



# ECONOMIC PERSPECTIVES: *How Much Difference will Macro Factors make to Real Estate?*

Appraisal Institute, Southern California Chapter  
23<sup>rd</sup> Annual LA/OC Market Trends Seminar  
Garden Grove CA  
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# My purpose:

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- Look forward with respect to macro-market fundamentals and reassess the future
- Consider new challenges to the market and their implications:
  - What inning are we in?
  - Will e-commerce dominate space-based retailing?
  - Are we becoming a nation of renters?
  - A “creative office” universe?
  - China and the global capital markets

# A reminder - Keep your eye on the fundamentals:

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- Household and population growth
- Income/wealth growth and distribution
- Employment growth and distribution
- Interest rates, mortgage terms and availability
- Inflation
- Technological change

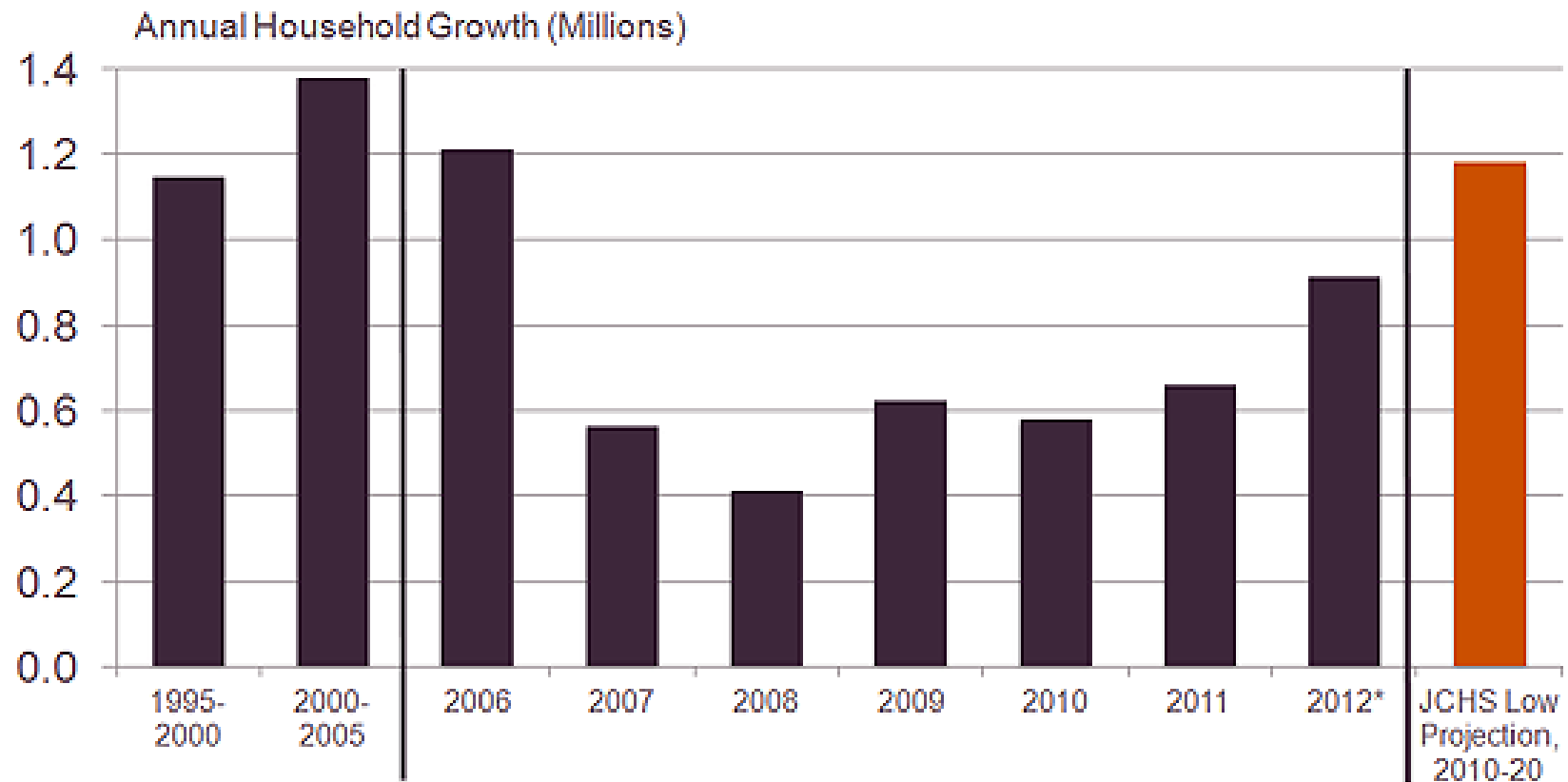


# Household and population growth



# Indications of a return to significant household growth:

Figure 2: Household Growth Has Been Slow to Stage a Strong Recovery, But Turnaround May Finally be Evident



# But what type of households?



## Percent Distribution of U.S. Households by Type, 1940-2010

Household Type	1940	1960	1980	2000	2010
<b>Family Households</b>	<b>90.0</b>	<b>85.1</b>	<b>73.7</b>	<b>68.1</b>	<b>66.4</b>
Married couples with children	42.9	44.3	30.7	23.5	20.2
Married couples without children	33.4	30.5	30.2	28.1	28.2
Single parents with children	4.3	4.1	7.2	9.2	9.6
Other family	9.4	6.2	5.6	7.1	8.5
<b>Nonfamily Households</b>	<b>10.0</b>	<b>15.1</b>	<b>26.4</b>	<b>31.9</b>	<b>33.6</b>
One person	7.8	13.4	22.6	25.8	26.7
Other nonfamily	2.2	1.7	3.8	6.1	6.8

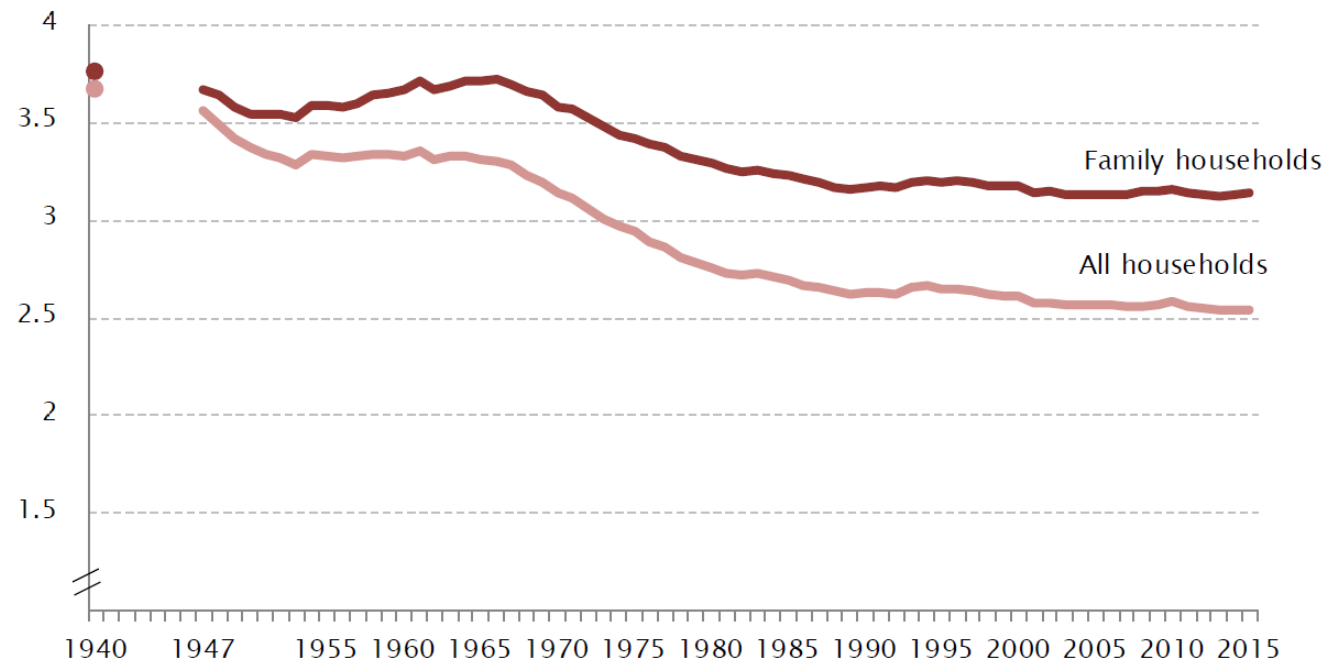
**Note:** Percentages for subcategories may not sum to category totals due to rounding.

**Source:** U.S. Census Bureau, decennial censuses from 1940 to 2010.

# While household size has remained fairly constant...

## Changes in household size

Average number of people per household



*Source:* U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 1940 and 1947 to 2015.

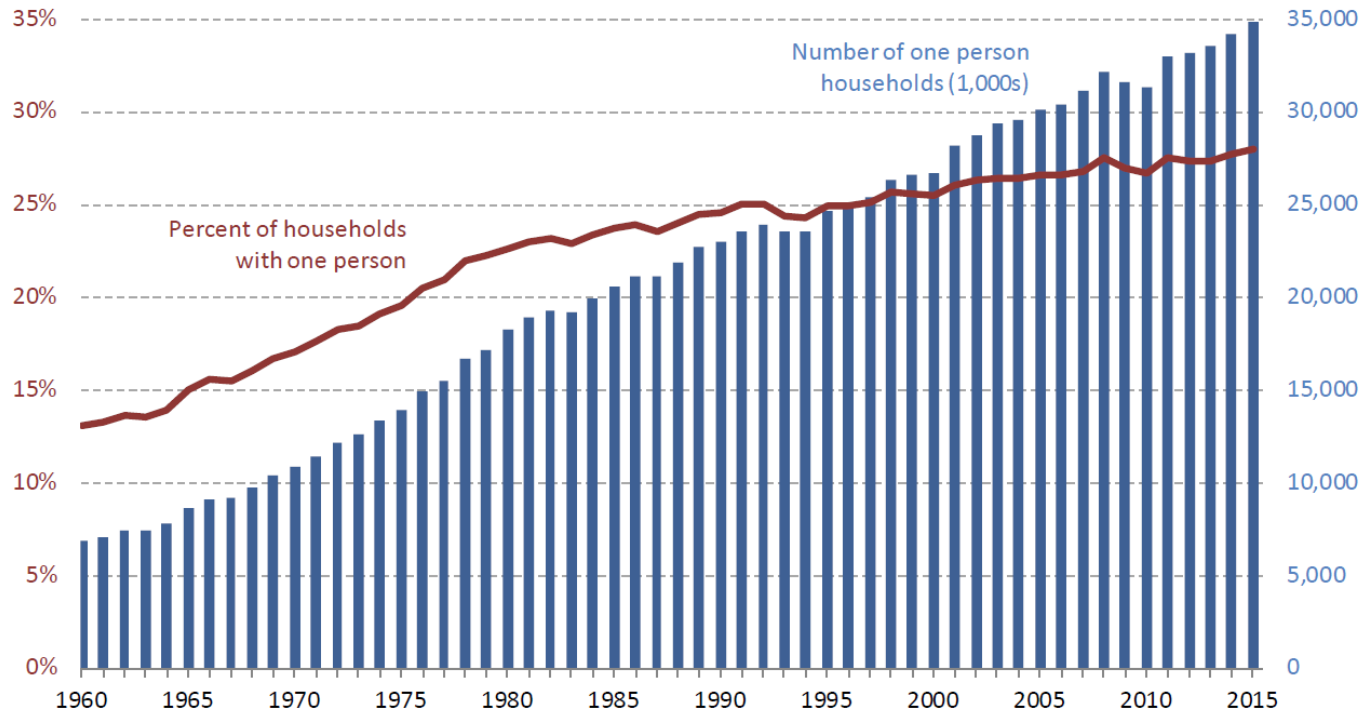
*Note:* This figure uses a person weight to describe characteristics of people living in households. As a result, estimates of the number of households do not match estimates of housing units from the Housing Vacancy Survey (HVS). The HVS is weighted to housing units, rather than the population, in order to more accurately estimate the number of occupied and vacant housing units.



U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU  
census.gov

# ...the number living alone has dominated household growth:

## Growth in living alone



Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 1960 to 2015.

Note: This figure uses a person weight to describe characteristics of people living in households. As a result, estimates of the number of households do not match estimates of housing units from the Housing Vacancy Survey (HVS). The HVS is weighted to housing units, rather than the population, in order to more accurately estimate the number of occupied and vacant housing units.

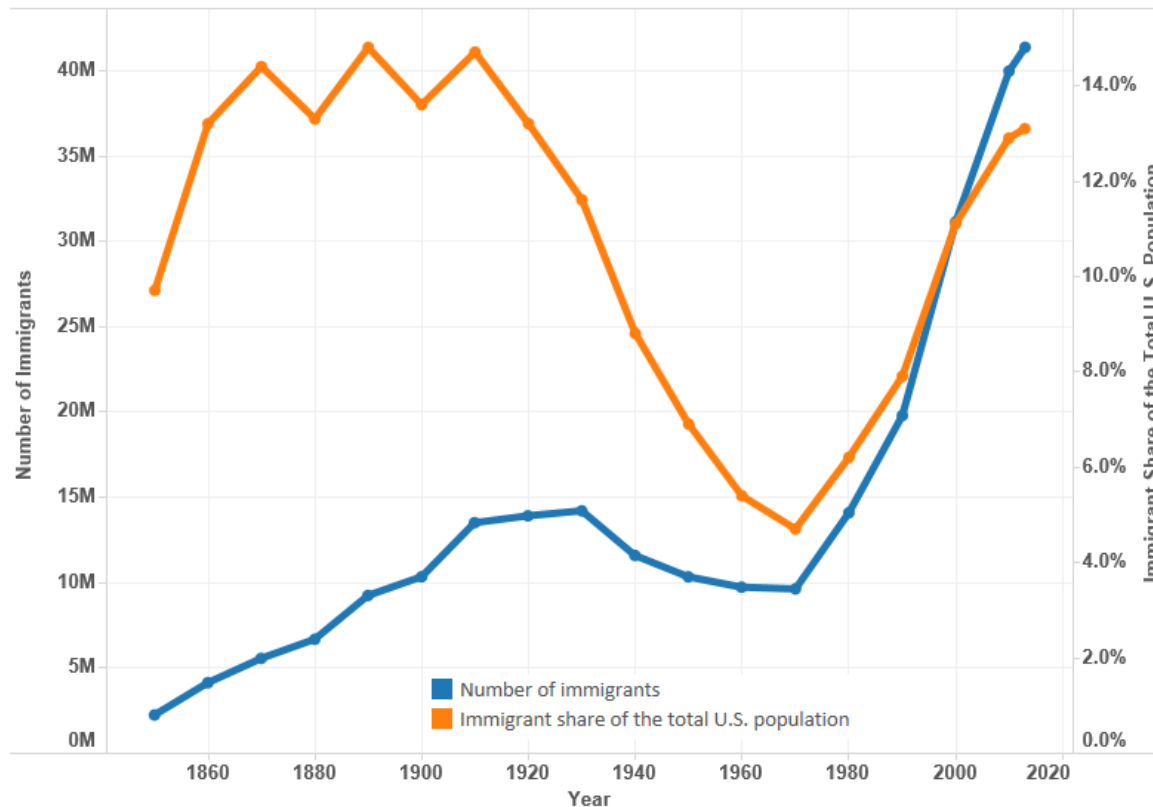
# How important is immigration in this growth?



## U.S. Immigrant Population and Share over Time, 1850-Present

This chart displays both the number of immigrants residing in the United States and their share of the total U.S. population over time.

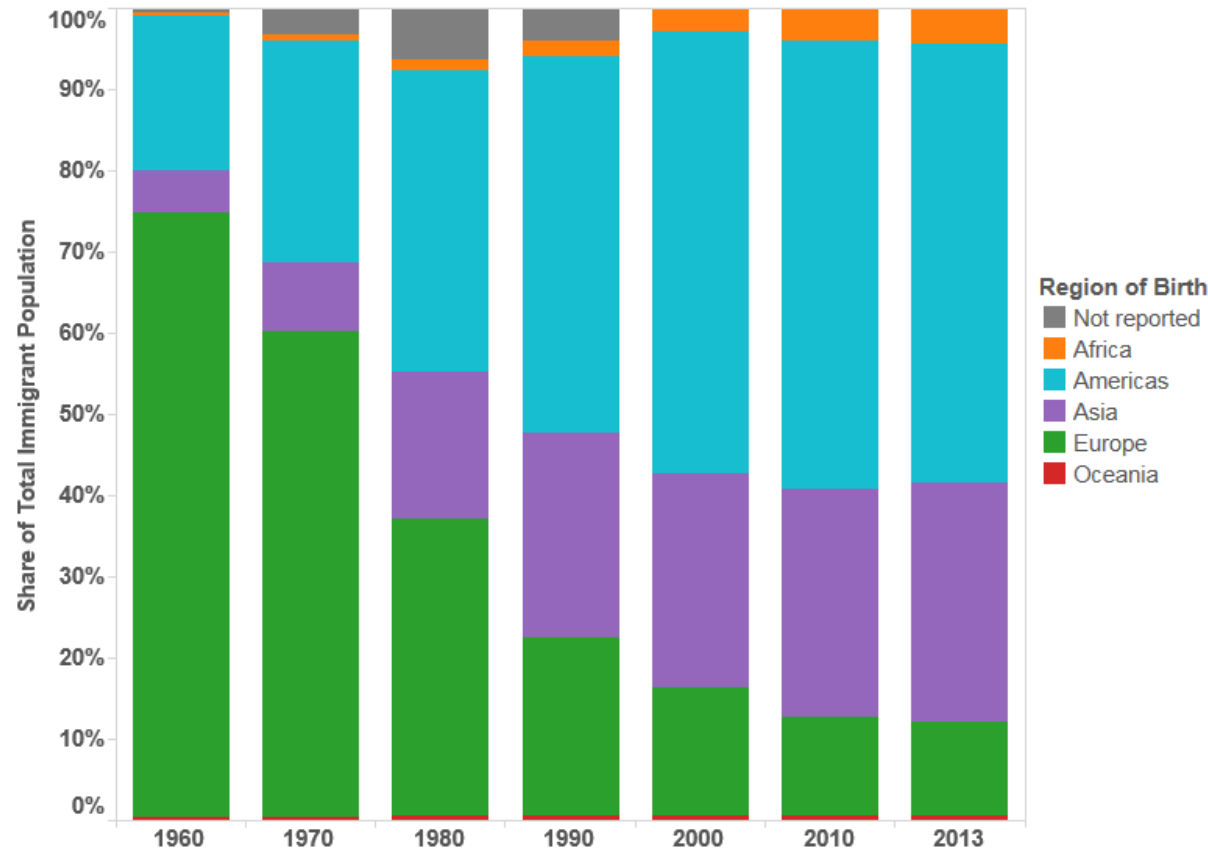
Number of Immigrants and Their Share of the Total U.S. Population, 1850-2013



Migration Policy Institute (MPI) Data Hub  
<http://migrationpolicy.org/programs/data-hub>

# And from where do they come?

U.S. Immigrant Population by World Region of Birth, 1960-2013



Migration Policy Institute (MPI) Data Hub  
<http://migrationpolicy.org/programs/data-hub>

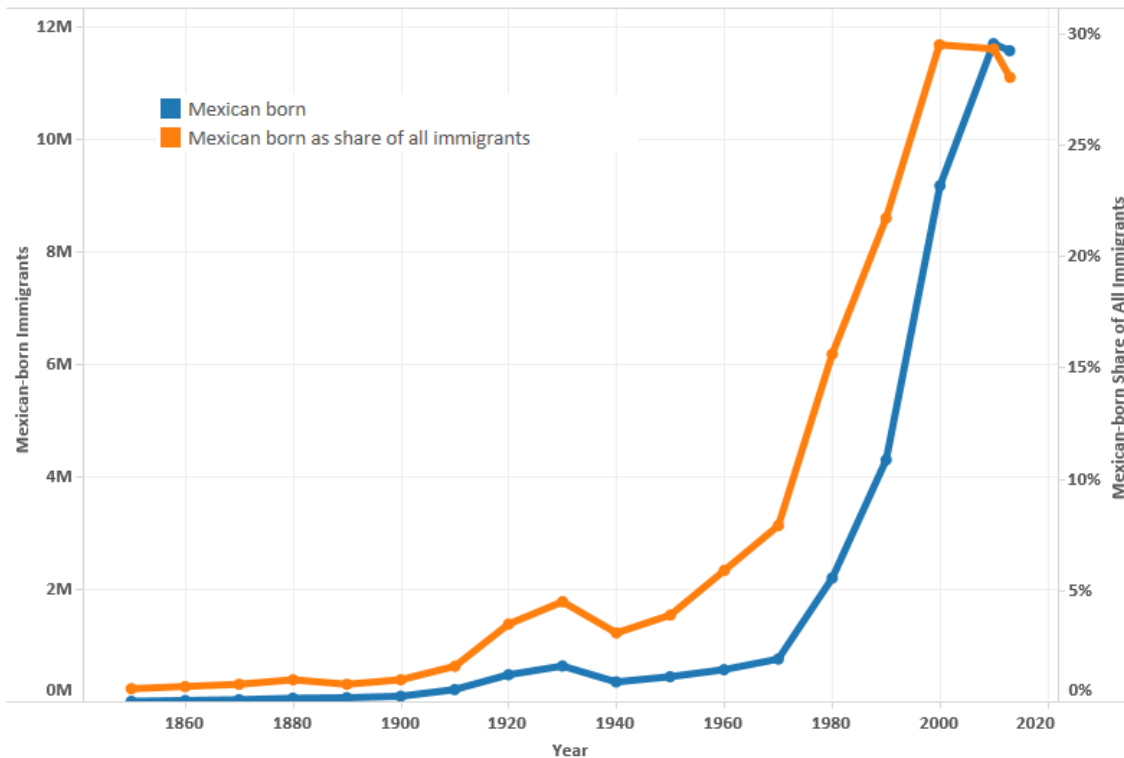
# What proportion come from Mexico?



## Mexican-Born Population Over Time, 1850-Present

Since 1980, immigrants from Mexico have been the largest national-origin group in the United States. This line chart traces the growth of this population over time.

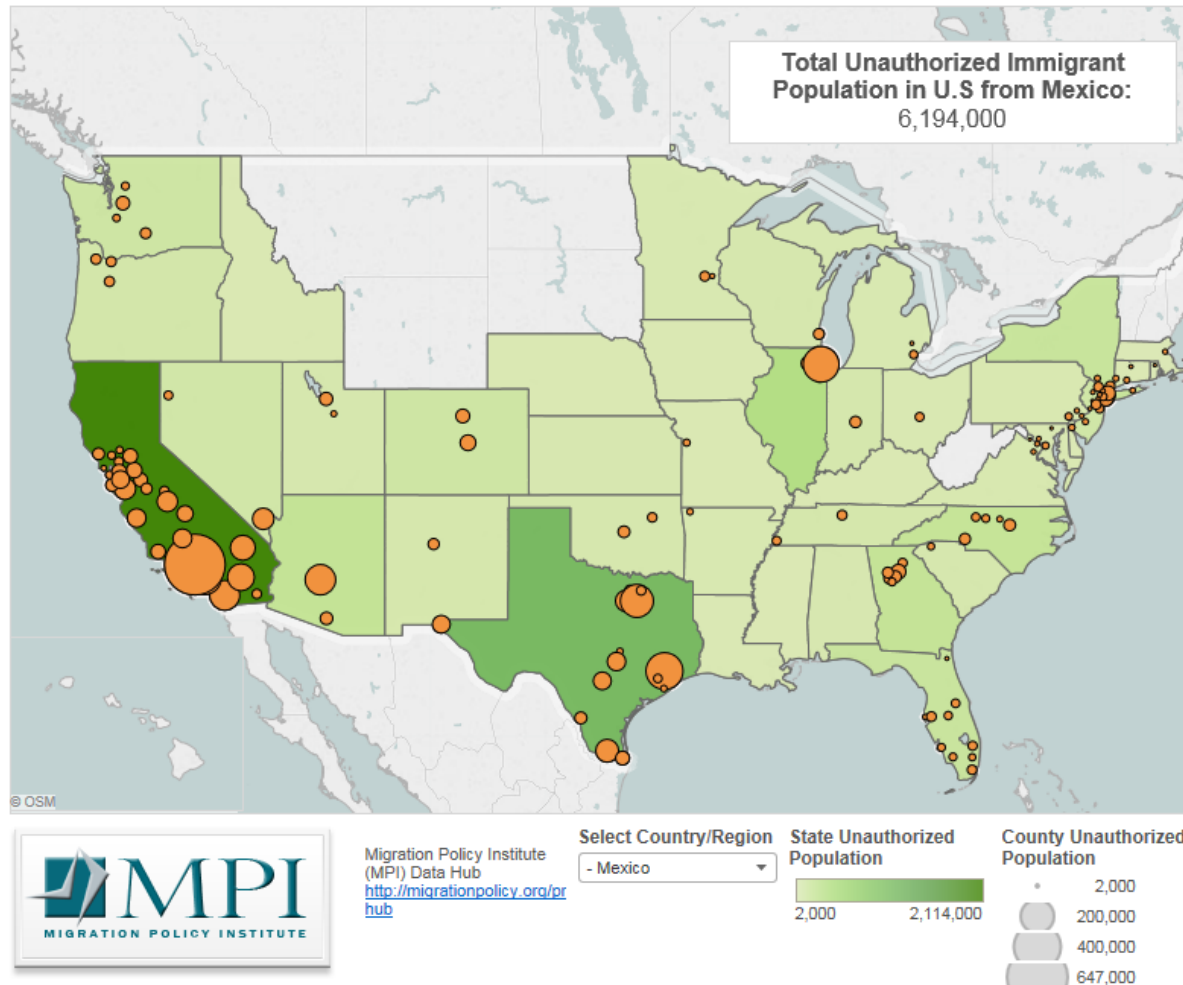
**Number of Mexican Immigrants and Their Share of the Total U.S. Immigrant Population, 1850-2013**



Migration Policy Institute (MPI) Data Hub  
<http://migrationpolicy.org/programs/data-hub>

# Undocumented immigrants: Where do they settle?

Unauthorized Immigrant Populations by Country and Region, Top State and County Destinations, 2009-13

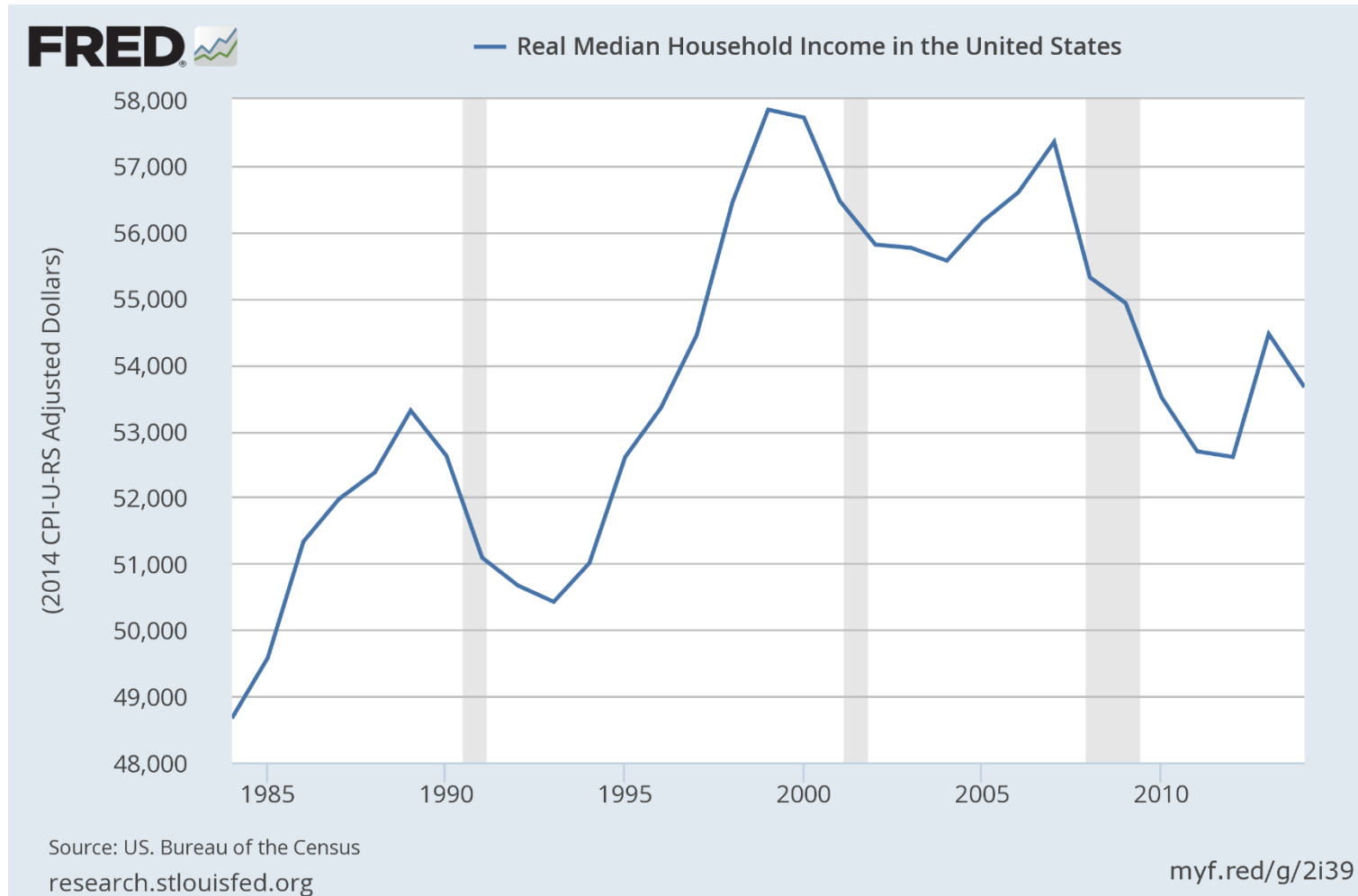






# Income/wealth growth and distribution

# Real median household income has stagnated:

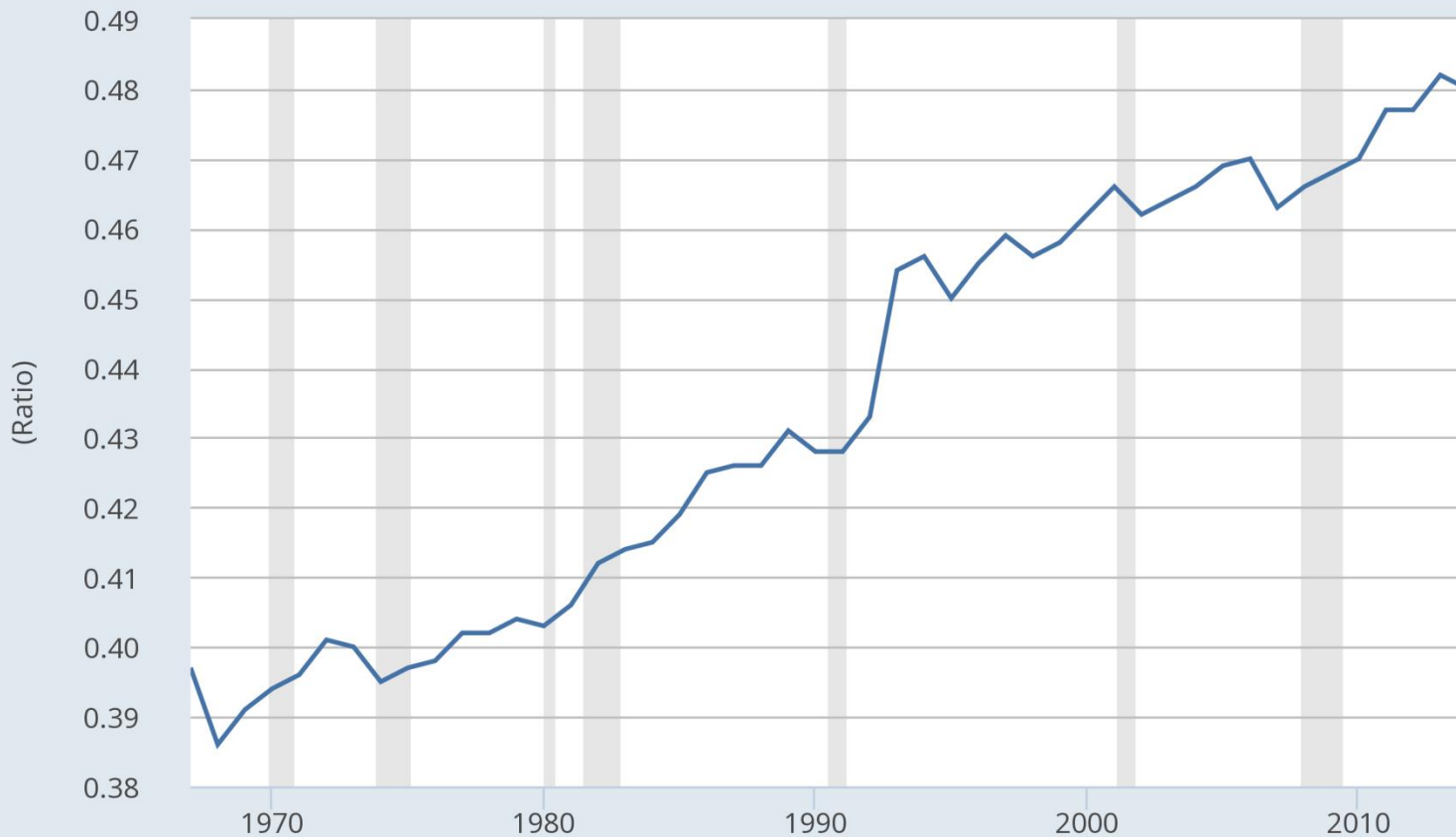


# Income distribution: The Gini coefficient ratio updated



**FRED**

— Income Gini Ratio for Households by Race of Householder, All Races



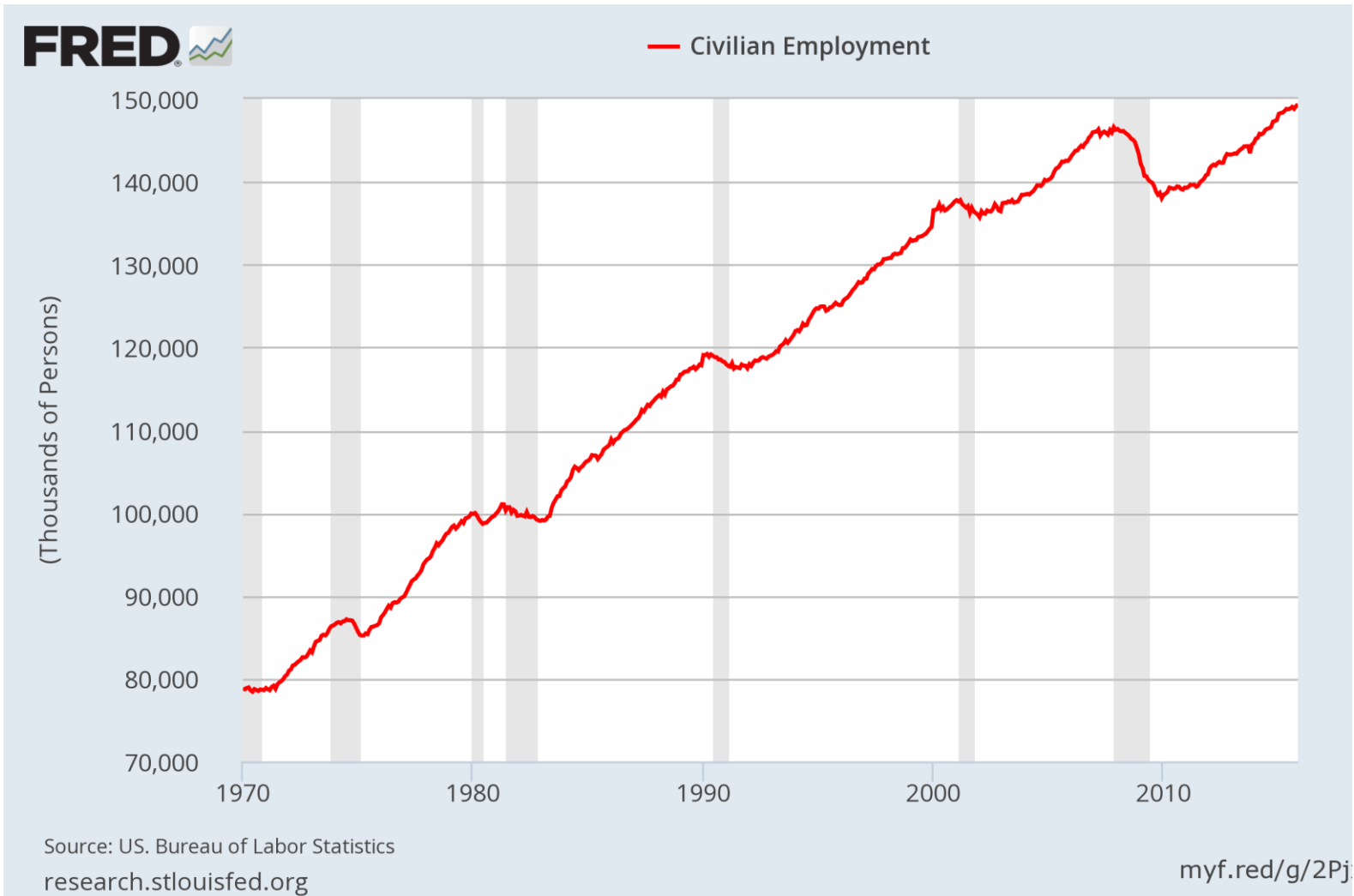
Source: US. Bureau of the Census  
[research.stlouisfed.org](http://research.stlouisfed.org)

[myf.red/g/2kJR](https://myf.red/g/2kJR)

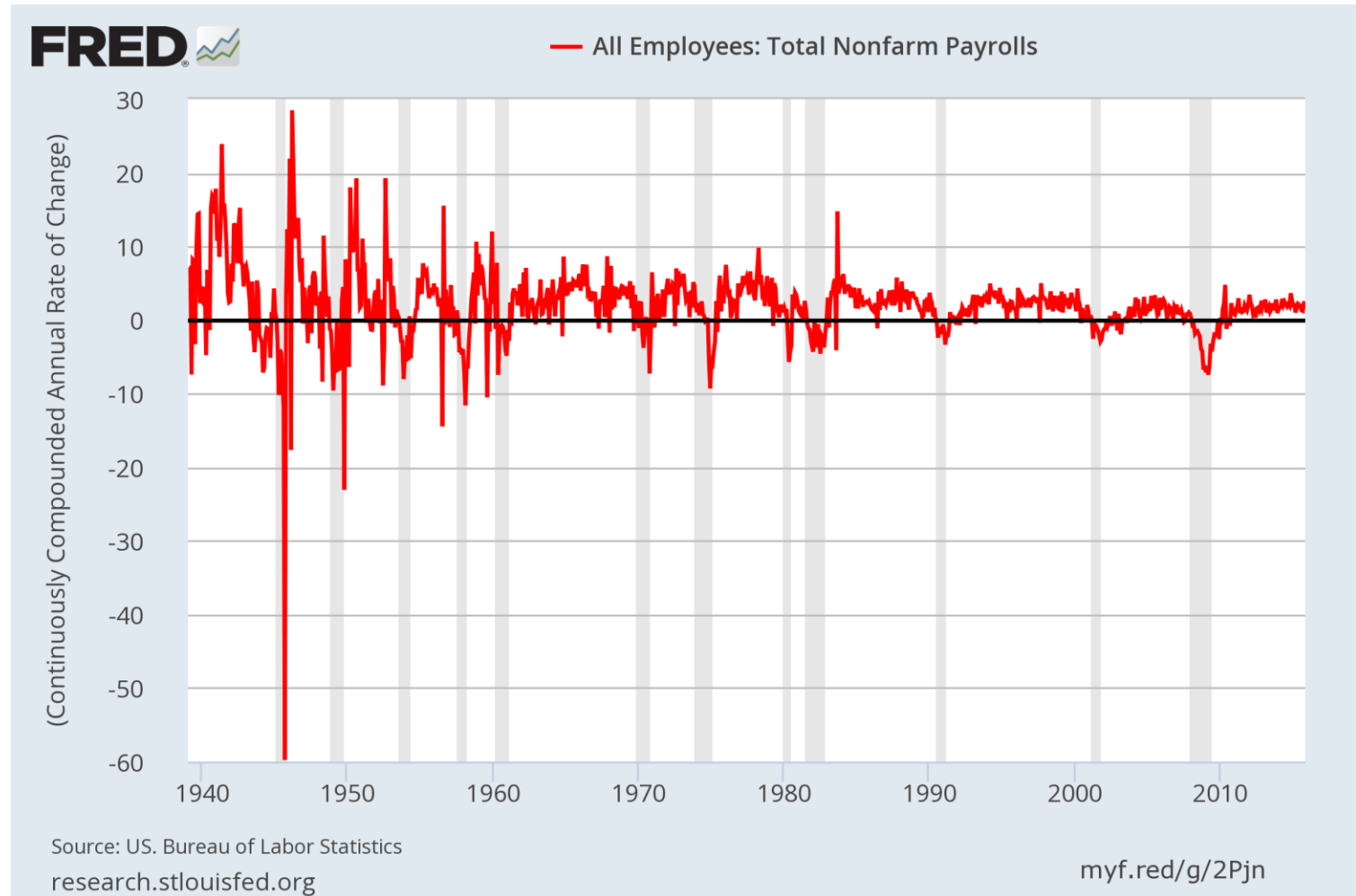


# Employment growth and distribution

# Total employment growth has resumed



# The employment growth rate: note both stability and level



# Projected employment by occupation: 2012-2022



**Table 1.1 Employment by major occupational group, 2012 and projected 2022**  
(Numbers in thousands)

2012 National Employment Matrix title and code		Employment		Change, 2012-22		Median annual wage, 2012 <sup>(1)</sup>
		2012	2022	Number	Percent	
Total, All Occupations	00-0000	145,355.8	160,983.7	15,628.0	10.8	\$34,750
Management Occupations	11-0000	8,861.5	9,498.0	636.6	7.2	\$93,910
Business and Financial Operations Occupations	13-0000	7,167.6	8,065.7	898.1	12.5	\$62,500
Computer and Mathematical Occupations	15-0000	3,814.7	4,500.5	685.8	18.0	\$76,270
Architecture and Engineering Occupations	17-0000	2,474.5	2,654.0	179.6	7.3	\$73,540
Life, Physical, and Social Science Occupations	19-0000	1,249.1	1,374.8	125.7	10.1	\$60,100
Community and Social Service Occupations	21-0000	2,374.7	2,783.4	408.8	17.2	\$40,400
Legal Occupations	23-0000	1,247.0	1,379.9	132.9	10.7	\$75,270
Education, Training, and Library Occupations	25-0000	9,115.9	10,131.7	1,015.8	11.1	\$46,020
Arts, Design, Entertainment, Sports, and Media Occupations	27-0000	2,570.9	2,751.6	180.6	7.0	\$43,930
Healthcare Practitioners and Technical Occupations	29-0000	8,049.7	9,782.6	1,732.9	21.5	\$60,200
Healthcare Support Occupations	31-0000	4,110.2	5,266.0	1,155.8	28.1	\$25,550
Protective Service Occupations	33-0000	3,325.3	3,588.3	263.0	7.9	\$36,620
Food Preparation and Serving Related Occupations	35-0000	11,780.1	12,882.0	1,101.8	9.4	\$18,930
Building and Grounds Cleaning and Maintenance Occupations	37-0000	5,522.3	6,213.3	691.0	12.5	\$22,690
Personal Care and Service Occupations	39-0000	5,375.6	6,498.5	1,122.9	20.9	\$20,840
Sales and Related Occupations	41-0000	15,105.0	16,200.5	1,095.5	7.3	\$25,120
Office and Administrative Support Occupations	43-0000	22,470.1	24,004.1	1,534.0	6.8	\$31,510
Farming, Fishing, and Forestry Occupations	45-0000	947.2	915.0	-32.2	-3.4	\$19,370
Construction and Extraction Occupations	47-0000	6,092.2	7,394.1	1,301.9	21.4	\$40,120
Installation, Maintenance, and Repair Occupations	49-0000	5,514.8	6,046.0	531.2	9.6	\$41,020
Production Occupations	51-0000	8,941.9	9,017.5	75.6	0.8	\$30,920
Transportation and Material Moving Occupations	53-0000	9,245.7	10,036.4	790.6	8.6	\$28,960

**Footnotes:**

(1) Data are from the Occupational Employment Statistics program, U.S. Department of Labor, U.S. Bureau of Labor Statistics.

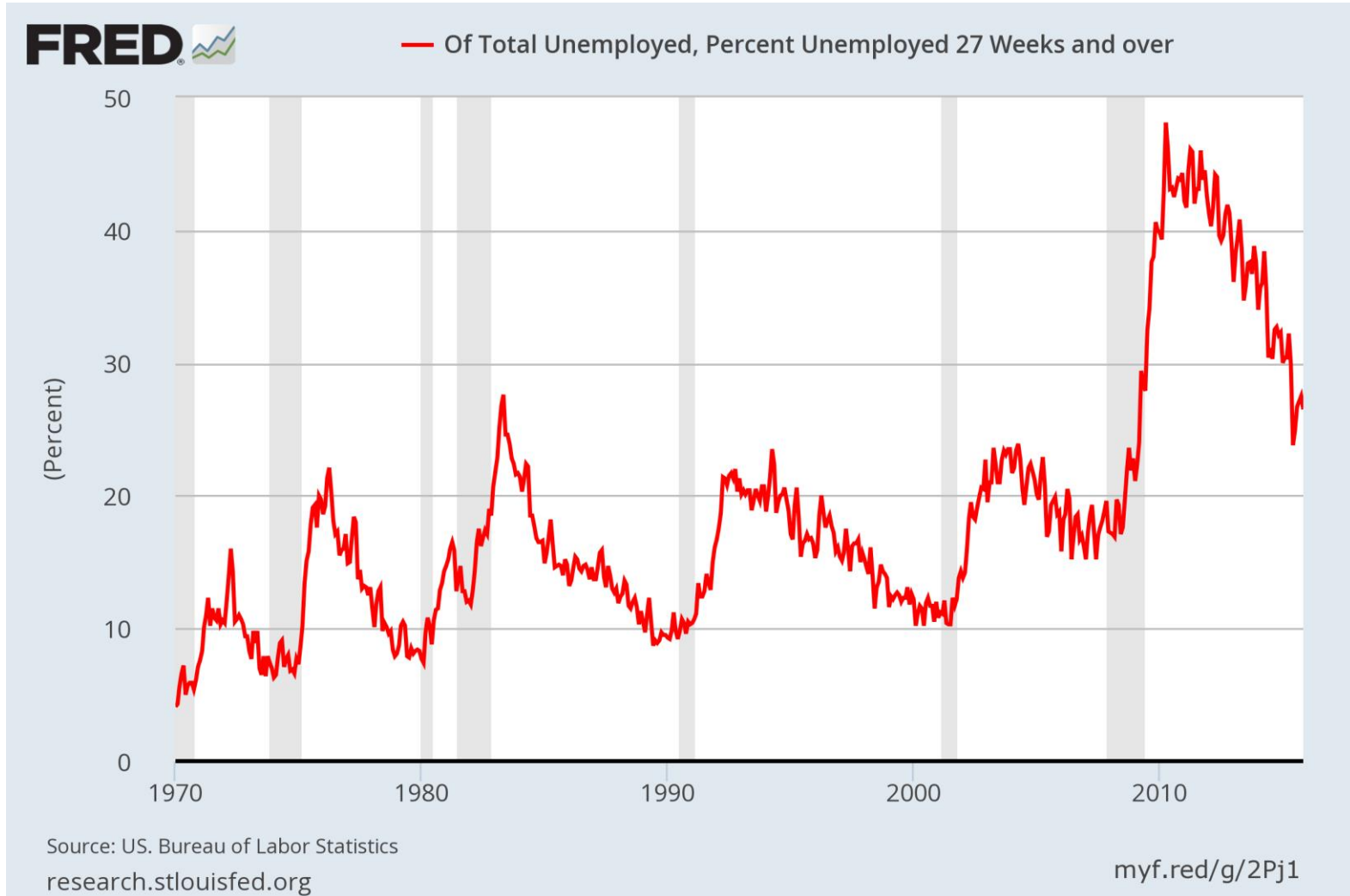
Source: Employment Projections program, U.S. Department of Labor, U.S. Bureau of Labor Statistics

# The unemployment rate just keeps dropping:

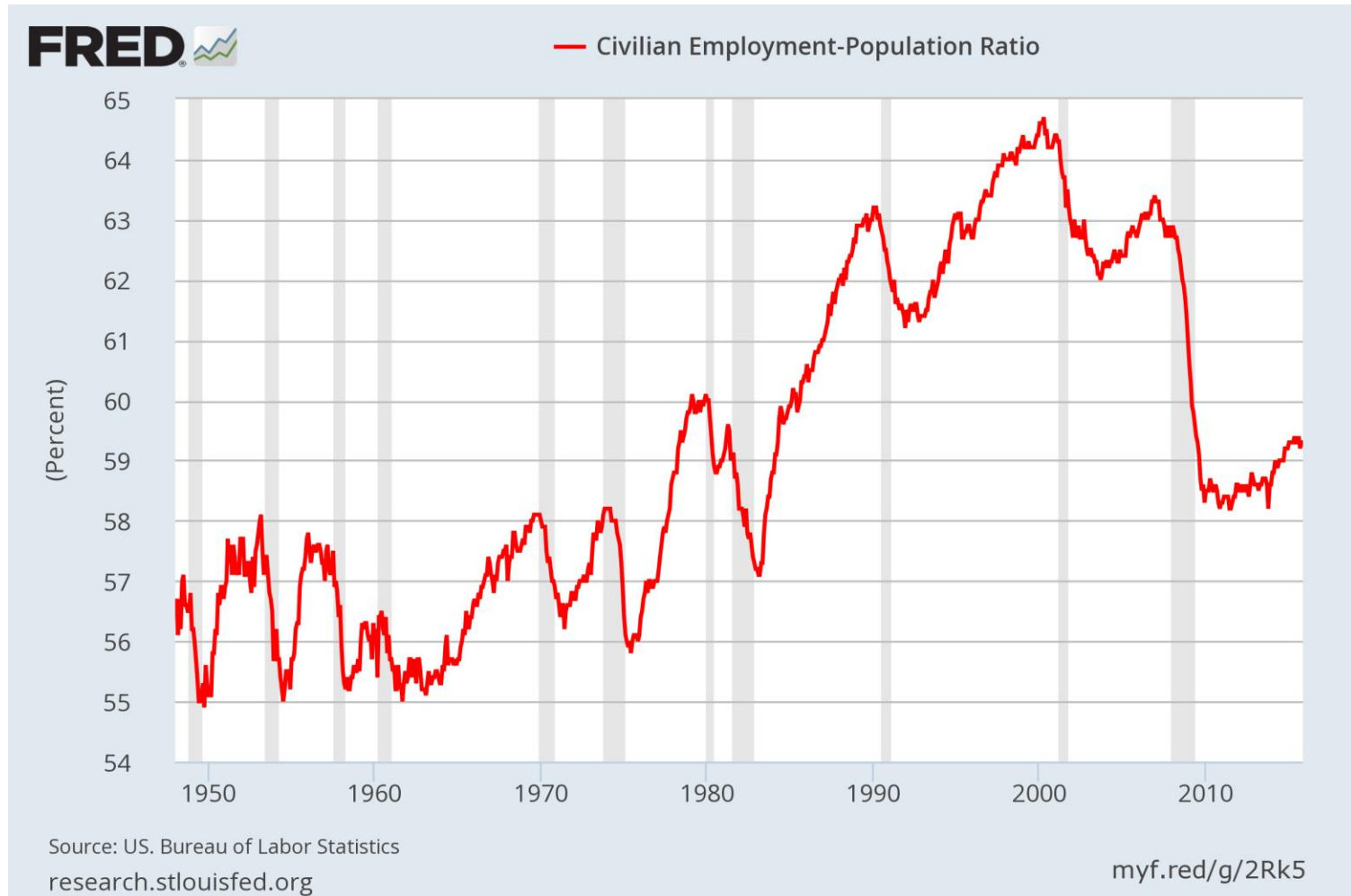




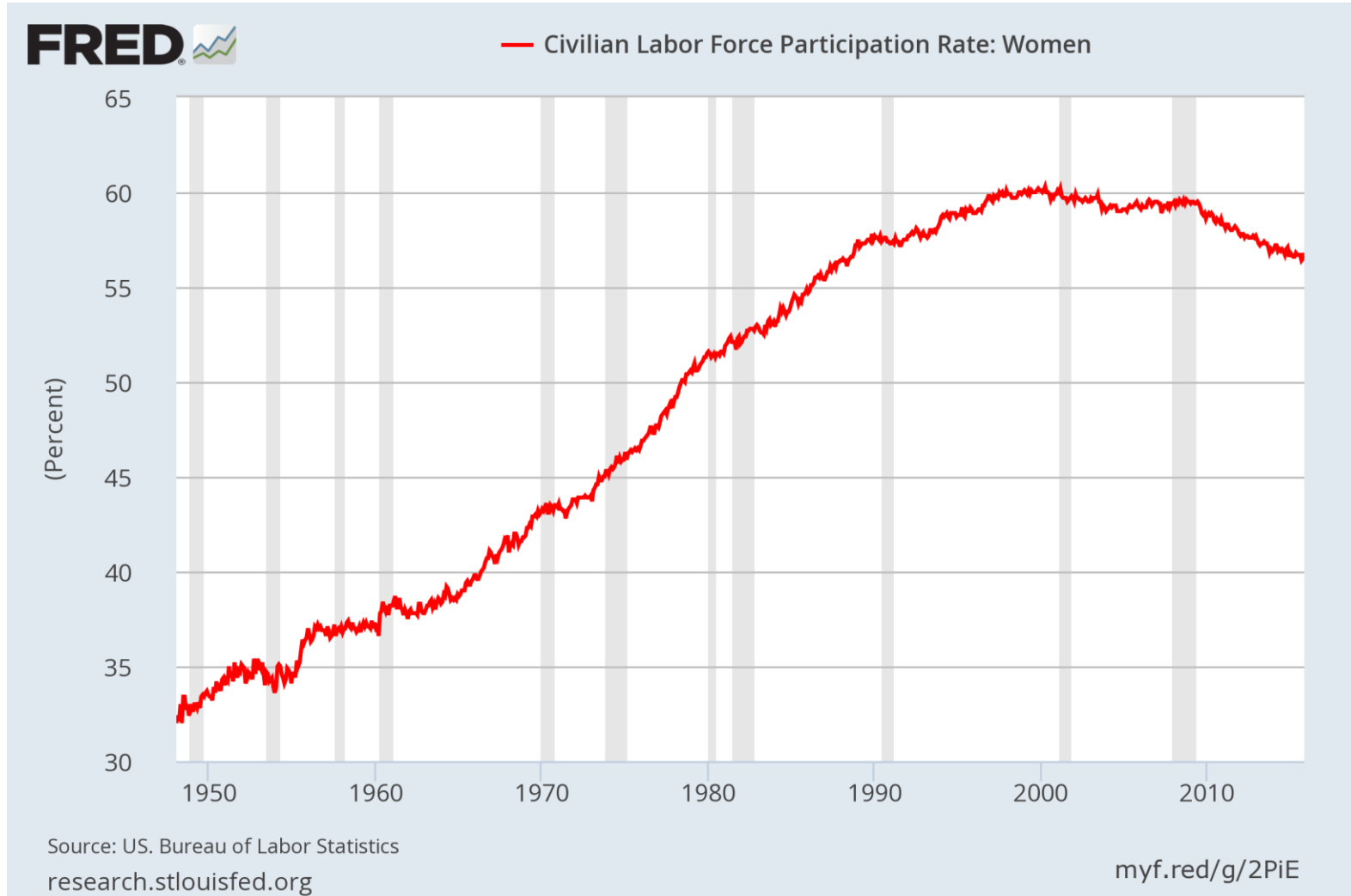
# The percent of unemployed that were unemployed 27 weeks or longer is dropping more rapidly



# And the employment-to-population ratio is rising again



# But labor force participation rates continue to fall: Women

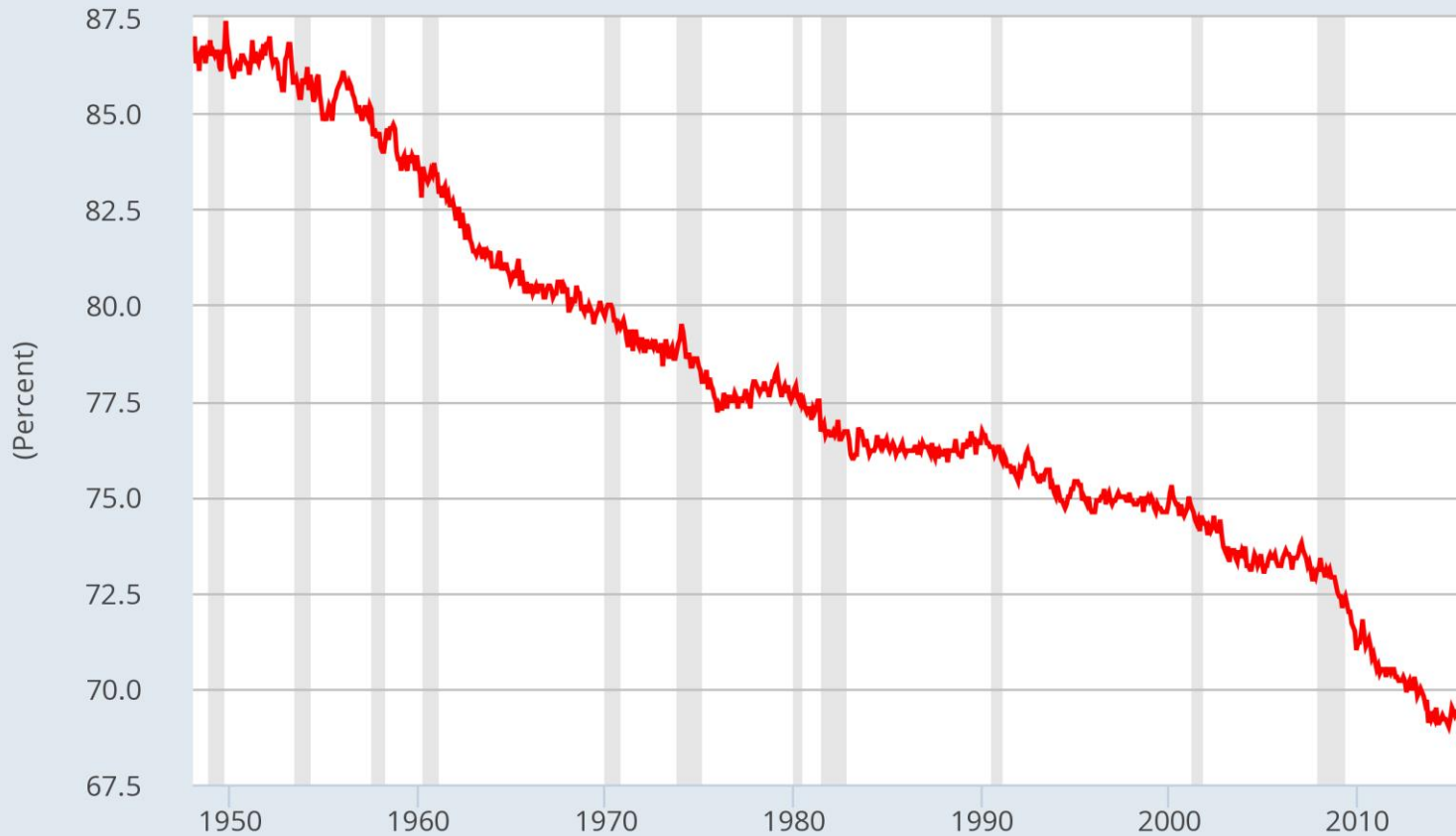


# Even more so for men



**FRED** 

— Labor Force Participation Rate: Men



Source: US. Bureau of Labor Statistics  
[research.stlouisfed.org](http://research.stlouisfed.org)

[myf.red/g/2PiM](http://myf.red/g/2PiM)

# What is going on?: Factors influencing the labor participation rate

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- Aging of baby boom cohort
- Decline in participation rate of 16-24 year olds
- Declining rate of participation of women (since peak in 1999)
- Continuous decline of participation of men (since the 1940's)

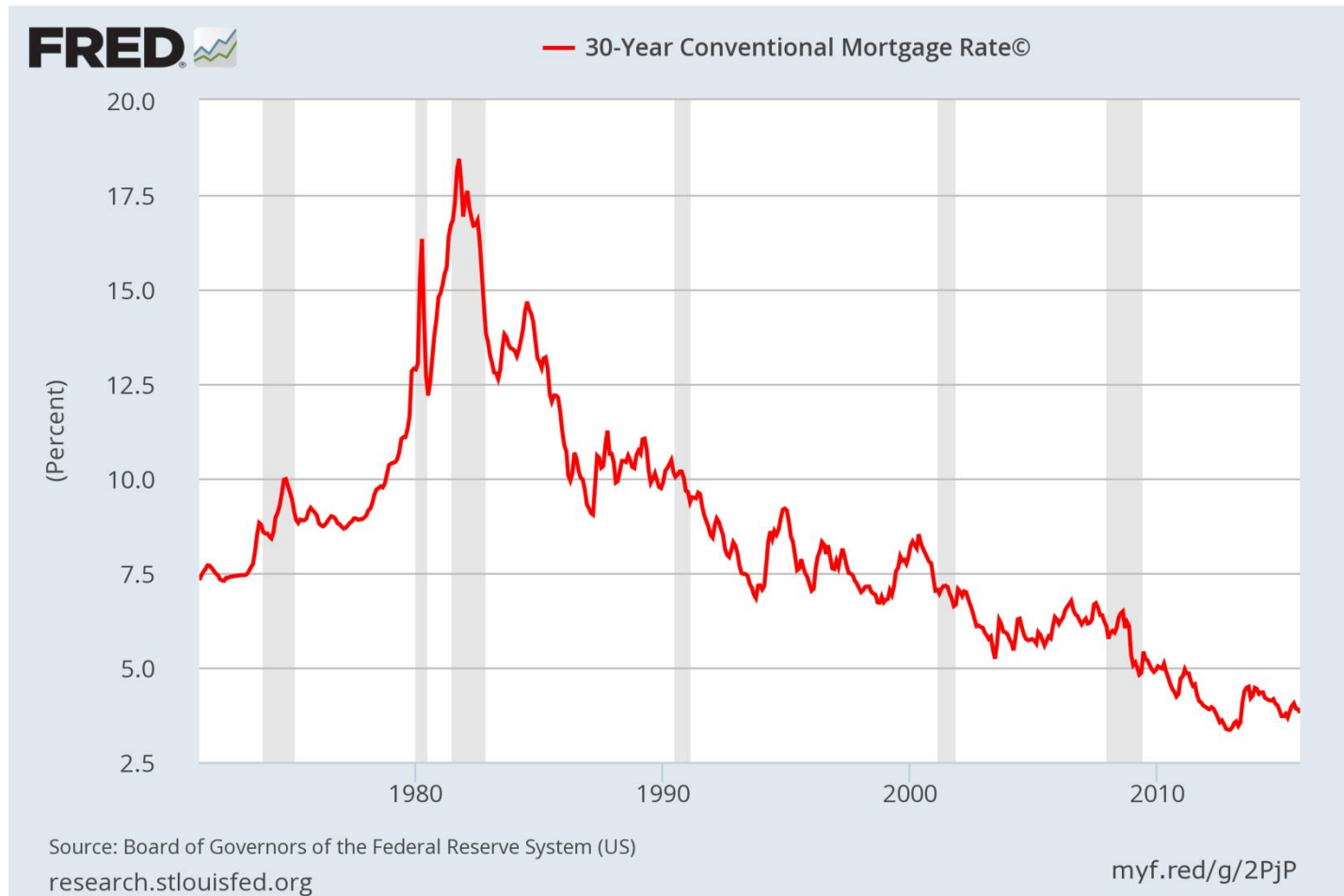
Offsetting and other factors:

- Increase in participation by those 55+
- Strong attachment of Hispanic and Asian workers to the labor force
- Significant increase in SS Disability participation
- Significant increase in “unemployable” workers
  - History or evidence of drug addiction
  - Lack of employment skills
  - Lack of employment discipline
  - History of legal problems, incarceration

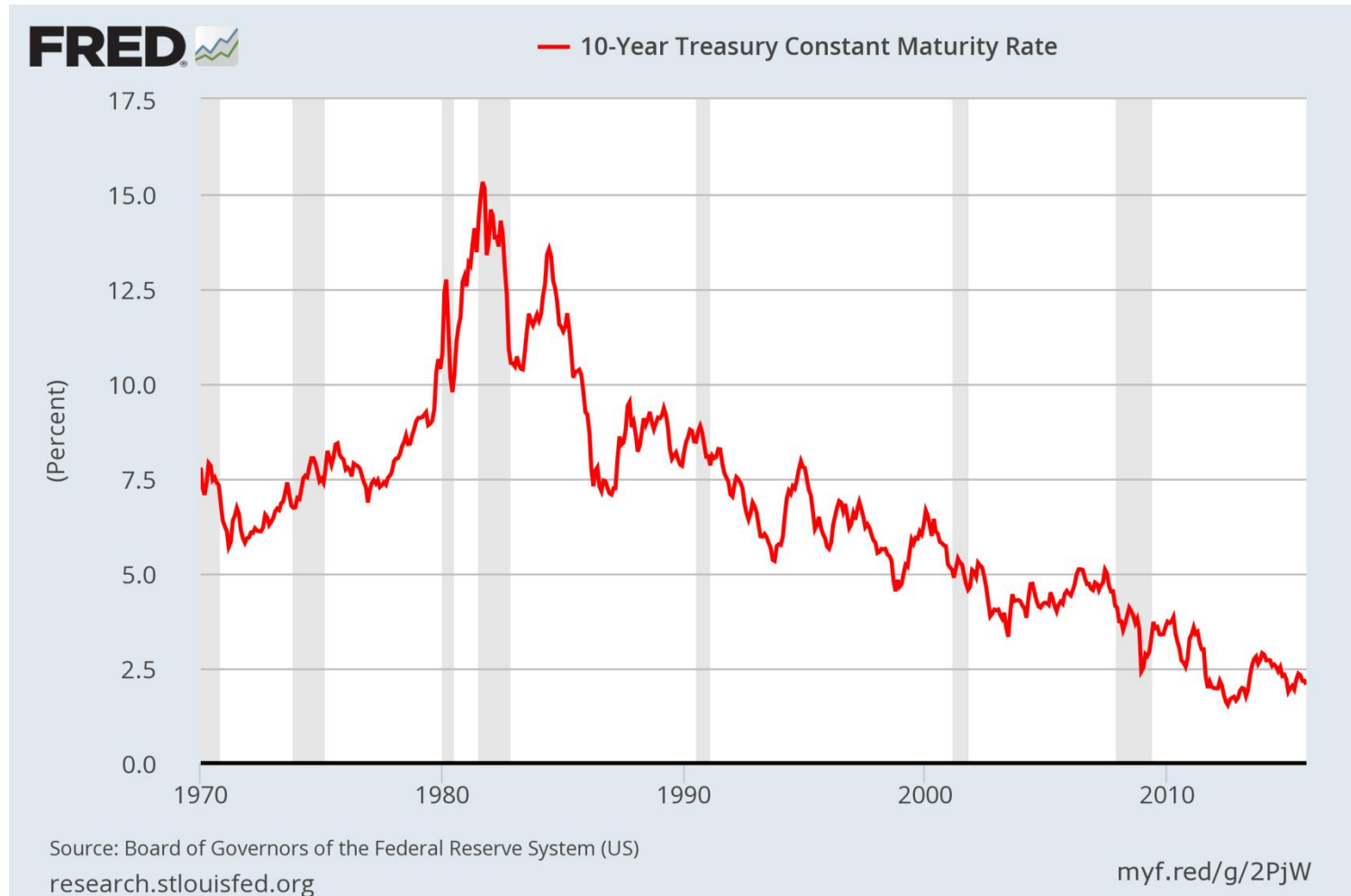


# Interest rates, mortgage terms and availability, and inflation

# Mortgage rates have stayed low

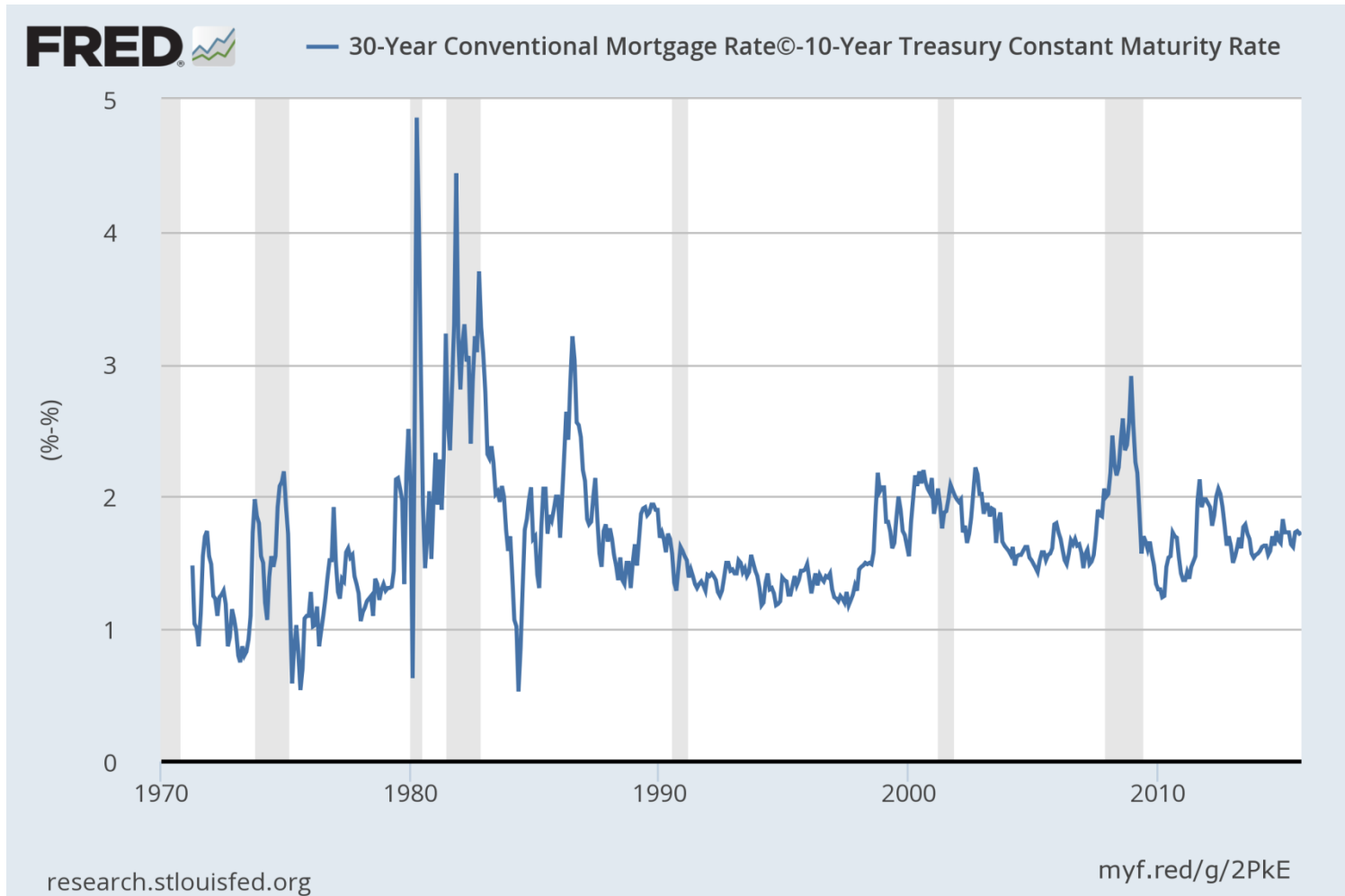


# 10-year Treasury rates have done the same

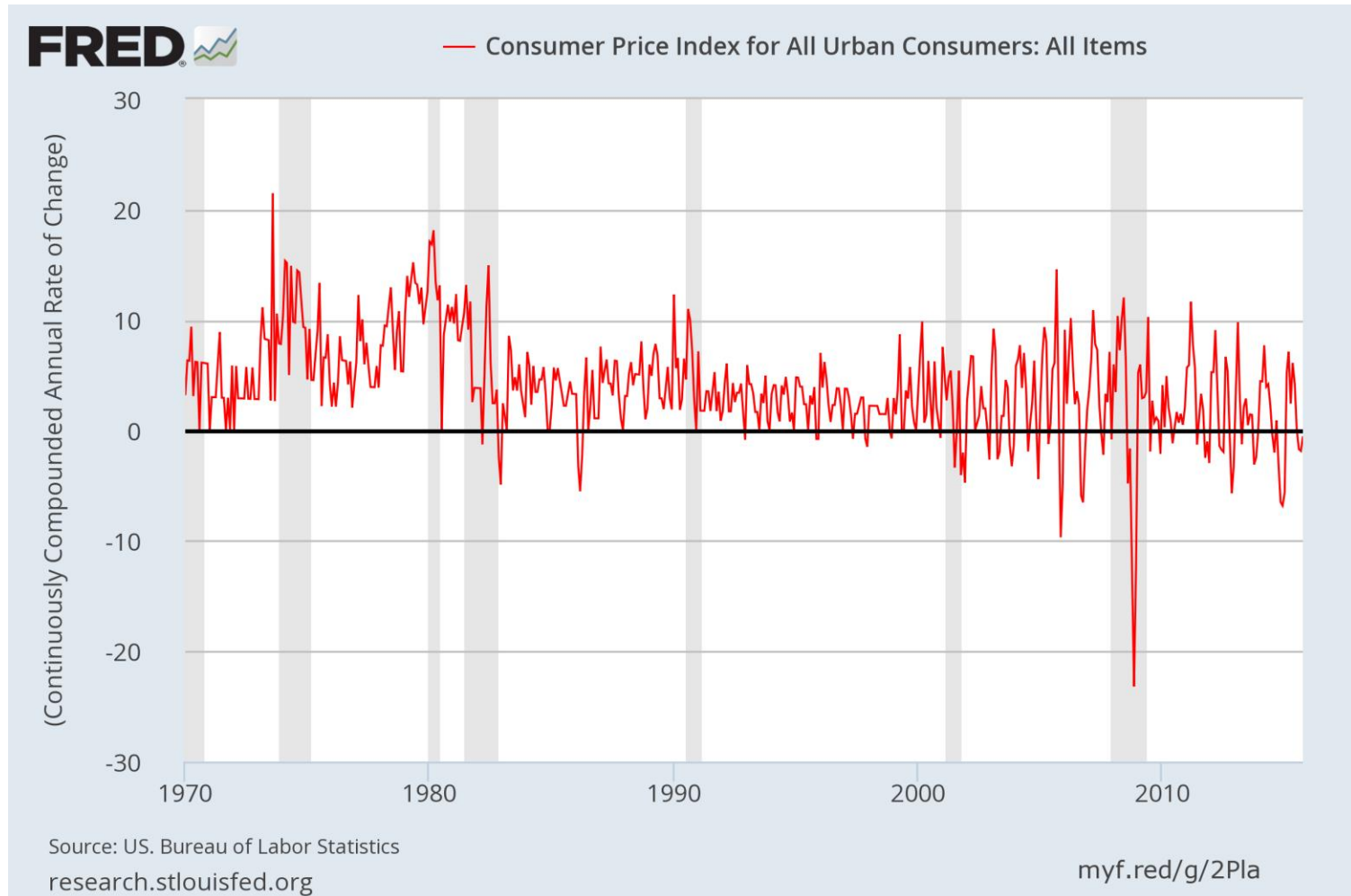




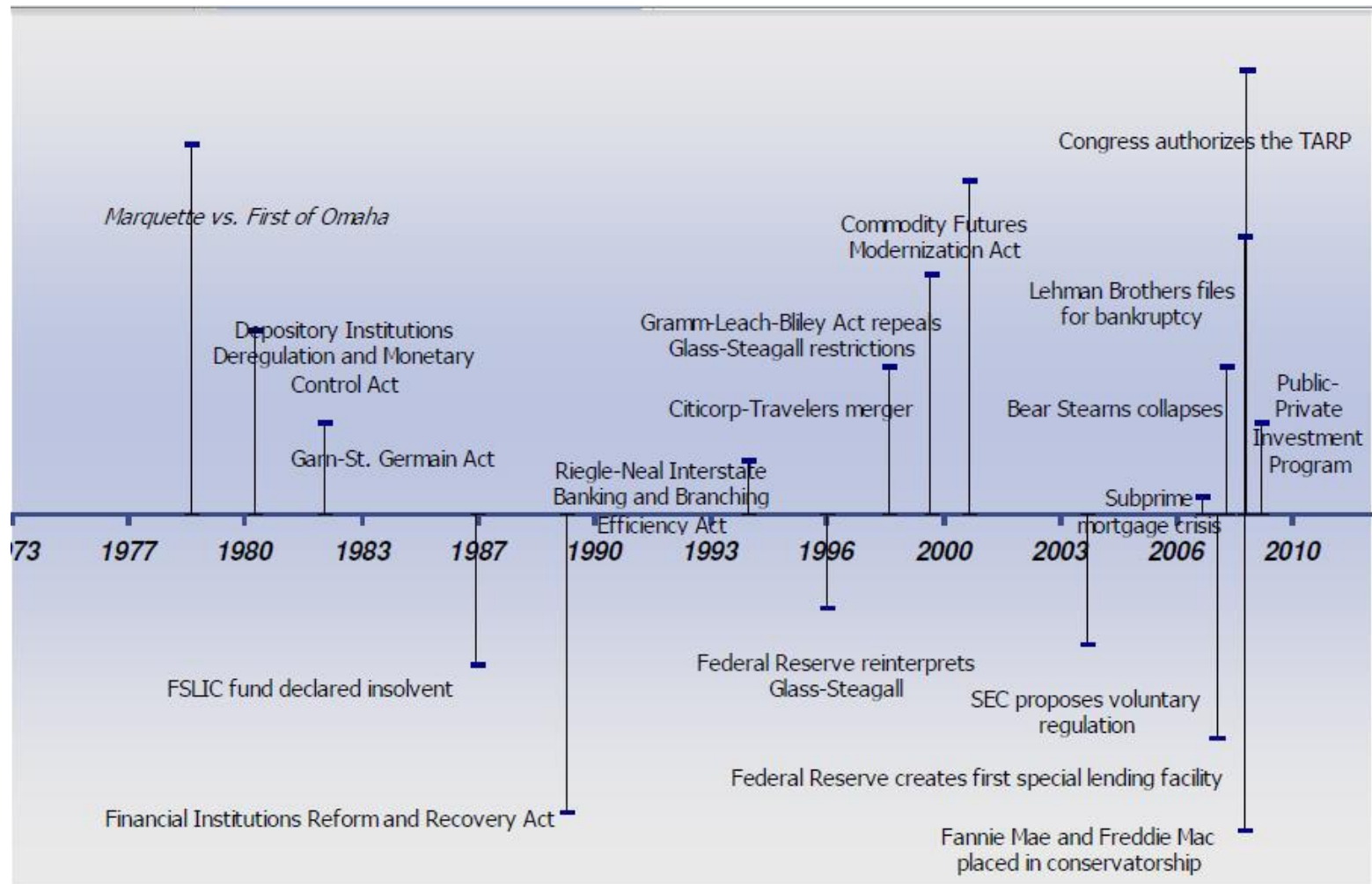
# The mortgage-Treasury spread has only widened slightly



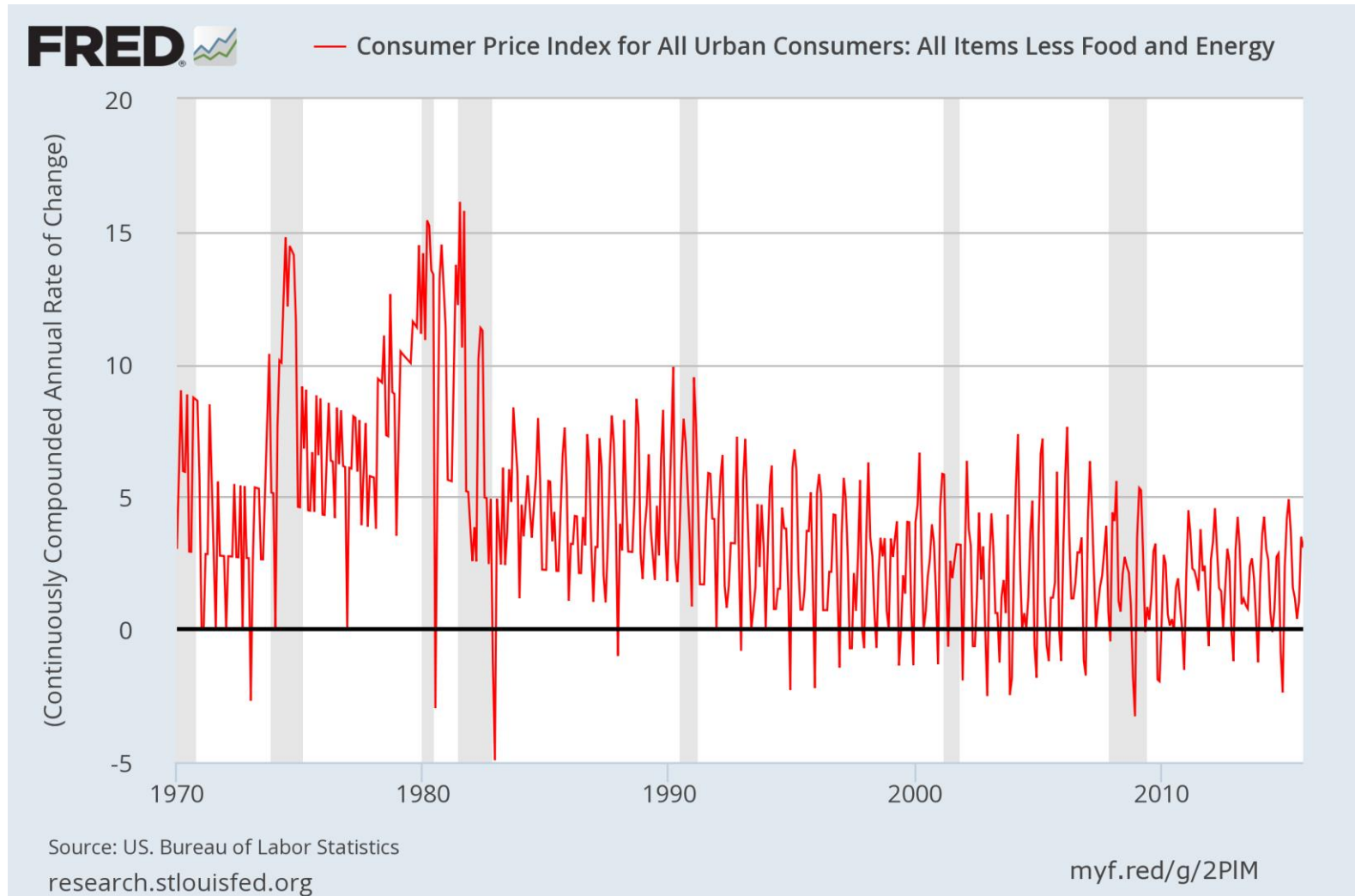
# Inflation: note increased volatility around 1998-99



# Could one cause be deregulation?



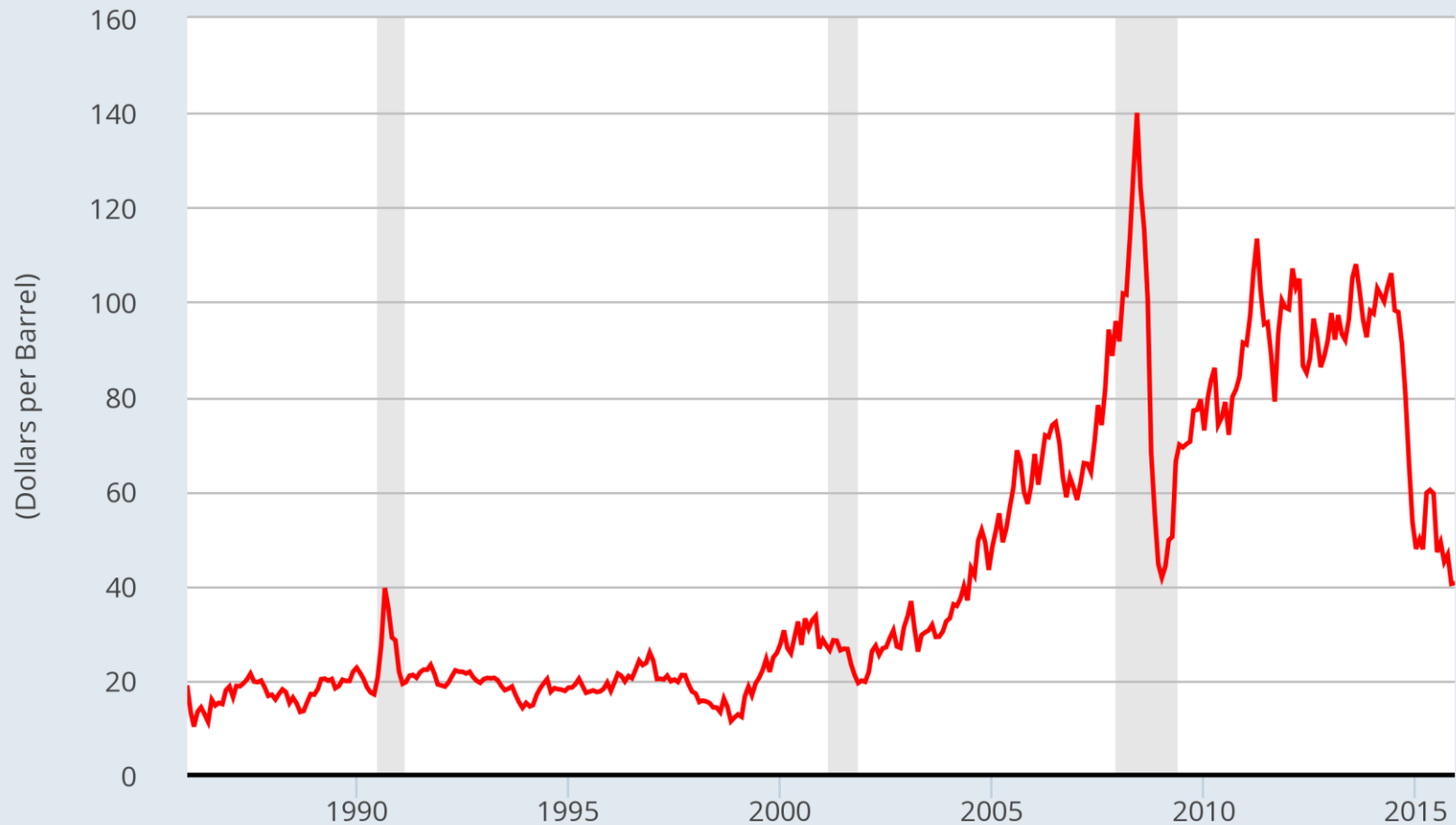
# Adjusted CPI: All items excluding food and energy



# Focus on energy: oil prices have declined dramatically

**FRED** 

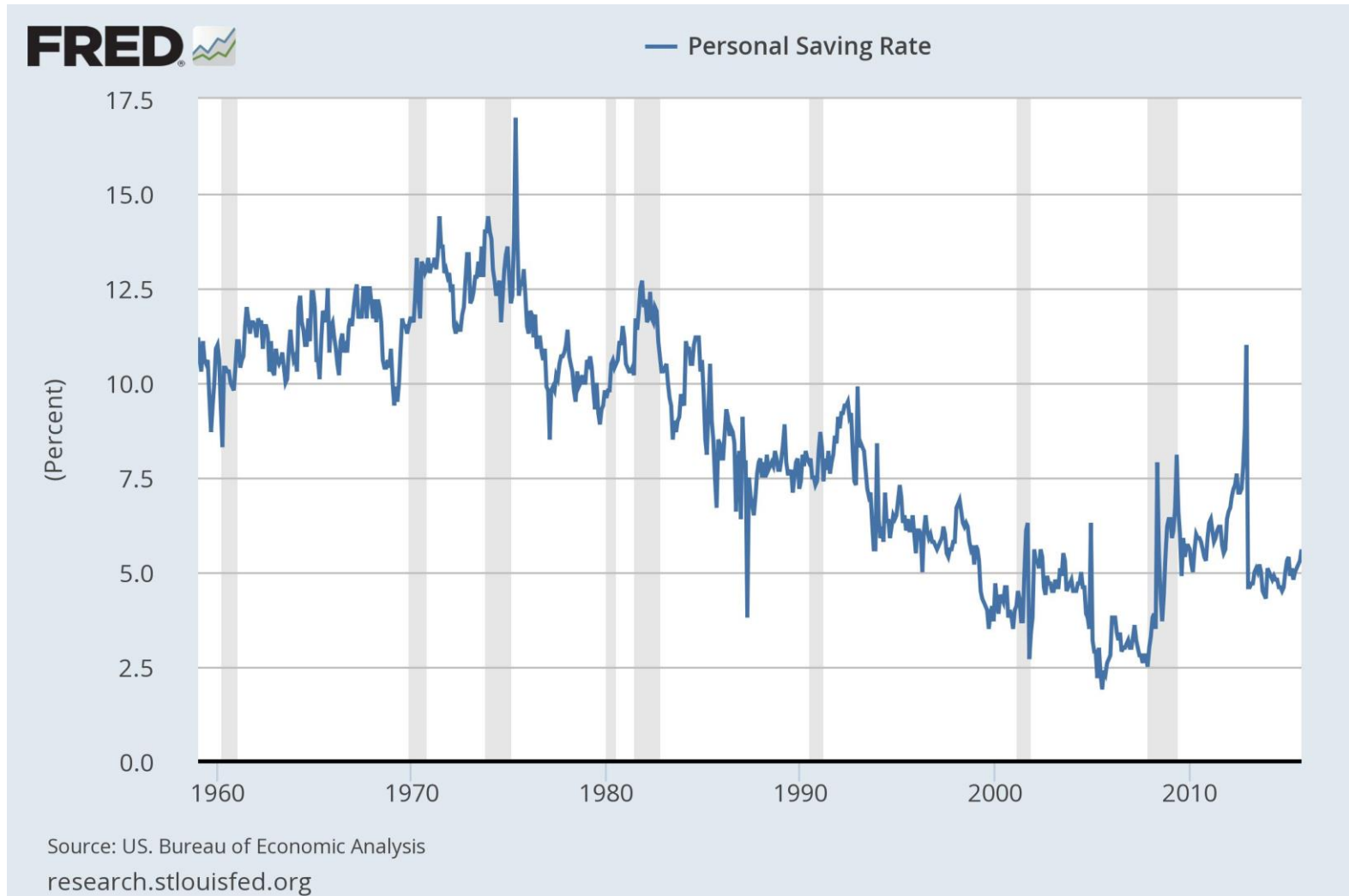
— Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma



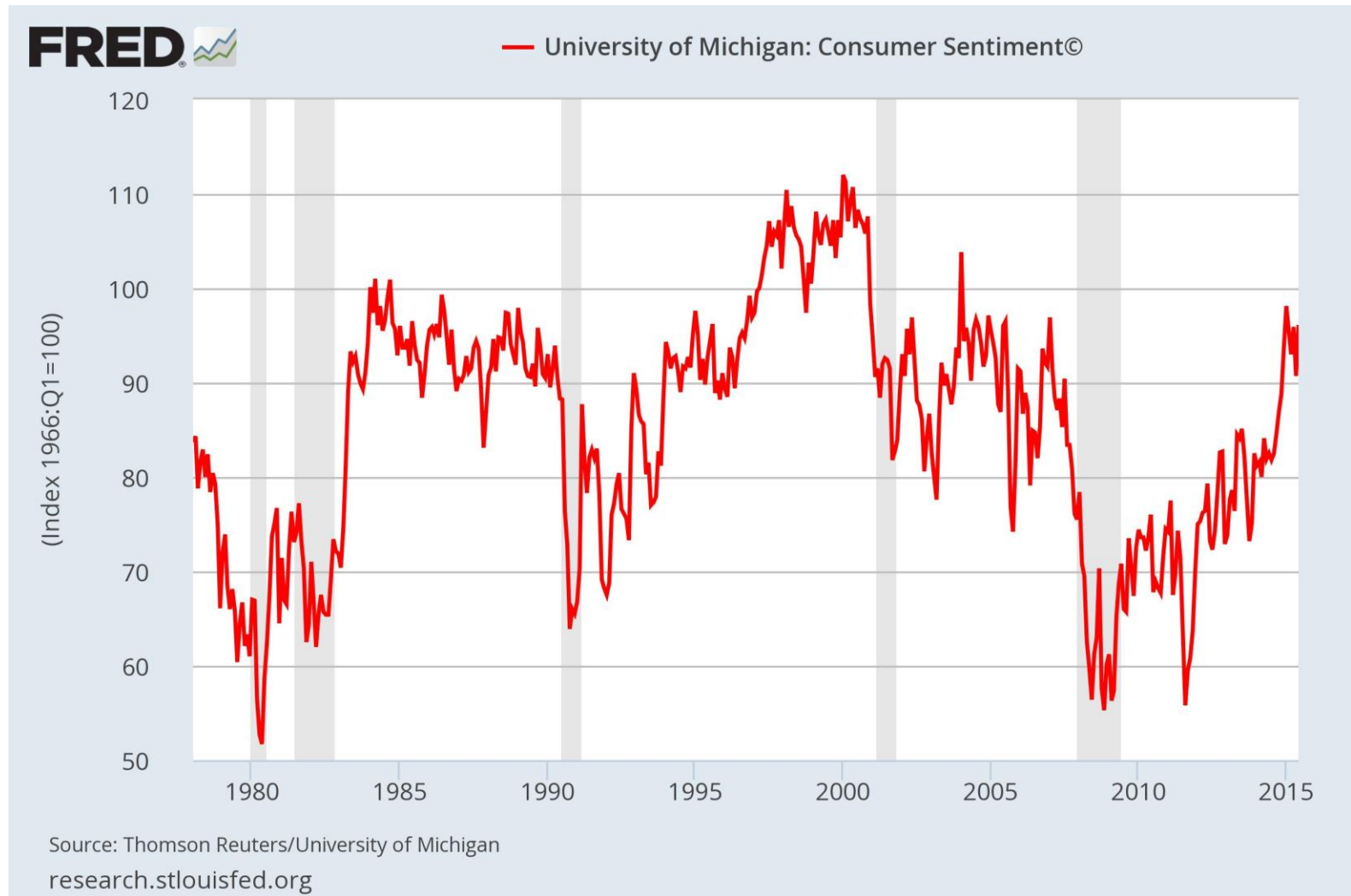
Source: US. Energy Information Administration  
[research.stlouisfed.org](http://research.stlouisfed.org)

[myf.red/g/2PmT](http://myf.red/g/2PmT)

# The personal saving rate has re-started its ascent



# And consumer confidence is on the rise

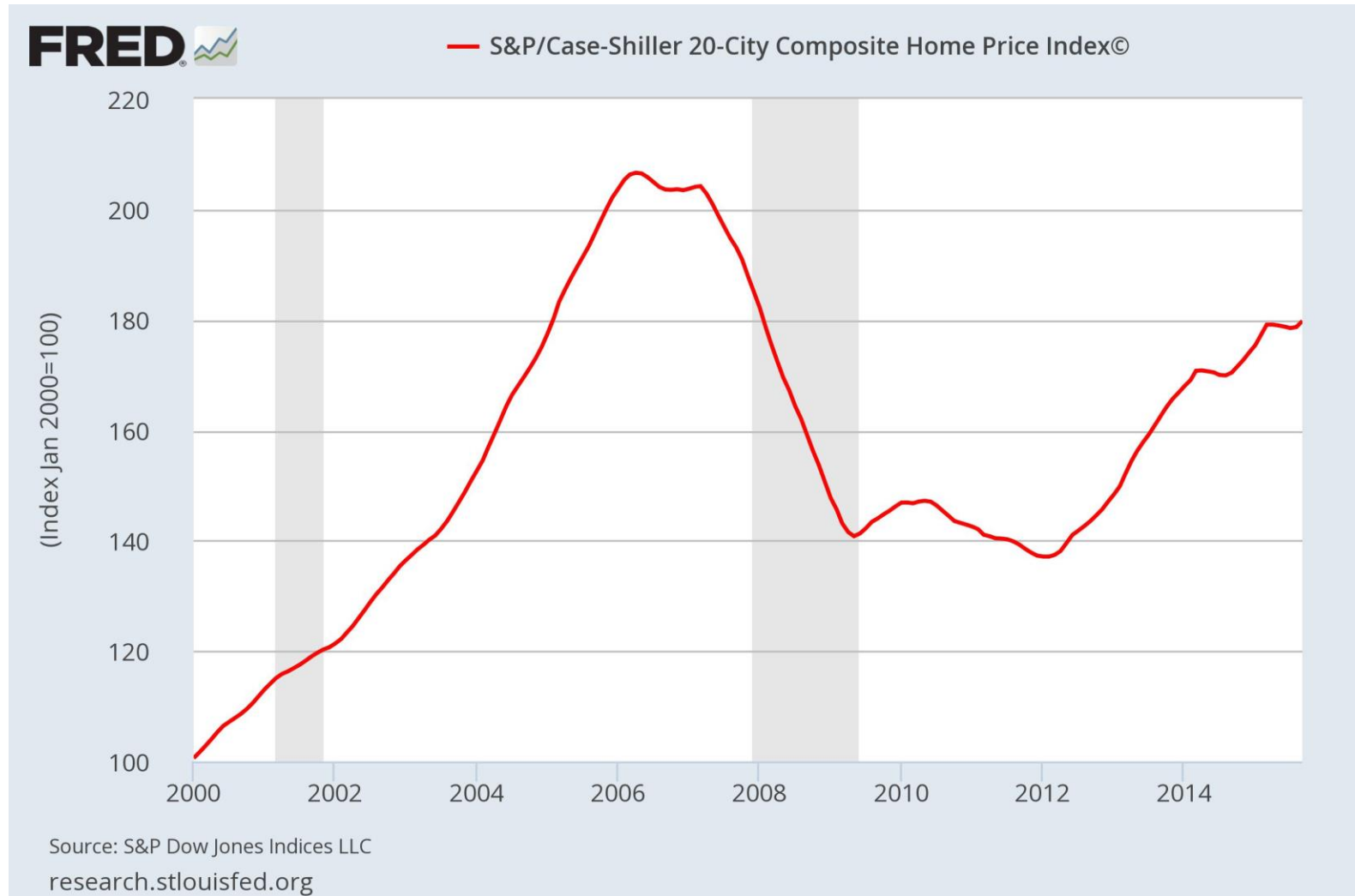




# Resulting real estate market conditions



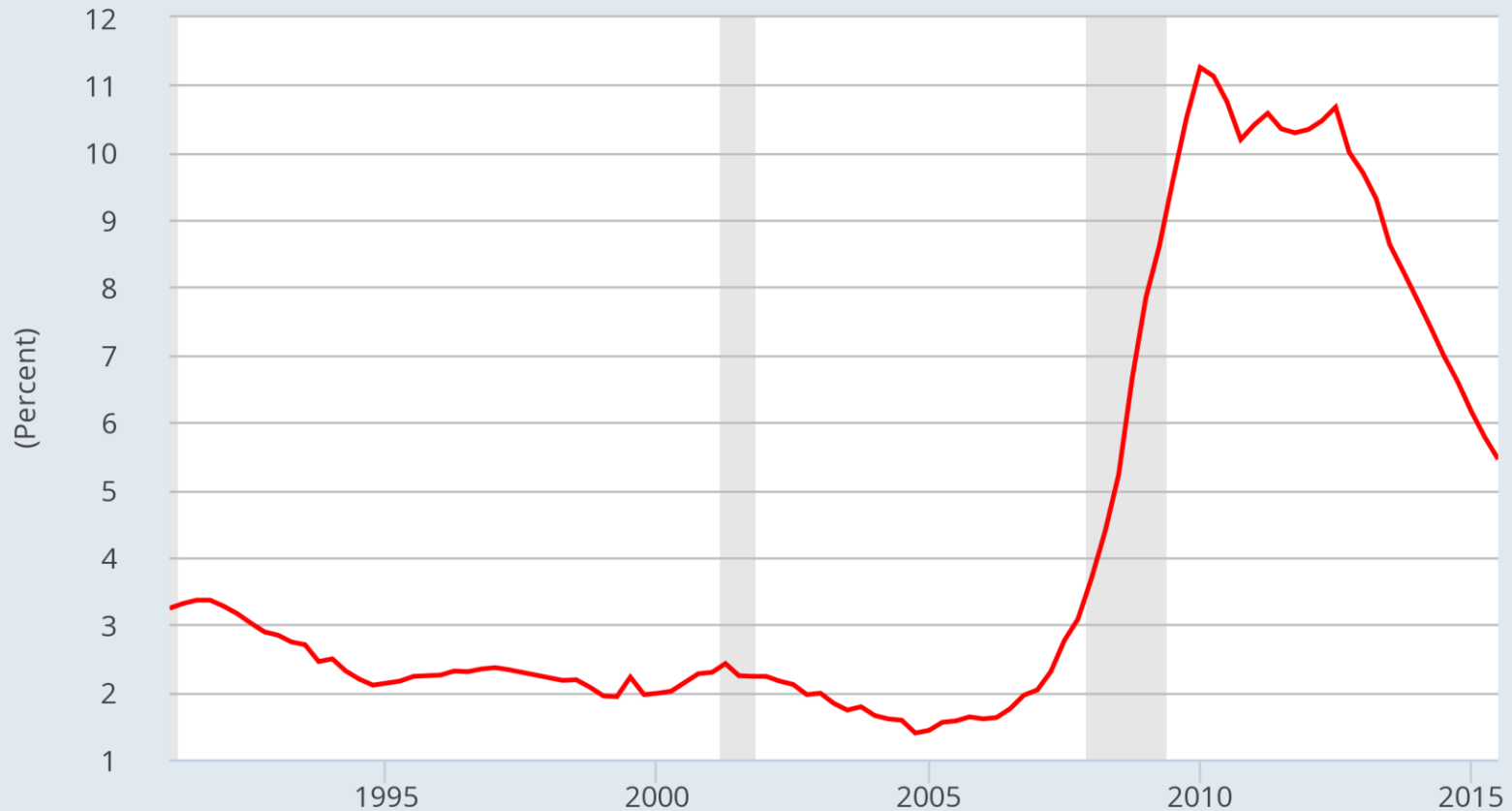
# House prices have resumed their ascent



# And residential delinquencies are clearly past their peak

**FRED** 

— Delinquency Rate On Single-Family Residential Mortgages, Booked In Domestic Offices, All Commercial Banks



Source: Board of Governors of the Federal Reserve System (US)  
[research.stlouisfed.org](https://research.stlouisfed.org)

# Residential building permits have resumed



**FRED**

— New Private Housing Units Authorized by Building Permits  
— New Private Housing Units Authorized by Building Permits - In Structures with 1 Unit



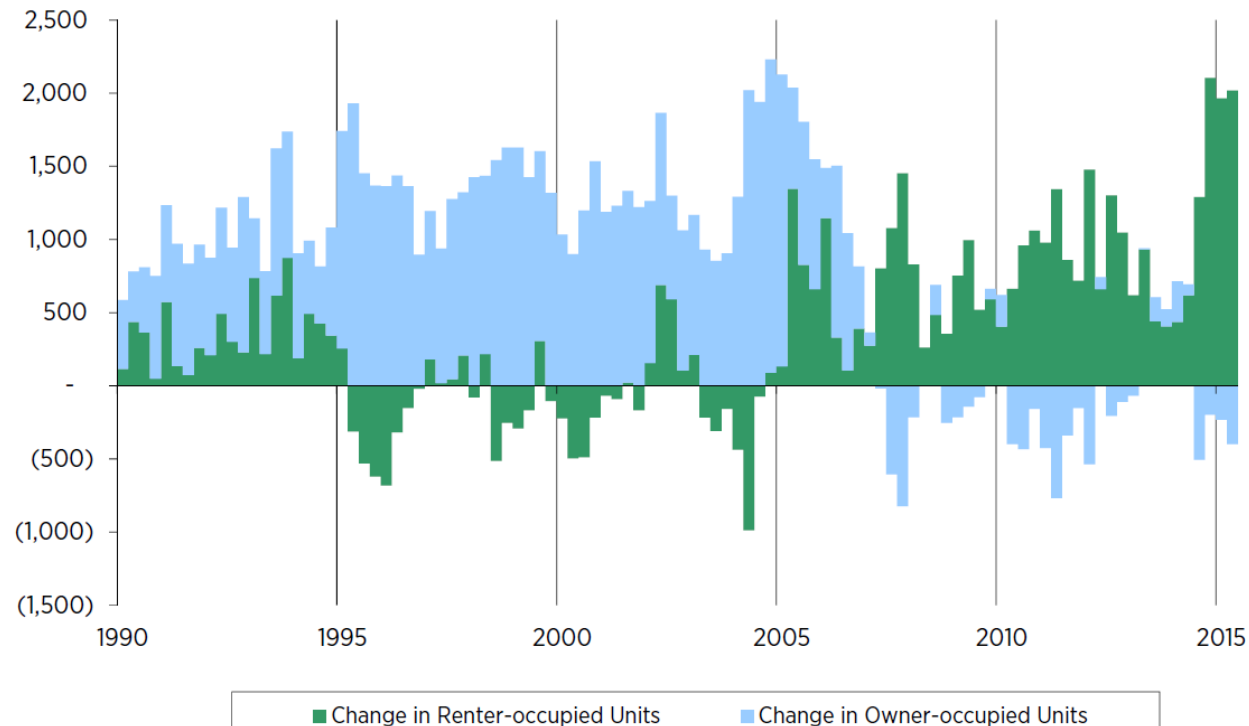
research.stlouisfed.org

# Though most new supply is in multifamily

## Change in Owner- and Renter-Occupied Housing Units

Thousands of Units

Year-over-year Change

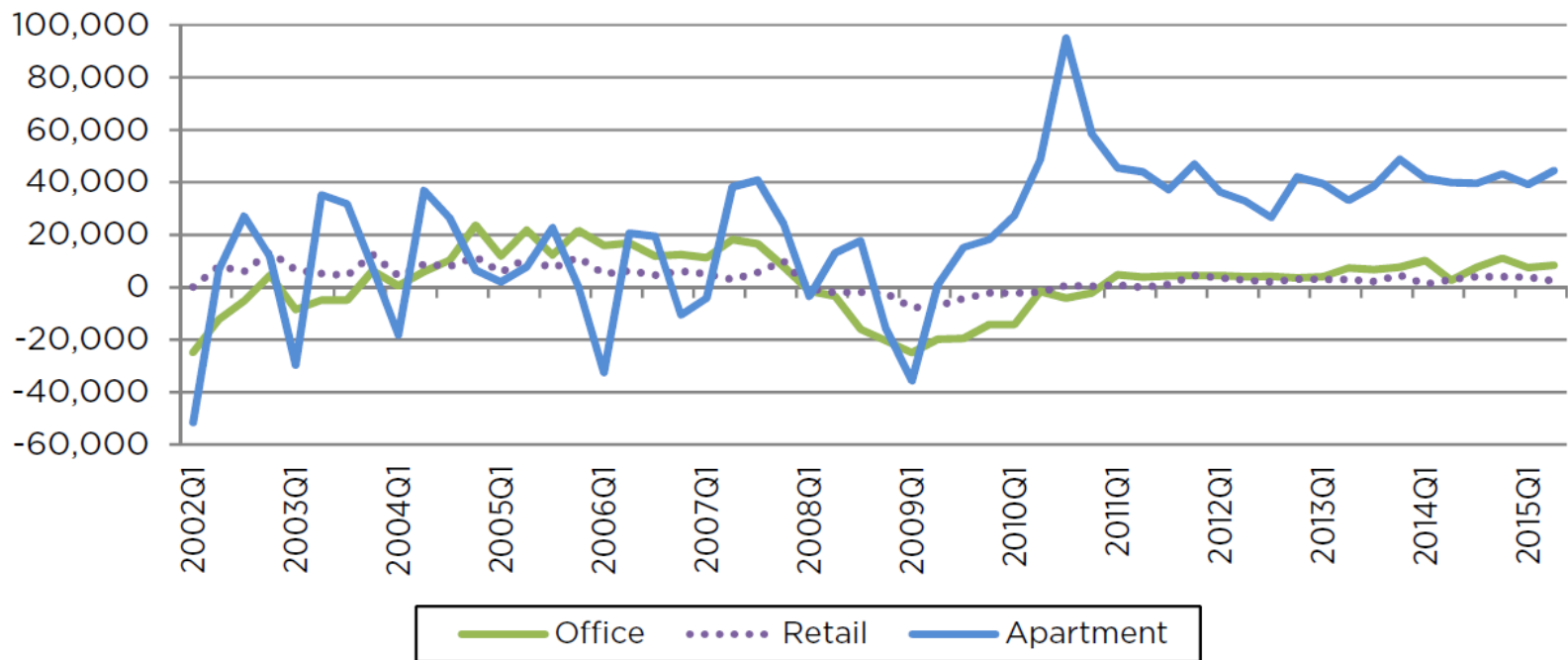


# Supported by high absorption rates



NET INVENTORY CHANGE/NET ABSORPTION  
COMMERCIAL/MULTIFAMILY PROPERTIES

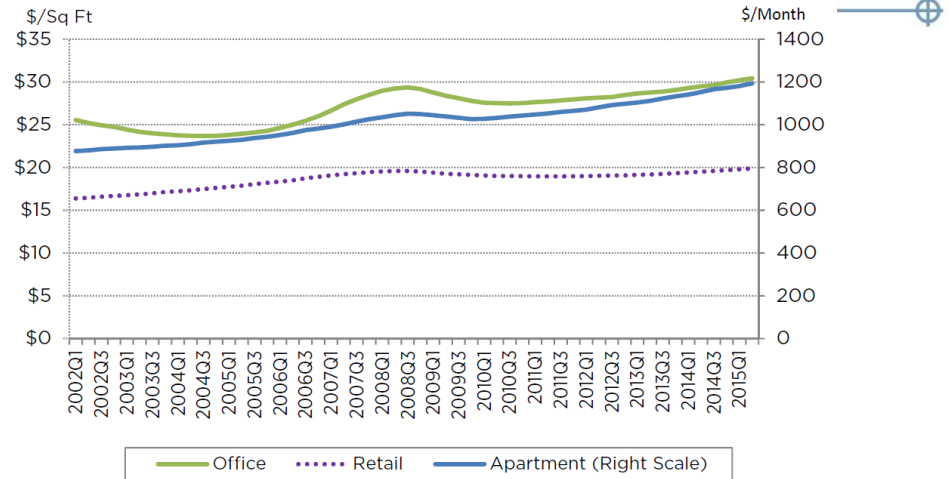
Net Absorption (Thousands of Square Feet)



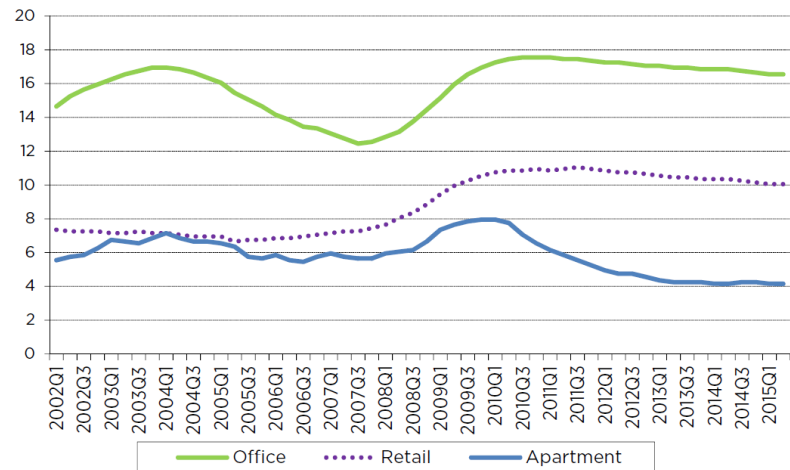
Multifamily and commercial rents and vacancy rates have resumed their recovery

# AVERAGE RENTS AND VACANCY RATES AT COMMERCIAL/MULTIFAMILY PROPERTIES

Average Rents



Average Vacancy Rates  
percent



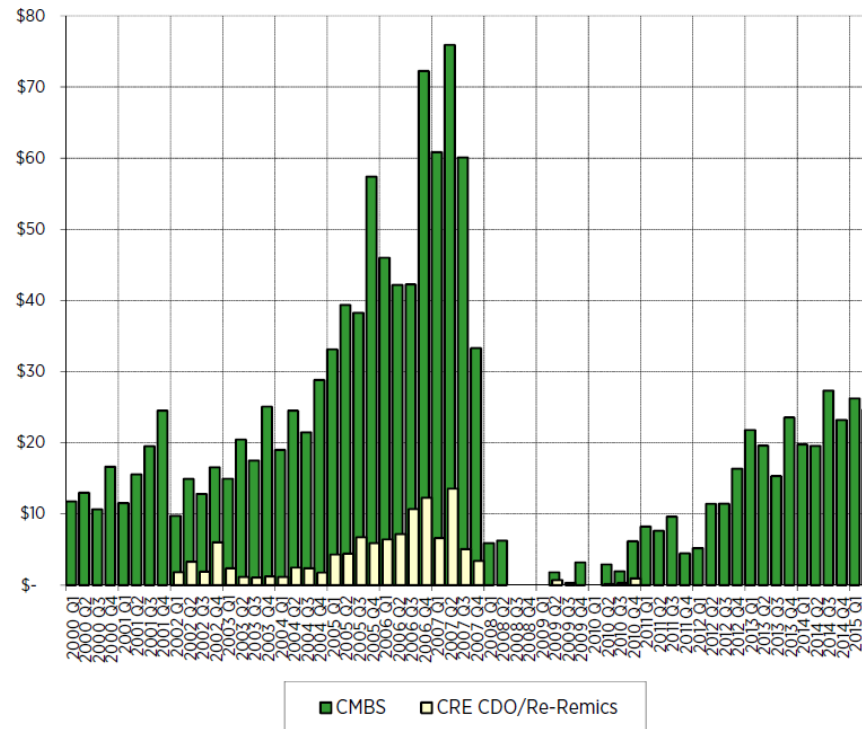
Source: REIS

# The CMBS market is back



QUARTERLY ISSUANCE OF  
COMMERCIAL MORTGAGE BACKED SECURITIES (CMBS) and  
COMMERCIAL REAL ESTATE COLLATERALIZED DEBT OBLIGATIONS (CDOs)

Billions of Dollars



Source: Commercial Real Estate Direct

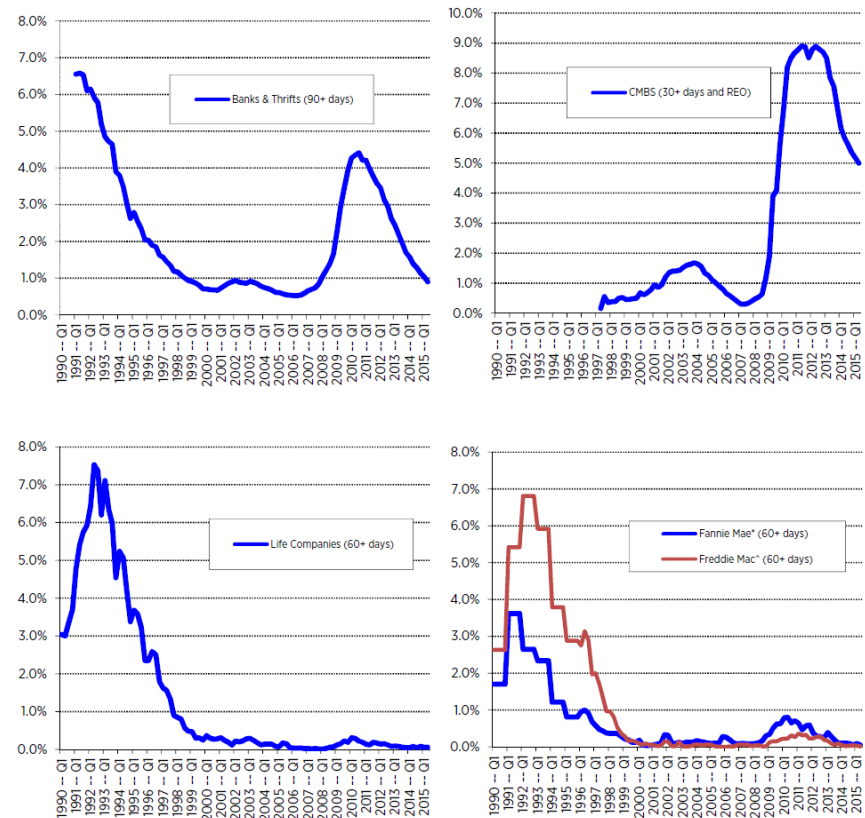
# Commercial and multifamily delinquencies are clearly on the decline

CHART 1. COMMERCIAL/MULTIFAMILY MORTGAGE DELINQUENCY RATES AMONG MAJOR INVESTOR GROUPS



Selected delinquency rates at the end of the period

NOTE: Delinquency rates shown are NOT comparable between investor groups. These rates show how performance of loans for each investor groups has varied over time, but cannot be used to compare one investor group to another.



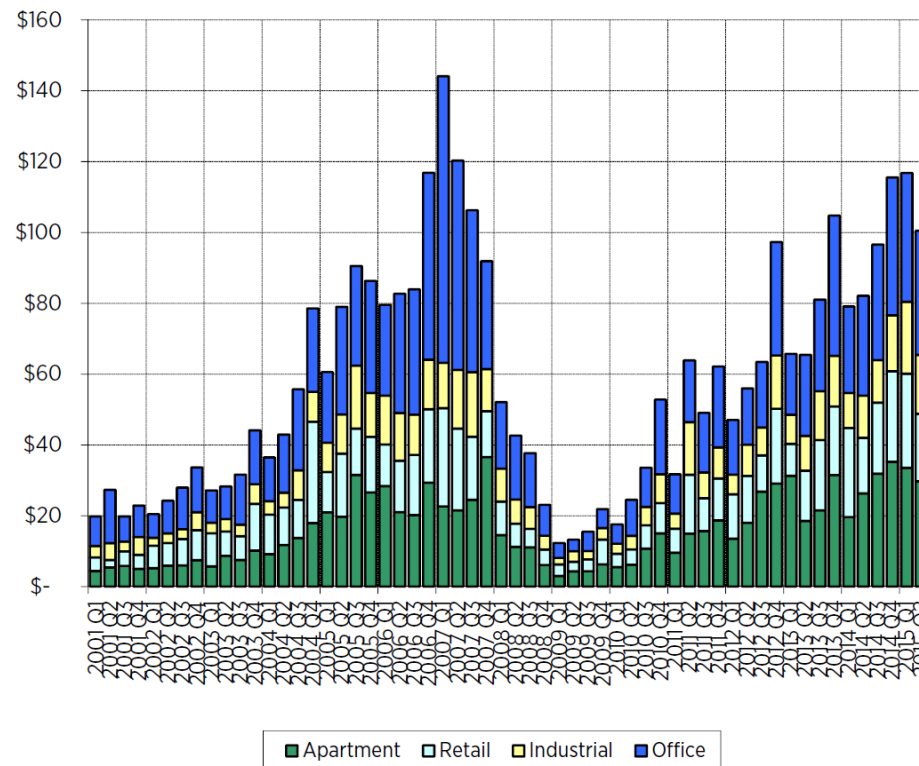


# And commercial property sales have resumed (is this good?)



## QUARTERLY SALES OF LARGER (\$2.5 MILLION+) COMMERCIAL/MULTIFAMILY PROPERTIES

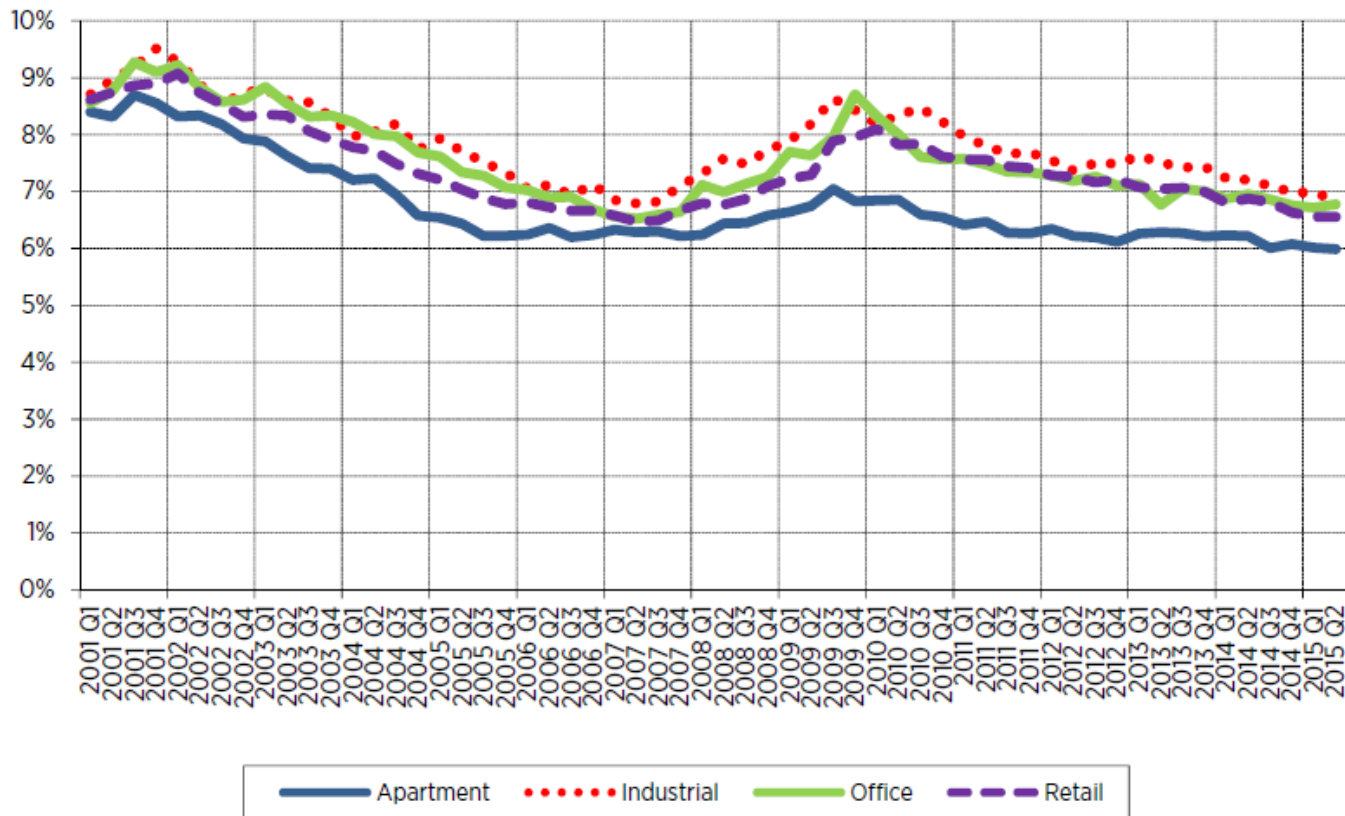
Billions of dollars, Properties and portfolios \$2.5 million and greater



Source: Real Capital Analytics.

# Cap rates are continuing their compression (though this is in its latter stages)

Capitalization rate



Source: Real Capital Analytics.

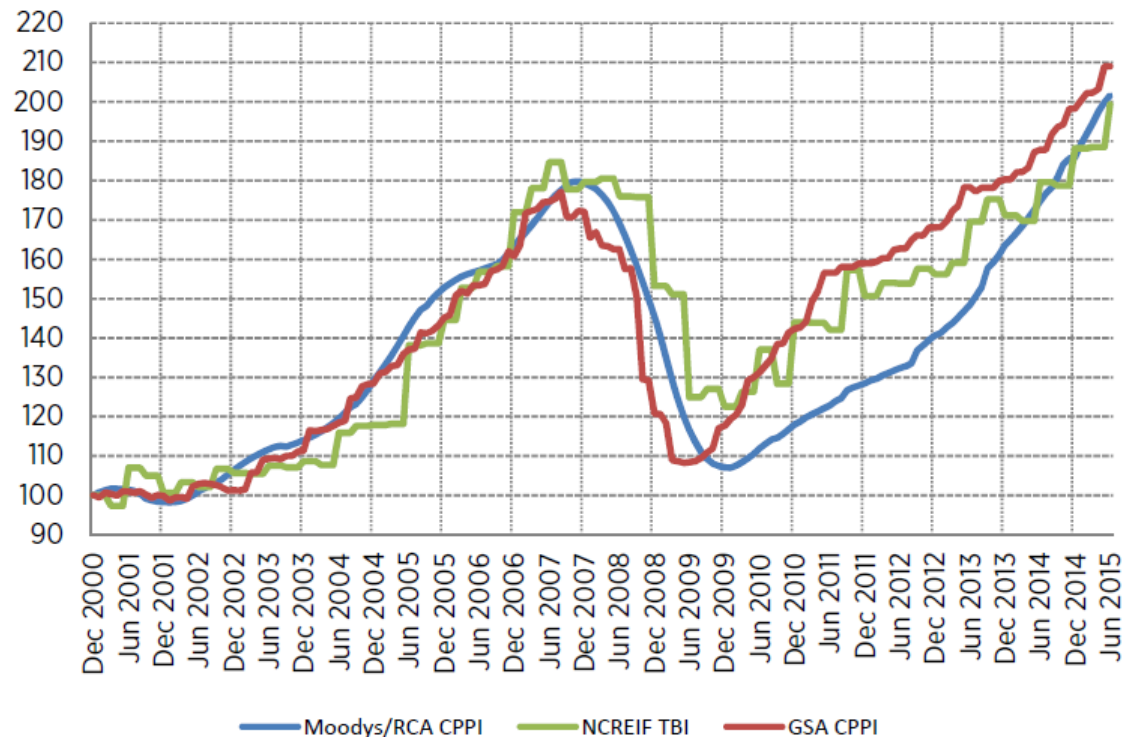
# Resulting in a clear recovery of commercial/ multifamily prices



## COMMERCIAL/MULTIFAMILY PROPERTY PRICES AS REFLECTED IN SELECTED INDICES

Re-Indexed Values of the Moody's/RCA CPPI,  
NCREIF Transaction Based Index, and Green Street Advisors CPPI

December 2000 = 100



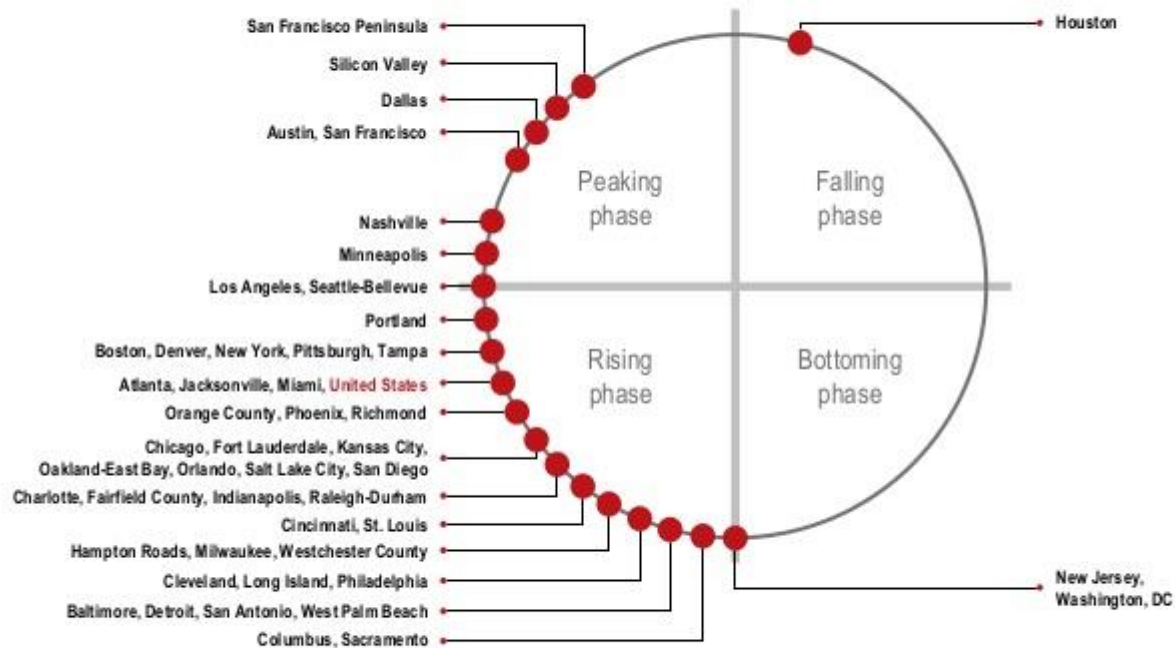


# What inning are we in?



# The office market is recovering/peaking (Houston?)

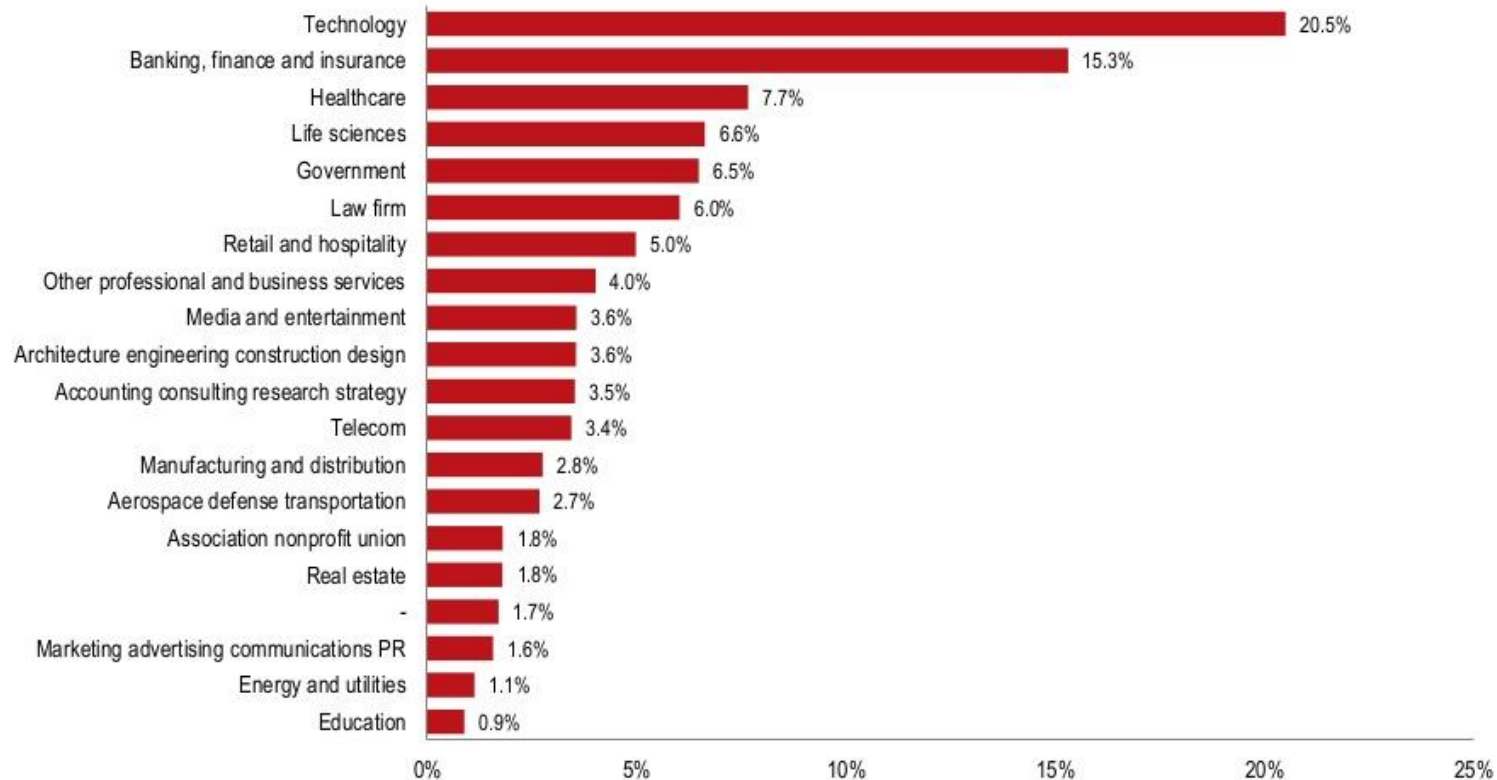
## Q3 2015 U.S. office clock



Source: JLL Research



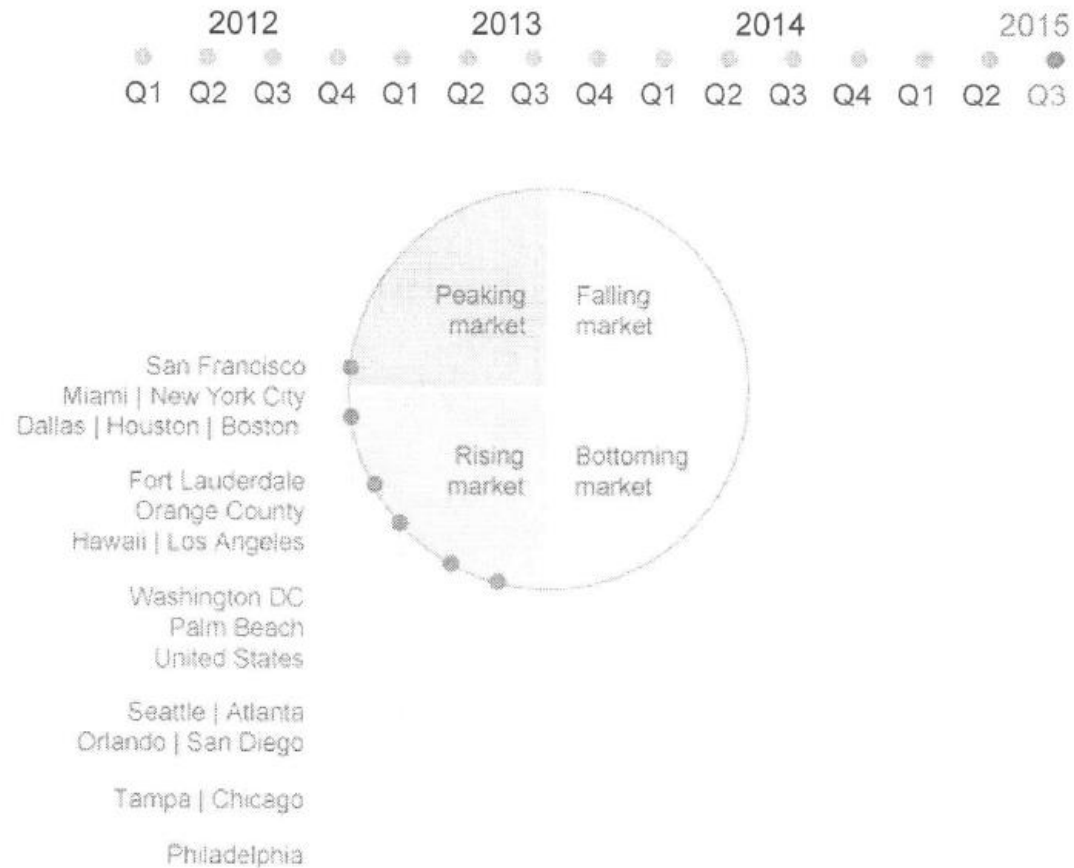
# Technology companies remain dominant players in the office leasing market in Q3 2015



Source: JLL Research

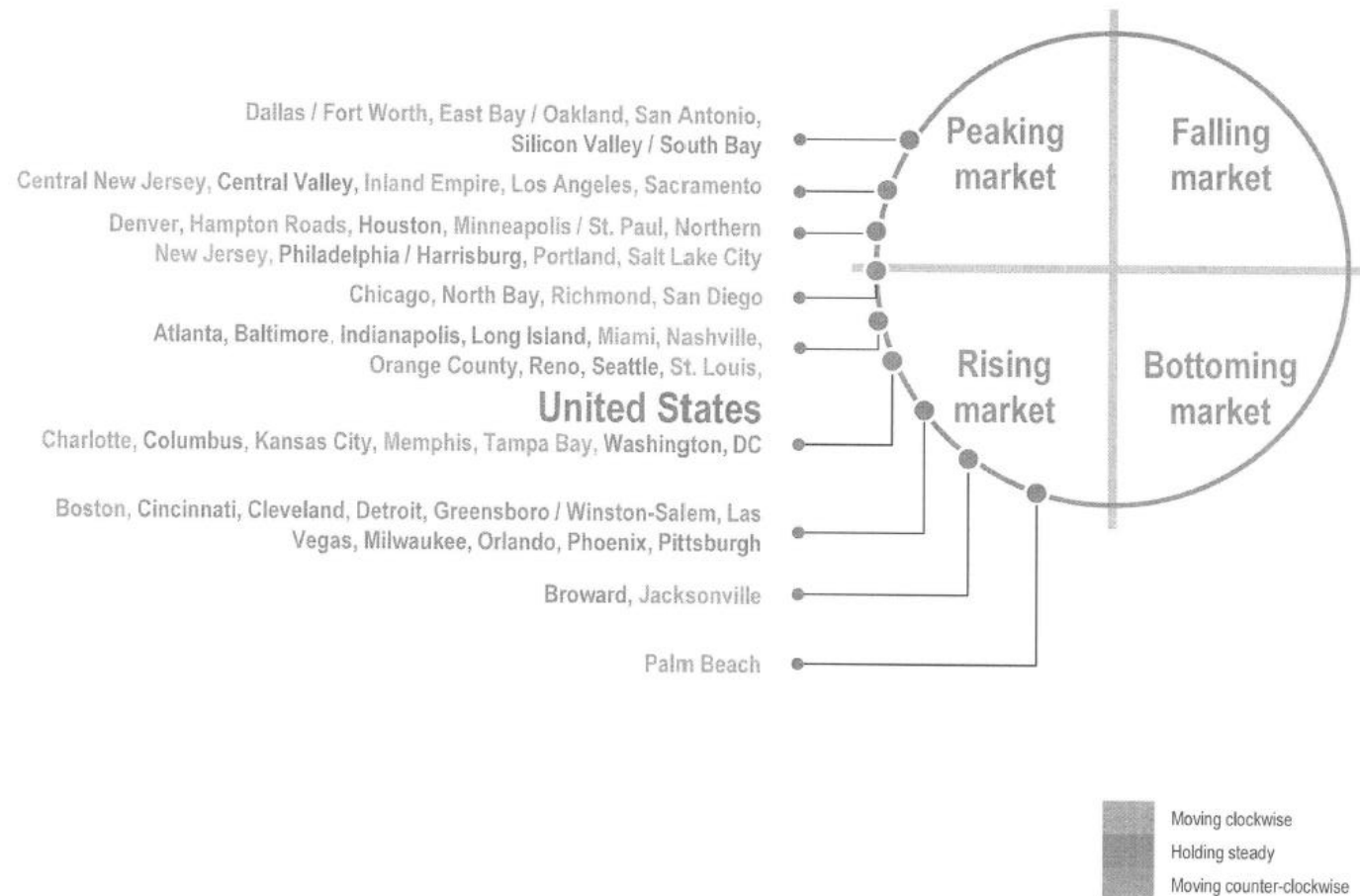


# Retail markets are in recovery



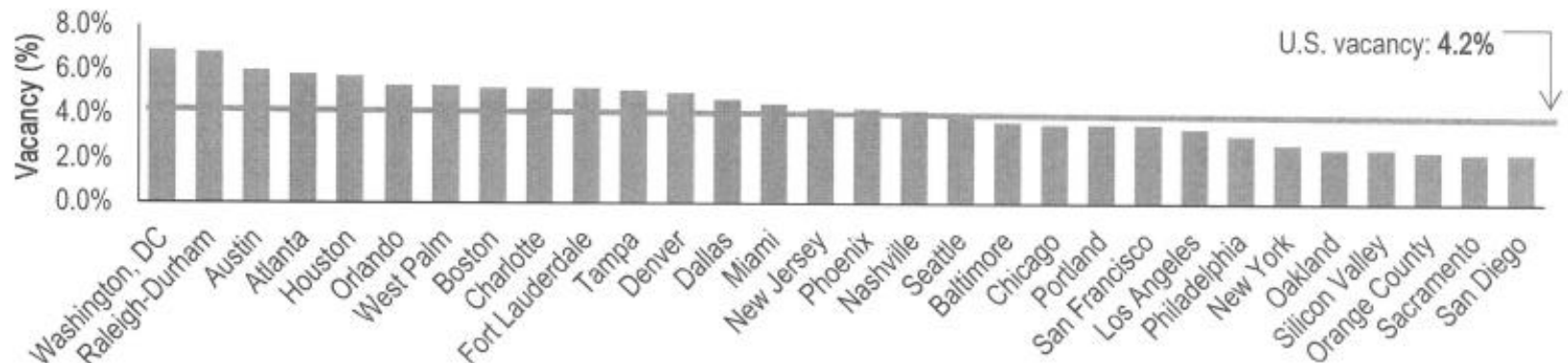


# The industrial market, while in recovery, is uneven





# The multifamily market is very tight



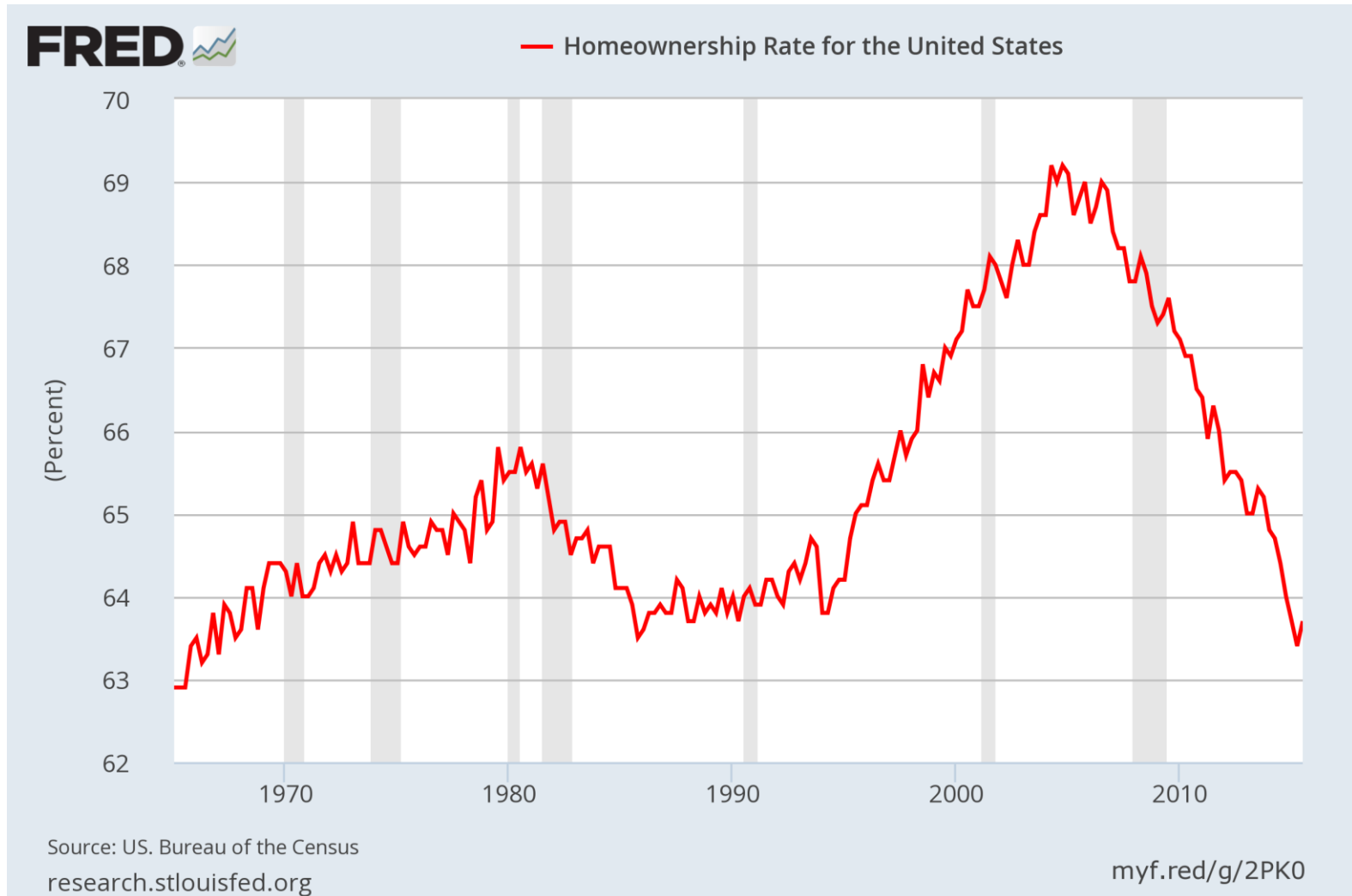
Source: JLI Research, Reis



# Are we becoming a nation of renters?



# How low will homeownership fall?





# The Office Market

Telecommuting, “hoteling”, and the  
“creative office”



# Will the office market shrink?

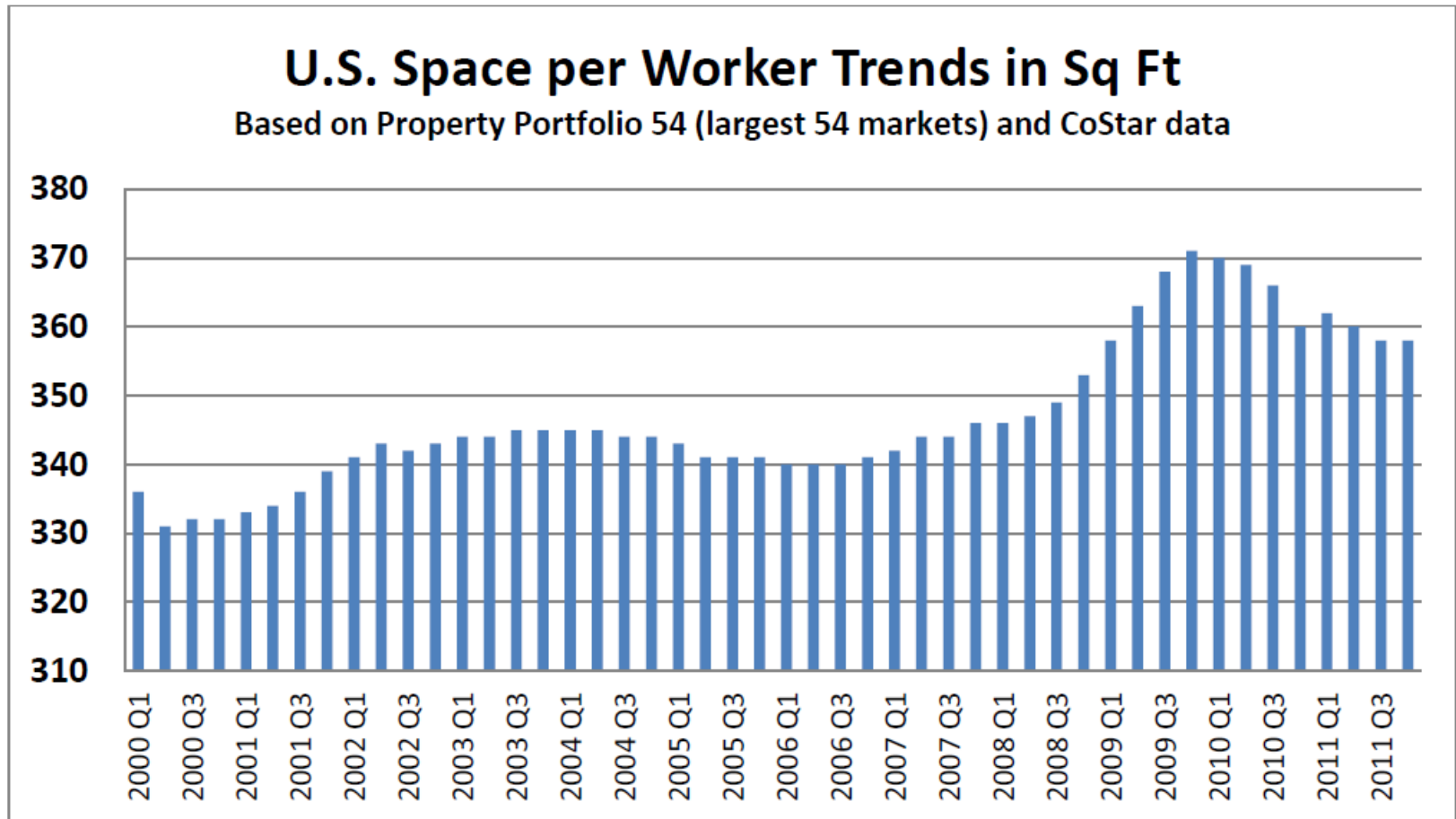
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“...Office space demand projected to drop significantly by 2017”

*CoreNet Global recently released a report showing that the average commercial real estate office space could drop to as low as 100 square feet per employee by 2017.*

# Space usage trends have certainly been down



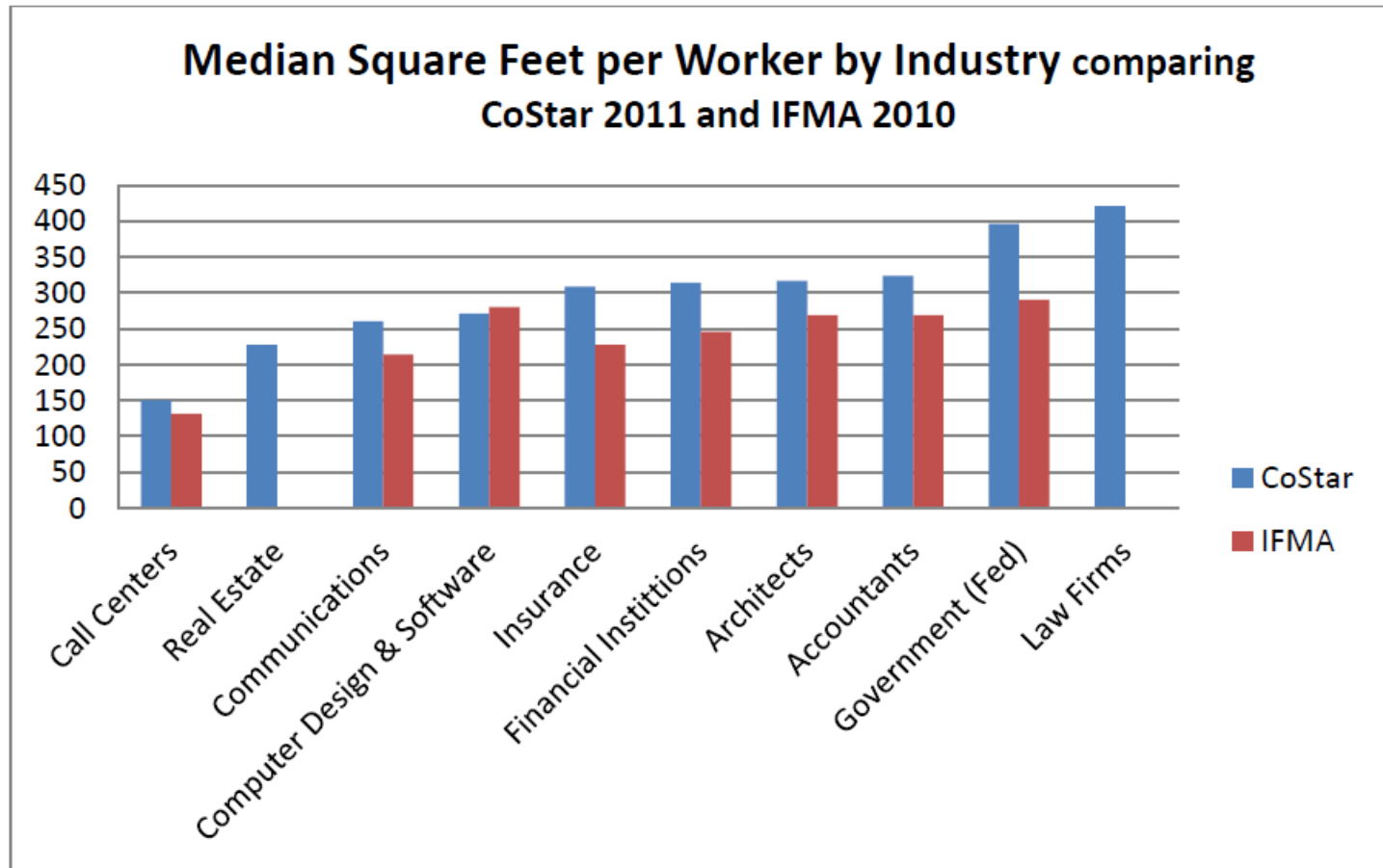
...but we also have Melissa Mayer:  
...You *will* come to work!

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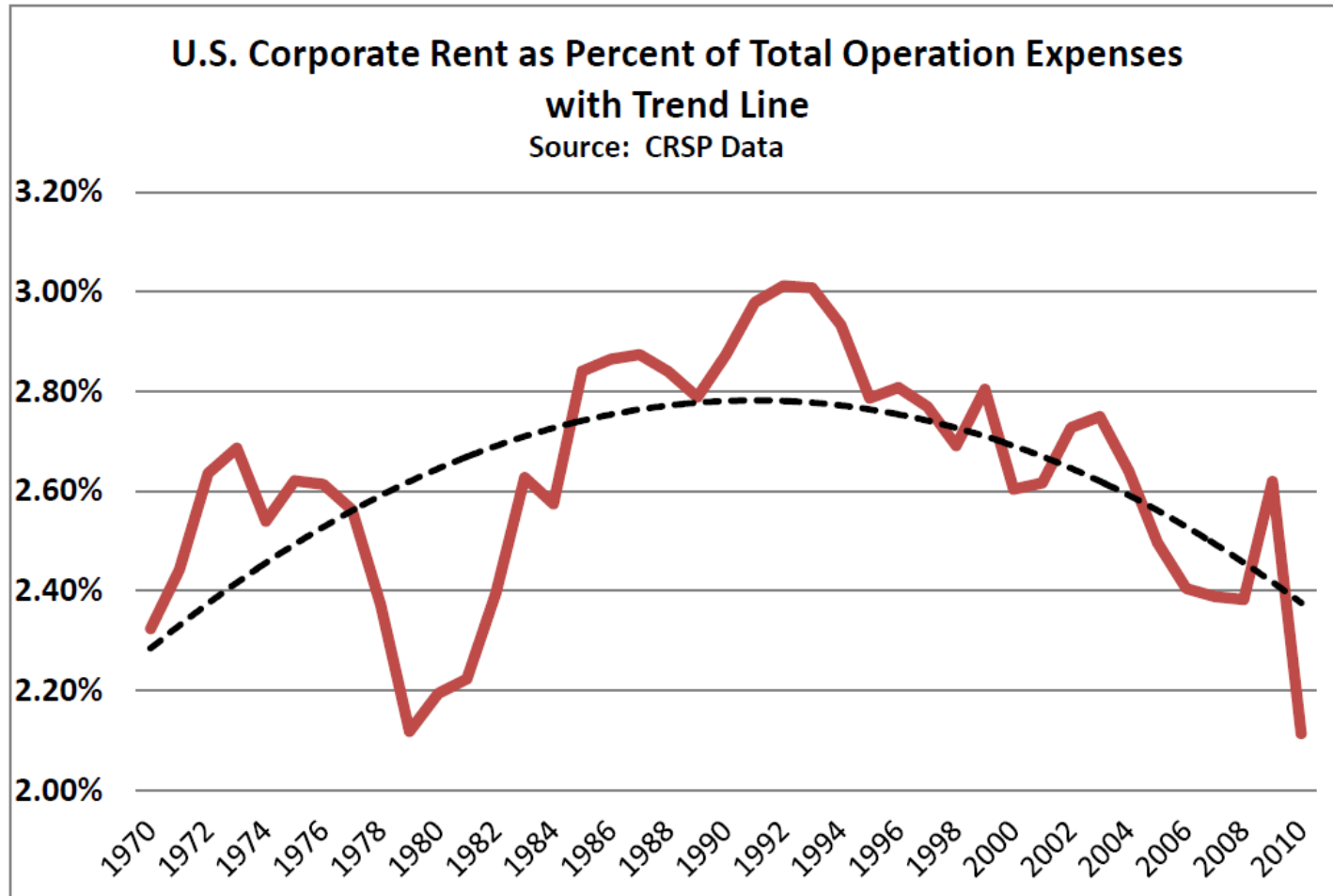


...and it depends upon the dominance of growth sectors

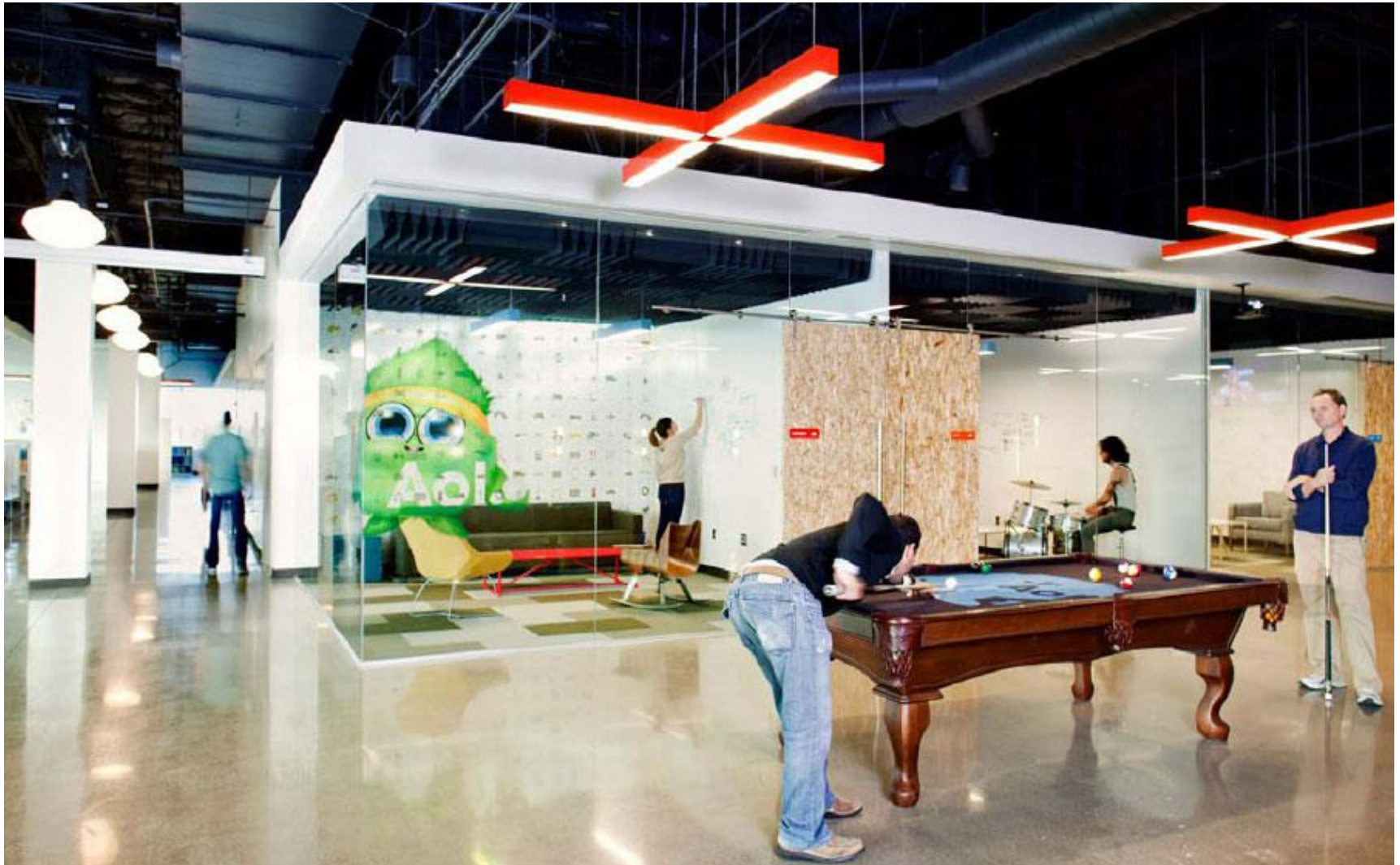




# ...and how dominant office expenses are



# Will “creative office” become the norm?



# Questioned by “Defensible space theory”

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- Oscar Newman (1972)
- Originally applied to residential
- Innate desire to control one’s own space

## .. and by “The Open Office Trap”

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- Maria Konnikova, *The New Yorker*, January 7, 2014
- Edward G. Brown, *Fortune*, January 27, 2015
- Hunter Stuart, *The Huffington Post*, February 12, 2015
- Etc.



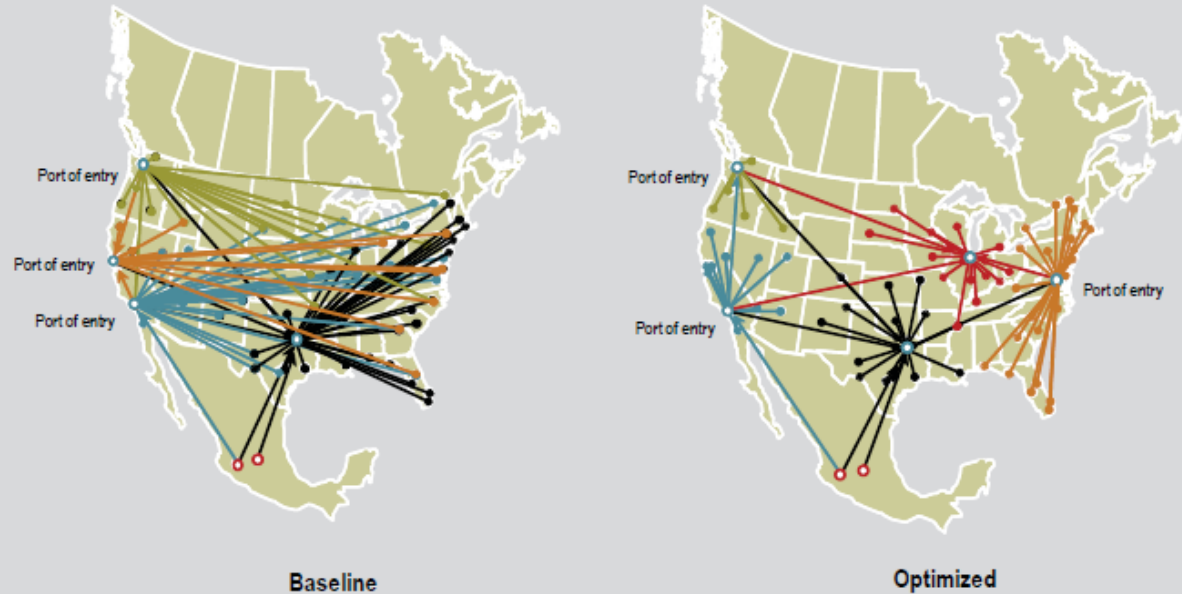
# The Industrial Market

Is bigger better?





# Fewer nodes...shorter spokes (and bigger floorplates)



## Case Study

Following a 25 percent increase in transportation costs, a \$1.5 billion global food company with more than 50 distribution centers/warehouses across the United States wanted to identify supply chain synergies across the company to drive cost reduction and service improvements. The company engaged our supply chain consulting and real estate implementation services team to re-evaluate their supply chain network. Utilizing network optimization modeling software, the team analyzed the cost and performance of the client's existing distribution network, then evaluated alternative operating models that would improve service at lower landed costs. Projected savings on freight, labor, inventory and real estate? More than \$25 million annually.

# What about ceiling heights?



## High and Low

L'Oreal SA, the big cosmetics firm, recently consolidated distribution from locations in Solon, Ohio, and Kentucky into a 650,000-square-foot facility in Streetsboro, Ohio, notes Joseph P. Ditchman Jr., SIOR, an industrial specialist in the Cleveland office of Colliers International.

What caught Ditchman's eye about the new facility was that ceiling height "was close to 40 feet." Building heights used to be in the 28- to 30-foot range, says Ditchman, but some warehouses are exceeding those numbers and are 35 to 40 feet in height.

The range of heights for distribution extends from 24 feet to 42 feet, says Gartner. "Once you get higher, you are dealing with the issue of floor flatness. If you get into 32- or 36-foot ceiling heights, you have to have that floor flat because if you are racking at the top, and if you are one eighth or one-quarter inch off, by the time you reach the top, of the stack, you might not be level enough for the fork lift to get into that pallet position."

Most industrial developers know when it comes to floors, there are degrees of "flatness," ranging from

"conventional" to "superflat." High-bay, narrow-aisle buildings with a stack height of 25 feet or more require superflat floors.

Height also affects the concrete mix of the building floor. "Since aisles are close together for racking, the shorter the turn radius for fork lifts must be and the higher the reach, the more rigid the fork lift tires must be" says L. Robert Boyd, SIOR, office specialist with Grubb & Ellis/Martens Commercial Group in Hutchinson, Kansas.

Forklifts on regular 4,000 lb concrete, without any additives or special surface treatment, will eventually erode the wearing surface, which exposes the concrete to further erosion. For the new, taller buildings, the concrete mix must have synthetic plasticizers added to the top two to three inches with additional hardening agents in the surface to make the concrete resistant to any erosion. The total floor thickness must be six to seven inches with heavy steel reinforcing in the slab.

... *Steve Bergsman*



# The Retail Market

Will e-commerce destroy the mall...  
and Walmart?



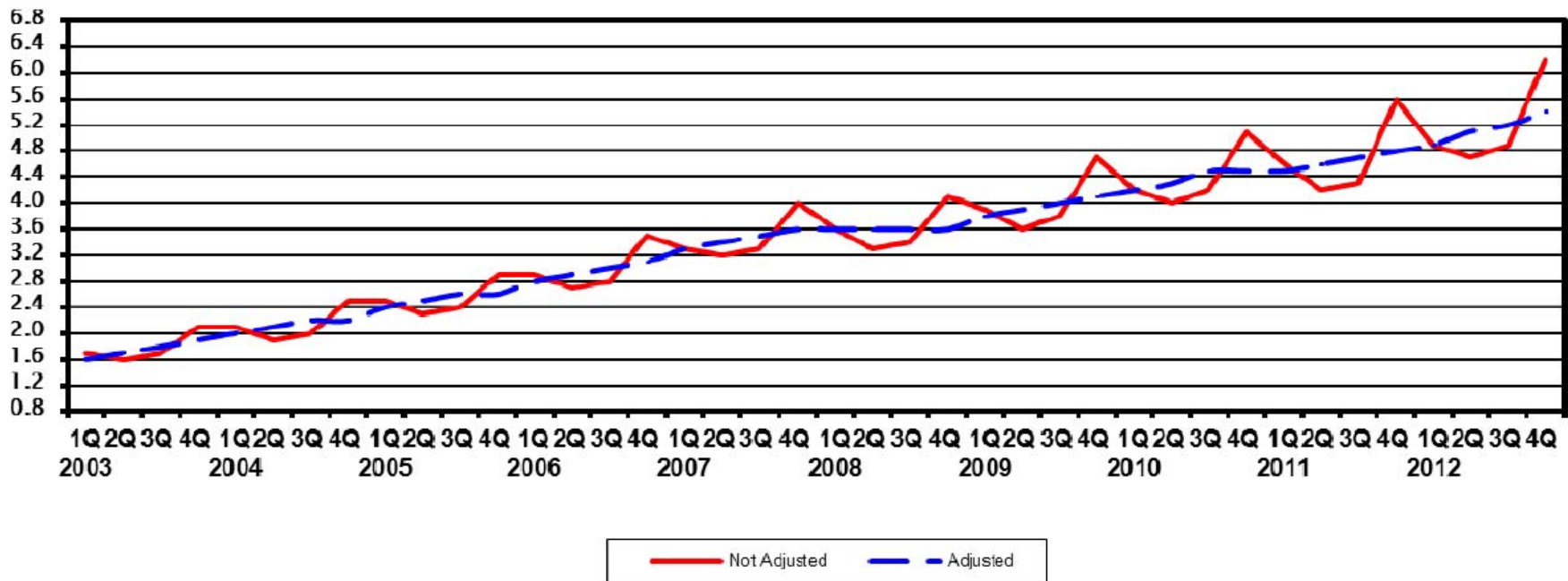


# E-commerce is increasing its market penetration (but at a slower rate... and at low levels? A minor threat?)

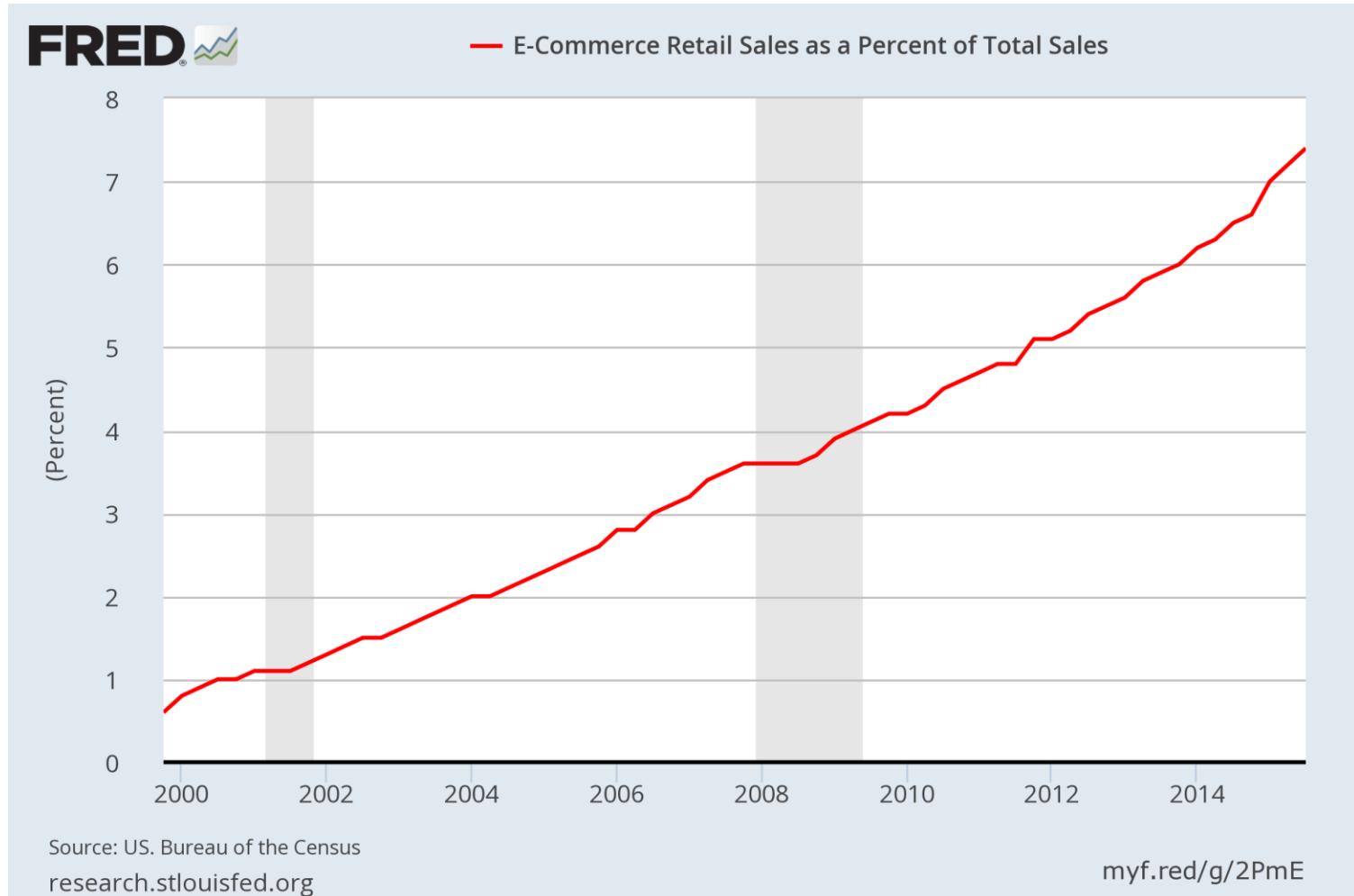


Estimated Quarterly U.S. Retail E-commerce Sales as a Percent of Total Quarterly Retail Sales:  
1<sup>st</sup> Quarter 2003 – 4<sup>th</sup> Quarter 2012

Percent of Total



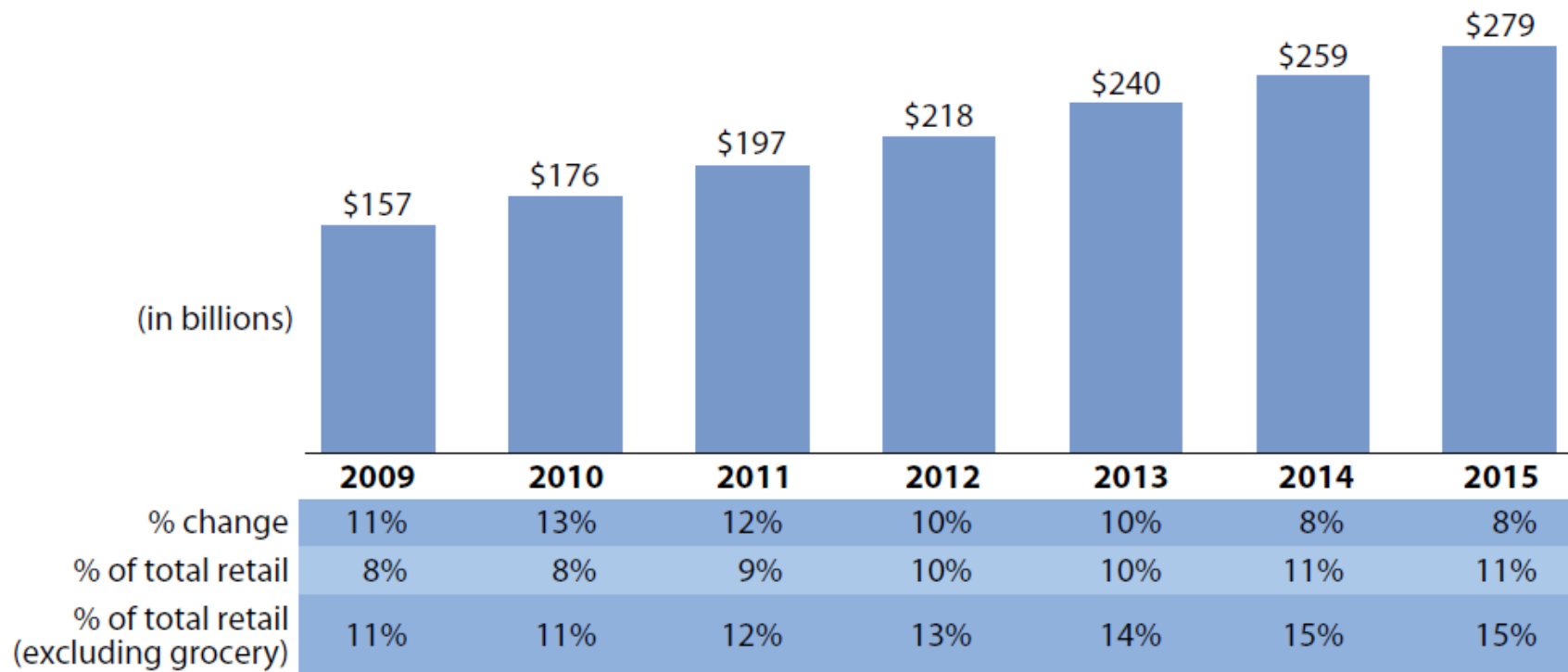
# The most recent Federal Government data says e-commerce is at 7.4% and rising



# ...is it such a minor threat to Main Street?



**Figure 1** Forecast: US Online Retail Forecast, 2010 To 2015



Source: Forrester Research Online Retail Forecast, 2010 To 2015 (US)

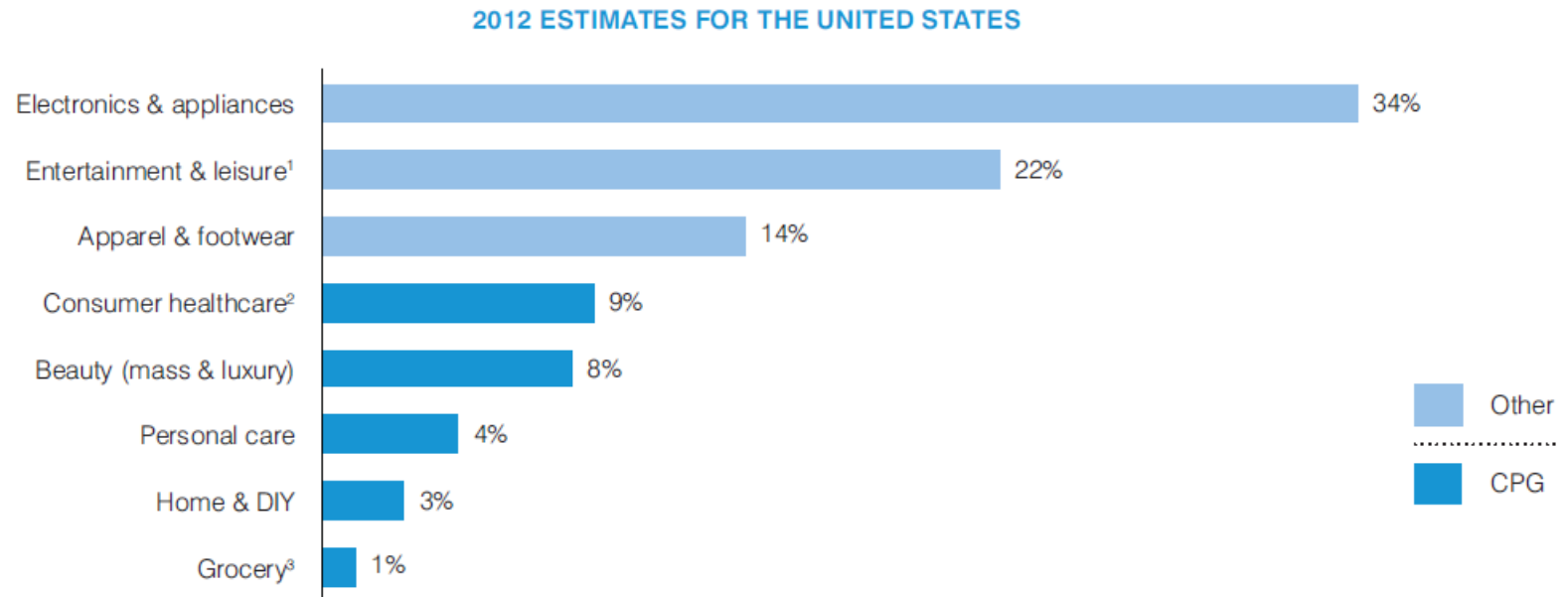
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Source: Forrester Research, Inc.

# Penetration varies significantly by product line



*Exhibit 1*  
*E-Commerce Penetration by Category*



<sup>1</sup> Includes books, music CDs, hobby goods, etc.

<sup>2</sup> Does not include prescription drugs.

<sup>3</sup> Includes cleaning/household supplies, packaged food, produce, and beverages (including alcoholic beverages).

Source: U.S. Department of Commerce; Euromonitor; Datamonitor; Forrester; eMarketer; Gartner; Morgan Stanley; Booz & Company analysis

# ...More evidence

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## **US e-commerce penetration:**

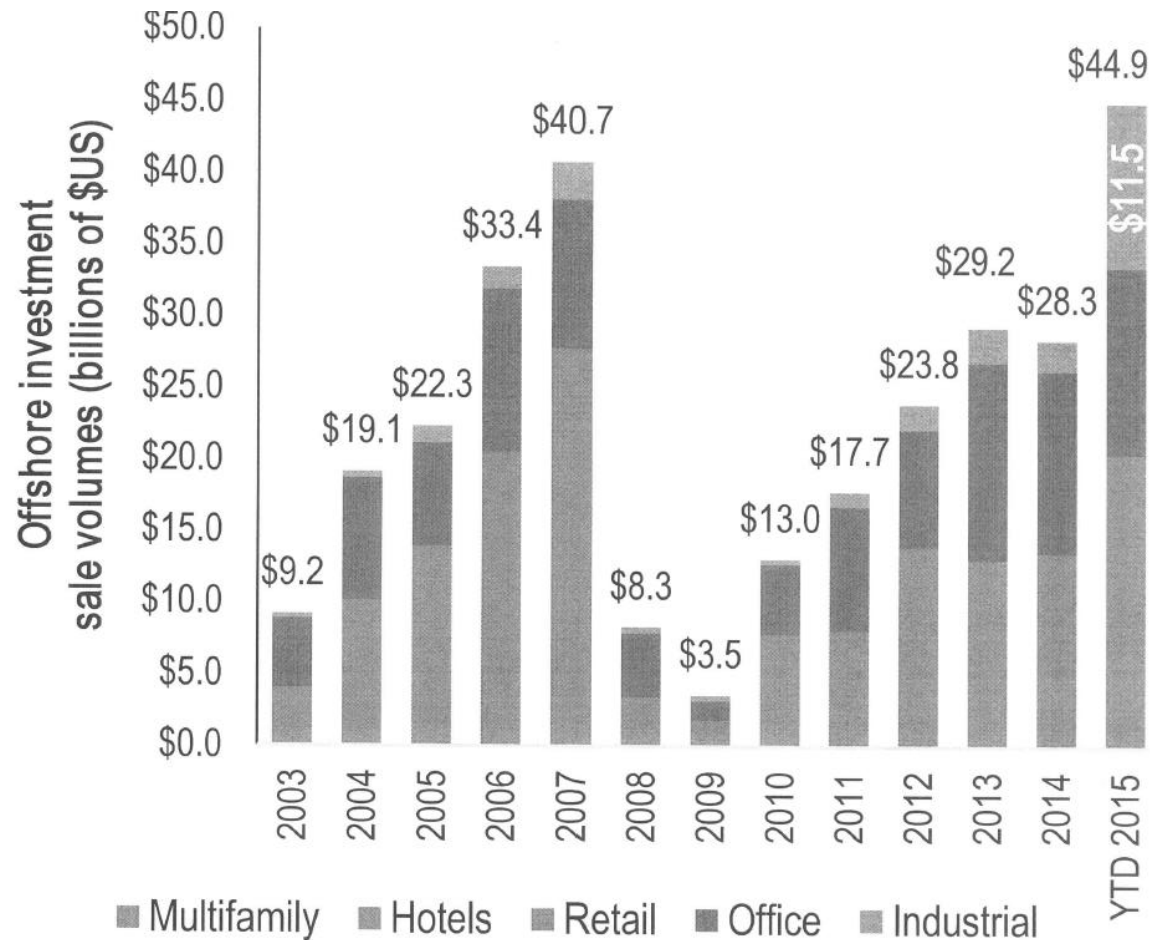
- computer products (45%),
- music/video (24%),
- toys/video games (19%),
- consumer electronics (18%),
- movie tickets (10%),
- books (24%),
- office supplies (13%),
- home furnishings (9%),
- appliances/tools (5%),
- auto/auto parts (2%)



# Global capital flows and the emergence of China



# Offshore investment in US commercial real estate is at record volumes



Source: JLL Research, Real Capital Analytics (Transactions larger than \$5.0m)

# The Chinese have overtaken Canada as the top buyers of US real estate



## Sales of U.S. Real Estate to Foreign Buyers

By country of origin



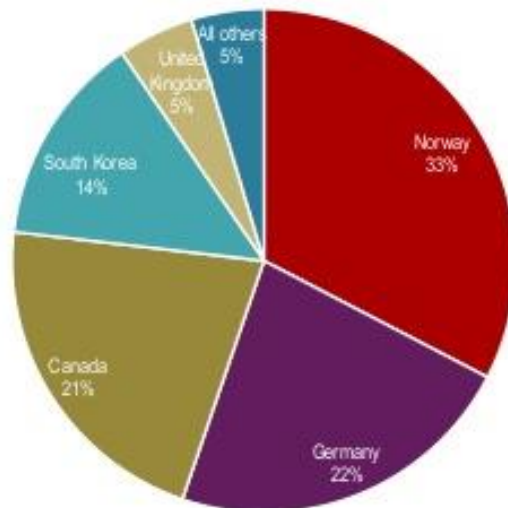


# China has surged in US office investment

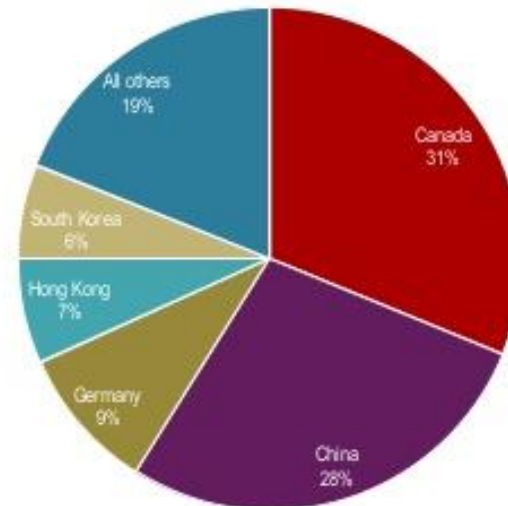
## Canada leading inbound investment, followed by Asian groups

Asian capital continues to increase exposure to U.S. office product, comprising three of the five most active foreign office investors and 43.5 percent of inbound capital year-to-date

Foreign investment activity (2014)



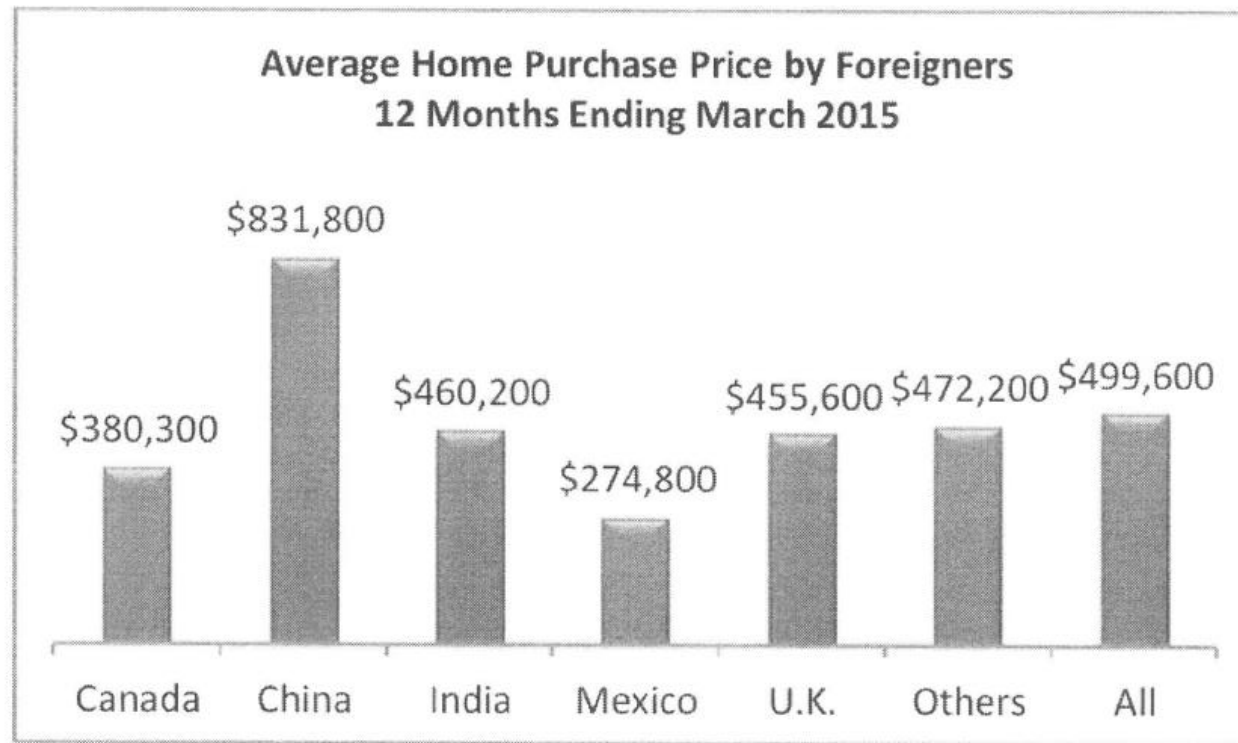
Foreign investment activity (2015 YTD)



Source: JLL Research (Assets larger than 50,000 s.f.)



# Chinese homebuyers in the US are buying at the higher end



National Realtors Association

# O.C. home project is planned

[Landsea, from C1] project is expected to be finished in four years, Ho said.

Landsea is also planning a Simi Valley community, where its latest proposal to the city is for about 180 homes, most of which would be detached single-family houses. In Dublin, Calif., where sales have started for a community with 109 town homes priced from the mid-\$600,000s, nearly a third are already spoken for, Ho said.

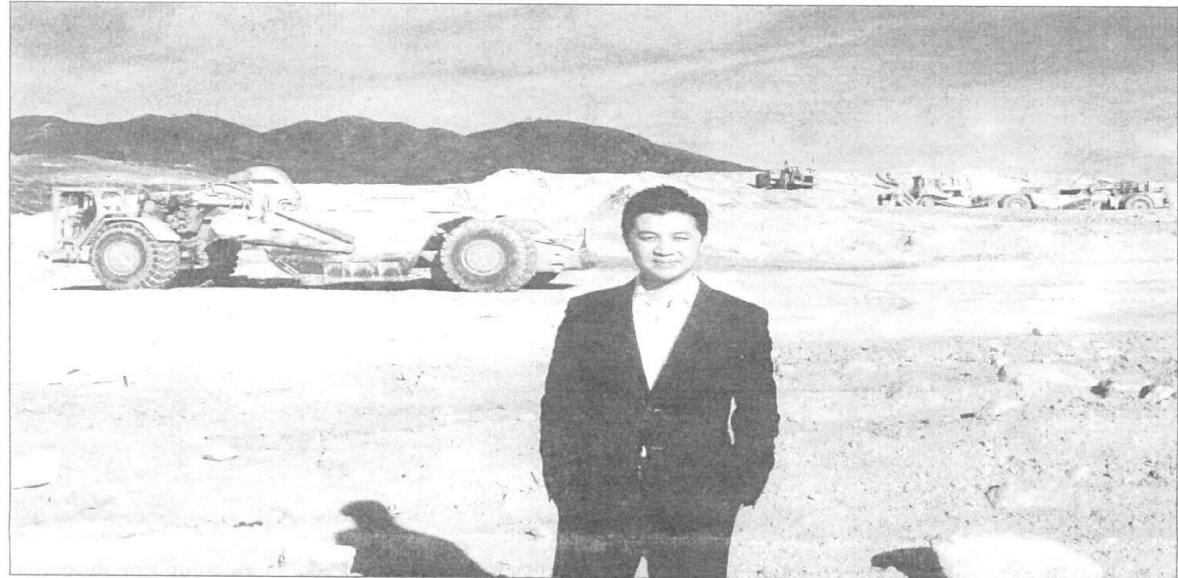
The company, which has more urban projects in New Jersey and Boston, also does limited marketing to Chinese buyers overseas.

Founded in 2001 in Nanjing, Landsea builds about 12,000 homes a year in mainland China. Last year, the company announced its arrival in the United States with a celebration at the Millennium Biltmore Hotel downtown and a pledge to plow \$1 billion into the U.S. housing market.

The announcement marked one of the first entries by Chinese developers into the vast U.S. single-family-home industry. It drew attention because Chinese development firms have largely focused on big mixed-use projects in urban centers, such as Greenland Group's \$1-billion Metropolis development in downtown Los Angeles.

Landsea's expansion, meanwhile, comes amid questions about China's economy and whether the slowdown there will curb investment in U.S. real estate. In late summer, fears about slowing growth abroad spooked U.S. investors and sent the stock market tumbling.

But so far there's been no evidence of a pullback from Chinese firms, said Mike Margolis, an attorney who works with Chinese developers. He said companies



**JOHN HO**, CEO of Landsea's U.S. subsidiary, stands at the Lake Forest site where the Chinese home builder plans to develop a 550-home community. The project is part of a larger community called Portola Center.

ALLEN J. SCHABEN Los Angeles Times

are executing "carefully designed" plans to diversify their assets, ones not easily derailed by events overseas.

"The outlook is positive," Margolis said. "Nothing that has been reported about the Chinese economy has diminished that optimism and projection of growth in the U.S."

Thilo Hanemann, an economist with the Rhodium Group, a research firm that tracks Chinese investment, said the slowdown abroad probably means more, not less, investment as companies increasingly look for more safety and better returns.

Since 2013, there has been nearly \$3 billion worth of Chinese capital investment in California real estate, ac-

cording to Rhodium. Those figures would account for residential developments such as Landsea's, but not for Chinese nationals who are buying homes in places like the San Gabriel Valley, Hanemann said.

"The slowdown in the Chinese economy further reinforces the motive to diversify assets globally," he said.

Indeed, that's a major reason Landsea came to the United States. Unlike China's previous real estate run-up, the current improvement in the U.S. market is sustainable, Ho said.

"We knew the economy would slow down, and we wanted to find other opportunities in the global market to expand," he said.

Home sales have been on the rise this year, and price increases have eased to a 5% level that most economists say is more sustainable than the double-digit gains seen in previous years. Last month, the Southern California median price rose 5.6% from a year earlier to \$435,000.

Some economists expect price gains to slow further next year because too few families can afford today's prices.

Ho said the Southern California market has a solid future, given strong job growth and its status as a global market that's more affordable than San Francisco and New York City.

The company's focus will be on a U.S. clientele — not

what Ho called the trend of Chinese buyers from overseas — to allow for long-term, sustainable growth (although the company does expect a good number of Chinese buyers given its domestic name recognition).

With that goal in mind, Landsea recently moved its U.S. headquarters from Pasadena to Irvine to more easily recruit talent in the home-building industry hub of Orange County.

"This is not 'Let's do one project and leave,'" Ho said. "It's 'Let's do multiple projects and let's invest for the future.'"

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# Some emerging new product lines for your consideration:

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- Single family homes
- Government office buildings and other real assets
- Infrastructure
- Billboards (yes...billboards)
- Offshore
- On the debt side...CMBS and RMBS non-agency super seniors (a bit late?)