

# HOME PRICE EXPECTATIONS SURVEY

## 2013 PANELIST "TOP 10" RANKINGS

**1 Year Horizon (2013)** Actual Change (Dec 2013 / Dec 2012): **6.61%**

Rank	Panelist	Title	Affiliation	Panelist Expectations, By Survey Edition:			
				Q1 2013	Q2 2013	Q3 2013	Q4 2013
1	Michael Carliner	Housing Economist	Independent Consultant	6.50%	6.50%	6.50%	6.50%
2	Doug Bendt	Director, MBS Research	Deutsche Bank	7.00%	6.60%	6.00%	7.00%
3	Timothy Ghriskey	Chief Investment Officer	Solaris Asset Management LLC	6.50%	6.00%	6.00%	5.50%
4	Diane Swonk / Adolfo Laurenti	Chief Economist / Deputy Chief Economist	Mesirow Financial	5.80%	6.00%	6.00%	6.00%
5	Bob Baur	Chief Global Economist	Principal Global Investors	6.00%	7.00%	8.00%	7.00%
6	Kenneth Rosen	Chairman	Rosen Consulting Group	7.00%	7.00%	7.00%	8.50%
7	Stephen Stanley	Chief Economist	Pierpont Securities	5.00%	6.00%	7.00%	7.50%
8	Amy Crews Cutts	Chief Economist	Equifax	5.00%	5.50%	7.00%	6.20%
9	Jack Kleinhenz	Chief Economist	Kleinhenz & Associates, Inc.	5.50%	5.75%	5.75%	5.75%
10	David Wyss	Economist	Brown University	7.00%	8.00%	8.00%	6.00%

**2-Year Horizon (2012-2013)** Actual Change (Q4 2013 / Q4 2011): **19.34%**

Rank	Panelist	Title	Affiliation	Panelist Expectations, By Survey Edition:			
				Q1 2012	Q2 2012	Q3 2012	Q4 2012
1	James Smith	Chief Economist	Parsons Financial Management	8.26%	8.26%	8.26%	8.26%
2	Bill Cheney	Chief Economist	John Hancock Financial	7.10%	5.00%	7.12%	13.42%
3	Stephen Stanley	Chief Economist	Pierpont Securities	3.02%	6.08%	12.35%	10.24%
4	Brian Wesbury / Robert Stein	Chief Economist / Senior Economist	First Trust Advisors	5.88%	6.09%	8.15%	10.67%
5	John Dolan	President	Second Order Strategies, Inc.	4.24%	3.17%	10.80%	11.58%
6	Susan Sterne	Chief Economist	Economic Analysis Associates, Inc.	7.42%	4.86%	7.02%	9.51%
7	Joseph Carson	Chief Economist	Alliance Bernstein	5.06%	5.06%	8.15%	10.25%
8	Thomas Lawler	Founder	Lawler Economic & Housing Outlook	6.05%	6.05%	7.11%	9.28%
9	Andrea Heuson	Professor of Finance	University of Miami	6.09%	7.12%	7.12%	8.16%
10	Allen Sinai	President, CEO, Chief Global Economist & Strategist	Decision Economics	7.33%	6.92%	7.02%	7.02%

Rank	Panelist	Title	Affiliation	Panelist Expectations, By Survey Edition:			
				Q1 2011	Q2 2011	Q3 2011	Q4 2011
1	Thomas Lawler	Founder	Lawler Economic & Housing Outlook	13.96%	18.82%	15.54%	10.59%
2	Bill Cheney	Chief Economist	John Hancock Financial	17.95%	14.51%	12.33%	12.33%
3	Brian Wesbury / Robert Stein	Chief Economist / Senior Economist	First Trust Advisors	16.26%	17.99%	9.75%	8.63%
4	Andrea Heuson	Professor of Finance	University of Miami	10.21%	14.60%	8.07%	12.39%
5	Maury Harris	Chief Economist	UBS Securities	11.31%	11.31%	11.31%	11.31%
6	Joel Naroff	President	Naroff Economic Advisors Inc	17.56%	7.37%	10.83%	8.80%
7	Esmael Adibi	Director	Chapman University	13.81%	7.14%	8.03%	9.04%
8	Kenneth Rosen	Chairman	Rosen Consulting Group	13.60%	9.35%	9.35%	5.01%
9	John Silvia	Chief Economist	Wells Fargo	9.62%	6.05%	10.83%	9.58%
10	Bruce McCain	Chief Investment Strategist	KeyBank	12.50%	8.87%	7.27%	5.94%

Rank	Panelist	Title	Affiliation	Panelist Expectations, By Survey Edition:			
				Q1 2010	Q2 2010	Q3 2010	Q4 2010
1	Bill Cheney	Chief Economist	John Hancock Financial	15.50%	15.50%	12.35%	10.25%
2	Nariman Behraves	Chief Economist	IHS Global Insight	13.42%	14.17%	12.68%	12.68%
3	Doug Duncan	Chief Economist	Fannie Mae	15.46%	15.46%	6.50%	8.99%
4	Chris Mayer	Sr Vice Dean, Paul Milstein Professor of Real Estate	Columbia Business School	12.35%	12.35%	10.21%	8.15%
5	Esmael Adibi	Director	Chapman University	12.35%	12.35%	9.08%	8.47%
6	Dean Maki	Chief US Economist	Barclays Capital	11.83%	10.25%	8.16%	8.16%
7	Mark Zandi / Celia Chen	Chief Economist / Senior Director	Mosdy's Analytics	9.72%	10.26%	8.70%	9.01%
8	Joel Naroff	President	Naroff Economic Advisors Inc	9.10%	9.73%	9.10%	8.57%
9	Michael Englund	Chief Economist	Action Economics LLC	11.30%	11.30%	7.02%	6.29%
10	Jim O'Sullivan	Chief U.S. Economist	High Frequency Economics	9.20%	9.20%	9.20%	8.16%

**3-Year Horizon (2011-2013)** Actual Change (Q4 2013 / Q4 2010): **14.90%**

Rank	Panelist	Title	Affiliation	Panelist Expectations, By Survey Edition:			
				Q1 2011	Q2 2011	Q3 2011	Q4 2011
1	Thomas Lawler	Founder	Lawler Economic & Housing Outlook	9.72%	14.40%	11.24%	6.48%
2	Bill Cheney	Chief Economist	John Hancock Financial	13.56%	10.25%	8.15%	8.15%
3	Brian Wesbury / Robert Stein	Chief Economist / Senior Economist	First Trust Advisors	11.83%	13.60%	5.07%	4.59%
4	Andrea Heuson	Professor of Finance	University of Miami	6.11%	10.33%	4.05%	8.21%
5	Maury Harris	Chief Economist	UBS Securities	7.16%	7.16%	7.16%	7.16%
6	Joel Naroff	President	Naroff Economic Advisors Inc	13.19%	3.38%	6.71%	4.75%
7	Esmael Adibi	Director	Chapman University	9.57%	3.16%	4.01%	4.98%
8	Kenneth Rosen	Chairman	Rosen Consulting Group	9.38%	5.28%	5.28%	1.10%
9	John Silvia	Chief Economist	Wells Fargo	5.54%	2.10%	6.70%	5.51%
10	Bruce McCain	Chief Investment Strategist	KeyBank	8.32%	4.82%	3.28%	2.00%

Rank	Panelist	Title	Affiliation	Panelist Expectations, By Survey Edition:			
				Q1 2010	Q2 2010	Q3 2010	Q4 2010
1	James Smith	Chief Economist	Parsons Financial Management	13.57%	13.46%	13.57%	13.57%
2	Joel Naroff	President	Naroff Economic Advisors Inc	13.24%	13.89%	15.53%	10.64%
3	Kenneth Rosen	Chairman	Rosen Consulting Group	13.79%	13.92%	13.68%	9.38%
4	Jim O'Sullivan	Chief U.S. Economist	High Frequency Economics	12.48%	12.48%	12.48%	11.40%
5	Esmael Adibi	Director	Chapman University	16.84%	16.84%	12.24%	10.42%
6	Aichi Amemiya	Chief Economist / VP, Economist	Nomura Securities International, Inc.	13.24%	13.24%	9.79%	9.26%
7	Michael Englund	Chief Economist	Action Economics LLC	15.53%	14.31%	7.02%	7.35%
8	Chris Mayer	Sr Vice Dean, Paul Milstein Professor of Real Estate	Columbia Business School	15.72%	15.72%	10.21%	2.74%
9	Allen Sinai	President, CEO, Chief Global Economist & Strategist	Decision Economics	6.73%	18.47%	17.17%	10.33%
10	Rajeev Dhawan	Director, Economic Forecasting Center	Georgia State University	11.50%	8.13%	10.86%	10.49%

**4-Year Horizon (2010-2013)** Actual Change (Q4 2013 / Q4 2009): **10.59%**

Rank	Panelist	Title	Affiliation	Panelist Expectations, By Survey Edition:			
				Q1 2010	Q2 2010	Q3 2010	Q4 2010
1	Jim O'Sullivan	Chief U.S. Economist	High Frequency Economics	11.35%	11.35%	11.35%	10.29%
2	Douglas Poutasse	Head of Strategy and Research	Bentall Kennedy	11.45%	11.39%	10.31%	7.67%
3	Marsha Courchane	Director, Financial Economics	Charles River Associates	11.23%	10.91%	11.57%	5.36%
4	Rajeev Dhawan	Director, Economic Forecasting Center	Georgia State University	10.95%	6.51%	11.97%	13.26%
5	Andrea Heuson	Professor of Finance	University of Miami	10.62%	7.15%	8.77%	7.16%
6	Jay Hartzell	Exec Director, Real Estate Finance & Investment Ctr	University of Texas - Austin	13.09%	7.13%	12.55%	8.31%
7	Jack Kleinhenz	Chief Economist	Kleinhenz & Associates, Inc.	7.95%	8.21%	8.21%	7.68%
8	Aichi Amemiya	Chief Economist / VP, Economist	Nomura Securities International, Inc.	14.94%	14.94%	11.55%	11.23%
9	Joseph Carson	Chief Economist	Alliance Bernstein	9.29%	9.29%	4.57%	8.51%
10	Lynn Reaser	Chief Economist	Point Loma Nazarene University	9.82%	7.66%	10.26%	3.83%

### Award & Ranking Eligibility

Panelists who participated in all four of the quarterly surveys that comprise a given calendar year's set of expectations data and who also participated in at least one of the quarterly surveys during 2013.

For 2010, when the survey was conducted monthly, panelists who submitted home price expectations for each of the May, June, September and December editions of the survey in 2010 are considered. (The May 2010 edition of the survey was the inaugural installment, and it was conducted during a timeframe when the then-latest available benchmark HPI data was a/o the preceding fourth quarter, the same reference data that would have been accessible by the panelists had the survey been conducted in March 2010. Thus, the data labeled "Q1 2010" within the ranking tables above pertain to results from the May 2010 edition of the survey.)

### Ranking Methodology

The expectations data submitted by eligible panelists for each of the four survey editions in each calendar year were compared to the actual (Q4/Q4, or Dec/Dec) home price percentage changes for four time horizons:

Time Horizon	Expectations Sets
2013 (1 year horizon)	2013
2012-2013 (2 year horizon)	2010, 2011, 2012
2011-2013 (3 year horizon)	2010, 2011
2010-2013 (4 year horizon)	2010

Three separate rankings for the 2-year horizon of 2012-2013 were created according to expectation "vintage": one based upon the expectations submitted by panelists for this period initially in 2010, then in 2011, and then again in 2012. Similarly, two separate rankings for the 3-year horizon of 2011-2013 were created: one based upon the expectations submitted by panelists for this period initially in 2010, and then again in 2011.

Rankings are based on a comparison of each panelist's expectations for home price changes to the actual change as measured by the applicable survey benchmark used at the time the expectations data was submitted (i.e., S&P/Case-Shiller U.S. National HPI for pre-2013 expectations, and the Zillow U.S. Home Value Index for 2013 expectations). These calculations are based upon the respective benchmark index values as published by Standard & Poor's on 2/25/2014 and by Zillow on 2/19/2014.

For each time horizon and expectations vintage, the sum of the absolute differences between (a) each of the four sets of quarterly expectations data submitted by eligible panelists in a calendar year and (b) the actual (Q4/Q4, or Dec/Dec) percentage change in the applicable benchmark data was computed. These sums were then sorted in ascending order to generate rankings (i.e., the lowest sum represents the least average error/highest rank).