

## S&P/Case-Shiller Home Price Indices

### Frequently Asked Questions

---

#### **1. What do the S&P/Case-Shiller<sup>1</sup> Home Price Indices measure?**

The indices are designed to be a reliable and consistent benchmark of housing prices in the United States. Their purpose is to measure the average change in single-family home prices in a particular geographic market. The monthly indices cover 20 major metropolitan areas, which are also aggregated to form two composites – one an aggregation of 10 of the major metropolitan areas; the other including all 20. They are not seasonally adjusted or adjusted for inflation.

The S&P/Case-Shiller U.S. National Home Price Index is a composite of single-family home price indices for the nine U.S. Census divisions and is calculated quarterly.

The indices are based on observed changes in home prices. They are designed to measure increases or decreases in the market value of residential real estate in defined regions and the overall U.S. In contrast, the indices are, specifically, not intended to measure recovery costs after disasters, construction or repair costs, or other such related items.

#### **2. What types of homes are included in the index calculations?**

To be eligible to be included in the indices, a house must be a single-family dwelling. Condominiums and co-ops are specifically excluded. Houses included in the indices must also have two or more recorded arms-length sale transactions. As a result, new construction is excluded.

---

<sup>1</sup> Case-Shiller<sup>®</sup> and Case-Shiller Indexes<sup>®</sup> are registered trademarks of Fiserv, Inc.

### **3. Which geographic regions are included in the monthly S&P/CS Home Price Indices?**

The ten regions used in the Composite of 10 are:

- Boston
- Chicago
- Denver
- Las Vegas
- Los Angeles
- Miami
- New York
- San Diego
- San Francisco
- Washington DC

Nine of the ten are based on the Metropolitan Statistical Areas (MSAs) or Metropolitan Divisions defined by the U.S. Office of Management and Budget. The New York region is expanded from the New York MSA to include counties in New York State, Connecticut, New Jersey and Pennsylvania that are within commuting distance of New York City.

The ten additional regions used in the Composite of 20 are:

- Atlanta
- Charlotte
- Cleveland
- Dallas
- Detroit
- Minneapolis
- Phoenix
- Portland (Oregon)
- Seattle
- Tampa

#### **4. Which census regions are included in the quarterly S&P/CS U.S. National Home Price Index?**

The nine Census regions are:

- East North Central
- East South Central
- Middle Atlantic
- Mountain
- New England
- Pacific
- South Atlantic
- West North Central
- West South Central

#### **5. What method is used to calculate the indices?**

The Case-Shiller repeat sales method is used to calculate the indices. In the 1980s, Karl Case and Robert Shiller developed the repeat sales index technique. This methodology is recognized as the most reliable means to measure housing price movements and is used by other home price index publishers, including the Office of Federal Housing Enterprise Oversight (OFHEO). In 2002, Fiserv purchased the company that produced the first commercial versions of the Case-Shiller indices. In 2006, Standard & Poor's partnered with Fiserv to develop and publish the S&P/Case-Shiller Home Price Indices.

#### **6. How does the repeat sales method work?**

The indices are calculated with the repeat sales method, which uses data on properties that have sold at least twice, in order to capture the true appreciated value of constant-quality homes.

To calculate the indices, data are collected on transactions of all residential properties during the months in question. The main variable used for index calculation is the price change between two arms-length sales of the same single-family home. Home price data are gathered after that information becomes publicly available at local recording offices across the country.

Data are collected on sales of specific single-family homes. Each sale price is considered a data point. When a specific home is resold, months or years later,

the new sale price is matched to the first price creating a sale pair. The difference in the value of this sale pair is measured and recorded. The sale is screened to exclude transactions that would make the index not representative of the market, for example a sale between family members (see Question 7, below). The screened sales pairs are then weighted to control for atypical changes in particular homes. All the qualified, weighted sale pairs in the MSA are aggregated into the corresponding MSA's index.

For a complete description of the methodology, please visit the Web site at [www.homeprice.standardandpoors.com](http://www.homeprice.standardandpoors.com).

### **7. What housing sales are excluded from the index calculation?**

The indices measure changes in housing market prices given a constant level of quality. The repeat sales method limits the effect that changes in the types and sizes of houses sold or changes in the physical characteristics of houses have on the indices. Filters are used to maintain the integrity of the index as an indicator of market trend. These filters identify and exclude: non-arms length transactions (e.g., property transfers between family members); transactions immediately preceding or subsequent to substantial physical changes to a property; transactions where the property type designation is changed (e.g., properties originally recorded as single-family homes are subsequently recorded as condominiums); and suspected data errors where the order of magnitude in values appears unrealistic. Sales of bank-owned homes are included in repeat sales pairs because they are arms-length transactions.

### **8. Why are indices not calculated for all large metro areas?**

To calculate an index, there must be a sufficient number of sale transaction records to create repeat sale pairs that cover a long historical span. Even in metro areas with high volumes of existing home sales, it is not always possible to collect enough recorded sales transactions. In some localities (e.g., Texas), sale prices are not publicly disclosed on deed records, so it is not possible to obtain sale prices from public data sources. However, when it is available, closed sale prices can be obtained from local multiple listing services (MLS). The Dallas index, for example, is calculated using sales prices from the local MLS database.

### **9. Why create a housing index?**

Residential real estate represents a significant portion of many investors' net worth. In 2007, the value of U.S. residential real estate totaled US\$ 22.5 trillion

compared to US\$ 19.9 trillion in domestic equities. The S&P/CS Home Price Indices capture and measure this important asset class. Besides tracking this critical asset class, these indices can support investors wishing to add real estate exposure without buying actual real residential property.

#### **10. How often are the indices calculated?**

The monthly indices use a three-month moving average algorithm. Home sales pairs are accumulated in rolling three-month periods, on which the repeat sales methodology is applied. The index point for each reporting month is based on sales pairs found for that month and the preceding two months. For example, the March 2008 index point is based on repeat sales data for January, February and March of 2008. This averaging methodology is used to offset delays that can occur in the flow of sales price data from county deed recorders and to keep sample sizes large enough to create meaningful price change averages.

The S&P/Case-Shiller U.S. National Home Price Index is a broader composite of single-family home price indices for the nine U.S. Census divisions and is calculated quarterly.

#### **11. When are the index data updated?**

The S&P/Case-Shiller Home Price Indices are published monthly, on the last Tuesday of each month at 09:00 AM Eastern Time. The latest data are reported with a two-month lag. For example, on Tuesday, May 27 2008, Standard & Poor's published March index data. The quarterly national index is published on the last Tuesday of February, May, August and November.

Each month, in addition to contract settlement indices for the latest reported month, Standard & Poor's will publish restated data for each Metro Area and the Composite indices.

Restated data will be made available for the prior 24-months of reported data. Home price data are often staggered, due to the reporting flow of sales price data from individual county deed recorders. Data are restated to take advantage of additional information on sales pairs found each month. Consequently, new data received in the current month may result in a new sales pair previously unreported during the last 24 months, creating a new pair and providing additional data, resulting in a restatement. Experience shows that these restatements tend to be moderate and almost non-existent in periods older than two years.

**12. How much history is available?**

Historical data for the indices are available back to January 1987, when available. The indices have a base value of 100 on January 2000. Data going further back and covering thousands of zip codes, counties, metro areas, and state markets are available from Fiserv Inc. The indices published by Standard & Poor's represent just a small subset of the broader data available through Fiserv.

**13. Where can I get data?**

Data can be obtained from the Standard & Poor's Web site at [www.homeprice.standardandpoors.com](http://www.homeprice.standardandpoors.com).