

The Effect of Higher Interest Rates on the Housing and Mortgage Markets

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The Effect of Higher Mortgage Rates on the Housing and Mortgage Markets

Urban Institute-CoreLogic Sunset Seminar

Frank Nothaft, CoreLogic SVP & Chief Economist
February 22, 2017

Effect of Higher Mortgage Rates

Housing market effects:

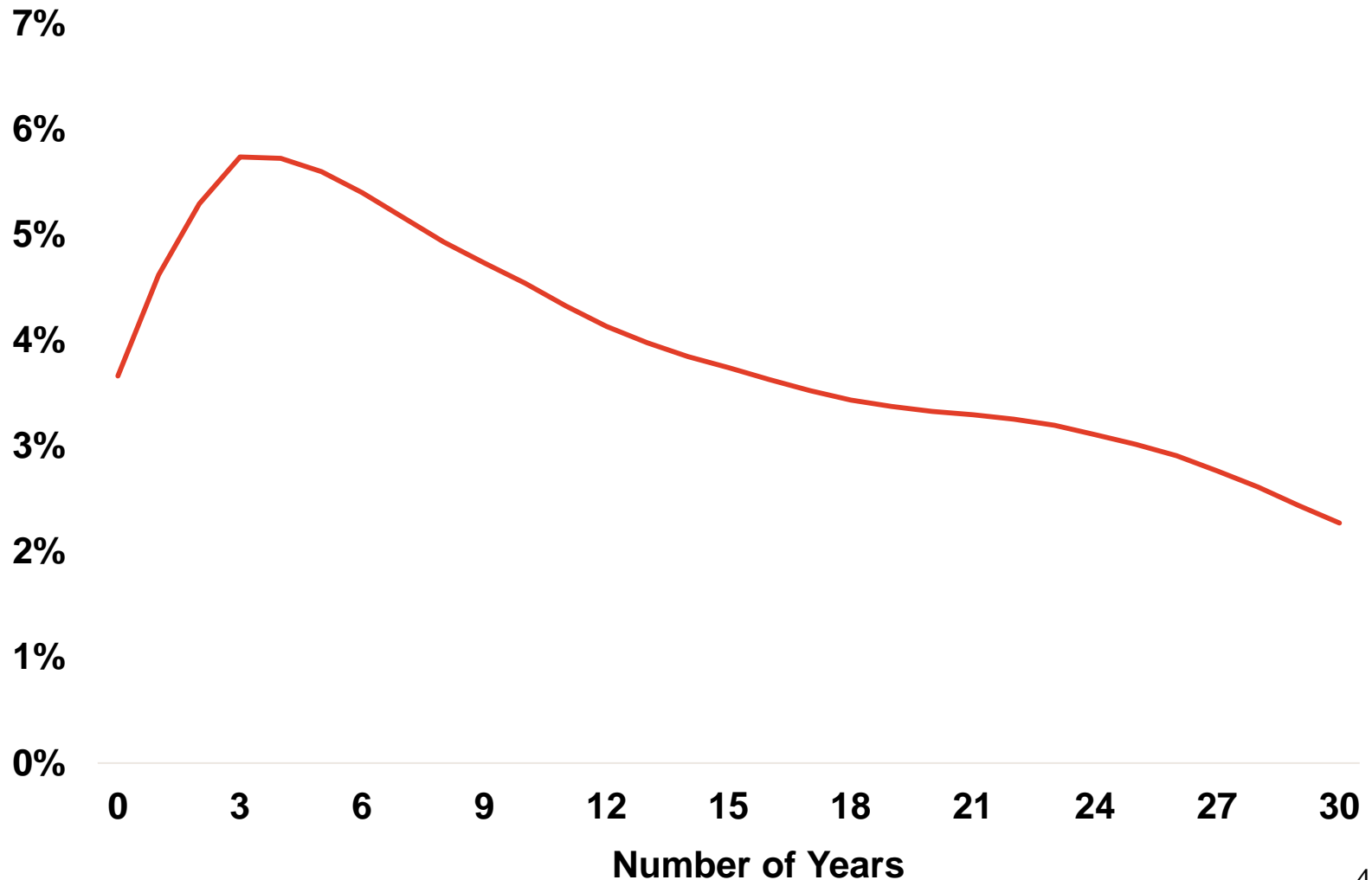
- Affordability lessens
- Owner mobility may lessen, for-sale inventory remains lean

Mortgage market effects:

- Single-family originations: less refinance
 - New refi mix: more FHA-to-conventional, cash-out, longer-term
- Credit risk: relatively low on debt outstanding
 - New loans: credit box may open up, fraud risk may increase

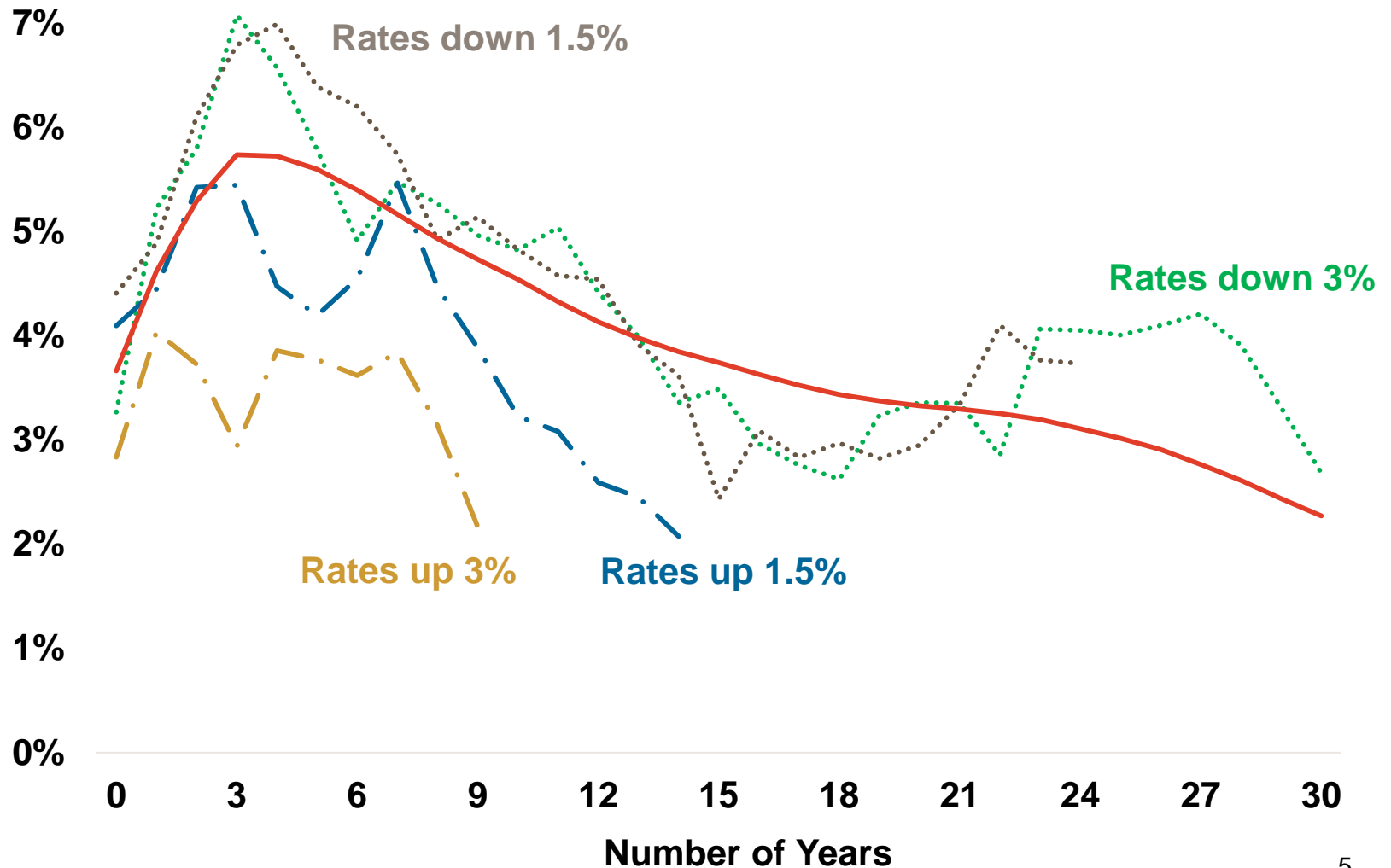
Mobility Rate by Year After Purchase

Percent of home buyers that sell by length of ownership, 1976-2016



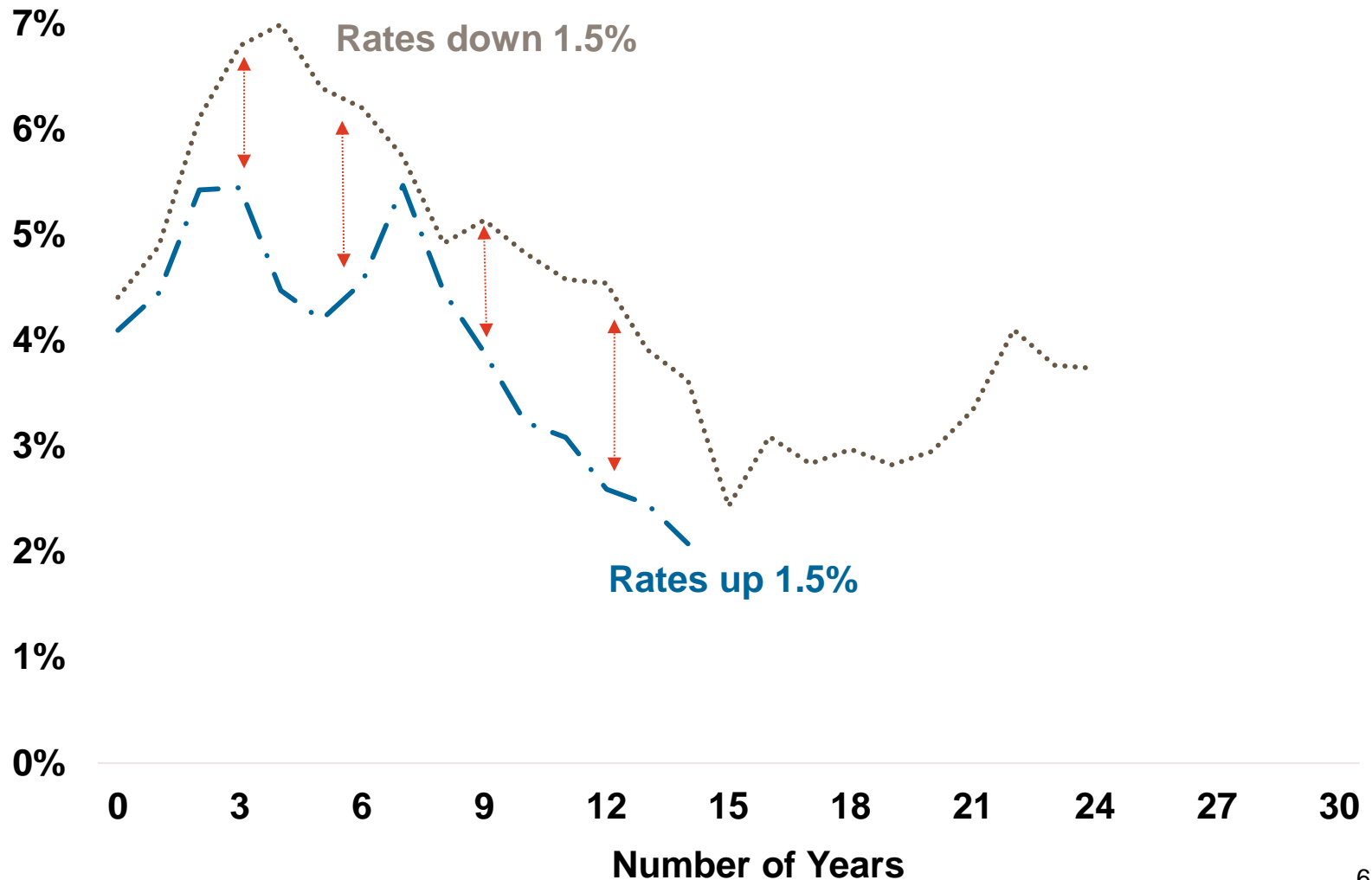
Resell Rate Higher when Rates Move Lower

Percent of home buyers that sell by length of ownership, 1976-2016



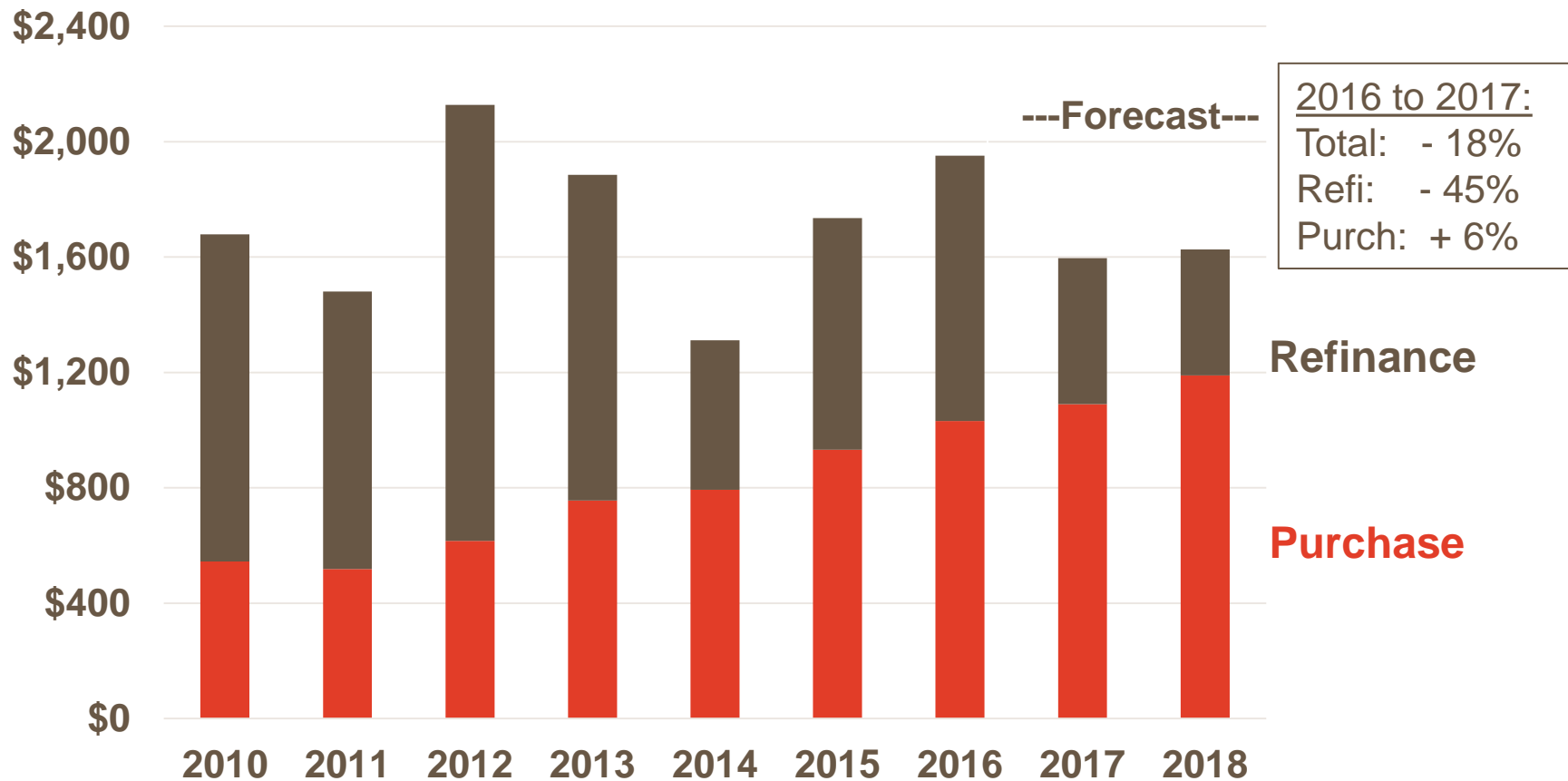
Rising Rates May Be A Hurdle for Resales

Percent of home buyers that sell by length of ownership, 1976-2016



Mortgage Originations: Drop in 2017 and Stable in 2018

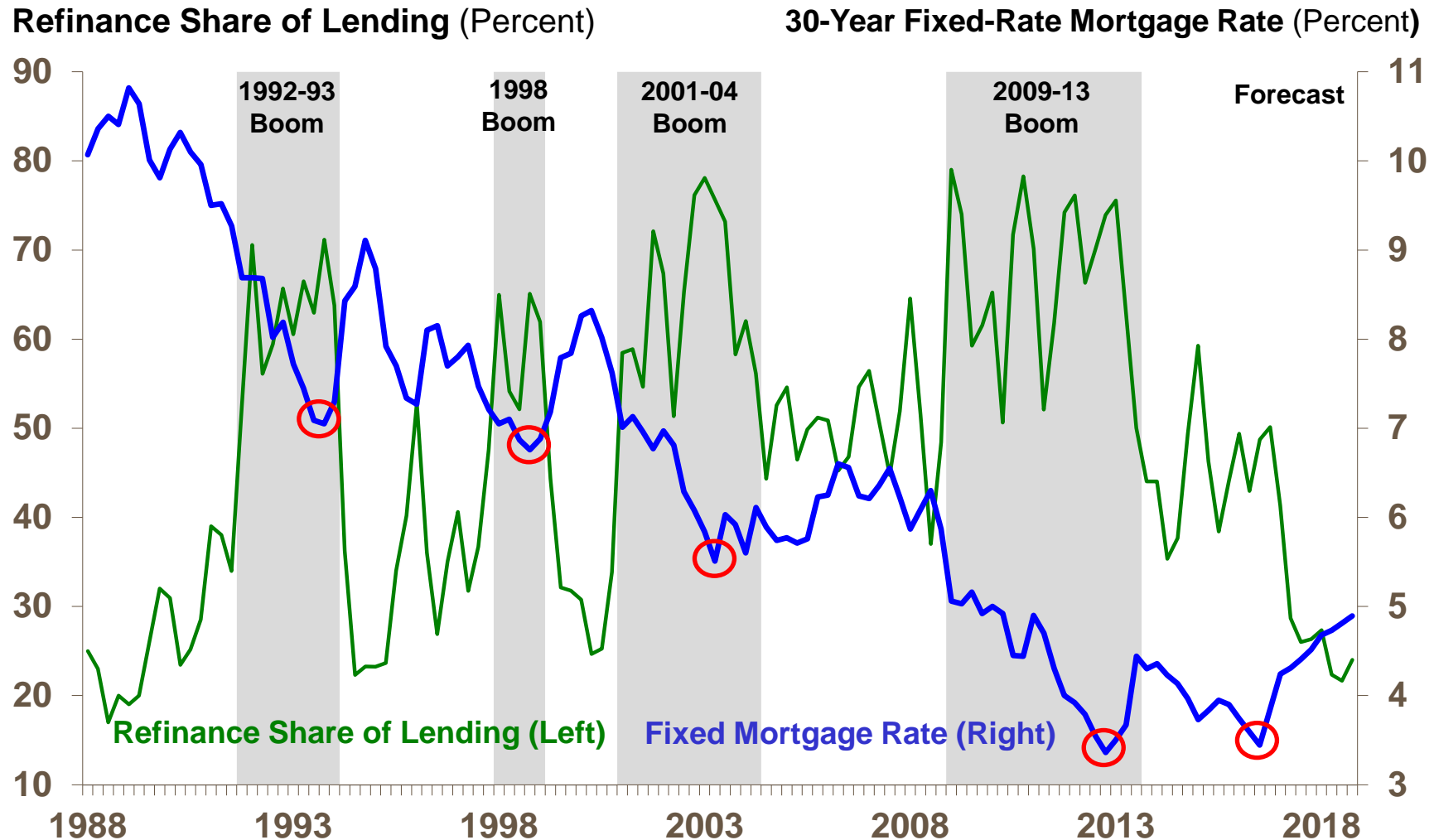
Single-family Mortgage Originations (Billions of U.S. dollars)



Source: Originations are an average of the latest projections released by Mortgage Bankers Association, Fannie Mae, Freddie Mac and Zelman & Associates. Forecast for Mortgage Bankers Association, Fannie Mae, Freddie Mac as of January 2017. Forecast for Zelman & Associates as of December 2016. 2010-2015 are benchmarked to HMDA. Originations exclude HELOCs.

Refi Booms End Quickly As Rates Come Off Lows

Cash-out refi and FHA-to-conventional refi continue

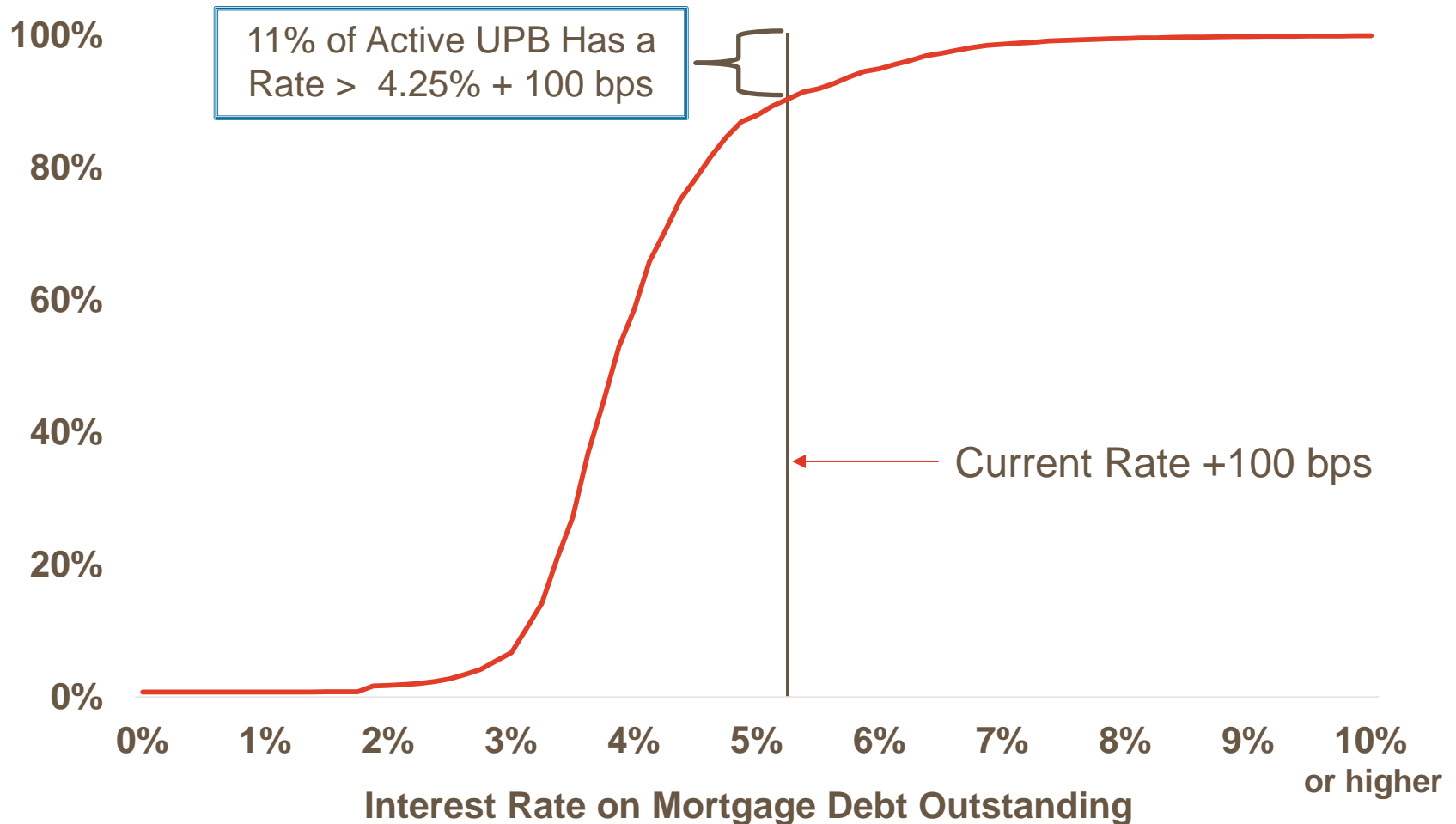


Source: Home Mortgage Disclosure Act, Freddie Mac Primary Mortgage Market Survey®, CoreLogic; 2017-2018 forecast is average of MBA, Freddie Mac, Fannie Mae and IHS Markit (FRM rate only) projections.

“In the Money” Refinanceable Loans Has Dwindled

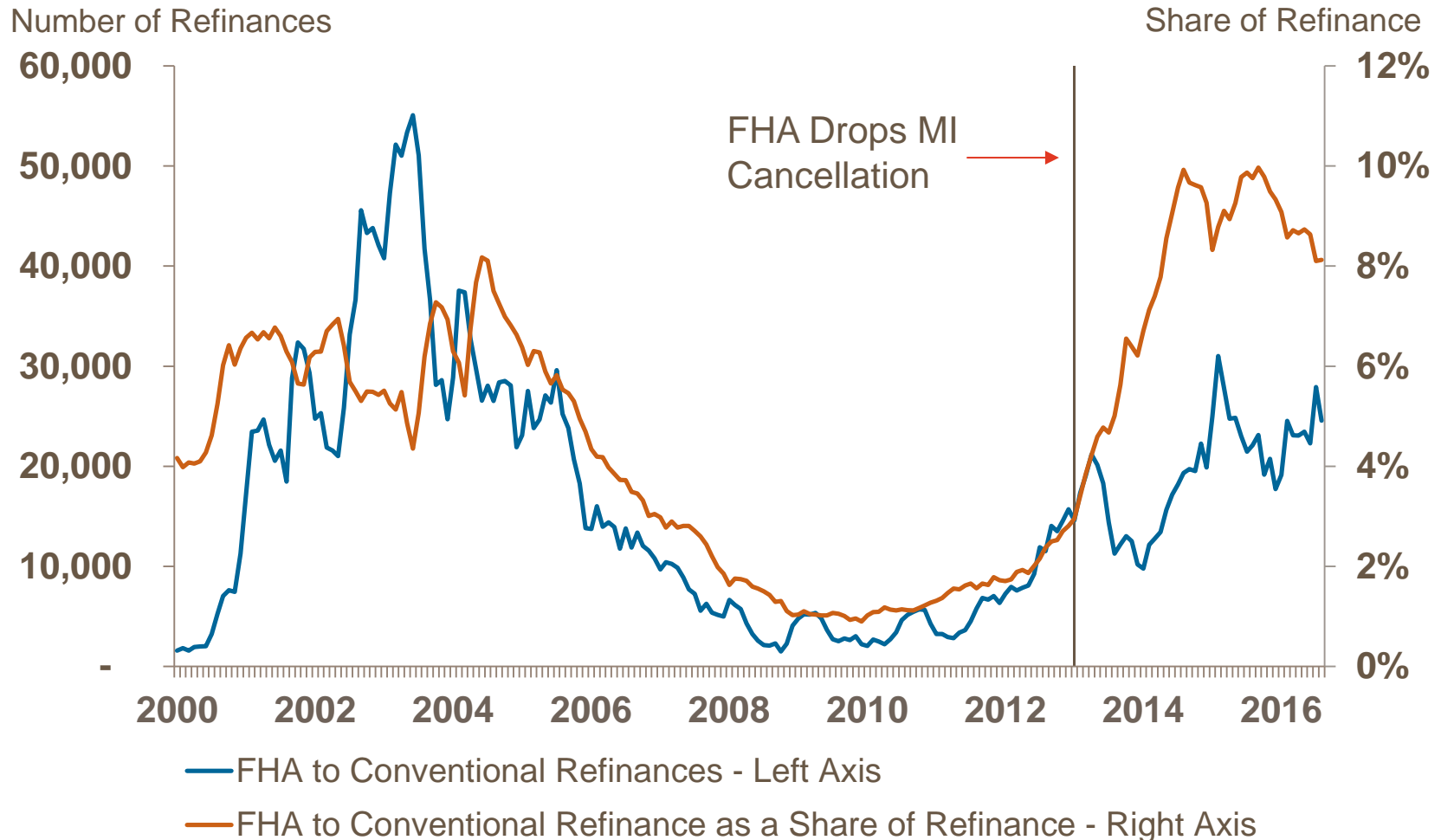
11% have rate >5.25%, but 1-in-5 of these are in default

Cumulative Share of Active Balance by Interest Rate



FHA-to-Conventional Refinancing A Bright Spot

250,000 FHA to Conventional Refinances Expected in 2017



Effect of Higher Mortgage Rates

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Where to find more information

Look for regular updates to our housing forecast, commentary and data at

<http://www.corelogic.com/blog>

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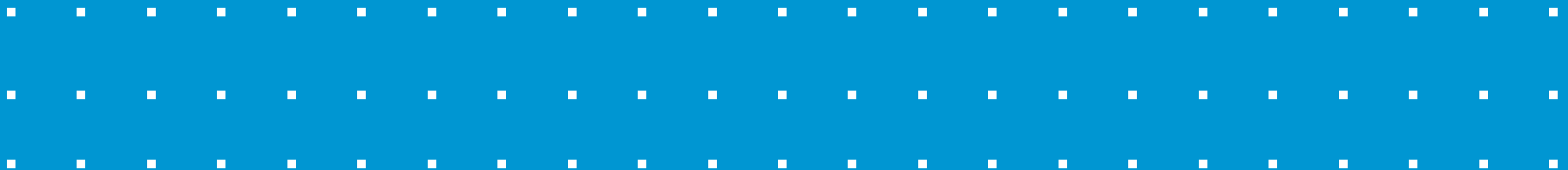
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Sunset Seminar

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February 22, 2017

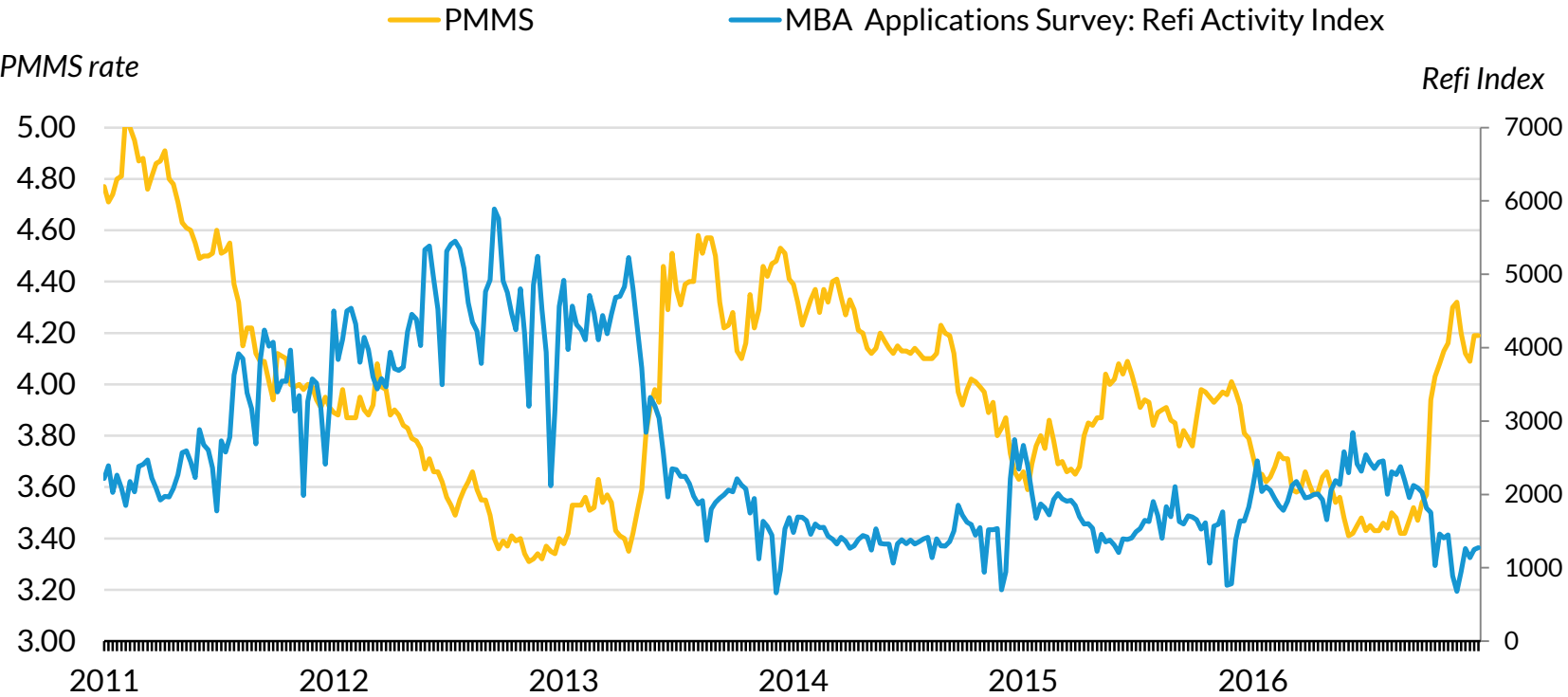


The Effect of Higher Interest Rates on the Housing and Mortgage Markets

- Higher rates lead to a choking off of refinancing activity
- Higher rates lead to mortgages trading with longer durations than models would predict, due to secular decreases in mobility.
- History indicates that, rising rates have been associated with increases in nominal home prices, despite decreased affordability. And, while less affordable than we were several months ago, payments are still affordable by historical standards. Moreover, a supply/demand imbalance gives a further boost to home price appreciation.
- We would expect some loosening of the credit box, both because of higher rates and less enforcement of the false claims act. In addition, this administration may be amenable to changes which make mortgage origination and servicing less cumbersome.
- FHA modifications will become more difficult to execute

Rising rates have choked off refinancing activity

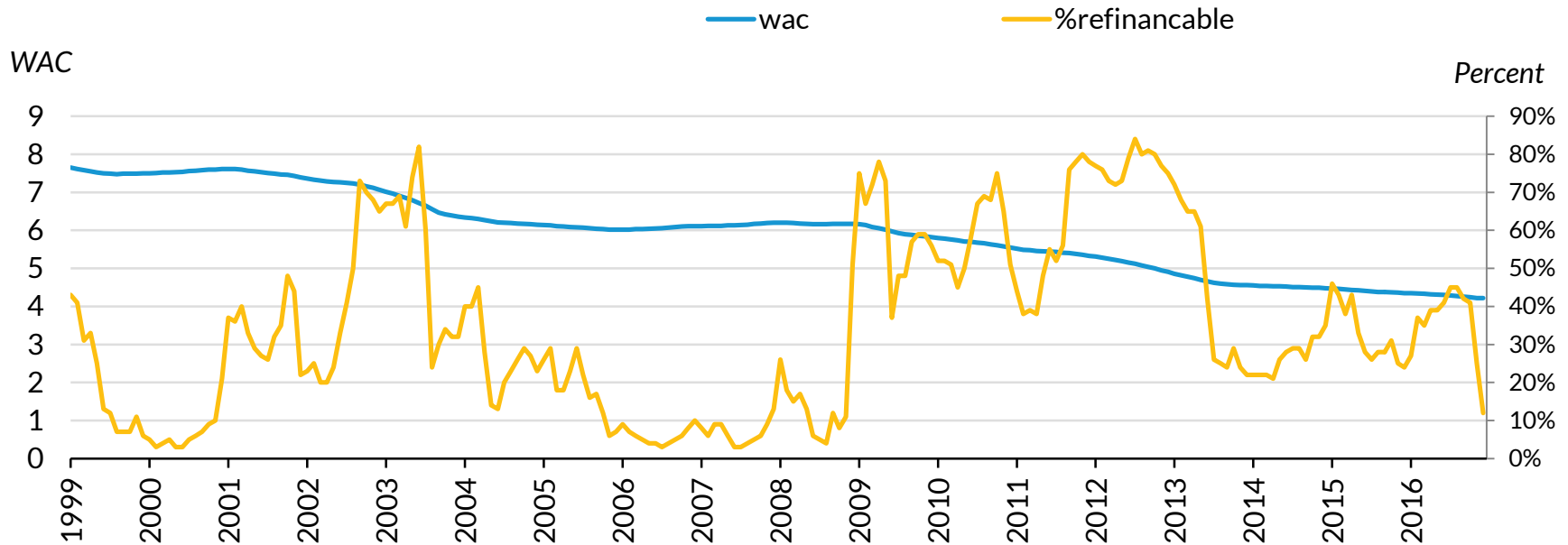
PMMS rate vs. Refi Activity Index



Sources: Freddie Mac Primary Mortgage Market Survey (PMMS), Mortgage Banker Association (MBA), and Urban institute

As rates have risen, most of the mortgage universe has become non-refinanceable

Percent Refinancable vs. WAC



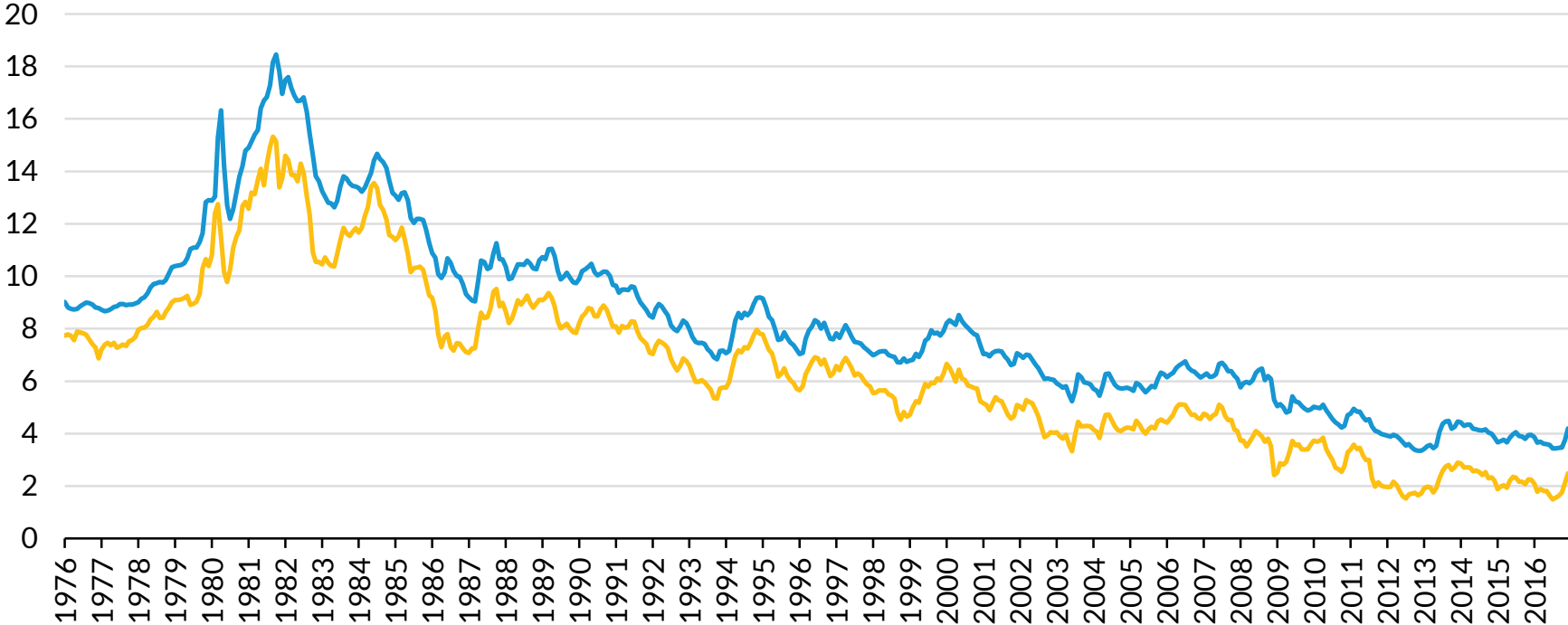
Sources: eMBS, Freddie Mac Primary Mortgage Market Survey (PMMS), and Urban institute

There has been a secular decline in interest rates since 1981

30-Year Fixed Rate Mortgage Rate and 10 Year Treasury Rate

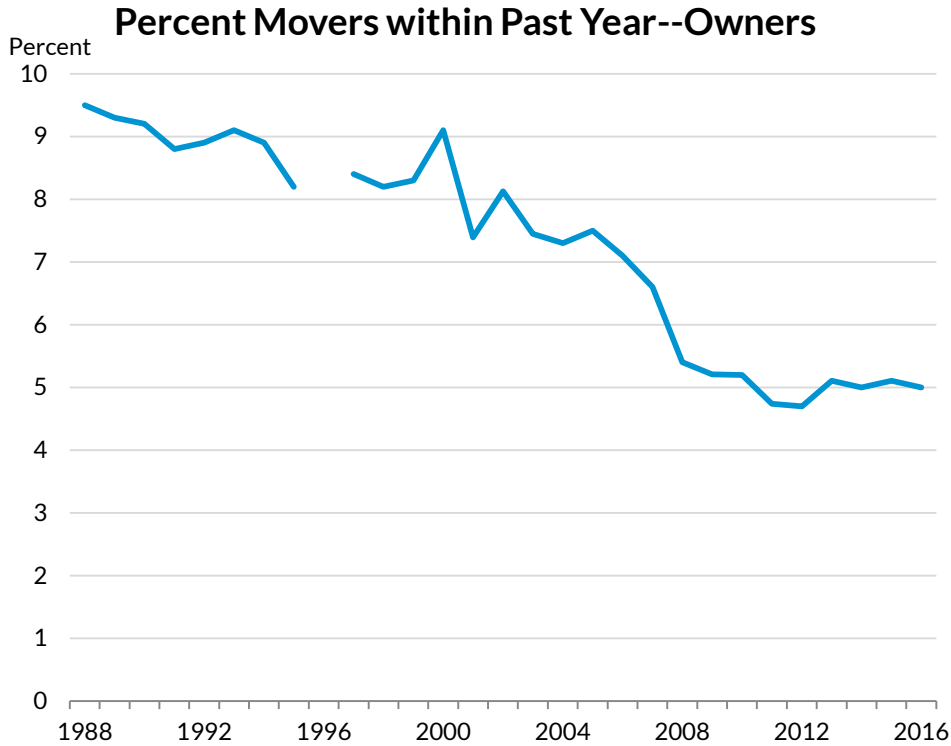
— PMMS (%) — 10 yr Treasury Rate

PMMS Rate (Percent)

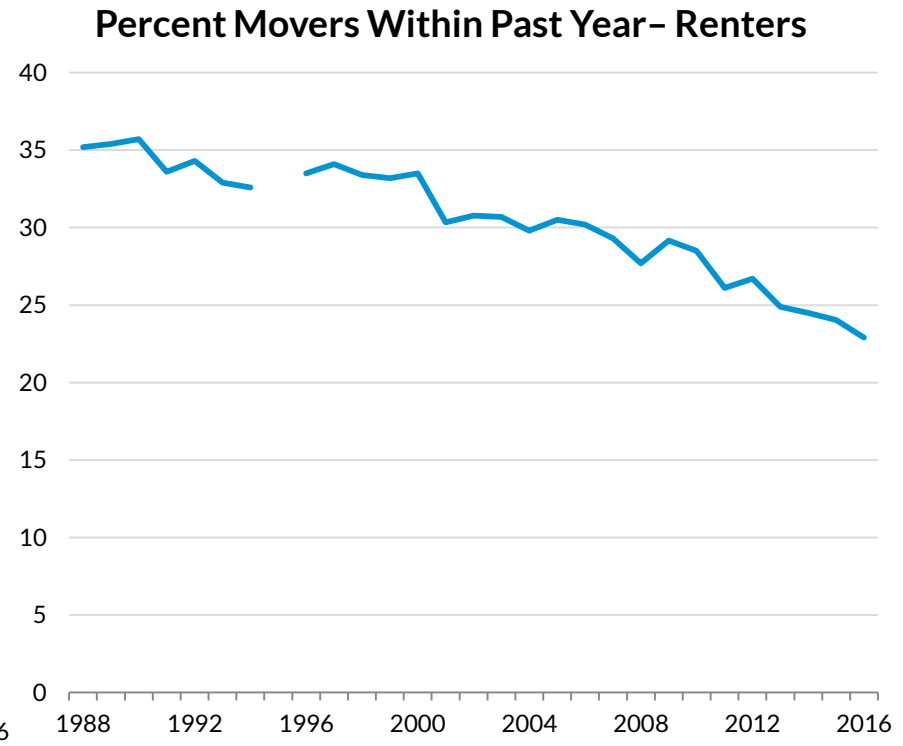


Sources: Freddie Mac Primary Mortgage Market Survey (PMMS), Credit Suisse, and Urban institute

Payment Rates May Slow More than Expected as Geographic Mobility is Down



Source: U.S. Census Bureau, Current Population Survey



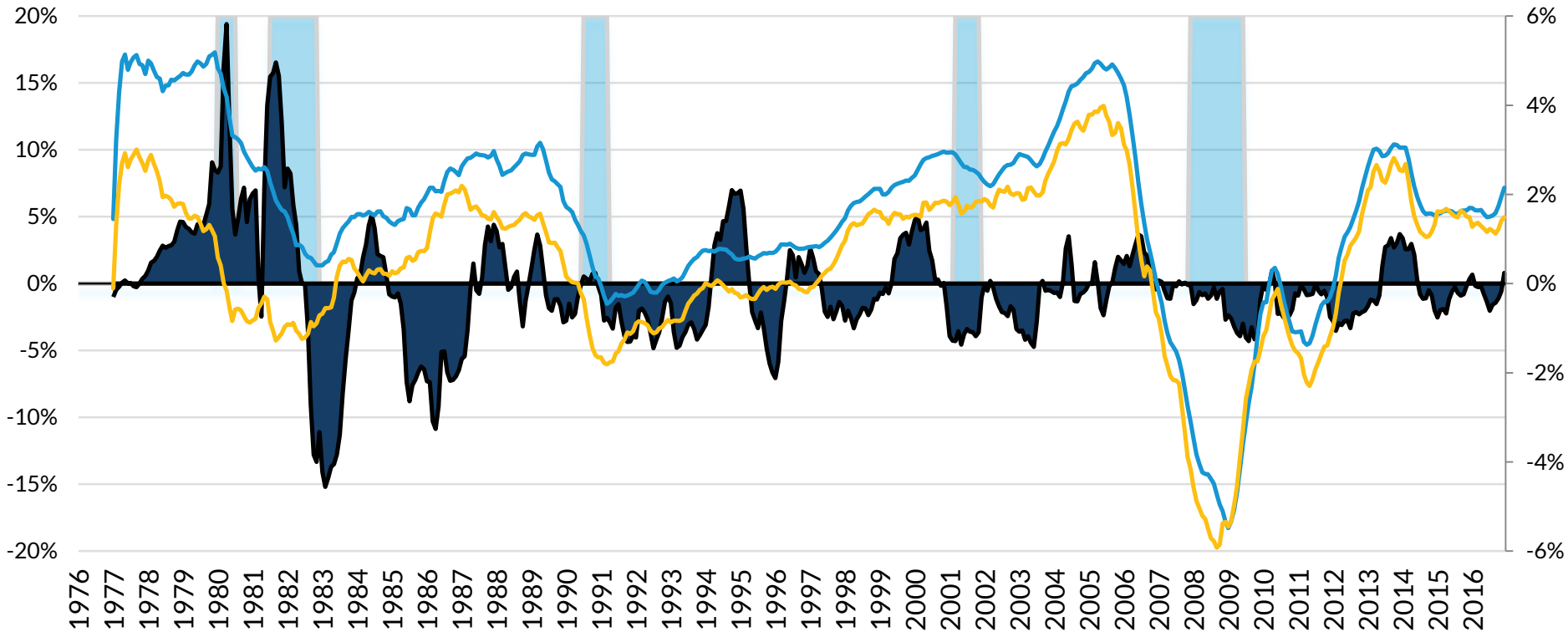
Source: U.S. Census Bureau, Current Population Survey

Historically, Rising Rates have been Associated with Increases in Nominal Home Prices, Despite Decreased Affordability

recession PMMS YOY HPI YOY REAL HPI YOY

YOY HPI Growth (Percent)

PMMS YOY (Percent)



Source: CoreLogic, Freddie Mac Primary Mortgage Market Survey (PMMS), U.S. Bureau of Labor Statistics (BLS), and Urban Institute.

Note: PMMS YOY = Year over year change in 30 year fixed rate mortgage rate based on Freddie Mac Primary Mortgage Market Survey (PMMS).

HPI YOY = Year over year growth rate of nominal home price Index. REAL HPI YOY = Year over year growth rate of home price Index in 2000 dollars.

Supply/Demand Gap 2015

(Thousands of Units)

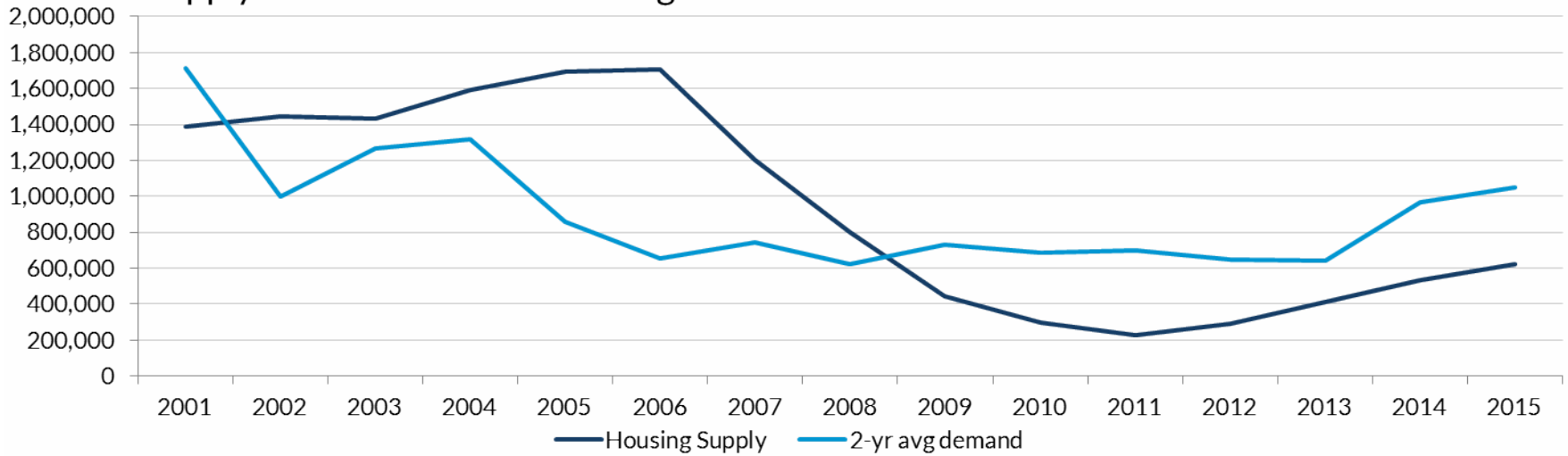
	1-4 family	5+ family	Total
Private Residential Completions	657	310	968
Manufactured Houses			69
Gross New Supply			1037
Less: Obsolescence Rate*			418
Net New Units			619
Household Formation			1050
Supply/Demand Gap			-431

* 0.31% of existing stock

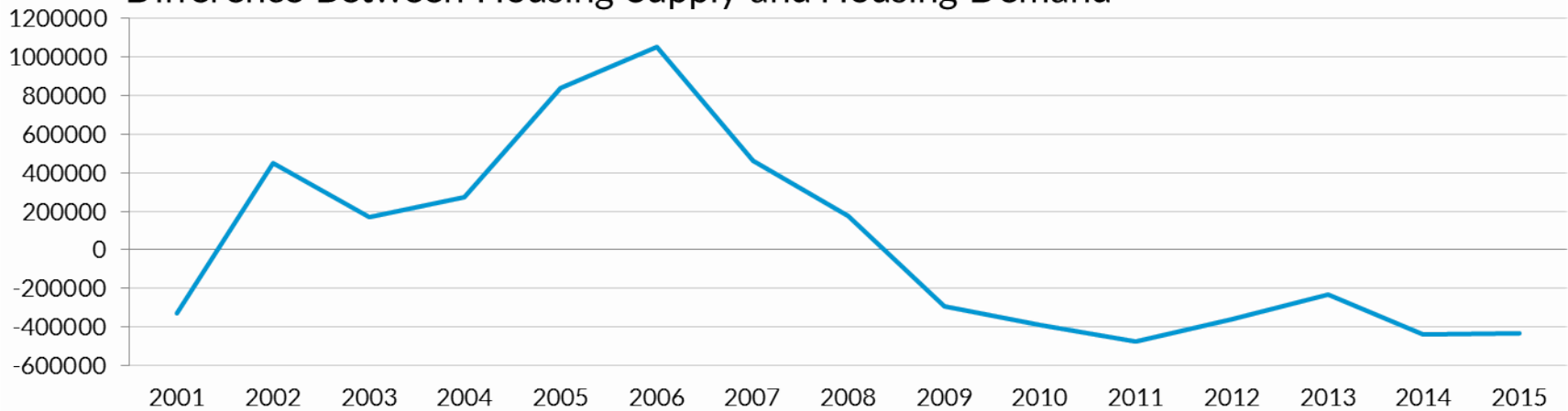
Sources: US Census Bureau, U.S. Department of Housing and Urban Development (obsolescence rate)

The Supply/Demand Picture, A Time Series

Supply and Demand for Housing



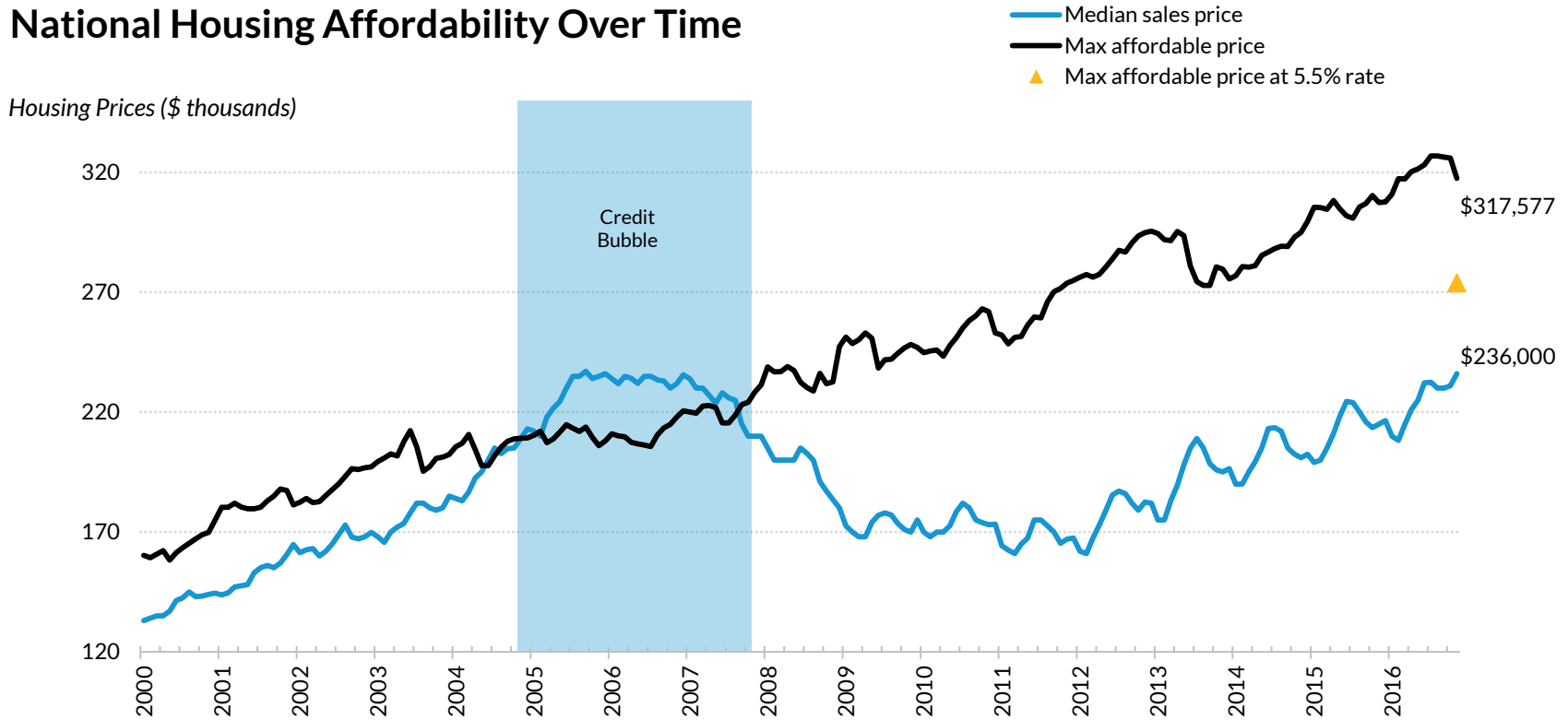
Difference Between Housing Supply and Housing Demand



Source: US Census data, Urban Institute Calculations

Home Prices are Still Affordable in a Reasonable Historical Context

National Housing Affordability Over Time



Sources: CoreLogic, US Census, Freddie Mac and Urban Institute.

Note: The maximum affordable price is the house price that a family can afford putting 20 percent down, with a monthly payment of 28 percent of median family income, at the Freddie Mac prevailing rate for 30-year fixed-rate mortgage, and property tax and insurance at 1.75 percent of housing value.

October 2016

Rate Rises are Often Accompanied by a Relaxation of Credit Standards

Year	Loan Count	Total Original UPB (\$B)	Average Original UPB (\$)	Credit Score	Original Combined Loan-to-Value (CLTV) Ratio	Original Loan-to-Value (LTV) Ratio	Original Debt-to-Income (DTI) Ratio	Weighted Average Coupon (WAC)
1999	1,095,017	137.9	125,942	712	77.6	77.5	33.2	7.3
2000	786,272	103.7	131,824	712	78.8	78.2	35.2	8.1
2001	1,755,361	259.5	147,803	715	76.2	75.5	33.7	7
2002	1,682,959	261.7	155,507	718	74.8	73.8	34	6.5
2003	1,927,030	311.2	161,474	725	73.5	72.1	32.8	5.7
2004	1,127,941	188.1	166,761	718	75.3	73.6	35.6	5.8
2005	1,691,627	289.3	171,017	725	72.2	70.5	36.3	5.8
2006	1,260,389	226.5	179,724	724	74.2	71.7	37.6	6.4
2007	1,220,022	223.8	183,469	725	75.8	73	37.8	6.3
2008	1,179,071	240.2	203,676	742	72.5	70.7	37.2	6
2009	1,973,348	423.1	214,415	763	67.7	65.9	32.3	4.9
2010	1,269,786	265.1	208,760	764	68.6	67.1	32.2	4.6
2011	952,698	207.8	218,075	765	69.3	67.9	32.3	4.3
2012	1,327,587	295.3	222,435	767	69.9	68.6	31.4	3.6
2013	1,297,019	282.9	218,109	760	72.5	71.4	32.5	3.8
2014	967,258	212.2	219,368	752	76.8	76	34.4	4.3
2015	1,003,423	159.8	230,480	754	75	74.2	34.3	3.9
Total	22,516,808	4,159.40	184,723	740	72.9	71.5	34.1	5.4

Sources: Freddie Mac Single-Family Loan Level Dataset Summary Statistics

All handouts from today's event can be found at www.urban.org/events