

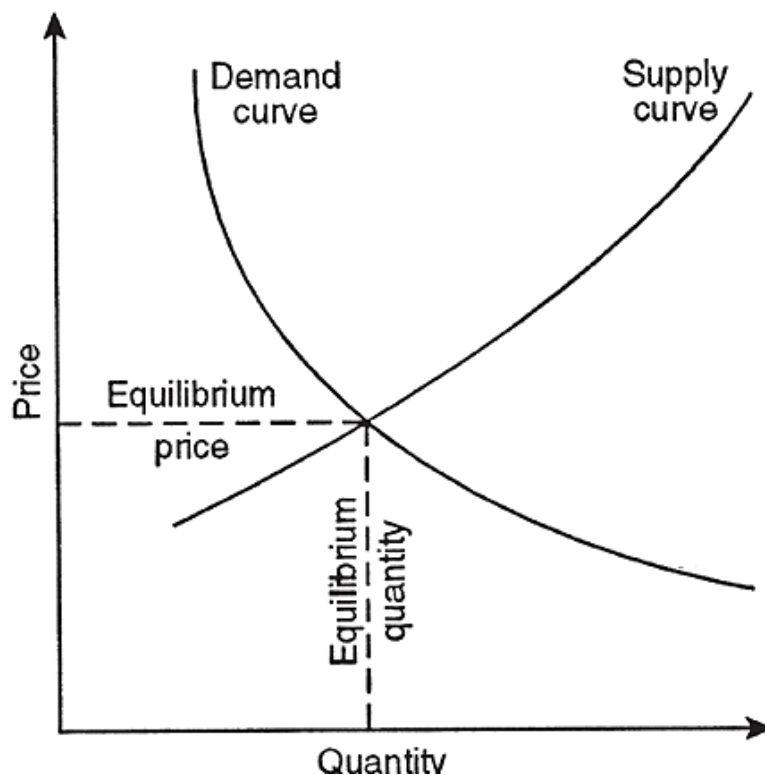
Oye! News from America

[The Impact of Urban Containment on America's Housing Market](#)

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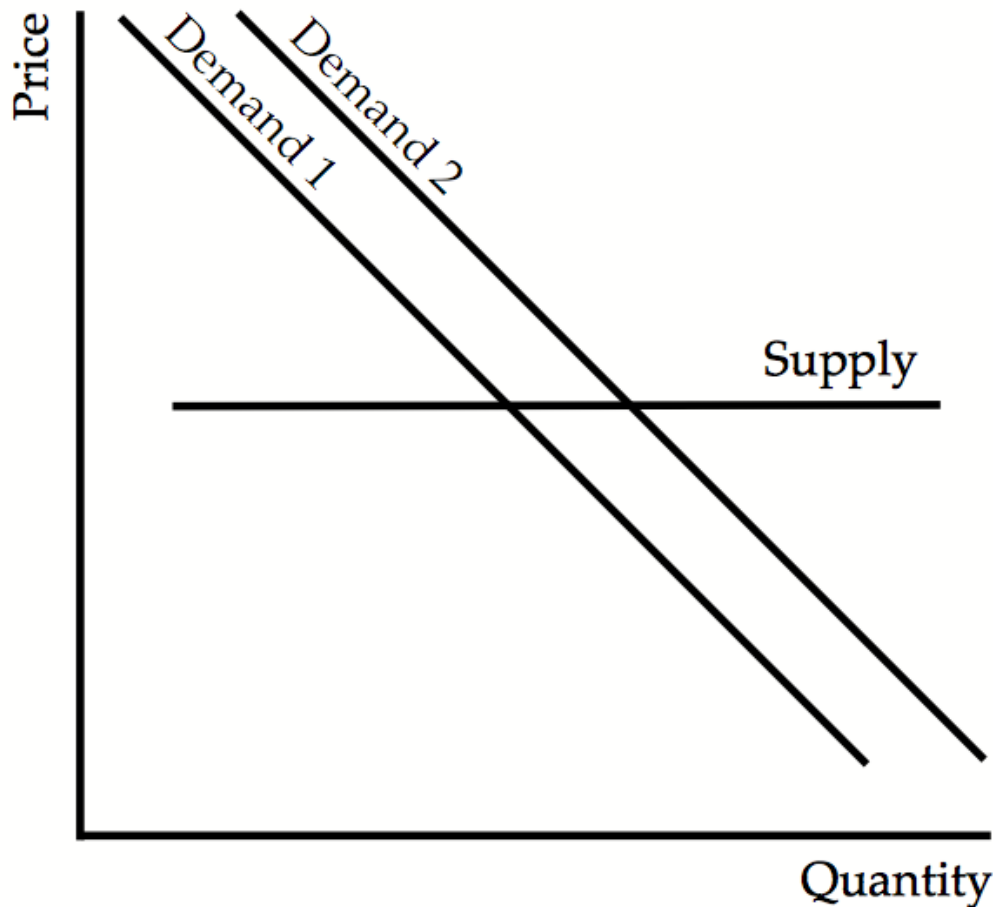
While the paper is rather old, an [analysis](#) of the American housing market prepared by Randal O'Toole at the Cato Institute provides us with a very succinct analysis of where the American housing market went so wrong. The paper "How Urban Planners Caused the Housing Bubble" is an issue that I have posted on before but rarely have I seen such a complete analysis.

First, let's look at a bit of basic macroeconomics, the stuff that used to make our eyes glaze over during those first year economics courses. Prices of everything are dictated by supply and demand; equilibrium price of a home, in the case of this posting, is dictated by the intersection of the supply and demand curves as shown on this diagram:



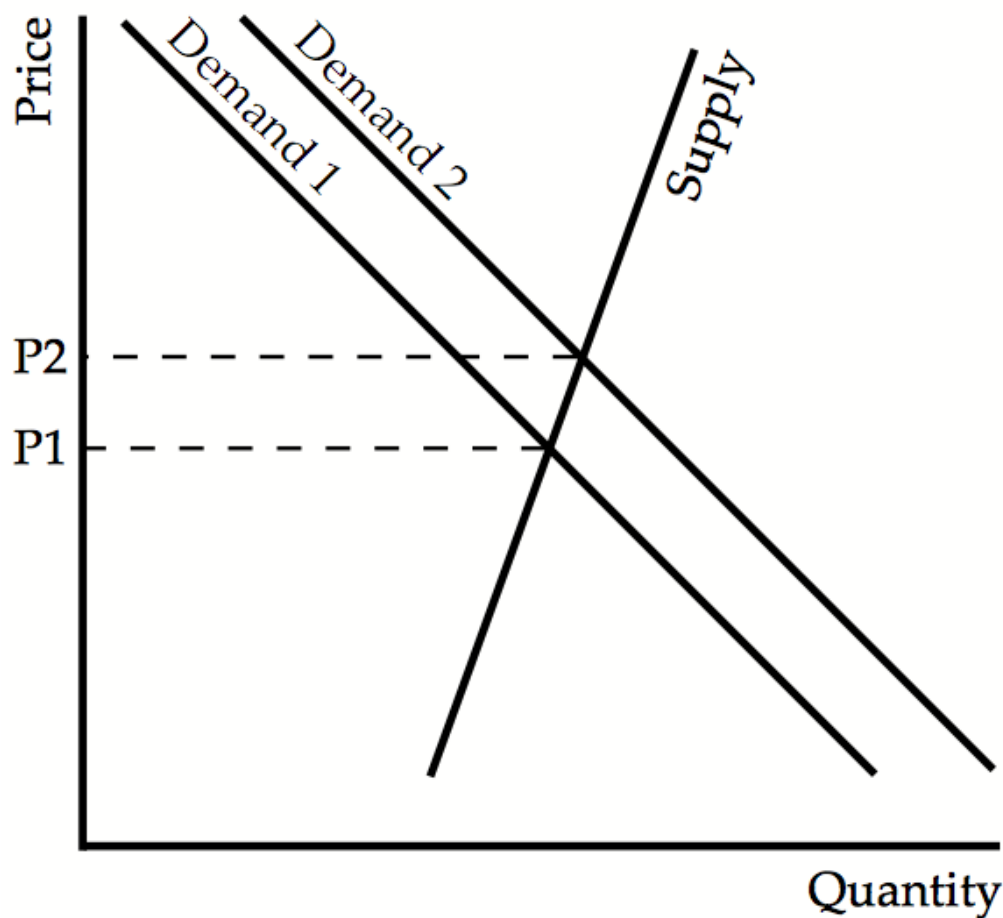
The intersection of the two curves marks the point where the market is in perfect equilibrium; at this point, prices will remain stable.

Now, let's look at the concept of elasticity. Elasticity or the sensitivity of prices to changes in supply or demand is defined by the steepness of the supply and demand curves. Where the supply curve is flat or elastic, large changes or shifts in demand as shown by the shift from demand curve 1 to demand curve 2 will result in only slight or no changes in price as shown on this graph:



Again, this is called an elastic supply situation. When supply is perfectly elastic, changes in demand will have absolutely no impact on prices.

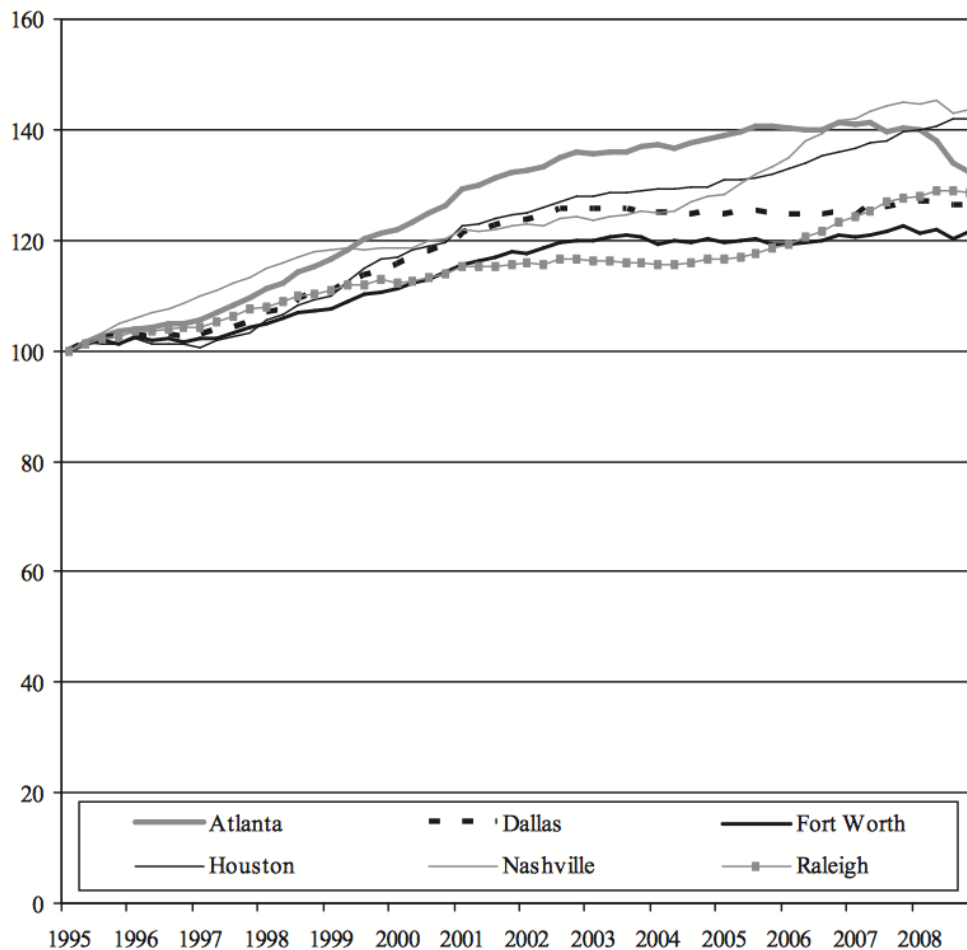
On the other hand, where the supply curve is steep, large changes or shifts in demand as shown on demand curve 2 will result in large changes in price (price moves from P1 to P2) as shown on this graph:



Note that price has jumped from P1 to P2. This is called an inelastic supply situation. When both supply and demand are inelastic, small changes in either supply or demand can result in large changes in price. This is exactly the situation that created the housing price bubble in the United States during the first half of the new millennium. In the United States (and Canada for that matter), it is a given that most Americans and Canadians are unwilling to live without a home, particularly desiring single-family homes. This means that the demand for housing is inelastic which means that small changes in the supply of homes, particularly new ones, can lead to large changes in price.

Before 1970, median house prices in much of the United States were in the range of 1.5 to 2.5 times median family incomes. When there is no restriction on the supply of housing, house prices generally grew only when median family incomes grew and generally followed the trend of inflation. However, as we noted above, when the supply of homes is restricted, markets become abnormal and prices grow at rates that are in excess of normal. This was the problem for some areas of the United States over the past decade or more; many jurisdictions implemented housing development growth management laws (also known as urban containment) that placed restrictions on the use of vacant land for housing, creating a situation where the supply of housing became inelastic (i.e. where small changes in demand resulted in large changes in prices because of housing supply constraints).

Let's look at an example. In Houston, developers faced little government regulation, resulting in a supply curve for housing that is almost perfectly elastic (i.e. changes in demand will have little impact on pricing because there is ample supply). In the Houston area, developers often purchase parcels that are 5000 to 10000 acres in size, subdivide them into lots, build the necessary infrastructure including roads, sewers etcetera and then sell the lots to builders. Homebuyers then pay the costs of the infrastructure over 30 years. This has resulted in thousands of home sites being available to home builders at any given time. Between 2000 and 2008, the Houston metropolitan area grew by nearly 125,000 people per year or ten times faster than the population growth rate of 85 percent of American metropolitan areas. Yet, despite the very significant demand, this graph shows what happened to housing prices in Houston (and other similar municipalities) between 1995 and 2009:

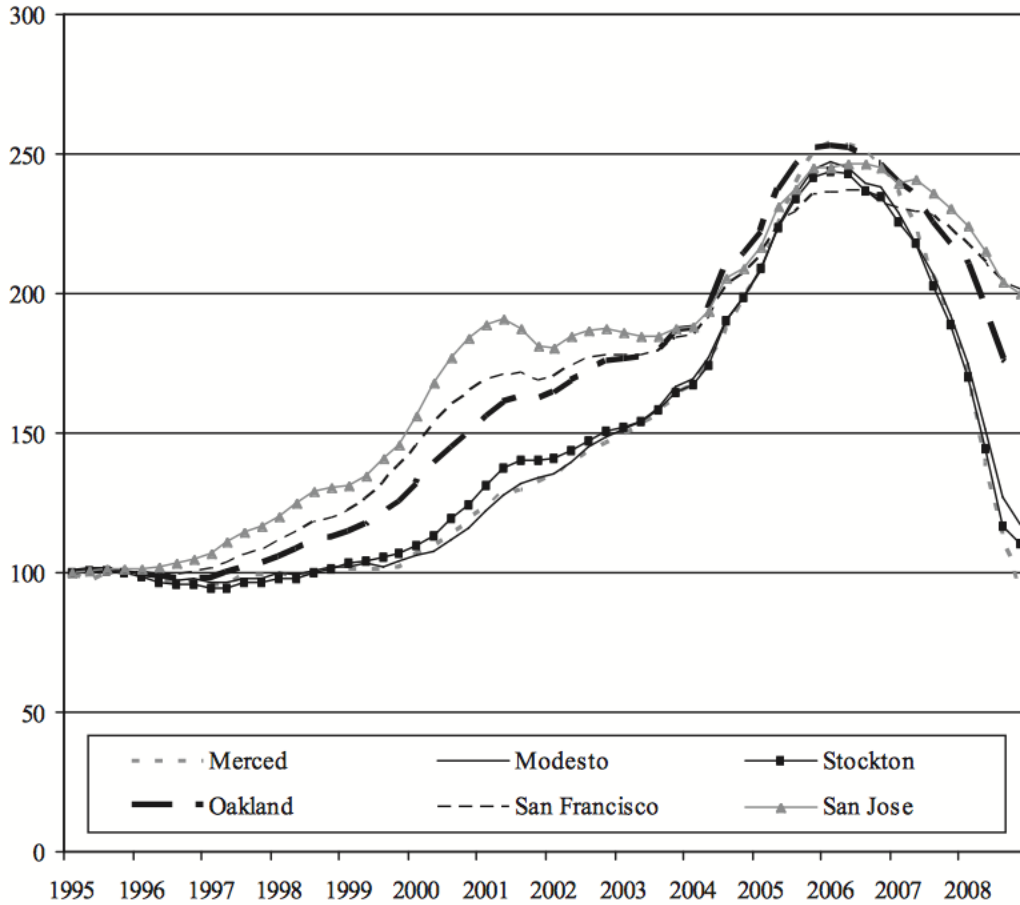


Note the complete lack of a bubble despite very significant housing demand. Between 2000 and 2008, Atlanta, Dallas - Fort Worth and Houston metropolitan areas each grew by more than 120,000 people per year and all areas on the graph grew by more than 2 percent annually.

Now, let's look at the other extreme. Eight counties in the San Francisco Bay area have drawn urban-growth boundaries that exclude 63 percent of the region from development. This has

meant that it is extremely difficult for developers to assemble more than a few lots at a time for new housing projects. Each house that is built means that the supply curve is steepened further (i.e becoming more inelastic), putting ever-increasing upward pressure on prices as building lots are consumed. If developers in the San Francisco Bay area want to avoid the problems associated with the restrictive land development legislation in the immediate Bay Area, they have to look to land in the Central Valley, 60 to 80 miles away. This graph shows what happened to housing prices in central California and the Bay Area between 1995 and 2009:

Central California and Bay Area Housing Bubbles



Pop goes the bubble! Looking at population growth rates, the San Francisco Bay area, including San Francisco, Oakland and San Jose, grew by less than 20,000 people per year or 0.4 percent annually. Areas in central California grew by less than 30,000 people per year. This means that we cannot attribute the bubble in prices to over-demand for housing since demand was not particularly strong.

To give you some idea of the differences between the two scenarios, here are some statistics comparing San Jose, a highly regulated market and Dallas, a basically unregulated market:

Price of land:

Dallas - 7000 square foot lot - \$29,000
San Jose - 2400 square foot lot - \$232,000

Permitting Costs:

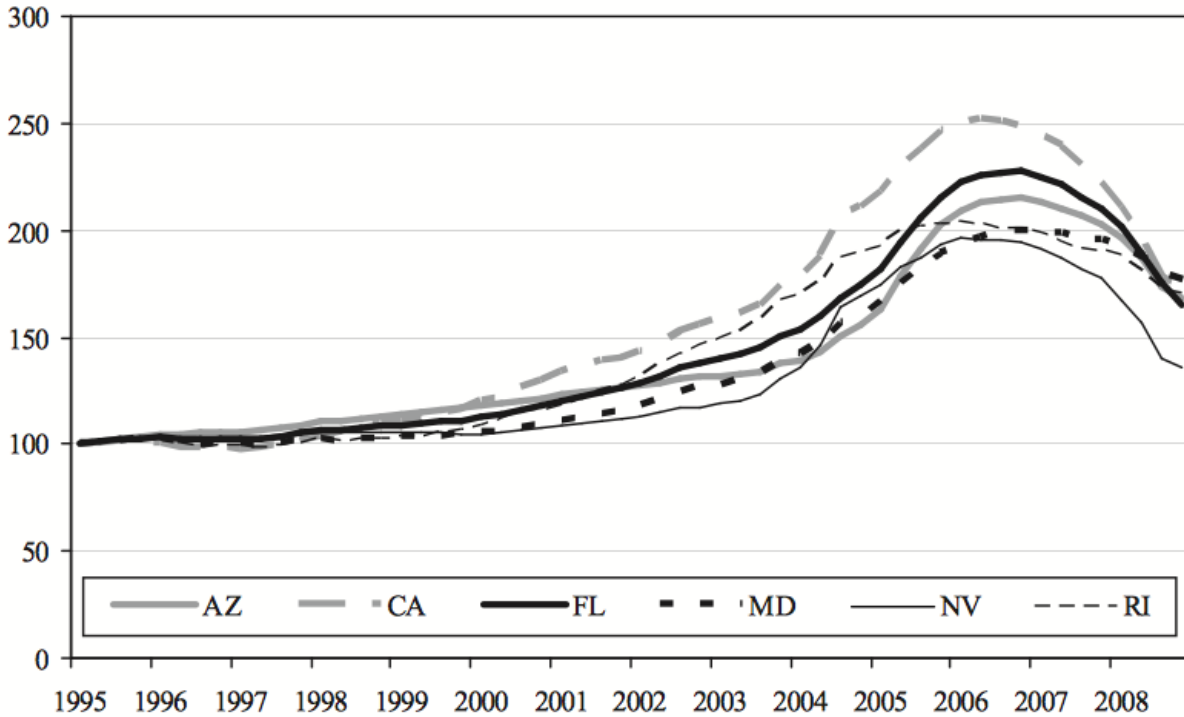
Dallas - less than \$10,000
San Jose - \$100,000

Impact Fees to pay for roads, schools and other services:

Dallas - \$5,000
San Jose - \$29,000

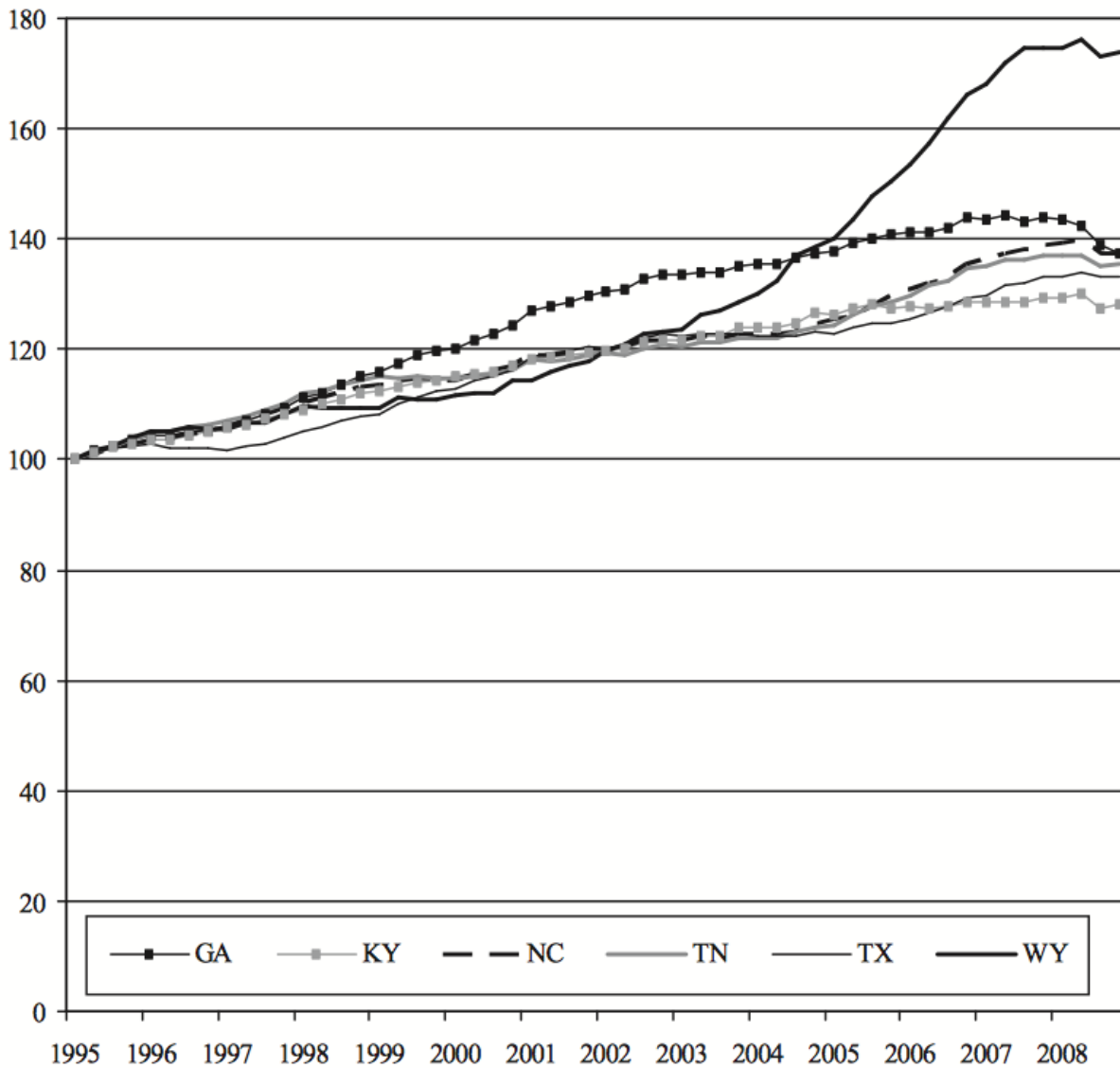
Now, let's look at the state level statistics. Here is a graph showing housing prices in the states with housing bubbles:

State Housing Bubbles



Here is a graph showing housing prices in the states without housing bubbles:

States without Bubbles

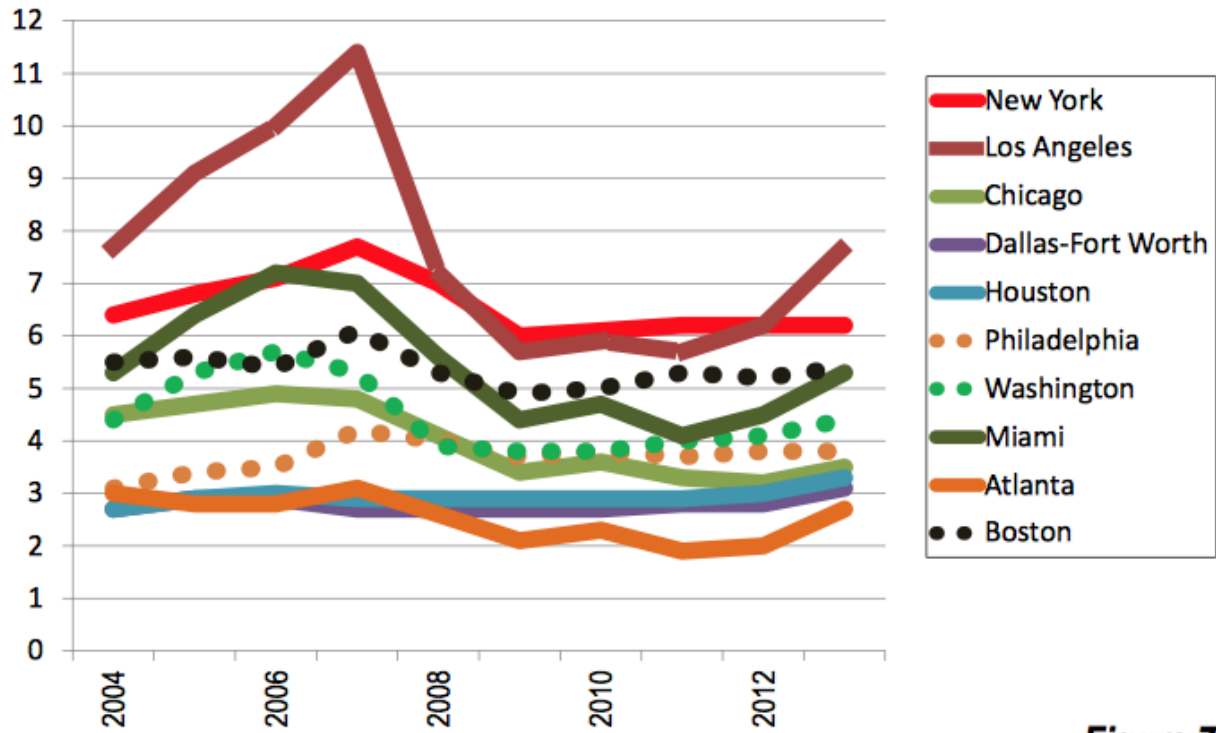


All of the states that have experienced housing bubbles, excluding Nevada, have growth-management (urban containment) laws in place.

Many economists are now questioning whether or not another housing bubble is starting to build. Unfortunately, it is almost impossible to recognize a bubble until it bursts, however, economists note that each successive housing bubble pushes the house price to median income ratio further from the natural affordability ratio of 3.0 or less. A [recent study](#) by Demographia shows that many of America's largest housing markets are still highly unaffordable by a median family:

Housing Affordability Trend: United States

10 LARGEST MAJOR MARKETS: 2004-2013



This suggests that the United States housing market still has a long way to readjust before economic equilibrium is reached and that the lesson of the negative impact of urban containment on housing prices has not been learned.

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