

USGS's Increase of Texas's Earthquake Risk Level: Commercial Real Estate and Insurance Implications

By James Lloyd, Vincent Morgan, Adam Weaver and Tamara Bruno

Before 2008, the greater Dallas Fort Worth area, known as the Fort Worth Basin, was almost entirely void of seismic activity. Between 1950 and 2008, the only seismic activity on record was an insignificant event that experts could only agree “might” have been an earthquake. Recently, however, seismic activity in the Fort Worth Basin has increased significantly, with more than 120 earthquakes recorded in the region since 2008. Although the cause of this increase in earthquakes has not been determined, some suggest that hydraulic fracturing (or “fracking”)—the high-powered injection of millions of gallons of fluid into deep reserve wells—has induced these tremors. For example, a February 20, 2015, article in Science Magazine argues that the large influx of seismic activity in the mid-continent, including the Fort Worth Basin, is due to “fluid-injection activities used in modern energy production.”

This increase in seismic activity in the Fort Worth Basin, regardless of cause, will likely lead to a rise in the official earthquake risk level for the Fort Worth Basin when the United States Geological Survey (USGS) releases an updated earthquake hazard map in the coming months. (The USGS is a scientific organization within the U.S. Department of the Interior that provides information on the environment and any natural hazards that threaten the environment.) The USGS has created the National Seismic Hazard Map based on scientific estimates of locations and sizes of future earthquakes. The risk of future earthquakes is shown on the map as the peak acceleration, expressed as a fraction of standard gravity that ranges from 0 (no risk) to 0.8 (severe risk). The risk of seismic activity for nearly the entire state of California is between 0.4 and 0.8, while Texas's current risk is generally between 0.02 and 0.04. This map and the USGS's estimates of seismic risk play a crucial role in determining insurance costs, building codes and lenders' insurance requirements.

Commercial real estate lenders mitigate the risk of potential damage to their collateralized property from earthquakes or other seismic activity in high risk areas by requiring the borrower to purchase earthquake insurance. Because earthquake insurance tends to be expensive and difficult to acquire, however, most lenders conduct due diligence to determine whether the risk warrants this burden. Most often, lenders rely on a probable maximum loss report or “PML.” A PML predicts the probable damage to the structure resulting from a large earthquake in terms of a dollar figure. Lenders usually only require a PML for properties in locations with higher risks of seismic activity, that is, areas with peak accelerations in the range of 0.2-0.8. Based on the results of the PML, the lender can then determine whether earthquake insurance is necessary.

For the Fort Worth Basin, the USGS will likely increase the risk of seismic activity to 0.06 or even as high as 0.1—still below the level at which lenders typically require earthquake insurance. This increase therefore will likely not immediately lead to lenders requiring PMLs or earthquake insurance, as they are still not justified by the seismic risk. However, if seismic activity continues to rise, then so, too, will the USGS seismic risk which may make these procedures necessary in the coming years. Borrowers and property owners in the Fort Worth Basin can look to the recent seismic development of the greater Oklahoma City area as an example of what the future may hold. In 2014, Oklahoma replaced California as the earthquake capital of the United States by recording 562 earthquakes with a magnitude of 3.0 or higher, three times as many as California. Due to this increase, the Oklahoma City area has seen its USGS seismic risk dramatically increase from around 0.14 in 2008 to 0.3 and even 0.4 in some areas. This increase in the USGS seismic risk levels has made PMLs and earthquake insurance more common in the Oklahoma City area and property owners in the Fort Worth Basin can expect the same if seismic risk levels in Texas continue to escalate in coming years.

Even if the increase of seismic activity in the Fort Worth Basin is unlikely to have an immediate effect on lending requirements, commercial borrowers and property owners need to understand earthquake insurance issues to avoid unexpected responsibility for seismic activity-related property damage or even loan default.

Most commercial property insurance policies exclude coverage for “earth movement.” Depending on the policy’s terms, this may include earthquake, landslide, mudflow, mine subsidence, earth sinking, and/or earth rising or shifting. Further, these policies only insure business interruption loss if there is covered property damage. Many policies also include “anti-concurrent causation” provisions that attempt to exclude coverage for damage caused by both an excluded peril (such as earth movement) and a covered peril (such as, for example, negligence). Texas borrowers and property owners could therefore find their insurance claims denied or reduced on the basis of earth movement exclusions if their insurers believe seismic activity contributed to their property damage.

Borrowers and property owners can purchase an endorsement to their commercial property policy that adds back coverage for “earth movement,” or a standalone earthquake policy. The increase in Texas’s seismic risk level may raise premiums for earth movement coverage; however, such premiums are generally affordable in Texas because the risk remains relatively low. Deductibles for earthquake coverage are usually set at somewhere between 2 to 20 percent of the covered property’s value.

However, standard-form earthquake insurance itself does not guarantee protection from losses in the event of Texas seismic activity. Some courts have distinguished between man-made and naturally occurring earth movement, finding that only naturally occurring “earth movement” qualifies as such under policy coverage grants or exclusions. Disputes about whether fracking and injection wells are causing increased seismic activity in Texas could lead to disputes about whether resulting damage is covered, excluded or subject to different terms such as sub-limits of liability. Texas courts have not faced an issue of insurance coverage for seismic activity that may or may not be “naturally occurring.” However, insurers’

responses to Oklahoma City policyholders' claims preview what Texas policyholders might expect. In March 2015, the Oklahoma Insurance Commissioner issued a bulletin stating that fewer than 10 percent of Oklahoma earthquake claims filed in 2014 had been paid and expressing concern that insurers are denying claims under exclusions for man-made damage "based on the unsupported belief that these earthquakes were the result of fracking or injection well activity." Insurance coverage for loss from Texas earthquakes will likely depend on a number of variables, including (i) developments in the study of these earthquakes, (ii) theories and outcomes of lawsuits seeking liability or coverage for allegedly fracking-related earthquakes, and (iii) differences and developments in policy language relating to earthquake loss.

This uncertainty raises a particular problem for commercial borrowers. If the collateralized property sustains damage from seismic activity, it is important that insurance on the property provides sufficient coverage for loss from different causation theories. If the claim is denied or limited, the lender may even declare a default because either (i) the borrower did not obtain the requisite insurance or (ii) the financial impact on the borrower as a result of such denial of coverage results in the borrower being unable to satisfy financial and property covenants under the loan documents. Borrowers should ensure that the scope of coverage and specific terms of any property and earthquake insurance are adequate and approved by the lenders prior to the closing of the loan.

Seismic activity is a new and increasing reality for Fort Worth Basin borrowers and property owners. It is important to understand the risks relating to earthquake damage—and how to protect against those risks—before it occurs.

If you have any questions about earthquake insurance and related lending requirements, please contact the Pillsbury attorney with whom you regularly work, or the authors below.

James S. Lloyd [\(bio\)](#)
Houston
+1.713.276.7607
james.lloyd@pillsburylaw.com

Vincent E. Morgan [\(bio\)](#)
Houston
+1.713.276.7625
vince.morgan@pillsburylaw.com

Adam J. Weaver [\(bio\)](#)
Houston
+1.713.276.7670
adam.weaver@pillsburylaw.com

Tamara D. Bruno [\(bio\)](#)
Houston
+1.713.276.7608
tamara.bruno@pillsburylaw.com

About Pillsbury Winthrop Shaw Pittman LLP

Pillsbury is a full-service law firm with an industry focus on energy & natural resources, financial services including financial institutions, real estate & construction, and technology. Based in the world's major financial, technology and energy centers, Pillsbury counsels clients on global business, regulatory and litigation matters. We work in multidisciplinary teams that allow us to understand our clients' objectives, anticipate trends, and bring a 360-degree perspective to complex business and legal issues—helping clients to take greater advantage of new opportunities, meet and exceed their objectives, and better mitigate risk. This collaborative work style helps produce the results our clients seek.

This publication is issued periodically to keep Pillsbury Winthrop Shaw Pittman LLP clients and other interested parties informed of current legal developments that may affect or otherwise be of interest to them. The comments contained herein do not constitute legal opinion and should not be regarded as a substitute for legal advice.

© 2015 Pillsbury Winthrop Shaw Pittman LLP. All Rights Reserved.