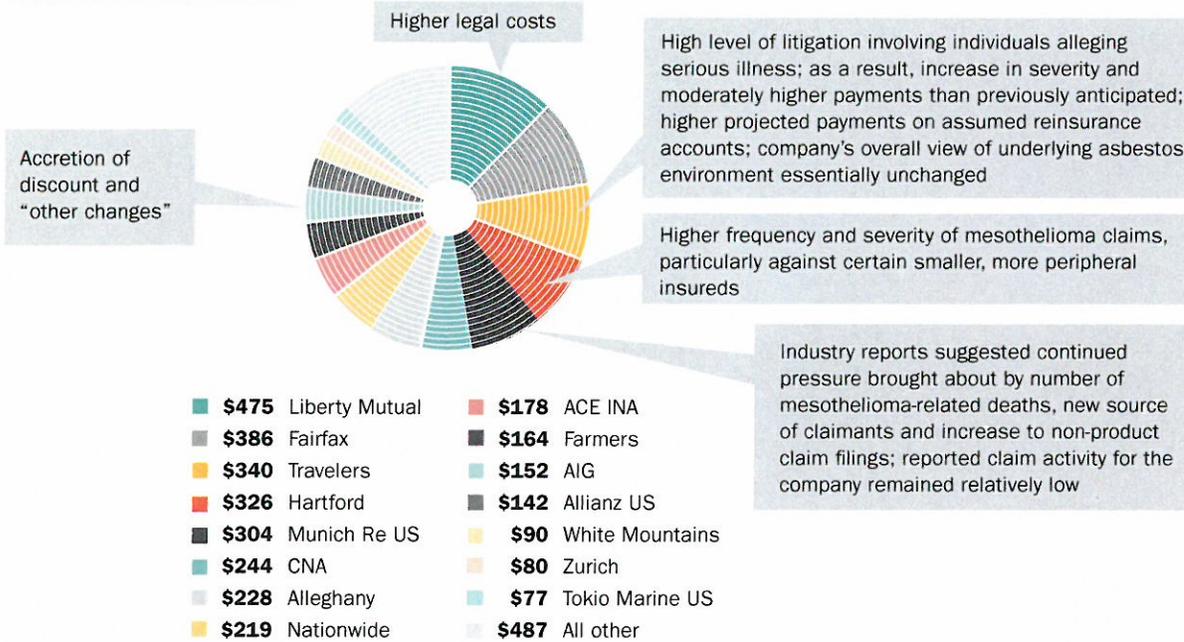
Since insured asbestos losses relate almost exclusively to legacy business underwritten in the 1980s and before, the incurred losses in recent years signify deterioration of prior years' loss reserves rather than the addition of new exposures. The continuing deterioration in the industry's asbestos loss reserves has taken place against a backdrop of relative stability in the external asbestos litigation environment in recent years. In a stable claim environment, one would expect no further development in incurred losses once reserves reach adequately funded levels. While the industry's annual incurred losses did drop sharply from 2003 to 2008, they subsequently rebounded somewhat

and have stubbornly remained in the \$1.8 billion to \$2.7 billion range since 2009.

Figure 3 breaks out the industry's annual incurred asbestos losses from 2003 through 2012 for each of the top 12 asbestos and environmental (A&E) insurers as of year-end 2012, as ranked by held A&E net reserves at year-end 2012. * This chart demonstrates a seeming shift in the pattern of the industry's reserve increases over time. In earlier years, we typically see a small number of insurers take very large reserve increases that drive the overall pace of industry incurred losses in those years (for example, Hartford in 2003, Travelers in 2004 – 2005 and Munich Re in 2006).

*Figures for Allianz, Munich Re and Swiss Re are restated to include estimated amounts ceded by Fireman's Fund, Munich Re America and Swiss Re America to their respective European parents.

Figure 4. Asbestos reserve strengthening during 2011 – 2012 (\$ millions)
Publicly disclosed reasons



Source: Towers Watson analysis of insurer annual reports and other public disclosures

During 2011 and especially 2012, however, the industry's incurred asbestos losses were spread remarkably evenly, with almost all major A&E insurers taking a modest increase. This suggests that the forces affecting the industry's asbestos reserves in the last two years were global in nature rather than company-specific.

Some limited insight into the factors driving the asbestos reserve increases may be gained by inspecting insurers' annual reports and other public disclosures. *Figure 4* shows that among companies incurring substantial asbestos losses during 2011 and 2012, only five insurers provided public commentary on their reserve increases. Two of these five insurers, Hartford and Munich Re, cited a high level of activity on the most serious type of claim, mesothelioma, and a third company, Travelers, more generally cited "individuals alleging serious illness." One insurer, Liberty Mutual, mentioned "higher legal costs" as a driving force for its reserve increase. And finally, one insurer, Hartford, stated that the higher-than-expected claim activity was particularly notable against "smaller, more peripheral insureds." Notwithstanding the reserve increases, one of the insurers, Travelers, noted that its "overall view of the underlying asbestos environment is essentially unchanged" and another, Munich Re, stated that its "reported claim activity remained relatively low."

The above public statements are generally consistent with remarks made to Towers Watson by other companies.

The industry consensus view is that while the overall asbestos claim environment has been largely stable over the last several years, it has been worse than expected for defendants and insurers in a few specific areas.

Most notably, there have been more new mesothelioma claims than expected. Many of the new claims relate to claimants alleging bystander or secondhand exposure to asbestos. Claim forecasts based purely on early epidemiological models such as Nicholson* may underestimate the number of current and future asbestos claims, as the early models were based on studies of workers becoming ill through occupational exposure. Some industry practitioners attempt to remedy the omission of bystander claims from the early models by rescaling their claim forecasts to the actual level of current claim filings. This may still result in under-projections of future claims, however, if bystander exposures and claims drop off more slowly than occupational exposure claims.

“The industry consensus view is that while the overall asbestos claim environment has been largely stable over the last several years, it has been worse than expected for defendants and insurers in a few specific areas.”

*Nicholson WJ (1982). "Occupational Exposure to Asbestos: Population at Risk and Projected Mortality 1980 – 2030." *American Journal of Industrial Medicine* 1982; 3:259 – 311

Another often-cited reason for increased costs in recent years is higher legal costs. We observed legal expenses increasing for defendants and insurers in the mid- to late 2000s as they adapted their defense strategy to a transformed litigation environment that focused on individual adjudication of claims. We believe the upward trend in legal costs has flattened in the 2010s, though some insurers may only now be adjusting their reserves for the cost increase of the prior years.

A third factor driving up costs in recent years appears to be the plaintiff bar's success in obtaining large claim awards from previously low-profile defendants.

Impact on earnings

The industry's continued asbestos woes have adversely impacted earnings. *Figure 5* displays the drag on earnings from 2008 to 2012 caused by asbestos losses. Earnings drag is defined as calendar-year net incurred asbestos losses divided by calendar-year net earned premium. The inherent mismatch between the numerator and denominator in this formula, where the losses arise from policies written decades ago but reduce income earned in the current year, illustrates the unique hurt to insurers' earnings caused by asbestos losses. The

“Claim forecasts based purely on early epidemiological models such as Nicholson may underestimate the number of current and future asbestos claims.”

earnings drag for the industry averaged a half point in that five-year period. Seven of the top 12 A&E insurers experienced an average earnings drag of one point or more per year during that period. While a half- or one-point earnings drag in any one year may seem modest, it becomes more significant when viewed as a continuing impact over an extended period. P&C insurers have added significant amounts each year to their asbestos reserves for over 15 years, and the trend appears likely to continue.

Survival ratios

Industry analysts often use the survival ratio metric to assess insurers' asbestos reserve adequacy. The survival ratio is calculated as held reserves divided by annual paid losses, where the annual paid losses are typically determined by averaging the payments from the preceding three years. The industry paid \$2.4 billion per year, on average, from 2010 through 2012, thus the year-end 2012 reserves of \$23 billion produce a survival ratio of 9.7.

Figure 5. Top 12 A&E insurers — Earnings drag caused by asbestos losses from 2008 – 2012

	Earnings drag (calendar-year incurred losses/calendar-year earned premium)					
	2008	2009	2010	2011	2012	2008 – 2012
AIG	0.3%	0.7%	6.7%	0.7%	0.1%	1.6%
Allianz	1.4%	0.8%	5.0%	1.2%	1.7%	2.0%
Allstate	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
Berkshire Hathaway	0.3%	0.5%	0.5%	0.0%	0.3%	0.3%
CNA	0.5%	1.3%	0.0%	0.9%	3.3%	1.2%
Fairfax Financial	1.7%	2.5%	2.2%	3.7%	6.5%	3.4%
Hartford	0.8%	1.6%	2.2%	2.9%	0.4%	1.6%
Liberty Mutual	0.1%	2.2%	-0.5%	1.5%	0.6%	0.8%
Munich Re	5.5%	0.0%	8.5%	1.4%	5.5%	4.2%
Nationwide	0.3%	0.3%	0.8%	0.3%	1.1%	0.6%
Swiss Re	3.2%	2.6%	-2.0%	-2.2%	2.2%	1.0%
Travelers	0.2%	0.9%	0.7%	0.8%	0.8%	0.7%
All other	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%
P&C industry	0.3%	0.5%	0.6%	0.4%	0.5%	0.5%

Source: Towers Watson analysis of financial statement data compiled by A.M. Best and other industry data
Grossed up for amounts ceded by Fireman's Fund, Munich Re America and Swiss Re America to respective non-U.S. parents

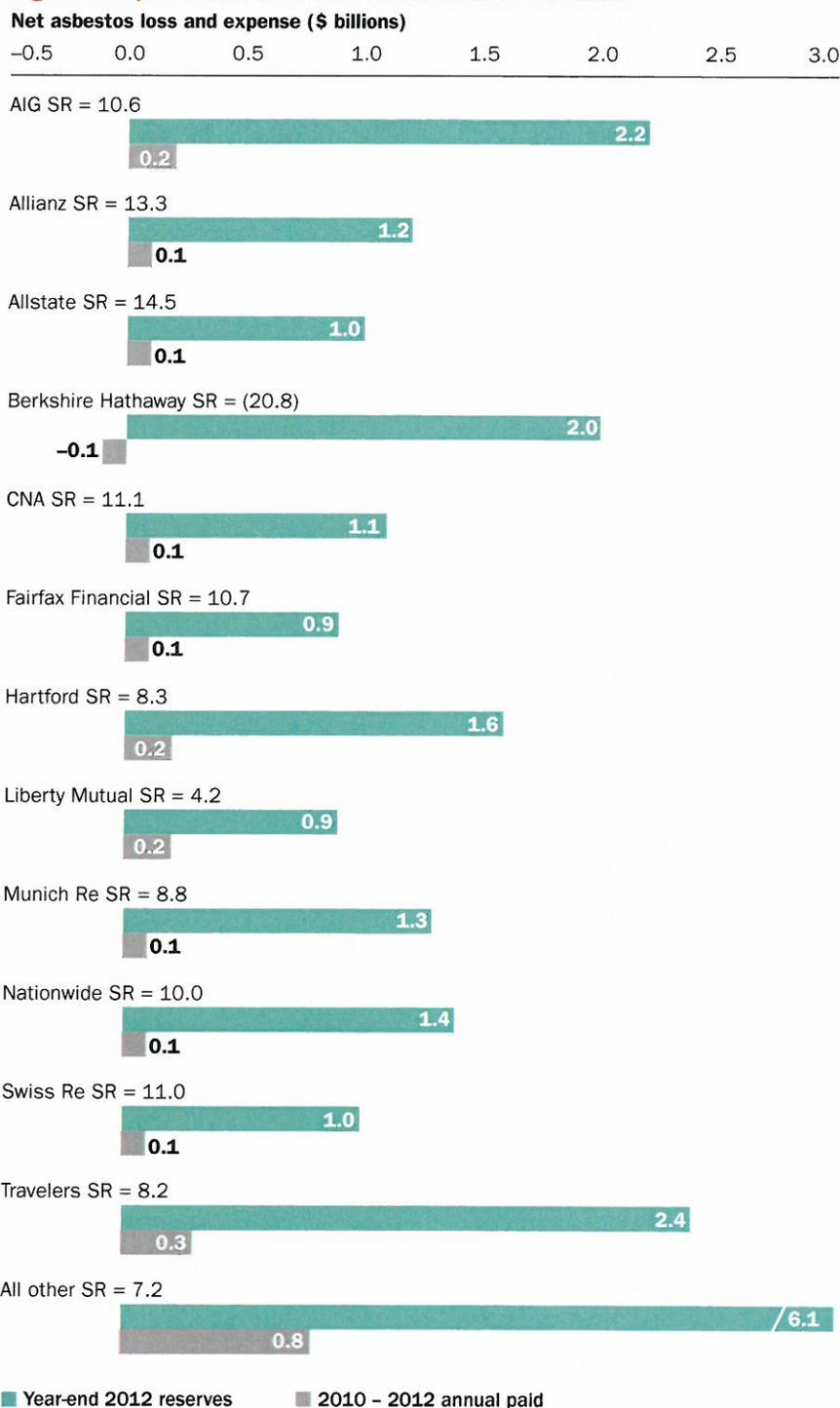
Survival ratios for individual companies vary widely (Figure 6) depending upon the insurer's book of business, reserving protocol and settlement practices, and therefore, the ratios must be interpreted with caution when used to assess relative reserve adequacy. Notwithstanding these limitations, companies with low survival ratios are more likely to require reserve additions in the near future to fund continuing claim payments.

Future payments

The survival ratio metric suffers from the shortcoming that it measures reserves against a constant rate of loss payment, when in fact, loss payments are expected to decrease over time as old claims are resolved and new claim filings taper off. To address this shortcoming, it is possible to generalize the survival ratio calculations by conceptualizing the unpaid liabilities as a function of the current level of annual payment, the life span of asbestos loss payments and the decline in payments over this life span (Figure 7, page 6).

In Figure 7, actual asbestos loss payments for the industry are displayed for 2007 through 2012, along with four illustrative scenarios with respect to future payments. Actual payments show a downward trend from 2007 to 2012; the future annual payments are assumed to begin in 2013 at amounts ranging from \$2.0 billion to \$2.3 billion, then decline through 2050 at various rates. The most optimistic scenario assumes the industry's future loss payments will exactly exhaust the held reserves of \$23 billion at year-end 2012. The other three scenarios assume shortfalls of \$4 billion to \$12 billion in the held reserves.

Figure 6. Top 12 A&E insurers' asbestos net survival ratios



Source: Towers Watson analysis of financial statement data compiled by A.M. Best and other industry data Grossed up for amounts ceded by Fireman's Fund, Munich Re America and Swiss Re America to respective non-U.S. parents

The decline in annual payments is fundamentally driven by the decline in the number of claims. Figure 7 shows the projected drop-off in new mesothelioma claims from current levels for comparison to the decline in payments.* Insurers' payments are expected to decline more quickly than claim filings for two main reasons. First, policy limits serve to cap and therefore truncate loss payments above the limits. Second, insurers frequently negotiate buyouts and other settlements with their policyholders that involve bulk settlement payments relating to both past and future claims. Such settlements typically involve the liquidation of the defendants' insurance coverage assets for discounted payments from their insurers and the release of those insurers from future policy obligations. Without the acceleration of claim payments from these settlements, the insurers' liability to defend and pay claims would extend over several decades.**

Future incurred

Similar to the previous analysis of expected future payments, where payments are decomposed into an initial payment level and a declining payment stream over time, an analogous approach can be used to analyze future incurred losses as a function of decreasing annual amounts. Figure 8 shows the industry's actual annual incurred losses from 2007 through 2012, plus four scenarios regarding possible incurred development in the future. The four scenarios assume annual incurred losses will range from \$1.0 billion to \$2.2 billion in 2013 and then taper to zero over different time horizons. Total future incurred losses range from \$0 to \$12 billion in the four scenarios. The disparate scenarios reflect different assumptions regarding the nature and cause of recent and future reserve increases, and correspond to the four scenarios of funding shortfalls in Figure 7.

Figure 7. U.S. P&C insurance industry — Illustrative future asbestos payments

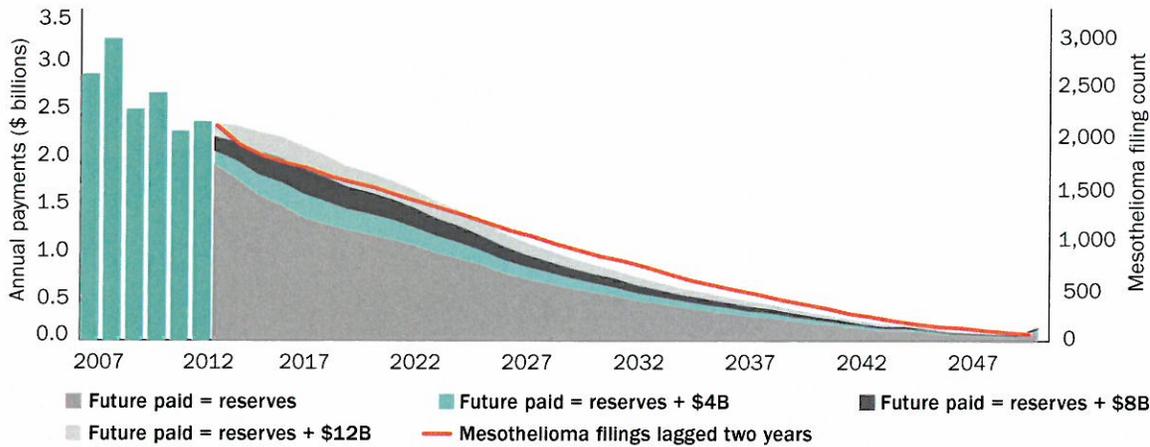
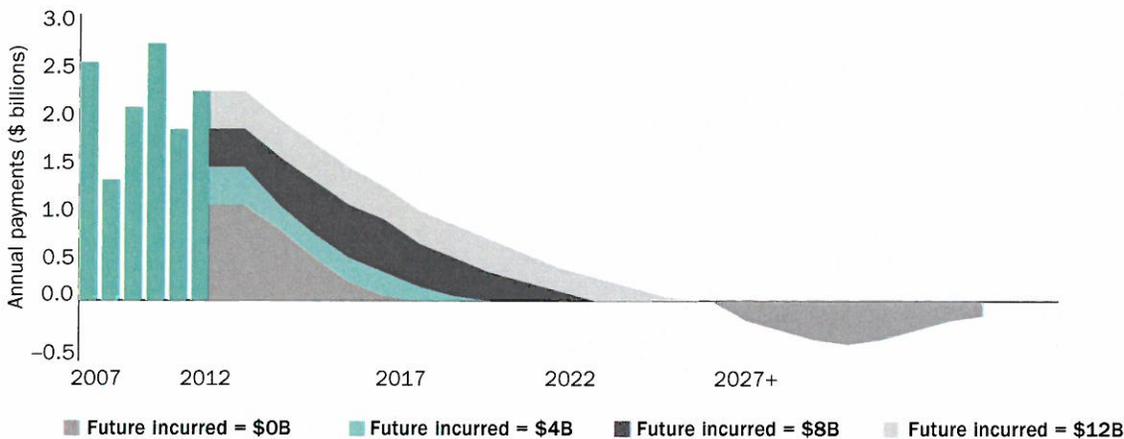


Figure 8. U.S. P&C insurance industry — Illustrative future asbestos incurred



*The claim filings have been shifted by two years to roughly approximate the time from claim filing to claim payment. For simplicity, our discussion ignores the impact of claim severity trend as well as non-mesothelioma claims.

**Reinsurers often enter into commutation settlements with their cedants that produce similar accelerations in loss payments.

“We believe the technique used to estimate asbestos liabilities does not adequately consider the impact of adverse, low-probability tail events in many cases.”

The most optimistic scenario, where current held reserves are assumed to be adequate overall, assumes incurred losses of \$1.0 billion in 2013, followed by smaller amounts in 2014 through 2016. The amounts incurred in 2013 through 2016 are reversed by negative incurred losses after 2027, as loss reserves are eventually found to be redundant. Though the timing and amounts of the incurred developments in this scenario were selected judgmentally, the scenario illustrates the simple notion that if the industry's current reserves are adequate, any additional reserve strengthening will eventually be offset by reserve takedowns.

The other three scenarios in Figure 8 assume the industry's current reserves are inadequate overall. The most pessimistic of the scenarios assumes incurred losses of \$2.2 billion in 2013 and additional incurred losses each year until 2025, for total future incurred losses of \$12 billion. The two middle scenarios assume smaller incurred losses over shorter time periods.

The most optimistic scenario above, where current industry reserves are assumed to be adequate overall, appears intuitively unrealistic given the persistent and widespread reserve strengthening among insurers in recent years.

Final thoughts

As stated earlier, we believe pockets of deterioration in the claim environment have exerted upward pressure on the industry's asbestos losses in recent years. We now discuss two additional factors that we believe may help explain the industry's continued reserve increases.

The first alternative explanation for the industry's continued reserve increases is that the industry may be taking an optimistic view when assessing its asbestos liabilities. The long time horizon of asbestos claims means that a part of the liabilities is many years away from payment and subject to great uncertainty.

As a result, companies may differ significantly in their evaluation of the future trajectory of asbestos liabilities, especially in the far tail. Some companies may be reluctant to extrapolate from recent adverse developments, such as the higher-than-expected mesothelioma filings and defense expenditures, to the future tail period. Interestingly, A.M. Best commented recently that “asbestos loss payments have roughly approximated asbestos incurred losses since 2010....As a result, it appears the industry is using a pay-as-you-go approach for asbestos claims.”*

Another key factor contributing to the upward development in the industry's asbestos losses, in our view, is a systematic low bias in the procedure used by insurers to estimate their asbestos liabilities. We believe the technique used to estimate asbestos liabilities does not adequately consider the impact of adverse, low-probability tail events in many cases. Many companies perform an exposure-based analysis, where a liability estimate is developed for each individual policyholder account; the account estimates are then added to produce an estimate for the whole portfolio. In our experience, when developing the individual account estimates, it is common for companies to exclude from consideration extremely adverse outcomes deemed to have a low probability of occurring. However, an extreme event that is unlikely to occur on any specific account may, in fact, occur predictably on some unspecified account when considered over an entire portfolio of many diverse accounts. In such cases, an aggregate provision is needed to correct for the low bias in the individual account estimates. Otherwise, the company's total reserves will develop upward as the low-probability tail events emerge.

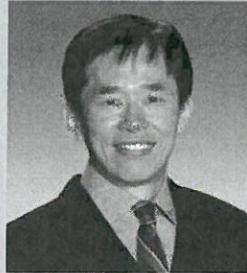
We believe the forces that have driven insurers' asbestos reserves upward in recent years are likely to continue for a number of years. As a result, the industry can expect to add several more billion dollars to its hefty tally for this vexing mass tort.

*Best's Special Report, “Asbestos Losses Fueled by Rising Number of Lung Cancer Cases” (October 28, 2013)

Towers Watson's Asbestos Practice

Towers Watson's Asbestos practice routinely estimates asbestos personal injury liabilities on behalf of reinsurers as well as individual corporations named as defendants in the underlying litigation. We also perform methodology studies. Asbestos liabilities can be a major consideration in both insurance-related and other corporate transactions. We have assisted both buyers and sellers of the liabilities. We have provided expert testimony in bankruptcy cases and other matters. Additionally, we have authored various papers and given numerous speeches regarding asbestos.

About the Author



Steve Lin is a Fellow of the Casualty Actuarial Society and a Member of the American Academy of Actuaries. He is a consultant in our San Francisco office. He has an M.A. in physics from Columbia University, as well as an M.A. in international relations from Johns Hopkins University. Since joining the company in 1996, Steve has been a member of the Towers Watson Asbestos and Environmental practice group. He

has spoken at various professional actuarial meetings and written articles for *Insights* and *Emphasis* regarding insurers' asbestos reserves and approaches to managing asbestos liabilities.

Steve's experience includes:

- Reviews of asbestos and other toxic tort liabilities of corporate defendants, as well as numerous insurance and reinsurance companies
- Assistance to state insurance regulators
- Assistance on bankruptcy reorganizations and other litigation support
- Development of Towers Watson's proprietary asbestos liability projection model

In addition, Steve has worked on general reserve evaluations and rate studies for a number of P&C insurers, reinsurance companies and self-insured pools, with a particular focus on construction defect and other unique claims.

About Towers Watson

Towers Watson is a leading global professional services company that helps organizations improve performance through effective people, risk and financial management. With 14,000 associates around the world, we offer solutions in the areas of benefits, talent management, rewards, and risk and capital management.

Commentary

A Third Wave In Asbestos Liabilities Lies Ahead: Actuarial Models Are Systematically Underestimating Exposures

By
Bill Wilt
and
Alan Zimmermann

[Editor's Note: Bill Wilt, President of Assured Research, has had diverse roles in insurance including actuary, research analyst, and corporate development executive. Since founding Assured Research in 2011 the firm has focused on providing actionable research to property/casualty insurance executives.]

Alan Zimmermann, Managing Director at Assured Research, is a veteran Wall Street analyst who for many years was named to Institutional Investor Magazine's All America Research Team. Most recently, Alan was the head of P/C research at Macquarie, and formerly the director of equity research at its predecessor Fox-Pitt Kelton.

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Our research suggests that asbestos liabilities are larger than generally anticipated. The actuarial models used to project the incidence of serious asbestos claims (such as mesothelioma, asbestosis and associated lung cancers) appear to be systematically biased to under-project actual claims. (The insurance companies with the largest share of annual incurred asbestos losses are shown in Figure 1.) Anecdotal evidence found in insurers' financial reports over the past several years supports this assertion. For example, rating agency A.M. Best notes that the industry has reverted to a pay-as-you-go approach to funding asbestos losses with the annual run rate in the range of \$2.5 billion. Much more persuasive, in our view, is the confluence of the evolving body of medical literature and shifting societal and media trends that, when combined, point

to a third wave of serious asbestos claims that will likely stain the financial results of insurers for years to come.

Some insurers have bravely, or naively, reported that asbestos environment is little changed in recent years. We disagree.

Findings And Executive Summary

The reasons we expect serious asbestos claims to continue driving insurance liabilities higher include:

1. **The models used by major consulting firms and, most likely, most insurance companies, rely on outdated assumptions.** Constructed in the mid-1980s and recalibrated once in the later-1990s (based on information and belief), we observe that new epidemiological studies and dramatic shifts in medical knowledge, life expectancies, and societal behaviors warrant another, likely dramatic overhaul of the actuarial models. The result, we expect, would be higher forecasted claims and an explanation for the series of annual "surprises" that many insurers relay each time they fund rising asbestos payments with yet another "one-time," annual reserve charge. While most insurers study their asbestos liabilities annually, studies that continually tweak outdated epidemiological and exposure assumptions cannot be expected to perform well in the face of fundamental shifts in the processes driving new claims.

2. **People are living into their asbestos-induced disease.** The long latency period of asbestos illnesses is well understood (documented at 40+ years depending on the intensity of exposure). Yet, current actuarial models are unlikely to account for both rising life expectancy overall or, more important, changes that specifically affect the population of occupationally exposed workers. Longer life spans mean more people will live to discover their asbestos-related illness and report a claim.

For instance, death rates from prostate cancer have fallen by 20% over the past 10 years (occupational asbestos exposure affects males predominantly). More impactful – smoking rates have plummeted since the 1980s when the epidemiological models were first created, and even more recently the volume of cigarettes consumed by smokers has declined dramatically. We document both trends later in the report.

3. **Advances in medical knowledge point to greater exposures and higher medical severities than models likely contemplate, creating an overall worsening landscape for insurers.** Take smoking as one example. Medical researchers are increasingly recognizing (and documenting) the malignant synergy between asbestos exposure, asbestosis, and smoking. One recent study found asbestos exposure (in the absence of asbestosis) increased the lung-cancer rate 5.2-fold among nonsmokers, compared to smoking, which increased the rate by 10.2-fold. Taken together, however, the rate of lung cancer increased more than 28x. When a smoker also has evidence of asbestosis (i.e., documented damage and scarring to the lungs caused by asbestos exposure) his risk of developing lung cancer is nearly 37x that of this study's control group.¹

Less appreciated, however, is that smoking cessation has an almost equally powerful, and favorable, impact on longevity. For instance, one recent study concluded that "lung cancer mortality among insulators dropped precipitously after smoking cessation, and proportionate to that of smokers who were unexposed to asbestos." After 30 years, the risk of lung cancer death among the insulators studied was no different than that of insulators who had never smoked.²

This is good news indeed for those who still smoke, and consistent with the phrase used by pulmonologists who exhort smokers to quit but in the absence of quitting remind patients that "less is more." But why might this societal positive be a negative for insurers? Surely some asbestos-exposed former smokers will see their lives prolonged and may stave off the development of an asbestos-induced lung disease. But others, we postulate, will simply live longer than the 1980s-calibrated actuarial models forecast, only to live *into* their asbestos-induced lung disease, be it mesothelioma or another form of lung cancer. The smoking rate among men over age 18 when the epidemiological studies were crafted was 30%, and smokers consumed, on average, about 1.5 packs per day. By 2010, the smoking rate had declined to roughly 21.5% among American men, who consumed 45% fewer cigarettes daily.

4. **A third wave of asbestos exposures could sweep the nation.** We do not believe this is adequately accounted for in insurers' loss reserves as these new claims are typically non-occupational exposures (known as "bystander" exposures in industry parlance), whereas insurers most often reserve for occupational exposures. In many cases, the plaintiffs are long-time smokers with some form of above-normal, non-occupational exposure to asbestos. Unfortunately for the exposed and insurers alike, medical research increasingly supports the assertion that 1) smoking and asbestos exposures are supra-additive³; 2) there is no threshold of asbestos exposure below which one cannot develop mesothelioma; 3) and even short but intense non-occupational exposures, such as from home renovation, can heighten the risk of asbestos-induced lung diseases.^{4,5}

In short, insurers asserting that the recent spate of lung cancer cases (alleging asbestos involvement) are without merit may find that they are on the wrong side of science, and potentially the law.

5. **The intersection of diagnostic bias and new screening recommendations may increase the number of claims.** The increasing use of high-resolution CT-scans may increase the diagnosis of asbestosis relative to cloudier

X-rays. The data to support that assertion may become available sooner than contemplated by most insurers or their consultants' models. In 2013, the U.S. Preventive Services Task Force recommended that current and former heavy smokers between the ages of 55 and 80 should undergo annual CT scans. As many as 10 million people could be affected by this recommendation.

Importantly, the Task Force's recommendation included a grade of "B" which should lead to the annual procedure being covered by Obamacare-compliant health plans. We won't speculate as to the percentage of those 10 million people who might be found to have asbestos-induced lung scarring, but

clearly the answer is not zero, and this development alone should lead to an uptick in the number of asbestos claims and lawsuits.

The balance of this research note consists of the following sections:

Serious Asbestos Cases Are Not Subsiding As Predicted By Models Overview Of Current Models And Their Shortcomings People Are Living Into Their Disease The Third Wave Of Asbestos Exposure – Worse Than Anticipated Diagnostic Bias And New Recommendations Could Fuel New Claims

The sections following present data in the form of charts and tables supporting our assertions. We'll also call out quotes and findings from the medical

Figure 1: Five-Year Average Incurred Asbestos Losses 2008-2012: Top 15 Groups

(1)	(2)	(3)	(4)	(5)	(6)
\$(000)	5-Year Average Annual Asbestos Loss	Normalized Net A&E Paid Share (2012)	Asbestos Reserves 2012	Avg. Annual Asbestos Reserves % Avg. Earnings	Asbestos Equity
1 Travelers Group	\$140,300	15.1%	\$2,361,180	4.9%	9.5%
2 American International Group	\$353,854	5.1%	\$2,196,660	5.1%	2.2%
3 Berkshire Hathaway Insurance Group	\$66,721	2.4%	\$2,023,980	0.5%	1.0%
4 Hartford Insurance Group	\$155,252	5.2%	\$1,590,360	62.7%	8.4%
5 Nationwide Group	\$90,920	6.4%	\$1,391,200	37.7%	10.0%
6 Munich Re America Corp Group	\$175,440	3.5%	\$1,298,640		
7 Allianz of America (Fireman's Fund)	\$99,278	3.9%	\$1,166,100		
8 CNA Insurance Group	\$69,420	6.9%	\$1,123,200	10.1%	9.2%
9 Liberty Mutual Insurance Co	\$172,227	8.2%	\$891,700	25.2%	5.3%
10 Fairfax Financial (USA) Group	\$121,751	2.3%	\$869,440	52.2%	10.8%
11 ACE INA Group	\$76,761	6.3%	\$790,830	2.8%	2.8%
12 White Mountains Insurance Group	\$48,314	3.0%	\$776,050	12.2%	18.1%
13 Chubb Group of Insurance Cos	\$9,168	2.5%	\$586,500	0.5%	3.8%
14 Farmers Insurance Group	\$81,196	1.3%	\$357,120	64.1%	7.1%
15 Alleghany Insurance Holding	<u>\$57,729</u>	<u>0.2%</u>	<u>\$258,500</u>	<u>15.4%</u>	<u>3.8%</u>
Total/Median	\$1,718,331		\$17,681,460	12.2%	7.1%
All Other	284,558		5,235,060		
Total Industry	\$2,002,889		\$22,916,520		
Top 15	86%		77%		
All Other	14%		23%		

Notes:

(1)-(3) Taken from A.M. Best Report Tables 7 and 8

(4) Calculated by Assured Research from A.M. Best Table 7 (A&E Reserves * Asbestos Mix)

(5) Col (2) divided by GAAP earnings for GAAP-filers; Stat earnings for Stat filers
GAAP data from 2009-3Q13; Stat data from 2008-2012. Data not tax-affected

(6) Uses GAAP equity at 9/30/13, Statutory surplus at 12/31/12. Data not tax-affected
Other: Munich Re and Allianz not completed owing to reinsurance relationships with parent companies

Source: A.M. Best (October, 2013 Special Report), SNL Financial, Assured Research.

literature we reviewed. In short, our aim will be to supplement the findings shared in the executive summary. Please contact us with questions, observations, or requests for additional information.

But before digging into the data, we present in Figure 1 a table of the 15 insurance groups with the largest 5-year average incurred losses between 2008 and 2012. These are clearly companies operating, at least recently, on a pay-as-you-go basis where reserves are held constant (more or less) while calendar year payments are offset by current accounting year accruals. Accountants and actuaries frown on this approach, and we're reminded that the industry was operating largely on a pay-as-you-go basis back in the late 1990s and early 2000s before a series of large charges reported by many of the companies in Figure 1.

We have added two measures useful for dimensioning the asbestos liabilities relative to the earnings and balance sheets of these insurance groups. In the cases of Munich and Fireman's Fund, we opted not to include the measures since each has engaged in substantial reinsurance arrangements with their foreign parent companies.

Lists of companies with asbestos exposures have been around for years. **What is new is that the era**

of meaningful asbestos-induced reserve charges may not be over.

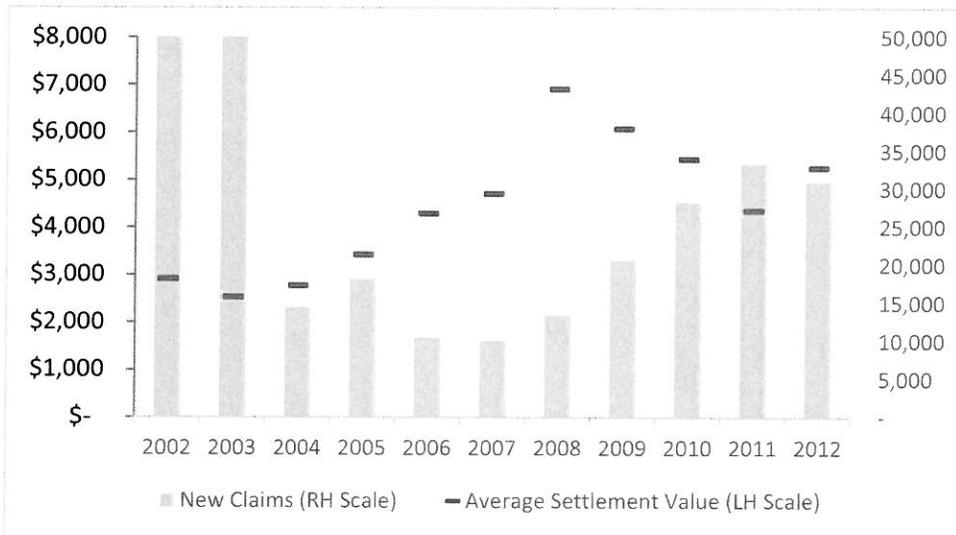
Serious Asbestos Cases are Not Subsiding As Predicted By Models

After observing for a number of years that insurers were gradually increasing their provisions for asbestos liabilities, A.M. Best raised its estimate of ultimate asbestos liabilities by \$10 billion, to \$85 billion, in December 2012. Noting higher-than-expected claims of both mesothelioma and lung cancer, the rating agency concluded that "it is likely that asbestos losses will continue unabated for many years to come."⁶

Towers Watson came to largely the same conclusion in their recent report on asbestos liabilities. Citing the same rise in mesothelioma claims, the consultancy also noted rising severities and higher legal costs as drivers of increased loss activity. Noting that the industry could be reserved too optimistically, the firm concluded "the industry can expect to add several more billion dollars to its hefty tally for this vexing mass tort."⁷

These reports are useful, we think, insofar as they do a good job of harnessing statutory data and sprinkling their data-driven observations with anecdotes (undoubtedly drawn from company commentary)

Figure 2: New Claim Filings and Average Settlement Costs from Manville Personal Injury Trust



Source: Documents retrieved from www.mantrust.org, Assured Research. Years 2002 and 2003 are capped at 50K claims. Actual claims (56K and 101K in 2002, 2003) were higher largely due to a rush to file before distribution parameters were tightened in 2002/2003.

about the sources of adverse claim development. But there is much more to the story!

Vast gains in medical knowledge; shifting societal behaviors, new incentives to seek medical screening. . . a simple review of statutory data seems wholly unfulfilling and sure to fall short of the substance behind the rising asbestos claims.

Before moving on, we'll share recent trends in new claim filings drawn from documents filed by the Manville Personal Injury Settlement Trust. After a rush of claims influenced by tightening distribution guidelines (affecting 2002-2005 in Figure 2), we can see that filings have begun to rise once again. Moreover, the documents filed each quarter increasingly speak of a rising share of malignancy filings. It seems the Manville Trust is experiencing the same phenomenon as insurance companies.

Overview Of Current Models And Their Shortcomings

Research by the major consulting firms and many of the professionals employed by the most exposed firms has greatly advanced efforts to quantify asbestos liabilities. But we have come to believe that the models are in dire need of a substantial overhaul. Much like a car will likely need more than an oil change at its 100K mile checkup, so too the actuarial models – with their chassis built in the earlier 1980s and just one substantive update about a decade later – need to be recalibrated to reflect the advancements in medical knowledge and the many societal changes discussed throughout this report.

Before exploring the latter, we'll first share an admittedly (and perhaps grossly) simplified version of the typical asbestos model. In turn, we'll comment on where the shortcomings may reside as well as the reasons for the bias that has led to many insurers reporting a "surprising" number of serious asbestos claims.

1. The asbestos model starts with a cohort, or population of people exposed to asbestos in varying degrees. Miners and millers of asbestos were obvious members of the exposed population, while those working in industries that used products containing asbestos (such as plumbers, shipbuilders, and carpenters) constituted some of the second-wave of exposures.

Many of the fringe, or unexpectedly exposed occupations, fueled the reserve charges taken by insurers from 2002-2005.

What's new? New research has revealed that even low-dose, non-occupational exposure to asbestos can be hazardous (think familial exposures, air pollution, home renovators).⁸ What's more, the people exposed are becoming plaintiffs.

2. As we understand it, asbestos models with their roots in the 1980s rely on epidemiological studies that have not been updated since. Yet medical sites are rich with studies that have advanced our understanding of the etiology of asbestos.⁹ Most important, a growing body of evidence reveals that "there is no proof of a . . . minimal lower limit below which asbestos fibres cannot cause. . . mesothelioma."¹⁰ In short, we suspect the underpinnings of today's actuarial models simply aren't sufficiently sensitive—even where they accurately estimate the size of the exposed population—to produce a credible estimate of the volume of lung diseases given different levels of exposure.
3. After estimating illnesses from an exposed population, actuarial models must estimate the latency period for this disease. . . often 40 years or more. We are not aware of material changes in the estimates surrounding the latency period (though we have seen commentary linking heavier exposures to meaningfully reduced latency periods). However, this issue is related to the matter of morbidity and mortality.
4. Morbidity and mortality assumptions are necessary to calibrate the rate at which sickened individuals turn first into claims, and then into claim payments. It is here, in particular, that we see the need for an actuarial upgrade. Increasingly, people are living into their (asbestos-induced) disease. It is not difficult to consider, for instance, the case of a 65-year-old insulator and former smoker who if diagnosed at that age in 1985 might have died within a few years – before asbestosis and years of smoking turned into a reportable claim. Roll the clock forward and that same 65-year-old in 2010 has a 98% chance of surviving his prostate cancer past

ten years . . . plenty of time for years of smoking and asbestos exposure to fuse and become a reportable asbestos claim.¹¹

We'll explore this concept further in the next section – Living into Their Disease.

5. Actuaries must turn estimates of claims at different levels of medical severity into claim dollars. They do so using a financial calculator that would consider the insured's propensity to sue, a success rate, and average award values, among other variables. This subject is not the focus of our report, and we don't envy the actuaries forced to make these difficult estimates.

People Are Living Into Their Disease

Life expectancy has been rising steadily for generations, as Figure 3 reveals. More important, we think, is the increase in life expectancy of a 65-year-old man from the 1940s onward. Little progression in life expectancy – having attained age 65 – was made until the early 1980s, after which a 65 year-old has enjoyed a 20% increase in their life expectancy – to 82.3 from 79.2. Those additional three years may not present a huge window in which to report an asbestos claim, but neither are they immaterial; and in either case may not be adequately accounted for in the actuarial models.

The most relevant insight, we think, comes from recent research revealing the powerfully beneficial impact of smoking cessation (and smoking less where cessation proves too difficult) with mega-social trends toward doing just that – not smoking and smoking less.

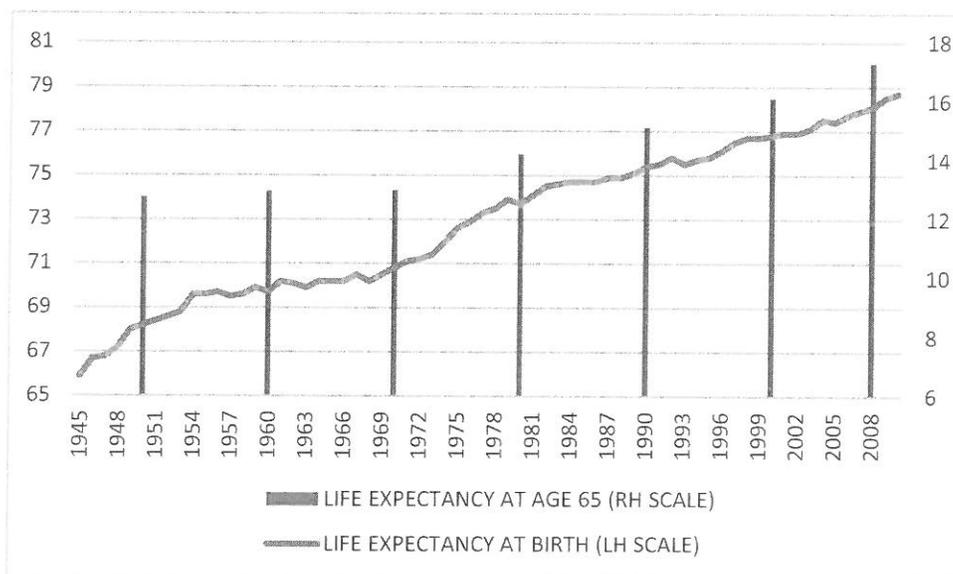
The research was previously cited, but it bears repeating some of the conclusions from this impactful study:

“Do insulators with heavy long-term asbestos exposure experience the benefit of smoking cessation? Lung cancer mortality among insulators dropped precipitously after smoking cessation and proportionate to that of smokers who were unexposed to asbestos.”¹²

“The risk of lung cancer death among insulators who had quit smoking at least 30 years previously converges with that of never-smoking insulators.”¹³

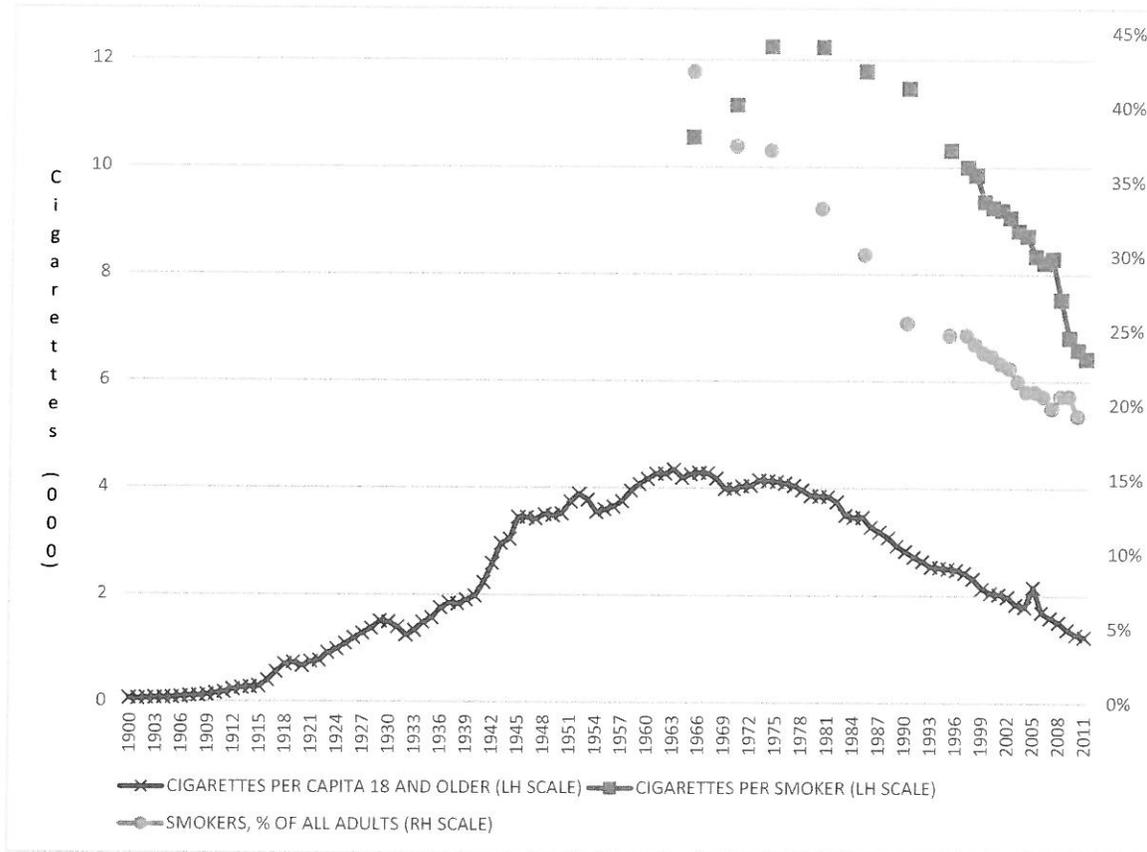
This data is highly relevant given the prevalence of smokers among those exposed (occupationally, at least) to asbestos. And while quitting smoking can add years to your life, we can observe using data from the American Lung Association that the number of smokers has fallen precipitously since the mid-1980s and even the late 1990s – exactly when the actuarial models were built and last recalibrated.

Figure 3: Life Expectancy from Birth and from Age 65 (Male)



Source: CDC, Assured Research.

Figure 4: Smoking Rates and Cigarette Consumption



Source: American Lung Association, Trends in Tobacco Use (July, 2011), CDC Mortality Weekly (August, 2012), Assured Research.

Fewer Americans are smoking and those who are smoke less. . .45% less measured from 1985 when the epidemiology study regarding smoking and asbestos was incorporated into the actuarial model. Literature and conversations with pulmonologists confirm that smoking less matters if smoking cessation is not workable. (Don't tell your kids, who will only hear, "It's OK to smoke, just not too much.")

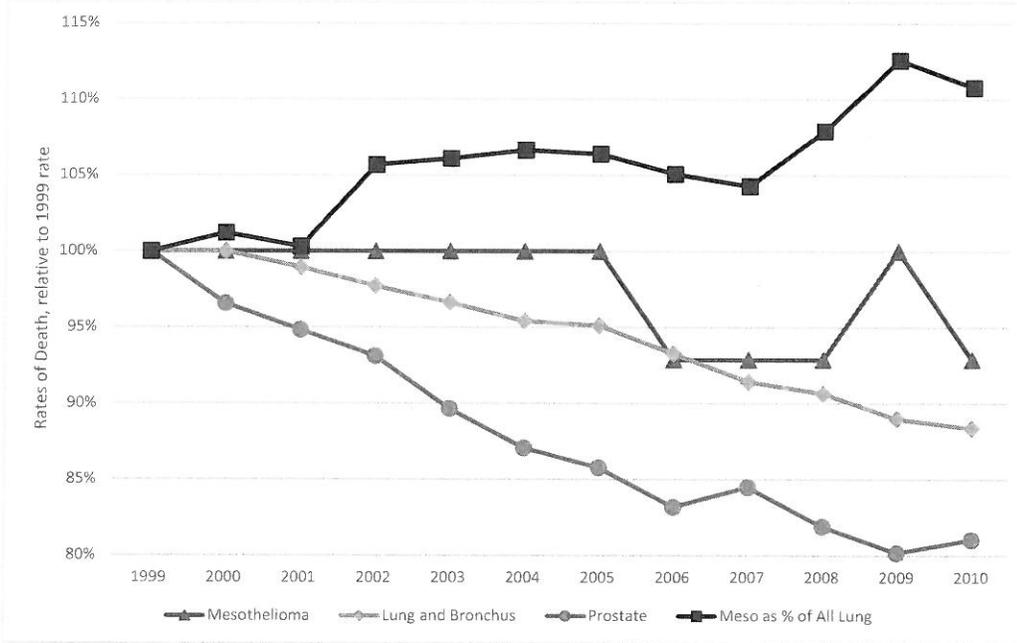
In short, there have been some massive societal shifts in smoking over the past 25 years. But what is the impact on serious asbestos claims, such as mesothelioma, lung cancer and asbestosis? Perhaps counter-intuitively, we believe it will lead to more claims.

While the death rates from lung cancer have declined, along with incidence rates, deaths from mesothelioma have remained steady, albeit a bit volatile lately (Figure 5). Consequently, mesothelioma's

share of all lung deaths has risen more than 10% since 1999. This observation is consistent with commentary observed in the Manville Trust filings as well as insurance company commentary: the incidence of serious mesothelioma cases appears to be on the rise (or at least not falling as expected). We also include prostate cancer in Figure 5 to show that it too has 1) exhibited a remarkable decline in death rate and 2) because it is one of the leading killers of men and relevant to a predominantly male population of asbestos plaintiffs.

Taking all these data together, we conclude that the population most likely to report an asbestos claim has enjoyed an increase in life expectancy that is not contemplated in the actuarial models currently governing insurer's asbestos liabilities. Longer lives could be beneficial for insurers, but they also translate into an unexpectedly large pipeline of future claimants – people fortunate enough to survive long enough to live into their asbestos disease.

Figure 5: Cancer Death Rates: Mesothelioma, Lung, and Prostate



Source: U.S. Cancer Statistics, Assured Research.

The Third Wave Of Asbestos Exposure – Worse Than Anticipated

We believe the third wave will be dominated by lung cancer claims which are ostensibly lower quality than those of mesothelioma because the cancer was predominantly caused by smoking rather than asbestos. Nevertheless, large numbers of even lower-quality claims could raise pressure on defendants anxious to settle and minimize nuisance suits. Moreover, recent research highlighted throughout this report illustrates researchers’ rising awareness of the malignant synergies between asbestos and smoking. Further, researchers are finding that short but intense exposures to asbestos can lead to asbestos illnesses.

In part, this third wave will be aided by the growing prevalence of social media sites such as Google and YouTube which have lowered the cost of prospecting for claimants by lawyers. If you need convincing, search for “asbestos lawyers” and see how many hits you get. Or more directly, type in the name of any well-known asbestos law firm and see how fast they come back to you with offers of direct conversations.

A November 2013 report by Mealey’s is instructive in this area: *“Asbestos Litigation, Attorney Advertising & Bankruptcy Trusts: The Economic Incentives Behind the*

*New Recruitment of Lung Cancer Cases.”*¹⁴ The report cites a dramatic increase in the number of lung cancer filings in Madison County, Illinois, and Delaware, two hotbeds for this litigation, but also cites New York, Philadelphia, and California as jurisdictions seeing rapid rises in lung cancer filings. For example, the number of cases filed in Madison County rose from 325 in 2006 to 1,563 in 2012 with preliminary figures suggesting a higher number in 2013. The Madison County asbestos docket lists about 2,200 cases today.

It is our understanding that most actuarial models intend to model only occupational exposures. Perhaps this is an area where companies or consultants make adjustments on an ad hoc basis (to update for unfolding facts and material deviations from expected claims). But based on information and belief, insurers are not adequately accruing for third wave claims.

Readers wanting to learn more about this purported third wave and the medical literature should contact us. People have different perspectives on the medical findings, but where credible research supports a plaintiff’s claim, the defendant is usually facing an uphill battle. Insurers, apparently, are ascribing near-zero probability to the merits of these cases, holding few or

no reserves for them other than perhaps on individual cases. Zero probability is a very low standard to beat.

Diagnostic Bias And New Recommendations Could Fuel New Claims

Readers might want to consider the following string of research papers and headlines:

“Research Reveals Lower Asbestos Exposure No Protection Against Mesothelioma. . .” (Offermans, NS, et al., “Occupational Asbestos Exposure and Risk of Pleural Mesothelioma, Lung Cancer, and Laryngeal Cancer in the Prospective Netherlands Cohort Study,” *Journal of Occupational and Environmental Medicine*, December 17, 2013).

“Increasing incidence of malignant mesothelioma after exposure to asbestos during home maintenance and renovation” (Olsen, NJ. et al., *Med J Aust.* 2011).

“Mesothelioma: cases associated with non-occupational and low dose exposures” (Hillerdal, G., *Journal of Occupational and Environmental Medicine*, 1999; 56:505-513).

“U.S. Panel Recommends Lung-Cancer Screening; Current and Former Smokers Ages 55-80 Should Get Annual CT Scans. U.S. Preventative Services Task Force Says” (Dooren, J., and Winslow, R., *Wall St. Journal*, December 30, 2013).

We’re reminded of a favorite saying of statisticians: *If you torture them long enough, statistics will tell you exactly what you want to hear.* A cynic might observe that a Google search of “asbestos” could allow someone with an agenda to string together a series of headlines to weave a story consistent with their preconceived outcome.

We assure readers that is not the case here. Skeptics may not be ready to take action just yet, but we’ll suggest that those with a financial incentive to get the call on trends in asbestos liabilities right ignore these emerging data points at their own peril.

Endnotes

1. Markowitz, S., et al. (April, 2013), Asbestos, Asbestosis, Smoking and Lung Cancer: New Findings from the North American Insulator Cohort,

American Journal of Respiratory and Critical Care Medicine, Vol. 188 2013.

2. Ibid.
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7. Summary of U.S. Property & Casualty Insurers’ Asbestos Claim Reserves at Year-End 2012 (December, 2013), *Insights* by Towers Watson.
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9. Epidemiology is the study of the patterns, causes, and effects of health and disease conditions in defined populations – a cornerstone of public health. Etiology refers to the many factors coming together to cause an illness. It is normally the focus of epidemiological studies.
10. Hillerdal, G., (1999) *Journal of Occupational and Environmental Medicine*, 56:505-51.3.
11. Survival statistics taken from the National Cancer Institute at www.cancer.gov.
12. Markowitz, S., et al. (April, 2013), Asbestos, Asbestosis, Smoking and Lung Cancer: New Findings from the North American Insulator Cohort, *American Journal of Respiratory and Critical Care Medicine*, Vol. 188 2013.
13. Ibid.
14. Retrieved from <http://www.bateswhite.com/media/pnc/7/media.767.pdf>. ■