Highlights

Expanding the Number of Expanded-Data Indexes Released to the Public:

New Indexes Now Available for the 25 Largest MSAs

Background

In the Highlights article from the 2012Q2 HPI release, FHFA introduced an expanded-data house price index (HPI). That index was estimated using transaction prices for homes with Enterprise-financed mortgages as well as two new data sources: transactions for homes financed with Federal Housing Administration (FHA) mortgages and county recorder data licensed from DataQuick Information Systems. Beginning with the 2011Q2 HPI publication, the quarterly expanded-data HPI was released for the nation as a whole, the nine census divisions, and every state. Starting with this release, FHFA will extend the expanded-data index coverage to include the 25 largest metropolitan areas (MSAs).

Details concerning the methodology used for estimating the new indexes can be found in the 2012Q2 Highlights article. As with all of FHFA's indexes, the MSA-level expanded data metrics are constructed using the repeat transactions indexing methodology.[1] The only difference between the new metrics and the standard purchase-only HPI is the underlying data sample. The expanded-data sample includes transactions data from FHA and DataQuick as well as the purchase-money mortgage data that are used in estimating the standard purchase-only HPI.[2] Because the same property transaction can show up in more than one of the underlying data sources, redundant observations are removed from the sample before the expanded-data metrics are estimated.

Comparing the expanded-data and traditional purchase-only indexes

The attached table (Table 1) compares the expanded-data and traditional purchase-only indexes for the 25 metropolitan areas. Three different statistics are compared: index levels in 2012Q3, the latest quarterly price change, and the four-quarter change between 2011Q3 and 2012Q3.

In each of the 25 metropolitan areas, Table 1 reveals that the expanded-data measure was below the purchase-only metric in 2012Q3. In each case, the index levels reflect the cumulative price change since 1991Q1 in each area, which implies that prices of non-Enterprise properties increased less than those of Enterprise properties. The average difference between the measures was 26.8 points, a significant difference but one that is consistent with prior FHFA research that

---

[1] For a detailed description of the approach, see Calhoun, Charles, "OFHEO House Price Indexes: HPI Technical Description" available at: http://www.fhfa.gov/webfiles/896/hpi_tech.pdf.
[2] Appraisal values from Enterprise-financed refinance mortgages are not used in the formation of the expanded-data HPI.

has shown that the measured depth of the recent housing bust is greater when non-Enterprise transactions are included in index estimation.

Although the cumulative changes (since 1991Q1) in the expanded-data and purchase-only indexes are systematically different across MSAs, Table 1 shows that recent appreciation rates for the respective indexes are broadly similar. Although the respective measures of quarterly and four-quarter price changes differ materially for select cities, on average, the difference between the respective measurements is close to zero.

The new expanded-data indexes for the largest 25 MSAs can be downloaded on FHFA's website by navigating to the House Price Index webpage, clicking on "Downloadable Data" and then scrolling down to the heading that begins with "Expanded-Data Indexes". The direct URL for the new expanded-data indexes is:

http://www.fhfa.gov/webfiles/24640/3q12hpicbsa_expandeddata.xls

The table includes fields for the Core-Based Statistical Area (CBSA) number, metropolitan area name, year, quarter, not seasonally adjusted HPI, and seasonally adjusted HPI. An additional note field is provided at the end of each record to denote cases when less than 10 percent of a metropolitan area's data sample came from the DataQuick county recorder data.

Issues with Expanded-Data Indexes

While the new expanded-data indexes include a larger number of homes in index estimation--and thus may reflect price changes for a wider swath of the housing market--there are some *caveats* associated with their use. First, there are areas where the county recorder coverage is relatively limited. This is the case for the two MSAs in Texas. Second, even in areas with full county recorder coverage, the DataQuick database simply does not extend as far back as the longer time series collected by the Enterprises and FHA. To identify those index observations that are estimated using a relatively limited number of transactions from the DataQuick database, as noted above, the downloadable file contains flags that identify cases where less than 10 percent of the data sample is comprised of county records data.

Commentary

While FHFA intends to publish the expanded-data indexes for metropolitan areas going forward, users of the new indexes should be aware that refinements may be made to the estimation approach and data filters applied. These changes may produce larger revisions for the new series than for the standard purchase-only indexes. FHFA will document any substantial alterations in future highlight articles or on the HPI website.

As part of its mission to support the nation's housing industry, FHFA produces the HPI to provide citizens with information about how home values are changing over time. FHFA welcomes public input and feedback on how these new indexes--as well as the existing suite of

indexes-- are currently being used and how they might be improved. Comments, questions, and suggestions should be addressed to hpihelpdesk@fhfa.gov.

Highlights Table 1: Expanded-Data and Purchase-Only House Price Indexes by Metropolitan Area
(Seasonally Adjusted, 1991Q1=100)

Metropolitan Area Name	Index Level (2012Q3)			One-Quarter Change (2012Q2-2012Q3)			Four-Quarter Change (2011Q3-2012Q3)		
	Purchase-Only	Expanded-Data	Difference	Purchase-Only	Expanded-Data	Difference	Purchase-Only	Expanded-Data	Difference
Atlanta-Sandy Springs-Marietta, GA	152.02	115.11	36.91	1.88%	2.50%	-0.62%	8.52%	1.32%	7.20%
Baltimore-Towson, MD	214.56	188.27	26.29	-0.31%	0.30%	-0.61%	1.27%	1.70%	-0.43%
Chicago-Joliet-Naperville, IL (MSAD)	164.20	129.92	34.28	-0.27%	-1.25%	0.98%	-0.35%	-4.04%	3.69%
Cleveland-Elyria-Mentor, OH	145.20	106.92	38.28	0.55%	-0.71%	1.26%	3.60%	0.27%	3.33%
Dallas-Plano-Irving, TX (MSAD) *	176.62	163.70	12.92	0.56%	1.37%	-0.82%	5.21%	6.00%	-0.79%
Denver-Aurora-Broomfield, CO	288.65	257.23	31.42	1.72%	1.52%	0.20%	7.33%	8.34%	-1.01%
Edison-New Brunswick, NJ (MSAD)	217.47	193.09	24.38	-2.16%	-0.15%	-2.01%	-2.23%	-1.77%	-0.47%
Houston-Sugar Land-Baytown, TX *	219.07	173.26	45.81	2.14%	0.86%	1.28%	10.04%	5.06%	4.98%
Los Angeles-Long Beach-Glendale, CA (MSAD)	177.05	158.91	18.14	0.99%	1.70%	-0.72%	5.68%	5.06%	0.63%
Miami-Miami Beach-Kendall, FL (MSAD)	238.93	183.35	55.58	-0.64%	2.00%	-2.64%	10.00%	5.96%	4.04%
Minneapolis-St. Paul-Bloomington, MN-WI	204.10	191.74	12.36	2.08%	3.20%	-1.12%	6.25%	7.65%	-1.41%
Nassau-Suffolk, NY (MSAD)	250.54	226.72	23.82	0.21%	0.89%	-0.68%	-0.20%	1.53%	-1.73%
New York-White Plains-Wayne, NY-NJ (MSAD)	233.90	205.74	28.16	1.58%	1.69%	-0.11%	-3.03%	-0.38%	-2.65%
Oakland-Fremont-Hayward, CA (MSAD)	176.95	167.51	9.44	3.06%	3.22%	-0.17%	8.79%	8.60%	0.20%
Philadelphia, PA (MSAD)	201.83	183.83	18.00	0.21%	0.05%	0.16%	-0.80%	-1.72%	0.92%
Phoenix-Mesa-Glendale, AZ	199.81	170.33	29.48	7.18%	5.23%	1.95%	26.24%	20.72%	5.51%
Pittsburgh, PA	195.28	170.82	24.46	0.88%	0.57%	0.31%	2.75%	3.75%	-1.00%
Riverside-San Bernardino-Ontario, CA	135.46	125.33	10.13	1.64%	3.42%	-1.78%	7.54%	7.19%	0.35%
St. Louis, MO-IL	182.21	148.28	33.93	-0.48%	0.17%	-0.65%	2.06%	-1.52%	3.58%
San Diego-Carlsbad-San Marcos, CA	202.19	187.76	14.43	1.62%	2.14%	-0.51%	5.41%	4.50%	0.90%
Santa Ana-Anaheim-Irvine, CA (MSAD)	205.39	201.40	3.99	2.57%	1.80%	0.77%	3.52%	3.89%	-0.37%
Seattle-Bellevue-Everett, WA (MSAD)	227.71	217.16	10.55	3.01%	3.11%	-0.10%	5.57%	6.59%	-1.02%
Tampa-St. Petersburg-Clearwater, FL	187.22	143.04	44.18	-1.22%	0.32%	-1.54%	6.67%	2.68%	3.99%
Warren-Troy-Farmington Hills, MI (MSAD)	140.73	105.95	34.78	2.72%	4.53%	-1.81%	9.55%	8.61%	0.94%
Washington-Arlington-Alexandria, DC-VA-MD-WV (MSAD)	241.37	192.89	48.48	1.32%	2.02%	-0.70%	5.45%	6.40%	-0.95%

Source: Underlying transactions data include mortgage-level data from the Enterprises and FHA as well as county recorder data licensed from DataQuick Information Systems.

* As discussed in the text, these metropolitan areas have very limited county recorder data, due to nondisclosure laws.

Highlights Table 1: Expanded-Data and Purchase-Only House Price Indexes by Metropolitan Area
(Seasonally Adjusted, 1991Q1=100)

Metropolitan Area Name	Index Level (2012Q3)			One-Quarter Change (2012Q2-2012Q3)			Four-Quarter Change (2011Q3-2012Q3)		
	Purchase-Only	Expanded-Data	Difference	Purchase-Only	Expanded-Data	Difference	Purchase-Only	Expanded-Data	Difference
Atlanta-Sandy Springs-Marietta, GA	152.02	115.11	36.91	1.88%	2.50%	-0.62%	8.52%	1.32%	7.20%
Baltimore-Towson, MD	214.56	188.27	26.29	-0.31%	0.30%	-0.61%	1.27%	1.70%	-0.43%
Chicago-Joliet-Naperville, IL (MSAD)	164.20	129.92	34.28	-0.27%	-1.25%	0.98%	-0.35%	-4.04%	3.69%
Cleveland-Elyria-Mentor, OH	145.20	106.92	38.28	0.55%	-0.71%	1.26%	3.60%	0.27%	3.33%
Dallas-Plano-Irving, TX (MSAD) *	176.62	163.70	12.92	0.56%	1.37%	-0.82%	5.21%	6.00%	-0.79%
Denver-Aurora-Broomfield, CO	288.65	257.23	31.42	1.72%	1.52%	0.20%	7.33%	8.34%	-1.01%
Edison-New Brunswick, NJ (MSAD)	217.47	193.09	24.38	-2.16%	-0.15%	-2.01%	-2.23%	-1.77%	-0.47%
Houston-Sugar Land-Baytown, TX *	219.07	173.26	45.81	2.14%	0.86%	1.28%	10.04%	5.06%	4.98%
Los Angeles-Long Beach-Glendale, CA (MSAD)	177.05	158.91	18.14	0.99%	1.70%	-0.72%	5.68%	5.06%	0.63%
Miami-Miami Beach-Kendall, FL (MSAD)	238.93	183.35	55.58	-0.64%	2.00%	-2.64%	10.00%	5.96%	4.04%
Minneapolis-St. Paul-Bloomington, MN-WI	204.10	191.74	12.36	2.08%	3.20%	-1.12%	6.25%	7.65%	-1.41%
Nassau-Suffolk, NY (MSAD)	250.54	226.72	23.82	0.21%	0.89%	-0.68%	-0.20%	1.53%	-1.73%
New York-White Plains-Wayne, NY-NJ (MSAD)	233.90	205.74	28.16	1.58%	1.69%	-0.11%	-3.03%	-0.38%	-2.65%
Oakland-Fremont-Hayward, CA (MSAD)	176.95	167.51	9.44	3.06%	3.22%	-0.17%	8.79%	8.60%	0.20%
Philadelphia, PA (MSAD)	201.83	183.83	18.00	0.21%	0.05%	0.16%	-0.80%	-1.72%	0.92%
Phoenix-Mesa-Glendale, AZ	199.81	170.33	29.48	7.18%	5.23%	1.95%	26.24%	20.72%	5.51%
Pittsburgh, PA	195.28	170.82	24.46	0.88%	0.57%	0.31%	2.75%	3.75%	-1.00%
Riverside-San Bernardino-Ontario, CA	135.46	125.33	10.13	1.64%	3.42%	-1.78%	7.54%	7.19%	0.35%
St. Louis, MO-IL	182.21	148.28	33.93	-0.48%	0.17%	-0.65%	2.06%	-1.52%	3.58%
San Diego-Carlsbad-San Marcos, CA	202.19	187.76	14.43	1.62%	2.14%	-0.51%	5.41%	4.50%	0.90%
Santa Ana-Anaheim-Irvine, CA (MSAD)	205.39	201.40	3.99	2.57%	1.80%	0.77%	3.52%	3.89%	-0.37%
Seattle-Bellevue-Everett, WA (MSAD)	227.71	217.16	10.55	3.01%	3.11%	-0.10%	5.57%	6.59%	-1.02%
Tampa-St. Petersburg-Clearwater, FL	187.22	143.04	44.18	-1.22%	0.32%	-1.54%	6.67%	2.68%	3.99%
Warren-Troy-Farmington Hills, MI (MSAD)	140.73	105.95	34.78	2.72%	4.53%	-1.81%	9.55%	8.61%	0.94%
Washington-Arlington-Alexandria, DC-VA-MD-WV (MSAD)	241.37	192.89	48.48	1.32%	2.02%	-0.70%	5.45%	6.40%	-0.95%

Source: Underlying transactions data include mortgage-level data from the Enterprises and FHA as well as county recorder data licensed from DataQuick Information Systems.

* As discussed in the text, these metropolitan areas have very limited county recorder data, due to nondisclosure laws.