MARSH

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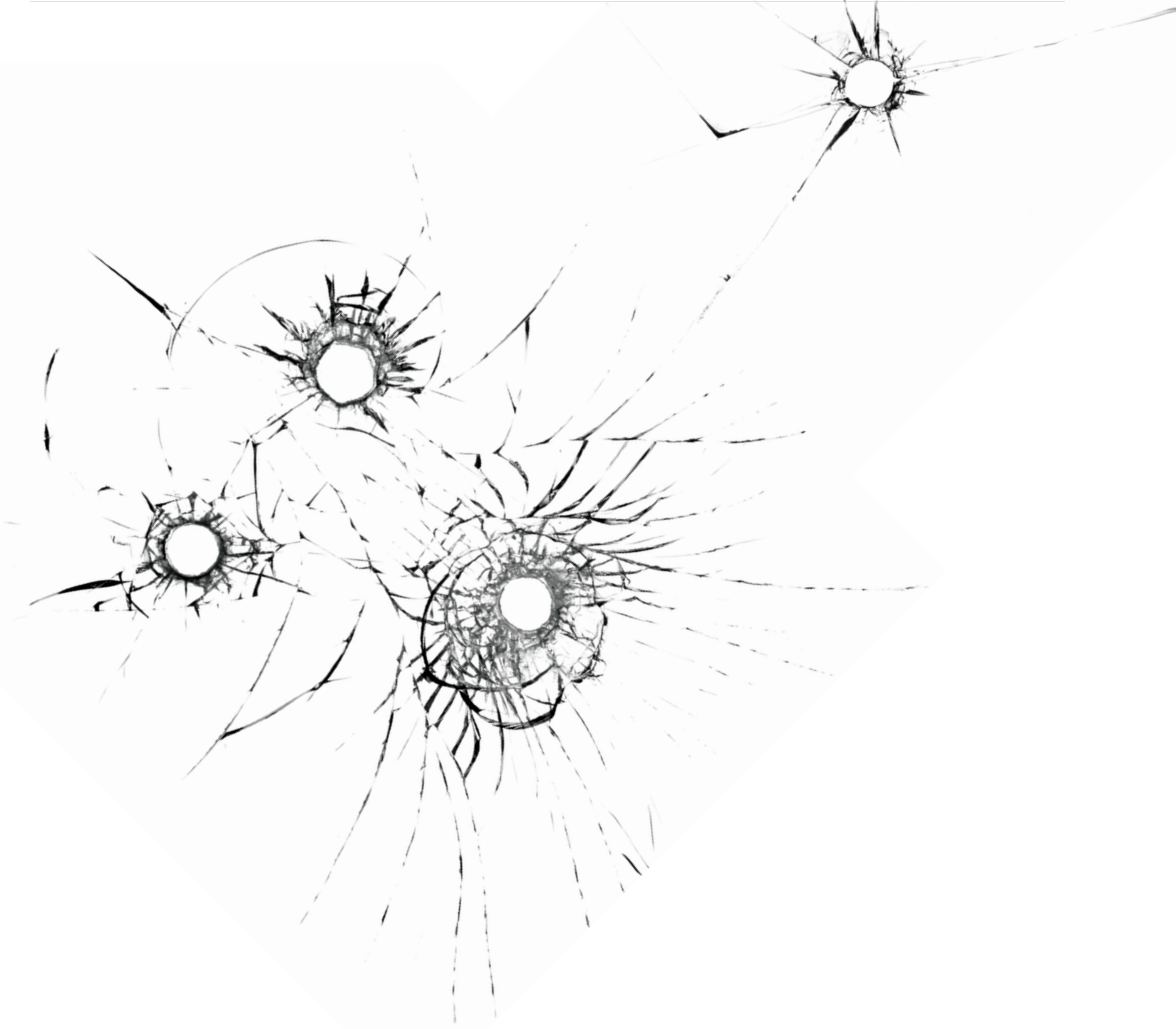
2015 Terrorism Risk Insurance Report



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KEY FINDINGS

- The enactment in the US of the Terrorism Risk Insurance Program Reauthorization Act of 2015 (TRIPRA) through 2020 brought greater certainty to organizations that depend on terrorism coverage and blunted any short-term increase in pricing that may have been caused by the law's temporary lapse.
- Terrorism insurance take-up rates have remained relatively stable since 2009, although they decreased slightly in 2014 as a result of the anxiety surrounding TRIPRA at the end of 2014. With the new law's passage, however, the take-up rates of embedded TRIPRA coverage are expected to revert to their historical pattern.
- The uncertainty that surrounded TRIPRA's renewal, and the potential terms of the new law, prompted some organizations to look for certainty of coverage elsewhere — namely the standalone property terrorism insurance market.
- Underwriters continue to scrutinize employee concentration exposures, highlighting the importance of accurate data and risk differentiation, particularly for workers' compensation exposures.
- Organizations that purchased terrorism coverage in the first half of 2015 typically saw competitive rates offered by standalone property terrorism insurers.
- While organizations can benefit from captive insurance companies' ability to access the federal terrorism insurance backstop, few US captives used TRIRPA for that coverage in 2014.
- Large companies are more likely to purchase property terrorism insurance, and to see the lowest cost as a percentage of overall property premiums.
- Among industry sectors, education organizations had the highest take-up rate for terrorism insurance in 2014.

INTRODUCTION

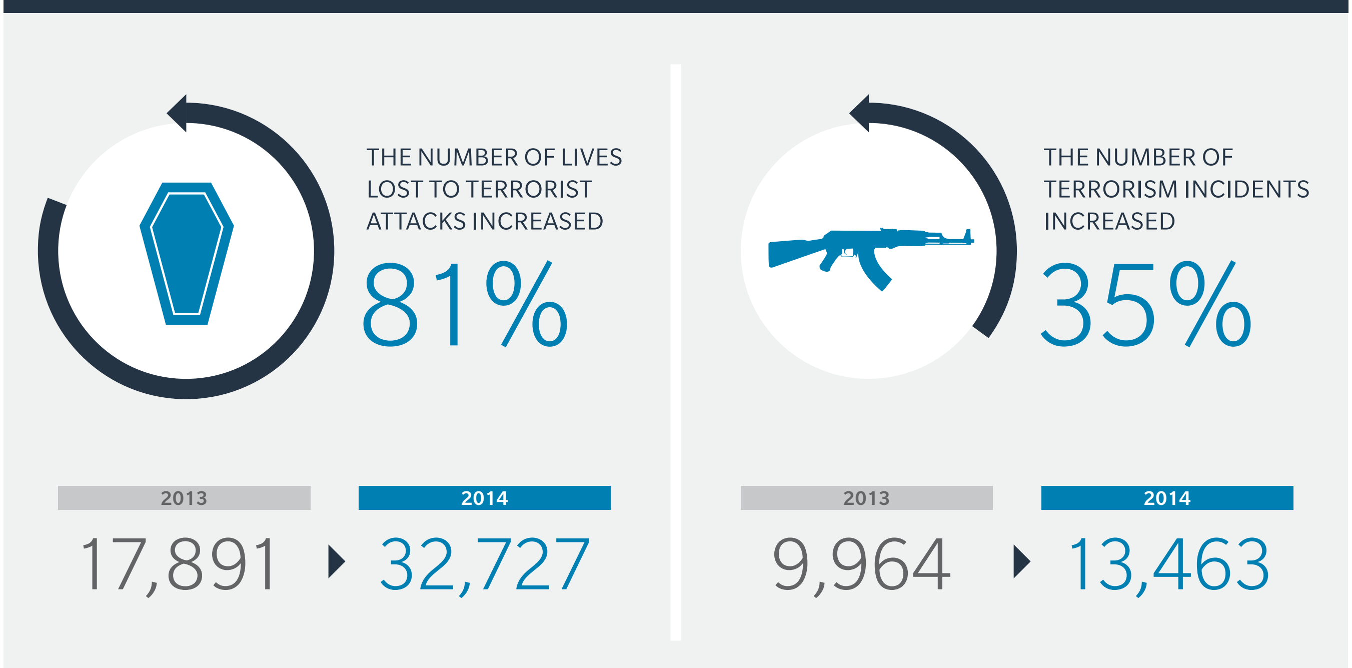
A shooting at the offices of a French satirical magazine kills a dozen employees and spills onto busy city streets. Three gunmen attack tourists at a national museum in Tunisia. Armed militants storm a university in Kenya, targeting students. Two gunmen open fire at a politically charged event in Texas before being shot by police.

These incidents are but a sample of recent acts of terrorism and terrorism-related violence, which continues to increase worldwide (see FIGURE 1). Instability in countries around the world, including Syria, Libya, Yemen, Venezuela, and Ukraine, has fostered regional uncertainty and opportunities for terrorist groups to strengthen and thrive. And the recent spate of lone wolf attacks in the US, Canada, Australia, France, Denmark and elsewhere has kept the threat of terrorism at the forefront for organizations.

Terrorism and political violence insurance are key components for protecting a company's bottom-line against terrorism and terrorism-related risks. While acts of terrorism and political violence remain a significant threat to a company's global operations, the authorization of the Terrorism Risk Insurance Program Reauthorization Act of 2015 (TRIPRA) helped prevent disruption and provided greater certainty to terrorism insurance markets in the US.

This report summarizes the current outlook on TRIPRA's authorization and terrorism insurance, provides benchmarking related to terrorism insurance take-up rates and pricing, and offers risk management solutions for terrorism risks that will be useful for organizations even if they purchase terrorism insurance.

FIGURE 1 **Terrorist Attacks and Casualties Worldwide**
Source: *Country Reports on Terrorism 2014*, US Department of State



TERRORISM INSURANCE AFTER THE PASSAGE OF TRIPRA

The Terrorism Risk Insurance Program Reauthorization Act of 2015 descends from the original Terrorism Risk Insurance Act of 2002 (see APPENDIX). The law — created in response to a severe insurance market shortage after the September 11, 2001, terrorist attacks — provides reinsurance coverage to insurers in the event of a certified terrorist act.

Terrorism insurance take-up rates dropped off toward the end of 2014, due to the anxiety stemming from TRIPRA's unexpected expiration at the end of 2014. However, Congress quickly authorized a slightly amended version in January 2015 and buyers of terrorism insurance since have generally experienced a favorable rate environment, a trend that is expected to continue, barring unforeseen events or market changes.

STANDALONE TERRORISM INSURANCE

The drawn-out process to reauthorize TRIPRA shone a spotlight on alternative terrorism insurance solutions. Standalone terrorism insurers offer an alternative source of capacity in instances when property insurers are either unable to offer TRIPRA coverage or are no longer the most competitive option. Many organizations have decided to move to the standalone terrorism marketplace, where they can secure long-term contracts that offer more certainty in terms of coverage being available. Companies that purchase standalone coverage can also avoid certain requirements under TRIPRA, including that Congress must certify an act of terrorism for coverage to take effect.

FIGURE 2 **Standalone Terrorism Insurance Market Capacity (in $millions)**
Source: Marsh

INSURER/REINSURER	CAPACITY
AIG	$250 to $1,000
NATIONAL FIRE & MARINE INSURANCE CO.	$1,000+
LLOYD'S OF LONDON	$1,000+
IRONSHORE	$300
HISCOX INSURANCE COMPANY INC.	$200
LANCASHIRE INSURANCE COMPANY LTD.	$200
TALBOT UNDERWRITING SERVICES (VALIDUS)	$200
AXIS SPECIALTY LTD.	$150
BEAZLEY INSURANCE CO.	$100

INSURER/REINSURER	CAPACITY
WESTERN RE	$100
XL SPECIALTY	$100
ASCOT	$75
ACE GLOBAL MARKETS	$50
MONTPELIER RE	$50
TRANSATLANTIC RE	$50
GLACIER REINSURANCE AG	$40
WESTPORT INSURANCE CO.	$40
ASPEN SPECIALTY INSURANCE CO.	$30
INTERNATIONAL INSURANCE CO. OF HANNOVER	$30

Note: The theoretical marketwide capacity would be difficult to acquire at a reasonable cost for any individual client, and few clients seek coverage above $1.5 billion. For a client with significant exposures in central business districts of Tier 1 cities or those with exposure schedules with properties perceived as targets for terrorist attacks or where there have been instances of foiled plots, the available capacity is likely to be lower. Insurer capacity (and pricing) is also likely to be affected by accumulation of aggregates within ZIP codes including Tier 1 cities such as New York, Chicago, Washington, and San Francisco.

SPOTLIGHT

Standalone Terrorism Insurance Trends

The absence of a major US terrorism event and the abundance of capacity have reduced upward pricing pressure in the standalone property terrorism insurance marketplace and can at times be more competitive than the pricing of embedded terrorism coverage in property programs. Markets have the ability to follow the property form with a follow form endorsement that narrows the policy to terrorism and sabotage only and allows the client to benefit from the sub-limits and coverage offered within the property form. The limit of coverage that is available for a single risk can vary considerably, primarily due to:

- **Location of risk.** The demand for coverage in major metropolitan areas has a substantial effect on the available capacity.
- **An insurer's accumulation of exposure.** Capacity can be limited in certain locations, particularly in major metropolitan areas.
- **Concentration of exposure.** Although it is entirely possible that an attack could occur anywhere — including a remote town, an entertainment venue, or a shopping mall — demand for coverage will likely be higher in metropolitan areas because there is a greater concentration of exposures.

Standalone property terrorism insurance capacity has increased significantly (see FIGURE 2). For exposures outside of central business districts:

- Approximately $750 million to $2 billion per risk in standalone capacity is available to companies that do not have sizeable exposures in locations where insurers have aggregation issues.
- Capacity excess of $2 billion is available but may be more expensive.

For locations where markets have aggregation issues — particularly New York City — the estimated market capacity is approximately $850 million; additional capacity can be accessed at significantly higher rates.

Maximum achievable limits in the standalone terrorism insurance market are approximately **$4.3 billion.**

The standalone terrorism insurance market can replace TRIPRA coverage, which is embedded either partially or completely in a property policy. Maximum achievable limits in the standalone terrorism insurance market are approximately $4.3 billion. Available capacity is significantly lower for exposures in the central business districts of Tier 1 cities, which include Atlanta, Boston, Chicago, New York City, San Francisco, and Washington, D.C.

Following TRIPRA's renewal, standalone terrorism insurance pricing generally decreased, and some insurers offered competitive terms as they competed with the embedded terrorism markets; however, supply and demand will continue to determine pricing for organizations located in the Tier 1 cities. Organizations that purchased terrorism coverage typically saw competitive rates from standalone property terrorism insurers, in some cases successfully competing against embedded TRIPRA coverage.

NBCR

The use of nuclear, biological, chemical, and radiological (NBCR) weapons in a terrorism incident could have devastating effects on people and organizations. An NBCR attack could cause significant property damage and business interruption losses for organizations with global operations. The potential for an NBCR attack can be intensified by:

- The improper security and storage of existing weapons.
- The possibility that scientists might sell their knowledge to terrorist organizations or rogue states.
- Access to material and components to make NBCR weapons.
- Potential weaknesses in ports.

Although NBCR insurance is accessible under TRIPRA, insurers are not required to offer this coverage. A captive insurer can write direct policies covering NBCR losses and secure the reinsurance offered by TRIPRA. Also, a standalone marketplace offering NBCR insurance is available; however, policies can be limited in scope and command high prices.

STANDARD FIRE POLICY (SFP) STATUTES

An SFP can cover direct losses from fire and lightning. It sets forth the conditions under which such a loss is deemed to have occurred. In some situations, where terrorism is excluded under a property policy covering the peril of fire, there could be an issue whether losses are covered if they arise from a fire caused by a terrorist attack. It is also important to note that state insurance regulations in 15 of 29 states where SFPs are mandated do not permit property terrorism exclusions or sublimits for fire caused by a terrorism event (see FIGURE 3).

FIGURE 3 SFP States
Source: Marsh

THE SFP IS MANDATED IN THE FOLLOWING STATES:	
ALASKA (PERSONAL LINES ONLY)	NEBRASKA*
ARIZONA*	NEW HAMPSHIRE*
CALIFORNIA	NEW HAMPSHIRE*
CONNECTICUT*	NEW JERSEY*
GEORGIA	NEW YORK
HAWAII	NORTH CAROLINA
IDAHO*	NORTH DAKOTA*
ILLINOIS	OKLAHOMA*
IOWA	OREGON
LOUISIANA*	PENNSYLVANIA*
MAINE	RHODE ISLAND*
MASSACHUSETTS	VIRGINIA*
MICHIGAN*	WASHINGTON
MINNESOTA*	WEST VIRGINIA
MISSOURI	WISCONSIN

*This state has passed legislation to exclude (or allow insurers to exclude) acts of terrorism from SFP policies.

CAPTIVES

Organizations with captive insurers can benefit from their captive's ability to access the federal terrorism insurance backstop. Of the 324 US-domiciled captives that Marsh managed in 2014, 83 (22%) accessed TRIPRA for property coverage, writing terrorism coverage for conventional perils and/or for nuclear, biological, chemical, and radiological perils (NBCR) that are commonly excluded by commercial insurers. Organizations should work with their insurance brokers and captive solutions advisors to evaluate whether using a captive for TRIPRA could provide a more effective solution for managing terrorism exposures — particularly for higher risk areas such as for property or employee-related coverages in major cities.

As US-domiciled captives are obligated under TRIPRA to offer terrorism insurance when offering TRIPRA-subject lines of insurance — such as property and general liability — organizations should carefully examine their captive structures and TRIPRA's requirements to ensure compliance and to take best advantage of the program.

THE BENEFITS OF USING YOUR CAPTIVE

The key benefits of using a captive to access TRIRPA include:

- **Premium savings:** If there is no terrorism loss, premiums paid to a related party are retained on a consolidated basis.
- **Broader coverage:** Captives can offer coverages that are often restricted by or unavailable from commercial insurers, including for NBCR attacks, cyber risks and contingent time element losses.
- **Policy wording flexibility:** Captives are not generally subject to strict policy form requirements, allowing them greater flexibility to customize policy wording.

CAPTIVES AND TRIPRA 2015

Owners of captives that provide TRIPRA-subject lines of insurance should ensure that existing policies and policy renewals reflect the requirements of the reauthorization of TRIPRA. Organizations with captives that buy out their trigger and co-insurance obligations should also plan for the likelihood of increased premiums starting in 2016 when the new law's trigger and co-insurance phased increases take effect. The increases are likely to be more impactful on companies underwriting risks with Tier 1 locations.

SPOTLIGHT

Political Violence Coverage

Losses stemming from political instability and violence are a significant concern for organizations that operate internationally. Some companies with global operations buy terrorism coverage and assume it covers all violent human acts that result in a property and/or business interruption loss. However, without enhanced coverage, the company's assets may not be fully protected against political violence perils. Political violence insurance (PVI) provides coverage for terrorism and for exposures that are typically excluded within standalone terrorism policies, such as strikes, riots, civil commotion, rebellion, revolution, war, civil war, and insurrection.

Political violence risks can vary geographically. For companies with operations in emerging markets, strikes, riots, civil commotion, and other political violence risks are a significant concern; risk exposures in developed regions are often mainly terrorism. As a result, consideration of PVI is recommended for global insurance programs with significant emerging market exposures, and policies should be coordinated with property and standalone terrorism policies as well as local insurance pools.

For more information on PVI and political risk insurance, read Marsh's political risk insurance report, "**Strong Capacity Drives Buyer's Market for Political Risk Insurance,**" also available on **www.marsh.com**.

CYBER TERRORISM RISKS

Cyber vulnerability is becoming a reality in a number of risk and insurance areas, including terrorism.

Consider the following: Sophisticated hackers penetrate the defenses of an important iron plant using a spear phishing campaign. Once inside the perimeter, the hackers successfully navigate their access from the business systems to the productions network. From there, the hackers disrupt the plant's control system and prevent an orderly shutdown of a furnace, causing it to explode and resulting in widespread damage. This may sound like a plot for a Hollywood movie, but it happened in Germany, where government officials in 2014 acknowledged the attack.

With little financing, adversaries develop and persistently attempt cyber-attacks against the US and other countries, often from the safe harbor of a foreign nation. As in the case of the German iron plant, such threats can be dangerous and may inflict physical damage.

Some insurers have treated cyber insurance as an offshoot of professional liability coverage, which was previously covered by the legislation but is now exempt from TRIPRA. Even with the divergent treatment by insurers, the cyber insurance market has provided a broad cyber terrorism coverage grant — either through an express grant of coverage or through silence (no terrorism exclusion) — that goes beyond TRIPRA-defined terrorism.

However, exposure to cyber terrorism extends beyond the coverage typically offered by cyber insurance. For example, cyber-attacks against operational technology can result in physical property losses and bodily injuries by causing explosions or releasing toxic materials.

Although the language of TRIPRA is silent to cyber as a vector attack, a cyber terrorism event that meets TRIPRA's prerequisites, including being certified as terrorism by the Secretary of Treasury, would likely be eligible for coverage under TRIPRA, although the specific conditions would need to be considered.

PROPERTY TERRORISM INSURANCE MARKET TAKE-UP RATES

Due to the uncertainty that surrounded TRIPRA's eventual reauthorization, terrorism insurance market take-up rates in 2014 decreased. However, most companies that purchased terrorism insurance in the past still do so as insurers continue to underwrite the risk with the support of the new TRIPRA authorization. The passage of TRIPRA brought greater certainty to organizations that depend on terrorism coverage, and generally blunted any short-term increase in pricing. Had TRIPRA not been put back into place — or had it taken significantly longer to do so — the market dynamics for terrorism insurance likely would have been severely disrupted, leading to increased pricing and reductions in capacity.

Property insurers in 2015 typically are able to include terrorism insurance in their risk portfolios at lower rates to insureds. The demand for terrorism insurance remains and TRIPRA plays a major role in the availability and affordability of the coverage.

TERRORISM INSURANCE TAKE-UP RATES BY YEAR

The terrorism insurance take-up rate — the percentage of companies buying property terrorism insurance — has remained relatively constant since 2009, although it decreased to 59% in 2014 as a result of the uncertainty that surrounded TRIPRA's authorization (see FIGURE 4).

TAKE-UP RATES BY COMPANY SIZE

When looking at take-up rates by company size (see FIGURE 5), it is useful to consider four categories of total insured value (TIV):

- Companies with TIV in excess of $1 billion typically work with several insurers and likely pay large premiums. Most companies in this group use their existing captives or establish new ones to access TRIPRA.
- Companies with TIV between $500 million and $1 billion are large organizations that also typically work with multiple insurers and have layered programs.
- Companies with TIV between $100 million and $500 million tend to have no more than three insurers involved in their insurance programs.
- Companies with TIV less than $100 million generally have a smaller spread of risks, lower overall premiums, and often work with a single insurer.

Changes in take-up rates by company size have been marginal since 2011. Companies with TIV less than $100 million had the lowest take-up rates among those analyzed, with 54% purchasing property insurance in 2014. The take-up rates for companies with TIV between $100 million and $500 million slipped slightly from 61% in 2013 to 59% in 2014.

As was the case in previous years, the take-up rate for companies with TIV higher that $500 million was approximately 68% in 2014. This may be due to the perception that larger organizations are more susceptible to an attack or because smaller companies typically have lower insurance purchasing budgets.

FIGURE 4 Terrorism Insurance Take-up Rates by Year
Source: Marsh

	2014	2013	2012
2014 TAKE-UP RATE:	59%	62%	62%

FIGURE 5 Terrorism Insurance Take-up Rates by Total Insured Value (TIV)
Source: Marsh

TIV RANGE	2014	2013	2012
<$100M	54%	60%	59%
$100M - $500M	59%	61%	64%
$500M - $1B	68%	68%	66%
>$1B	64%	64%	64%

TAKE-UP RATES BY INDUSTRY

Education organizations purchased property terrorism insurance at a higher rate (82%) than did those in any other industry segment in 2014.

Financial institutions, real estate, and technology and telecommunications companies had the next highest take-up rates among the 17 industry segments surveyed, all at or above 70%. This may be due in part to concentrations in those sectors of organizations in central business districts and in major metropolitan areas, which are likely perceived as being at higher risk for terrorism. The manufacturing, chemicals, and energy and mining were among the industry segments with the lowest take-up rates (see FIGURE 6).

FIGURE 6 Terrorism Insurance Take-up Rates by Industry
Source: Marsh

INDUSTRY	2014	2013	2012
EDUCATION	82%	81%	75%
FINANCIAL INSTITUTIONS	73%	74%	75%
REAL ESTATE	71%	68%	69%
TECHNOLOGY/TELECOM	70%	69%	69%
HEALTH CARE	67%	75%	72%
POWER AND UTILITIES	65%	68%	65%
TRANSPORTATION	61%	66%	66%
MEDIA	61%	70%	81%
HOSPITALITY AND GAMING	58%	60%	60%
PUBLIC ENTITY AND NONPROFIT ORGANIZATIONS	57%	66%	71%
RETAIL/WHOLESALE	56%	61%	55%
LIFE SCIENCES	55%	64%	59%
FOOD & BEVERAGE	50%	45%	50%
CONSTRUCTION	48%	44%	56%
MANUFACTURING	47%	45%	48%
CHEMICALS	42%	47%	42%
ENERGY AND MINING	38%	47%	43%

FIGURE 7 Terrorism Insurance Take-up Rates by Region
Source: Marsh

REGION	2014	2013	2012
MIDWEST	56%	57%	58%
NORTHEAST	74%	77%	77%
SOUTH	54%	61%	63%
WEST	54%	55%	53%

TAKE-UP RATES BY REGION

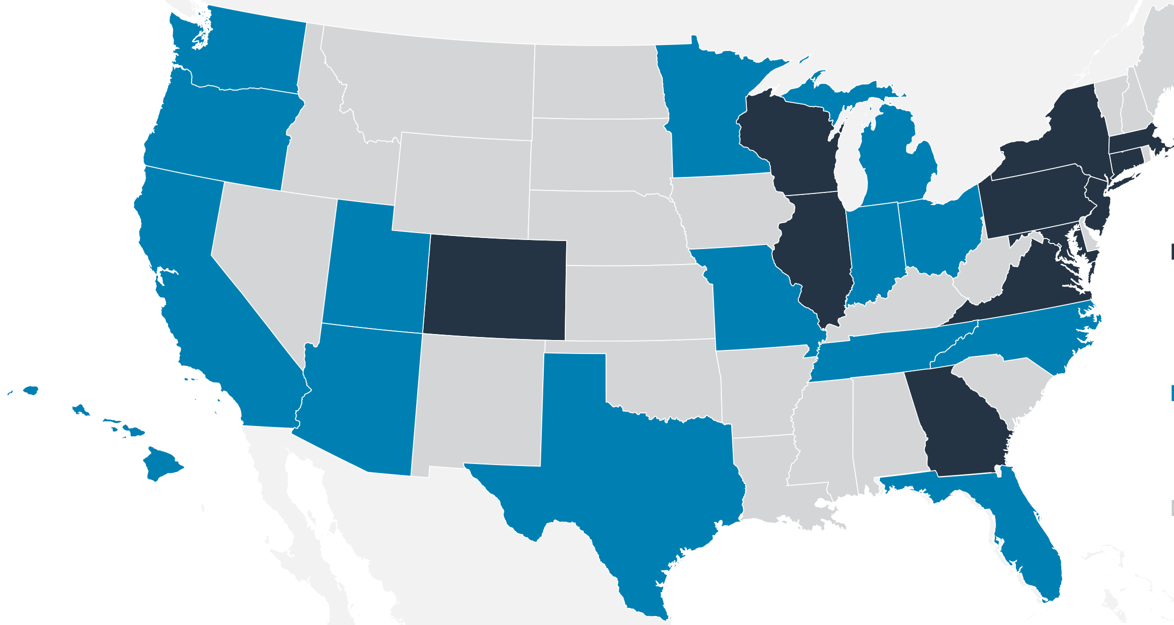
A higher percentage of companies in the Northeast — 74% — purchased property terrorism insurance than in any other region. This is likely attributed to the Northeast's concentration of large metropolitan areas, including Washington, and New York; the perception that major cities may be at higher risk of a terrorist attack; population density; and that the region was the site of the 2001 terrorist attacks. The South and West saw the lowest take-up rates in 2014, both at 54% (see FIGURE 7).

TERRORISM INSURANCE STATE INDUSTRY TAKE-UP RATES

Among the US states that purchased property terrorism insurance, 12 were above the national average take-up rate of 59% (see FIGURE 8). Organizations headquartered in Maryland purchased property terrorism insurance at the highest rate — 84% in 2014. Massachusetts, Connecticut, and New York followed with the next highest take-up rates, ranging from 77% to 83%.

FIGURE 8 **Terrorism Insurance Take-up Rates By State***

Source: Marsh



At or Above the 2014 National Average Terrorism Insurance Take-up Rate

Below the 2014 National Average Terrorism Insurance Take-up Rate

Not Enough Data

ARIZONA	CALIFORNIA	COLORADO	CONNECTICUT	DISTRICT OF COLUMBIA	FLORIDA
48%	58%	73%	77%	73%	42%
GEORGIA	HAWAII	ILLINOIS	INDIANA	MARYLAND	MASSACHUSETTS
68%	38%	76%	57%	84%	83%
MICHIGAN	MINNESOTA	MISSOURI	NEW JERSEY	NEW YORK	NORTH CAROLINA
36%	58%	56%	74%	77%	49%
OHIO	OREGON	PENNSYLVANIA	TENNESSEE	TEXAS	UTAH
44%	38%	69%	56%	52%	39%
VIRGINIA	WASHINGTON	WISCONSIN			
71%	46%	63%			

The 27 states listed met the minimum threshold of available 2014 peer data.

* Based on the state in which a company is headquartered.

THE COST OF PROPERTY TERRORISM INSURANCE

It is useful to measure the cost of terrorism insurance both as a premium rate — premium divided by TIV — and as a percentage of a company's overall property premium. Analyzing costs by premium rate allows companies to track what they paid in absolute terms; evaluating the costs as a percentage of their total premiums shows how terrorism coverage affected their overall property insurance budgets.

COST BY COMPANY SIZE

Property terrorism insurance rates typically decrease as the size of the company increases (see FIGURE 9). On an overall basis, companies with TIV less than $100 million experienced slight rate increases from $51 per million to $53 million in 2014 and their terrorism premium rates remained significantly higher than those of larger companies. Median rates for the largest companies remained at $18 per million in 2014. This generally reflects overall insurance pricing patterns: Larger companies typically purchase more insurance, which leads to lower rates when compared with smaller companies.

The cost as a percentage of overall property premiums (see FIGURE 10) was similar for all companies, regardless of TIV. There were little to no changes in percentage points seen across the board in 2014. Only companies with TIV between $500 million to $1 billion experienced an increase in the last three years. No industry sectors showed decreases in the cost of terrorism insurance as a percentage of property premiums.

FIGURE 9 **Terrorism Insurance Take-up – Median Rates by TIV** (Price per million)
Source: Marsh

TIV RANGE	2014	2013	2012
<$100M	$53	$51	$49
$100M - $500M	$25	$23	$25
$500M - $1B	$18	$16	$20
>$1B	$18	$18	$19

FIGURE 10 **Terrorism Insurance Pricing as a Percentage of Property Premium by TIV**
Source: Marsh

TIV RANGE	2014	2013	2012
<$100M	4%	4%	4%
$100M - $500M	4%	4%	4%
$500M - $1B	5%	5%	3%
>$1B	5%	5%	5%

COST BY INDUSTRY

Compared with rates in 2013, median property terrorism insurance premiums decreased or stayed the same in 2014 for nine of the 17 industry categories (see FIGURE 11). Organizations in the energy and mining, public entity and nonprofit, and life sciences sectors experienced the most significant decreases. Rates increased most significantly for media, hospitality and gaming, and construction organizations.

Although each company's policy typically is priced based on its unique exposures, it is possible that a combination of prior catastrophe (CAT) losses and location — namely businesses located in a central business district — may have contributed to any increases.

Overall, construction companies again paid the most for their terrorism insurance in 2014, at a median rate of $77 per million, up from $66 per million the previous year. Companies in the food and beverage, education, and health care sectors paid the least for coverage, with median rates less than $20 million.

When analyzing terrorism insurance pricing as a percentage of overall property premiums, financial institutions paid the largest share, allocating 7% of their total property programs (see FIGURE 12). Transportation, education, and public entity and nonprofit organizations paid 6% of their total property programs. In 2014, seven industry groups saw an increase in their terrorism insurance pricing as a percentage of overall property premiums. Chemical companies paid the lowest, allocating only 2% of total property premium in 2014 to terrorism insurance.

FIGURE 11 Terrorism Insurance Pricing – Median Rates by Industry (Rate per million)
Source: Marsh

INDUSTRY	2014	2013	2012
CONSTRUCTION	$77	$66	$63
MEDIA	$53	$36	$50
TRANSPORTATION	$48	$46	$42
POWER AND UTILITIES	$47	$48	$53
CHEMICALS	$40	$37	$49
FINANCIAL INSTITUTIONS	$39	$42	$45
REAL ESTATE	$39	$32	$34
PUBLIC ENTITY AND NONPROFIT ORGANIZATIONS	$33	$39	$29
HOSPITALITY AND GAMING	$32	$22	$41
ENERGY AND MINING	$28	$45	$38
LIFE SCIENCES	$24	$28	$30
TECHNOLOGY/TELECOM	$22	$24	$24
RETAIL/WHOLESALE	$20	$21	$22
MANUFACTURING	$19	$17	$20
FOOD & BEVERAGE	$18	$18	$14
EDUCATION	$17	$17	$16
HEALTH CARE	$14	$14	$17

FIGURE 12 Terrorism Insurance Pricing as a Percentage of Property Premium by Industry
Source: Marsh

INDUSTRY	2014	2013	2012
FINANCIAL INSTITUTIONS	7%	7%	4%
TRANSPORTATION	6%	6%	7%
REAL ESTATE	4%	6%	5%
RETAIL/WHOLESALE	3%	5%	3%
MEDIA	5%	6%	4%
PUBLIC ENTITY AND NONPROFIT ORGANIZATIONS	6%	5%	5%
MANUFACTURING	3%	3%	2%
TECHNOLOGY/TELECOM	4%	2%	3%
EDUCATION	6%	4%	4%
HEALTH CARE	5%	5%	5%
POWER AND UTILITIES	5%	5%	4%
HOSPITALITY AND GAMING	5%	3%	7%
ENERGY AND MINING	3%	2%	1%
CONSTRUCTION	4%	2%	3%
FOOD & BEVERAGE	4%	2%	4%
CHEMICALS	2%	3%	4%
LIFE SCIENCES	3%	4%	3%

COST BY REGION

Companies in the Midwest paid the lowest rates, on average, for property terrorism insurance in 2014, followed by companies in the West (see FIGURE 13). Based on median premium rates, terrorism insurance was most expensive in the South at $31 per million.

Terrorism insurance pricing as a percentage of property premium values varied slightly in the four US regions analyzed (see FIGURE 14), accounting for an average of 3% for companies in the West, 4% for companies in the Midwest, and 5% for companies in the Northeast and South. Much of this difference can be explained by variations in terrorism exposure. Companies in major metropolitan areas — for example, New York, Washington, and Boston — are likely to pay a higher premium for their terrorism coverage, which results in a larger percentage of their overall property insurance costs being allocated to terrorism coverage.

COST OF TERRORISM INSURANCE IN 2015 AND BEYOND

The authorization of TRIPRA, robust flows of capital in both the insurance and reinsurance segments, and moderate CAT losses have combined to create pricing conditions favorable to most insureds. Most insureds are seeing rate and premium decreases as well as coverage improvements, mostly driven by a competitive marketplace.

"Most insureds are seeing rate and premium decreases as well as coverage improvements, mostly driven by a competitive marketplace."

FIGURE 13 Terrorism Insurance Pricing – Median Rates by Region (Rate per million)
Source: Marsh

REGION	2014	2013	2012
MIDWEST	$23	$21	$24
NORTHEAST	$29	$32	$31
SOUTH	$31	$28	$31
WEST	$24	$27	$26

FIGURE 14 Terrorism Insurance Pricing as a Percentage of Property Premium by Region
Source: Marsh

REGION	2014	2013	2012
MIDWEST	4%	5%	3%
NORTHEAST	5%	6%	6%
SOUTH	5%	3%	3%
WEST	3%	3%	6%

THE TERRORISM REINSURANCE MARKET

Reinsurance capacity for terrorism risks continued to develop and grow in 2014, with most insurers having the option to use reinsurance to buy down their TRIPRA deductibles at acceptable prices, particularly for conventional weapon attacks. When Congress adjourned at the end of 2014 without renewing TRIPRA, the reinsurance industry scrambled to offer capacity to help offset its expiration, challenging some January 1, 2015 reinsurance renewals. However, market disruptions were minimal due to TRIPRA's quick reauthorization in the beginning of the year.

Insureds generally were able to expand the coverages provided in their standard reinsurance programs to include terrorism. As a result, several standalone reinsurance coverages were canceled in 2014 and other standalone programs were structured on an aggregate basis to mirror TRIPRA. Ceding companies in 2014 generally became more comfortable with the difference in conditions between the aggregate nature of TRIPRA and the "per occurrence" definition of loss of standard reinsurance structures.

Year-on-year pricing typically decreased for CAT reinsurance programs that included terrorism coverage. Reinsurance rates for coverage that includes NBCR protections were relatively more expensive in 2014; reinsurers have specific capacity limits for NBCR loss scenarios that are generally less than conventional weapon terrorism loss scenarios.

TRIPRA capacity remains crucial to the insurance industry as private market reinsurance capacity is not sufficient to provide the same level of capacity as offered by TRIPRA. With a multi-year TRIPRA solution and incremental changes limiting the government's potential exposure over time, it is anticipated that the reinsurance market will continue to grow, develop, and provide capacity for ceding companies that do not want to increase their net exposure to terrorism.

FIGURE 15 TRIPRA Statistics by Policyholder Surplus
Source: Guy Carpenter

POLICYHOLDER SURPLUS	<$50M	$50M TO $100M	$100M TO $300M	$300M TO $500M	$500M TO $1B	$1B TO $5B	>$5B
APPLICABLE TRIPRA PREMIUM	8,786	39,023	89,761	198,099	319,931	910,723	4,439,360
AVG. TRIPRA DEDUCTIBLE	1,757	7,805	17,952	39,620	63,986	182,145	887,882
AVG. TRIPRA DEDUCTIBLE AS A PERCENTAGE OF SURPLUS	12.0%	11.1%	10.2%	9.9%	8.9%	9.0%	4.7%

SPOTLIGHT

Insurers and Rating Agencies

TRIPRA's renewal included increased trigger and co-insurance obligations, which will impact insurers, particularly smaller ones. They will need to address solvency concerns from the rating agencies, and customers could potentially see higher premium costs as insurers take steps to ensure they maintain sufficient policyholder surplus.

Rating agency portfolio reviews identified potential losses associated with specific aggregations that exposed gaps in the coverage provided by standard reinsurance protections and TRIPRA recoveries. TRIPRA will only provide reimbursements once a loss has been certified and the industry trigger point is exceeded. The TRIPRA trigger points will increase from $100 million to $200 million, which will be phased in starting in 2016 by annual increments of $20 million for five years. Insurers with these rating agency-related accumulations — as well as other notable terrorism accumulations — accessed specialty, treaty, and facultative reinsurers to cover specific locations or aggregations that produced loss scenarios in excess of standard reinsurance program limits.

Reliance on TRIPRA

The TRIPRA statistics by policyholder surplus table is created from an annual statement database. More than 800 insurers are represented in the table. As in previous years, Guy Carpenter found that the TRIPRA deductible as a percentage of surplus is higher for small to midsize insurers (see FIGURE 15).

INTERNATIONAL SCHEMES — GOVERNMENT POOLS AND TRIPRA

Terrorism pools have been created to help organizations manage the global threat of terrorism. The pools were established in response to specific terrorist threats within each country. Typically, each pool requires a declaration by the national government that a terrorist event has occurred to trigger coverage. In 2014, those terrorism pools that purchase reinsurance experienced broad price decreases due to increased capacity in the marketplace and the absence of a recent, major terrorism loss.

In the countries where compulsory or optional terrorism reinsurance pools exist, property insurance policies can be extended to include terrorism coverage in accordance with the local pool (see FIGURE 16). In such situations, the application of the standalone terrorism, sabotage, and/ or political violence policy should be either difference in conditions (DIC), difference in conditions and limits (DIC/DIL), or primary of the locally issued property policy pool coverage depending on the pool being accessed.

FIGURE 16 TRIPRA Statistics by Policyholder Surplus
Source: Guy Carpenter

COUNTRY	COMPULSORY POOL (Y/N)	NAMES OF TERRORISM POOL OR REINSURANCE MECHANISM
AUSTRALIA	N	Austrailian Reinsurance Pool Corporation (ARPC)
AUSTRIA	N	Österreichischer Versicherungspool zur Deckung von Terrorrisiken (The Austrian Terrorpool)
BAHRAIN	N	Arab War Risks Insurance Syndicate (AWRIS)
BELGIUM	N	Terrorism Reinsurance & Insurance Pool (TRIP)
DENMARK	N	Danish Terrorism Insurance Scheme
FINLAND	N	FINNISH TERRORISM POOL
FRANCE	Y	Gestion de l'Assurance et de la Réassurance des Risques d'attentats et Terrorisme (Gareat)
GERMANY	N	Extremus Versicherungs-AG
HONG KONG - CHINA	N	The Motor Insurance Bureau (MIB)
INDIA	N	The General Insurance Corporation of India
INDONESIA	N	Indonesian Terrorism Insurance Pool
ISRAEL	Y	Terrorism (Intifada Risks) - The Victims of Hostile Actions (Pensions) Law and the Property Tax and Compenstion Fund Law
NAMIBIA	N	Namibia Special Risk Insurance Association (NASRIA)
NETHERLANDS	N	Nederlandse Herverzekeringsmaatschappij voor Terrorismeschade (NHT)
NORTHERN IRELAND	N	Criminal Damage Compensation Scheme Northern Ireland
RUSSIA	N	Russian Anti-terrorism Insurance Pool (RATIP)
SOUTH AFRICA	N	South African Special Risk Insurance Association (SASRIA)
SPAIN	Y	Consorcio de Compensación de Seguros (CCS)
SRI LANKA	N	SRCC/Terrorism Fund - Government
SWITZERLAND	N	Terrorism Reinsurance Facility
TAIWAN	N	Taiwan Terrorism Insurance Pool
UNITED KINGDOM	N	Pool Reinsurance Company Limited (POOL RE)
UNITED STATES	N	Terrorism Risk Insurance Program Reauthorization Act of 2007 (TRIPRA)

MANAGING GLOBAL TERRORISM RISKS

Recent acts of terrorism and terrorism-related violence around the world highlight the importance of risk management best practices — including the importance of risk differentiation. Terrorism risk models and effective business continuity plans can play a key role in improving business resiliency and accessing alternative terrorism markets.

EMPLOYEE DATA

Underwriters carefully select risks to insure, for example, paying close attention to employee concentration exposures. For insureds, this means that accurate data and risk profile differentiation is one of the most important considerations.

The quality of the data provided to underwriters can make a significant difference in how insurers evaluate an organization's terrorism risk. Insurers strive to understand the exact risk a company presents — simple payroll data by location is not sufficient. For example, underwriters may want to know about:

- Multiple shifts.
- Campus settings.
- Telecommuters.

Insurers will likely request details of employee exposures in a particular building at a particular time. This can impact insurers' employee concentration concerns, one of the key issues in workers' compensation underwriting for terrorism risk.

TERRORISM RISK QUANTIFICATION

Terrorism risk modeling and other analytical tools can help organizations determine how much coverage to purchase, whether capacity is in short supply or not. Such models can help organizations:

- Better understand their financial exposure.
- Determine appropriate insurance deductibles and limits.
- Optimize risk finance strategies.
- Rate the terrorism risk to negotiate insurance premiums.
- Understand the risk's potential impact on capital.
- Prioritize risk mitigation strategies.
- Build efficient business continuity plans.
- Understand the correlation and potential benefits of diversification among sites, locations, and regions — a key component in addressing terrorism risk aggregation issues.

SHARPEN BUSINESS CONTINUITY PLANS

Organizations that review and update their business continuity plans to ensure they are prepared in the event of a terrorist attack can improve their risk profile for underwriters, who often look for current and well-formulated business continuity plans as a foundation of good risk management.

Many companies have already developed business continuity, emergency response, and crisis management plans that consider the effects of a terrorist attack. Such plans may suffer from outdated facility floor plans, contact information, and technology. Staff awareness of roles, responsibilities, and actions to be taken during an event also may be an issue. To ensure that business continuity plans help preserve and protect operations and people, organizations should assess their plans and validate them through training and exercises, with scenarios ranging from walk-throughs to tabletops to full-scale simulations. Such measures can help organizations think through their terrorism related risks and get a better understanding of their exposures ahead of insurance negotiations or an actual event.

CONCLUSION

Amid greater concerns over global terrorism risks — including the recent spate of lone-wolf attacks in developed countries — the passage of TRIPRA brings greater certainty to organizations that depend on terrorism coverage to protect their assets. And coupled with PVI and the broad set of perils the coverage can respond to, organizations have greater access to cost-effective options as they seek to safeguard their operations from terrorism risks in the US and abroad.

APPENDIX

The Evolution of TRIPRA
Source: Marsh's Property Practice

TERM	NOVEMBER 26, 2002 – DECEMBER 31, 2005	JANUARY 1, 2006 – DECEMBER 31, 2007	JANUARY 1, 2008 – DECEMBER 31, 2014	JANUARY 12, 2015 — DECEMBER 31, 2020
OFFICIAL LEGISLATIVE NAME	Terrorism Risk Insurance Act of 2002 (TRIA).	Terrorism Risk Insurance Extension Act of 2005 (TRIEA).	Terrorism Risk Insurance Program Reauthorization Act of 2007 (TRIPRA).	Terrorism Risk Insurance Program Reauthorization Act of 2015.
COVERAGE SUMMARY	Covered acts committed by individual(s) acting on behalf of any foreign person or interest to coerce the civilian population of the US or to influence the policy or affect the conduct of the US government by coercion.	Covered acts committed by individual(s) acting on behalf of any foreign person or interest to coerce the civilian population of the US or to influence the policy or affect the conduct of the US government by coercion.	Eliminated the distinction between acts of foreign or domestic terrorism.	Must make coverage available for certified acts of terrorism on same terms and conditions as for other covered risks. Covers foreign and domestic terrorism in the US and on US interests abroad. Includes an act of war for workers' compensation policies only.
TERRITORY	US only.	US only.	US only.	US only.
CERTIFICATION THRESHOLD	$5 million	$5 million	$5 million	$5 million
FEDERAL BACKSTOP TRIGGER	$5 million	• 2006 – $50 million • 2006 – $100 million	$100 million	Phased in increase starting on January 1, 2016: • 2015 – $100 million • 2016 – $120 million • 2017 – $140 million • 2018 – $160 million • 2019 – $180 million • 2020 – $200 million
INSURER DEDUCTIBLE	7% in 2003, 10% in 2004, 15% in 2005: Applied against prior-year direct earned premium.	17.5% in 2006, 20% in 2007: Applied against prior-year direct earned premium.	85%: Applied against prior-year direct earned premium.	20%: Applied against prior-year direct earned premiums to TRIPRA eligible lines of insurance.
GOVERNMENT PARTICIPATION	90%	• 2006 – 90% • 2007 – 85%	85%	Phased in decrease starting on January 1, 2016. • 2015 – 85% • 2016 – 84% • 2017 – 83% • 2018 – 82% • 2019 – 81% • 2020 – 80%
INSURER PARTICIPATION	10%	• 2006 – 10% • 2007 – 15%	15%	Phased in increase starting on January 1, 2016. • 2015 – 15% • 2016 – 16% • 2017 – 17% • 2018 – 18% • 2019 – 19% • 2020 – 20%
RECOUPMENT	Included with discretion on part of Secretary of Treasury — subject to maximum 3% per year applied to policyholders' premiums.	Included with discretion on part of Secretary of Treasury — subject to maximum 3% per year applied to policyholders' premiums.	Formula will be calculated using several factors: the size of the total loss, the amount of the industry aggregate retention as defined, the amount that the insurers actually retain, and the amount of the federal government reimbursement. There is no maximum on the amount that will be applied to future policyholders' premiums. For events that occur after 1/1/2012, the mandatory portion of any recoupment must be collected by 9/30/2017.	Increases the current mandatory recoupment amount of $27.5 billion by $2 billion each calendar year until the mandatory recoupment amount reaches $37.5 billion. Once the insurance marketplace aggregate retention amount reaches $37.5 billion, the Treasury Secretary is to issue a final rule to annually revise the amount so that it is equal to the annual average of the sum of insurer deductibles for all insurers participating in the program for the prior three calendar years.

APPENDIX CONTINUES

Industry Categories

This report examined property terrorism insurance purchasing patterns for 17 industry sectors, selected based on such criteria as sample population size, perceived exposures, take-up rates, and premium rates. Other industry groups were part of the overall analysis but not reported on individually. The industry groupings included, but were not limited to, the following lines of business:

- Chemicals: specialty chemicals, agrochemicals, distributors, industrial gases, and personal care and household companies.
- Construction: contractors, homebuilders, and general contractors.
- Education: colleges, universities, and school districts.
- Energy: oil, gas, and pipelines.
- Financial institutions: banks, insurers, and securities firms.
- Food and beverage: manufacturers and distributors.
- Hospitality: hotels, casinos, sporting arenas, performing arts centers, and restaurants.
- Health care: hospitals and managed-care facilities.
- Life sciences: research, manufacturers, biotechnology, and pharmaceuticals.
- Manufacturing: all manufacturers, excluding aviation.
- Media: print and electronic media.
- Public entity and nonprofit: city, county, and state entities and nonprofit organizations.
- Real estate: real estate and property management companies.
- Retail and wholesale: retail entities of all kinds.
- Technology/telecom: hardware and software manufacturers and distributors, telephone companies, and internet service providers.
- Transportation: trucking and bus companies.
- Power and utility: public and private gas, electric, and water utilities.

Methodology

The report analyses relied on data from Marsh clients that purchased property terrorism insurance across the United States. Purchasing patterns were examined in the aggregate and were also based on client characteristics such as size, industry, and region.

The 2014 data came from property insurance placements incepting during calendar year 2014. The study population does not include placements in the US for foreign-based multinationals or for small-firm placements made through package policies.

The 2014 study was based on a sample of 2,254 firms with the following characteristics:

	1ST QUARTILE	MEDIAN	3RD QUARTILE
TIV	$51 MILLION	$228 MILLION	$958 MILLION
PROPERTY PREMIUM	$ 72,398	$ 240,000	$ 749,603
TERRORISM PREMIUM	$ 1,728	$ 6,802	$ 25,724

It is important to note:

- The sample size for the energy industry sector was relatively small and therefore may not be statistically significant. There may be a larger margin of error in the data analyzed, which may result in property terrorism take-up rates and pricing for energy companies varying more widely than the data indicates.
- For some companies, insurers quoted only a nominal terrorism premium of $1. These $1 premiums were omitted from the calculations of the median terrorism premium rates.
- Companies were assigned to regions based on the locations of the Marsh offices that served them. Generally, this was the Marsh office most closely located to a company's headquarters. Many clients have multiple facilities across the US and the world, meaning the potential risk for a terrorist attack may not be fully represented by where a company is headquartered. That said, the decision as to whether to purchase terrorism insurance is typically made at headquarters.

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About this report

This report is a coordinated effort among Marsh's Property Practice, Marsh's Casualty Practice, Marsh Captive Solutions, Marsh Global Analytics, Guy Carpenter, and Marsh & McLennan Companies Government Relations.

For more information, please contact your Marsh or Guy Carpenter or other Marsh & McLennan Companies representative, send an email to questions@marsh.com, or visit marsh.com and guycarp.com.

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