Survey of Market Absorption: Fourth Quarter 2010

Fourth Quarter 2010- Absorptions (Completions in Third Quarter 2010)

Introduction

The Survey of Market Absorption (SOMA) measures how soon privately financed, nonsubsidized, unfurnished units in buildings with five or more units are rented or sold (absorbed) after completion. In addition, the survey collects data on characteristics such as number of bedrooms, asking rent, and asking price.

The estimates in this report are based on responses from a sample of the population. As with all surveys, estimates may vary from actual values because of sampling variation or other factors. All comparisons made in this report have undergone statistical testing and are significant at the 90-percent confidence level.

Seasonally Adjusted Data

The construction of new housing units is typically higher during certain times of the year as opposed to others. For example, construction in the Northeast is lowest in December, January and February, when it is curtailed due to weather conditions (cold, snow, etc.). In contrast, new construction tends to rise during the summer.

These seasonal changes in the number of new constructions reflect typical weather patterns that have a tendency to be repeated year after year. These changes make it difficult to determine whether changes from one month to the next are a measurement of normal seasonal patterns or to varying economic conditions. To adjust for these seasonal changes, a statistical technique called "seasonal adjustment" is used. Seasonally adjusting brings into play the previous history of the series to identify the seasonal movements and to calculate the size and direction of these movements. A seasonal adjustment factor is then developed and applied to the estimates to eliminate the effects of regular seasonal fluctuations on the data. When a statistical series has been seasonally adjusted, the normal seasonal fluctuations are smoothed out and data for any month may be more meaningfully compared with data from any other month or with an annual average. Many time series that are based on monthly data are seasonally adjusted.

Highlights [1]

- An estimated 32,700 apartments were completed in buildings with five units or more in the third quarter of 2010. This estimate was about 13,300 fewer than the estimate of apartment completions in the previous quarter, and about 38,300 fewer than the 60,800 similar completions in the third quarter of 2009. (Table 11)

- Of the 32,700 units completed in the third quarter of 2010, approximately 16,900 were privately financed, nonsubsidized, unfurnished, rental apartments. This estimate was lower than the revised estimate of unfurnished units completed in the previous quarter (30,300), and also was about 30,400 units fewer than the completions in the third quarter of the previous year. (Table 1)

- An estimated 62 percent (seasonally adjusted) of the newly completed, unfurnished apartments built in the third quarter of 2010 were rented (absorbed) within 3 months of completion. This estimate is statistically unchanged from the estimate from the previous quarter and was 10 percentage points higher than the third quarter of the previous year. (Table 1)

- The not-seasonally-adjusted 3-month absorption rate of 62 percent for the 16,900 apartments completed in the third quarter of 2010 was not statistically different from that of the previous quarter (64 percent), yet was higher by 11 percentage points than the rate in the third quarter of 2009. (Table 1)

- The median asking rent for all privately financed, nonsubsidized, unfurnished rental units completed in buildings with five units or more in the third quarter of 2010 ($1,032) decreased by approximately $147, when compared to the median asking rent for 2010 second quarter completions. (Tables 2 and 3)

- More new units built in the third quarter of 2010 contained two bedrooms (49 percent) than contained one bedroom (34 percent). Units with three-or-more bedrooms ranked third in terms of unfurnished rental completions accounting for about 12 percent, while efficiency (no bedroom) units accounted for only 5 percent of the total. (Table 4)

- During the third quarter of 2010, the South region had the largest percentage of new unfurnished rental completions, with 48 percent. There was no significant difference between completions in the Midwest and the West (24 percent and 22 percent respectively). The Northeast continues to report the smallest percentage of new unfurnished rental completions, 7 percent. (Table 4)

- An estimated 5,700 condominium and cooperative apartments in buildings with five units or more were completed in the third quarter of 2010. This estimate is the same as the revised estimate from the prior quarter, and was about 3,100 fewer than the same quarter of 2009. In the third quarter of 2010, condominiums and cooperatives accounted for about 17 percent of all completions in buildings with five units or more. (Tables 5 and 11)

- About 40 percent of the 5,700 condominium apartments completed in the third quarter of 2010 were sold within 3 months of completion. This rate is not significantly different than the three month absorption rate from the previous quarter. The median asking price for new condominiums built in the third quarter of 2010 was over $400,000. (Tables 6 and 7)

- Of the remaining apartments completed in all buildings with five units or more in the third quarter of 2010, approximately 8,200 units were federally subsidized or received a tax credit. Also, there were about 700 units that were not in the scope of the survey. (Table11)

Characteristic of the Data

All statistics from the SOMA refer to apartments in newly constructed buildings with five units or more. Absorption rates reflect the first time an apartment is rented after completion or the first time a condominium or cooperative apartment is sold after completion. If apartments initially intended to be sold as condominium or cooperative units are, instead, offered by the builder or building owner for rent, they are counted as rental apartments. Units categorized as federally subsidized or receiving tax credits include the units subsidized under the following Department of Housing and Urban Development (HUD) or Federal Housing Administration (FHA) programs --Sections 8, 202, 811, 221(d)(3) or 221 (d)(4). In addition, units receiving Low Income Housing Tax Credit (LIHTC) through the Internal Revenue Service program are included in this category. The data on privately financed units include privately-owned housing subsidized by state and local governments. Time share units, continuing-care retirement units, and turnkey units (privately built for and sold to local public housing authorities after completion) are outside the scope of the survey.

Tables 1, 2, 3, 4 and Table 9 provide information about privately financed, nonsubsidized, unfurnished, rental apartments. Table 5 provides information about privately financed, nonsubsidized condominium and cooperative apartments, while Tables 6, 7, 8 and Table 10 provide information about condominium apartments only. Table 11 summarizes the totals for all types of newly constructed apartments in buildings with five units or more.

Note to Data Users

The SOMA adopted new ratio estimation procedures in 1990 to derive more accurate estimates of completions (See ESTIMATION below). Please use caution when comparing the number of completions in 1990 and following years with those in earlier years.

Sample Design

The U.S. Census Bureau designed the survey to provide data concerning the rate at which privately financed, nonsubsidized, unfurnished units in buildings with five or more units are rented or sold (absorbed). In addition, the survey collects data on characteristics such as number of bedrooms, asking rent, and asking price.

Buildings for the survey come from those included in the Census Bureau's Survey of Construction (SOC) [2] . For the SOC, the United States is first divided into primary sampling units (PSUs), which are stratified based on population and building permits. The PSUs to be used for the survey are then randomly selected from each stratum. Next, a sample of geographic locations that issue permits is chosen within each of the selected PSUs. All newly constructed buildings with five units or more within sampled places and a subsample of buildings with one to four units are included in the SOC.

For the SOMA, the Census Bureau selects, each quarter, a sample of buildings with five or more units that have been reported in the SOC sample as having been completed during that quarter. The SOMA does not include buildings completed in areas that do not issue permits.

In each of the subsequent four quarters, the proportion of units in the quarterly sample that are sold or rented (absorbed) are recorded, providing data for absorption rates 3, 6, 9, and 12 months after completion.

An annual SOMA report is produced at the end of the first quarter of every year and details absorption information for all privately financed, nonsubsidized, unfurnished units in buildings with five or more units from the previous year. Additionally, every five years a comprehensive report is produced that includes ten (10) additional tables that provide historical data as restricted to privately financed, nonsubsidized, unfurnished rental apartments and condominium/cooperative units.

Estimation

The Census Bureau publishes preliminary estimates for a given quarter and may revise these estimates in ensuing quarters. Each quarter, some of the absorption data for some buildings arrive after the deadline for that quarter's report; these late data appear in a revised table in the next quarterly report. Final data appear in the Census Bureau's H-130 report series, Market Absorption of Apartments annual report.

Beginning with data on completions in the fourth quarter of 1990 (which formed the basis for absorptions in the first quarter of 1991), the Census Bureau modified the estimation procedure and applied the new procedure to the data for the other three quarters of 1990, so that annual estimates using the same methodology for four quarters could be derived. The Census Bureau did not perform any additional re-estimation of past data.

Using the original estimation procedure, the Census Bureau created design-unbiased estimates by multiplying the counts for each building by its base weight (the inverse of its probability of selection) and then summing over all buildings. Multiplying the design-unbiased estimate by the following ratio estimate factor for the country as a whole provided the final estimate:

(total units in buildings with five or more units in permit-issuing areas as estimated by the SOC for that quarter) [3] / (total units in building with five or more units as estimated by the SOMA for that quarter)

In the modified estimation procedure, instead of applying a single ratio-estimate factor for the entire country, the Census Bureau computes separate ratio-estimate factors for each of the four census regions. Multiplying the unbiased regional estimates by the corresponding ratio-estimate factors provides the final estimate for regions. The Census Bureau obtains the final estimate for the country by summing the final regional estimates.

This procedure produces estimates of the units completed in a given quarter that are consistent with the published figures from the SOC and reduces, to some extent, the sampling variability of the estimates of totals.

Absorption rates and other characteristics of units not included in the interviewed group or not accounted for are assumed to be identical to rates for units about which data were obtained. The noninterviewed and not accounted for cases constitute less than 2 percent of the sample housing units in this survey.

Accuracy of the Estimates

The SOMA is a sample survey and consequently all statistics in this report are subject to sampling variability. Estimates derived from different samples would likely differ from these.

Two types of possible errors are associated with data from sample surveys: nonsampling and sampling.

Nonsampling Errors

In general, nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample, difficulties with definitions, differences in interpreting questions, inability or unwillingness of the respondents to provide correct information, and data processing errors. Although no direct measurements of any bias that might result from nonsampling errors have been obtained, the Census Bureau thinks that many of the important response and operational errors were detected during review of the data for reasonableness and consistency.

Sampling Errors

The particular sample used for this survey is one of many possible samples of the same size that could have been selected using the same design. Even if the same questionnaires, instructions, and interviewers were used, estimates from different samples would likely differ from each other. The deviation of a sample estimate from the average of estimates from all possible samples is defined as the sampling error. The standard error of a survey estimate provides a measure of this variation and, thus, is a measure of the precision with which an estimate from a sample approximates the average result from all possible samples.

If all possible samples were selected, if each was surveyed under the same general conditions, and if an estimate and its estimated standard error were calculated from each sample, then:

Approximately 90 percent of the intervals from 1.645 standard errors below the estimate to 1.645 standard errors above the estimate (i.e., the 90 percent confidence interval) would include the average result from all possible samples.

This report uses a 90-percent confidence level as its standard for statistical significance. [4] The estimates in this report show the totals, percents, and medians with the 90-percent confidence interval.

For very small estimates, the lower limit of the confidence interval may be negative. In this case, a better approximation to the true interval estimate can be achieved by restricting the interval estimate to positive values, that is, by changing the lower limit of the interval estimate to zero.

The average result from all possible samples either is or is not contained in any particular computed interval. However, for a particular sample, one can say with specified confidence that the average result from all possible samples is included in the constructed interval.

For example, Table 2 of this report shows that the median asking rent for unfurnished apartments completed in buildings with five units or more during the third quarter of 2010 was $1,032. The 90-percent confidence interval around this estimate is +/- $69. Thus the 90-percent confidence interval shown by these data is $963 - $1,101. A conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 90 percent of all possible samples.

Footnotes

[1] *Details may not sum to totals because of rounding.*

[2] *See* <u>New Residential Construction</u> *for further details on the SOC sample design.*

[3] *Beginning with January 2001 completions, the SOC revised its methodology for estimating the number of units completed for 5+ multi-unit structures. See* <u>April 2001 Revisions to New Residential Construction</u> *for these changes. Thus, caution is advised when comparing data from 2001 and forward to any estimates prior to 2001*

[4] *Beginning with data for completions in the second quarter of 1999, the Census Bureau implemented a new procedure for computing standard errors. The new procedure may result in differences in standard errors derived using the prior methodology, so standard errors were revised back to the third quarter of 1998.*