

## Financing the Impact of Terrorism: Can Insurers Cope?

Nicos A. Scordis

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# FINANCING THE IMPACT OF TERRORISM: CAN INSURERS COPE?

NICOS A. SCORDIS\*

What I want to do in this presentation is to look at the interrelationships that exist in the insurance industry among different coverages, and how terrorism by itself impacts these interrelationships.

The insurance industry is a global industry. Just look at the number of property and casualty insurance companies that operate in the United States. We have about twelve hundred insurance companies.<sup>1</sup> If you follow the ownership structure then we are down to about three hundred stock insurance companies.<sup>2</sup> If we look at the ultimate control of those insurance companies we find larger insurance companies owning or controlling state and smaller insurance companies.<sup>3</sup> We see that unregistered foundations sometimes own stakes in U.S. insurance companies.<sup>4</sup> And we see the controlling companies to be global in scope. For example, the American International Group, one of the largest U.S. insurers began life outside the United States, so it should be

\* Dr. Scordis is an Associate Professor at the Tobin College of Business St. John's University where he holds the John R. Cox/ACE Limited Chair of Risk and Insurance. He has written for academic journal and professional publications. He has given expert testimony at U.S. Congress hearings relating to financial services legislation. He teaches and researches topics relating to risk financing. These remarks are an actual transcript of the author's comments at the St. John's Journal of Legal Commentary Symposium on Mar. 14, 2003.

<sup>1</sup> See generally George L. Priest, *The Antitrust Suits and the Public Understanding of Insurance*, 63 TUL. L. REV. 999, 1003-04 (1989) (providing the number of insurers offering liability insurance).

<sup>2</sup> See generally *id.* at 1002-14 (discussing the overall structure of the commercial casualty industry).

<sup>3</sup> See generally Tom Ablum & Mary Beth Burgis, *Leveraged Buyouts: The Ever Changing Landscape*, 13 DEPAUL BUS. L.J. 109, 111 (Fall 2000/Spring 2001) (showing that small insurance companies are bought out).

<sup>4</sup> See generally Danielle F. Waterfield, *Insurers Jump on Train for Federal Insurance Regulation: Is It Really What They Want or Need?*, 9 CONN. INS. L.J. 283, 286-90 (2002/2003) (promulgating the early regulatory history of the insurance industry, including the development of the registration requirement).

no surprise that according to the year 2001 10-K statement, 29% of AIG's assets support business outside the U.S. So whether we are talking about a response to terrorism or about the financial strength of the industry, we need to keep in mind the global perspective. There are some advantages, and disadvantages of the global perspective.

If we look at the insurance industry in the global context then we can conclude that the insurance industry is not unfamiliar to huge manmade catastrophes, and natural catastrophes.<sup>5</sup> However, what is important to discuss is our situation here in the U.S. A study that was first released in 1999 concluded that U.S. insurers can pay at least 92.8% of a hundred billion property loss in the U.S.<sup>6</sup> At least 92.8% because it depends whether insurance companies in the interlocking relationships mentioned earlier allow weekly capitalized subsidiaries to fail, or whether insurance companies are going to transfer funds down the ownership chain to support financially distressed subsidiaries.<sup>7</sup> The scenario the study uses says we can cover almost a hundred billion dollars in loss. But the study does not consider the fate of small regional, independent insurance companies. In fact, the study expects that smaller companies are going to find themselves in a situation of financial distress. Then the question becomes, whether as a matter of public policy, it is permissible to allow insurance companies to go bankrupt, thus forcing the surviving insurers to shoulder part of the outstanding claims under the State guarantee fund system. After all we live in a society that bankruptcy can be used as a corporate tool for ultimately managing risk.<sup>8</sup> So the question is whether society

<sup>5</sup> See *How Modeling Can Ensure Survival in Age of the Super-Cat*, INS. DAY, Mar. 26, 2002, Special Report (acknowledging that large natural catastrophes occur every few years and man-made catastrophes also occur every year or two).

<sup>6</sup> See David J. Cummins et al., *Can Insurers Pay for the 'Big One'? Measuring the Capacity of the Insurance Market to Respond to Catastrophic Losses*, 26, JOURNAL OF BANKING AND FINANCE, 557 (2002) (showing that if insurers hold a net of reinsurance book of business that is correlated with aggregate industry losses, the industry can adequately fund a \$100 billion loss event).

<sup>7</sup> See generally *Homeowners Insurance Availability Act of 1999: Hearing on H.R. 21 Before the House Banking and Financial Services Committee*, 106th Cong. (statement of Franklin W. Nutter, President, Reinsurance Association of America), available at <http://financialservices.house.gov/banking/73099nut.htm> (July 30, 1999) (commenting that gaps in catastrophic risk financing are not sufficient to justify federal intervention in private markets).

<sup>8</sup> See Adam Hodkin, Note, *Insurer Insolvency: Problems & Solutions*, 20 HOFSTRA L. REV. 727, 728-31 (1992) (arguing that one reason why domestic insurance companies are

will take responsibility for potentially insolvent insurers before or after a loss occurs.

Let us examine where the pressures on the financial solvency of U.S. insurance companies stem from. The combined ratio is one place to look.<sup>9</sup> It is an industry benchmark that looks at the expenses and the losses in relation to the premiums the insurance industry receives.<sup>10</sup> If we have a combined ratio of a hundred, it means one dollar of premium goes out to pay one dollar of losses and expenses. If we have a combined ratio of 107, as we did at the end of 1999, it means that the insurance company receives 100 dollars in premium, but it pays out 107 dollars in losses and expenses.

So we have pressure on the underwriting profitability of insurance companies, not from terrorists, but from the actions that insurance companies have taken in the past. The people in the academy that study this, they call it risk overhang.<sup>11</sup> There are decisions that the industry has taken in the past which are putting stress on its free funds, its surplus. Without additional stress the ability of the insurance industry to meet its policyholder obligations would not have merited such national attention. But now we have additional stress. By the end of 2001 this combined ratio stood at 116.

We might wonder how does the insurance industry make a profit if it is paying 107 cents for every dollar it gets in premiums? To answer the question we have to look at investment income. The operating profit of the insurance industry is one hundred minus the combined ratio minus the investment income.<sup>12</sup> So if the insurance industry is making a

excluded from the Federal Bankruptcy Code and thus under state solvency regulation is because states have an interest in protecting public interest since the public is generally at an economic disadvantage as compared to insurance companies).

<sup>9</sup> See *Question Time: Rationalizing Insurance Ratios*, INVESTORS CHRON., May 4, 2001, at 94 (explaining that a combined ratio below 100% is indicative of profitable insurance underwriting business as opposed to unprofitable underwriting which yields combined ratios greater than 100%).

<sup>10</sup> See generally Richard N. Clarke et al., *Perspectives on the Insurance Crisis: Sources of the Crisis in Liability Insurance: An Economic Analysis*, 5 YALE J. ON REG. 367, 372 (1988) (giving examples of the combined loss / expense to premium ratio).

<sup>11</sup> See Anne Gron & Alan O. Sykes, *Terrorism and Insurance Markets: A Role for the Government as Insurer?*, 36 IND. L. REV. 447, 454 (2003) (noting that insurers may rebalance their exposure to risk by not renewing existing expired policies or canceling existing policies when contractually possible).

<sup>12</sup> See generally Eliot Martin Blake, Comment, *Rumors of Crisis: Considering the Insurance Crisis and Tort Reform in an Information Vacuum*, 37 EMORY L.J. 401, 423

positive return on its investments, that return is going to offset the underwriting losses.<sup>13</sup>

Even though in 1999, the insurance industry had a combined ratio of about one hundred, the inclusion of investment incomes in 1999 resulted in a positive operating return for the insurance industry, but by 2001 the result was minus nineteen percent operating profit.<sup>14</sup> This shows a problem for the industry, even though some individual firms have performed remarkably well.

How is the insurance industry going to move over this problem? How are we, the policyholders, going to move through the problem? You hear industry bosses say that they will draw on their surplus. But, that pool of surplus capital has been coming down over time. According to the Standard & Poors analysis, the insurance industry in 1998 had over three hundred percent of the capital that S&P wanted to see for an insurance company to maintain its S&P rating.<sup>15</sup> In 1999 that capital declined down to 250%<sup>16</sup> and in 2001 the capital that S&P wants to see in order to maintain the financial strength rating of an insurance company, fell lower than 200%.<sup>17</sup> But still, according to the S&P study the insurance industry has about \$289 billion of capital that supports about \$324 billion of premium.<sup>18</sup> This is a ratio of one to 1.12.<sup>19</sup> The rule of thumb or benchmark in the

(1988) (discussing how insurers can exclude certain realized and unrealized capital gains from operating profit).

<sup>13</sup> See *id.* at 423–24 (noting that gainful investment income allows insurance companies to remain profitable despite significant negative underwriting losses).

<sup>14</sup> See generally Meg Green, *Divide and Conquer: American International Group Touts Its Strength in Diversity*, BEST'S REV., July 1, 2003, at 24 (asserting that A.I.G. "has significantly outperformed its peers by posting both a five-year average combined ratio of under 100 and a pretax operating profit on equity of 15%").

<sup>15</sup> See generally *\$189 Billion in Capital Could be Returned to Stakeholders*, INS. DAY, Dec. 7, 2000, at 1 (suggesting that insurers performing poorly should maintain extra capital to prevent a ratings downgrade).

<sup>16</sup> See Standard & Poor's, *Property/Casualty Insurance Ratings Criteria*, at 75 tbl. 1 (1999) available at <http://www2.standardandpoors.com/spf/pdf/fixedincome/propcas.pdf> (last visited Nov. 12, 2003) (indicating the capital requirements for insurance companies in 1999).

<sup>17</sup> See *id.* at 75 tbl. 1, available at <http://www2.standardandpoors.com/spf/pdf/fixedincome/propcas.pdf> (last visited Nov. 12, 2003) (anticipating the capital requirements for insurance companies in 2001).

<sup>18</sup> See American Academy of Actuaries, *Terrorism Insurance Coverage in the Aftermath of September 11<sup>th</sup>*, at 5 (May 2002) available at [http://www.actuary.org/pdf/casualty/terrorism\\_may02.pdf](http://www.actuary.org/pdf/casualty/terrorism_may02.pdf) (detailing the amounts of capital and premiums in the insurance industry).

<sup>19</sup> See *id.* at 5 (indicating the ratio of premium to capital in the insurance industry).

industry is a ratio of one to two.<sup>20</sup> So it can be argued that there is still capacity in the U.S. insurance industry.

Now let us consider the issue of whether the shock that September 11<sup>th</sup> brought to the insurance system is unique. I have argued that there is underwriting capacity, but September 11<sup>th</sup> is something we have never seen before. Could that shock have eroded the insurance industry's underwriting capacity? Two studies have already answered this question. The one study was presented at the National Bureau of Economic Research in January 2003.<sup>21</sup> The other was presented at the Financial Management Association in October 2003.<sup>22</sup> The studies looked at the response of the capital markets to Hurricane Andrew, which totaled \$20.2 billion in losses adjusted for 2001 dollars.<sup>23</sup> Then the studies examined the Northridge earthquake, which totaled \$16.7 billion in property losses.<sup>24</sup> Finally, the studies examined the capital markets' response to the World Trade Center attack, which caused \$19 billion in property losses.<sup>25</sup> These studies focused on the reaction of the analysts that follow the stock of insurance companies, the earnings' forecasts that insurance companies have released to those analysts, and the movement of the stock price of the insurance company.<sup>26</sup> All these events followed similar patterns.

<sup>20</sup> See Standard & Poor's, *supra* note 16, at 75 tbl. 1 available at <http://www2.standardandpoors.com/spf/pdf/fixedincome/propcas.pdf> (last visited Nov. 12, 2003) (predicting the industry benchmark for 2003).

<sup>21</sup> See Jeffrey R. Brown et al., *Federal Terrorism Risk Insurance*, at <http://www.nber.org/papers/w9271> (Oct. 2002) (positing that September 11th losses have depleted insurance capacity).

<sup>22</sup> See David Nickerson & Robert Van Order, *Reinsurance, Crises, and Contagion Effects in Regional Property-Liability Insurance Markets* (Oct. 9, 2003) (unpublished manuscript, on file with The Financial Management Association), at <http://207.36.165.114/Denver/Papers/DenverProgram818.htm#074> (last visited Oct. 25, 2003) (indicating that September 11th losses were the greatest yet incurred by the insurance industry).

<sup>23</sup> See Aurekia Zanetti et al., *Natural Catastrophes and Man-Made Disasters in 2001: Man-Made Losses Take on a New Dimension*, SIGMA REP. NO. 1, at 13 n.11 available at [http://www.swissre.com/INTERNET/pwsfilpr.nsf/vwFilebyIDKEYLw/SHOR-586KCU/\\$FILE/sigma1\\_2002\\_e.pdf](http://www.swissre.com/INTERNET/pwsfilpr.nsf/vwFilebyIDKEYLw/SHOR-586KCU/$FILE/sigma1_2002_e.pdf) (2002) (detailing insurance losses stemming from Hurricane Andrew).

<sup>24</sup> See *id.* at 23 tbl. 9 (noting the losses suffered by the insurance industry as a result of the Northridge earthquake).

<sup>25</sup> See generally Lisa Anderson, *NYC's 9/11 Bill Put at \$83 Billion and Rising*, CHI. TRIB., Sept. 5, 2002, at N10 (speaking of expected overall financial impact of World Trade Center attack on N.Y.C.).

<sup>26</sup> See generally Risk Management Solutions, *Managing Risk in the Aftermath of the World Trade Center Catastrophe*, at [http://www.rms.com/Publications/ManagingRiskafterWTC\\_final.pdf](http://www.rms.com/Publications/ManagingRiskafterWTC_final.pdf) (last visited Nov. 12, 2003) (suggesting when there is significant event reaction may result in adverse impact on asset values of insurers' investment portfolios).

The studies found that right after the shock happens there is a drop in the stock price of the insurance companies and there is a negative revision to the earnings forecasts of insurance companies.<sup>27</sup> Over the long-term, the earnings forecasts climb back up again as the analysts realized that there was a hardening in the market due to the catastrophe that took place.<sup>28</sup> Society has taken steps to improve building codes in case of natural catastrophe, and if there is a similar catastrophe, the losses will be less than what they would have been without such improvements. In the case of terrorists there is the potential of a lot of losses, but as we have more losses we can then have more events on which we can benchmark and have a response that is effective to terrorists. The earnings forecasts go back up, and within a week of the event, there is recovery in the stock price.<sup>29</sup> What is different, however, between the World Trade Center attack, Northridge and Andrew is that the negative reaction has been larger with the World Trade Center attack. Indeed, a third study focusing only on the World Trade Center attack confirms that the stock prices of insurance companies with strong financial ratings rebounded after the first week after the attack while the stock price of financially weak insurers did not.<sup>30</sup>

There are lots of studies that price insurance using a financial rather than an actuarial approach. These studies propose that the premiums at the beginning of the year should be the discounted value of the expected losses at the end of the year where the discount rate is the risk-free rate. In this financial pricing approach the profit of the insurance company is the spread between the risk-free rate and the return on the invested capital of the insurance company. But in our case, we have an

<sup>27</sup> See Elizabeth Olson, *World Business Briefing Europe: Switzerland: Insurer's Loss Estimate*, N.Y. TIMES, Oct. 9, 2001, at W1 (exhibiting reduction in stock price and reduction of earnings forecast of one company following World Trade Center attacks).

<sup>28</sup> See *Hardy Underwriting (HDU)*, INVESTORS CHRON., Dec. 6, 2002 (referring to "hardening market" that results after large disasters which enable insurers to push through big increases in premium rates, fuelling a boom for insurance industry).

<sup>29</sup> See N.Y. State Senate Finance Committee Staff, *Staff Analysis of the SFY 2002-03 Executive Budget, § 3: Issues in Focus, Financial Impact of the World Trade Center Attack* (Jan. 2002), at <http://www.senate.state.ny.us> ("Insurance company stock prices collapsed in the week following the attack, but have since recovered as premiums began to rise sharply, particularly for property and casualty lines.").

<sup>30</sup> See David J. Cummins & Christopher Lewis, *Catastrophic Events, Parameter Uncertainty and the Breakdown of Implicit Long-term Contracting*, 26 JOURNAL OF RISK AND UNCERTAINTY 153 (2003) (Explaining how large loss events affect weakly capitalized insurance companies more significantly than strongly capitalized companies).

unexpected loss (the World Trade Center attack), and a decline in investment return for capital needing investment. So where is the money going to come from? What can be the response of the insurance industry? Well, insurance companies are constrained by regulations as to where they invest their funds. Most of them do a good job at maximizing their investment return given the regulations so it is not likely that they will be able to generate a higher return. So, the only other short-term solution is to make adjustments in the coverages they offer for sale, or absorb the extra losses using their cushion-providing capital. But we have seen that capital being depleted already.

Insurance companies have chosen to adjust the terms of coverage. We have seen premium rates up thirty to fifty percent according to S&P studies, and the breadth of coverage has been coming down.<sup>31</sup> At the same time that insurance companies are increasing premiums and reducing coverage, their bosses and consumers are falling under the spell of negative sentiment.<sup>32</sup> This negative sentiment strengthens the belief that we are going to have more losses, just as huge. We believe that we are in danger of suffering huge losses, but we are uncertain as to their timing and size. This uncertainty increases our negative sentiment, and all this negative sentiment has impeded some market-based solutions such as the issuance of catastrophe bonds or the issuance of contingent financing and so on.<sup>33</sup>

How to price terrorists is a small worry. I am not going to enumerate all the models and all the talent that has been put behind pricing terrorist risk. But I think our big worry is the interrelationship between terrorists and the other risks that insurance companies have managed to price and cover. These risk interrelationships are creating larger than expected losses to the insurance industry than just a terrorist related property loss.

<sup>31</sup> See Ian Reed, *Sept. 11 – The Last Straw for Global Reinsurance? Global Overview*, REACTIONS (U.K.), Sept. 1, 2002, at S10 (arguing that as September 11 caused increases in premium rates it also enabled reinsurers to assert stricter terms and conditions in policies).

<sup>32</sup> See Fischhoff Baruch et al., *Judged Terror Risk and Proximity to the World Trade Centers*, 26, JOURNAL OF RISK AND UNCERTAINTY, 137 (2003) (finding that the closer a person was to the World Trade Center the stronger their belief was that they would be a victim of another attack. This finding was only prevalent among adult, white, Republican males).

<sup>33</sup> See generally 69-77 *Paul Street, London EC2*, INS. DAY, Oct. 17, 2001, at 9 (discussing the possible role that bonds may play in the aftermath of the events of September 11, 2001).



According to the Rand Foundation of Civil Justice, about two-thirds of the claims filed against insurance companies from asbestos liabilities are filed by manifestly healthy claimants, as compared to the seventies when the litigation started with claims filed by manifestly ill claimants.<sup>34</sup> Will the same pattern emerge in filling for terrorism related losses?

Directors and officers liability is creating a lot of claims against insurance companies.<sup>35</sup> In fact, it was in the news that AIG recently boosted its loss reserves because of claims against managers covered by AIG.

We hear about workers compensation escalating costs. These current costs will be small compared to the following scenario: Suppose that an insurance company, through its different subsidiaries, provided workers compensation to employees of a company renting a building and to the owners of the building. A terrorist attack destroys the building and injures the employees. This will affect not only the property-casualty insurer but its life subsidiary as well.

My message is that it is not terrorism itself that we need to concern ourselves with, but rather how terrorism related losses might exacerbate the "normal" losses that insurance companies are already facing.

<sup>34</sup> See *Asbestos Quagmire; Small Businesses Now Targets of Often Unnecessary Lawsuits That Could Kill Them Off*, PITTSBURGH POST-GAZETTE, Nov. 26, 2002, at C-12 (describing how majority of claims against asbestos manufacturers are by healthy people who may have been exposed to asbestos and fear they will be barred by statute of limitations if they wait until sick to sue).

<sup>35</sup> See generally James J. Hanks, Jr., *Evaluating Recent State Legislation on Director and Officer Liability Limitation and Indemnification*, 43 BUS. LAW. 1207, 1207 (1988) (explaining foundations behind directors and officers liability and how it can result in claims against insurance companies).