

Residential Mortgage / U.S.A.

U.S. RMBS Sustainable Home Price Report

Fourth-Quarter 2015 Update **Special Report**

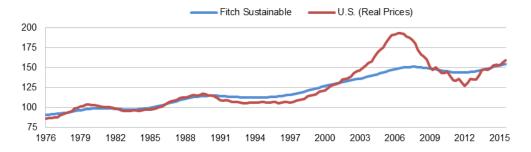
This report provides analysis and updated values for the Sustainable Home Price model, a key input assumption in Fitch Ratings' U.S. RMBS Loan Loss Model.

U.S. Prices Generally Sustainable: Home prices rose 1% in third-quarter 2015, or 5% YTD. Fitch Ratings views current price levels in most regions as sustainable and supported by improving unemployment and income growth. New home construction spending has picked up as the inventory of for-sale and under construction homes has fallen, reflecting further curing of the post-recession housing overhang.

Some Regions Overheating: Rapid home price growth in parts of California, Florida and Texas appears to be exceeding supporting fundamentals. Fitch estimates home prices in most major metropolitan areas in those states are currently overpriced.

Oil-Producing Regions at Risk: Sub-\$40 per barrel oil prices amplify the risk in oil- and gasproducing regions where homes are already overvalued. Specifically at risk are properties in Texas and North Dakota, where homes are 12% and 13% overvalued, respectively. Incomes are likely to drop as oil royalties and drilling activity taper off due to sustained weakness. The North Dakota Baker Hughes rig count stands at 60, down from 180 one year ago.

U.S. Home Prices: Market versus Sustainable



Sources: CoreLogic, Case-Shiller and Fitch Ratings.

Related Research

U.S. RMBS Sustainable Home Price Model (February 2016)

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Bay-Area Bubble?

Home prices in the San Francisco metropolitan statistical area (MSA) climbed to a new all-time high in third-quarter 2015 and are now 10% above their prior peak in 2005 and 62% above their post-recession low in early 2012. Home price growth in the area remains rapid as prices increased over 10% just in the past year. Fitch estimates current home prices are now roughly 16% overvalued relative to the underlying supporting economic fundamentals.

The surge in home prices over the past three years has exceeded the growth rate observed during the 2003–2006 housing boom and was last observed in the San Francisco area during the dot-com boom when prices rose roughly 60% from 1997–2000. In both the dot-com era and recent years, home price momentum was initiated by undervalued prices and strong income growth. Area home prices fell roughly 5% nominally and 10% in real terms when the dot-com bubble burst.

Home Prices: San Francisco versus U.S.



Sources: CoreLogic, Case-Shiller and Fitch Ratings.

San Francisco Home Prices: Sustainable versus Real



Sources: CoreLogic, Case-Shiller and Fitch Ratings.

Strong income growth has driven the home price increases as total area income is up 44% since the prior peak and 18% since the post-recession low, but home price growth appears to have exceeded income growth. Additionally, San Francisco-area incomes have historically been more volatile than U.S. incomes (approximately 33% more volatile since 1975) and more dependent on equity incentives than other areas. The MSA derives 14% of personal income from capital gains, the fourth-highest proportion of any major MSA. In terms of wages, San Francisco has among the most industry-concentrated labor forces in the country, with almost one-half of all earnings generated across just three sectors.

The San Francisco MSA comprises the largest percentage of loans in post-crisis U.S. RMBS of any MSA, accounting for approximately 12% of all private-label prime jumbo RMBS issued since 2009. While the exposure to the area is significant, Fitch currently does not perceive

Related Criteria

U.S. RMBS Loan Loss Model Criteria (February 2016)



material credit risk in outstanding RMBS resulting from a price correction in the area. While current prices may be overvalued, loans originated in the area have benefited from the price growth, building up a large cushion of equity in the properties. Loans originated recently will be more vulnerable to a price correction, but San Francisco MSA concentration in U.S. RMBS has declined, the credit quality remains very high and loss protection for bond investors is sized assuming a home price correction occurs.

Area Incomes More Reliant on Capital Gains

Rank	MSA Name	Capital Gains as % of Adjusted Gross Income	
1	Stamford, CT	17.71	
2	Naples,FL	15.15	
3	West Palm Beach-Boca Raton, FL	13.77	
4	San Francisco-Oakland, CA	13.69	
5	San Jose, CA	11.37	
6	New York, NY-NJ	10.83	
7	Odessa-Midland, TX	9.82	
8	Boulder-Longmont	8.89	
9	Boston, MA	8.31	
10	Charlottesville, VA	8.18	
U.S. Average		4.37	
Sources: IRS 2013	and Fitch Ratings.		

U.S. RMBS Exposure to San Francisco

Vintage	San Francisco Loans as % of Total	LTV at Origination	LTV at Current Market Values	sLTV
2015	7.4	60.9	55.2	64.6
2014	8.9	64.1	53.0	62.0
2013	12.1	62.6	42.9	50.2
2012	15.2	63.5	38.7	45.2
2011	20.9	62.9	34.4	40.2
2010	22.2	59.1	32.8	38.4
2009	34.1	50.1	28.1	32.9



Appendix A

sMVD Values over Time — Top 25 Populous Cities and Subdivisions

(%, Overvaluation as of 3Q15)

No.	City	MSA Name	2000s Peak	2011	2012	2013	2014	Current, As of 3Q15
1	Atlanta	Atlanta-Sandy Springs-Marietta, GA	15–20	Sustainable	Undervalued	Sustainable	Sustainable	Sustainable
2	Baltimore	Baltimore-Towson, MD	>25	5–10	Sustainable	Sustainable	Sustainable	Sustainable
3	Boston	Boston-Quincy, MA (Division)	20–25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
ļ		Cambridge-Newton-Framingham, MA (Division)	15–20	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
;		Peabody/Essex County, MA (Division)	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
6	Chicago	Chicago-Joliet-Naperville, IL (Division)	>25	Sustainable	Undervalued	Undervalued	Sustainable	Sustainable
•		Gary, IN (Division)	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
3		Lake County-Kenosha County, IL-WI (Division)	20–25	Sustainable	Undervalued	Undervalued	Sustainable	Sustainable
1	Cincinnati	Cincinnati-Middletown, OH-KY-IN	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
0	Cleveland	Cleveland-Elyria-Mentor, OH	5–10	Undervalued	Undervalued	Undervalued	Undervalued	Undervalue
1	Dallas	Dallas-Plano-Irving, TX (Division)	5–10	Sustainable	Sustainable	Sustainable	5–10	10–15
2		Fort Worth-Arlington, TX (Division)	5–10	Sustainable	Sustainable	5–10	10–15	10–15
3	Denver	Denver-Aurora-Broomfield, CO	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
4	Detroit	Detroit-Livonia-Dearborn, MI (Division)	20–25	Undervalued	Undervalued	Undervalued	Undervalued	Undervalue
5		Warren-Troy-Farmington Hills, MI (Division)	10–15	Undervalued	Undervalued	Undervalued	Sustainable	Sustainable
6	Houston	Houston-Sugar Land-Baytown, TX	Sustainable	Sustainable	Sustainable	5–10	10–15	10–15
7	Los Angeles	Los Angeles-Long Beach-Glendale, CA (Division)	>25	Sustainable	Sustainable	Sustainable	5–10	10–15
В		Santa Ana-Anaheim-Irvine, CA (Division)	>25	Sustainable	Sustainable	Sustainable	10–15	5–10
9	Miami	Miami-Miami Beach-Kendall, FL (Division)	>25	Sustainable	Undervalued	Sustainable	10–15	15–20
0		West Palm Beach-Boca Raton-Boynton Beach, FL (Division)	>25	Sustainable	Sustainable	Sustainable	5–10	5–10
1		Fort Lauderdale-Pompano Beach-Deerfield Beach, FL (Division)	>25	Sustainable	Sustainable	Sustainable	10–15	10–15
2	Minneapolis	Minneapolis-St. Paul-Bloomington, MN-WI	20-25	Sustainable	Undervalued	Sustainable	Sustainable	Sustainable
3	New York	New York-White Plains-Wayne, NY-NJ (Division)	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
4		Nassau-Suffolk, NY (Division)	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
5		Newark-Union, NJ-PA (Division)	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
6		Edison-New Brunswick, NJ (Division)	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
7	Philadelphia	Philadelphia, PA (Division)	20–25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
8		Camden, NJ (Division)	20-25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
9	Phoenix	Phoenix-Mesa-Glendale, AZ	>25	Sustainable	Sustainable	10–15	15–20	15–20
0	Pittsburgh	Pittsburgh, PA	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
1	Portland	Portland-Vancouver-Hillsboro, OR-WA	>25	Sustainable	Sustainable	Sustainable	5–10	5–10
2	Riverside	Riverside-San Bernardino-Ontario, CA	>25	Sustainable	Sustainable	Sustainable	15–20	15–20
3	San Diego	San Diego-Carlsbad-San Marcos, CA	>25	Sustainable	Undervalued	Sustainable	5–10	5–10
4	San Francisco	San Francisco-San Mateo-Redwood City, CA (Division)	20–25	Sustainable	Sustainable	Sustainable	10–15	15–20
5		Oakland-Fremont-Hayward, CA (Division)	>25	Sustainable	Undervalued	Sustainable	10–15	10–15
6	Seattle	Seattle-Bellevue-Everett, WA	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
7		Tacoma, WA (Division)	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
8	St. Louis, MO	St. Louis, MO-IL	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
9	Tampa	Tampa-St. Petersburg-Clearwater, FL	>25	Sustainable	Sustainable	Sustainable	Sustainable	5–10
Ю	Washington, D.C.	Washington-Arlington-Alexandria, DC-VA-MD-WV (Division)	>25	Sustainable	Sustainable	Sustainable	5–10	Sustainable
1		Bethesda-Rockville-Frederick, MD (Division)	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable



Appendix B

sMVD Values over Time — States

(%, Overvaluation as of 3Q15)

State	2000s Peak	2011	2012	2013	2014	Current As of 3Q15
ιK	15–20	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
۸L	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
ιR	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
λZ	>25	Sustainable	Sustainable	5–10	10–15	10–15
A	>25	Sustainable	Undervalued	Sustainable	10–15	10–15
00	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
т	20–25	Sustainable	Sustainable	Sustainable	Sustainable	Undervalued
ÞΕ	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
EL.	>25	Sustainable	Sustainable	Sustainable	5–10	10–15
iΑ	10–15	Sustainable	Undervalued	Sustainable	Sustainable	Sustainable
II	>25	5–10	5–10	5–10	10–15	15–20
A	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
)	>25	Sustainable	Sustainable	5–10	10–15	10–15
_	20-25	Sustainable	Undervalued	Sustainable	Sustainable	Sustainable
1	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
S	10–15	Undervalued	Sustainable	Sustainable	Sustainable	Sustainable
Υ	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
A	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
1A	20–25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
ID	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
1E	15–20	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
11	15–20	Undervalued	Undervalued	Undervalued	Undervalued	Undervalued
IN	20–25	Sustainable	Undervalued	Sustainable	Sustainable	Sustainable
10	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
1S	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
IT	5–10	Sustainable	Sustainable	5–10	5–10	5–10
С	15–20	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
D	5–10	Sustainable	Sustainable	5–10	10–15	10–15
E	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
Н	20–25	Sustainable	Undervalued	Undervalued	Undervalued	Undervalued
J	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
M	15–20	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
V	>25	Undervalued	Undervalued	Sustainable	10–15	10–15
Y	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
H	5–10	Sustainable	Undervalued	Undervalued	Undervalued	Undervalued
K	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
ıR	>25	Sustainable	Sustainable	Sustainable	5–10	5–10
A	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
	>25	Sustainable	Undervalued	Undervalued	Sustainable	Undervalued
i C	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
D	5–10	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
N X	5–10	Sustainable	Sustainable	5–10	5–10	10–15
Τ	15–20	Sustainable	Sustainable	Sustainable	5–10 5–10	5–10
A T	>25	Sustainable	Sustainable	Sustainable	5–10	Sustainable
T	15–20	5–10	Sustainable	Sustainable	Sustainable	Sustainable
/A	>25	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable
VI	15–20	Sustainable	Undervalued	Sustainable	Sustainable	Sustainable
VV	10–15	Sustainable	Sustainable	Sustainable	Sustainable	Sustainable

 $s MVD-Sustainable\ market\ value\ decline.$



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