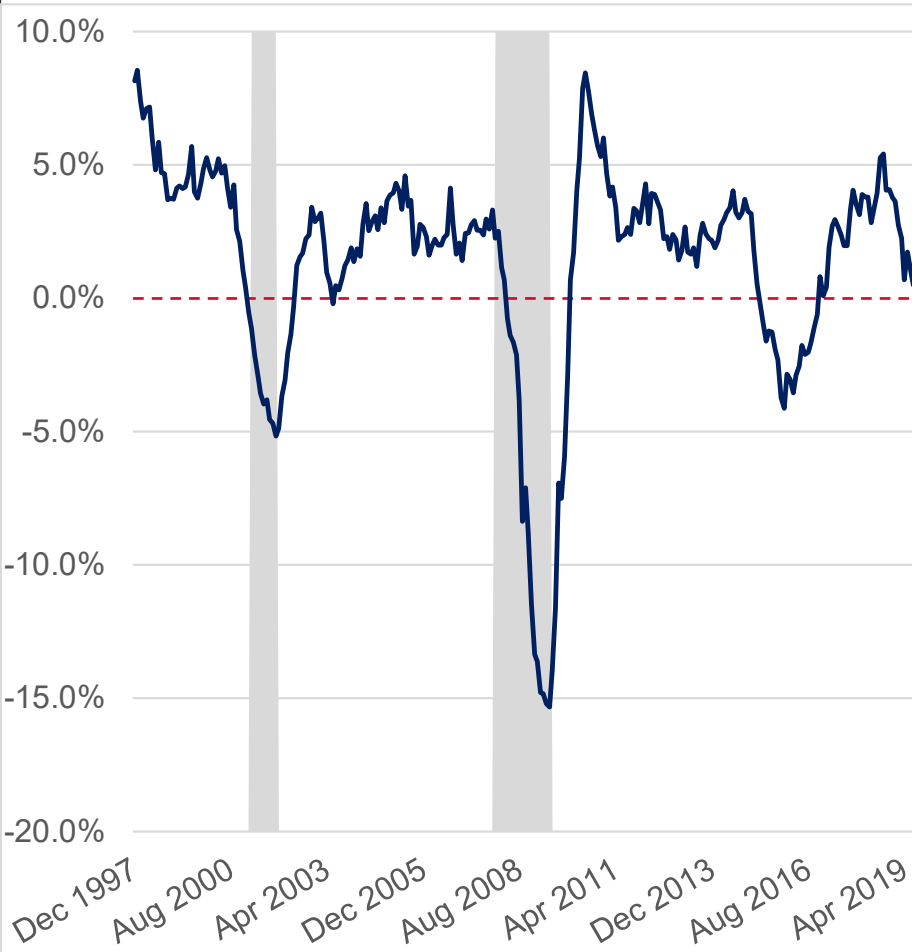
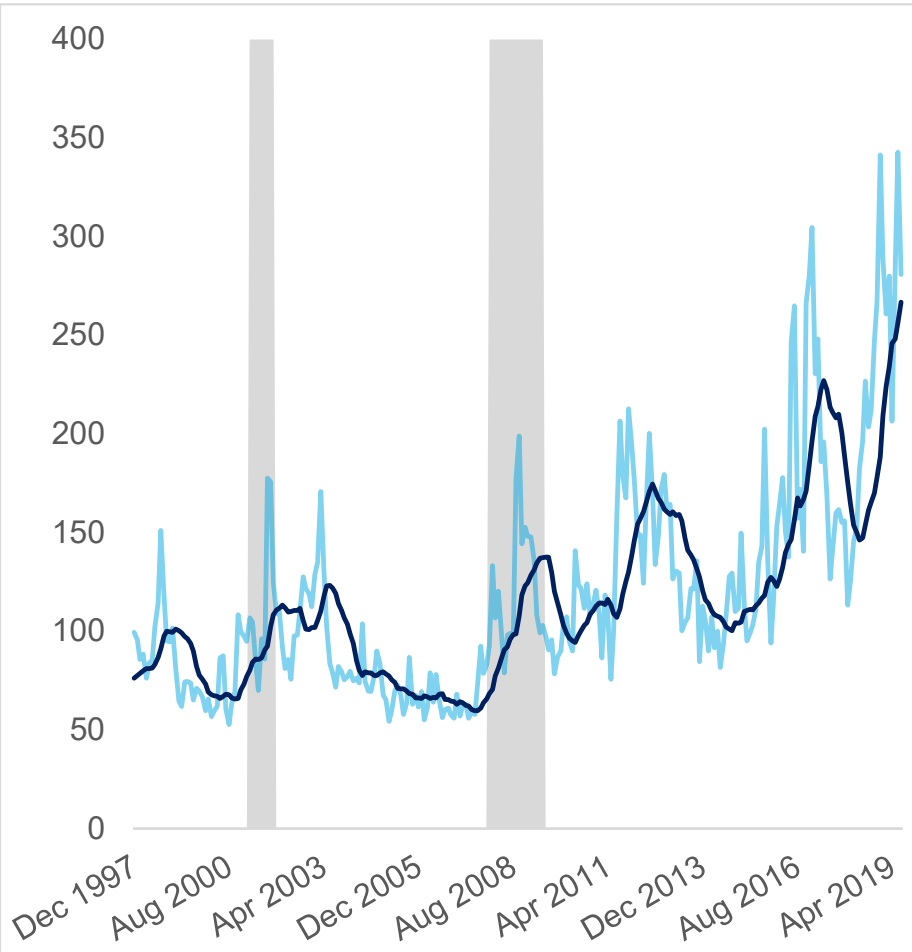


# Weaker Manufacturing and Greater Economic Uncertainty is Driving Negative Economic Headlines

Industrial Production Index (YoY % Change)



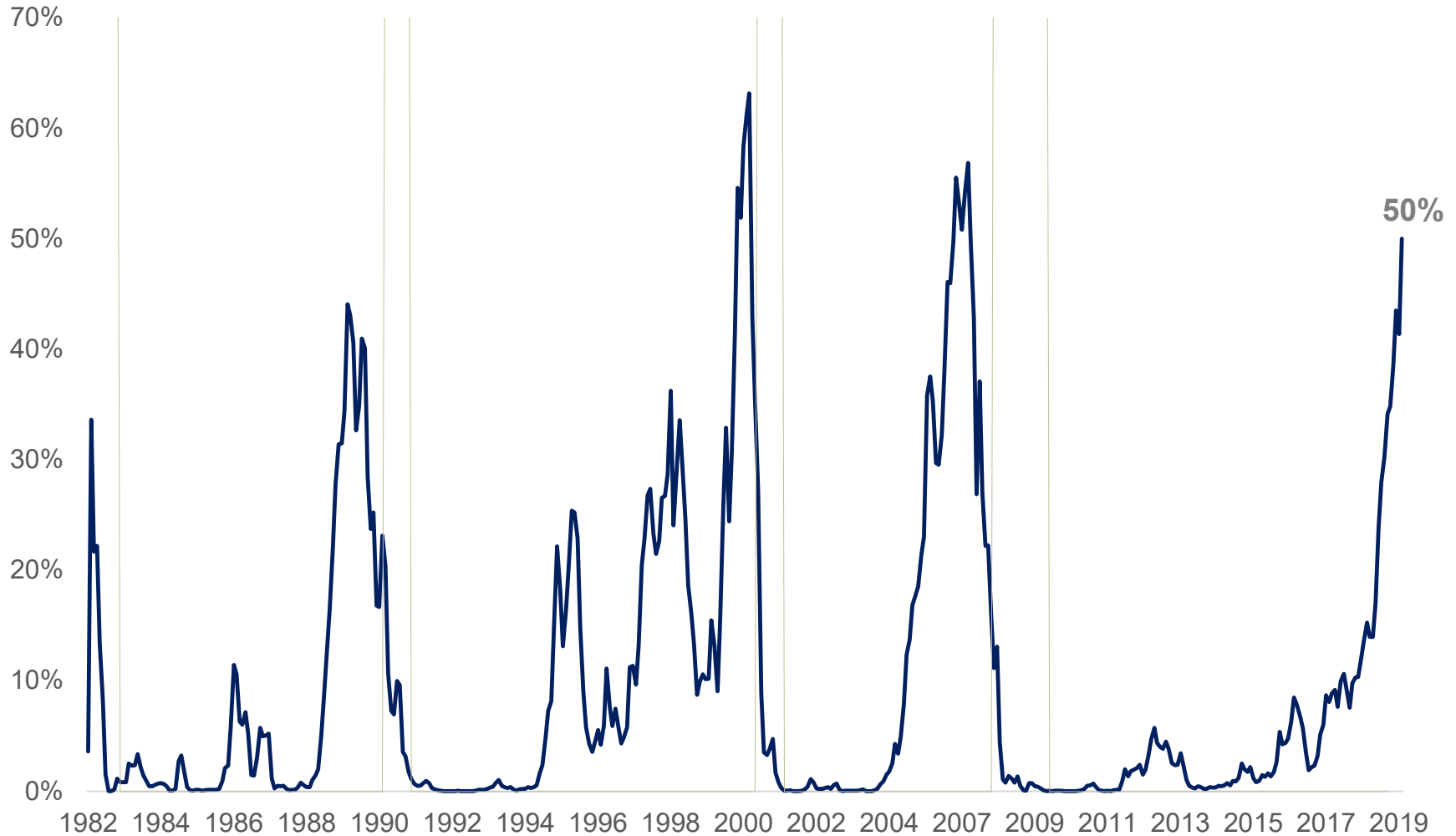
Global Economic Uncertainty Index (w/ 12-Month MA)



Source: FRED; Federal Reserve Board, Scott Baker, Nick Bloom, Stephen Davis  
 Shaded areas indicate U.S. Recessions

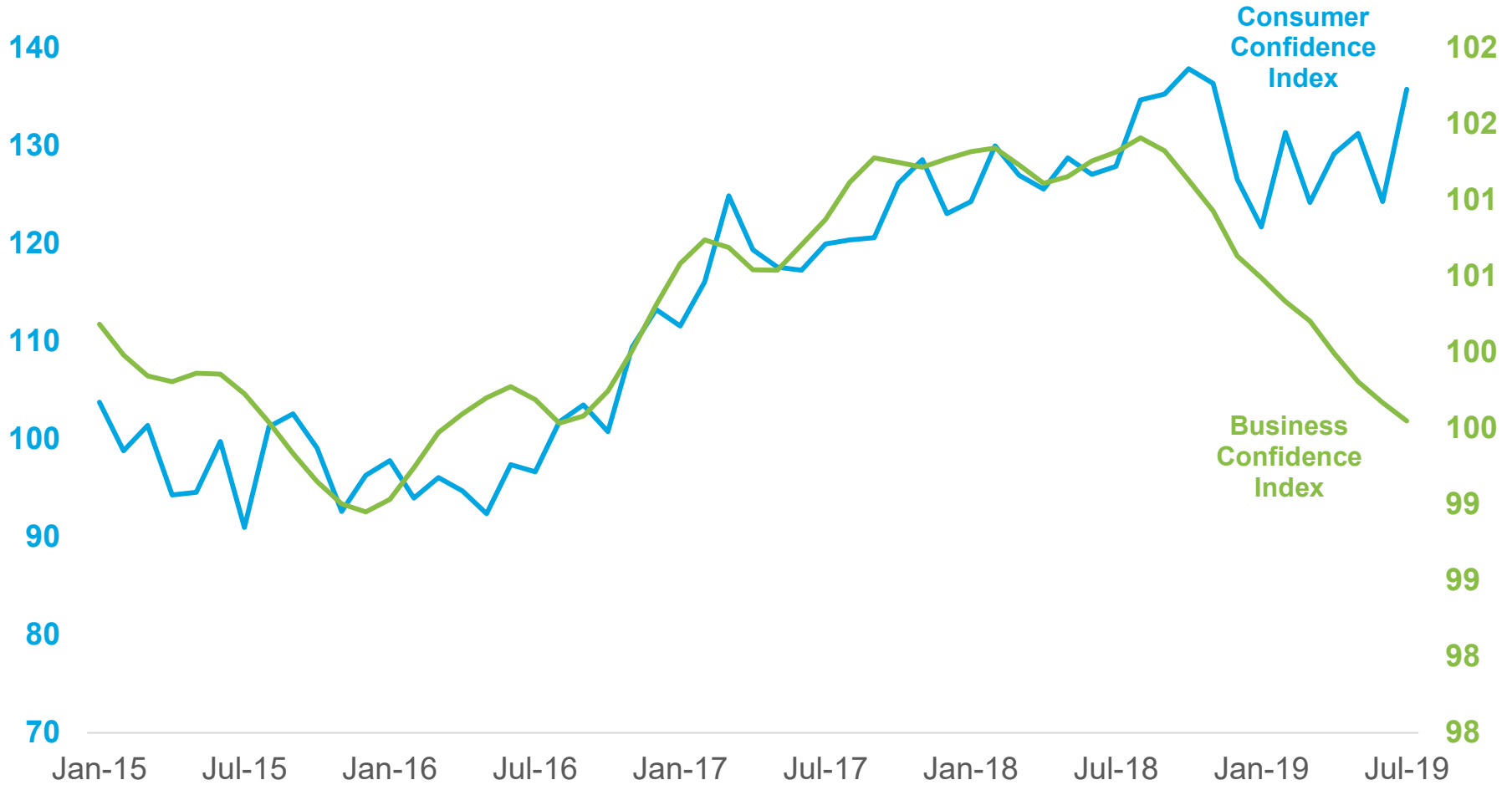
# Financial Markets Signaling a Recession is Coming in 12 Months

## Yield Curve Recession Probability Framework



# Business Confidence Drops, Consumer Remains Firm

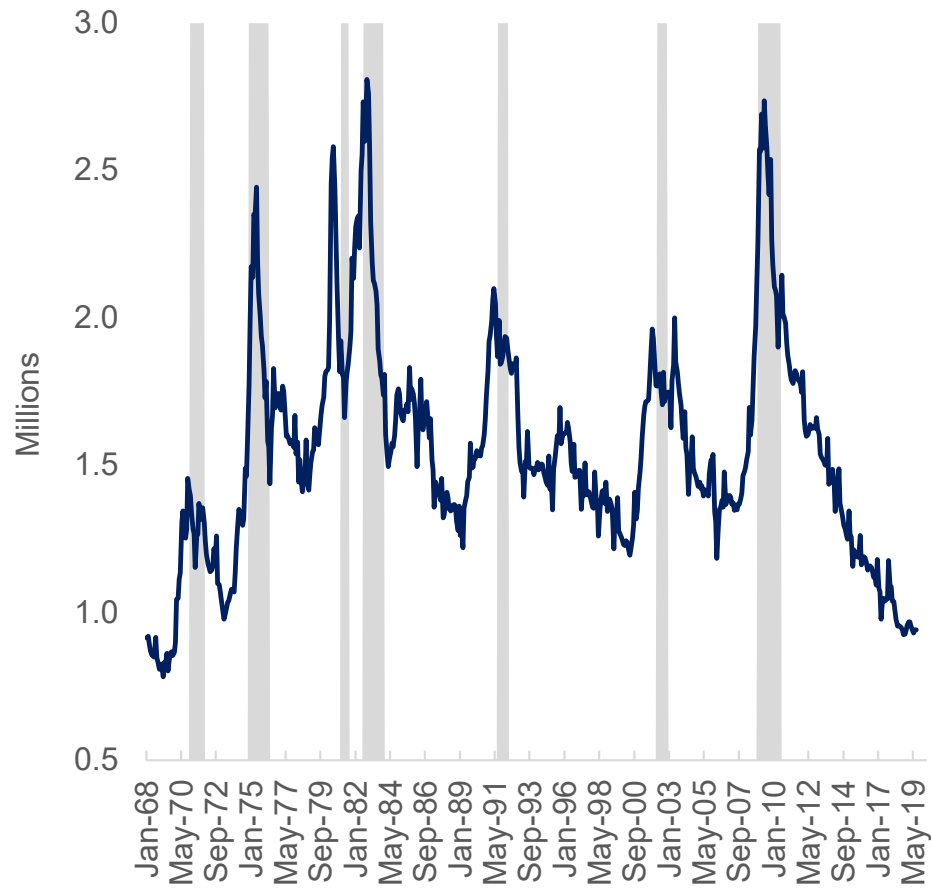
## Consumer and Business Confidence Indices



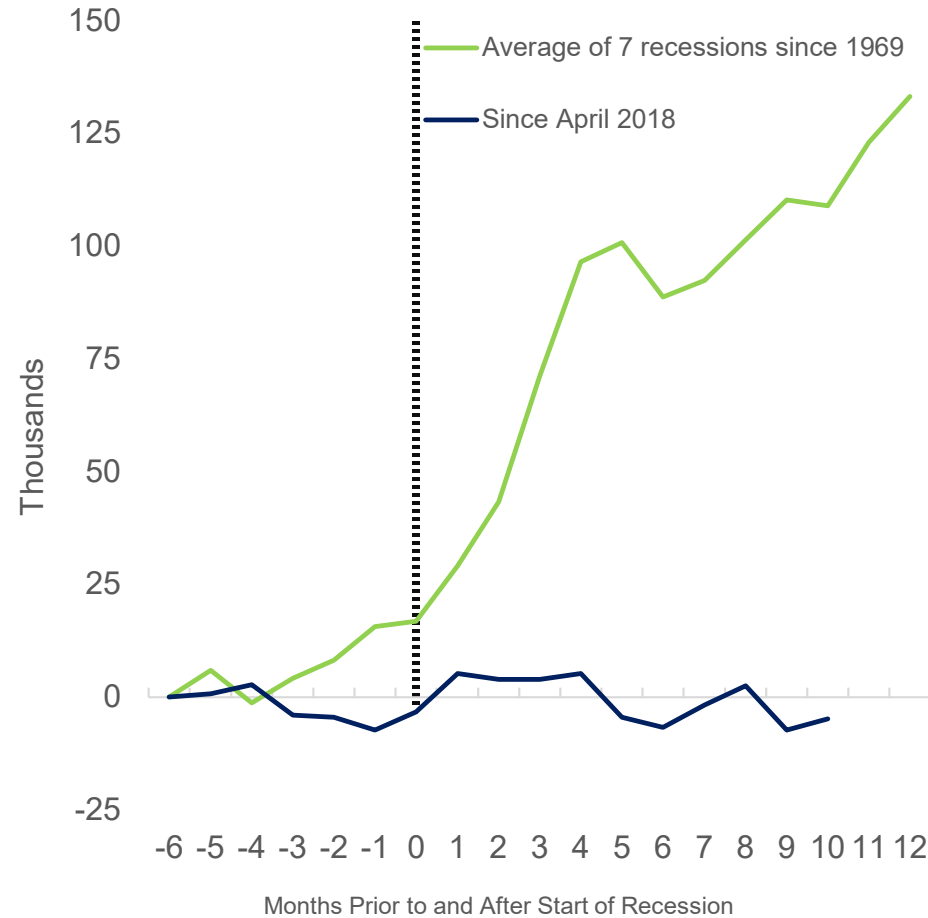
Source: Conference Board and OECD

# Jobless Claims Show No Recession Warning...

Initial Jobless Claims (Monthly Total)



Change in Jobless Claims From Prior 6 Months



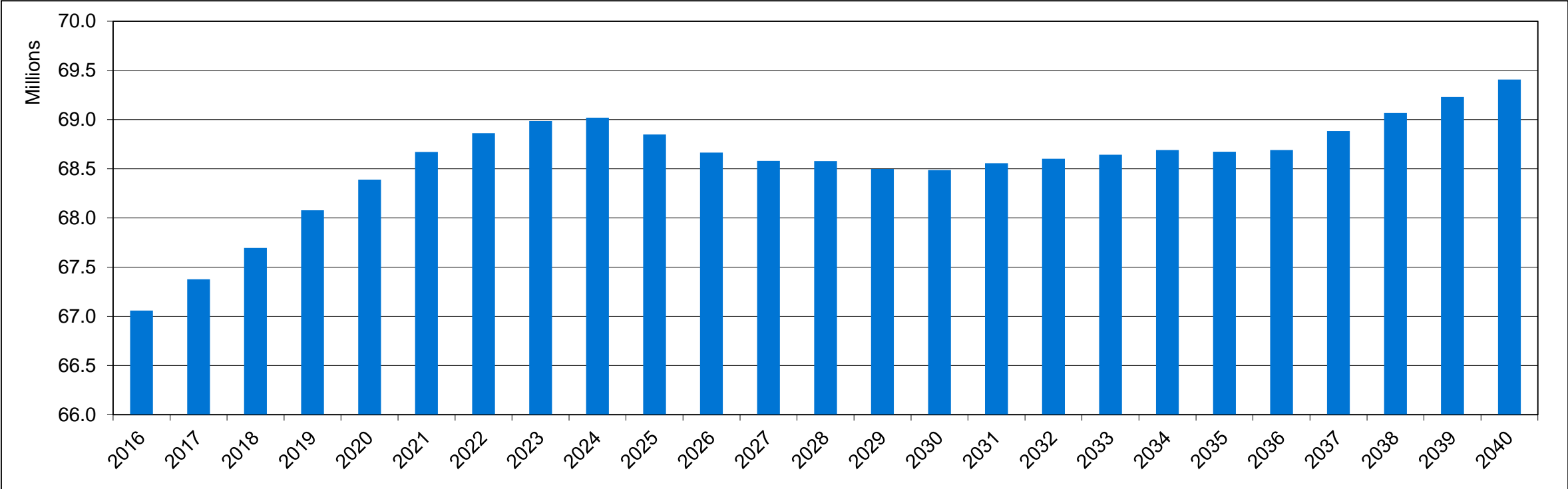
Source: ETA

# Real Estate Fundamentals: Demographics Favorable



Demographics are in Multifamily's favor over the next few years, especially in the younger aged cohort...

## U.S. Population: Age 20-34 Cohort



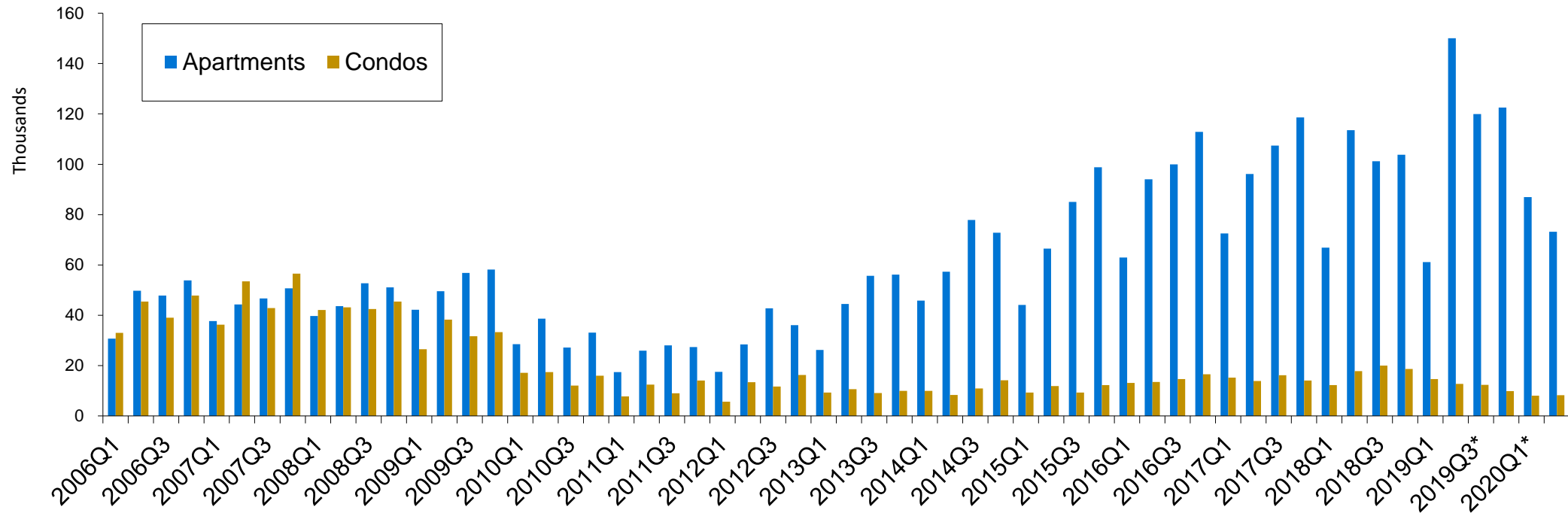
Source: U.S. Census, Fannie Mae

# Real Estate Fundamentals: Supply and Demand



...and multifamily deliveries are peaking this year...

## National Condo and Apartment Completions and Units Underway



NOTE: Pipeline data is not an actual forecast of activity, it is a monitor of activity reported on to-date. As more projects are planned and tracked, figures in future periods might go up.

\* Anticipated completion date

# Real Estate Fundamentals: Supply and Demand



...just as new supply is expected to complete and come on line.

Metro Area	Total New Units Expected	
	Supply (Units)	Potential Demand
New York	57,331	37,328
Washington, DC	33,105	15,974
Dallas	29,782	24,174
Los Angeles	26,313	14,973
Boston	23,617	8,970
Seattle	22,500	13,897
Atlanta	20,224	7,660
Miami	17,910	7,262
Austin	17,879	9,897
Denver	17,521	6,097
Chicago	17,098	12,458
Orlando	16,031	12,115
Minneapolis	14,527	4,352
<b>Houston</b>	<b>12,896</b>	<b>24,684</b>
Oakland	12,530	5,480
Philadelphia	10,840	8,060
<b>Phoenix</b>	<b>10,743</b>	<b>13,792</b>
San Francisco	10,419	6,223
Charlotte	9,759	7,109
San Antonio	9,663	6,298

Source: Dodge Data & Analytics and Moody's Analytics

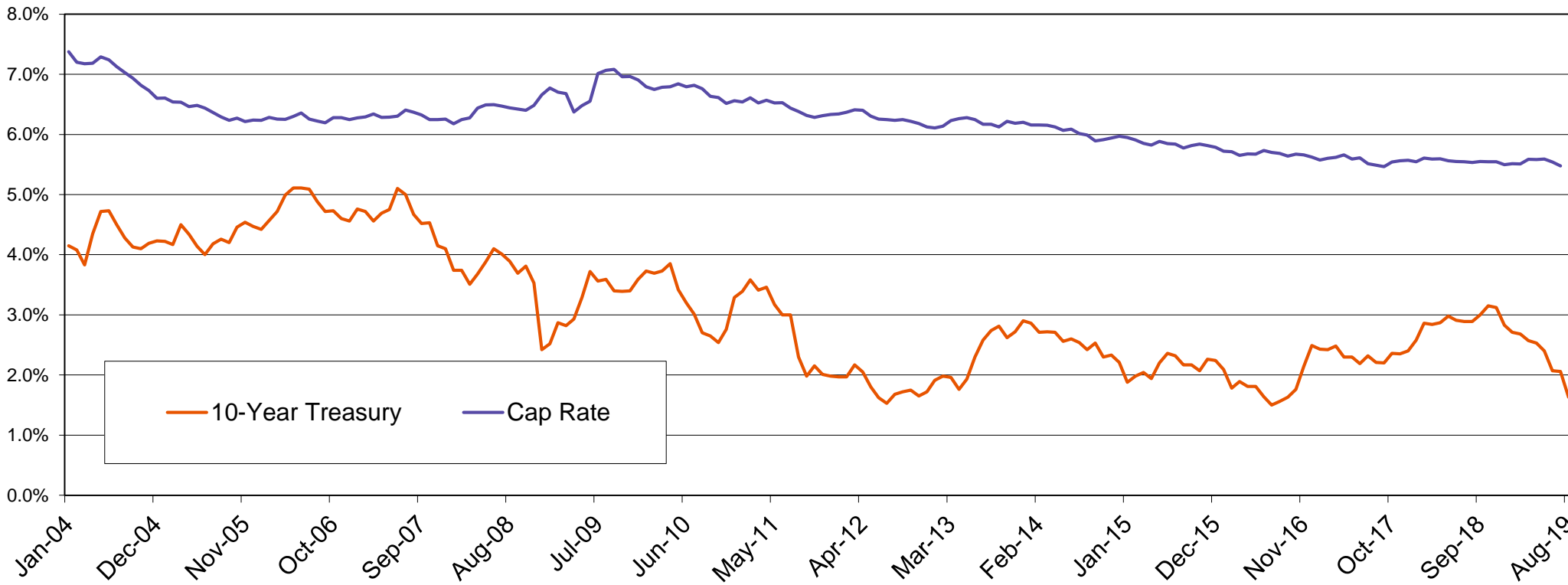
Note: Supply equals total number of apartments units completed in 2019 and 2020 per Dodge Pipeline. Potential Demand is estimated by factoring in both the amount of new supply and the total number of new jobs expected in the metro in 2019 and 2020, per Moody's Analytics

# Real Estate Fundamentals: Multifamily Investment



Cap rate spreads have stayed wide (especially lately!)

## Treasuries and Multifamily Cap Rates



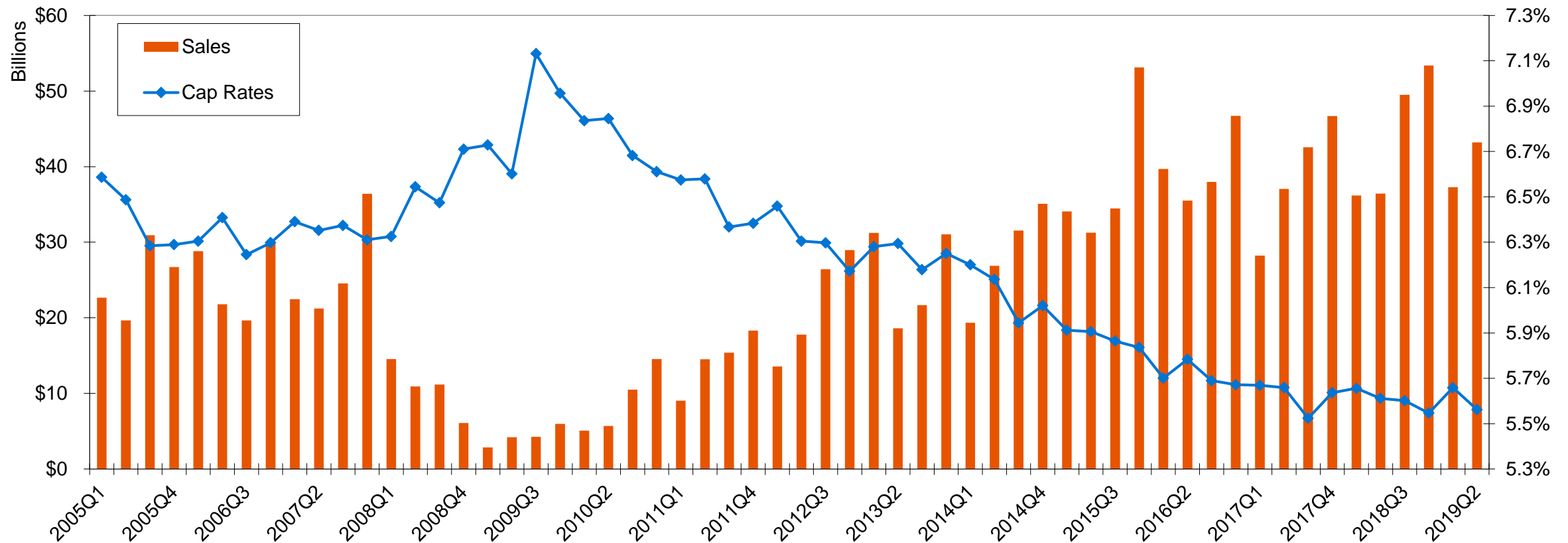


# Real Estate Fundamentals: Multifamily Investment

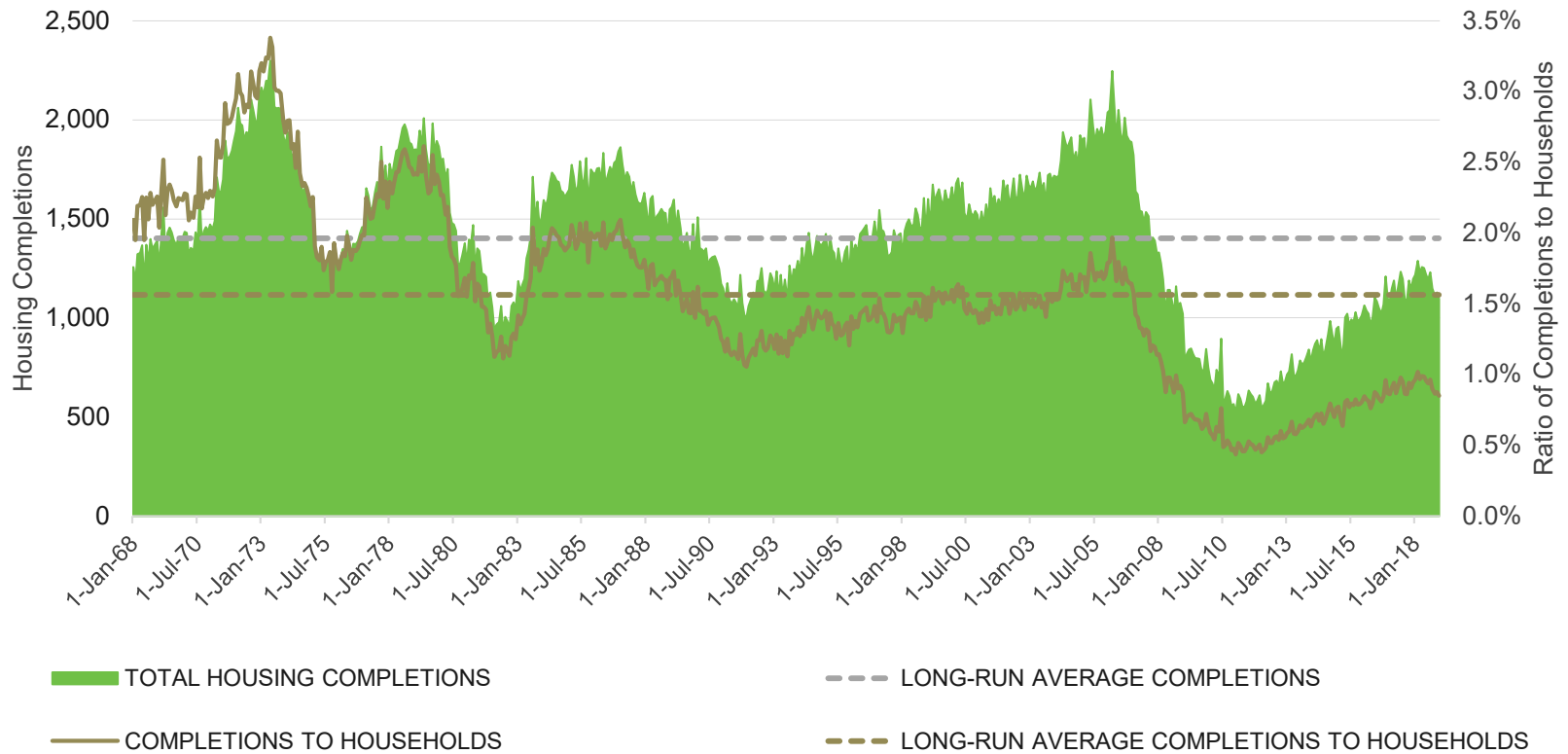


...and investors remain bullish on multifamily.

## National Apartment Sales Volume and Cap Rates



## Housing Completions to Total Households (SF & MF)

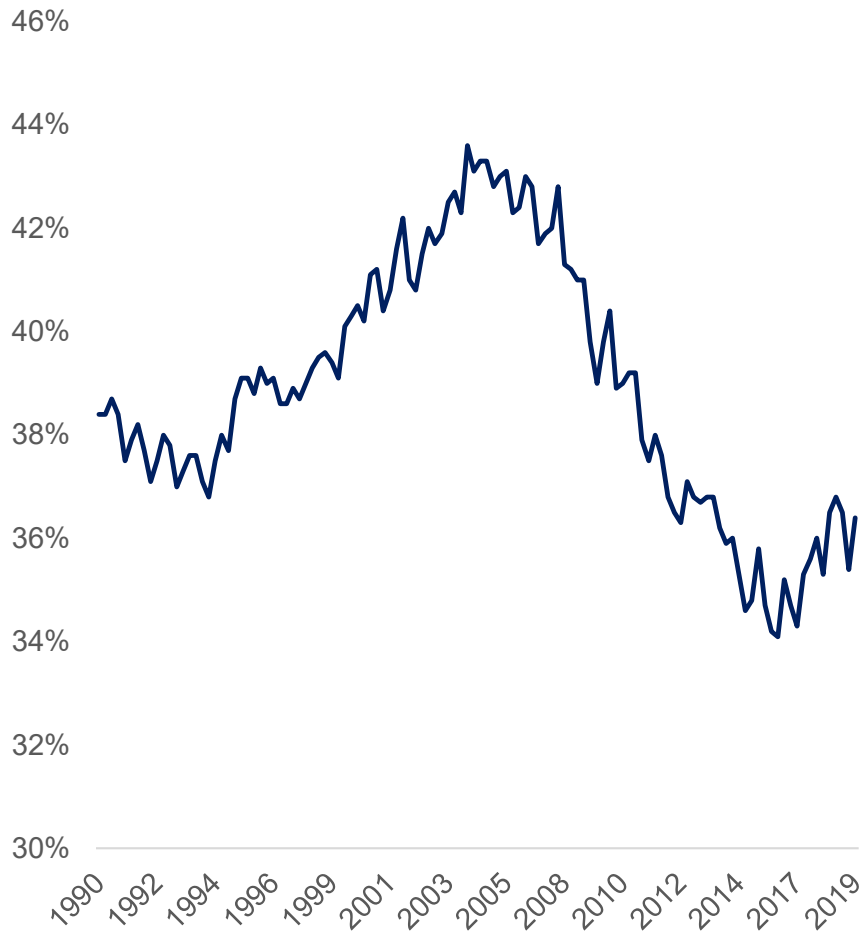


Source: Freddie Mac, Moody's, Census

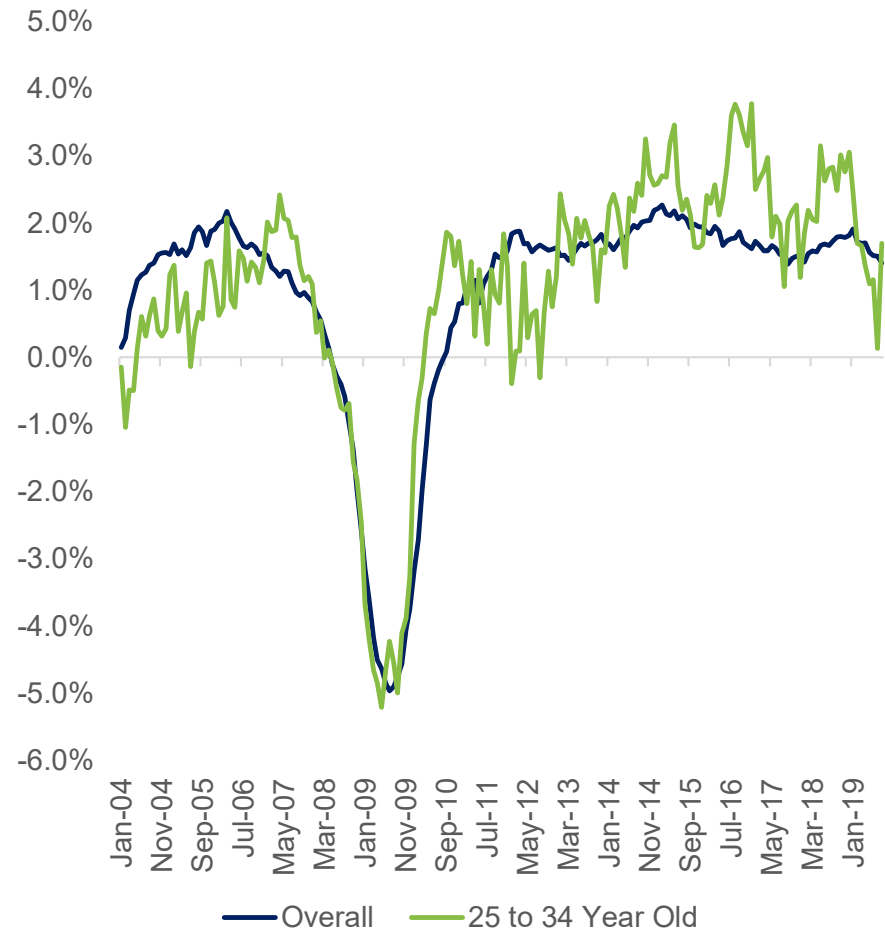
# Employment Growth and Homeownership Rate for Young Households Stalls



### Homeownership Rate by for 35 Years of Age and Younger



### Percent Change from Year Ago in Employment for 25 to 34 Year Olds

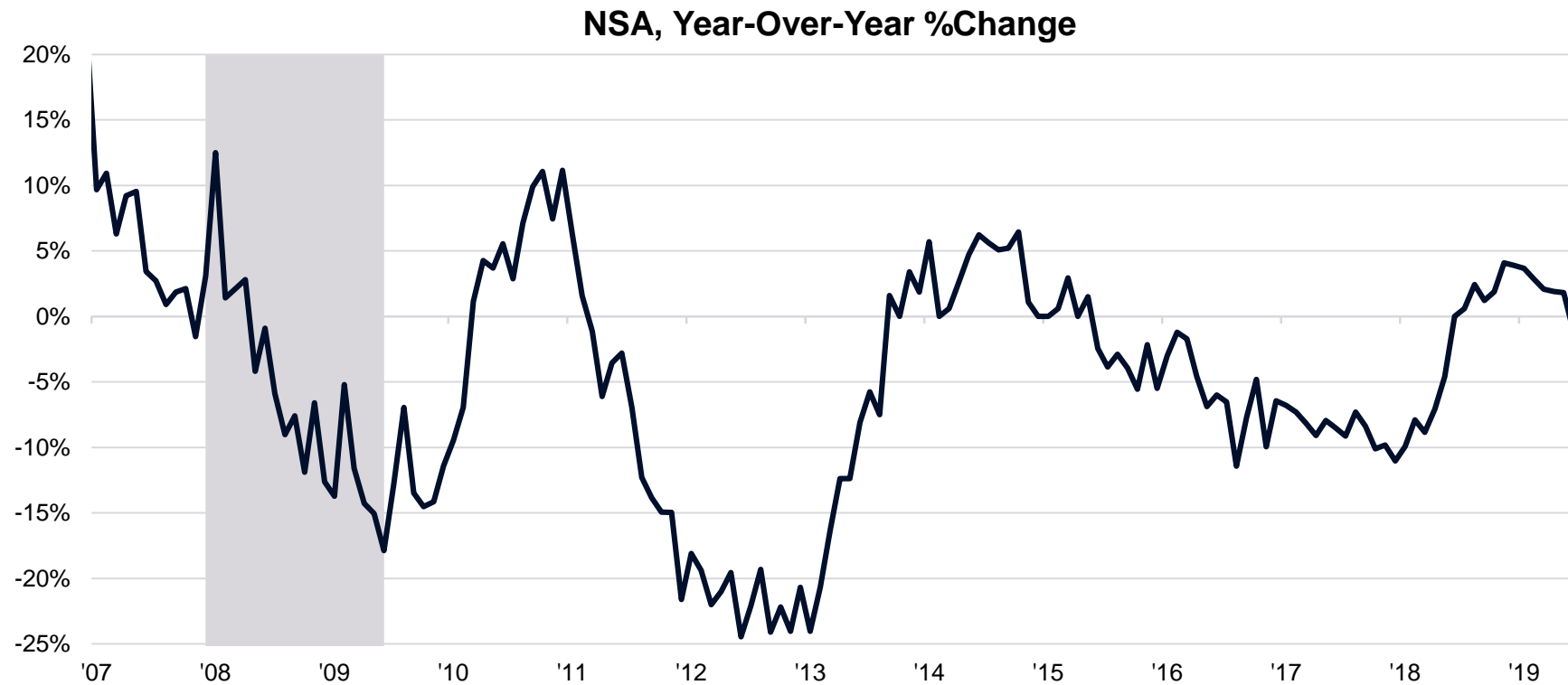


# Real Estate Fundamentals: Single Family Trends



... means there are fewer existing homes available for sale...

## Existing Homes Available for Sale

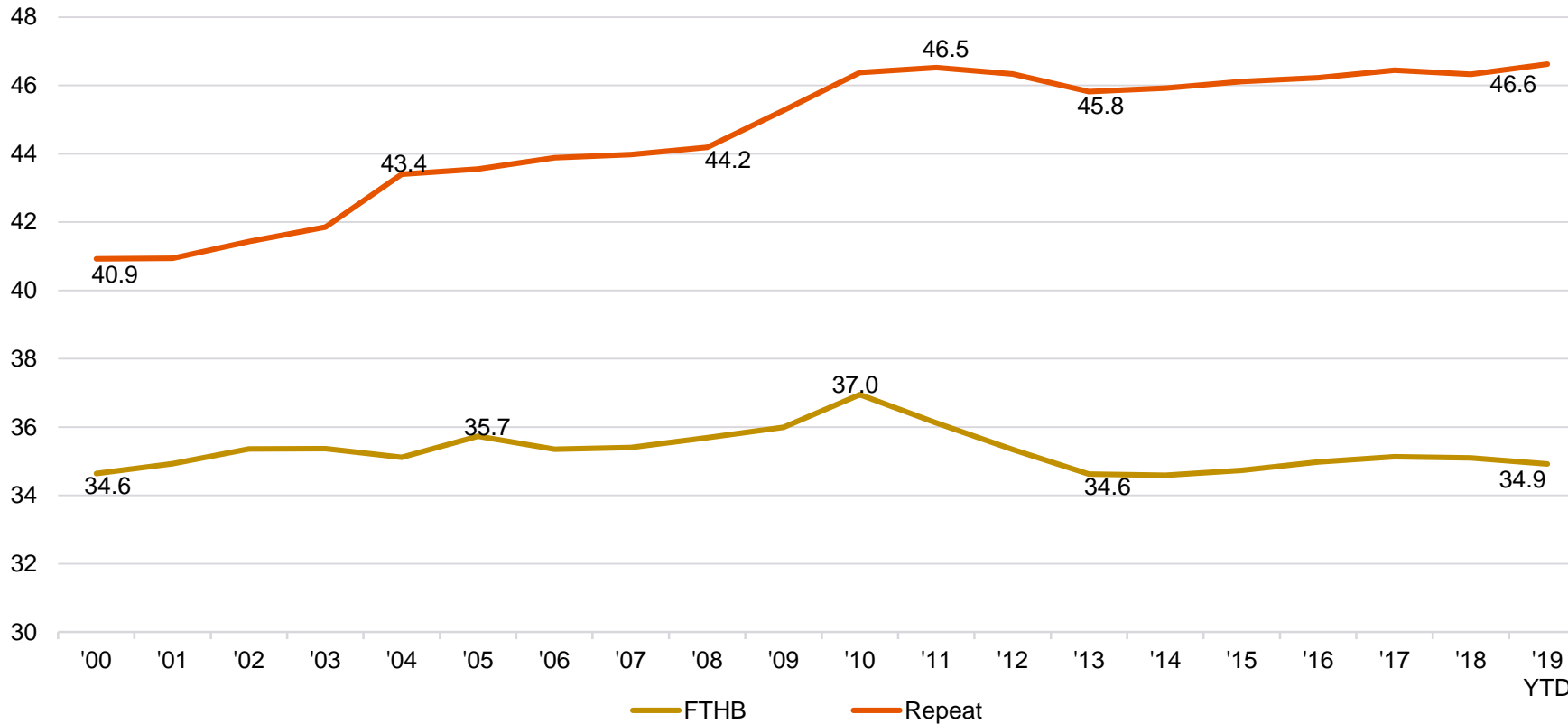


# Real Estate Fundamentals: Single Family Trends



... and those sellers are waiting longer to “move up.”

## Median Age of Borrower by Acquisition Year



# Real Estate Fundamentals: Single Family Trends



There isn't much new supply available either...

## Single Family Housing Starts

