4. Scope of Inquiry

4.1 Limitations on Scope of Analysis

The purpose of this paper and the related analysis is to explore how a typical U.S. property and casualty insurance company’s financial statements might be affected by a change from current U.S. GAAP accounting to a new accounting approach based on fair value. An additional objective is to highlight some of the practical issues that might arise with the implementation of fair value. Such an analysis should be useful to those who are developing the fair value proposal, as well as preparers and users of financial statements who may be evaluating the proposal.

In designing the research project, we have intentionally limited the scope of inquiry. Our approach was to focus on a limited set of key issues, rather than attempting to be comprehensive. Readers should appreciate these limitations, so as not to infer too much from our analysis or conclusions.

First, this paper does not attempt to develop a definitive methodology for measuring the fair value of property and casualty insurance liabilities, especially with regards to market risk margins. While we have developed some measurement techniques that we think are reasonable, they are meant to be illustrative only and not the “definitive word”. Further refinements to our methodology can be made, and other methodologies can be employed. Our methodology illustrates the types of calculations that can be practically performed with available data, and some of the limitations of the techniques and data.

In addition, we are only considering the fair value of policy benefit liabilities associated with “loss and loss adjustment expense liabilities” under current U.S. GAAP. We understand that the current fair value proposal would establish a unified policy benefit liability, covering both existing claims associated with coverage already provided and future claims associated with coverage to be provided on existing contracts (that is, the liabilities for loss and loss adjustment expenses and unearned premiums would be combined). Our decision to focus only on the fair value of the liabilities represented by the loss and loss expense provision is appropriate for two reasons:

i. Loss and loss adjustment expense liabilities are highly material to a property and casualty insurer’s balance sheet and income statement, and

ii. The measurement issues pertaining to loss and loss adjustment expense liabilities would also apply to the unearned premium liabilities.

A property and casualty insurer typically considers its policy benefit liabilities in three categories:

1. Claim liabilities, reflecting the estimated cost of payments directly to claimants under the coverage provided by the policy (net of anticipated subrogation and salvage recoveries);

2. Defense cost liabilities, reflecting the estimated cost of providing contractual services related to the claims, such as legal, investigation, and court costs; and
3. **Claim adjusting cost liabilities**, reflecting the estimated administrative costs associated with processing the claims.

Mostly as a concession to the available data, we have only considered the fair value of the first two categories. The third category is small relative to the first two. In addition, while transactions relating to the first two categories can be directly attributed to specific insurance policies, transactions associated with the third category are not. Transactions in this latter category are typically associated with internal staff costs, which must be allocated to product lines and policies, based on time studies. Under the circumstances, different approaches to fair value measurement of claim adjusting cost liabilities may be appropriate.

Most property and casualty insurers purchase reinsurance as a hedge to extreme fluctuations in their claim and defense cost liabilities. We have focused only on the fair value of the direct policy liabilities, and not on the fair value of any offsetting reinsurance recoverable asset. In essence we have treated each company as if they purchased no reinsurance, and therefore published their financial results on a direct, rather than net of reinsurance, basis. Issues and approaches applicable to the direct liabilities can be extended to the treatment of reinsurance recoverables.

Under current U.S. GAAP, property and casualty insurers typically report their claim and defense cost liabilities on a nominal value basis; they do not discount these liabilities for the time value of money, nor do they incorporate margins for conservatism. We have assumed that the claim and defense cost liabilities reported by each company group (after adjusting for situations where reserves were known to be discounted) are the group’s best estimate of the associated liabilities. While this assumption is probably valid for the overall claim and defense cost liabilities of any given company, it is somewhat less valid in respect of the liabilities allocated by the company to a particular product line or year of coverage.

In developing pro forma income statements for each company, we focused mostly on the income associated with underwriting operations. We have included in income the investment income that would have been generated by hypothetical assets backing the claim and defense cost liabilities, but have not attempted to restate the actual investment income (nor the balance sheet assets) to a fair value basis. These adjustments are obviously necessary to obtain a complete picture of financial results in a fair value environment.

Finally, we have not considered the issue of whether it is appropriate to adjust the fair value of claim and defense cost liabilities for the credit standing of the obligor company. This issue has already received considerable attention; in our analysis we have assumed that no such adjustment is required.

### 4.2 Data Limitations

In addition to limitations on the scope of our inquiry, there are a number of limitations associated with the data that we have used in our analysis. While we do not believe that these limitations are a serious impediment to our analysis, they should be noted.

The data that we used are drawn from published financial reports to state regulatory authorities, prepared on a regulatory accounting basis. The main source of the data used is a Tillinghast-constructed database of financial data drawn from insurance company annual regulatory financial reports. This database was populated from data purchased each year from the A.M. Best Company. The database allowed us to analyze financial results for each
line of business of the representative set of companies over an 11-year period from 1992 to 2002, roughly covering a complete underwriting cycle. (Technically our analysis covered 11 years of income and 12 years of balance sheets, including year-end 1991.)

While we restricted our analysis to public data, it should be noted that companies would have additional information available internally. Companies would typically have internal underwriting experience segmented more finely, and would have additional data (for example, policy counts and claim counts) that would be useful in estimating the fair value of policy liabilities. Companies would also have a greater knowledge of their business, and would therefore be in a better position to interpret the data.

Given the time and related constraints, we could not perform extensive cleansing of the data. For example, we did not make inquiries at the selected companies as to the explanation for apparent data anomalies. Several candidate companies with clearly “problematic data” were excluded from our analysis; in several other instances anomalous or missing data were adjusted or estimated from other sources. Most importantly, we did not substitute our estimates of the claim and defense cost liabilities, relying on the reported figures.

U.S. insurance regulatory accounting policies and reporting requirements have changed over the time period that we analyzed. Regulatory authorities have invested considerable effort in a project aimed at codifying their accounting polices. The most notable change in the reporting of property and casualty insurance policy liabilities are formalized definitions of defense and adjusting costs that classify the types of expenses that belong in each category. Prior to the introduction of these formalized definitions in 1998, company practices varied. We have not adjusted the historical data for the effect of this change, essentially assuming that its impact was immaterial.