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balancing act

what is a 'normal' market?

by james p. gaines

Housing markets constantly change, switching from "buyers'" to "sellers'" markets as the scales of supply and demand tip from one side to the other.

Numerous economic, financial, demographic and government forces combine to affect a prospective buyer's willingness and ability to purchase a home. Changes in demand may occur over time as a result of population and economic growth or fluctuations. They also can be more immediate, as when new jobs are created or layoffs occur within a short period.

As the U.S. market demonstrated during the recent housing boom, easily obtained mortgages at historically low interest rates drive up demand, leading to price spikes and, in the extreme, to a price bubble. Conversely, if the supply of houses for sale exceeds buyers looking to purchase, buyers gain a competitive advantage and are able to negotiate lower prices. Sellers are forced to lower asking prices or offer other concessions to attract buyers.

Historically, both the United States and Texas housing markets have cycled between shortages and surplus with intermittent respites of equilibrium in between. Short-run market swings result primarily from changes in demand as the overall supply of homes is slow to change. It takes time to build new homes and, once built, houses exist for a long time. However, the supply of houses offered for sale can change quickly as existing homeowners decide to sell or not sell their properties as market conditions fluctuate.

Housing markets generally move toward and try to stay in reasonable balance over time. Unfortunately, the markets are constantly subjected to changing conditions that cause periodic imbalances in supply and demand equilibrium. As the

scales of supply and demand dip one way or the other, pricing, new home construction and other offsetting forces move the market back into balance.

When the market is in balance, transactions occur at a reasonable and sustainable pace and prices typically rise close to overall inflation or at the long-term "normal" (average) rate for that market. Specific market balance, or equilibrium, varies from marketplace to marketplace. The normal rate of sales and price change in one market may be different than in another market area.

Market participants have long sought a specific measure of the supply-demand relationship that would indicate which way the scales were leaning and what the current situation portends for price changes.

For years, the Real Estate Center has reported residential Multiple Listing Service sales and price activity for the major Texas markets. A key data point included in monthly reports is *months inventory*, a measure of relative supply and demand for houses in each local market. The magnitude and trend in the months inventory figure provide an indication of the overall strength of the market and the likely direction and pace of price change.

Arithmetically, months inventory equals the number of current listings divided by the average number of sales per month during the prior 12 months. So, for example, if there are 1,000 homes listed for sale and during the immediate past 12 months an average of 200 homes were sold per month, months inventory equals 1,000/200 or five months. In short, months inventory represents the current supply of homes offered for sale relative to the number of homes being purchased. The result indicates the number of months it would take to sell all properties currently for sale at the average monthly sales pace.

A high months inventory figure indicates that a disproportionately high number of properties are for sale compared with demand. This oversupply results in prices not increasing as fast as they would if the market were in balance or declining. A low months inventory figure represents an undersupply of properties relative to demand. When this occurs, prices typically rise faster than the equilibrium rate of increase.

Housing researchers consider a six- to 6.5-months supply of homes for sale to represent a balanced housing market. Actual equilibrium in any local market can differ slightly, usually between five months and seven months. Analysts typically do not become concerned until the current measure is outside those bounds or the trend clearly indicates that inventory will soon be beyond those bounds. The equilibrium point for the new home market is typically less, at around three or four months, or about the time it takes to build a new home.

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Data indicate that generally if months inventory is high or rising, the median price of a home in Texas tends to increase at a lower rate or even fall (Figure 1). Conversely, if months inventory is low, falling or remains relatively low for a period, as between 1998 and 2001, prices tend to increase at a substantially greater rate.

Months inventory crept above the 6.5-month benchmark during the last three quarters of 2008 and appeared to be trending even higher. The median price of Texas homes fell, no doubt affected

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by increasingly stiffer underwriting standards for purchase mortgages, a generally negative buyer attitude and other market forces. The rising number of foreclosure properties sold at lower prices exacerbates the decline in median home price.

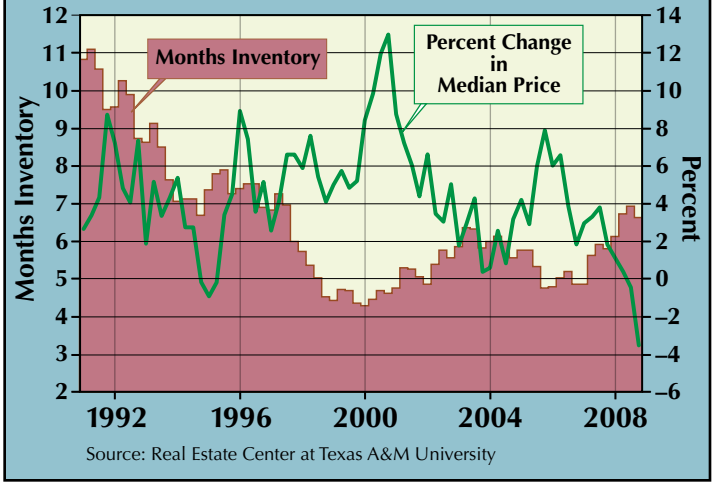
While Figure 1 gives a fair representation of the relationship between market supply-demand and price changes, problems exist with using current sales data for analysis. Current median prices are influenced by the mix of properties sold during a given period, which can change dramatically from one month or quarter to another.

An alternative view compares months inventory to the change in the index of home prices measured by the Federal Housing Finance Agency (FHFA), formerly the Office of Federal Housing Enterprise Oversight. The FHFA purchase-only index reflects the price changes represented by the sale of the same house over time, thus better accounting for the characteristics of the homes in the sales database.

The index values and indicated rates of change from FHFA are more stable over time and exhibit less dramatic volatility (Figure 2).

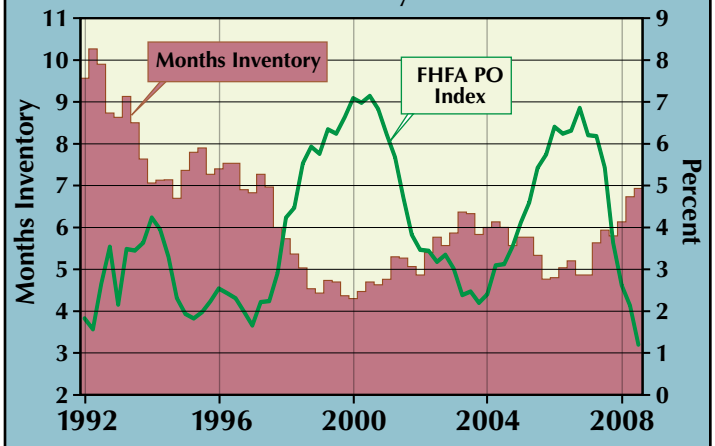
The pattern of the relationship between price changes and months inventory is basically the same. The relationship is not a mathematically precise, direct computational equivalent, but rather shows general direction and magnitude. Again, the pattern reveals that home prices increase more rapidly as months inventory shrinks and increase less rapidly as inventory rises.

Figure 1. Months Inventory and Percent Change in the Median Price



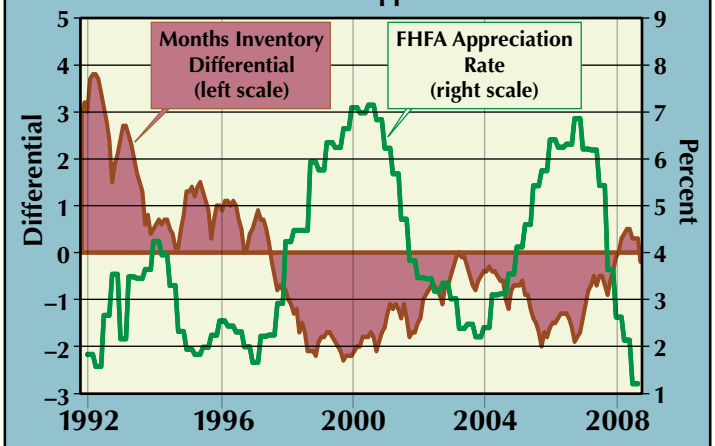
Source: Real Estate Center at Texas A&M University

Figure 2. Months Inventory and Y/Y Percent Change in FHFA Purchases Only Index for Texas



Source: Real Estate Center at Texas A&M University

Figure 3. Month Inventory Differential From 6.5 Month and Annual FHFA Appreciation Rate



Sources: FHFA and Real Estate Center at Texas A&M University

Interestingly, the average rate of increase in the Texas FHFA purchase-only index over the 17 years depicted was 4.1 percent, which is the same average rate of increase as the state's annual median price over the same period.

Another way to view the relationship between months inventory and price change is to focus on how many months the inventory varies from 6.5 (Figure 3). For example, if the current months inventory is seven months, will prices automatically fall? At 5.8 months, will prices rise more than normal?

During the period covered, Texas did not record a decline in appreciation rate. The scale of the graph has been set so that at a months inventory differential of zero (that is, 6.5 months) the change in price equals 4 percent, which is the long-term average rate of appreciation. When months inventory exceeds 6.5 months by more than one month, as it did between January 1992 and July 1993, the pace of price appreciation is approximately half of the long-term average, or around 2 percent. As the inventory measure remains above the benchmark level, prices continue to increase, but at a rate below the average expected rate.

This pattern has been fairly consistent. Between 1992 and 1997, the last period during which months inventory exceeded equilibrium, home prices generally rose between 2 and 3 percent per year, or 50 to 25 percent less than the long-term average rate. Between 1998 and 2001, the inventory level dropped well below the equilibrium level and prices increased between 4 and 7 percent, or as much as 75 percent greater than the long-term average. As inventory levels moved toward equilibrium in 2002, the rate of price appreciation declined but then rebounded as inventory levels fell again between 2004 and 2007.

The most recent rise in months inventory has been followed by a greater than average decline in the home appreciation rate. If inventories rise to levels last seen between 1992 and 1994, Texans could experience a decline in home prices. The combination of forces presently affecting the market may cause home prices to register their first negative rate of change since the oil bust days of the mid- to late-1980s.

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THE TAKEAWAY

The months inventory measure is one way to determine the relative balance of housing supply and demand in a market. As supply increases relative to demand, prices tend to fall. Inventory level is not the only factor affecting prices, so the relationship is not a direct, mathematically precise computation. Rather, it is a general indicator of the direction and potential magnitude of future price changes.

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