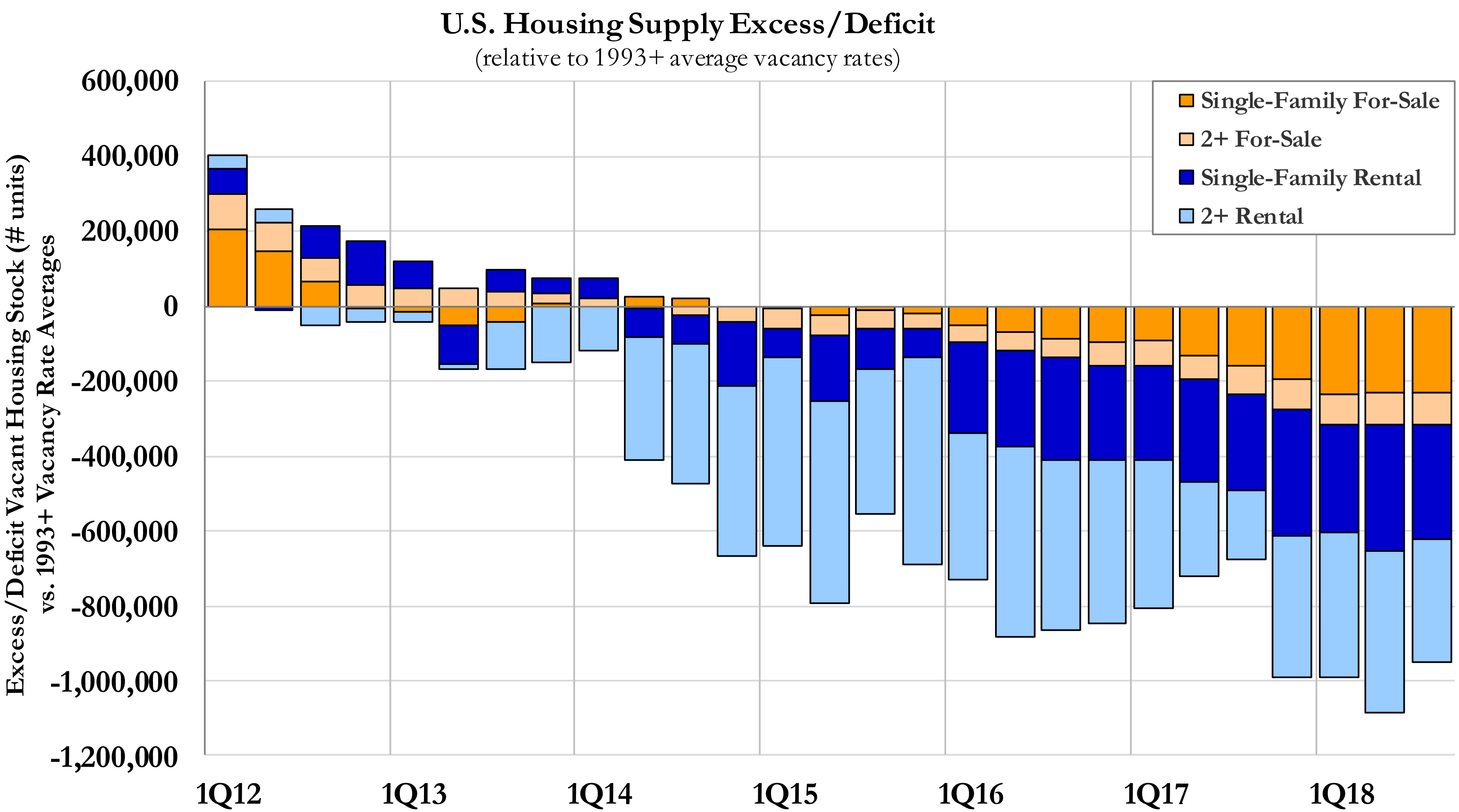
# State of the U.S. Housing Market

## ULI Housing Opportunity Conference

Ryan Davis, Director of Research and Client Services

Witten Advisors
*Market-Smart Apartment Decisions*

# Opportunity abounds due to the widespread housing shortage



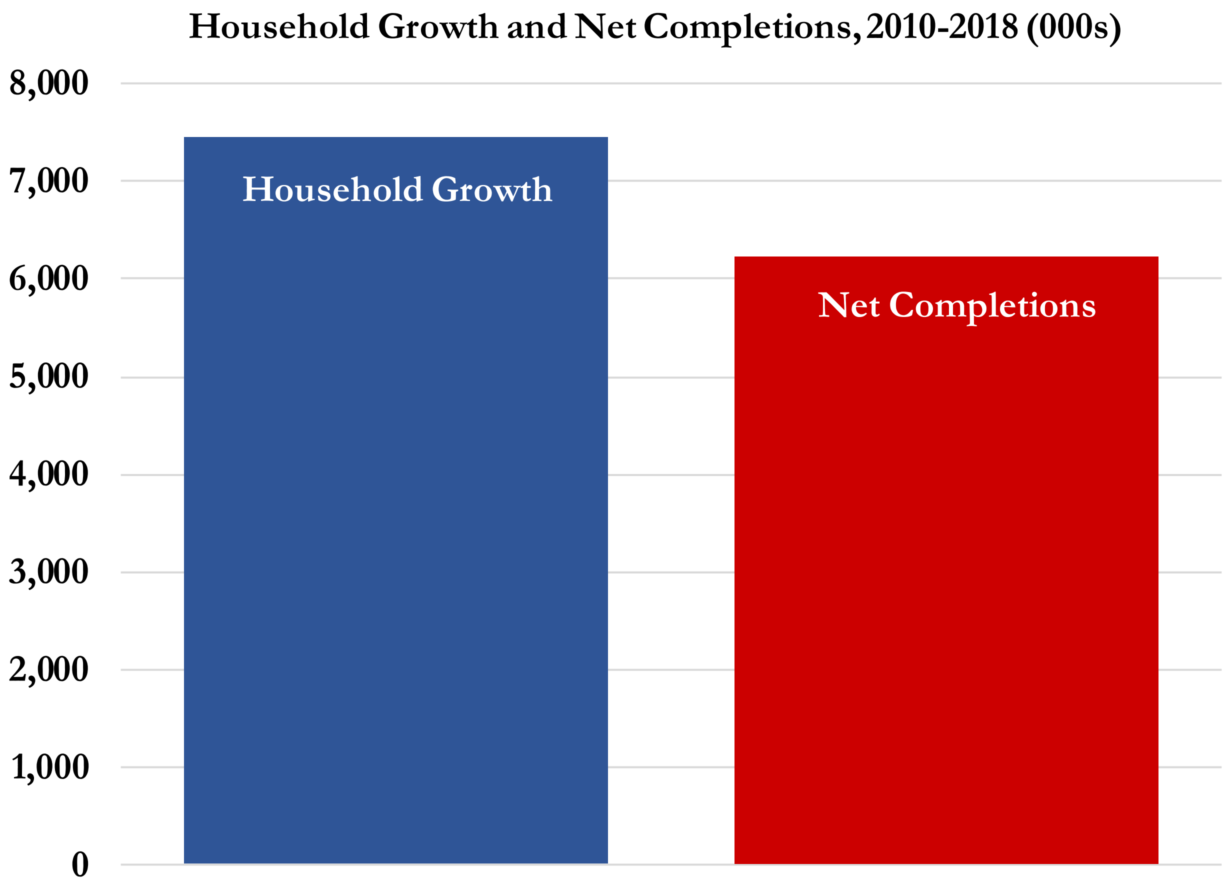

Source: Witten Advisors, U.S. Census Bureau

*Market insights for apartment owners, developers, investors and lenders*

ULI Housing Opportunity Conference
February 5, 2019

Witten Advisors
*Market-Smart Apartment Decisions*

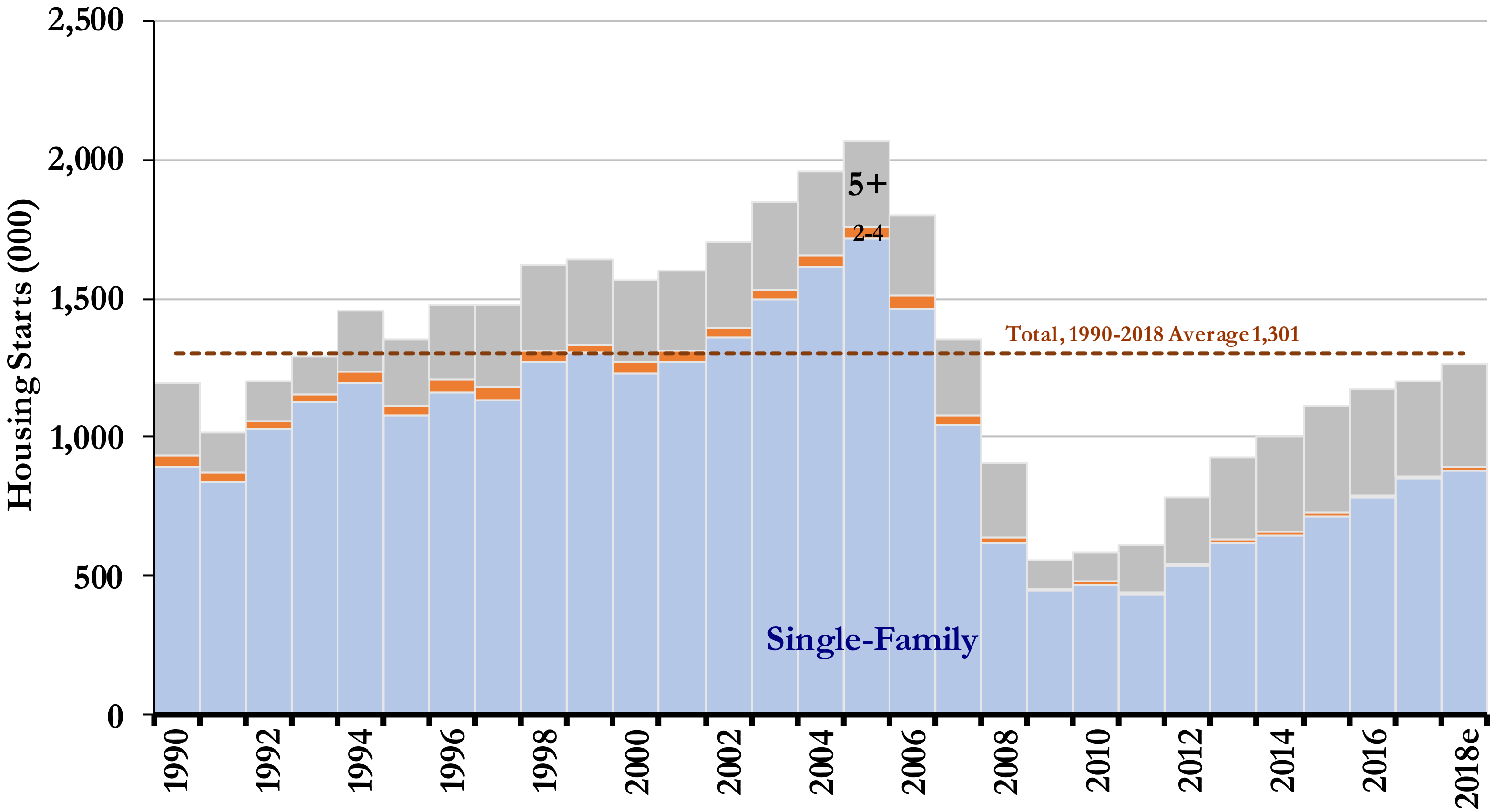
# Since 2010, a strong economy has boosted household growth; more households formed than net housing finished




Source: Witten Advisors

Witten Advisors
*Market-Smart Apartment Decisions*

# Nine years into recovery, U.S. housing starts not back to 1.3m units; rental apartments comprise outsized share of starts this cycle



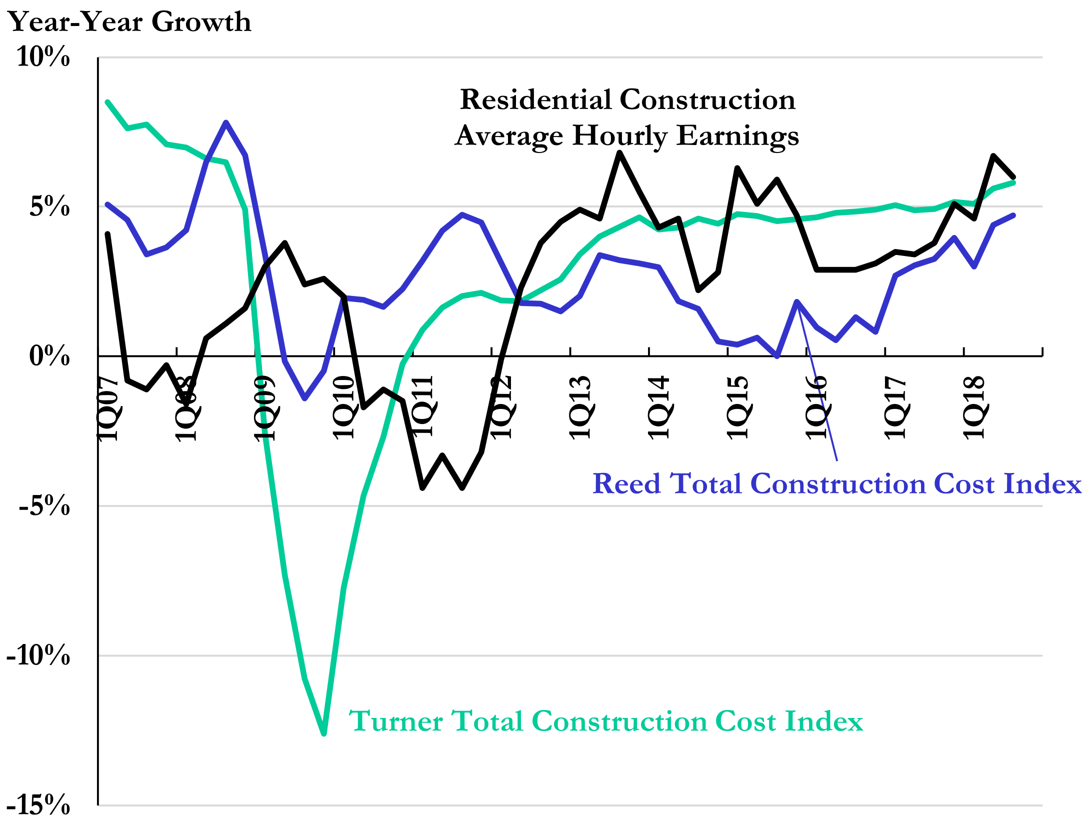

Source: U.S. Census Bureau

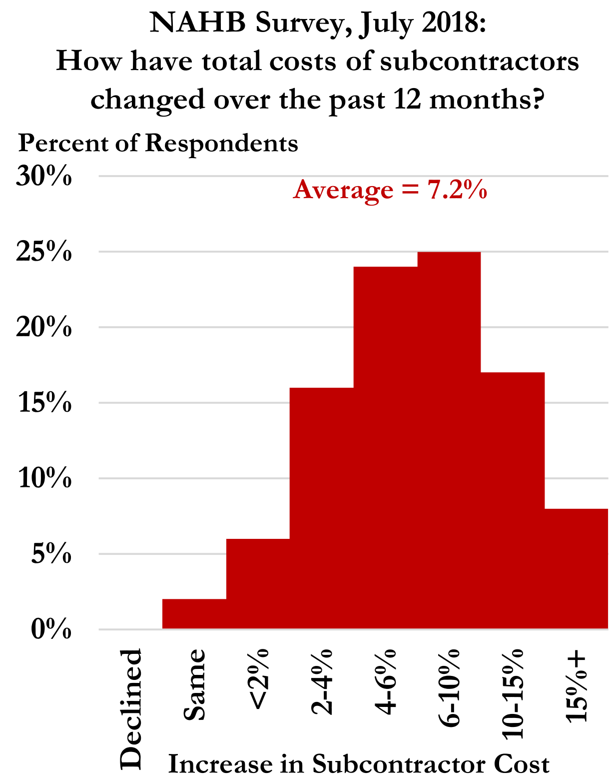


*Market insights for apartment owners, developers, investors and lenders*

ULI Housing Opportunity Conference
February 5, 2019

# Construction cost inflation measures at or near cyclical peaks
## Total construction costs up 5%+ *(sub costs up ~7% all-in)*

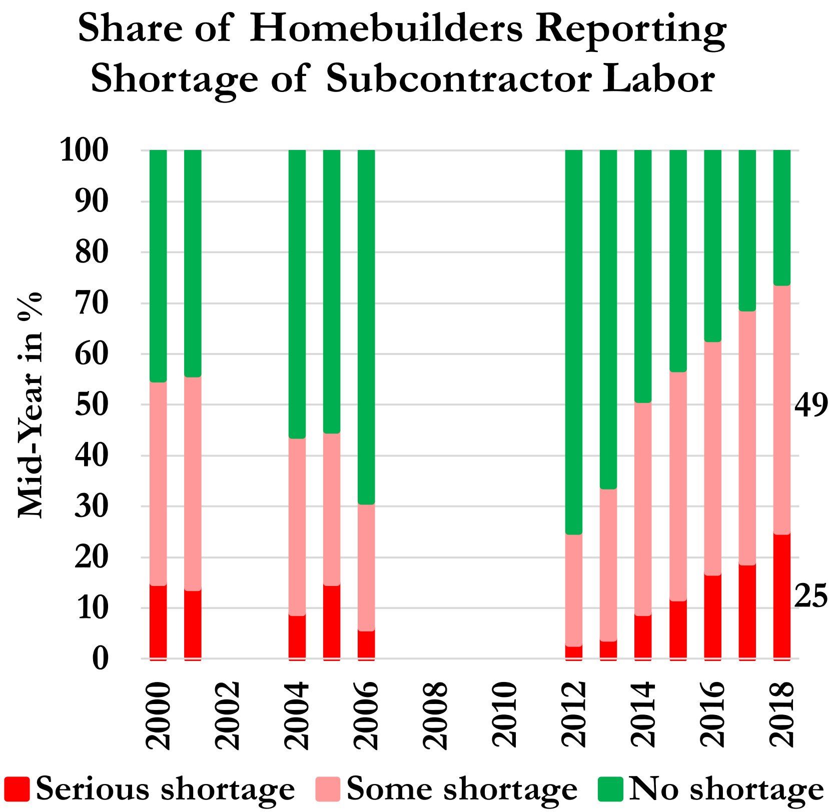


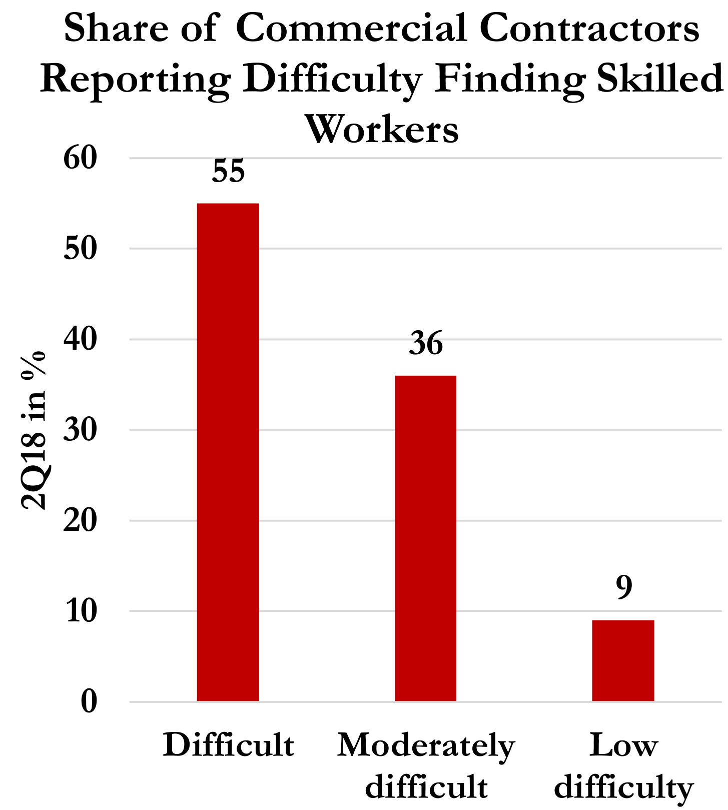




Source: BLS, Turner, Reed, NAHB

Witten Advisors
*Market-Smart Apartment Decisions*

# Construction execution still a challenge – for both residential and commercial builders



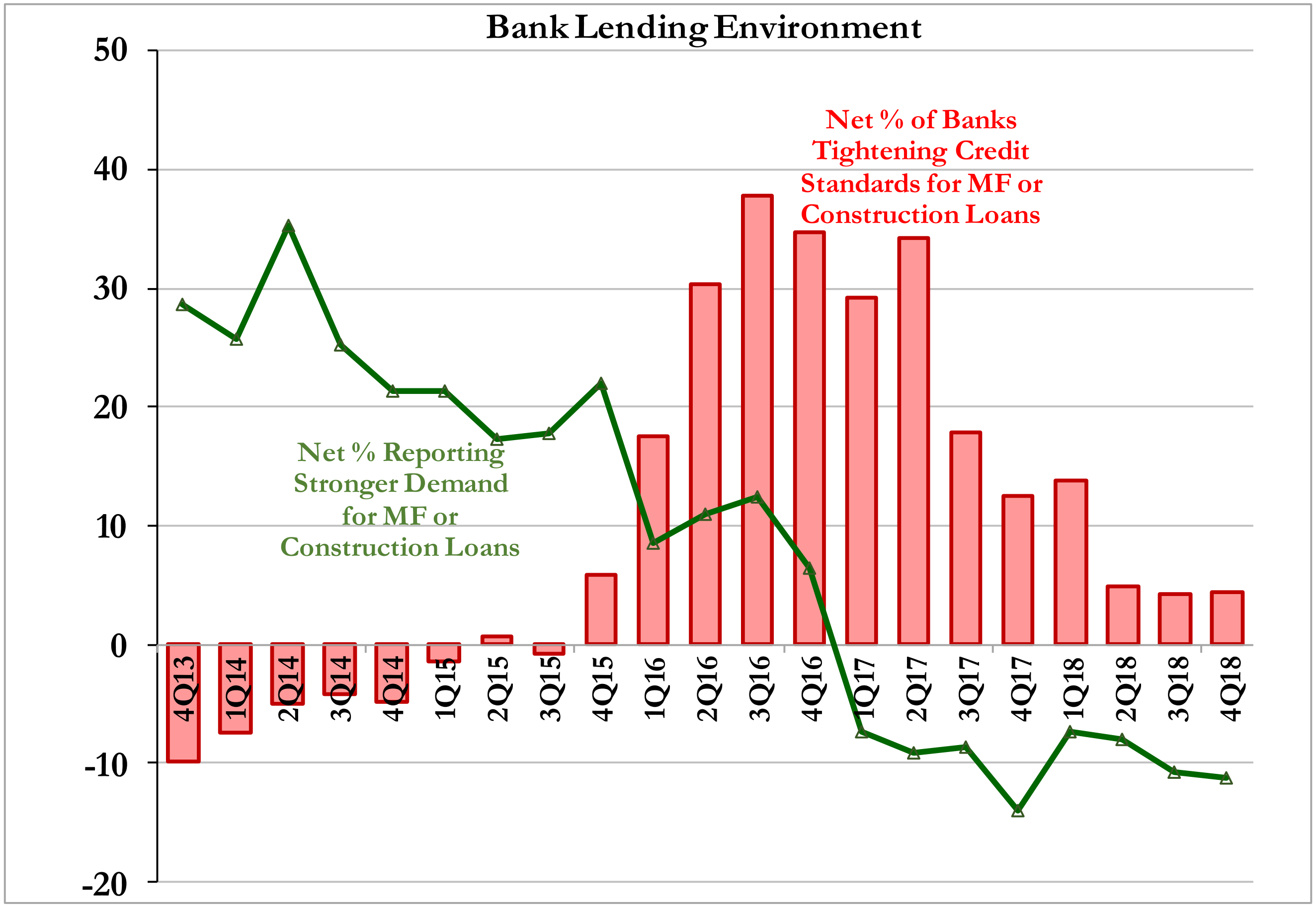




Sources: NAHB, Dodge Data & Analytics




Dallas, Texas

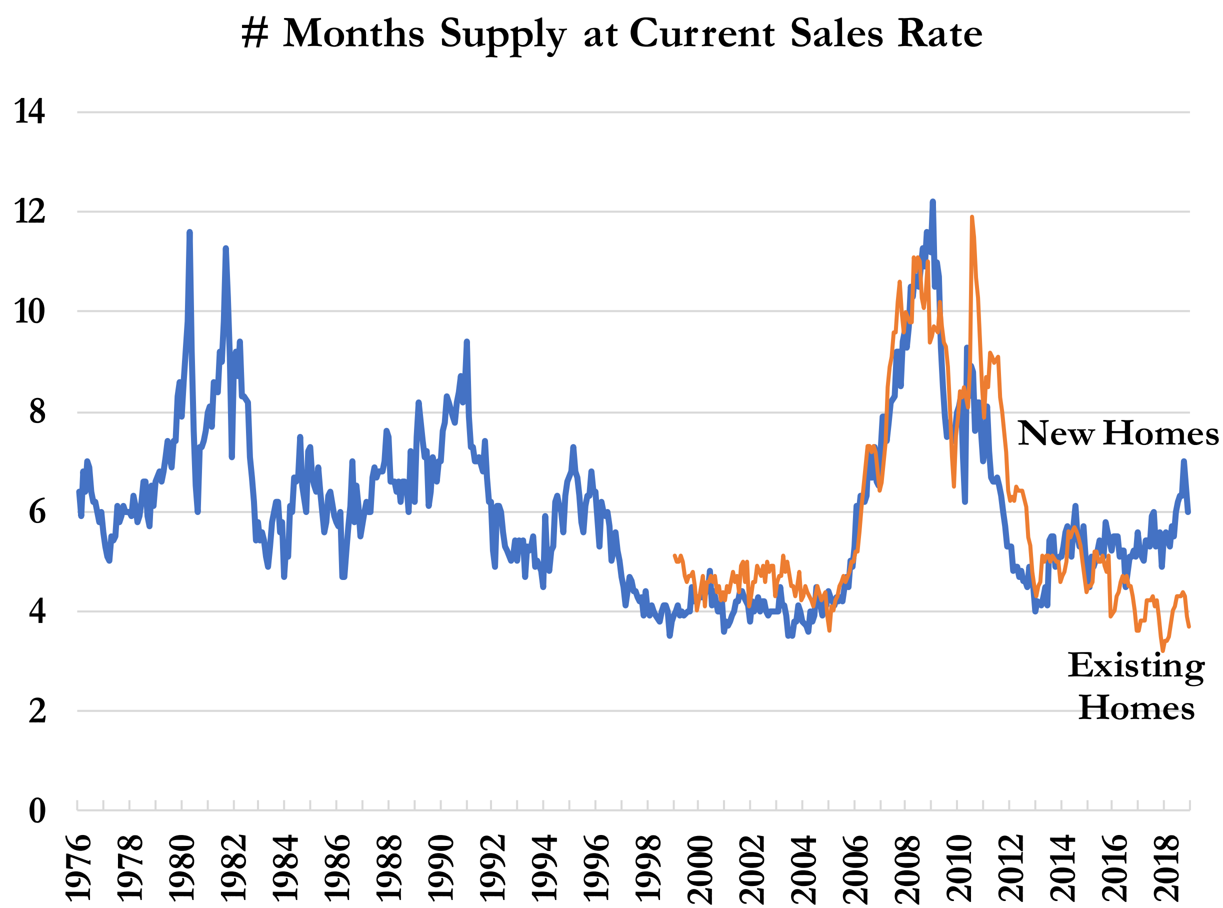
# Banks no longer tightening multifamily/construction debt …but borrower demand still muted *(competition from non-bank lenders?)*

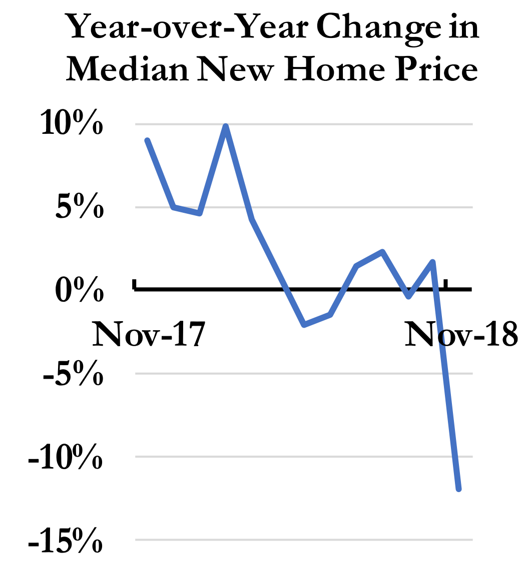



Sources: Federal Reserve Board

Witten Advisors
*Market-Smart Apartment Decisions*

# Lower construction levels, limited inventory for sale, continued price appreciation *(though weakness appearing in new/high-end homes)*




Sources: NAR, U.S. Census Bureau

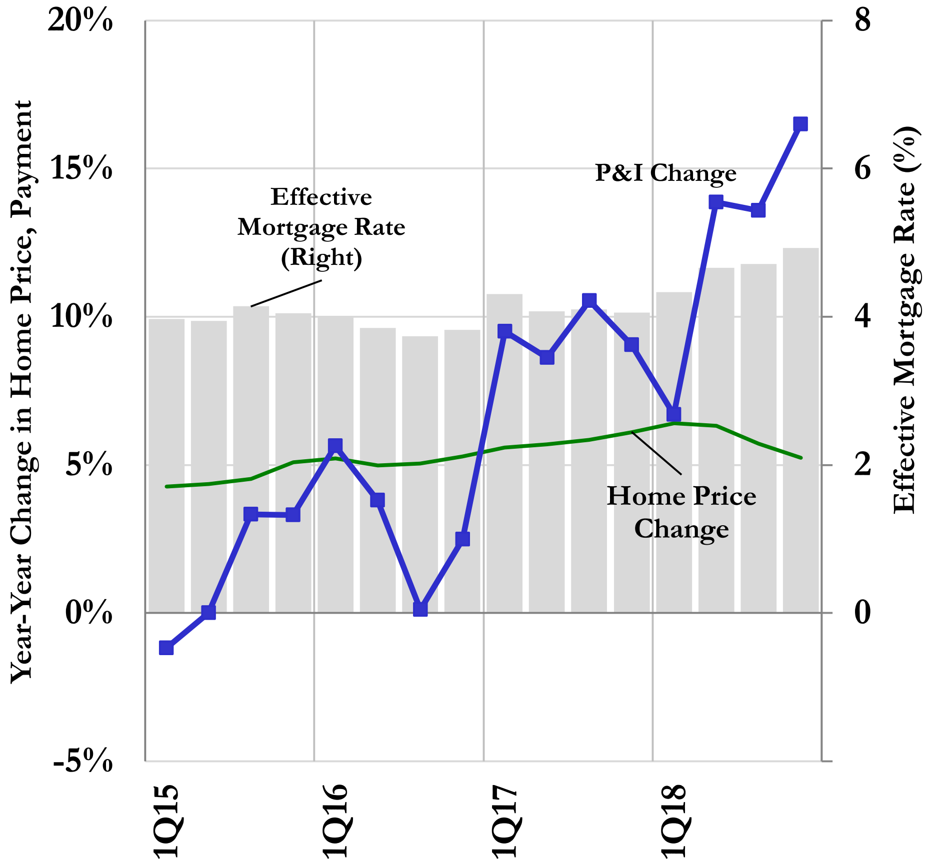


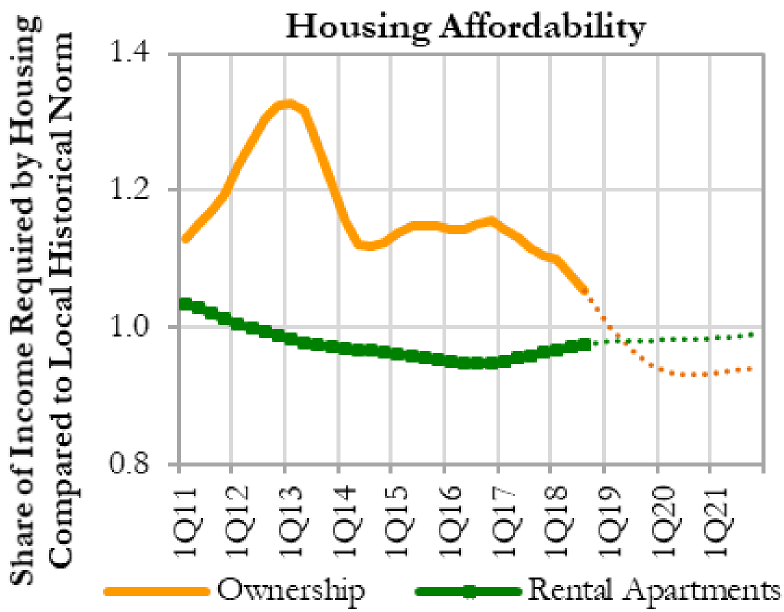
***Market insights for apartment owners, developers, investors and lenders***

ULI Housing Opportunity Conference
February 5, 2019

Witten Advisors
*Market-Smart Apartment Decisions*

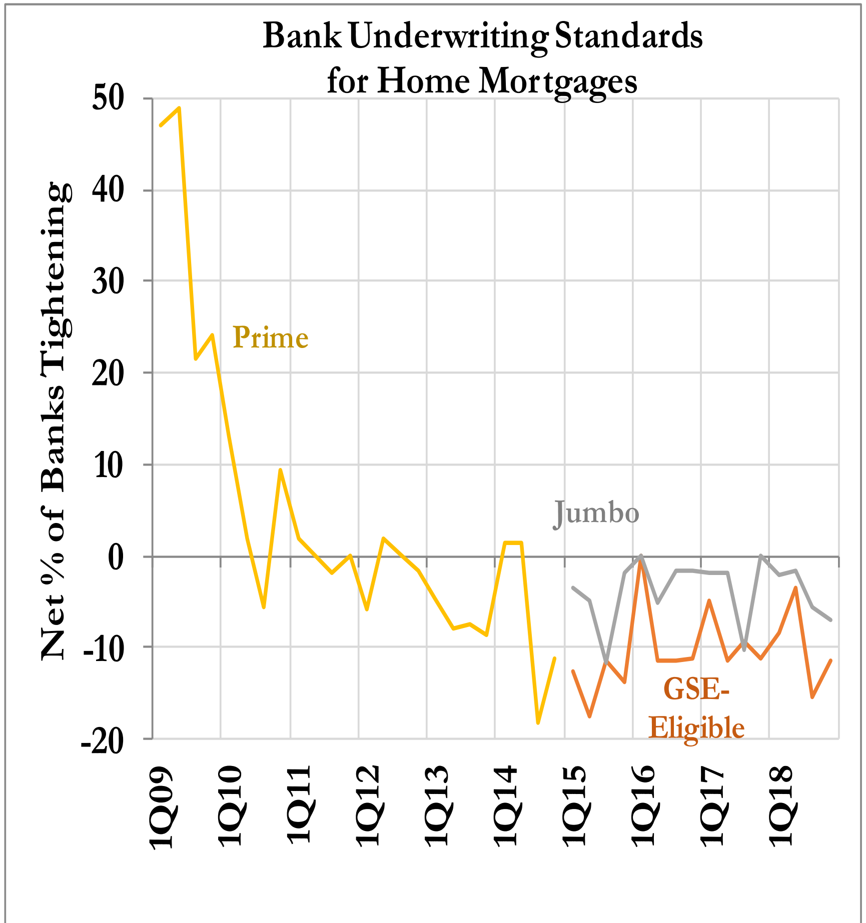
# Higher prices + rising rates = surging house payments, owner housing becomes less affordable than usual

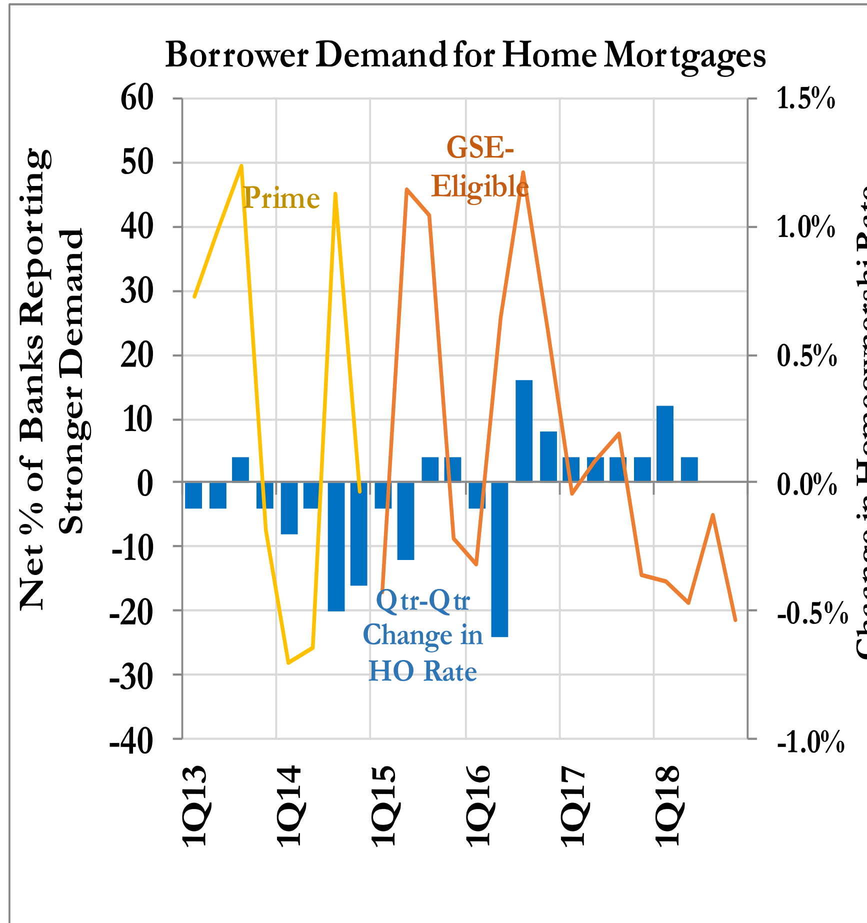



Sources: Calculated from Case-Shiller national home price series; Witten Advisors

# Mortgage underwriting easing, yet borrower demand waning – suggests HO rate will hold or edge lower in late '18 / early '19

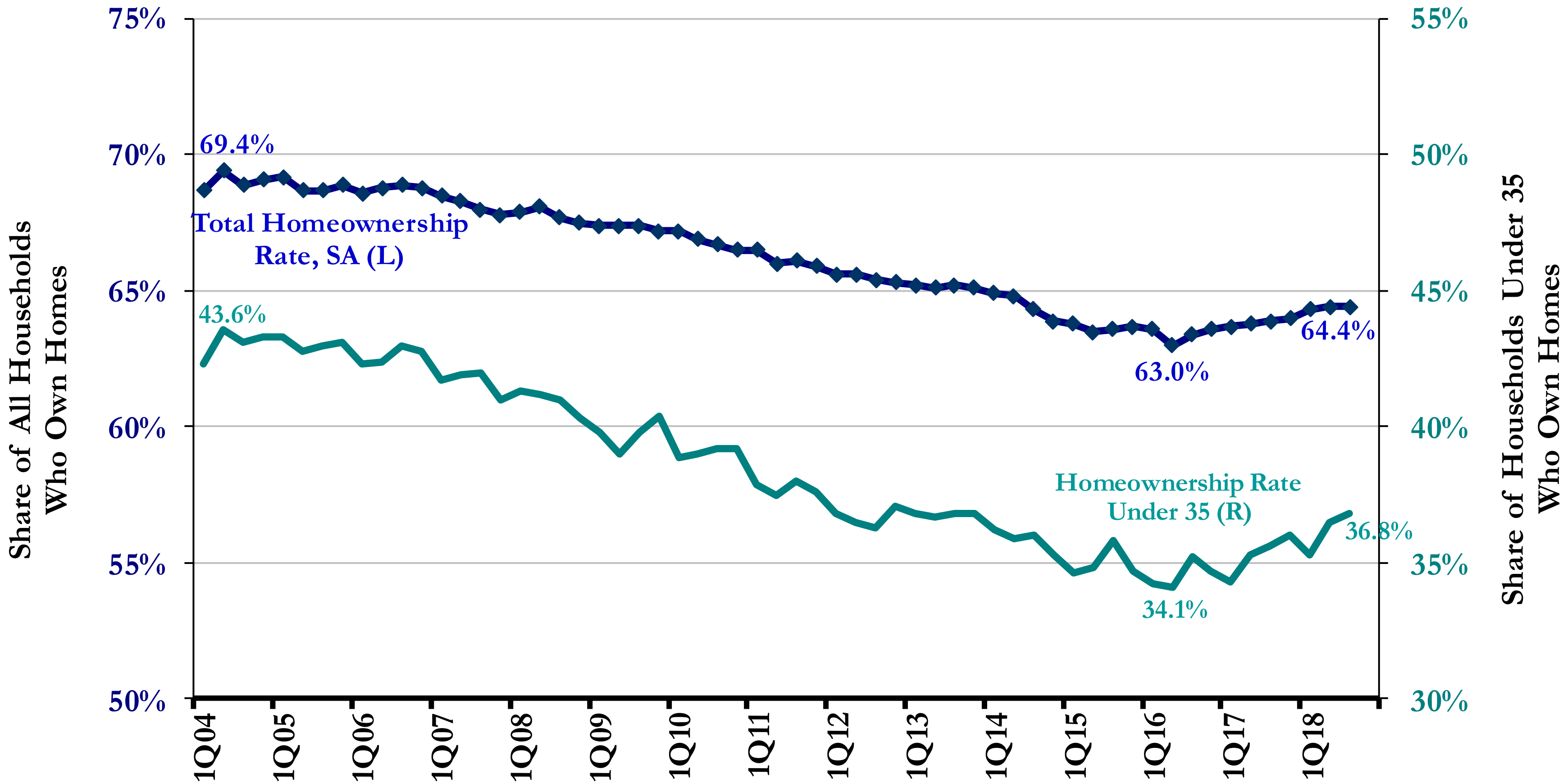



Source: Federal Reserve Bank

Witten Advisors
*Market-Smart Apartment Decisions*

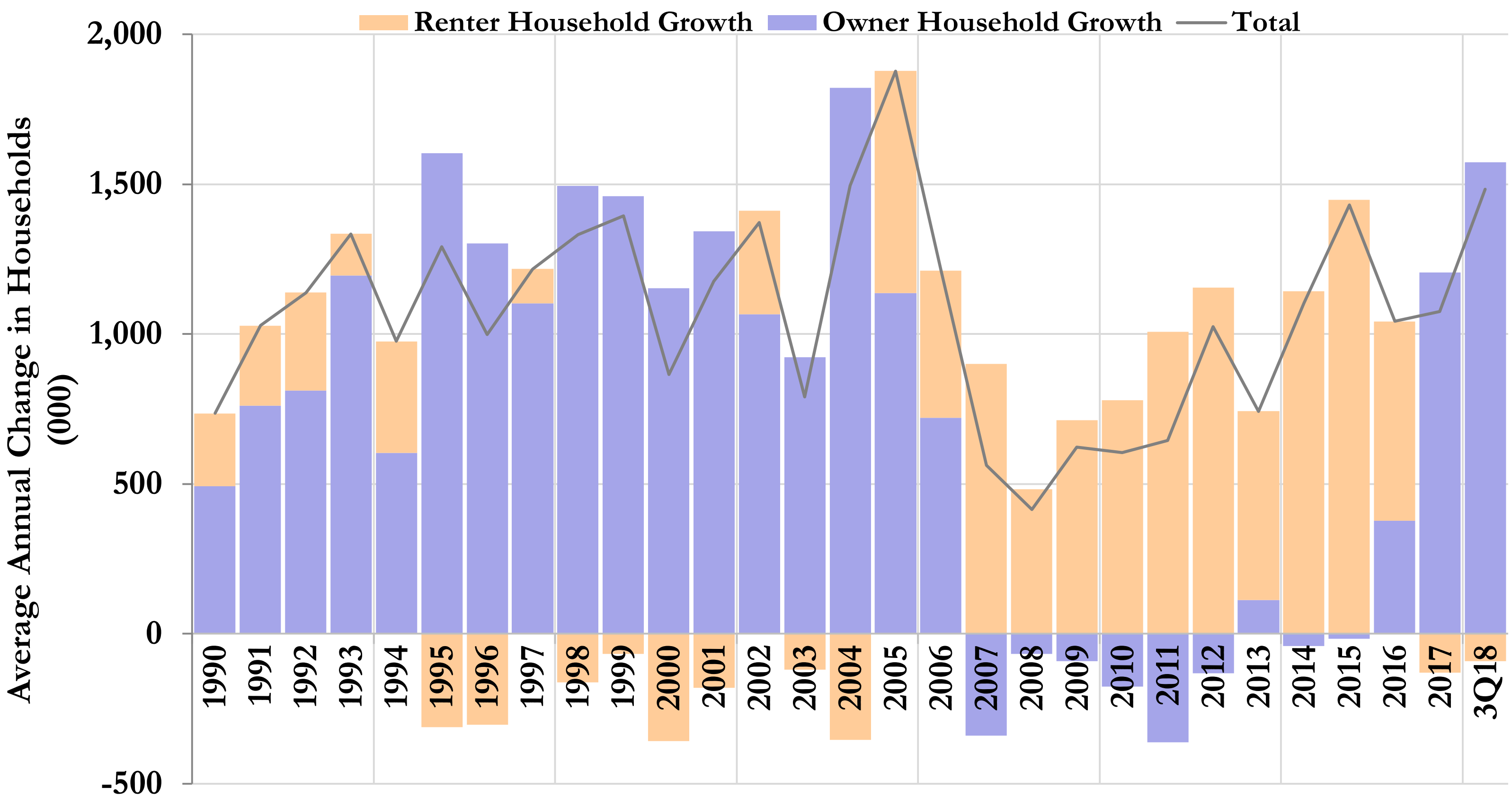
# Homeownership rate flat in 3Q18, but up nearly 1½ points since mid-2016 *(with the young-adult rate up almost 3 points, driven by early 30s)*…




Source: U.S. Census Bureau

Witten Advisors
*Market-Smart Apartment Decisions*

# …which resulted in a small loss of renter households: <u>exiting 1- to 4-unit rentals</u>



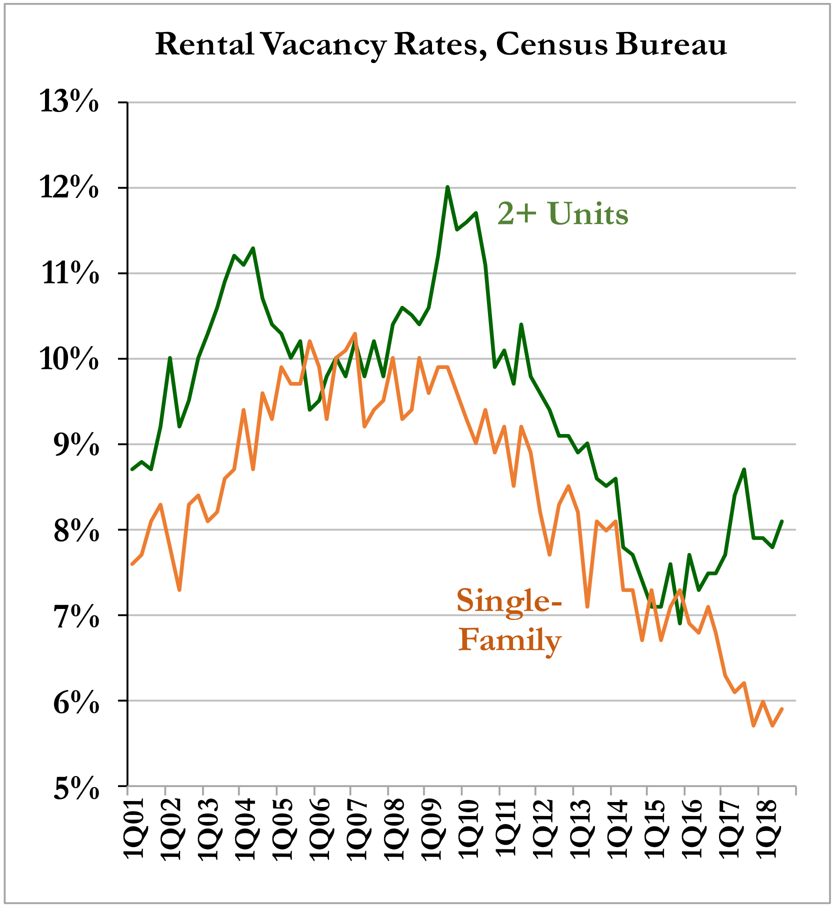

Source: U.S. Census Bureau

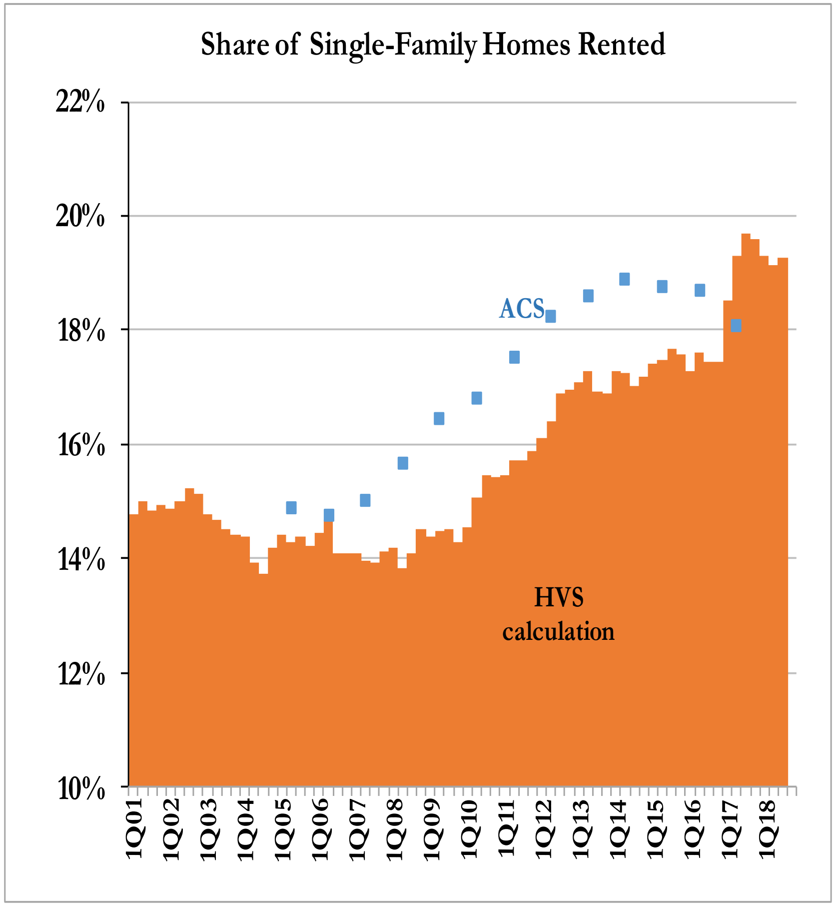



Dallas, Texas

Witten Advisors
*Market-Smart Apartment Decisions*

# But, these move-outs have not boosted SFR vacancy rates…
# …implying that fewer SFRs are available *(i.e., rental homes are being sold)*

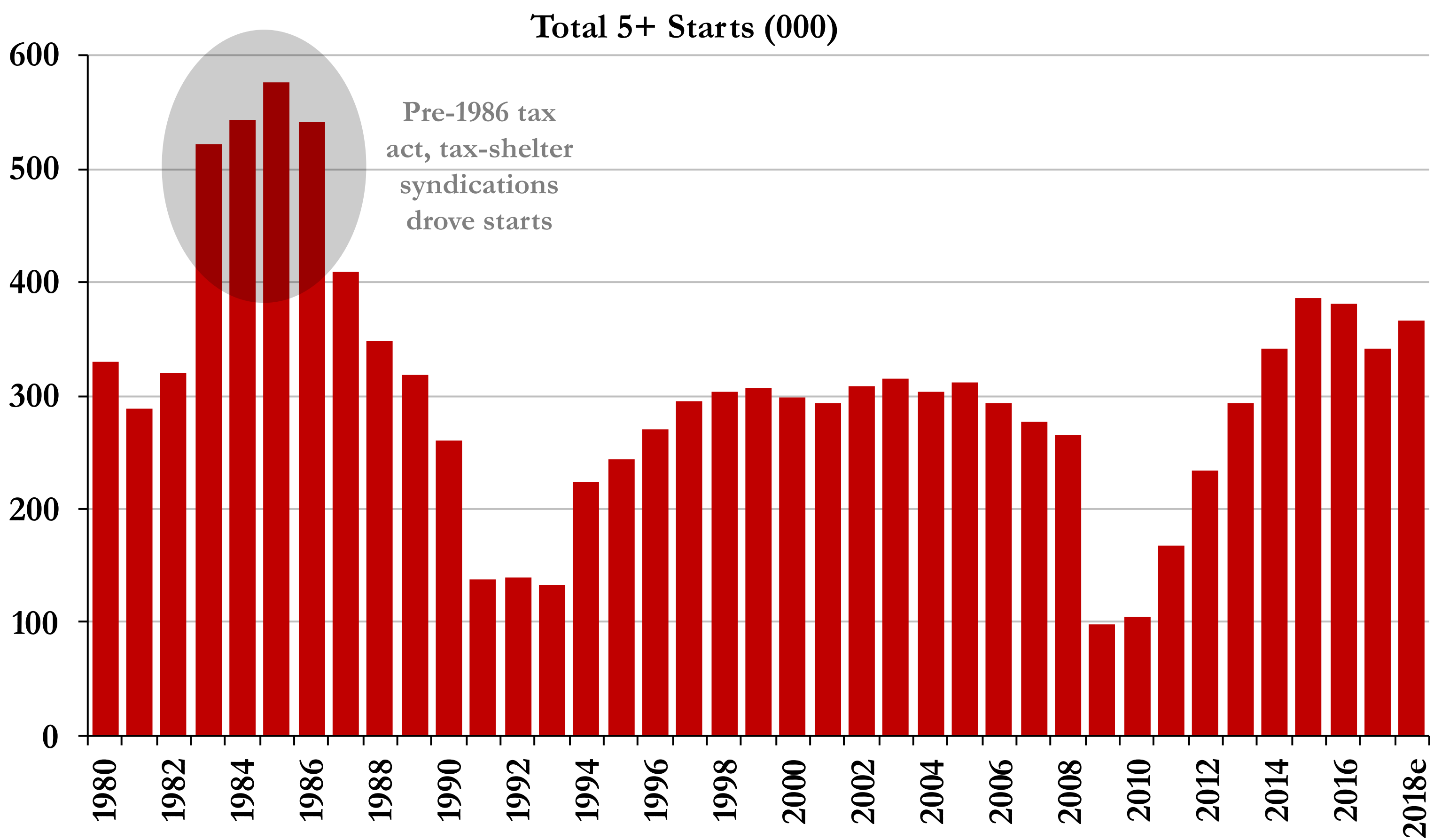



Source: U.S. Census Bureau, Witten Advisors calculations

Witten Advisors
*Market-Smart Apartment Decisions*

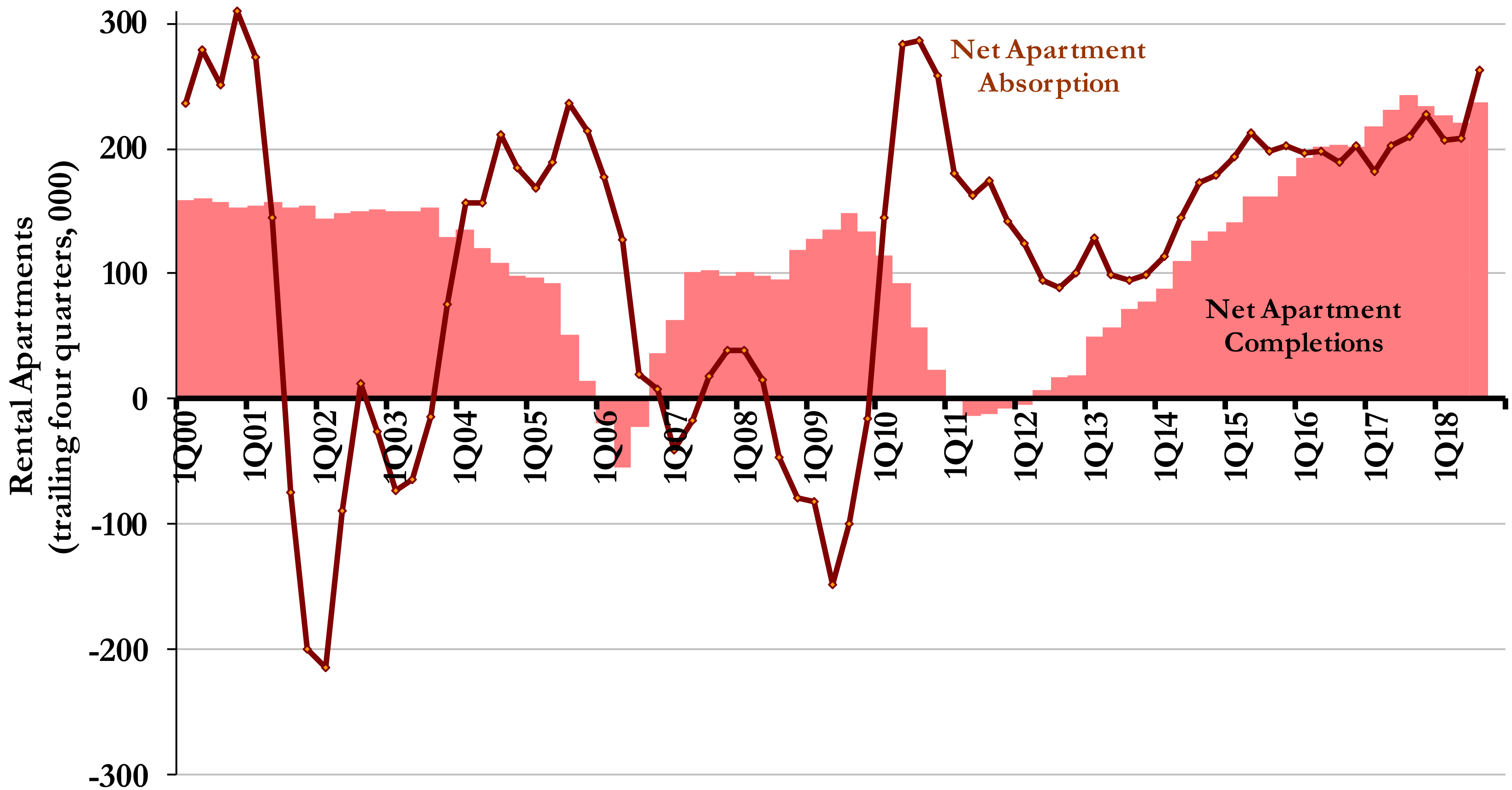
# Total 5+ starts pulled back in 2017, then picked up in 2018; near the highest since the good old days of the 1980s




Source: U.S. Department of Commerce; Witten Advisors

Witten Advisors
*Market-Smart Apartment Decisions*

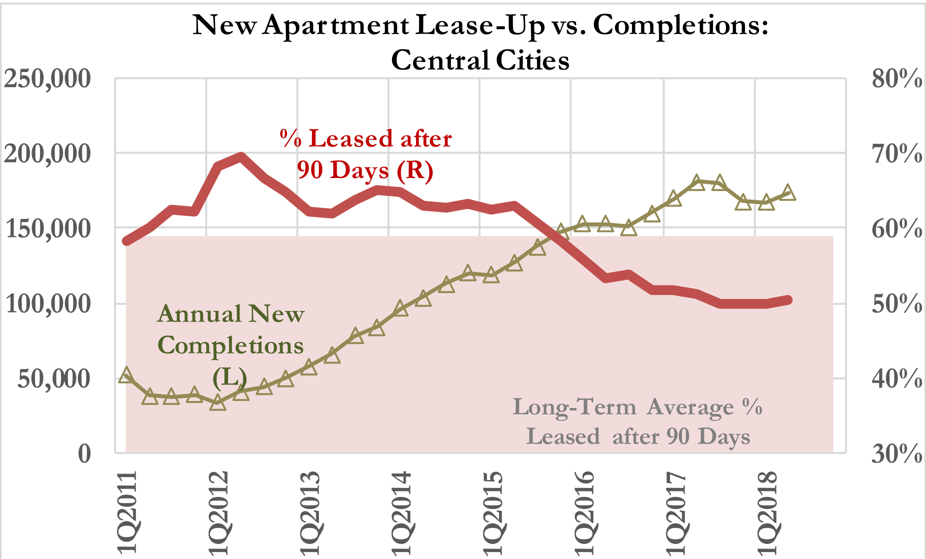
# Despite static and uncertainty in the economic headlines, 3Q18 move-ins topped deliveries by the widest margin since 2015

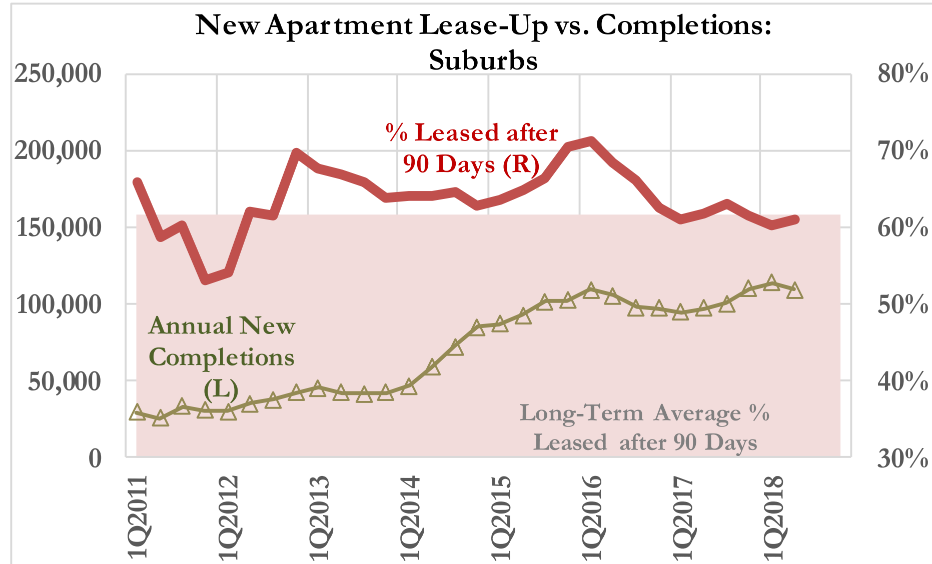



Source: Witten Advisors

Witten Advisors
*Market-Smart Apartment Decisions*

# Suburban lease-ups still outperforming new central-city deals

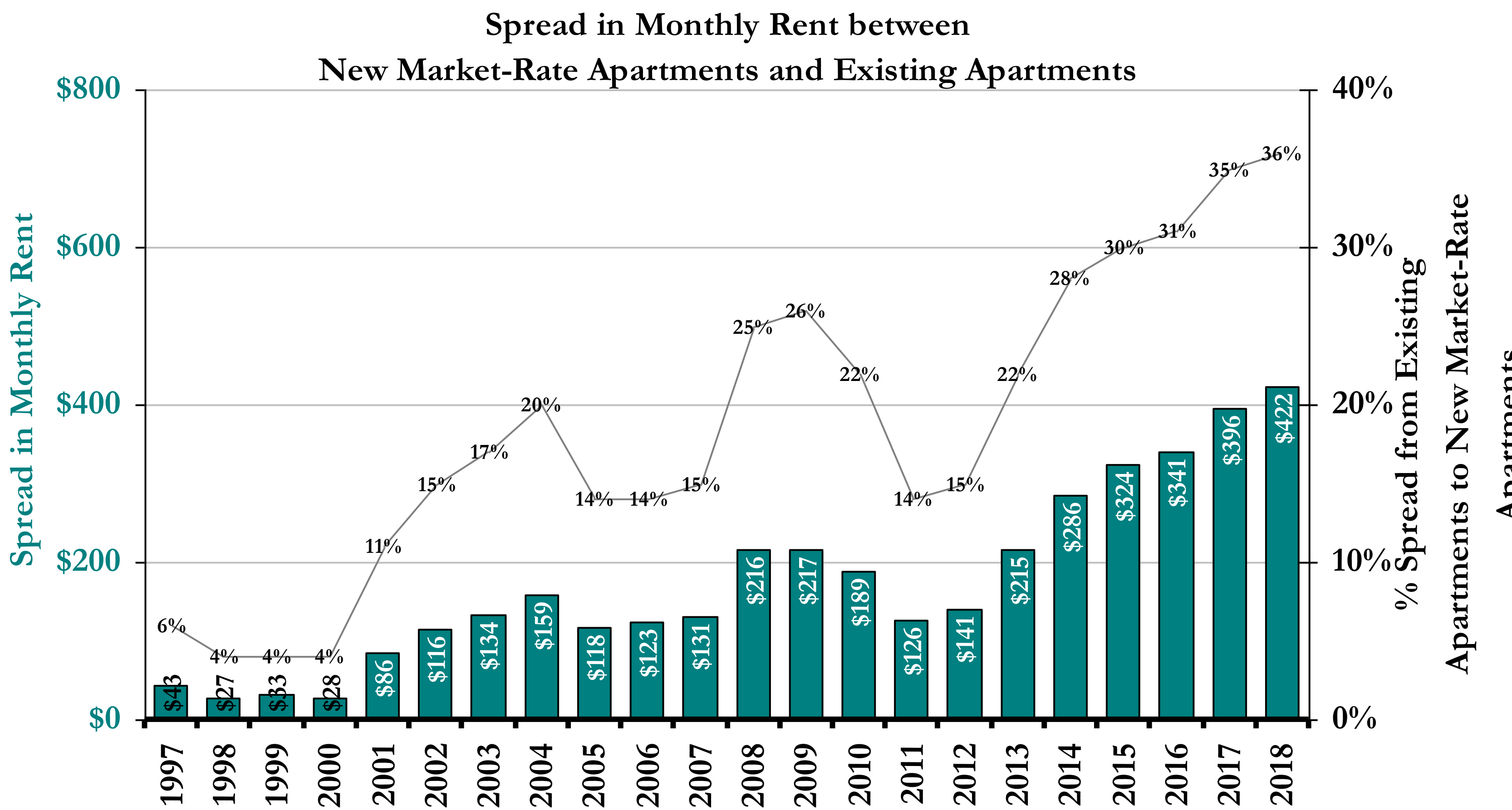



Source: U.S. Census Bureau

Witten Advisors
*Market-Smart Apartment Decisions*

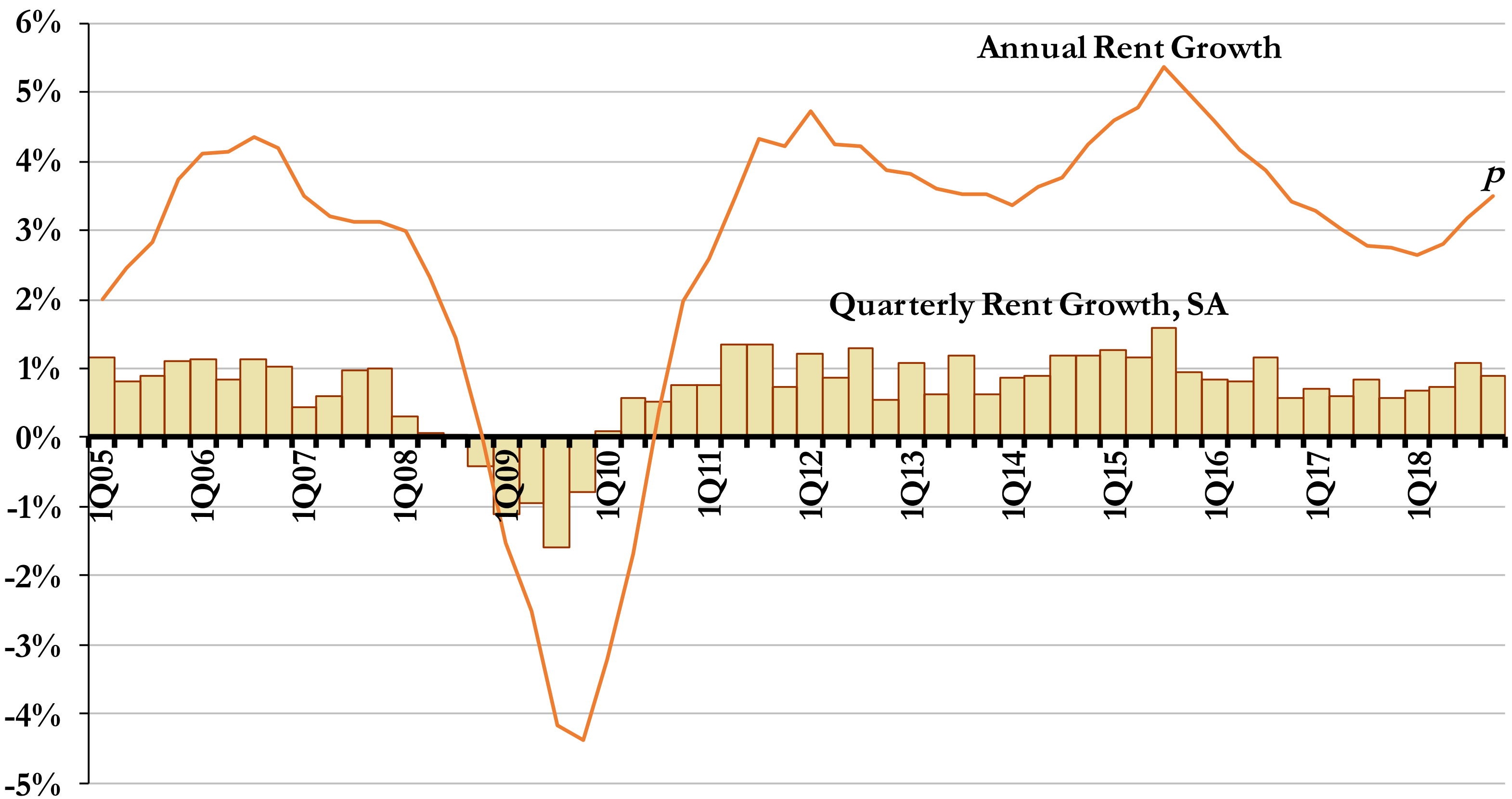
# Rent premium for new units at all-time highs, even as Class B/C rent growth outperforming Class A




Source: U.S. Census Bureau, Witten Advisors calculations

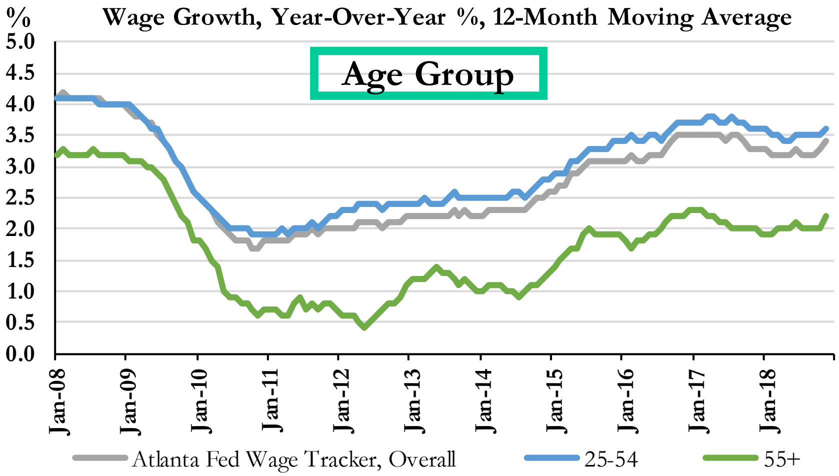
Witten Advisors
*Market-Smart Apartment Decisions*

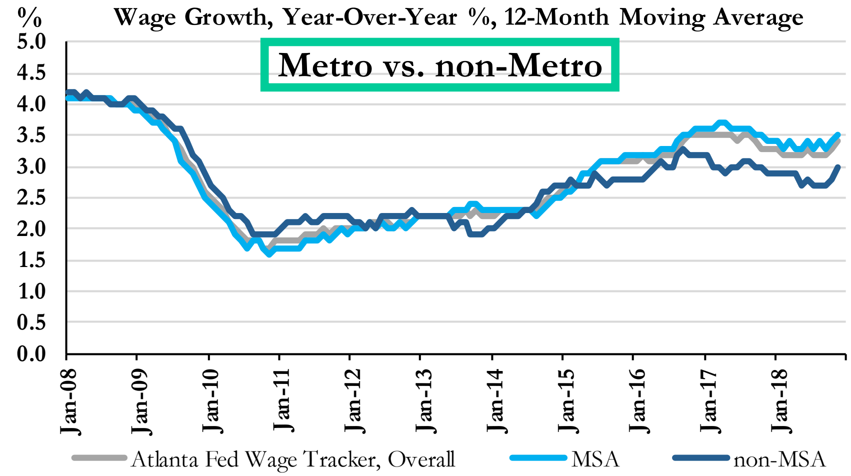
# Nationwide rent growth moderated from mid-'15 to early '18, then accelerated through late '18

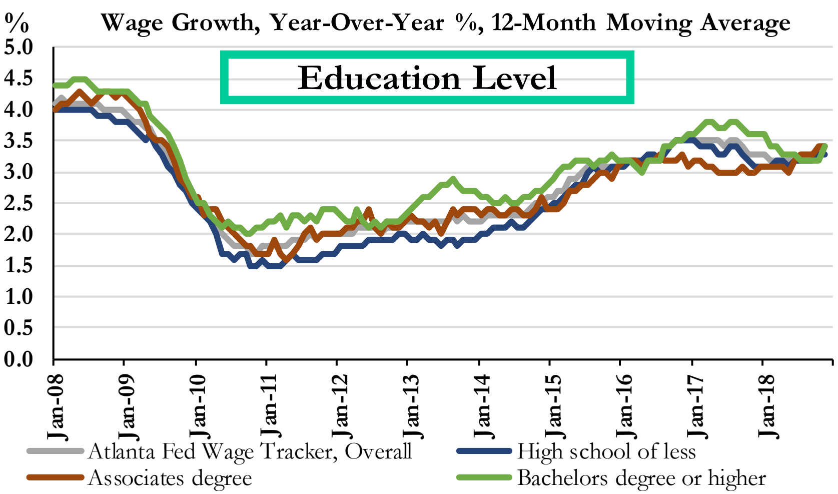


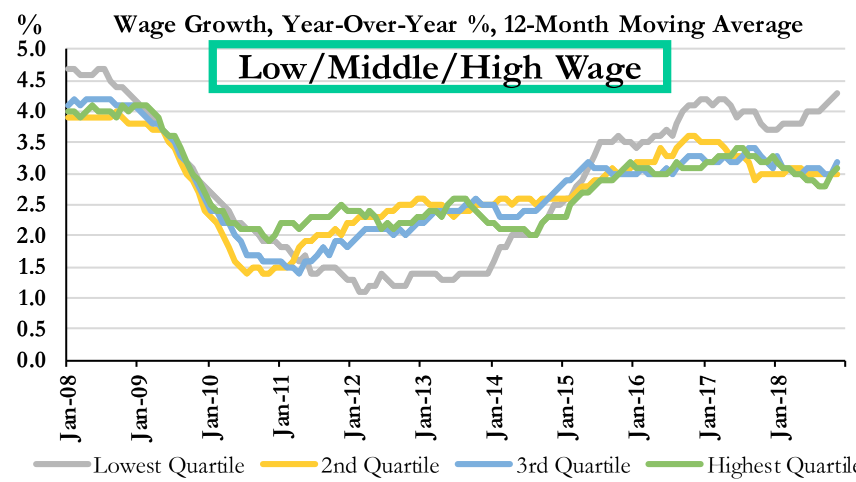

Source: Witten Advisors

# Wage growth for young, educated, metro workers stronger than headlines suggest; low-wage positions now outperforming



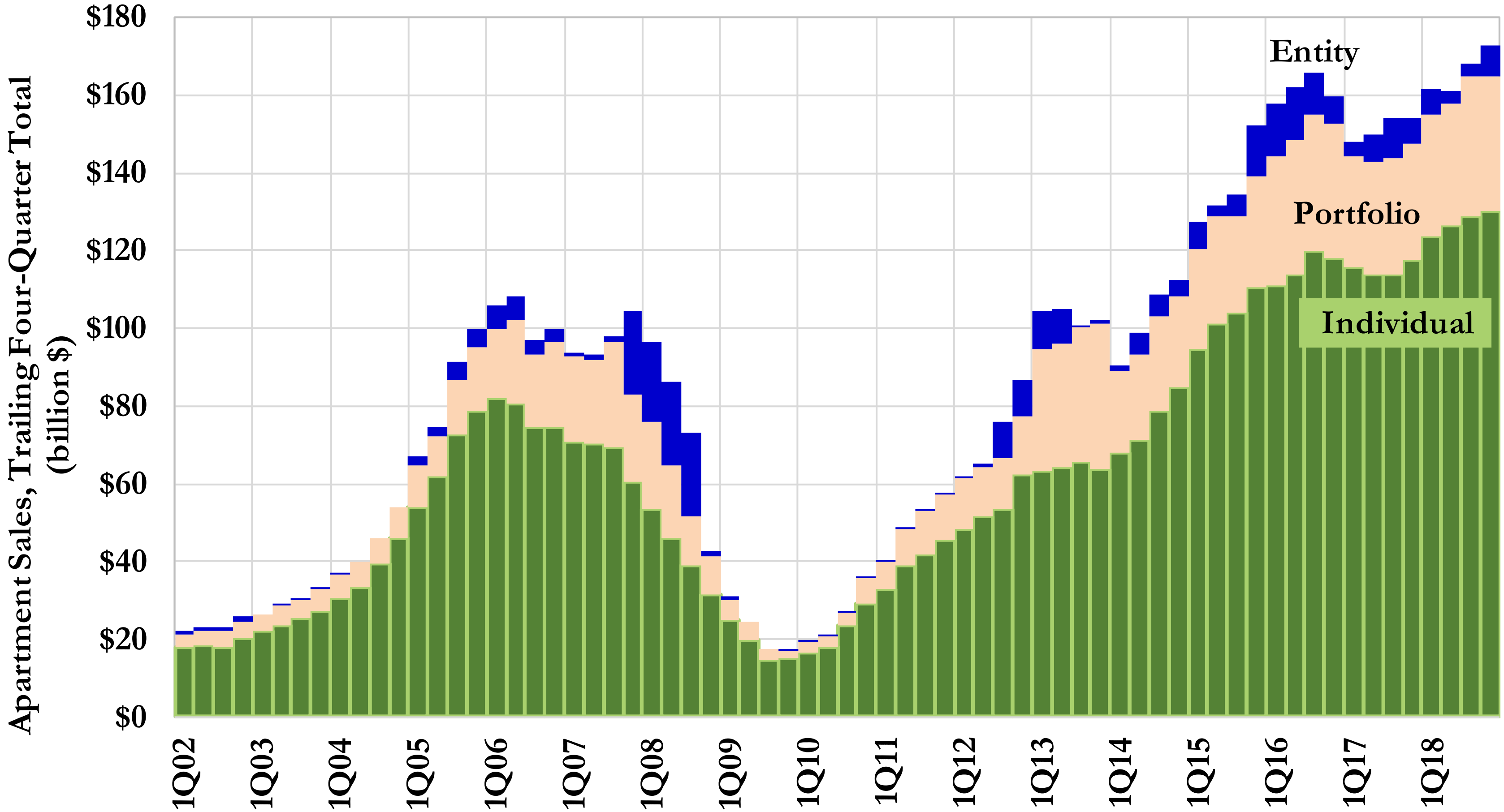




Source: Federal Reserve Bank of Atlanta, U.S. Bureau of Labor Statistics data

Witten Advisors
*Market-Smart Apartment Decisions*

# 2018's investment total rose to a new all-time high of $173b

Total sales +12% from 2017, quarterly one-offs surged in 2H18

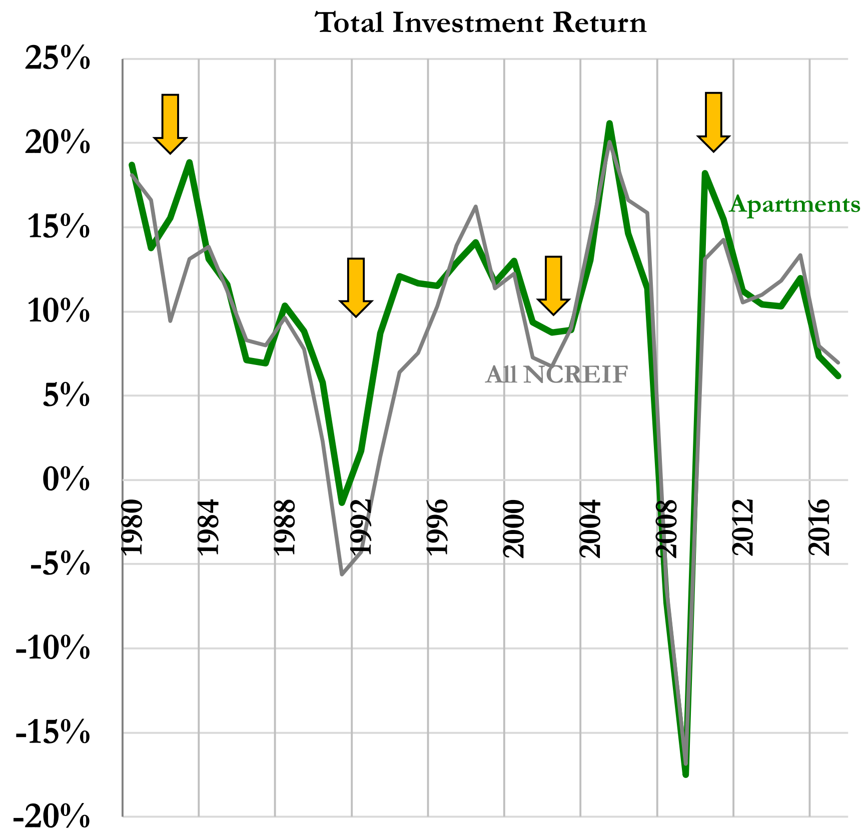



Source: Real Capital Analytics

*Market insights for apartment owners, developers, investors and lenders*

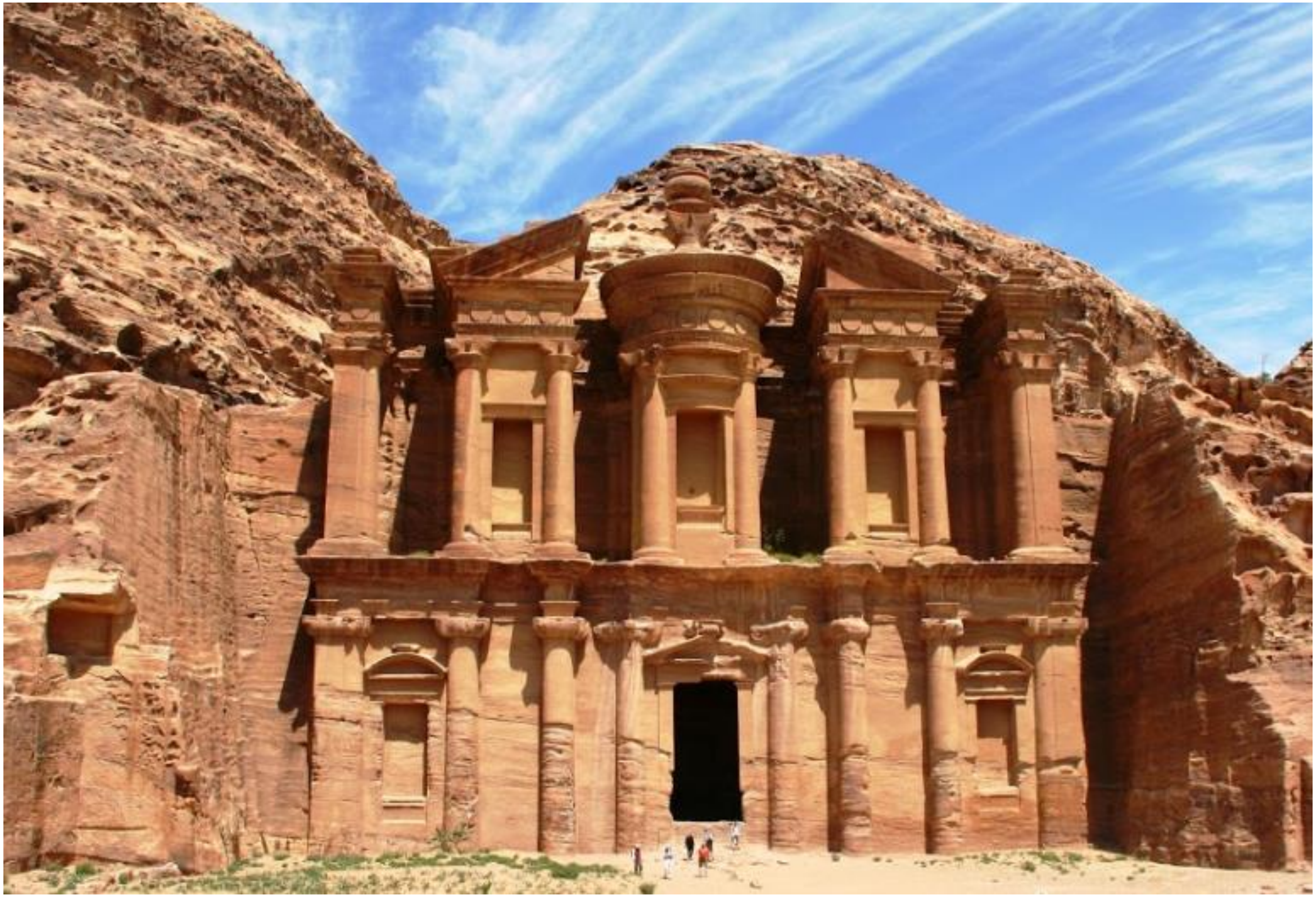
ULI Housing Opportunity Conference
February 5, 2019

# Why invest now? Since 1980, apartments have outperformed in a) recessions and b) early stages of recovery vis-à-vis CRE at large




| Annual Total Investment Return | | | |
|---|---|---|---|
| **Recession** | | | |
| | Apartments | All NCREIF | **Apartment Excess Return** |
| 1980-1982 | 16.0% | 14.7% | **1.3%** |
| 1991 | -1.4% | -5.6% | **4.2%** |
| 2001 | 9.4% | 7.3% | **2.1%** |
| 2008-2009 | -12.4% | -11.7% | **-0.8%** |
| **Early Recovery Period** | | | |
| 1983-1984 | 16.0% | 13.5% | **2.5%** |
| 1992-1994 | 7.5% | 1.2% | **6.3%** |
| 2002-2003 | 8.8% | 7.9% | **1.0%** |
| 2010-2011 | 16.8% | 13.7% | **3.1%** |

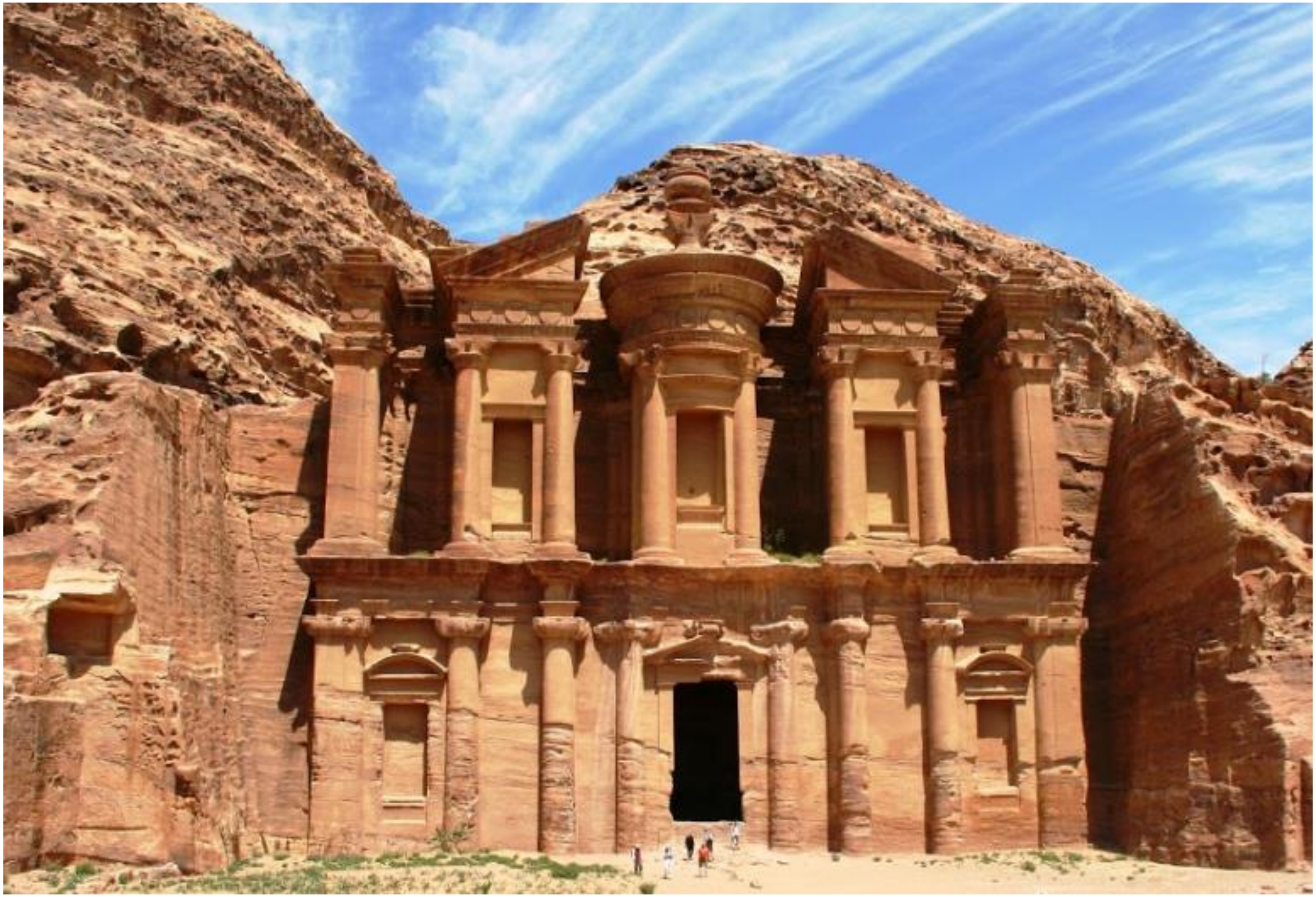
Source: NCREIF



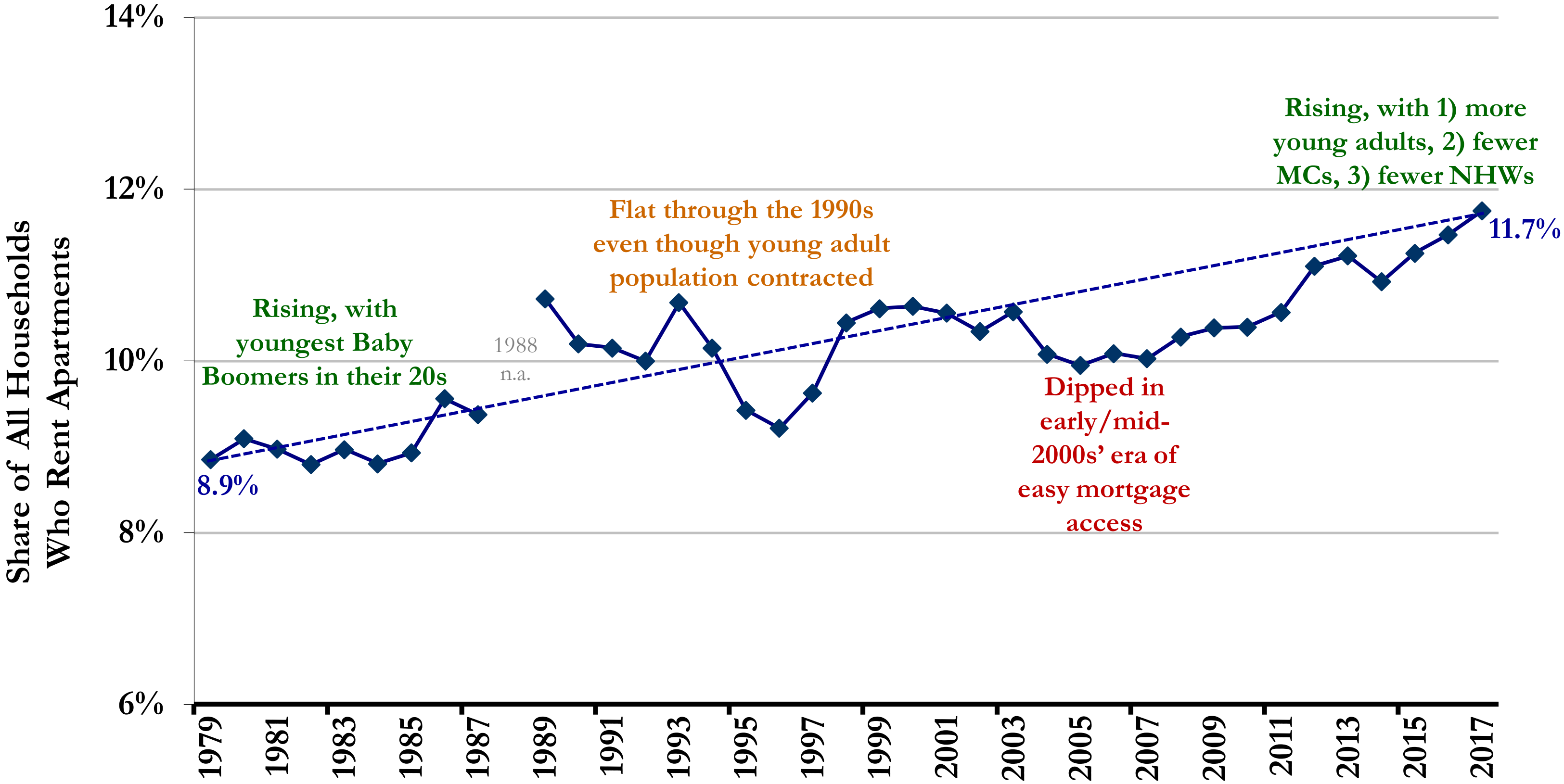
Witten Advisors
*Market-Smart Apartment Decisions*

# Petra – Ancient source of prosperity

## **P**rop**E**nsity **T**o **R**ent **A**partments – Modern source of apartment prosperity



# This shift toward apartment renting actually spans not just the past 10 years, but multiple decades *(despite short-term ups and downs)*




Source: U.S. Census Bureau, Witten Advisors calculations

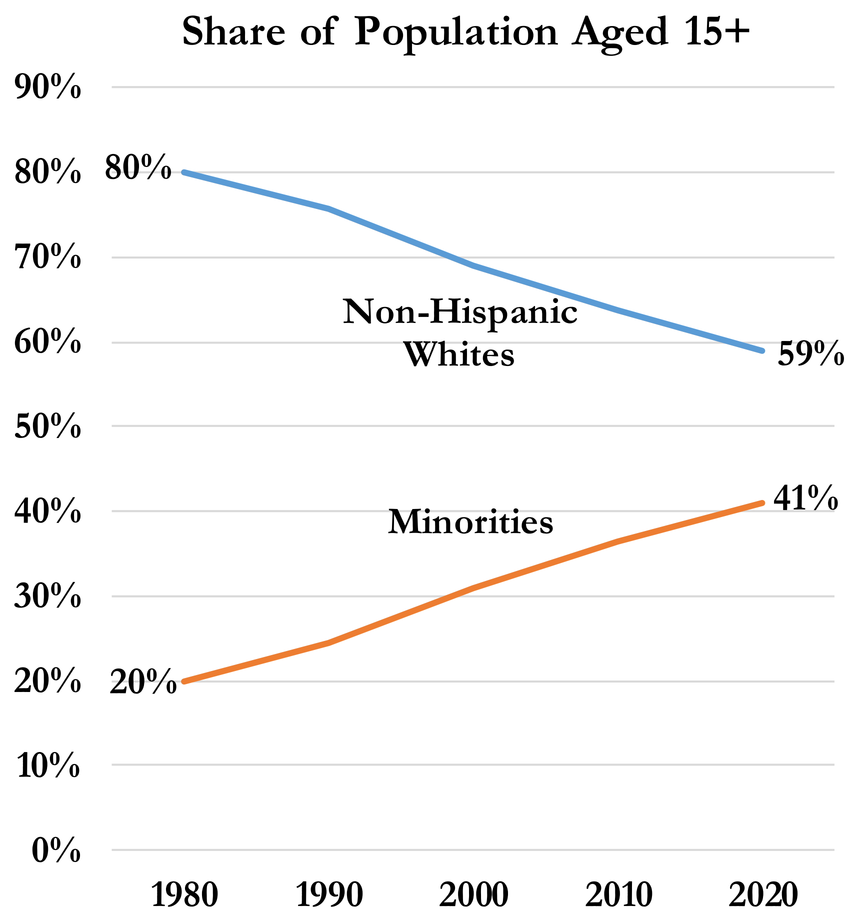
# Americans are delaying marriage and childbirth… and becoming more ethnically diverse


The Washington Post
*Democracy Dies in Darkness*

Wonkblog • Analysis

## Women just aren't that into the 'marriageable male' anymore, economists say

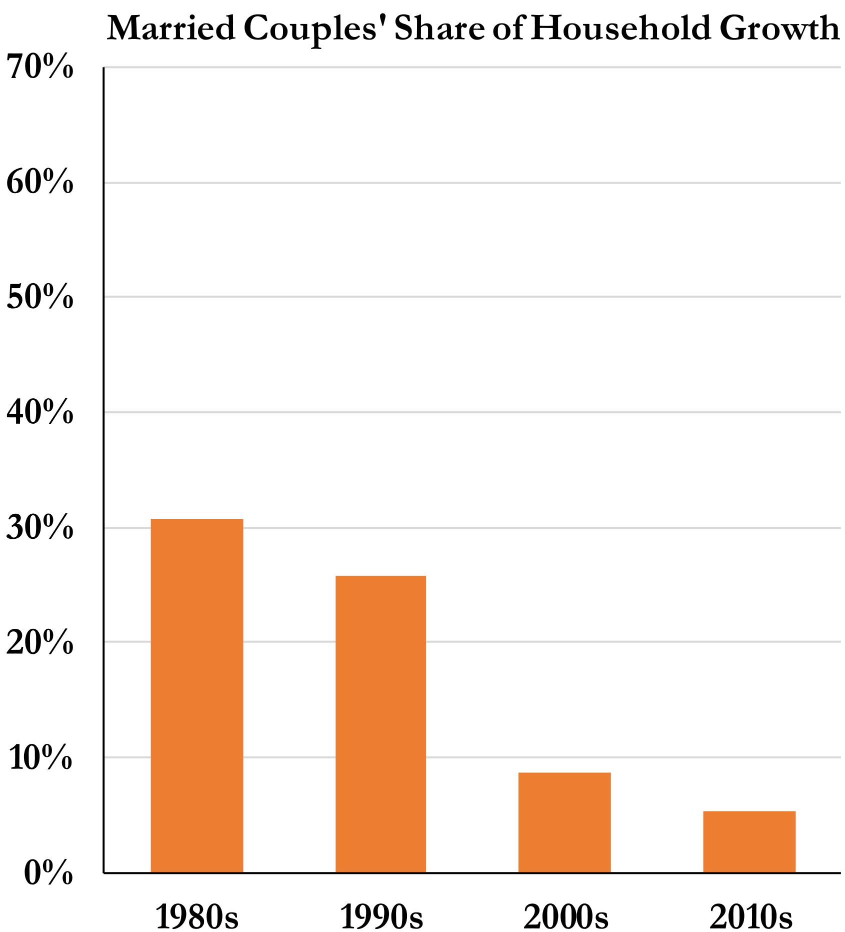
By Danielle Paquette
May 16

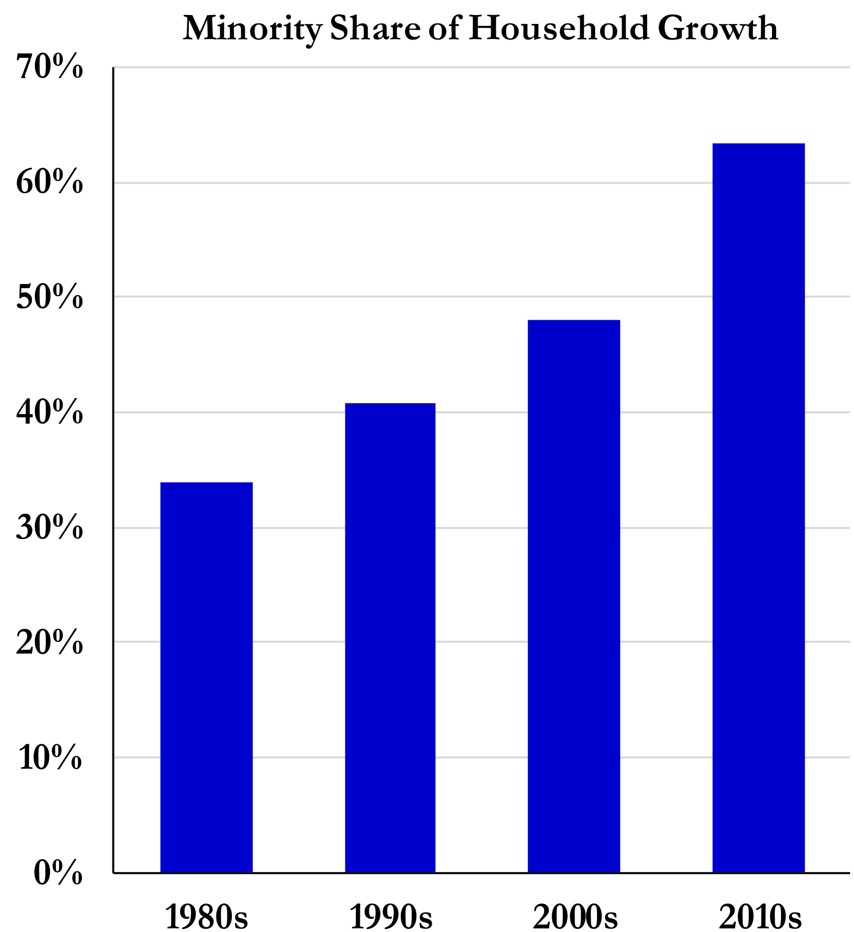





Source: U.S. Census Bureau

# Fastest-growing household types are a) formats other than married couples and b) minority ethnicities – both favor apartments



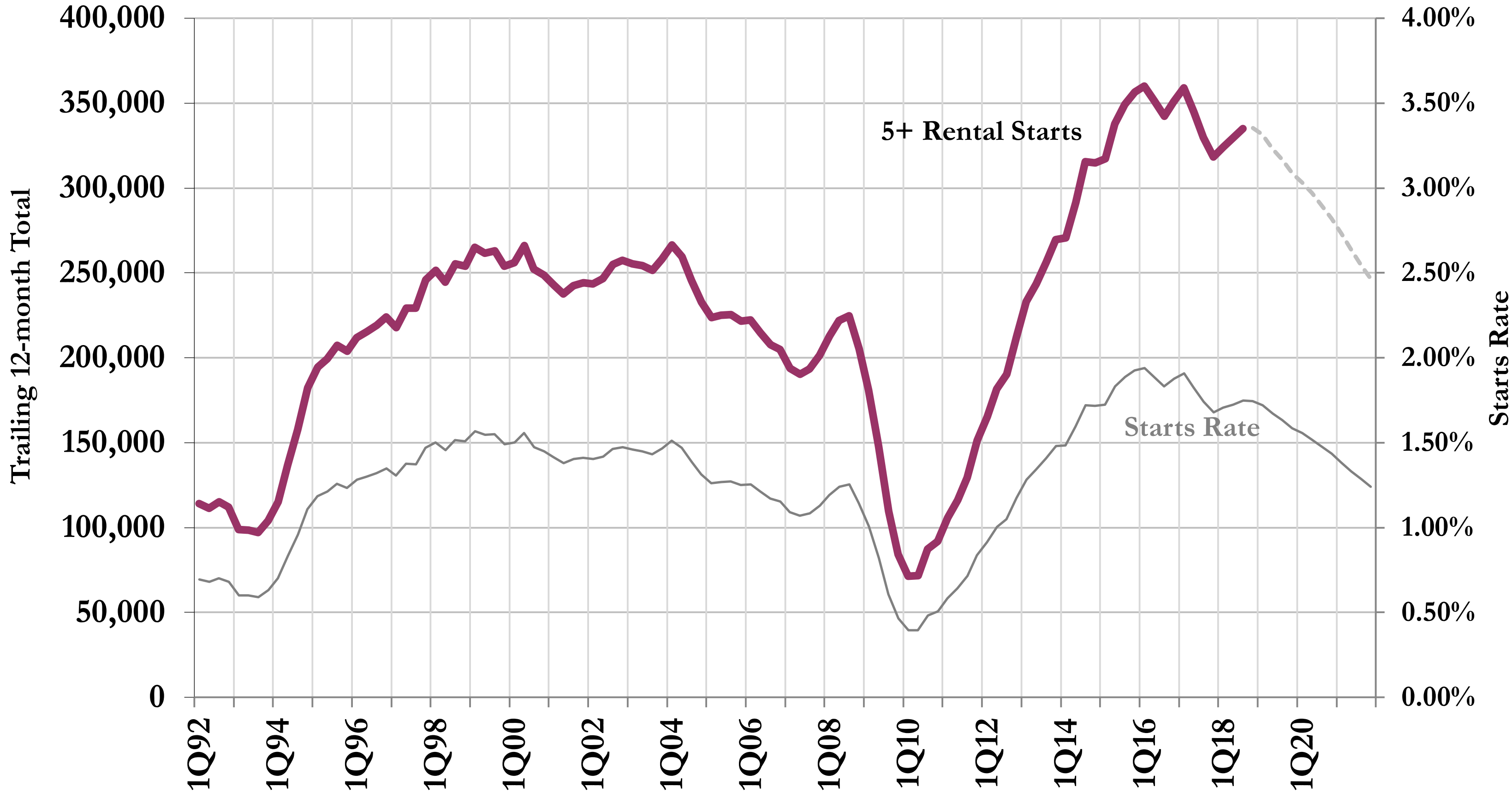




Source: U.S. Census Bureau

Witten Advisors
*Market-Smart Apartment Decisions*

# Starts still expected to ease; little relief in new deliveries until 2021

*(costs up faster than NOIs, capital stack slightly more expensive as rates rise, cap rates marginally higher)*




Source: Witten Advisors

***Market insights for apartment owners, developers, investors and lenders***

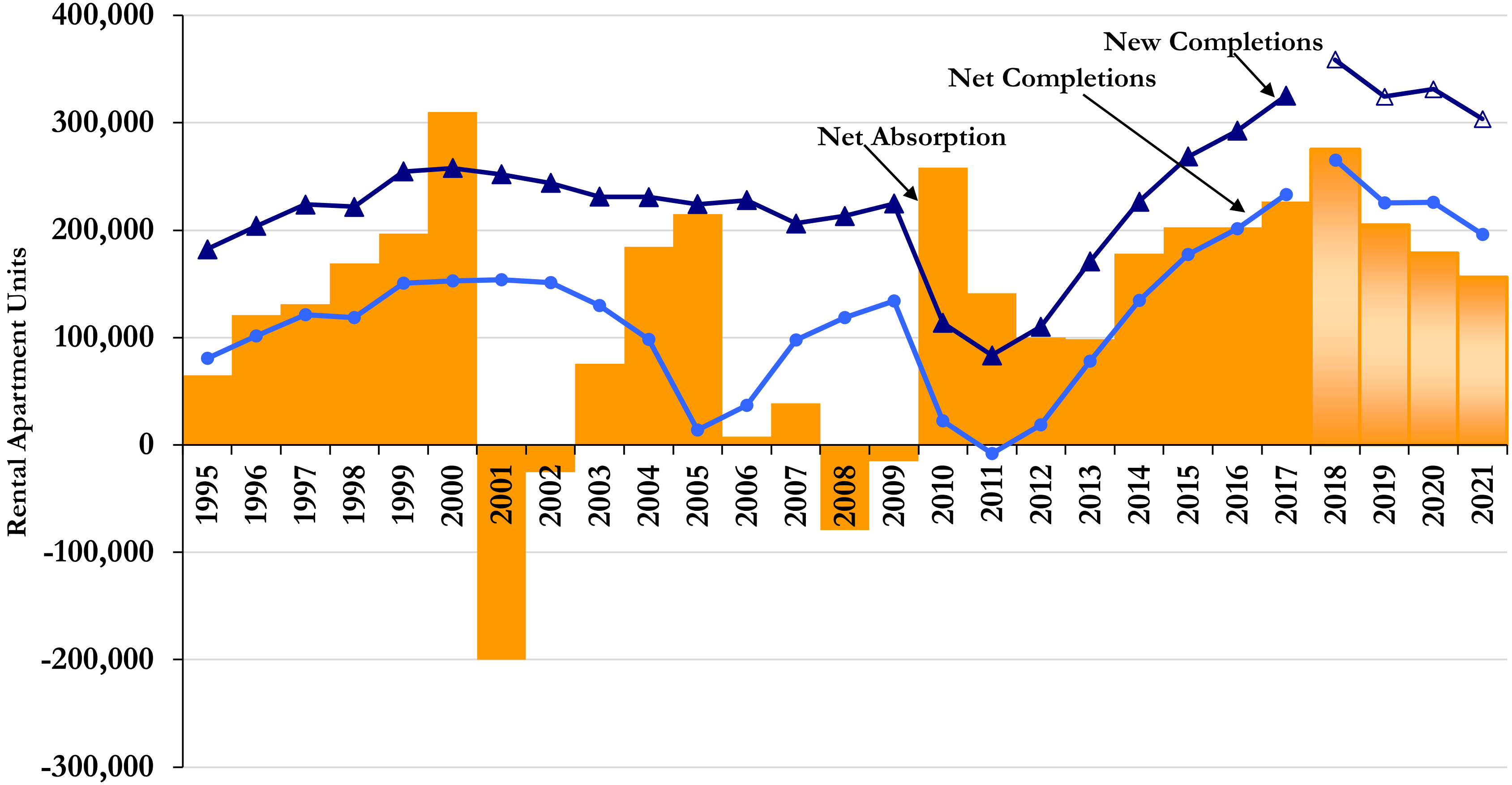
ULI Housing Opportunity Conference
February 5, 2019



Dallas, Texas

Witten Advisors
*Market-Smart Apartment Decisions*

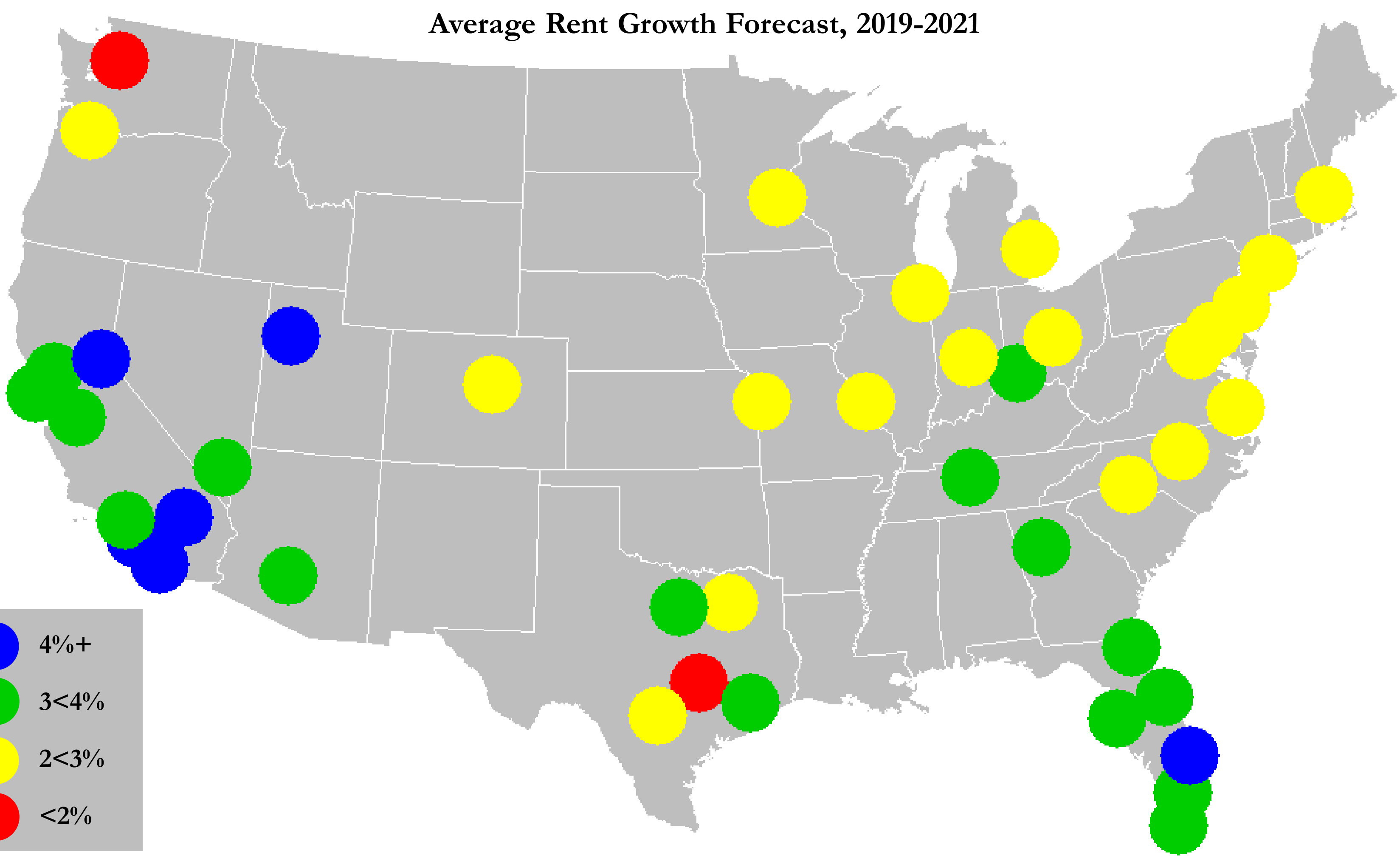
# Absorption tops supply in 2018, then eases with jobs through 2021
# Completions reach cyclical peak this year, still elevated through 2020




Source: Witten Advisors

# Half the nation's markets should see 3%+ rent growth in 2019-2021

4%+ in 6: SoCal ex-LA, Sac, SLC, WPB        3%+ in SF Bay, LV, Phx, some TX/SE/FL, Cinci




*Market insights for apartment owners, developers, investors and lenders*



Source: Witten Advisors

# Key Takeaways and Opportunities in Housing

Overall

- Shortage across all types
- For-sale a lesser role in this recovery, rentals much larger

Single-Family

- Rising interest rates decrease affordability
- Focus on building smaller, denser, homes a lower price points
- Single-family rentals a first step to ownership

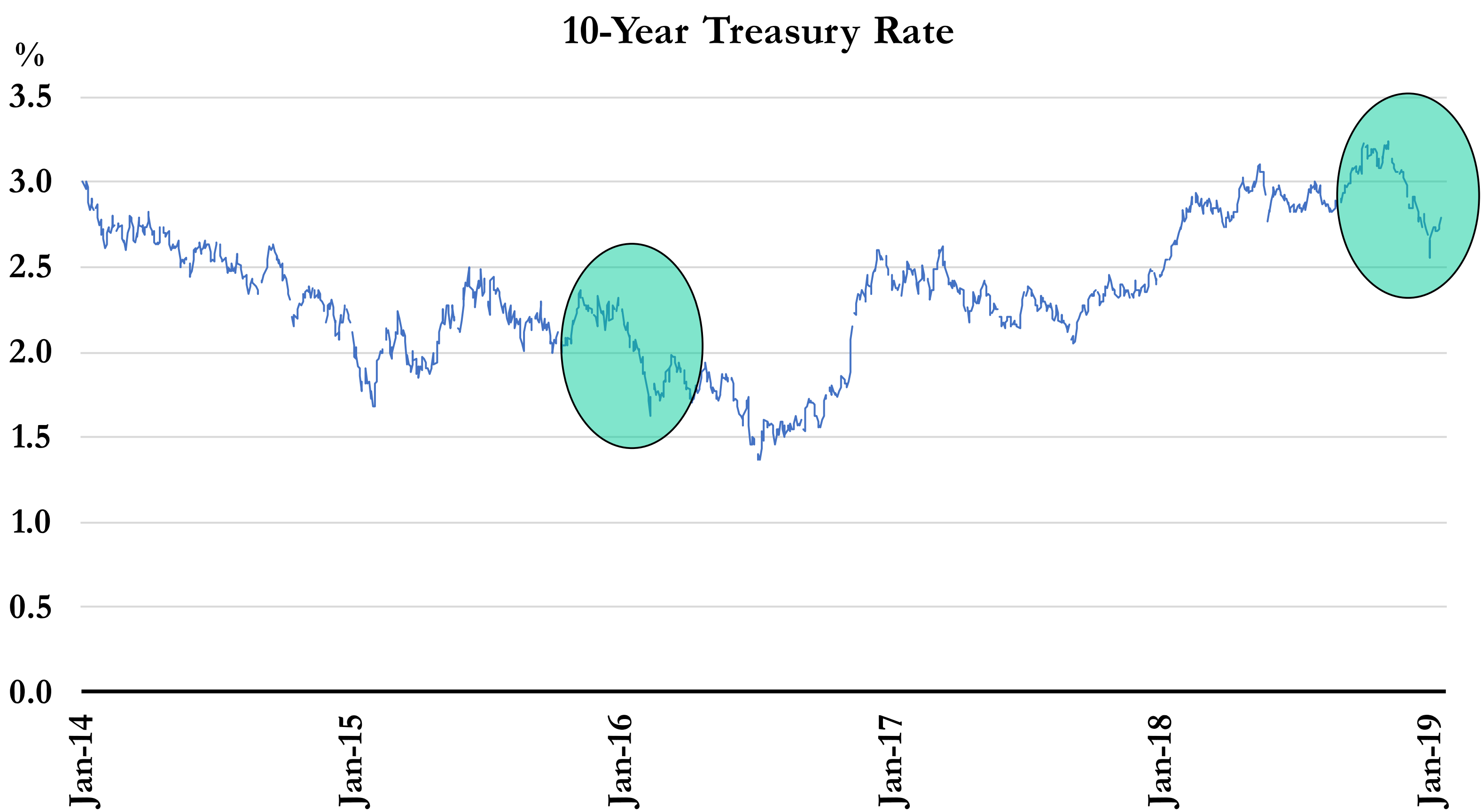
Apartments

- Demand healthy due to both short- and long-term tailwinds
- Top-of-market underperforming due to lease-up competition, but modest supply relief ahead
- Rent growth outperforms but slows with job growth
- Local market performance varies considerably

# Questions/Discussion

Witten Advisors
*Market-Smart Apartment Decisions*

# Remember the 2016 recession scare?



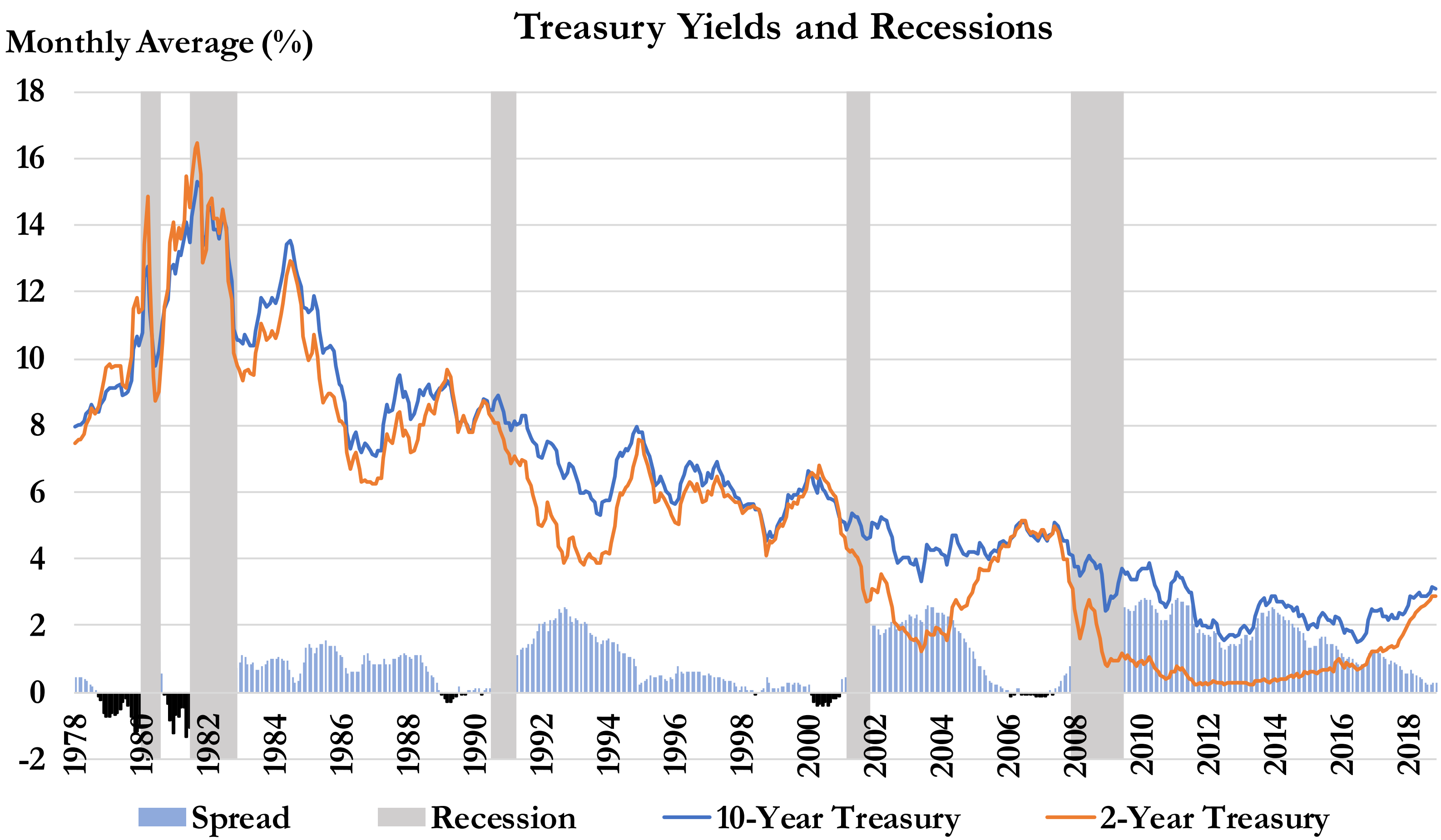

Sources: Federal Reserve



***Market insights for apartment owners, developers, investors and lenders***

Witten Advisors
*Market-Smart Apartment Decisions*

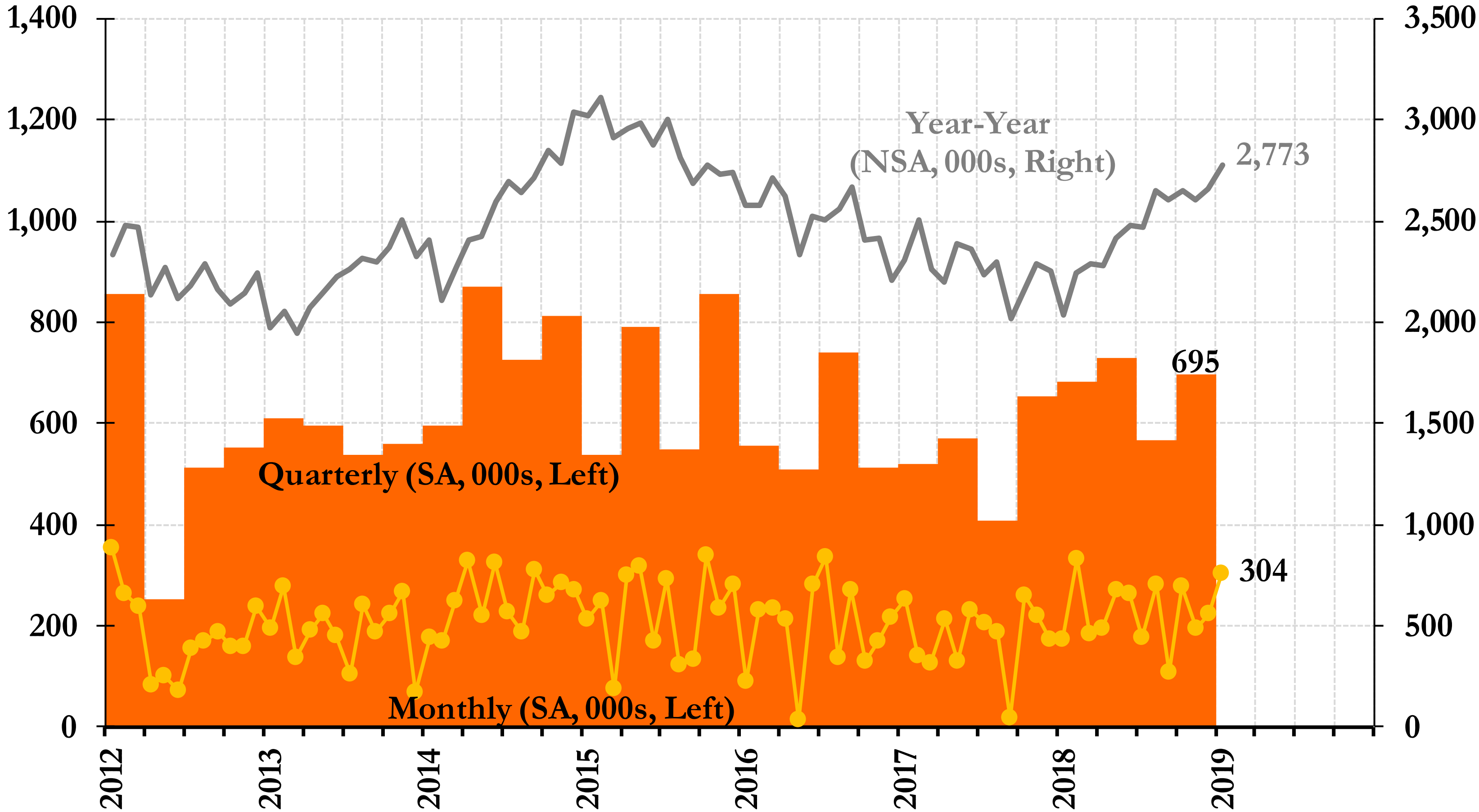
# Monthly inverted yield curve: a good leading indicator of recession



Witten Advisors
*Market-Smart Apartment Decisions*

# U.S. added ~300k jobs in January; annual pace rose to 2.8m

*(payrolls gained momentum despite government shutdown, which did cause the UE rate to rise to 4%)*




Source: U.S. Bureau of Labor Statistics



*Market insights for apartment owners, developers, investors and lenders*

ULI Housing Opportunity Conference
February 5, 2019


Dallas, Texas