Texas Housing on Bumpy Road After Stimulus Effects Fade

By D'Ann Petersen and Adam Swadley

For a large proportion of Texas buyers, the tax credits were not the deciding factor but a perk of buying sooner—a shift that tended to diminish sales following the programs' expiration and weaken the market.

Texas' housing sector remains in the doldrums following demand spikes in 2009 and 2010 aided by the homebuyer tax-credit program. When the federal government first offered the incentive in mid-2008, Texas home sales and construction were in a rapid descent that began with the U.S. housing crisis and accelerated when the state joined the nation in recession. As part of broader housing measures, a series of three homebuyer tax credits sought to reduce bloated inventories and arrest free-falling home values—a condition felt more profoundly at the national level than in Texas.

How effective were the tax credits at stabilizing the troubled housing market? National housing experts have offered wide-ranging estimates of the number of sales the credits spurred, but no such figures exist at the state level. We attempt to measure roughly how many Texas sales occurred as a direct result of the tax credits—and what proportion would have occurred anyway but were accelerated to take advantage of the program. Assuming the shift in purchases was substantial—and we believe it was—we consider how long subsequent sales might be diminished and whether current weakness can be attributed to it.

Our analysis reveals that the homebuyer tax credits, by bringing homeownership more within reach, likely induced a modest share of Texas sales that would not have otherwise occurred. However, a larger proportion of transactions involved buyers already planning to purchase who moved ahead to take advantage of the credits. Of course, some sales would have taken place regardless of the credits in response to relatively low mortgage rates and affordable prices or personal circumstances.

Texas' relatively strong economy may have contributed to sales as well. The state had just entered recession when the first credit was enacted, half a year after the U.S. economy turned down in December 2007. For a large proportion of Texas buyers, the tax credits were not the deciding factor but a perk of buying sooner—a shift that tended to diminish sales following the programs' expiration and weaken the market.

By the time the first credit was enacted in July 2008, house prices had tumbled in some of the hardest-hit states, including California, down 19.1 percent from the national peak in 2006–07; Arizona, off 11.1 percent; and Nevada, down 15 percent.[1] Texas prices actually increased a modest 1.3 percent over the period.[2]

Texas boasts a large supply of land and has fewer building regulations. Thus, it has larger swings in construction during booms and busts—and less price volatility—than many other states. Although Texas prices held up relatively well, sales and construction were severely affected in the housing bust's initial years. Would-be Texas homebuyers—spooked by spiraling home values nationally and reduced household wealth from the U.S. financial crisis—put purchasing a home at the bottom of their to-do lists. As in the nation, the homeownership rate in Texas edged down and inventories swelled.

A Brief Look at Homebuyer Tax Credits

Table 1 provides a synopsis of the three homebuyer credits covering home purchases from April 2008 to September 2010.[3] The Housing and Economic Recovery Act of 2008 (HERA) tax credit allowed first-time purchasers a tax credit of up to $7,500 and required them to repay the credit over 15 years. The second version, under the American Recovery and Reinvestment Act of 2009 (ARRA), removed the repayment requirement and changed the credit to 10 percent of a home's price, up to a maximum of $8,000. The final version, under the Worker, Homeownership, and Business Assistance Act of 2009 (WHBAA), was more inclusive, extending the time frame for the ARRA credit for first-time homebuyers and also allowing repeat homebuyers a credit of up to $6,500. The final version also boosted income limits.

Table 1

Homebuyer Tax Credit Programs Summarized

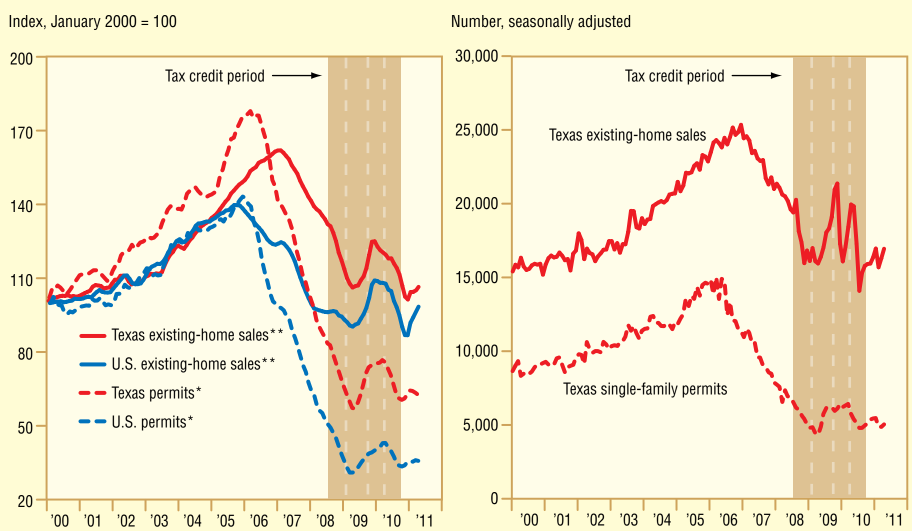
	HERA (July 2008)	ARRA (February 2009)	WHBAA (November 2009)
First-time buyers only	Yes	Yes	No
Maximum credit	$7,500	$8,000	$8,000/$6,500
Income phase-out range	Single: $75,000 to $95,000 Joint: $150,000 to $170,000	Single: $75,000 to $95,000 Joint: $150,000 to $170,000	Single: $150,000 to $175,000 Joint: $225,000 to $245,000
Repayable	Yes	No	No
Refundable	Yes	Yes	Yes
Applicable dates	4/9/2008–12/31/2008	1/1/2009–11/6/2009	11/7/2009–9/30/2010
Maximum purchase price	No	No	$800,000

NOTES: HERA=Housing and Economic Recovery Act of 2008; ARRA=American Recovery and Reinvestment Act of 2009; WHBAA=Worker, Homeownership, and Business Assistance Act of 2009.

SOURCE: "An Economic Analysis of the Homebuyer Tax Credit," by Mark P. Keightley, Congressional Research Service, December 2009.

Chart 1

Home Sales, Construction Spike During Tax-Credit Period



*Five-month moving average. **Six-month moving average.

NOTES: Vertical dashed lines represent tax credit expiration dates; shaded areas extend to closing dates.

SOURCES: Census Bureau; National Association of Realtors; Texas A&M Real Estate Center; seasonal adjustment by the Federal Reserve Bank of Dallas.

Activity Spikes in Tax-Credit Period

The homebuyer tax credits appear to have helped Texas' housing industry, even if only temporarily. Monthly data show existing-home sales and new-home construction spiked with the tax-credit programs (*Chart 1*). New-home sales data are not available at the state level; single-family construction permits serve as a good proxy. During the first years of the national housing crisis, Texas builders cut back sharply. By the time the tax credits were instituted, new-home inventories were relatively low, unlike existing inventories, which were elevated. Thus, the tax incentives spurred activity as builders added inventory to meet increased buyer traffic.

Annual data for Texas show a decelerating pace of sector decline from 2009 to 2010 (–0.7 percent for new-home permits and –5.5 percent for existing-home sales), following much larger reductions in the prior years (*Table 2*). It's difficult to separate whether the leveling off in housing activity resulted from the government's tax-relief efforts or the improving state economy in late 2009. Either way, it was welcome news for an industry entering its fifth down year.

Incentive Prompts Some Texas Sales

The temporary Texas housing activity pickup coincided with the last two tax-credit programs—the ARRA and WHBAA plans, which likely produced a greater impact than the first credit, requiring buyer repayment. Several government and private-sector analysts have estimated the number of additional sales nationally attributable to the ARRA and WHBAA; we extend these estimates by looking specifically at Texas.

We closely followed the approach used in a Congressional Research Service (CRS) report that examined the impact of the tax credits on U.S. housing demand.[4] As a starting point, we reproduced U.S. estimates using the CRS methodology and achieved comparable results.[5]

For our first look at the incentives' effect in Texas, we adhere to CRS's methodology exactly as it was applied in its U.S. review but use Texas seasonally adjusted existing-home sales data and Texas single-family home permits as a proxy for new-home sales (*Table 3, Scenario 1*).[6] Three sets of transactions are calculated, reflecting a range of price elasticities for housing.[7] The elasticities estimate the sensitivity of home sales given a change in price.[8] We then adapt the analysis under two additional scenarios, each assuming different month-over-month sales growth rates.

In the first of the two additional views (*Scenario 2*), we consider a situation in which Texas home sales continue slipping as they did in 2008 by assuming that the month-over-month sales growth rates are the same as in 2008. In the next exercise (*Scenario 3*), we assume that home sales return to a more normal pattern, in which month-over-month sales growth rates equal their average from 2000 to 2008. The Texas estimations using our assumptions (*Scenarios 2 and 3*) are slightly more conservative than those produced using the CRS methodologies (*Scenario 1 in Table 3*) but are still very similar.

We looked separately at Texas home sales from February 2009 to September 2010, the final closing date for the tax credit program. According to our estimates, total sales

Table 2

Texas Construction, Sales Fall at Slower Pace in 2009 and 2010

Year	Permits	Percent change	Existing-home sales	Percent change
2004	142,153	8.0	239,111	10.8
2005	162,414	14.3	267,130	11.7
2006	159,822	–1.6	293,268	9.8
2007	116,758	–26.9	275,347	–6.1
2008	77,625	–33.5	231,450	–15.9
2009	65,845	–15.2	213,644	–7.7
2010	65,376	–0.7	201,936	–5.5

SOURCES: Census Bureau; National Association of Realtors; Texas A&M Real Estate Center; seasonal adjustment by the Federal Reserve Bank of Dallas.

Table 3

Estimated Additional Texas Home Sales Due to Tax Credits

Scenario	Elasticity	ARRA (02/09–10/09)	WHBAA (11/09–09/10)
1. Number of sales equal to 2008 levels (Congressional Research Service)	–0.5	2,881	5,160
	–1.0	5,762	10,320
	–1.5	8,643	15,479
2. Sales continue to slump at 2008 monthly growth rates	–0.5	1,898	3,980
	–1.0	3,797	7,960
	–1.5	5,695	11,941
3. Sales return to "normal" pace of 2000–08 average monthly growth rates	–0.5	1,944	4,706
	–1.0	3,887	9,411
	–1.5	5,831	14,117

NOTE: An elasticity of –0.5 implies that a 1 percent reduction in price leads to a 0.5 percent increase in quantity of homes demanded. Other elasticities are interpreted similarly.

SOURCE: Authors' calculations.

Table 4

Estimated Share of Sales Induced by ARRA and WHBAA

Scenario	Elasticity	Texas (percent)	U.S. (percent)
2. Sales continue to slump at 2008 monthly growth rates	–0.5	4.7	7.7
	–1.0	9.3	15.3
	–1.5	14.0	23.0
3. Sales return to "normal" pace of 2000–08 average monthly growth rates	–0.5	7.1	10.8
	–1.0	14.2	21.7
	–1.5	21.3	32.5

NOTE: An elasticity of –0.5 implies that a 1 percent reduction in price leads to a 0.5 percent increase in quantity of homes demanded. Other elasticities are interpreted similarly.

SOURCE: Authors' calculations.

exceeded what would have been achieved at 2008 month-over-month growth rates (*Scenario 2*) by 126,275 units and surpassed what would have been achieved at 2000–08 average month-over-month growth rates (*Scenario 3*) by 92,251 units.

Combining these figures with the sum of estimates in Table 3 suggests that if sales occurred at the 2008 rate, 5 to 14 percent of additional Texas sales over that 20-month period could be attributed exclusively to the tax credits' impact on improved home affordability. That leaves 86 to 95 percent of additional sales attributable to buyers who shifted forward their planned purchase in order to take advantage of the tax credit.

Similarly, assuming 2000–08 sales activity, 7 to 21 percent of induced purchases can be attributed to the tax credits. This implies that the remaining 79 to 93 percent were buyers already in the market, anticipating a purchase (*Table 4*).

The large sales drop immediately following expiration of the final tax credit supports the idea that many purchasers simply changed their timing. We estimate conservatively that the negative effects of shifted demand on Texas home sales and construction will trail off between now and the end of 2011.[9] This is consistent with the views of housing-sector contacts in the Federal Reserve Bank of Dallas' Beige Book, who expect to see market improvement in the latter half of 2011 or early 2012.[10]

Price Recovery Elusive

When the tax credits were approved, Texas home values hadn't eroded as they had elsewhere in the U.S. (*Chart 2*). However, Texas home prices fell in 2008 and were largely unchanged during the tax-credit period, according to the Federal Housing Finance Agency (FHFA) purchase-only home price index.[11]

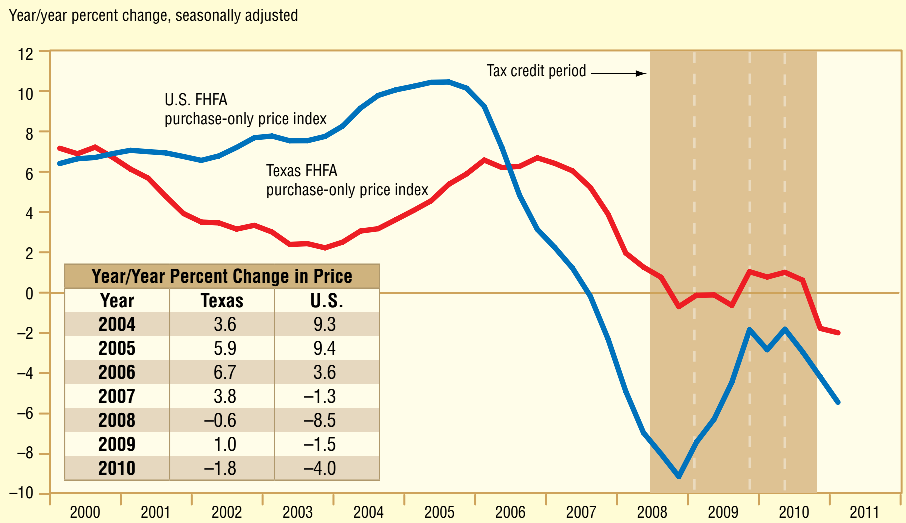
The median price for an existing home in Texas was $150,527 at the end of the program last September, virtually unchanged from $150,947 in June 2008, before the first version was enacted.[12]

Since the expiration, however, Texas and national home prices have slipped. Texas values dropped 2 percent in first quarter 2011 from the prior year, with seasonally adjusted quarterly changes slightly negative in fourth quarter 2010 and first quarter 2011, FHFA data show.

Little 2011 Texas home price data are currently available. Inflation-adjusted Realtor median price figures have fallen 4.2 percent

Prices—nationally and in Texas—will not recover fully until excess inventory is eliminated. While the Texas foreclosure rate is lower than the nation's, foreclosures are a significant portion of supply.

Chart 2
Prices Slump Following Tax-Credit Expiration

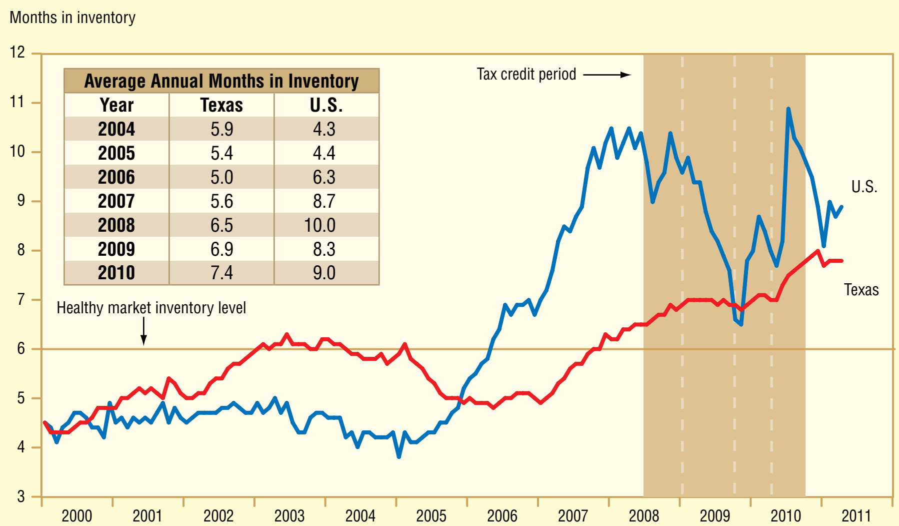


Year/Year Percent Change in Price		
Year	**Texas**	**U.S.**
2004	3.6	9.3
2005	5.9	9.4
2006	6.7	3.6
2007	3.8	–1.3
2008	–0.6	–8.5
2009	1.0	–1.5
2010	–1.8	–4.0

NOTES: Vertical dashed lines represent tax credit expiration dates; shaded areas extend to closing dates.

SOURCE: Federal Housing Finance Agency.

Chart 3
Home Inventories Remain Elevated



Average Annual Months in Inventory		
Year	**Texas**	**U.S.**
2004	5.9	4.3
2005	5.4	4.4
2006	5.0	6.3
2007	5.6	8.7
2008	6.5	10.0
2009	6.9	8.3
2010	7.4	9.0

NOTES: Vertical dashed lines represent tax credit expiration dates; shaded areas extend to closing dates.

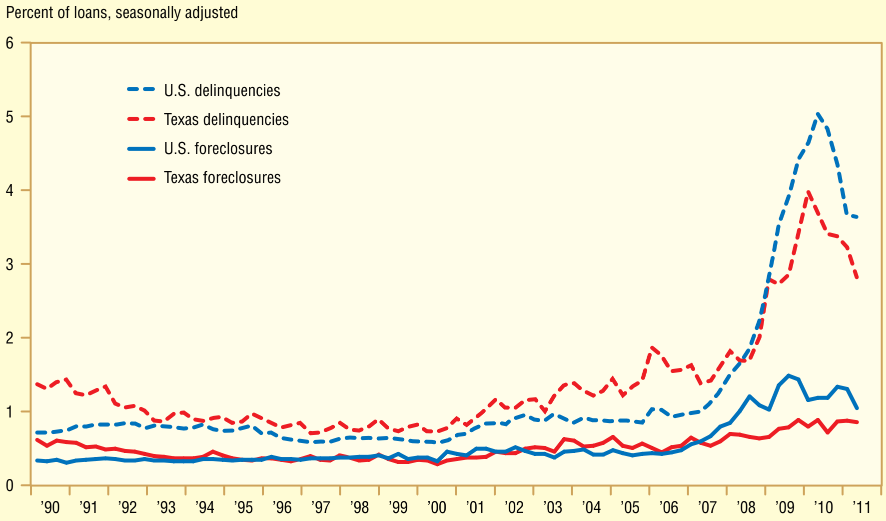
SOURCES: Texas A&M Real Estate Center; seasonal adjustment by the Federal Reserve Bank of Dallas.

year to date, while the S&P/Case-Shiller Price Index for Dallas–Fort Worth as of March was down 2.5 percent from the same period in 2010. Even so, the tax credits appear to have eased the U.S. home slide for a while.

Prices—nationally and in Texas—will not recover fully until excess inventory is eliminated.

While the Texas foreclosure rate is lower than the nation's, foreclosures are a significant portion of supply.[13] Texas existing-home inventories edged up in the latter half of 2010 and, as of April 2011, stood at 7.8 months of supply based on the current sales pace (*Chart 3*). Though the supply is less than the national average of 8.6 months, it's still more than the six-month threshold the industry regards as a balanced market and above the point at which prices tend to increase.

Chart 4
Delinquencies and Foreclosures Declining



SOURCES: Mortgage Bankers Association; seasonal adjustment by the Federal Reserve Bank of Dallas.

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Texas Outlook: Positive Points

The national and Texas economies are growing again. Still, a housing recovery remains elusive despite several government measures, including the homebuyer tax credits.

While indications are that the Texas housing market may have bottomed out, challenges remain.

A higher share of foreclosures in 2009 and 2010 has contributed to elevated home inventory, deflating prices. Relatively tighter credit, partially reflecting lessons learned in the housing bust, may also trim demand. Dallas Fed housing contacts say many would-be first-time homebuyers do not have the credit scores or down payment now required to get a mortgage. Finally, a reduction in homeownership rates both nationally and in Texas may suggest that consumers are rethinking spending habits following the recession and financial crisis and may be postponing homeownership.

On a positive note, state foreclosure rates dipped in first quarter 2011 and remain below the national average (*Chart 4*). Moreover, the share of households behind on mortgage payments (delinquencies) has declined significantly in Texas and the U.S. since the peak in fourth quarter 2009.

With a strong state job growth forecast of more than 3 percent in 2011, Texas housing is poised to perform better than the national average, even if the market lacks the vigor seen in past recoveries.[14]

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Notes

[1] The U.S. market peaked in second quarter 2007, according to the Federal Housing Finance Agency purchase-only price index. S&P Case-Shiller data show the peak in 2006.

[2] While the Housing and Economic Recovery Act was signed into law in July 2008, the tax credit applied retroactively to sales made from April 9, 2008, through Dec. 31, 2008.

[3] The Worker, Homeownership, and Business Assistance Act of 2009 included contracts signed by April 30, 2010, but extended the qualifying closing date to Sept. 30, 2010.

[4] See "An Economic Analysis of the Homebuyer Tax Credit," by Mark P. Keightly, CRS Report for Congress, Congressional Research Service, Dec. 1, 2009.

[5] The CRS methodology used the number of sales occurring in 2008 as a baseline of what would have transpired in the absence of the tax credit. The number of purchases induced by the credit was calculated using a range of price elasticities for housing. See the appendix of the paper cited in footnote 4 for full details.

[6] New-home sales statistics are not available for Texas. Single-family building permits should be a good proxy for sales, although the data may overestimate sales figures slightly.

[7] Elasticity is a measure of consumer responsiveness to a change in price. Formally, elasticity=(percent change in quantity demanded) / (percent change in price).

[8] For housing elasticity estimates, the CRS report mentioned in footnote 4 cites: "Housing Subsidies: Effects on Housing Decisions, Efficiency, and Equity," by Harvey S. Rosen, National Bureau of Economic Research Working Paper no. 1161, June 1983, and "Urban Housing Demand," by Todd Sinai, in *The New Palgrave Dictionary of Economics*, Second Edition, ed. Steven N. Durlauf and Lawrence E. Blume, Basingstroke, England: Palgrave Macmillan, 2008.

[9] This estimate assumes that all additional sales occurring during the tax period that are not attributable to the tax credit are "shifted demand." It does not account for sales induced by mortgage rates and low prices alone. Further, it assumes that the tax-credit-shifted demand effect is the only thing depressing sales after the expiration of the credit. To the extent that broader economic phenomena continue to depress home sales and that sales are induced by price and mortgage rate differences from our scenario assumptions, this estimate will overstate negative effects on sales following the tax-credit expiration and thus provide a conservative upper bound of the time frame.

[10] See the Dallas Fed Beige Book at www.dallasfed.org/research/beige/2011/bb110413.html.

[11] Other indexes are more volatile but give similar results: The Freddie Mac Price Index looks most similar to the FHFA series, and the S&P/Case-Shiller Index and the Texas inflation-adjusted median price series show more of a drop prior to the credits but overall flatness (despite volatility) since.

[12] Data are from the National Association of Realtors, seasonally adjusted by the Federal Reserve Bank of Dallas.

[13] See "Texas Dodges Worst of Foreclosure Woes," by D'Ann Petersen and Laila Assanie, *Southwest Economy*, Fourth Quarter, 2009.

[14] Federal Reserve Bank of Dallas employment growth forecast as of April 2011.