Texas Hurricane Risk

TWIA II Concept

Step 4: TWIA II Conceptual Outline

As the title indicates, there are several steps ahead of what is being presented. For review, here are the three prior steps:

Step 1: Realize we have a problem with TWIA.

The core problem is that the Texas Windstorm Insurance Association (TWIA) does not have the claims capacity to handle its mission of protecting policyholders from the perils of wind and hail in its operating territory (essentially the Texas Gulf Coast counties).

Step 2: Understanding the Dimension of the TWIA Claims Funding Shortfall.

The size of the problem is defined as the gap between the modeled loss estimate verses the claims funding capacity of the insurance facility. The historical “Storm of Record” is the Category 4 strength hurricane that impacted just south of Galveston, Texas on September 8, 1900. The current modeling of a similar storm strike would cause approximately $100 billion of total damage and a claims impact to TWIA of $6.6 billion (May 2012). The claims funding of TWIA, looking ahead to the start of the 2013 hurricane season, is expected to be $1.8 billion (assumes Class 2 TWIA post-event bonds are marketable). This creates a potential claims shortfall in excess of $4 billion which would result in a massive default of claims payments owed to TWIA policyholders.

Step 3: Understanding the Risk of an Insolvent TWIA to Texas.

Property insurance provides security to both the property owner and to the mortgagee. The entire TWIA service area would be impacted by the collapse of the insurance entity due to bank requirements to protect loan collateral. The community directly damaged by the storm would be stalled in its recovery due to lack of expected claims payments. A strong secondary economic impact to the entire State of Texas would result because the coastal region is 37% of the state’s total economic output and has important industrial and transportation facilities upon which much of the state economy has dependence.

Please stop and discuss these three prior steps if you have not reached the same conclusion.

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Step 4: TWIA II, A Replacement for the Texas Windstorm Insurance Association

This is only a conceptual outline. Neither of the authors, Dave Norman or David Crump, have the technical staff to provide more than a basic conceptual outline. The outline is intended to be considered as a whole and as a start to the more detailed policy work that will be needed. While we see the whole as much greater than the individual parts, we also see value in the individual components. Our intent is public service. We welcome any productive use of our ideas.

Dave Norman & David Crump started corresponding in December of 2011. Both of us continue to be alarmed at the danger to Texas of an insecure insurance facility and the economic damage that would occur with the default of the Texas Windstorm Insurance Assoc. We both see this as a risk to the economy of the entire State of Texas. We both are challenged by our ethics as insurance professionals to communicate our concern on the potential insolvency and resulting default of claims payments to policyholders of TWIA in the event of a major hurricane strike on either of our two main economic concentrations on the Texas Coast, the Galveston or the Corpus Christi areas.

This TWIA II conceptual outline originated as David Norman and I found common cause and found that the solutions that we individually envisioned were complimentary. The project was set aside in January 2012 because we knew we did not have the capability to provide a fully rendered plan and that the first task was communicating the problem, its dimension and the risk to Texas (see Steps 1, 2 & 3). The current collapse of the TWIA funding structure, as we approach the 2013 hurricane season, caused us to relook at our TWIA II outline, recognize its value and make the choice to pass it forward.

Why a replacement instead of a revision of the current Texas Windstorm Insurance entity?

TWIA is currently being targeted for the continuing lawsuits from the mis-handling of claims from Hurricanes Ike & Dolly in 2008. It is being drained of resources to meet these lawsuit settlements and defense costs. There is no hope of saving the current financial structure with the funds being stripped to pay these legal costs. A legally new entity is necessary to step past the liability from these past actions.

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Organization Improvements

1. Agent Commission
    a. New Business Commission – 16% (no change)
    b. Renewal Commission – 10% (reduction)
        i. Rational – An agent's work is front loaded to initiate the contract and justifies a higher first year commission. An agent's work continues after the first year but the workload is lower. A 10% service commission is industry standard. The lower renewal commission cost to TWIA improves surplus generated from premium by reducing costs. Estimated cost savings is $20 million.*

2. Write Your Own / Adjust Your Own Windstorm Insurance
    a. Modeled after the National Flood Program. Property insurers can participate in originating, administrating and claims assessment for TWIA policies in exchange for a management fee.
        i. Rational – Sales agents for participating insurers could coordinate coverage for both homeowners and windstorm policies. The

windstorm / hail peril insurance would then be an integrated part of the overall house insurance program offered.

ii. Reduced administration burden and claims handling burden for TWIA (cost neutral due to management fee).

iii. Claims handling is spread to originating companies which reduces surge claims handling load (claims are still submitted to and paid by TWIA, insurers are paid a fee for adjusting the windstorm claim component). Efficiencies are gained as one company's adjuster handles the overall claims assessment for the insured over all insured lines. Many larger insurers have special Catastrophe Claims teams that would provide the surge capacity need to handle a large hurricane claims event.

Risk Reduction

1. Change of Evaluation Rental & Secondary Occupancy Dwellings

   a. Actual Cash Value for Dwellings that are not primary owner occupied

      i. Rational – Primary focus on the TWIA program is providing a residual market for homeowners and not for landlord owned properties or properties that are second homes. Removal of replacement cost evaluation reduces coverage being offered (a risk reduction for TWIA) while still providing a needed residual market for these rental & secondary dwellings

2. Change to Additional Living Expense Coverage

   a. ALE Homeowner Coverage – Maximum of 20% of dwelling amount for duration of no more than 12 months. This is included coverage.

        i. Rational – Providing short-term added living cost for homeowner's is a core goal but has to have a realistic limitation.

    b. ALE Rental Dwelling – Maximum of 10% duration of up to 12 months available for loss rental income as optional added cost coverage.

        i. Rational – Protection of landlord rental income is not a core goal. Offering this protection as an optional added cost module that offsets the added risk to TWIA can be important in helping the small scale landlords.

3. Incentive for Private Market voluntary re-entry / Reduction in Bond Purchase Requirement

    a. Licensed Property Insurers are obligated by the revised financial structure to buy bonds needed for catastrophic loss to TWIA. The percentage of this assessment to buy bonds is based on total Texas market share of property insurer.

    b. The bond purchase requirement is reduced by properties insured with the hurricane risk area (as defined by TWIA, generally within 30 miles of the coast). The obligation is reduced in proportion to the difference between statewide market share and market share in hurricane risk area. If an

insurer has a market share in the hurricane risk area equal or greater than their overall market share statewide, the insurer's obligation to purchase catastrophic bonds is eliminated.

4. Increase Surcharge for Buildings that are not Current Building Code Compliant. Current surcharge is 15%.

    a. Increase Surcharge to 18% with two year warning. First stage 1/1/2016.

b. Increase Surcharge to 21% with additional two year warning. Second stage 1/1/2018

c. Increase Surcharge to 25% with additional two year warning. Third stage 1/1/2020

   i. Meeting current International Building code for hurricane risk areas substantial improves building damage outcomes to high wind speed events. This reduces the loss risk for TWIA.

   ii. Providing ample warning of surcharge increases and stepped plan encourages retro-fitting in advance of surcharge increases.

   iii. This is a market-based mechanism. A higher price reflects the higher risk of insuring properties that are not updated into compliance for windstorm events.

<u>New Financial Structure</u>

1. Primary Financial Structure – Goal is to handle the “normal” hurricane wind / hail risk from direct TWIA premiums. “Normal” is defined as a Category 3 hurricane strike Probable Maximum Loss (modeled 75% percentile expected losses) of greatest point of vulnerability (Galveston) or $2.5 billion whichever is greater plus adjustments for growth.

   a. Current Surplus from Operations – TWIA Premium rates must generate sufficient surplus beyond normal wind/hail losses of $100 million + growth and payment of Pre-Event Bond (principle repayment of $100 million per year plus interest). Any excess surplus transferred to CTRF.

      i. Rational – TWIA revenues must produce enough surpluses to handle their 20 year expected claims risk including up to a Category 3 hurricane strike and recover. Current Probable

Maximum Loss for a Category 3 hurricane strike at greatest point of vulnerability (Galveston) is approximately $2 billion. Hurricane Ike (very large Cat. 2 storm) inflicted $2.3 billion losses.

b. CTRF - Catastrophic Insurance Fund – This is TWIA's reserve funds to handle a "normal" hurricane risk event. Minimum balance is $2 billion. Pre-event bonds are used to restore funding to $2 billion if needed. Pre-event bonds are financed over up to 20 years and repaid by TWIA premium.

    i. Pre-Event Bond of $2 billion / 20 year repayment for initially funds beyond current balance. Expected cost is $158 million per year (amortization assuming 5% interest rate). Some of cost is off-set by interest earnings on balance held in CTRF. An annual return of 2% on $2 billion balance is approximately $40 million. Net cost equals approx. $118 million per year.

        1. Rational – Normal storm strike frequency is roughly every twenty years. A 20 year term matches that frequency and allows the cost to be spread out over time. Front-loading the CTRF provides liquid first strike protection and is a core goal of TWIA.

    ii. Pre-Event Bond to restore balance of $2 billion. In the event of a major loss reduces the CTRF balance below $2 billion, a new series of bonds is sold replacing the current bond and resetting the payoff up to 20 years. TWIA premiums would be adjusted as necessary to handle the new bond with a minimum principle of $100,000 payment per year plus interest.

        1. This replaces the current post-event bonds public securities and off-sets the need for annual re-insurance purchases (cost of re-insurance of $636 million treaty in 2011 was $100 million*).

        2. Rational – Normal storm strike frequency is roughly every twenty years (rate of return for a Category 3 or higher hurricane strike on Galveston is 18 years per NOAA / Historical record is 7 Category 3 hurricanes [8 if you count Ike 2008] in past 160 years). A 20 year term matches that

frequency and allows the cost to be spread out over time. Keeping the CTRF front-loaded provides liquid first strike protection which is a core goal of TWIA. Resetting the bond provides a mechanism needed to keep the CTRF loaded with sufficient funds.

3. TWIA is always making at least $200 million in financial headway each year without a hurricane strike ($100 million amortization on pre-event bonds plus $100 million normal surplus contributed to CTRF from current operations).

2. Catastrophic Financial Structure – Goal is to handle the catastrophic hurricane wind/hail loss from a major hurricane strike in excess of a Category 3 hurricane on a contingency basis. A hurricane strike of this magnitude is infrequent but we need to have structure in place to cope with it. Minimum Target for TWIA Catastrophic Financial Structure, with the Primary TWIA financial structure, is to handle a Category 4 hurricane strike Probable Maximum Loss at our point of greatest vulnerable (Galveston). Current PML (75% percentile expected loss) is $6.6 billion for this level event (plus growth). Given the range of such an event or a very unlikely but still possible Category 5 hurricane strike, the catastrophic structure needs to have a substantial capacity available. With a substantial primary fund providing a large threshold, the Catastrophic Financial Structure will only trigger in the most severe hurricane strike events (large category 3 and above hurricane strikes to areas of maximum vulnerability).

   a. Post-Event bonds would have a rate of interest sufficient to make them make them competitive in a secondary public securities market.

   b. Post-Event bonds with maximum term of 20 years repaid by premium surcharge of Texas property policies

c. Bonds are purchased directly by Texas Property Insurers based on percentage of market share (less credits for “take-out” program). Bonds can then be resold on the public securities markets.

d. Post-Event bond authority is up to $5 billion + growth.

   i. Risk of a true catastrophic hurricane strike is spread statewide after a substantial threshold. Risk is spread based on policy surcharges to property policies needed to pay the bonds interest & principle.

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Risk of such losses is also spread overtime with maximum 20 year term. Guaranteed market for bonds with requirement for insurers to buy them as requirement of offering property insurance in Texas provides guaranteed liquidity. Bonds can be resold as public securities to speed recapitalization of insurers.

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