



September 2013 U.S. Economic & Housing Market Outlook

Apartment Buildings on Solid Ground

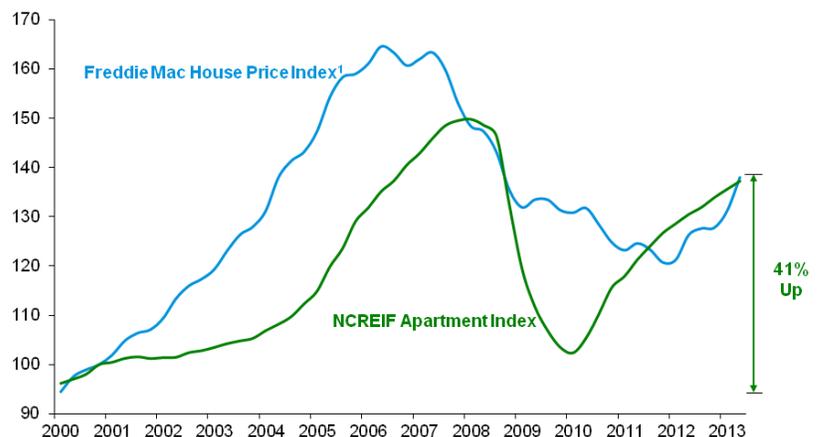
Property values went through a boom-bust cycle over the past decade for different types of real estate, not just for single-family. For instance, values of apartment buildings shot up in the middle part of the last decade, in part because of the easy mortgage credit financed through Commercial Mortgage-Backed Securities (CMBS), then peaked in late-2007/early-2008 and tumbled during the Great Recession. The nonresidential property sector experienced a similar pattern.

Multifamily property values stabilized and rebounded before single-family values, beginning with posting an impressive rebound in prices and then moderating over the past year to 5.2 percent appreciation, as measured by the National Council of Real Estate Investment Fiduciaries (NCREIF) property index for apartment values. Single-family house prices recovered later and were up more sharply over the past year; 9.3 percent in the Freddie Mac House Price Index (FMHPI) and 10.1 percent in the S&P/Case-Shiller Index for the U.S. The housing market's relatively rapid rebound in values has raised the specter that values have grown too fast too soon, and become delinked from fundamentals. As we see it, residential property values remain consistent with fundamental economic forces in the housing market.

Housing property values were up a cumulative of 41 percent between the second quarter of 2000 and the second quarter of 2013, as measured by the FMHPI for single family houses and the NCREIF property index for apartment buildings. These increases compare favorably with the 36 percent gain for the Consumer Price Index (CPI) less Shelter over the same period. Thus, over the past 13 years, housing values are up only a little bit more than (non-housing) inflation in the economy.

Residential Property Values Are Up 41% Since 2000 (but what a long, strange trip it has been)

Property Value Index (2000 = 100)



Source: Freddie Mac House Price Index, National Council of Real Estate Investment Fiduciaries. 2013 data as of June 30, 2013. ¹The Freddie Mac House Price Index for the U.S. is a value-weighted average of the state indexes where the value weights are based on Freddie Mac's single-family credit guarantee portfolio. Other indices of home prices may have different results, as they are determined using different pools of mortgage loans and calculated under different conventions.

In economic terms, apartment building values should reflect the expected present discounted value of net cash flows from the property. A related alternative to this valuation method is to take an approximation to the first-year cash flow, the net operating income (NOI), and divide by a market-based capitalization rate (or "cap rate") to estimate property value. NOI represents property revenues (for multifamily dwellings, this is mostly apartment rent) less operating costs

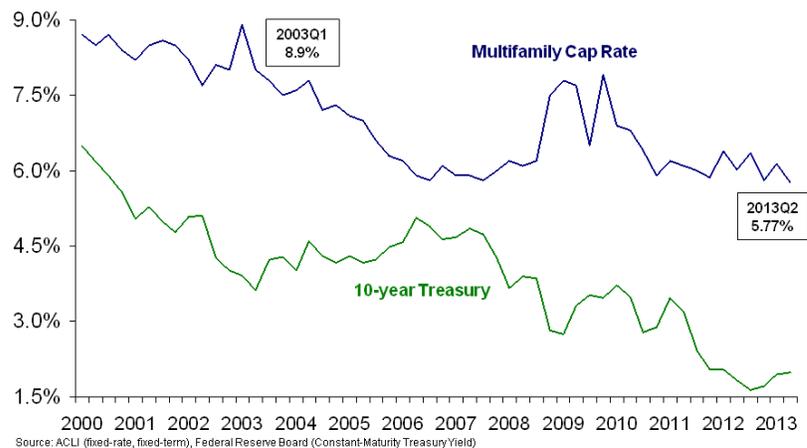
(maintenance and management fees, and other costs). The market cap rate indicates the amount of NOI received per dollar property value. Cap rates will be affected by the level of long-term (risk-free) interest rates, the perceived riskiness of real-estate investments, and the expected growth in net revenues, among other factors. Thus, secular trends in aggregate cash flows and cap rates help in evaluating recent movements in apartment building values.

Cap rates have been on a secular decline in the U.S. as long-term interest rates have moved lower. At the start of the millennium, apartment building cap rates were above 8 percent and have declined to about 5.5 percent to 6 percent recently.

The American Council of Life Insurers (ACLI) reports cap rates on apartments with new mortgages made by life insurers, have fallen from 8.9 percent in the first quarter of 2003 to 5.77 percent in the second quarter of 2013, a 35 percent decline and the lowest recorded by ACLI since the series' inception in 1965. Likewise, ten-year Treasury yields have fallen from 6.48 percent during the first quarter of 2000 to 1.64 percent by the third quarter of 2012.

Apartment Cap Rates Fell 35% over Past Decade

Interest or Cap Rate (Percent)



The difference, or “spread”, between cap rates and Treasury yields will reflect the perceived riskiness of apartment investments, tax code changes, rent growth, and other factors. That spread has been unusually high during the past two years as long-term interest rates have declined. For example, the spread averaged 3.0% over the 1996-2005 period and 4.0% during the first half of 2013 in the ACLI series; this spread is near all-time highs and reflects relatively cautious valuations by investors. In contrast, the spread averaged only 1.2% during 2006 and 2007, the final two years prior to the onset of the Great Recession.

Rental revenue has improved since 2000, and especially over the past three years as vacancy rates have come down and apartment markets have tightened. Over the past 13 years, the CPI-Rent index has outpaced the growth in the CPI less Shelter index by 10 percentage points (46 percent versus 36 percent), and over the past year Reis and Axiometrics have reported effective rents up about 3 percent in apartment buildings that each surveys, compared with a 1 percent increase in the CPI less Shelter (second quarter-to-second quarter).

Thus, the decline in cap rates and growth in rents (adjusted for inflation) are key fundamentals that explain the rise in apartment values over the past decade. Seen through this lens, the rise in property values appears to be consistent with overall economic forces, and the slower appreciation over the past year reflects the bottoming of cap rates. Cap rates are expected to gradually move higher in the coming year as long-term yields move higher, and rents are likely to outpace overall inflation, leaving apartment values firm and on solid ground.

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September 17, 2013

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Additional reading: Please visit Freddie Mac's [Multifamily Research](#) page for more analysis. On that page, "Mysteries Revealed" describes the overvaluations in some CMBS during the middle of the last decade; "Multifamily Property Valuations" has a more in-depth discussion of property valuation trends and issues.

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Indicator	2012		2013				2014				Annual Totals					
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2009	2010	2011	2012	2013	2014
	Real GDP (%)	2.8	0.1	1.1	2.5	2.2	2.6	2.8	3.0	3.0	3.2	-0.2	2.8	2.0	2.0	2.1
Consumer Prices (%) a.	2.1	2.2	1.4	0.0	2.5	2.0	2.0	2.0	2.0	2.0	1.5	1.4	3.0	1.8	1.5	2.0
Unemployment Rate (%) b.	8.0	7.8	7.7	7.6	7.4	7.3	7.2	7.1	7.0	6.9	9.3	9.6	8.9	8.1	7.5	7.1
30-Year Fixed Mtg. Rate (%) b.	3.6	3.4	3.5	3.7	4.5	4.7	4.8	4.9	5.1	5.2	5.0	4.7	4.5	3.7	4.1	5.0
1-Year Treas. Indexed ARM Rate (%) b.	2.7	2.6	2.6	2.6	2.6	2.7	2.7	2.8	2.9	3.0	4.7	3.8	3.0	2.7	2.6	2.9
10-Year Const. Mat. Treas. Rate (%) b.	1.6	1.7	2.0	2.0	2.7	3.0	3.1	3.0	3.4	3.5	3.3	3.2	2.8	1.8	2.4	3.3
1-Year Const. Mat. Treas. Rate (%) b.	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.3	0.2	0.2	0.1	0.4

Indicator	2012		2013				2014				Annual Totals					
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2009	2010	2011	2012	2013	2014
	Housing Starts c.	0.78	0.90	0.96	0.87	0.95	1.00	1.10	1.15	1.25	1.30	0.55	0.59	0.61	0.78	0.95
Total Home Sales d.	5.12	5.28	5.39	5.50	5.55	5.65	5.70	5.80	5.90	6.00	4.72	4.51	4.57	5.03	5.52	5.85
FMHPI House Price Appreciation (%) e.	1.1	0.1	2.7	5.2	0.9	0.0	1.0	2.5	2.0	0.4	-2.3	-5.0	-3.3	5.9	9.0	6.0
S&P/Case-Shiller® Home Price Index (%) f.	2.1	-0.4	1.1	7.1	1.5	0.0	1.1	3.1	1.5	0.2	-2.5	-3.8	-3.7	7.2	9.9	6.0
1-4 Family Mortgage Originations g.																
Conventional	\$463	\$475	\$440	\$461	\$320	\$235	\$300	\$360	\$245	\$185	\$1,549	\$1,300	\$1,206	\$1,720	\$1,456	\$1,090
FHA & VA	\$97	\$105	\$100	\$99	\$80	\$65	\$70	\$80	\$65	\$45	\$451	\$377	\$294	\$380	\$344	\$260
Total	\$560	\$580	\$540	\$560	\$400	\$300	\$370	\$440	\$310	\$230	\$2,000	\$1,677	\$1,500	\$2,100	\$1,800	\$1,350
ARM Share (%) h.	8	7	8	9	10	11	12	13	14	15	3	5	11	10	10	14
Refinancing Share - Applications (%) i.	82	83	79	73	55	45	45	40	40	35	70	76	75	81	66	41
Refinancing Share - Originations (%) j.	76	76	75	70	50	40	45	40	40	35	68	67	64	71	62	41
Residential Mortgage Debt (%) k.	-2.9	0.0	-1.9	1.5	1.5	0.5	1.0	2.0	3.0	4.0	-1.6	-4.1	-2.2	-2.1	0.4	2.5

Note: Quarterly and annual forecasts (or estimates) are shown in shaded areas; totals may not add due to rounding; quarterly data expressed as annual rates.

Annual forecast data are averages of quarterly values; annual historical data are reported as Q4 over Q4.

a. Calculations based on quarterly average of monthly index levels; index levels based on the seasonally-adjusted, all-urban consumer price index.

b. Quarterly average of monthly unemployment rates (seasonally-adjusted); Quarterly average of monthly interest rates.

c. Millions of housing units; quarterly averages of monthly, seasonally-adjusted levels (reported at an annual rate).

d. Millions of housing units; total sales are the sum of new and existing single-family homes; quarterly averages of monthly, seasonally-adjusted levels (reported at an annual rate).

e. Quarterly growth rate of Freddie Mac's House Price Index (FMHPI); not seasonally-adjusted; Dec.to-Dec. for yearly data.

f. National composite index (quarterly growth rate); not seasonally-adjusted; Q4-to-Q4 for yearly data.

g. Billions of dollars (not seasonally-adjusted).

h. Federal Housing Finance Agency (FHFA); quarterly averages of monthly shares of number of loans of conventional, home-purchase mortgage closings (not seasonally-adjusted).

i. Primary Mortgage Market Survey®; quarterly averages of monthly shares of all single-family mortgage applications (not seasonally-adjusted).

j. Home Mortgage Disclosure Act for all single-family mortgages (not seasonally-adjusted); Annual share is dollar-weighted average of quarterly shares.

k. Federal Reserve Board; growth rate of residential mortgage debt, the sum of single-family and multifamily mortgages(not seasonally-adjusted, annual rate).

Prepared by Office of the Chief Economist and reflects views as of 9/17/2013 (MAS); Send comments and questions to chief_economist@freddiemac.com.

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