

Trulia Price Monitor and Trulia Rent Monitor: FAQs

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What are the Trulia Price Monitor and the Trulia Rent Monitor?

The Trulia Price Monitor and the Trulia Rent Monitor show how home prices and rents are trending right now. The Trulia Price Monitor tracks asking prices on for-sale homes, and it leads the commonly watched sales price indexes by several months. The Trulia Rent Monitor tracks asking rents. Together, they are the earliest leading indicators available of trends in home prices and rents, both nationally and locally. Based on the for-sale homes and rentals listed on Trulia.com, the Trulia Price Monitor and the Trulia Rent Monitor take into account changes in the mix of listed homes, so they reflect trends in prices and rents for similar homes in similar neighborhoods. With the first release on April 5, 2012, Trulia will publish the Monitors at the start of every month.

How are the Trulia Price Monitor and the Trulia Rent Monitor constructed?

Non-technical version

At the end of each month, we take all the for-sale and rental properties ever listed on Trulia.com and calculate how asking prices and rents changed month by month. Rather than simply tracking the average or median, we adjust for the changing composition of homes that are listed each month. Therefore, the Trulia Price Monitor and the Trulia Rent Monitor reflect the price and rent trends for similar homes in similar neighborhoods over time. For the Trulia Price Monitor, we also account for the regular seasonal fluctuations in asking prices in order to reveal the underlying trend in prices. (For more on seasonality in asking prices and other housing market indicators, see here:

<http://trends.truliablog.com/2012/03/springtime-for-housing/>)

Technical version

We run hedonic regressions of log-prices on property-level attributes, ZIP-code-level attributes and month dummies. We run separate regressions on for-sale and rental properties in each metropolitan area. The month-dummy coefficients are the basis for the Trulia Price Monitor and the Trulia Rent Monitor. The metro-level regressions are unweighted (unlike the Case-Shiller index, for example, which weights sales pairs by initial value). The national-level series is a weighted average of the metro series, weighted by the number of non-vacant owner-occupied or rental units (for the Price and Rent Monitors, respectively) according to the 2010 Census. We seasonally adjust the Trulia Price Monitor with the Census X-12 ARIMA software using five years of historical data, with separate seasonal adjustments for the national and each metro series. The series for rental properties is currently too short to seasonally adjust the Rent Monitor.

Why do the Trulia Price Monitor and the Trulia Rent Monitor use asking prices instead of sales prices?

Asking prices are a leading indicator of sales prices. The typical home is listed for more than three months, so asking prices are often set long before sales close. Asking prices, however, are not a perfect predictor of sales prices: the final sales price for a home can be above or below asking, and some listed homes might not sell. To get as good a leading indicator of sales prices as possible, we use only the latest observed asking price or rent for a given property because we interpret price changes for a given listed property as movement toward the price that a property will ultimately sell or rent for. Asking prices and sales prices each have their advantages for understanding market trends: asking prices have the advantage of showing current market conditions and trends, but sales prices are the best guide to historical and long-term trends in the housing market.

What time period does the Trulia Price Monitor and the Trulia Rent Monitor cover?

We publish the Trulia Price Monitor and the Trulia Rent Monitor in the first week of each month, covering trends through the month that has just ended. We report the Trulia Price Monitor and the Trulia Rent Monitor back in time for one year. Although we have used several years of asking-price data

to determine the seasonal adjustment factors, the primary value of the Trulia Price Monitor and the Trulia Rent Monitor is to show current market conditions and to indicate where sales prices are heading. For longer-term historical trends, sales price indexes like Case-Shiller, the Federal Housing Finance Agency (FHFA) and CoreLogic are the best guides.

Which geographic areas do the Trulia Price Monitor and the Trulia Rent Monitor cover?

The national Monitors cover the 100 largest metropolitan areas. We create metro-level Price Monitors for each of the 100 largest metros, and metro-level Rent Monitors for most of the 100 largest metros (excluding those with relatively few rental listings available). The Trulia Price Monitor and the Trulia Rent Monitor use the official Office of Management and Budget (OMB) definitions for Metropolitan Statistical Areas (MSA). Some MSA’s are split into Metropolitan Divisions, which we use instead of MSA’s where available. For example, we report the “San Francisco – San Mateo – Redwood City” and “Oakland – Fremont – Hayward” metropolitan divisions separately, rather than the “San Francisco-Oakland-Fremont” MSA. Full definitions are available here:

<http://www.whitehouse.gov/sites/default/files/omb/assets/bulletins/b10-02.pdf>.

What do the percentage changes reported in the Trulia Price Monitor and the Trulia Rent Monitor mean?

The table below shows what we report in the Trulia Price Monitor and the Trulia Rent Monitor. We report month-on-month, quarter-on-quarter, and year-on-year changes in the Trulia Price Monitor, We report only year-on-year changes in the Trulia Rent Monitor because it cannot be properly seasonally adjusted and seasonal adjustment is unnecessary for year-on-year changes; in fact we report year-on-year changes for the Trulia Price Monitor using the non-seasonally-adjusted series. We use three-month moving averages, as the leading sales-price indexes do, to insure a large-enough sample size. Keep in mind that the Trulia Price Monitor and the Trulia Rent Monitor lead the sales-price indexes by more than three months, so both monthly and quarterly changes reflect trends that most likely have not yet been reflected in the sales price indexes.

Table: Reporting Definitions

	Trulia Price Monitor	Trulia Rent Monitor
National	<ul style="list-style-type: none"> • Month-over-month, three-month moving average, seasonally adjusted • Quarter-over-quarter, three-month moving average, seasonally adjusted • Year-over-year, three-month moving average, not seasonally adjusted 	<ul style="list-style-type: none"> • Year-over-year, three-month moving average, not seasonally adjusted

Metro	<ul style="list-style-type: none"> • Quarter-over-quarter, three-month moving average, seasonally adjusted • Year-over-year, three-month moving average, not seasonally adjusted 	<ul style="list-style-type: none"> • Year-over-year, three-month moving average, not seasonally adjusted
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How does the Trulia Price Monitor differ from sales-price indexes like Case-Shiller, FHFA and CoreLogic?

The Trulia Price Monitor reflects trends in asking prices, while the sales-price indexes reflect trends in sales prices. The Trulia Price Monitor leads the sales price indexes by several months, for two reasons. First, asking prices are set in the market three months, on average, before homes are sold, but because we use the last observed asking price, the gap is closer to two months. Second, we produce the Trulia Price Monitor days after asking prices are reported, while the main sales-price indexes come out between five and eight weeks after the latest month they are reporting. For instance: on April 5, 2012, we will release the Trulia Price Monitor and the Trulia Rent Monitor through March 2012. Asking prices observed in March 2012 should be associated with sales closing around May 2012 or later (this can vary a lot of course), and May sales prices will be reported in sales price indexes released throughout July. Therefore, the Trulia Price Monitor will detect national trends in home prices at least three months before the leading sales-price indexes. However, we stress that the Trulia Price Monitor is not “better” than the sales-price indexes: the Price Monitor and the sales-price indexes both have important strengths. While the sales-price indexes remain the definitive guides to home price trends historically, the Trulia Price Monitor is the clearest read on what is happening to market prices now.

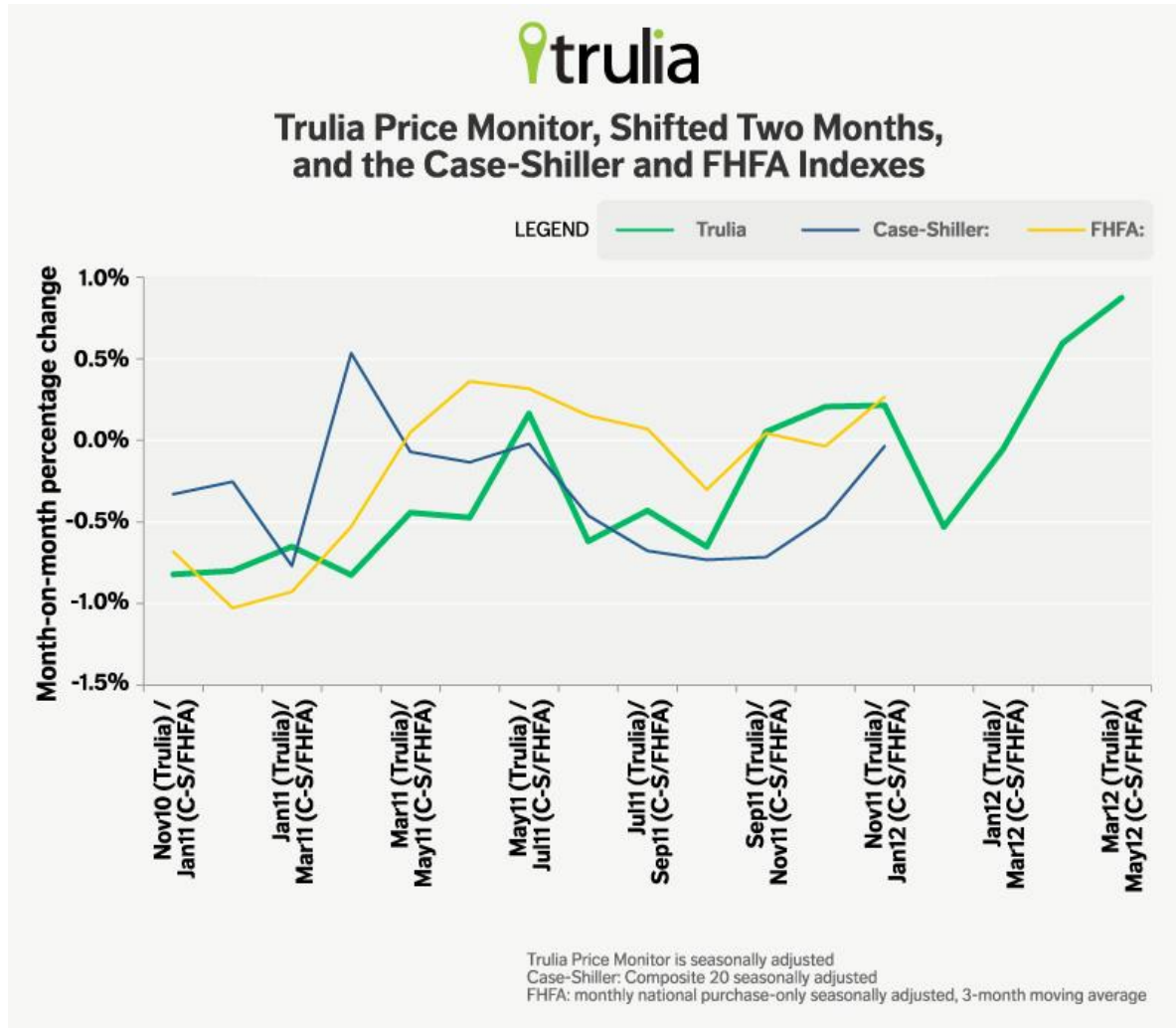
Technical note

The Trulia Price Monitor is a hedonic price index, while the sales-price indexes are based on repeat-sales indexes. Hedonic and repeat-sales models differ primarily in how they adjust for the changing composition of homes transacted. Hedonic models include property attributes like square footage and adjust for them directly, but can only adjust for attributes included in the data. Repeat-sales models use the differences in sales prices for multiple sales of the same home at different points in time, and therefore don’t require information about property attributes, but cannot adjust for changes to attributes for a given property over time (due to a renovation, for example) . Both hedonic and repeat-sales methods are used widely in automated valuation models (AVM’s), and numerous academic papers discuss and compare these approaches. A short, non-technical discussion of hedonic and repeat-sales indexes is available [here](#).

How well does the Trulia Price Monitor predict sales-price indexes?

Final asking prices lead sales prices by about two or three months, reflecting the time that homes are typically on the market. In 2011, the Trulia Price Monitor’s national month-on-month changes track the seasonally-adjusted month-on-month changes in Case-Shiller and FHFA two months later. (Remember that the Trulia Price Monitor reports price changes days after the month closes, while the sales price indexes report price changes five-to-eight weeks after the month closes. This reporting gap is in addition

to the two-or-three month gap between asking and sales prices. That is why the Trulia Price Monitor reports price trends three or more months before the sales price indexes do.) This graph shows the month-on-month series for (1) the Trulia Price Monitor, shifted two months; (2) the Case-Shiller Composite 20; and (3) the FHFA monthly national index, with a three-month geometric moving average applied. All three series are seasonally adjusted. With the two-month shift, all three show similar levels and trends in price changes, though with some volatility.



At the metro level, the correlation in the year-on-year change between (1) the Trulia Price Monitor in September 2011 and (2) the Case-Shiller index in December 2011 was .70, meaning that the metros showing bigger price increases (or declines) in the Trulia Price Monitor showed bigger price increases (or declines) in the Case-Shiller index three months later. (For this test, the Trulia Price Monitor was adjusted to reflect both the weighting and metro definitions used in Case-Shiller index.)

However, the leading sales-price indexes each uses different samples of home sales and different weighting methodologies from each other, and as a result often show somewhat different price trends even in the same month (as the graph shows). None of the sales-price indexes is a perfect reflection of sales price trends. Therefore, even if asking prices perfectly predicted sales prices, the Price Monitor would not perfectly predict any of the sales-price indexes.

When will you be publishing the Trulia Price Monitor and the Trulia Rent Monitor each month?

The Trulia Price Monitor and the Trulia Rent Monitor is published immediately after the end of each month. Here's the planned release schedule for 2014, as of Tues., 1/7. All reports will be published at 12:01AM ET on each release date. We'll update this calendar if there are any changes in the coming months.

Month	Release Date
January	Thursday, January 9 at 12:01AM ET
February	Thursday, February 6 at 12:01AM ET
March	Thursday, March 6 at 12:01AM ET
April	Thursday, April 10 at 12:01AM ET
May	Thursday, May 8 at 12:01AM ET
June	Thursday, June 5 at 12:01AM ET
July	Thursday, July 10 at 12:01AM ET
August	Thursday, August 7 at 12:01AM ET
September	Tuesday, September 9 at 12:01AM ET
October	Thursday, October 9 at 12:01AM ET
November	Thursday, November 6 at 12:01AM ET
December	Tuesday, December 9 at 12:01AM ET