



# Did Home Equity Restrictions Help Keep Texas Mortgages from Going Underwater?

By Anil Kumar and Edward C. Skelton

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**T**he bursting housing bubble heralded the onset of the Great Recession in December 2007, bringing record post-war joblessness and long-term unemployment. As house prices sharply declined, so did home equity, an important source for funding consumer spending. Many homeowners discovered their mortgages were “underwater”—they owed more than their houses were worth. A rising incidence of such negative equity helped produce soaring mortgage default rates and foreclosures.

In Texas, the story was different. The Federal Housing Finance Agency house price index fell less than 1 percent in Texas from its peak in 2007 to its trough in 2011, while it plunged 20 percent nationally (*Chart 1*). With relatively stable house prices in Texas, the incidence of underwater mortgages was a fraction of what occurred in hard-hit states such as California, Florida, Arizona and Nevada. Even among subprime borrowers—those consti-

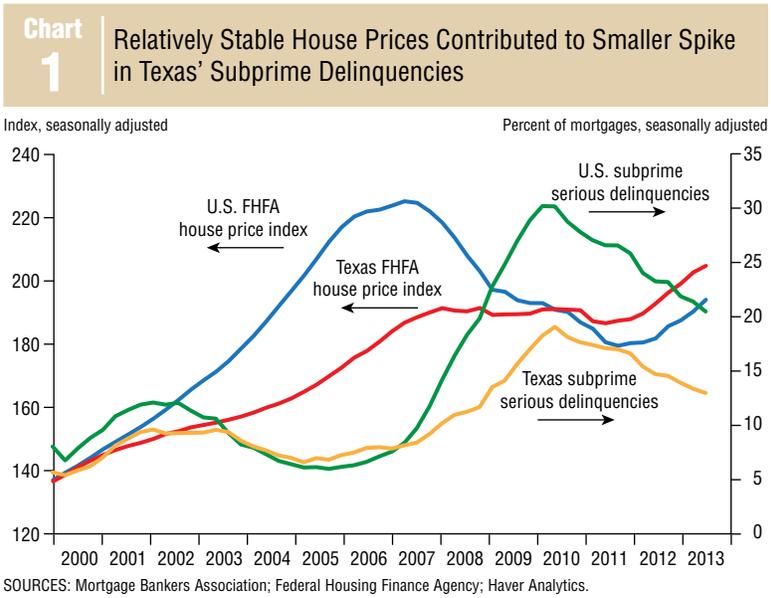
tuting the greatest credit risk—Texas default rates remained well below the national average during the recession and subsequent tepid recovery.

The Texas experience presents an important case study, in part because of a unique state law. Texas is the only state with a regulation limiting home equity borrowing. After purchase, mortgage debt along with any new borrowing—including home equity loans—cannot exceed 80 percent of a home’s market value unless the new debt funds home improvements.

Consequently, the state has lower levels of “cash-outs”—owners taking money out of their houses during a re-financing. Through the boom, the rates of mortgage debt growth and consumer spending in response to house price appreciation were more restrained in Texas. And during the downturn, the state’s cap on home equity borrowing may have also helped homeowners avoid incurring negative equity and, with it, the excessive mortgage default rates that occurred elsewhere.

There has been little research that statistically analyzes the role of the home equity regulation in keeping underwater mortgages, default rates and foreclosures in Texas below the national average. Understanding the impact of the state’s restrictions on home equity borrowing may aid policymaker efforts to protect consumers and rein in risky lending practices that led to the mortgage and financial crises.<sup>1</sup>

Two additional factors have been widely cited to explain the Texas soft landing amid the Great Recession. First, house price expectations were less exuberant in the early to mid-2000s, as Texans recalled the significant correction in the late 1980s that followed the mid-1980s oil price bust.



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Second, during the recent housing boom, Texas price pressures were more contained than in many other states because of an abundance of land and less-stringent zoning requirements that made it easier to meet demand.

Overall, the state’s relatively stronger economy also played a role, with a smaller rise in the unemployment rate and a shorter downturn.

### Mortgage Debt Growth

Texas homeowners were less aggressive in taking money out of their homes during the 2002–06 housing boom than others nationally, patterns of mortgage debt and house price

growth indicate.<sup>2</sup> Chart 2 plots the growth of mortgage debt and house prices using county-level data constructed from a large consumer credit database assembled by the Federal Reserve Bank of New York.

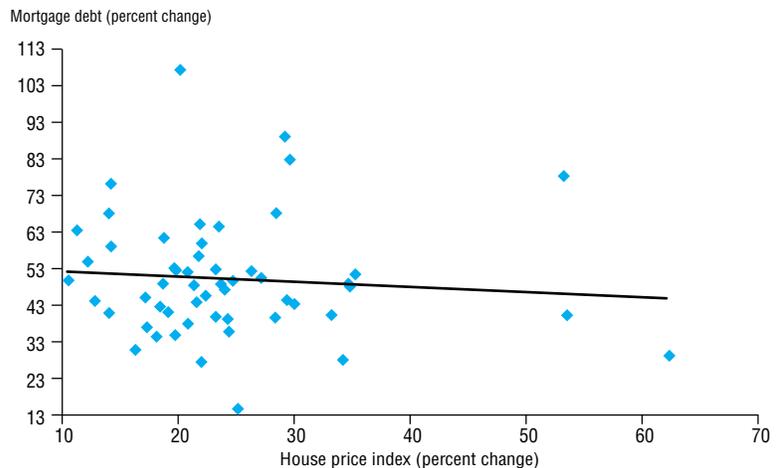
The upward-sloping line overlying the data points in Chart 2A suggests that as house prices rose nationally during the boom, homeowners increased their mortgage debt. On the other hand, the line in Chart 2B for Texas counties has a small negative slope, indicating that Texas homeowners did not increase their mortgage obligations in response to modest house price gains.

**Chart 2** House Price, Mortgage Debt Relationship Holds for U.S., Misses for Texas

#### A. Mortgage Debt Growth Responds to House Price Increases in U.S.



#### B. Little Correlation Between Mortgage Debt, House Prices in Texas



SOURCES: Authors’ calculations based on Federal Reserve Bank of New York Consumer Credit Panel/Equifax data.

## Texas' Home Equity Regulations

Under the 1876 Texas Constitution, residents could only borrow against the equity in their home for improvements (see “Texas’ Homestead Exemption Evolves Through the Years”). Aside from very limited exceptions, cash-out refinancings were prohibited. The only reliable way to get money out of a house was to sell it.

A 1997 constitutional amendment allowed closed-end home equity loans—an obligation to repay by a specified date—but the loan plus the primary mortgage could not exceed 80 percent of the value of the home.<sup>3</sup> Although such lending increased after 1997, the state’s regulations capping home equity extraction are believed to have played an important role in helping the state navigate the post-2007 mortgage crisis. Homeowners in many states, meanwhile, extracted a significant portion of their house price gains during the housing boom.

## Measuring Negative Equity

Before the 1997 amendment, Texans borrowed aggressively when acquiring a house. One way to measure the law’s impact is to see if the mortgage-loan-to-home-value ratio declined. Analyzing a sample of first liens confirms the hypothesis that it did.<sup>4</sup> First mortgages originating in Texas before 1997 had an average initial loan-to-value (LTV) ratio of 86 percent, 9 percentage points higher than in the rest of the nation. Texans, on average, are relatively more credit constrained and need a larger first mortgage to buy a house. But the average initial LTV ratio among mortgages originating after 1997 declined to 80 percent in Texas, and the gap with the nation shrank to 6 percentage points.

The decline in the proportion of mortgages with initial LTV exceeding 80 percent is even more striking since 1997, further suggesting that the reform likely induced Texans to limit their initial loan amount on first mortgages as home equity loans became available (Chart 3).

All else equal, mortgages with a smaller initial LTV ratio are significantly less likely to default. Consequently, the 1997 amendment set the stage for

## Texas’ Homestead Exemption Evolves Through the Years

Texas’ ban on home equity lending was based on the state’s broad homestead exemption, which excluded a portion of a property’s value from property taxes and protected a primary residence from forced sale or seizure as long as mortgage and tax payments were current. The exemption, however, also prevented homeowners from withdrawing equity from their homes.

**1839:** The Republic of Texas passed a prohibition on the forced sale of homesteads for all but a very limited number of reasons. This prohibition was a reaction to the Panic of 1837, when a number of people lost their farms and homes to foreclosure.

**1845:** After joining the United States, Texas enshrined the homestead exemption in the first Texas Constitution. The 1845 Texas Constitution forbade the forced sale of a homestead of up to 200 acres or a value of up to \$2,000. This prohibition continued in the 1861 and 1865 Texas Constitutions. The 1869 Constitution maintained the prohibition and raised the protected value to \$5,000.

**1876:** Initially, the Texas Constitution allowed homeowners to borrow against equity for home improvements. More broadly, a lien could be granted on the homestead to fund:

- The initial purchase or to secure the mortgage.
- Unpaid taxes.
- Home improvements.
- Oweity of partition (to convert to full property ownership from part ownership, most commonly after divorce).
- Refinancing of existing liens plus refinance costs.

The exemption applies to 10 acres for urban homesteads, 100 acres for rural households held by a single adult and 200 acres for a rural homestead occupied by a family. The homestead exemption has no dollar limit.

**1986:** The federal Tax Reform Act of 1986 made home equity loans more attractive by phasing out the tax deductibility of interest paid on other, nonmortgage consumer loans. However, Texas’ homestead exemption precluded such home equity lending.

**1997:** Texas voters passed a constitutional amendment allowing closed-end home equity loans effective Jan. 1, 1998. It stipulated that a home equity loan plus the primary mortgage be less than 80 percent of the value of the home.

**1999:** Another amendment made the guidelines for reverse mortgages consistent with those outlined in federal law. Because of inconsistencies between the U.S. and Texas, reverse mortgages weren’t made in Texas before 2000.

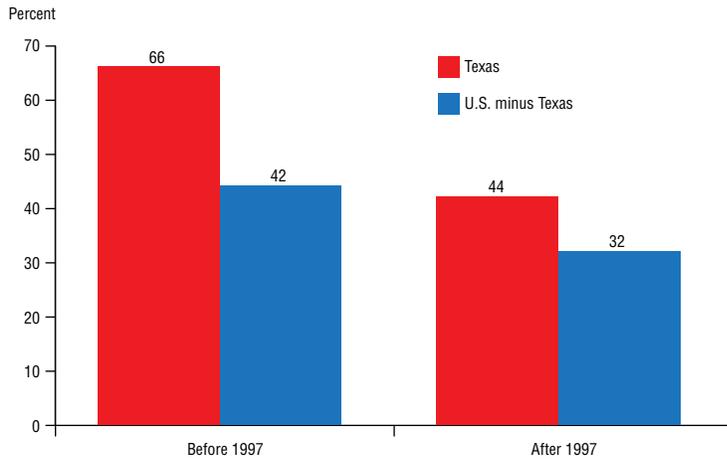
**2003:** Texas voters passed an amendment allowing open-end home equity loans, so-called home equity lines of credit.<sup>1</sup> Total debt secured by the home still cannot exceed 80 percent of a home’s value. Funds from a home equity credit line cannot exceed 50 percent of the value of the home at the time the home equity line of credit is made. Advances must be in increments of \$4,000 and cannot be made via debit card, credit card or preprinted check.

**2007:** Minor revisions in the home equity lending amendment were passed. The changes modified the procedures for obtaining and granting a home equity loan and changed the deadline for designating property as agricultural.

### Note

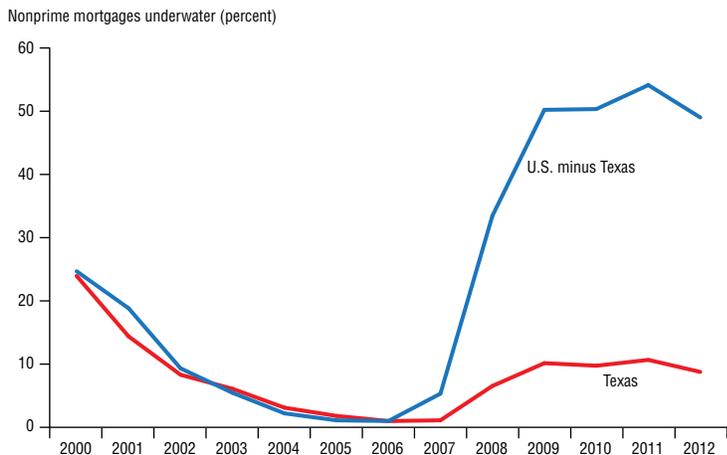
<sup>1</sup> A home equity line of credit works like a credit card. Borrowers can borrow up to a set limit determined by the lender. The loans have a variable interest rate, so payments vary according to the interest rate and amount of credit used.

**Chart 3** Share of Mortgages with Loan-to-Value Ratio Above 80 Percent Dropped in Texas



NOTE: Home purchase mortgages before and after 1997 Texas Constitution change.  
SOURCES: Authors' calculations based on data provided by LPS Applied Analytics.

**Chart 4** As the Housing Bubble Burst, Underwater Nonprime Mortgages Skyrocketed Outside of Texas



SOURCES: Authors' calculations based on data provided by CoreLogic.

long-term benefits to Texans in terms of avoiding a severe housing slump.

### Texas vis-à-vis the Nation

Underwater mortgages are a key factor contributing to default, recent research suggests. Households owing more than a house is worth may engage in “strategic default”—choosing to walk away even though they can still make their payments. Although mortgage balance information was current in the database used for Chart 3, home value data pertained only to the date of pur-

chase. To overcome this limitation, we updated initial home values using monthly house price data by ZIP code compiled by CoreLogic, a financial analytics firm.<sup>5</sup>

When U.S. house prices peaked in 2006, the incidence of underwater first mortgages was less than 1 percent of all first mortgages in Texas and the U.S. The national share of underwater first mortgages reached 12 percent in 2008 and continued climbing before peaking at 27 percent in 2011. That compared with 7 percent in Texas in 2011.

Looking just at first mortgages understates the extent of negative equity because there could be two or more mortgages secured by a house. It is possible for a home to be worth more than the first mortgage but less than all the mortgages combined. Information on all mortgages securing a house is available for nonprime borrowers—a group believed to be at the center of the mortgage crisis.

The gap in the incidence of underwater mortgages between Texas and the rest of the nation among nonprime borrowers is particularly striking (Chart 4).<sup>6</sup>

The proportion of nonprime borrowers underwater in the other 49 states reached a high of 54 percent in 2011, while in Texas it peaked at 10 percent. The depth of negative equity among underwater nonprime mortgages was also significantly lower in Texas. Mortgage debt among Texas' underwater homeowners exceeded the home value by an average 14 percent in 2008 compared with 32 percent for the rest of the country.

The state's restrictions on home equity borrowing cannot be given all the credit for the lower incidence of negative equity in Texas. The absence of a housing bubble in Texas clearly contributed but cannot possibly account for the entire difference. Nationally, borrowers extracting equity from their homes played a major role in pushing homeowners underwater; the 80 percent cap on home-equity-based borrowing in Texas mitigated that urge to pull money out.<sup>7</sup>

### Extracting Home Equity

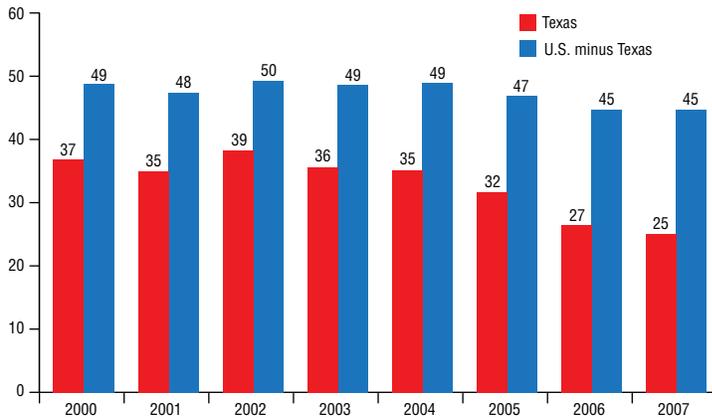
At some point after purchase, home equity consists of three components: initial equity at the time of purchase plus any change in house price since mortgage origination minus any change in mortgage balance since origination. Initial equity is often positive since LTV at origination is typically less than 100 percent. House prices fell sharply after 2006 in many states, eroding much of the 2000–06 boom's home equity gains.

Detailed homeowner-level data on the amount of home equity extracted is not readily available. But a close look at the purpose for which a lender approved

## Chart 5

### Texas Subprime Borrowers Lagged the Nation in Cashing Out During Housing Boom

Subprime mortgages involving cashout refinancing (percent)



SOURCES: Authors' calculations based on data provided by CoreLogic.

a mortgage can shed some light on how much of the house price gains Texans extracted vis-à-vis the nation.

Most mortgages are either for outright purchase of a home or for refinancing into a new mortgage to take advantage of lower interest rates. Many other borrowers refinance to increase their mortgage amount and withdraw accumulated equity in their homes. About half of the subprime mortgages that originated across the nation, excluding Texas, between 2000 and 2006 involved cash-out refinancing. In Texas, this share was much smaller (*Chart 5*).

Texas has a younger population and homeowners with lower credit quality, who typically borrow more aggressively against their home equity. Alone, these factors would imply a higher incidence of cash-out refinancing. The below-average share of such activity among Texas' subprime mortgages lends credibility to the explanation that the 80 percent home equity borrowing cap likely contributed to the lower incidence of negative equity.

#### Likely Mortgage Default Impacts

It is difficult to precisely assess the impact of home equity restrictions on Texas' relatively lower mortgage default rates. The state restriction was in place well before the onset of the housing and mortgage crisis. Additionally, since the

regulation covered all Texans, there is no unaffected group to contrast with those impacted. Comparisons with the rest of the nation cannot fully disentangle the role of the home equity borrowing restrictions because states differ in many other ways.

Nevertheless, at the peak of the housing crisis, the share of subprime mortgages underwater in Texas was 40 percentage points below the rest of the nation, with serious delinquencies among subprime borrowers about 10 percentage points lower. Much of this difference remains even after accounting for such factors as the state's relatively lower unemployment rate, differences in credit scores, smaller house price declines and differences in other demographic and economic factors such as age, sex, race, education and household income.

Rules governing home equity borrowing are not uniform across the U.S., and Texas' rules are significantly more stringent. The data suggest that the tighter regulations in Texas helped keep underwater mortgages and default rates from rising by as much as they did elsewhere. By extension, lower default rates and fewer underwater homeowners might also have helped Texas avoid the subsequent sharp drop in home prices other states experienced.

To be sure, these benefits did not come without attendant costs. Just as the

restrictions helped Texas navigate the housing downturn, the same restrictions could have constrained consumer spending growth during the boom by preventing homeowners from fully tapping their housing wealth. At the same time, this may have helped limit swings in consumer spending. Moreover, the inability to access housing wealth may have driven some credit-constrained Texans to more-expensive credit card debt, unsecured consumer debt or even payday loans. Any estimate of net benefit of Texas' home equity regulations must also account for such costs.

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#### NOTES

<sup>1</sup> Internationally, loan-to-value limits seem to lead to more stable housing markets. See "Cycle-Resistant Credit Systems: Learning from Hong Kong's Experience," by Ying Guan, Jeffery W. Gunther and Sophia Tsai, Federal Reserve Bank of Dallas *Economic Letter*, vol. 5, no. 6, 2010.

<sup>2</sup> For the nation, a recent paper found that every 10 percent increase in home equity caused household borrowing to increase by 5 percent. See "House Prices, Home Equity-Based Borrowing and the U.S. Household Leverage Crisis," by Atif Mian and Amir Sufi, *American Economic Review*, vol. 101, no. 5, 2011, pp. 2132–56.

<sup>3</sup> Closed-end home equity loans usually have a term of between five and 15 years, with a fixed interest rate and the same payments each month.

<sup>4</sup> To confirm the hypothesis, we analyzed a 5 percent random sample of first-lien mortgages from a large database provided by LPS Applied Analytics. The database covers about two-thirds of all installment-type loans in the U.S.

<sup>5</sup> For methodology used, see "Below the Line: Estimates of Negative Equity Among Nonprime Mortgage Borrowers," by Andrew Haughwout and Ebiere Okah, Federal Reserve Bank of New York *Economic Policy Review*, vol. 15, no. 1, 2009, pp. 31–43.

<sup>6</sup> The analysis is performed using a 5 percent sample of a private-label securities database available from CoreLogic. The data mainly consist of approved loans given to nonprime borrowers based on insufficient documentation (subprime) or alternative documentation (alt-A). Unlike the data used for Chart 2, this database does have information on combined LTV on the first mortgage as well as all subordinate liens on the home securing the first mortgage.

<sup>7</sup> See "Recovering from the Housing and Financial Crisis," by John V. Duca and David Luttrell, Federal Reserve Bank of Dallas *Economic Letter*, vol. 5, no. 7, 2010.