



November 3, 2014

Steven L. Yerger, PIR  
Company Licensing Specialist  
Company Licensing Division  
Commonwealth of Pennsylvania  
Insurance Department  
Office of Regulation of Companies  
1345 Strawberry Square  
Harrisburg, PA 17120

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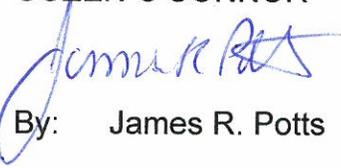
Re: Change of Control of Domestic Insurers One Beacon Insurance Company, OneBeacon American Insurance Company, Potomac Insurance Company and The Employers' Fire Insurance Company – Supplemental Information

Dear Mr. Yerger:

On February 7, 2013, we filed with the Pennsylvania Insurance Department a Form A Statement Regarding the Acquisition of Control of a Domestic Insurer in connection with the proposed acquisition of control by Armour Group Holdings Limited, through its subsidiary, Trebuchet US Holdings, Inc. (the "Applicant") of OneBeacon Insurance Company and Potomac Insurance Company, which was subsequently amended to include OneBeacon American Insurance Company and The Employers' Fire Insurance Company.

As a supplement to the February 7, 2013 filing, enclosed please find the Tower Watson Update of Stochastic Modeling of Run-Off Business as of June 30, 2014 – Summary Report. The Applicant is not seeking confidential treatment of the enclosed.

Sincerely,

COZEN O'CONNOR  
  
By: James R. Potts

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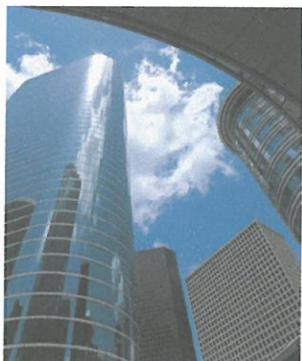
Mr. Stephen L. Yerger

November 3, 2014

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cc: Maureen A. Phillips (w/o enclosures)  
Constance B. Foster (w/o enclosures)  
Steven B. Davis (w/o enclosures)  
Stuart Wrenn (w/o enclosures)  
Brad Huntington (w/o enclosures)  
John Williams (w/o enclosures)



OneBeacon Insurance Group, LLC

**Update of Stochastic  
Modeling of Run-Off  
Business as of June 30,  
2014**

**Summary Report**

November 2, 2014

November 2, 2014

Mr. Brian Poole  
SVP & Chief Actuary  
OneBeacon Insurance Group, LLC  
601 Carlson Parkway, Suite 600  
Minnetonka, MN 55305

Dear Brian:

Attached is our summary report on the updated results of the stochastic modeling of the revised balance sheet for the run-off business of OneBeacon Insurance Group, LLC ("OneBeacon") as of June 30, 2014.

This final report replaces and supersedes our draft report issued on October 24, 2014.

Attention is called to the section of the report entitled *Distribution*, which sets out the limits on distribution of the report.

Sandra C. Santomenno, Christopher Bozman, and Jason Abril are members of the American Academy of Actuaries and meet its qualification standards to render the actuarial opinion contained herein.

We have enjoyed working with you in the preparation of this report. Please call if you have any questions.

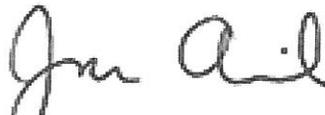
Sincerely,



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## Purpose and Scope

Towers Watson was retained by the OneBeacon Insurance Group, LLC (“OneBeacon” or “the Company”) to perform updated stochastic modeling of the proposed balance sheet for OneBeacon’s run-off business as of June 30, 2014.

OneBeacon is seeking to transfer its obligations for its run-off business to Armour Group Holdings Limited (“Armour”), a run-off specialist. The proposed general structure of this transaction is a sale of the statutory companies or entities that include these liabilities.

We understand that certain state regulators (primarily the Pennsylvania Insurance Department (“PA ID”)) will be interested in the adequacy of the assets of the transferred entities in connection with their examination of the runoff companies to be sold. In this context, the purpose of our review is to provide estimates of the probability that the assets on the proposed balance sheet as of June 30, 2014 will be sufficient to fund the obligations of the runoff companies. The PA ID has indicated that it will rely on the findings of this analysis in reviewing the proposed sale of the runoff business. Neither this report nor the detailed materials described below is intended or necessarily suitable for any other purpose.

This Summary Update Report does not contain full documentation of our actuarial assumptions and judgments. These assumptions and judgments are fully documented in our detailed reports “Update of Stochastic Modeling of Runoff Business Pro-Forma Balance Sheet as of June 30, 2014 for OneBeacon Insurance Group, LLC.”, to which we refer as “the Full Update Report” and “Stochastic Modeling of Runoff Business Pro-Forma Balance Sheet as of June 30, 2014 for OneBeacon Insurance Group, LLC.”, to which we will refer as “the Full Report”, or in combination, as “the Full Reports”. The Full Reports were submitted on a confidential basis to the PA ID.

Further, this Summary Update Report should be considered in conjunction with the following 2 reports which have been made available to the public by the PA ID:

1. “OneBeacon Insurance Group, LLC: Stochastic Modeling of Runoff Business Pro-forma Balance Sheet as of June 30, 2014 Summary Report”, which is a summary version of the Full Report and to which we refer as “the Summary Report”
2. “OneBeacon Insurance Group, LLC: Analysis of Unpaid Loss and LAE as of September 30, 2012, December 31, 2012, and March 31, 2013 Summary Report”, or the “Summary Reserve Report”.

Our analysis is subject to a number of reliances and limitations, as described in subsequent sections of this report.

We are available to answer any questions from the PA ID that may arise regarding this report. We assume that the PA ID will seek such explanation on any matter in question.

The scope of this review is to provide an update to the stochastic analysis presented in the Summary Report. The key changes reflected are:

- An update to the proposed opening balance sheet (as of June 30, 2014) provided by OneBeacon, reflecting a proposed increase in invested assets;
- A reduction to future operating expenses and unallocated loss adjustment expenses to reflect the proposed reduction in Armour's management fees;
- Updated projections to the mean unpaid loss and allocated loss adjustment expenses ("ALAE") and the distribution of unpaid loss and ALAE reflecting actual experience through June 30, 2014 ("roll-forward analysis");
- Reflection of the impact of one materially large asbestos matter which took place in the third quarter of 2014; and
- Reflection of the actual remaining limits as of June 30, 2014 on the NICO cover and the General Reinsurance adverse development cover ("ADC"). The prior analysis reflected estimates of these remaining limits as of June 30, 2014.

We have not altered the investment allocation or disposal rules, or the stochastic set of economic scenarios from our modeling performed in the prior stochastic analysis.

Based on these updates to the model, we are providing new estimates of the probability that transferred assets will be sufficient to fund the runoff companies' obligations. As in the prior analysis, we have projected results through 2083, by which time all claims liabilities are expected to be paid.

For the stochastic modeling, we have utilized financial models built in Towers Watson's Igloo, our proprietary financial modeling software.

## Distribution

This Summary Update Report and the Full Update Report will be submitted to the PA ID as part of the request for approval of the sale. Both reports are provided for use by the PA ID for the intended purposes as stated in the *Purpose and Scope* section and are not necessarily suitable for any other purposes.

We understand further that this Summary Update Report may be placed in the public record in relation to the review of the request for approval of the transfer of the run-off liabilities.

The Full Update Report contains workpapers, trade secrets, and other confidential information of OneBeacon and Towers Watson. As such, it is confidential and not available to the public or intended to be subject to disclosure requirements under any Freedom of Information Act or similar laws.

# Background

## Company Overview

OneBeacon is a Bermuda-domiciled holding company that is publicly traded on the New York Stock Exchange under the symbol OB. It was formed on June 1, 2001 when White Mountains Insurance Group, Ltd. (“White Mountains”) acquired the US operations of Commercial Union and General Accident (“CGU”). Over time, OneBeacon has exited certain books of business and commenced sales of the renewal rights of several portfolios. OneBeacon is seeking to transfer its run-off business to Armour. These liabilities fall into two categories. The first category includes traditional commercial lines of business including workers compensation, general liability, commercial multi-peril, and automobile liability. The second category is reinsured by National Indemnity Company (“NICO”), a subsidiary of Berkshire Hathaway, under a loss portfolio transfer (referred to herein as the “NICO cover”) and consists primarily of A&E losses. The NICO claims are managed by Resolute New England (“Resolute”), a division of NICO. Throughout this report, the lines subject to the NICO cover are referred to as the “NICO lines” and all other lines are referred to as the “non-NICO lines.”

## Reinsurance

During 2001 OneBeacon purchased a reinsurance contract from NICO covering \$2.5 billion on paid loss and ALAE subsequent to January 1, 2000 on OneBeacon’s asbestos claims arising from business written in 1992 and prior, all environmental claims arising from business written in 1987 and prior, and certain other latent exposures (“NICO cover”). Uncollectible reinsurance is covered by the NICO cover. As of June 30, 2014, there is \$800.9 million of limit remaining on the NICO cover on a paid basis.

In addition, OneBeacon entered into an adverse development cover with General Reinsurance Corp. (referred to herein as the “Gen Re ADC”) at the time of the acquisition of the CGU business by White Mountains (the “closing date”). This treaty covers adverse development on the year-end 2000 reserves (net of the NICO cover) up to a nominal limit of \$570 million with a maximum economic loss of \$28 million.

The remaining reinsurance is typically excess of loss protection for the casualty and workers compensation lines. In addition, facultative reinsurance has been purchased in certain instances.

## Terminology/Definitions

**Failure** – Any scenario in which the invested assets fall to zero before the last claim is paid.

**Success** – Any scenario in which the invested assets never fall below zero before the last claim is paid.

**Process risk** – The risk that actual outcomes may vary from expected.

**Parameter risk** – The risk that the selected parameters used to describe a distribution differ from the true, unknown, underlying parameters.

**Model risk** – The risk that the model selected is not the appropriate model for the underlying process.

## Findings and Results

Based on the results derived from running 10,000 simulations from our stochastic model, and subject to the assumptions and reliances and limitations described herein, we have estimated that the proposed transferred balance sheet as of June 30, 2014 (shown on the following page) will be sufficient to cover the future claim and expense obligations of the runoff companies in 94.59% of the simulations during the first 30 years, and in 93.44% of simulations including years thereafter. The first simulated failure occurs in the year beginning June 30, 2024. The success rates for this updated version are shown in the table below:

**Table 1**  
Estimated Success Rate – Updated Analysis

	<b>Cumulative Success Rate</b>
Successes in 1 <sup>st</sup> 10 years	100.00%
Successes in years 10 – 15	99.18%
Successes in years 15 – 20	97.32%
Successes in years 20 – 25	95.56%
Successes in years 25 – 30	94.59%
Successes after 30 years	93.44%

The opening balance sheet utilized in the Updated Analysis is as follows:

**Table 2**  
**Proposed Pro Forma Opening Balance Sheet for the Runoff Companies**  
**Amounts in \$Millions at 6/30/2014**

<b>Assets</b>	
Securities on Deposit	\$82.3
Unrestricted Invested Assets	<u>218.3</u>
Invested Assets	\$300.6
Recoverable on Paid Losses	9.8
Deferred Federal Income Taxes	27.8
Other Assets	<u>29.6</u>
<b>Total Assets</b>	<b>\$367.8</b>
<b>Liabilities</b>	
Gross Nominal Loss & LAE Reserve <sup>1</sup>	\$1,169.2
Nominal Ceded Loss & LAE Reserve	<u>-951.6</u>
Net Nominal Loss & LAE Reserve <sup>2</sup>	217.6
Statutory WC Discount	<u>-58.7</u>
Statutory Discounted Loss & LAE Reserve	158.9
Payable Taxes	0.0
Other Liabilities	<u>25.9</u>
<b>Total Liabilities</b>	<b>\$184.8</b>
<b>Surplus</b>	
Parri Passu Surplus Note	37.3
Seller Priority Surplus Note	63.7
Unassigned Funds	<u>82.0</u>
<b>Total Surplus</b>	<b>\$183.0</b>

<sup>1</sup> Gross is defined as gross of the Gen Re ADC and the NICO cover, but net of other third party reinsurance

<sup>2</sup> Net is defined as net of the Gen Re ADC, the NICO cover and other third party reinsurance

## Comparison to Previous Analysis

The increase in the success rate from 88.28% shown in the Summary Report is driven by several factors. The principal factor is the inclusion of an additional \$20.8 million of invested assets on the proposed opening balance sheet including \$20.1 million of additional funds being provided by OneBeacon in the form of surplus notes. Also contributing to the increase in success rates is a large asbestos settlement which decreased both the amount and uncertainty of asbestos payments subsequent to June 30, 2014 (offset by accelerating the timing somewhat), as well as the favorable experience on the non-NICO lines since September 30, 2013, which also had the impact of increasing the amount of limits remaining on the Gen Re ADC relative to our projections in the prior analysis.

## Analysis

We performed stochastic modeling of the probability that the assets on the proposed balance sheet as of June 30, 2014 will be sufficient to fund all of the future obligations of OneBeacon's run-off business. To accomplish this, we utilized financial models built in Towers Watson's Igloo, our proprietary financial modeling platform. Within this platform, we simulated 10,000 potential future financial scenarios for 70 future calendar periods, i.e. through to 2083. Within the Igloo model, future cash flow statements are forecast for each scenario.

Our analysis focused on cash flows as we have not been asked to forecast future income statements and balance sheets. Success scenarios consist of simulations where invested assets are sufficient to pay for the runoff companies' obligations.

### Initial Assumptions

Using data provided by OneBeacon as of June 30, 2014, we performed a roll-forward analysis of the actuarial central estimate of unpaid loss and ALAE from March 31, 2013 (as shown in the Summary Reserve Report) to June 30, 2014. In our previous analysis we had performed a roll-forward to September 30, 2013, and then projected the remaining unpaid amounts as of June 30, 2014.

To the extent that actual emergence of paid and reported losses varied materially from expectations, we updated our central estimate ultimate projections as of March 31, 2013.

### Stochastic Modeling

For the stochastic modeling, we reduced the mean unpaid for asbestos to reflect the settlement of a large asbestos matter subsequent to June 30. This settlement amounted to less than the provision in our rolled forward unpaid projections as of June 30, 2014. The remaining projection of asbestos payments use variability and payout assumptions consistent with those in our prior analysis.

## Approach to Financial Modeling

The assumptions and approach to financial modeling are unchanged from the approach documented in the Summary Report. The following model components were updated since our prior analysis, consistent with the changes explained above:

- Expected unpaid amounts by accident year and line of business were updated to match the roll-forward estimates as of June 30, 2014;
- NICO Asbestos payments were reduced to reflect the settlement of a materially large asbestos matter. Also, payment of the settlement amount was modeled to happen during first year of projections; and
- The starting balance sheet was updated to reflect the actual assets and liabilities as of June 30, 2014, including \$20.8 million in additional invested assets.

## Reliances and Limitations

We have performed our analysis in accordance with relevant actuarial standards of practice and have selected approaches, methods and assumptions that we consider reasonable. However, any projection of the future environment and its effects on variables such as claims costs or asset behavior is inherently uncertain. This section explains the most significant limitations of our analysis as well as important reliances.

### Capital Modeling

Although we have developed model projections in conformity with what we believe to be the current and proposed operating environments and the “most probable” future experience within such environments, it should be recognized that actual future results will vary from those projected. Deviations in the parameters used to reflect the environment could alter the projected results substantially. These parameters include management direction, insurance regulations, accounting practices, federal and local taxation, and external economic factors such as inflation rates and available investment yields. Finally, deviations from “most probable” experience are normal and are to be expected. Even without any change in perceived environments, and in the parameters used to reflect them, actual results from year-to-year will vary from those projected because of normal random fluctuations. Any deviations in parameters could cause results to vary, either favorably or unfavorably, from those projected herein. We believe the parameters chosen are reasonable and the methodologies used to derive such parameters are consistent with actuarial practices and with the methodologies employed in similar modeling work.

### Inherent Uncertainty

Projections of loss and LAE cash flow liabilities are subject to potentially large errors of estimation, since the ultimate disposition of claims incurred prior to the financial statement date, whether reported or not, is subject to the outcome of events that have not yet occurred. Examples of these events include jury decisions, court interpretations, legislative changes, changes in the medical condition of claimants, public attitudes, and social/economic conditions such as inflation. Any estimate of future costs is subject to the inherent limitation on one’s ability to predict the aggregate course of future events. It should therefore be expected that the actual emergence of losses and LAE will vary, perhaps materially, from any estimate. As noted above, such variance could be favorable or unfavorable.

In this analysis, we have attempted to quantify the uncertainty inherent in the future loss emergence of OneBeacon’s business. For most segments, the resulting range of outcomes has been estimated by applying certain models to OneBeacon’s historical experience. Therefore, we are implicitly assuming that the volatility observed historically is predictive of the potential future volatility.

## Asbestos and pollution liabilities

The inherent uncertainty associated with projection of loss and expense liabilities is increased when dealing with toxic tort claims due to the nature of these losses. The technological, judicial, and political climates involving toxic torts such as asbestos and pollution-related claims continue to change, and traditional actuarial methods are not optimal for projecting such liabilities. As a result, the projection of liabilities for asbestos and pollution claims is subject to greater uncertainty than would normally be associated with a review of liability estimates for general liability exposures other than major claims. We have conducted our review based on a variety of assumptions that are subject to change and, as much as possible, have taken this uncertainty into consideration.

External influences such as court decisions and legislative changes tend to have a greater effect on the uncertainty in major claims liabilities than for other types of loss. In particular, the asbestos litigation environment has experienced significant changes over the last several years. These changes include judicial decisions, tort reform measures enacted by various states, defendant bankruptcies and the establishment of the associated trusts. The changes individually and collectively have had and are expected to continue to have a significant effect on the manner in which asbestos claims are asserted and settled. This in turn leads to continued uncertainty in liability estimates as the effects of these changes must be estimated and incorporated into our projections. The estimates underlying our analysis reflect the current environment. Additional efforts to reshape the litigation environment could have a significant effect on our estimates, favorable or unfavorable; however, reflecting such potential developments would be speculative at this time. For higher percentiles, we have not explicitly incorporated any additional losses due to changes in the litigation environment. Losses on the distribution corresponding to the percentiles above our high reasonable estimate could implicitly reflect changes in the litigation environment or other unforeseen events.

There is significant uncertainty with respect to the estimated distribution of asbestos and pollution outcomes. The statistical techniques used to estimate the distribution of future payments for the non-NICO lines are not applicable to the NICO lines. While we have utilized techniques for the NICO lines, that we believe to be reasonable, considerable professional judgment has been incorporated.

## Extraordinary Future Emergence

We have not explicitly anticipated any extraordinary changes to the legal, social, or economic environment that might affect the cost, frequency, or future reporting of claims. In addition, our estimates make no explicit provision for potential future claims arising from loss causes not represented in the historical data (e.g., new types of mass torts or latent injuries, terrorist acts, etc.). However, our mass tort analysis implicitly includes provisions for new emerging mass torts.

## Model Risk

We have projected the distribution of future paid loss outcomes using models which, in our professional judgment, are appropriate for measuring uncertainty. We have not attempted to quantify

the potential uncertainty resulting from the possibility that the models used are not appropriate. That said, we believe the modeling is consistent with acceptable actuarial practices and is reasonable.

### Reinsurance counterparty risk

We have assumed that recoveries arising from the Gen Re ADC and NICO cover are fully collectible. We assume that the Gen Re ADC recoveries are collected one quarter in arrears. For uncollectible reinsurance, we have utilized the unrecoverable reinsurance projections based on the analysis summarized in the Summary Reserve report.

### Data Reliance

Throughout this analysis, we have relied on historical data and other quantitative and qualitative information supplied by OneBeacon, included but not limited to net paid and reported loss and ALAE development data, pro-forma balance sheets with a starting asset allocation as of June 30, 2014, asset allocation rules, regulatory specifications and amount of restricted assets.

We have not independently audited or verified the information provided; however, we have reviewed it for reasonableness and internal consistency. We have assumed that the information is complete and accurate, and that we have been provided with all information relevant to the analysis presented in this report.

The accuracy of our results is dependent upon the accuracy and completeness of the underlying data; therefore, any material discrepancies discovered in this data should be reported to us and this report amended accordingly, if warranted.

### Federal Income Tax

Estimates of the provision for Federal Income Tax developed in this report are based on Towers Watson's understanding of current tax law and regulations and discussions with OneBeacon. Our work is not intended to provide tax advice.

### Investment Returns

Simulated investment returns are based on Towers Watson's analysis of historical financial market data, overlaid with the views of Towers Watson's investment consulting practice. In addition, the implicit assumption is that Armour will invest in index funds, and therefore that returns will not be heavily impacted by movements in any particular equity. We have also not reflected any transactional costs associated with the buying and selling of securities.