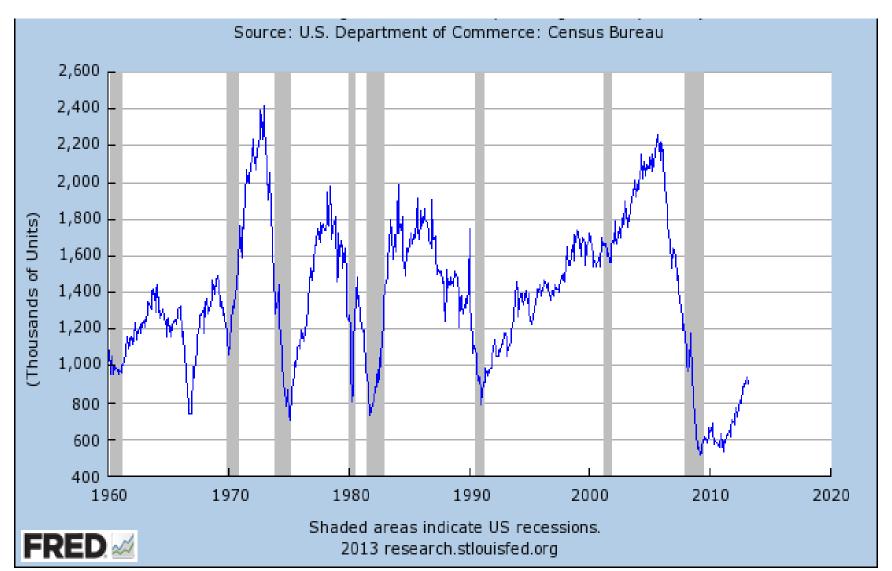
Is the Recovery in US Housing Sustainable?

Richard K Green
University of Southern California
May 7, 2013

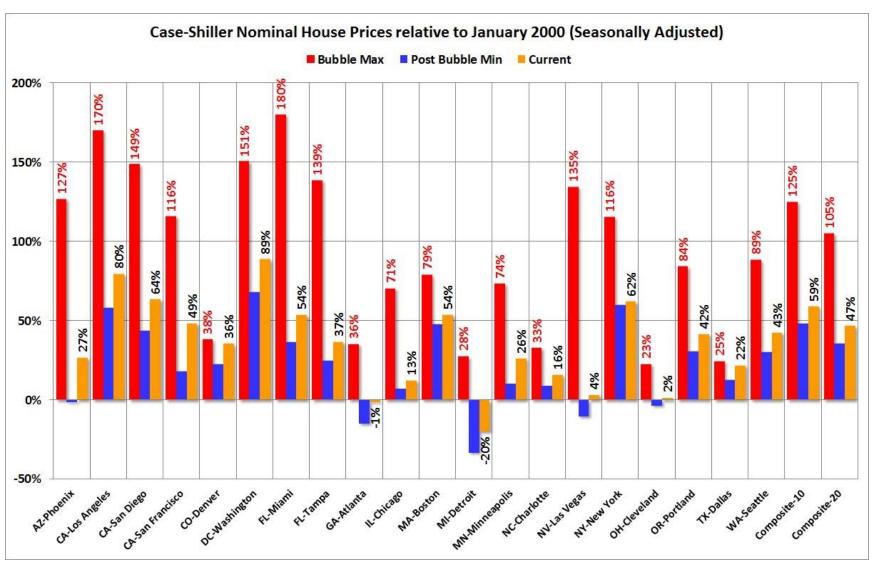
Four Elements

- New Construction
- House Prices
- Homeownership Rate
- Apartments

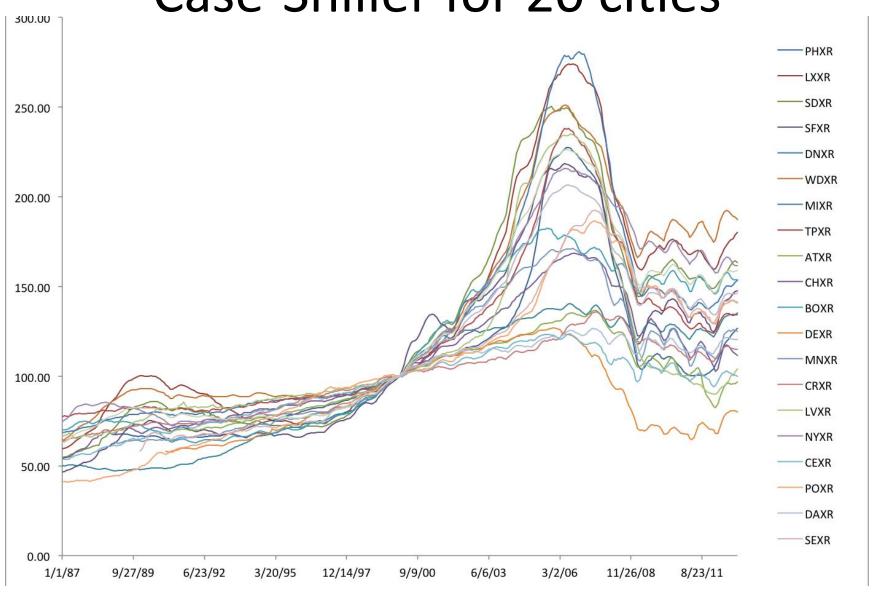
US Housing Starts (Housing and the Business Cycle)



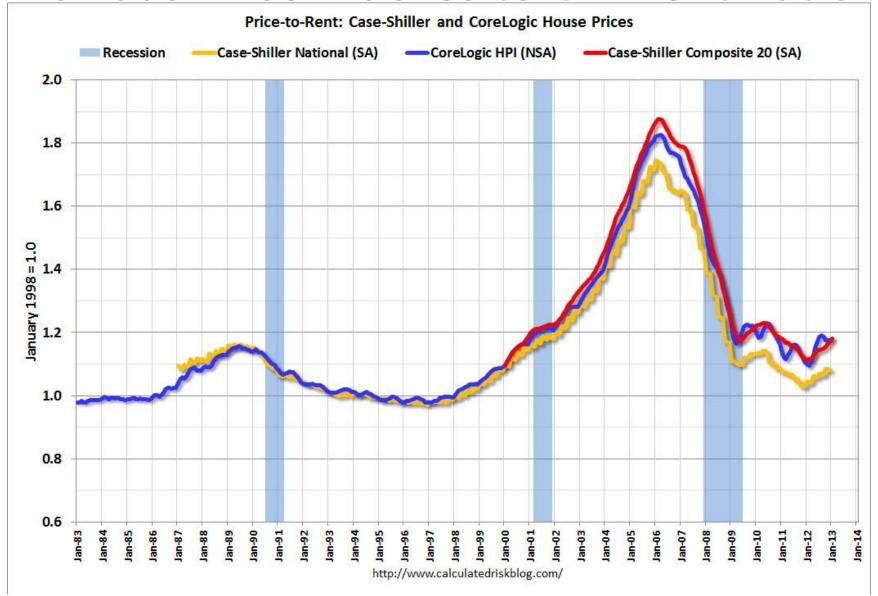
Case-Shiller Recovery from Trough



Case-Shiller for 20 cities



Various Price Indexes to CPI Rent Ratio



America is now Inexpensive

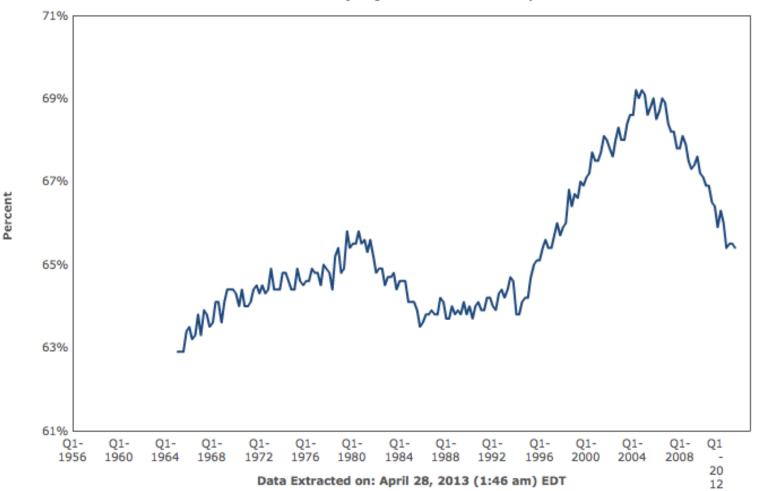


Do Americans no longer desire homeownership?

- Rate has been dropping
- But is has just now returned to long-term rate
- Life cycle issues
- City-suburb issues

Source: Current Population Survey/Housing Vacancy Survey, Series H-111, Bureau of the Census, Washington DC 20233 Rate: United States Q1-1956 to Q4-2...

Not Seasonally Adjusted Homeownership Rate



These data are subject to sampling and nonsampling error. For more information see http://www.census.gov/hhes/www/housing/hvs/qtr112/q112src.html.



What about Investor Prices?

- Can low capitalization rates be sustained?
 - Cost of capital is very low
 - Vacancy rates are low
 - Will rent continue to rise?
 - Investor loans tend to have balloon payments

CAP RATE SURVEYMultihousing Infill/Urban | Current Cap Rates

	4
FEDDLIADY 0010	
FEBRUARY 2013	

		Class A		Class		Clas	s C
		Stabilized	Value-Add	Stabilized	Value-Add	Stabilized	Value-Add
	Atlanta	4.75% - 5.25%	5.25% - 5.75%	5.25% - 5.75%	6.00% - 6.50%	7.00% - 7.50%	8.00% - 8.50%
	Baltimore	4.25% - 4.75%	4.50% - 5.00%	5.50% - 6.00%	5.75% - 6.50%	6.50% - 7.00%	7.25% - 7.75%
	Boston	4.00% - 4.50%	4.00% - 4.75%	4.75% - 5.25%	4.75% - 5.25%	N/A	N/A
_	Charlotte	4.50% - 5.00%	5.25% - 5.75%	5.50% - 6.00%	6.00% - 6.50%	7.00% - 7.50%	7,50% +
	Jacksonville	5.20% - 5.40%	5.75% - 6.25%	6.00% - 6.30%	6.75% - 7.00%	6.75% - 7.25%	9.00% - 9.50%
	Manhattan	3.50% - 4.50%	4.00% - 5.00%	4.00% - 5.00%	4.50% - 5.50%	5.25% - 6.25%	5.50% - 6.50%
	Memphis	5.75% - 6.25%	5.75% - 6.25%	6.50% - 7.50%	6.50% - 7.50%	8.00%+	8.00%+
EAST	Miami	4.00% - 4.50%	4.75% - 5.00%	5.00% - 5.25%	5.25% - 5.50%	6.00% - 6.50%	6.25% - 7.00%
ш	Nashville	5.00% - 5.50%	5.75% - 6.25%	6.00% - 6.50%	6.50% - 7.00%	6.75% - 7.25%	7.25% - 7.75%
	Orlando	4.75% - 5.25%	5.25% - 5.75%	5.75% - 6.25%	6.00% - 6.50%	6.50% - 7.00%	7.00% - 8.25%
	Philadelphia	5.00% - 5.50%	5.00% - 5.50%	6.00% - 6.50%	6.25% - 6.75%	7.00% - 7.50%	7.50% - 8.00%
	Pittsburgh	6.00% - 6.50%	6.50% - 7.00%	6.50% - 7.00%	7.00% - 7.50%	8.00% - 8.50%	8.50% - 9.00%
	Raleigh	4.50% - 5.75%	5.75% - 6.50%	5.50% - 6.50%	6.50% - 7.50%	7.50% - 9.50%	9.50% - 10.50%
	Tampa	5,00% - 5,50%	N/A	5.75% - 6.25%	6.00% - 6.50%	6.25% - 6.75%	6.75% - 7.25%
	Washington, DC	4.00% - 4.40%	4.25% - 4.75%	5.25% - 5.75%	5.75% - 6.50%	6.50% - 7.00%	7.25% - 7.75%
	Austin	4.50% - 5.00%	4.50% - 5.00%	5.25% - 5.75%	5.25% - 5.75%	6.00% - 6.50%	6.00% - 6.50%
	Chicago	4.50% - 5.00%	4.75% - 5.25%	5.00% - 5.25%	5.25% - 5.75%	5.75% - 6.25%	6.25% - 7.00%
	Cincinnati	5.50% - 6.00%	6.25% - 6.75%	6.50% - 7.00%	7.25% - 7.75%	8.00% - 8.50%	9.00% - 9.50%
	Cleveland	7.50% - 8.00%	N/A	8.00% - 8.50%	8.25% - 8.75%	8.50% - 9.00%	10.00% - 10.50%
	Columbus	6.00% - 6.50%	6.25% - 6.75%	7.00% - 7.50%	7.50% - 8.00%	8.25% - 8.75%	8.75% - 9.00%
9	Dallas	4.25% - 5.25%	5.75% - 6.25%	6.25% - 6.75%	6.50% - 7.25%	7.25% - 7.75%	7.75% - 8.25%
CENTRAL	Detroit	6.75% - 7.50%	7.50% - 8.50%	7.50% - 8.25%	8.00% - 9.00%	8.75% - 9.50%	9.50% - 11.00%
	Houston	4.50% - 5.00%	5.50% - 6.00%	6.00% - 6.50%	6.25% - 6.75%	7.00% - 7.50%	7.75% - 8.25%
	Indianapolis	5.50% - 6.00%	5.75% - 6.25%	6.00% - 6.50%	6.50% - 7.00%	7.50% - 8.00%	8.00% - 8.50%
	Kansas City	5,25% - 5,75%	N/A	N/A	N/A	N/A	N/A
	Minneapolis	5,25% - 5,50%	5.50% - 5.75%	6.00% - 6.25%	6.50% - 6.75%	7.25% - 7.75%	8.00% - 8.50%
	Oklahoma City	6.00% - 6.50%	N/A	6.50% - 7.00%	6.75% - 7.25%	9.00% - 9.50%	9.50% - 10.00%
	San Antonio	5,25% - 5,75%	N/A	6.25% - 6.75%	6.50% - 7.00%	7.00% - 7.50%	7.50% - 8.00%
	St. Louis	5.50% - 6.00%	5.75% - 6.25%	6.10% - 6.75%	6.50% - 6.90%	8.00% - 9.50%	8.25% - 9.50%
	Albuquerque	5.75% - 6.25%	6.00% - 6.50%	6.25% - 6.75%	6.50% - 7.00%	7.00% - 7.50%	7.50% - 8.00%
	Denver	4.75% - 5.25%	5.50% - 5.75%	5.25% - 5.75%	5.50% - 6.00%	6.50% - 7.00%	6.75% - 7.25%
	Inland Empire	4.75% - 5.25%	5.00% - 5.50%	5.00% - 5.50%	5.25% - 5.75%	6.00% +	6.00% +
	Los Angeles	3.75% - 4.00%	4.50% - 4.75%	4.00% - 4.50%	4.75% - 5.25%	5.00% - 5.50%	5.50% - 6.00%
WEST	Orange County	3.75% - 4.25%	4.00% - 4.50%	4.50% - 4.75%	5.00% - 5.50%	5.50% - 6.00%	6.00% - 6.50%
	Phoenix	4.75% - 5.00%	5.25%	5.25% - 5.75%	5.25% - 5.75%	6.00% - 6.50%	6.00% - 6.50%
	Portland	4.75% - 5.00%	5.00% - 5.25%	5.25% - 5.75%	5.25% - 5.75%	5.75% - 6.25%	6.00% - 6.50%
	Sacramento	5.00% - 5.50%	5,50% - 6,00%	5.25% - 5.75%	5.50% - 6.00%	6.00% - 6.50%	6.50% - 7.00%
	Salt Lake City	5.25% - 5.75%	5,50% - 6,00%	5.75% - 6.00%	6.00% - 6.50%	6.00% - 6.25%	6.50% - 7.00%
	San Diego	3.75% - 4.25%	4.25% - 4.75%	4.50% - 5.00%	5.00% - 5.50%	5.50% - 6.00%	5.50% - 6.00%
	San Francisco	3.50% - 4.00%	4.00% - 4.25%	4.75% - 5.25%	5.25% - 5.75%	5.50% - 6.00%	6.00% - 6.50%
	San Jose	3.75% - 4.25%	4.00% - 4.50%	5.00% - 5.50%	5.75% - 6.25%	5.50% - 6.00%	6.00% - 6.50%
	Seattle	3.75% - 4.25%	4.50% - 5.00%	5.00% - 5.50%	5.50% - 6.00%	5.50% - 6.00%	6.25% - 7.25%



The US Affordability Problem Share of 25th Percentile Income to Pay 25th Percentile Rent

