Advisory Committee on Risk Sharing Mechanisms (ACRSM)

Discussion Draft

ACRSM Executive Summary

Discussion Draft

ACRSM Background

❖ Formation & Purpose: Established by Terrorism Risk Insurance Program Reauthorization Act of 2015 to provide advice and recommendations to FIO regarding creation and development of non-governmental, private market risk-sharing mechanisms to protect against losses arising from acts of terrorism

❖ Membership: directors, officers, or other employees of insurers, reinsurers, or capital market participants that are participating / desire to participate in the non-governmental risk-sharing mechanisms described above. Current members:

- **Mike Sapnar, TransRe (Chair)**
- **Kean Driscoll, AIG**
- **John Lupica, Chubb**
- **Emil Metropolous, Guy Carpenter**
- **Wendy Peters, Willis Towers Watson**
- **John Seo, Fermat Capital**
- **Keith Wolfe, Swiss Re**
- **Keith Bell, Travelers**

ACRSM Activities

❖ <u>Committee Investigative Efforts</u>:

- 9 meetings held from February 2016 through February 2020
- Members arranged for and heard presentations from various sources, including ACRSM members themselves, trade associations, insurance companies, risk modeling companies, academics, U.S. government agencies, and the UK's Pool Re.
- Division of further investigative efforts, with each member heading up a subcommittee to take the lead on a different area of concern

ACRSM Findings

- **Major Findings of the Subcommittees To-Date:**
  - Insurance industry needs a cap on liabilities for losses arising from terrorism events in order to properly price and provide coverage
  - There has been and will continue to be a major transference of terrorism coverage from the government to the private sector
  - There remain questions and uncertainty about the certification process and timing
  - There is a loophole to access TRIP with advantageous financial terms by Captive Insurers
  - The Mandatory Recoupment and the growing IMARA can lead to unintended results
  - Cyber coverage is a major concern
  - Total available limits, both public and private, for NCBR coverage and recoveries remain a concern

Issues That Merit Further Study

- The Program Cap remains static at $100B while insured values, premiums, and potential losses continue to increase
- Industry Marketplace Aggregate Retention Amount (IMARA) continues to increase resulting in the erosion of the federal backstop and, in 2027, assuming a 4% CAGR in premiums, a trended 9/11 Scenario is no longer covered by the federal backstop.
- After recoupment, Treasury could collect a greater amount than it pays
- Captives with minimal surplus and revenues can often access the program at low retentions and cost when their sponsors have significant financial resources
- Cyber exposures are unquantified and global. Clarification is needed around whether incidents occurring outside the U.S. with impacts outside the U.S. might be covered and the certification process of such events.
- NCBR - there are a meaningful and increasing number of modeled events that would results in greater than $100B in losses, raising concerns about the amount and timing of recoveries
- No Prefunding = less robust risk management around assessment, mitigation, financing, and post-event resiliency
- Certain aspects of the Certification Process remain unclear to industry participants
- Certain Non-Profit Organizations (mass shootings and events below the trigger and program minimum)

Recommendations

As part of an upcoming TRIA Effectiveness Study, Treasury / FIO should consider incorporating a study on the following issues:

- Program Cap: What are potential implications of a change in the cap, including investigation into what levels of protection make TRIA most effective (*i.e.,* working layer vs. extreme tail risk layers)?
- IMARA: Assuming the original 2 goals of TRIA still apply, what is the appropriate IMARA; should other aspects of the program should be indexed if the IMARA continues to be indexed?
- Recoupment: What is the appropriate recoupment and should there be a cap or other mechanism to prevent situations in which the government profits from terrorist attacks?
- Captives: Examine ways to close loophole allowing captives to shift virtually all of their terrorism risk to other private market participants, including calculating deductibles and co-shares from a number other than Direct Earned Premium for captive insurers
- Cyber: Treasury /FIO should evaluate the evolving cyber market in the context of the Program, including the issues set forth on slide 23 of this report.
- NCBR: Explore (i) whether bifurcation of the cap, IMARA, and deductibles for NCBR is appropriate; (ii) if not, how to address growing uninsured NCBR risk above the $100B cap; and (iii) consideration and analysis of NCBR fire following laws and exclusion/inclusion statistics
- Prefunding Approaches: Invest in FIO staffing, including small dedicated analyst team focused on terrorism risk modelling with ability to partner with private industry; collect from participating insurers data on exposure and mitigation efforts; explore ways for U.S. Treasury to facilitate risk transfer to global risk markets, including the effect pre-funding mechanisms might have on such risk transfer.
- Certification Process: Explore ways to resolve uncertainty over the certification process with FIO administratively rather than legislatively
- Non-Profits Availability & Affordability: Consider expanding the study called for under S.2877 to include additional non-profit charitable organizations

TRIP Was Originally Designed With 2 Goals in Mind

❖ Goal #1—TRIP, as originally designed, provided a framework for market stability to facilitate underwriting of terrorism insurance risk following the terrorist attacks of 9/11/2001

- The most effective feature of the program in this regard was the $100B program cap
  - Defined the maximum loss
  - Allowed for pricing of risk and underwriting

- Another key feature was the sharing of the maximum $100B loss spread among:
  - The Federal Government (Federal Backstop) in the Discretionary Recoupment Layer
  - The Insurance Industry in the Insurer Deductible and Copay Layers
  - The Commercial Policyholder Community in the Mandatory Recoupment Layer

❖ Goal #2—Continue to provide a framework for economic and insurance industry stability after a major terrorist attack

Ways TRIP May No Longer Be As Effective in Meeting Goal #1

- Goal #1— Provide a framework for market stability to facilitate underwriting of terrorism insurance risk, allowing for pricing of risk
  - ACRSM is tasked with recommending *non-governmental*, *private market* risk-sharing mechanisms to protect against losses arising from acts of terrorism
  - Captive Insurers:
    - Post-event forced-risk-transfer to policyholders is not in line with increasing non-governmental private-market risk transfer
    - This reduces the incentive for insurers to provide coverage at risk-based prices
    - Also creates moral hazard in that companies with captive insurers have almost no “skin in the game” and therefore reduced incentives to mitigate risk
  - Closing this loophole may encourage those using captives to seek non-governmental insurance industry solutions, and insurers and brokers to work with those companies to find ways to meet their needs.

Ways TRIP May No Longer Be As Effective in Meeting Goal #2

- Goal #2—Continue to provide a framework for economic and insurance industry stability after a major terrorist attack
  - Changes made over time during previous reauthorizations have significantly shifted risk away from the Federal Backstop
  - Risk is being transferred principally back to the Commercial Policyholder Community and to the Insurance Industry
  - With the clean reauthorization of existing law, this risk shifting accelerates and will continue to erode the viability of the program

How TRIP Responds to a 9/11/2001 Scenario
(Then, Now, and in the Future)

- Originally, TRIP could have substantially handled three 9/11/2001 attacks largely within the Federal Backstop

- As of 2019, after recoupment, the Federal Backstop does not address even one 9/11/2001 attack, which may have been intended as it was contemplated that there would be risk-shifting to the private sector over time

- Going forward (under clean reauthorization), at some point in the future Treasury is projected to actually make billions of dollars in profit under a repeat 9/11/2001 scenario; this may be an artifact of the Congressional Budget Scoring model, but nevertheless should at the very least be acknowledged and an attempt made to address the issue.

RAA

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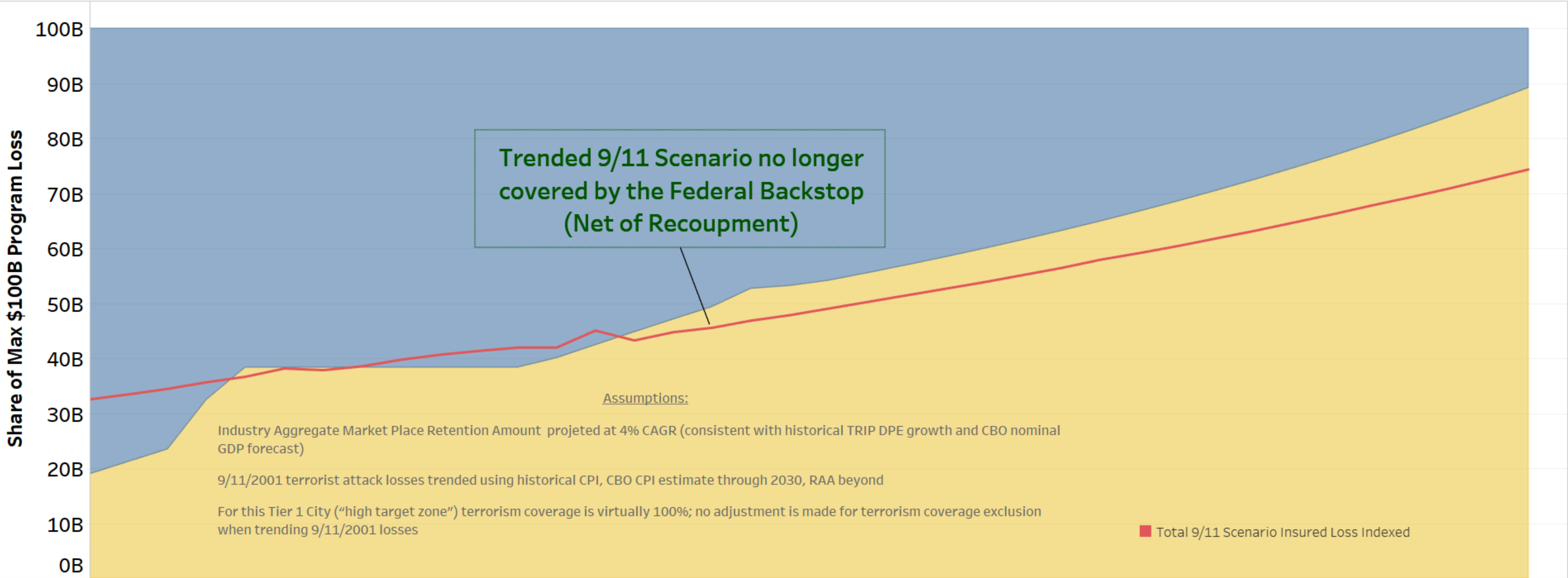
Terrorism Risk Insurance Program
Projected Under Clean Reauthorization of Current Law



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Industry Share (IMARA + Copay Above)	19%	21%	24%	33%	38%	38%	38%	38%	38%	38%	38%	38%	40%	42%	45%	47%	49%	53%	53%
Federal Backstop	81%	79%	77%	68%	62%	62%	62%	62%	62%	62%	62%	62%	60%	58%	55%	53%	51%	47%	47%

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Industry Share (IMARA + Copay Above)	54%	56%	57%	58%	60%	62%	63%	65%	67%	69%	71%	73%	75%	77%	79%	82%	84%	87%	89%
Federal Backstop	46%	44%	43%	42%	40%	38%	37%	35%	33%	31%	29%	27%	25%	23%	21%	18%	16%	13%	11%

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RMS Events | Scenario Generator RMS | Loss Alloc Pre-Modeled RMS | Legislative Outcomes RMS | Legislative Outcomes RMS (2) | Federal Share Erosion 2040 | Federal Share Erosion 2030 | TRIP Parameters 2040 | TRIP Parameters 2030 | Prior Reauthorizations | Clean Reau

RAA 2019 TRIP Legislative Model V1.2

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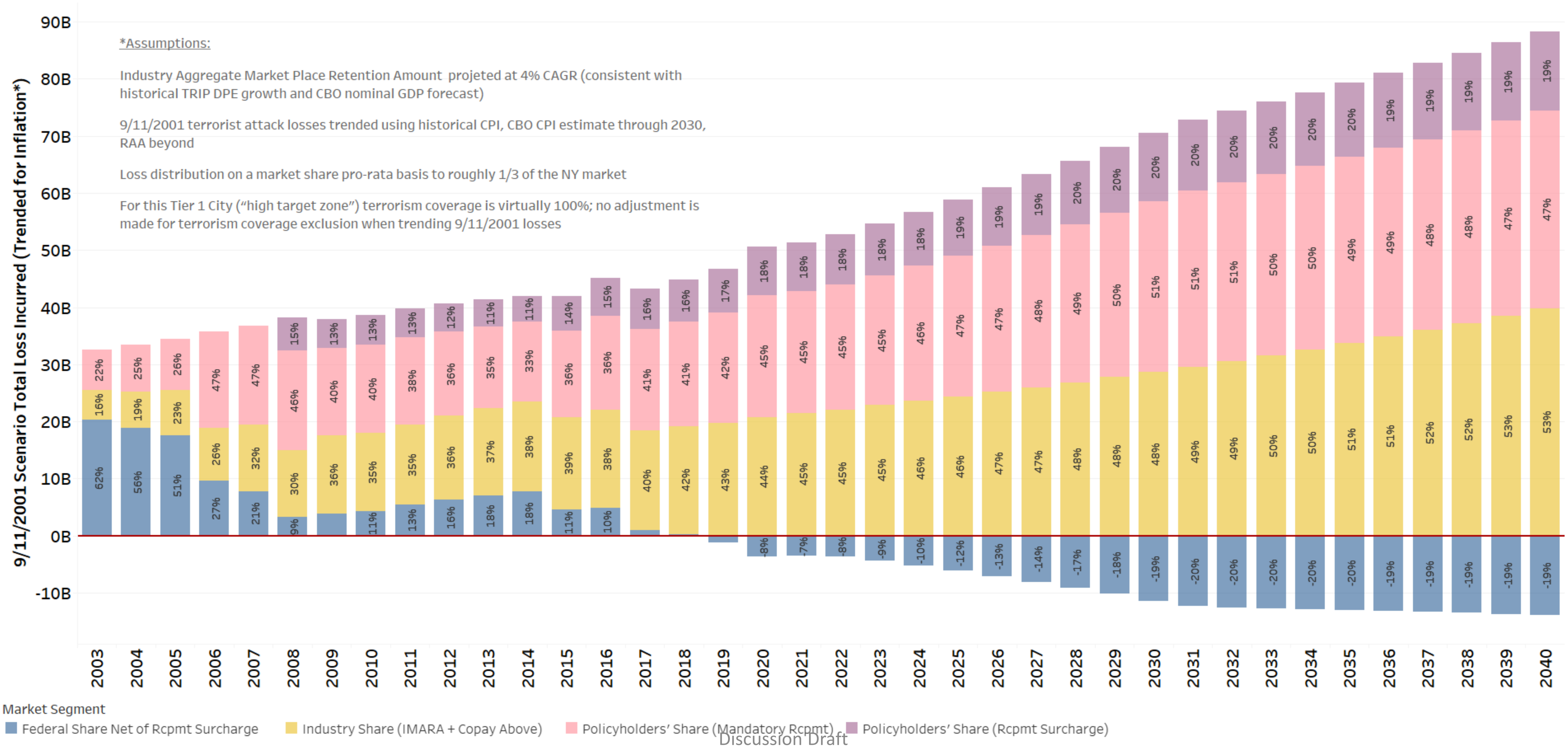
9/11/2001 Attack Scenario Losses by Market Segment Projected Under Clean Reauthorization of Existing Law



Discussion Draft

Federal Share Erosion 2040 | Federal Share Erosion 2030 | TRIP Parameters 2040 | TRIP Parameters 2030 | Prior Reauthorizations | Clean Reauthorization | 9/11 by Segment | Scenario Generator User Def... | Loss Alloc User Defined | Legislative Outcomes User D... | Legisl

The Current Program Expires 12/31/2027

- TRIP was extended through 12/31/2027 with the passage of the Omnibus Fiscal Spending Bill on 12/20/2019, which included a clean reauthorization of the existing program

- TRIP is critically important in providing market stability and without it, a functioning insurance market for terrorism risk would not exist

- Certain issues and program features should be studied in the future

- Any recommended changes or solutions resulting from the studies can be made in any future reauthorization of the program

Program Cap

- Key feature of TRIA that enables insurers to underwrite and price risks that have the potential for extreme levels of catastrophic loss
- From initial passage in 2002 to present, $100 billion of total industry insured losses for all acts of terrorism within a single calendar year
- Not indexed, so cap has become increasingly relevant
- Future Concern: As IMARA increases and cap remains, more risk placed on industry and policyholders. With 140% mandatory recoupment surcharge, more risk placed on policyholders
- Recommendation:
  - Mandate Treasury study on potential implications of a change in the cap, including whether: (i) there should be a separate cap for NCBR and/or cyber risks; and (ii) investigation into what levels of protection make TRIA most effective (i.e., "working" layer vs. extreme tail risk layers)
  - *Others?*

IMARA

- Previously, IMARA was a fixed amount that increased incrementally, starting at $10 billion in 2002 and increasing to $37.5 billion in 2019
- Beginning in 2020, the IMARA is "the sum of insurer deductibles for all insurers participating in the Program for the prior 3 calendar years . . . ."
- Future Concern: With 4% annual premium growth,[1] the IMARA will be over $58 billion in 2030.
    - All of this would be subject to 140% recoupment
    - Could lead to an increasing number of scenarios in which the government profits from a large-scale terrorist attack.
- Recommendation: Mandate that, with the goals of TRIA in mind, Treasury conduct a study on the appropriate IMARA and whether other aspects of the program should be indexed if IMARA continues to be indexed.
    - *Others?*

[1] 4% is the P&C Compound Annual Growth Rate from 2011-2018 and is also the Congressional Budget Office's nominal GDP forecast

Mandatory Recoupment

- Money that is used to reimburse insurers pursuant to TRIA comes from government's general revenue
- Recoupment is the post-event funding mechanism used to pass on the cost of the backstop to the P&C policyholders
- Mandatory recoupment is implemented below the IMARA by taking the lesser of the IMARA or the aggregate amount of insured losses for the calendar year, and subtracting the total amount of insured losses the backstop did not reimburse (because of the insurer deductible and insurer co-share)
- Discretionary recoupment is available above the IMARA.

Mandatory Recoupment Surcharge

- In the original legislation, there was no surcharge.
- With the 2007 renewal, a surcharge of 33% was added so that the mandatory recoupment became 133% of the amount to be recouped by Treasury.
- The 2015 renewal changed the mandatory recoupment surcharge to 140% .
- <u>Future Concern</u>: As the IMARA grows, there are in increasing number of scenarios in which the federal government would actually make money off of the P&C industry and policyholders after a large-scale terrorist attack.
- <u>Recommendation</u>: Mandate that FIO conduct a study on an appropriate recoupment surcharge and ways to cap the surcharge to avoid situations in which the government profits from terrorist attacks; if FIO concludes that there is no way to avoid situations in which the government profits from certified acts of terrorism under the current CBO scoring, the study can so state, and suggest ways, if any, that Congress might fix this issue.
  - *Others?*

Captive Insurers Can be Used to Underprice Coverage and to Avoid Deductible

- Treasury has warned that the "*post*-enactment formation or utilization of a captive insurer that will only provide stand-alone, single-risk *TRIA-only* coverage for losses from acts of terrorism raises questions regarding the integrity of the Program," and that an entity considering forming such a captive "should be strongly cautioned and advised against undertaking such proposed action if it is doing so in order to avoid the Act's deductible requirements."[2]

- Treasury also stressed that "a definitive determination of Captive's status and its eligibility for any Federal share of compensation under TRIA cannot occur until a claim for federal compensation is actually made," and that it will pay only if "[n]either the insurer's claim for Federal payment nor any underlying claim for an insured loss is fraudulent, collusive, made in bad faith, dishonest or otherwise designed to circumvent the purposes of the Act and regulations.[3]

[2] Interpretive Letter, March 2, 2004.

[3] Interpretive Letter, October 19, 2006.

Captive Insurers Can be Used to Underprice Coverage and to Avoid Deductible

- **Future Concern**: Even if not designed specifically to avoid the deductible, a corporation can use a captive insurer to shift most of its terrorism risk to other policyholders in the P&C market, which would have the effect of decreasing premiums below market price, further reducing their deductibles; . *See* illustration on the following slide.

- **Recommendation**: Mandate that Treasury conduct a study to examine possible ways to close this loophole to prevent accidental or intentional abuse of TRIA, including but not limited to calculating deductibles from a number other than Direct Earned Premium for captive insurers that are not part of an insurance holding company system, such as:

  - **Earned Revenue**: Since TRIP deductibles for insurance company are based on (i) earned premium of (ii) its affiliate group, one suggestion would be the base the deductible for a captive company on (i) earned revenue of (ii) the ultimate parent. The percentage of this number may need to be much lower than 20% (the percentage of Direct Earned Premium charged as a deductible to P&C insurers) and other adjustments may be necessary as well to arrive at a fair deductible for captive insurers.

  - *Others?* methodologies could be explored, such as charging a percentage of policy limits, total insured value, etc.

NBCR Captive vs. Traditional Insurance Example

2019 Loss: Single NBCR Captive Example	
NBCR Captive	
Loss Limits/Policy Limits	5,000,000,000
Captive's Premium at 2% ROL	100,000,000
TRIP Max Deductible	20,000,000
Concentrated Loss Scenario	
Loss Amount (Total Policy Limits)	5,000,000,000
TRIP Applied Deductible	20,000,000
Captive's Copay Above Deductible	996,000,000
2019 IMARA	37,500,000,000
Federal Share	3,984,000,000
Federal Share Discretionary Recoupment	-
Federal Share Mandatory Recoupment	3,984,000,000
Recoupment Surcharge	1,593,600,000
Total Assessment to Policyholders	5,577,600,000
Total Insurers' Share	1,016,000,000
Total Federal Backstop	-
Total Loss Incurred	6,593,600,000

2019 Loss: Syndication of Traditional Insurers Example				
	Insurer 1	**Insurer 2**	**Insurer 3**	**Total Insurers**
Loss Limits/Policy Limits	2,000,000,000	1,500,000,000	1,500,000,000	5,000,000,000
TRIP Lines DPE Nationwide	12,500,000,000	10,000,000,000	8,000,000,000	30,000,000,000
TRIP Max Deductible	2,500,000,000	2,000,000,000	1,600,000,000	6,100,000,000
Concentrated Loss Scenario	**Total Insurers**			
Loss Amount (Total Policy Limits)	5,000,000,000			
TRIPApplied Deductible	5,000,000,000			
Captive's Copay Above Deductible	-			
2019 IMARA	37,500,000,000			
Federal Share	-			
Federal Share Discretionary Recoupment	-			
Federal Share Mandatory Recoupment	-			
Recoupment Surcharge	-			
Total Assessment to Policyholders	-			
Total Insurers' Share	5,000,000,000			
Total Federal Backstop	-			
Total Loss Incurred	5,000,000,000			

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Cyber Coverage

- 2016 Treasury guidance stated:
  - Insurance lines regulated under TRIP that include cyberrisks are subject to the program
  - Stand-alone cyber liability policies are also subject to the program

- Future Concern: There are certain elements of cyber risk that Treasury did not contemplate at the time regulations were promulgated
  - As TRIA currently only covers damage within the U.S. except for some specific exceptions and cyber could impact U.S. interest in many areas outside the U.S., how would TRIP deal with unique situations in which cyber operations are be conducted from remote locales and occur outside the U.S., yet still have an impact on U.S. interests (*e.g.*, NotPetya)?
  - How would delays in attribution affect certification timelines?

- Recommendation: As part of an upcoming TRIA Effectiveness Study, Treasury could review the following cyber related issues and how they impact TRIA coverage and the evolving cyber market.
- (The topic areas on the following page are for the subcommittee to discuss and determine whether they should be put forth for further consideration and recommendation.)

Possible Areas to Study within Cyber

Treasury could study the following cyber related items and
how they impact TRIA coverage and the evolving cyber market:

- Explore the various types of cyber operations and how they occur
- Identify the various types of economic loss associated with cyber operations
- Examine the effects and severity of cyber operations and the potential impact on certification
- Consider whether being unable to determine intent or attribution could impact certification
- Consider how certification would work for events occurring outside the U.S. that impact U.S. citizens and U.S. companies
- Review current definitions of cyber liability and insured loss to ensure intended scope of coverage
- Explore aligning definitions of terrorism across various federal agencies
- Consider the impact war exclusions have on cyber coverage under TRIA
- Review the current certification regulations to determine if adequate transparency and certainty exists

NBCR Coverage

- FIO Report Conclusions

  - There are various exclusions / limitations to coverage under many insurers' terrorism risk reinsurance, typically for exposures at particular locations and more generally for NBCR risks

  - Because many insurers exclude NBCR risks under P&C policies (except Workers Compensation), the amount of direct insurance coverage for such risks may be substantially limited

  - Regardless of the amount of direct coverage available for NBCR exposures, it is less likely to be supported by private reinsurance than conventional terrorism

  - Primary Workers Compensation policies are required by statute to provide coverage for terrorism risk, and thus the effective take-up rate for this line is 100 percent

NBCR Coverage

- Efficacy of Private Market Capital for Terrorism

Total Private Industry Capital

Estimated $779B[3] P&C U.S. (Re)insurance Dedicated Capital

Estimated $440B[4] Global Reinsurance Dedicated Capital

Estimated $120B - $140B[5] North American Reinsurance Dedicated Capital

Source: Guy Carpenter

Large Loss Scenario Consideration

September 11, 2001

- $46.3B (2018 dollars)

Largest Modeled Conventional Terrorism Losses[1]

- 10-ton Truck Bomb $44.8B (Los Angeles)

RMS Modeled NBCR Losses > 100B[1]

		Largest	
• Nuclear Detonation	(77)	$625B	(New York)
• Biological (Anthrax)	(282)	$508B	(New York)
• Chemical (Sarin Gas)		$ 15B	(Chicago)
• Radiological	(9)	$108B	(New York)

Notes:

1. Modeled in RMS v18, Occurrence loss figures assume 60% Property Take-Up Rate and 100% for Workers Compensation among commercial insureds.
2. All other lines of business: Life, Liability, Business Interruption etc., are excluded from these figures
3. Industry capital figures presented assume 100% 12/31/2018 of capital available, or deployed, to cover terrorism. In reality, many (re)insurers – particularly capital/convergence markets – have limited appetite to write terrorism
4. Est. dedicated capital figure is a joint estimate with A.M. Best; includes capital dedicated to both P&C and L&H lines
5. Estimated capital for North American P&C lines estimate uses current ceded premiums as the base level

The (Re)insurance industry with the support of TRIRPA is adequately capitalized for most conventional attacks - but not adequately capitalized to support large NBCR Losses

NBCR Coverage

- Future Concerns:
  - As time goes on, there is an increasing likelihood of an NCBR event exceeding the $100B cap, resulting in a greater portion of such event being uninsured
  - Aggregation risks presented by terrorism in conjunction with difficulty in modelling potential from NCBR exposure from both frequency and severity standpoint = limiting factor on development of private reinsurance capacity
- Recommendation:
  - Explore whether bifurcation of the cap, IMARA, and deductibles for NCBR is appropriate and, if not, how to address growing uninsured NCBR risk above the $100B cap
  - Explore and analyze NCBR fire following laws and exclusion/inclusion statistics based on TRIP Data Call to further the understanding of what portion of NCBR modeled losses may be insured and uninsured (by state)
  - *Others?*

Lack of Prefunding Mechanism

- No upfront premium or charge means some insurers struggle with how to price terrorism risk fully and appropriately
  - Erodes ability to adequately convey pricing signal for risk
  - Negatively impacts ability to effectively communicate benefits of mitigation
- FIO/Treasury are left to administer TRIP without benefit of full risk and pricing information = difficult to assess required changes and respond appropriately after large event
- <u>Future Concern</u>: Acknowledging the established funding mechanism will not change in the near term, how can FIO & Treasury administer TRIP effectively and facilitate the private market's understanding of terrorism risks and mitigation benefits?
- <u>Recommendations</u>
  - Invest in FIO staffing, including small dedicated analyst team focused on terrorism risk modelling, with budget and scope allowing for the pursuit of modelling partnerships with private industry and foreign governments.
  - Collect from participating insurers data on exposure and mitigation efforts
  - Explore ways for U.S. Treasury to facilitate risk transfer to global risk markets, including the effect pre-funding mechanisms might have on such risk transfer.
  - *Others?*

Certification Process

- To facilitate economic recovery, need a definitive determination whether an act of violence amounts to an act of terrorism
- However:
  - No prescribed time period for a decision; and
  - No requirement or timeframe in which Secretary of Treasury must declare that a particular act is *not* an act of terrorism
- Treasury conducted study and published interim final rule in 2016:
  - "it would not be prudent to adopt . . . a timeline that includes strict deadlines"
  - Reasoning: (i) investigation could take months or even years and (ii) insurance losses may take substantial time to develop
- Future Concern: Economic and insurance market instability may resurface post-event, counter to TRIP's Goal #2
- Recommendation: Explore resolution of certification process with FIO administratively rather than legislatively

Availability and Affordability

- Previous studies have been mandated on availability and affordability of coverage for: “group life coverage” and NCBR (2005 extension); “specific markets” (2007 reauthorization); and small insurers, including State workers compensation carriers (2015 reauthorization).
- 2015 Reauthorization also mandated GAO study on: (i) viability and effects of assessing and collecting upfront premiums; and (ii) creating capital reserve fund (GAO-17-62)
- Current S.2877 calls for study on availability and affordability of coverage for “houses of worship”
- Perhaps expand the study called for under S.2877 to include non-profit charitable organizations organized under IRC s. 501(c)(3)