

2020 Real Estate Forecast

KEYNOTE



MARK EPPLI

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LOCAL RESPONSE PANEL



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2020 REAL ESTATE FORECAST: **NATIONAL OUTLOOK**



MARK EPPLI

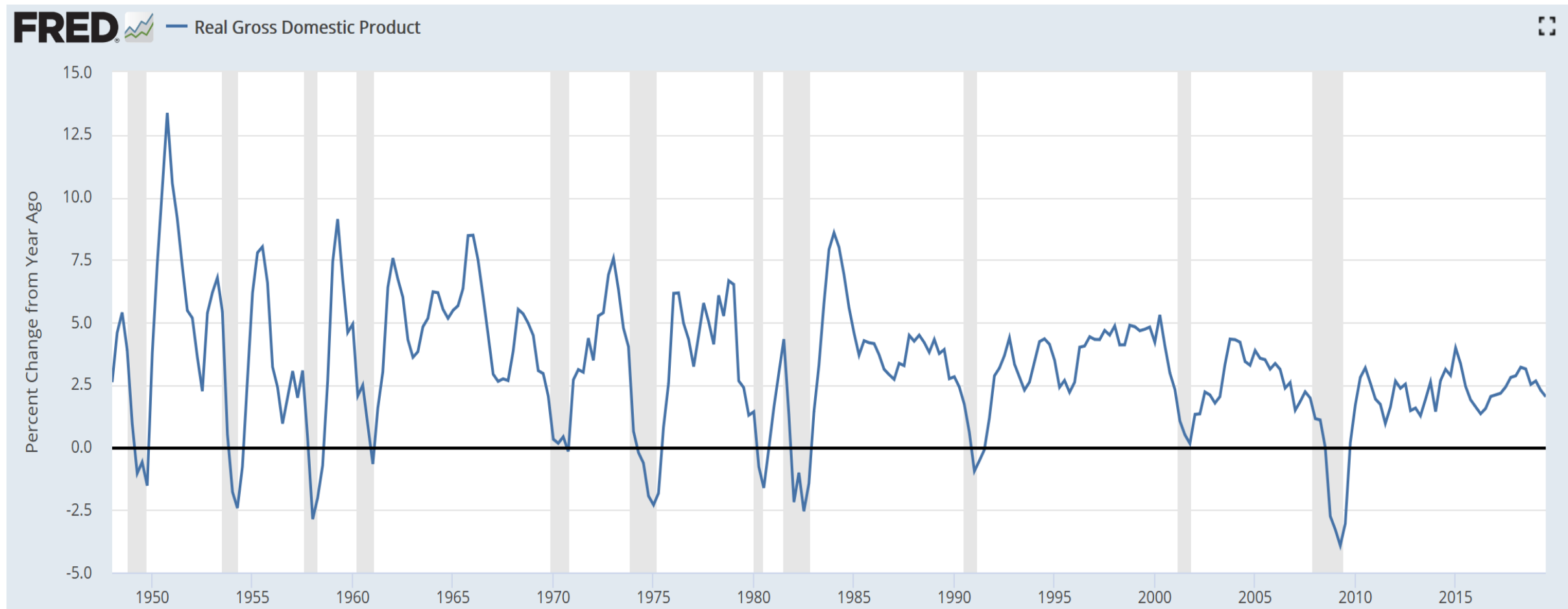
DIRECTOR & FACULTY ASSOCIATE

**JAMES A. GRAASKAMP CENTER
UNIVERSITY OF WISCONSIN-MADISON**

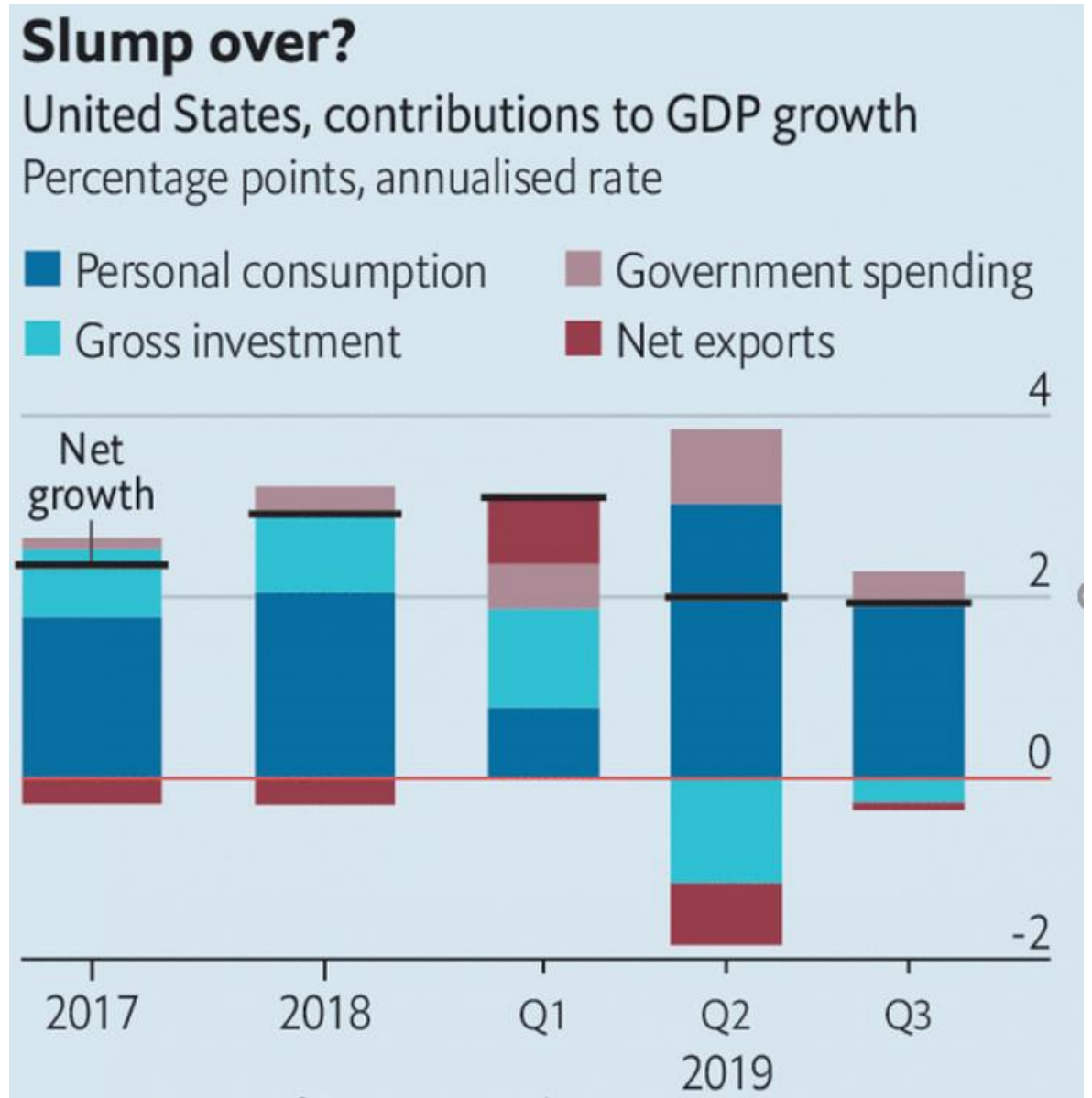
2020 “Perfect Vision” Real Estate Forecast

- I. GDP
 - A. Business Investment
 - B. Consumer Spending
- II. The Federal Reserve’s Decision
 - A. The Phillips Curve
 - B. Other Metrics
- III. Capital Market
 - A. Equity Markets and Property Returns
 - B. Debt Markets
- IV. Property Type Performance

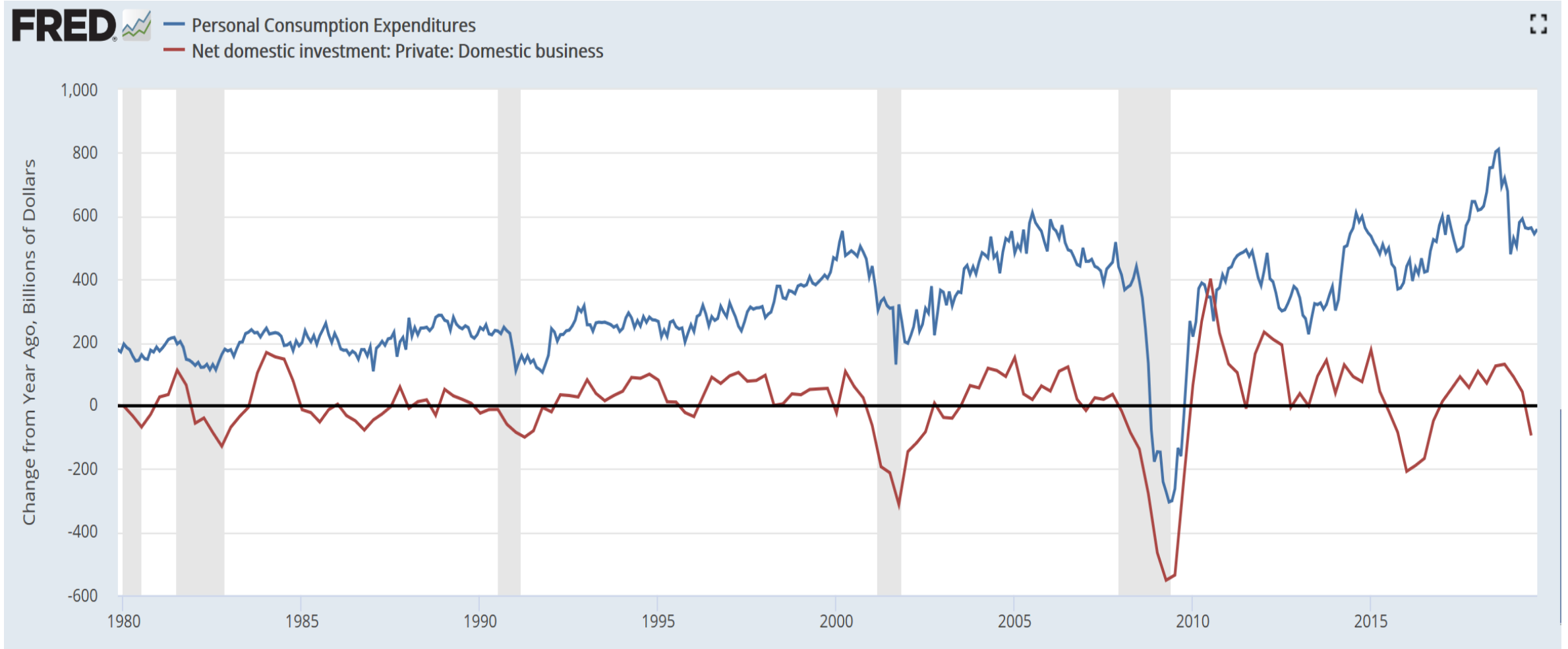
GDP: 2.0% GDP growth, Y-O-Y to 2019Q3, however 0.66% of the increase is defense (0.27%) and State and Local Government spending (0.39%)



..... GDP: by its components.....



. . . . GDP: consumption remains robust as business investment wanes





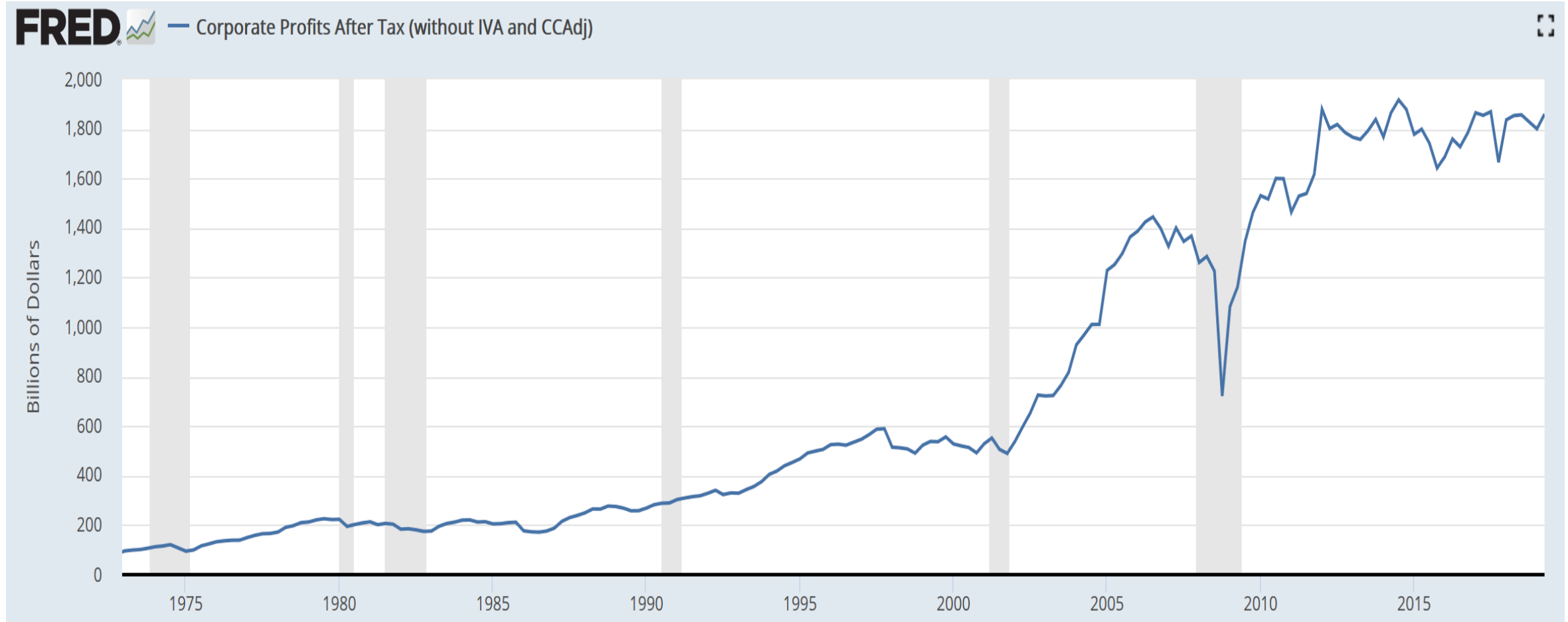
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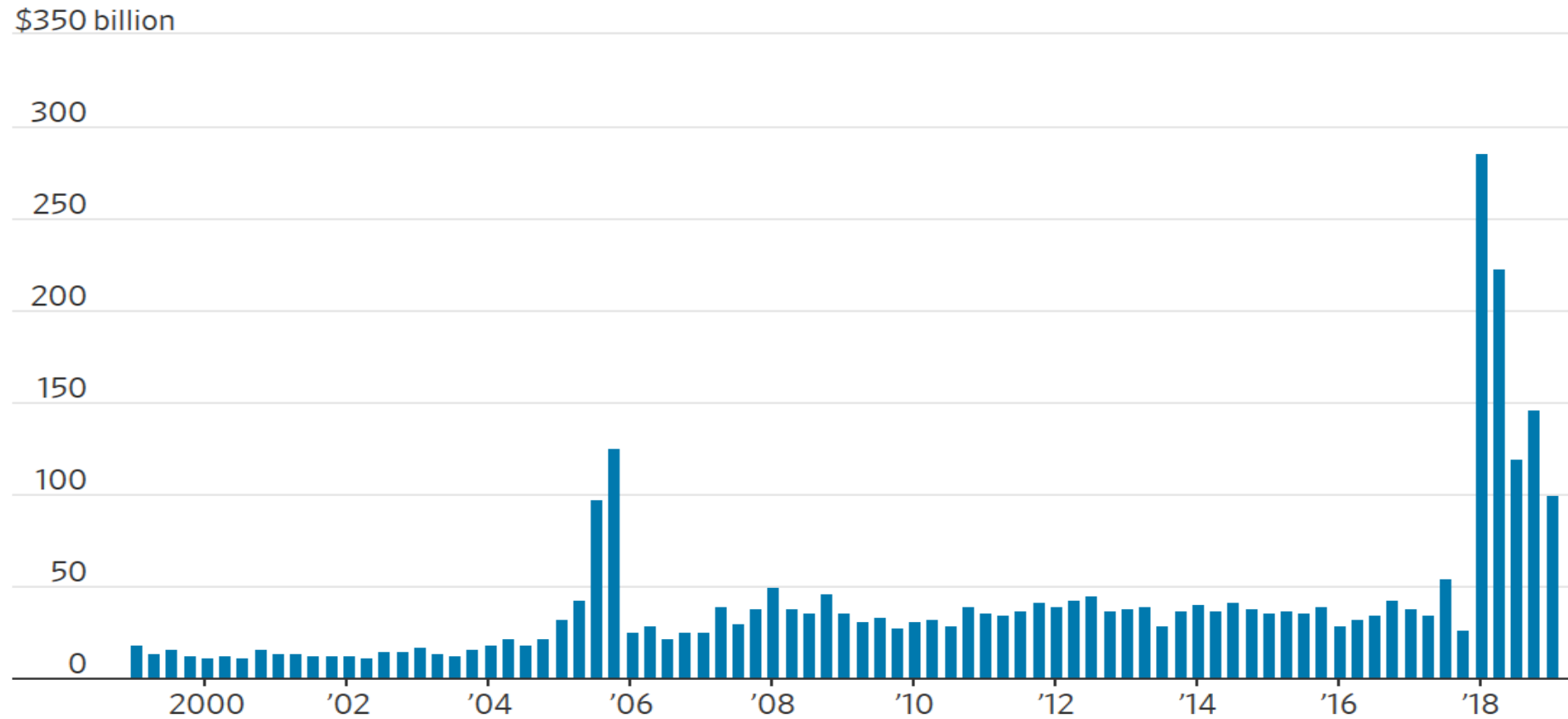
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.... Business Investment: corporate profit has grown 18-fold since 1974, CPI 6-fold



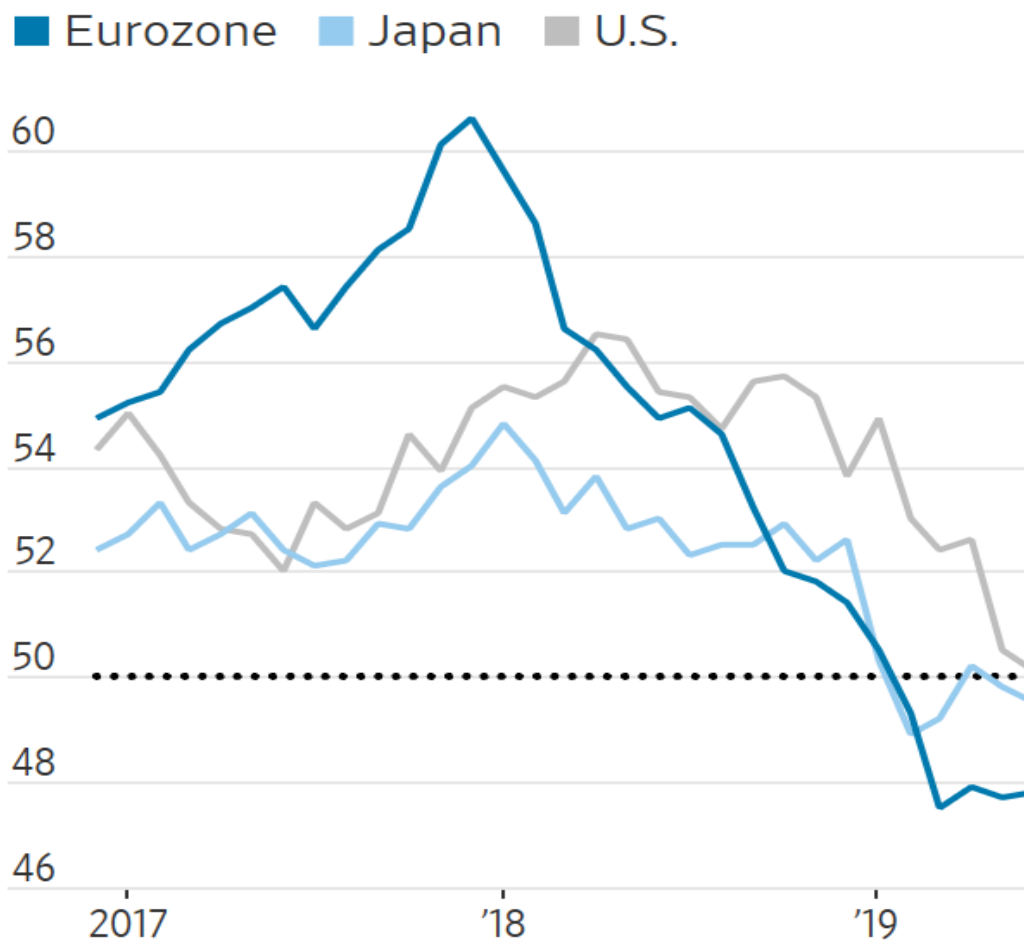
. . . . Business Investment: large repatriated business profits from abroad, \$777 billion in 2018, up from \$155.08 billion in 2017. . . .

Dividends and withdrawals from outside U.S.



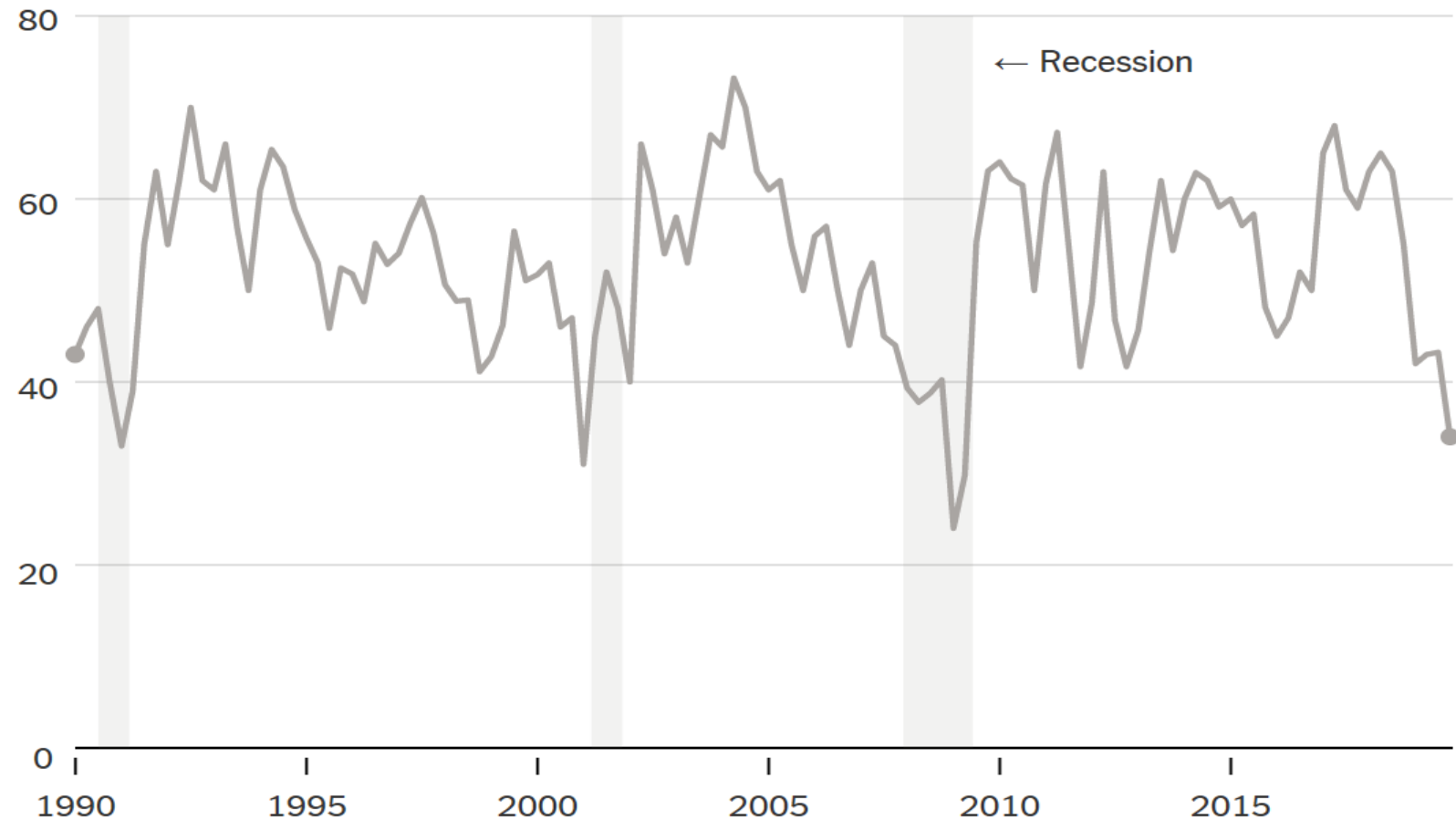
.... Business
Investment:
globally
manufacturing
is flagging

Manufacturers Purchasing Managers Index



. . . . Business Investment: CEOs are not confident.

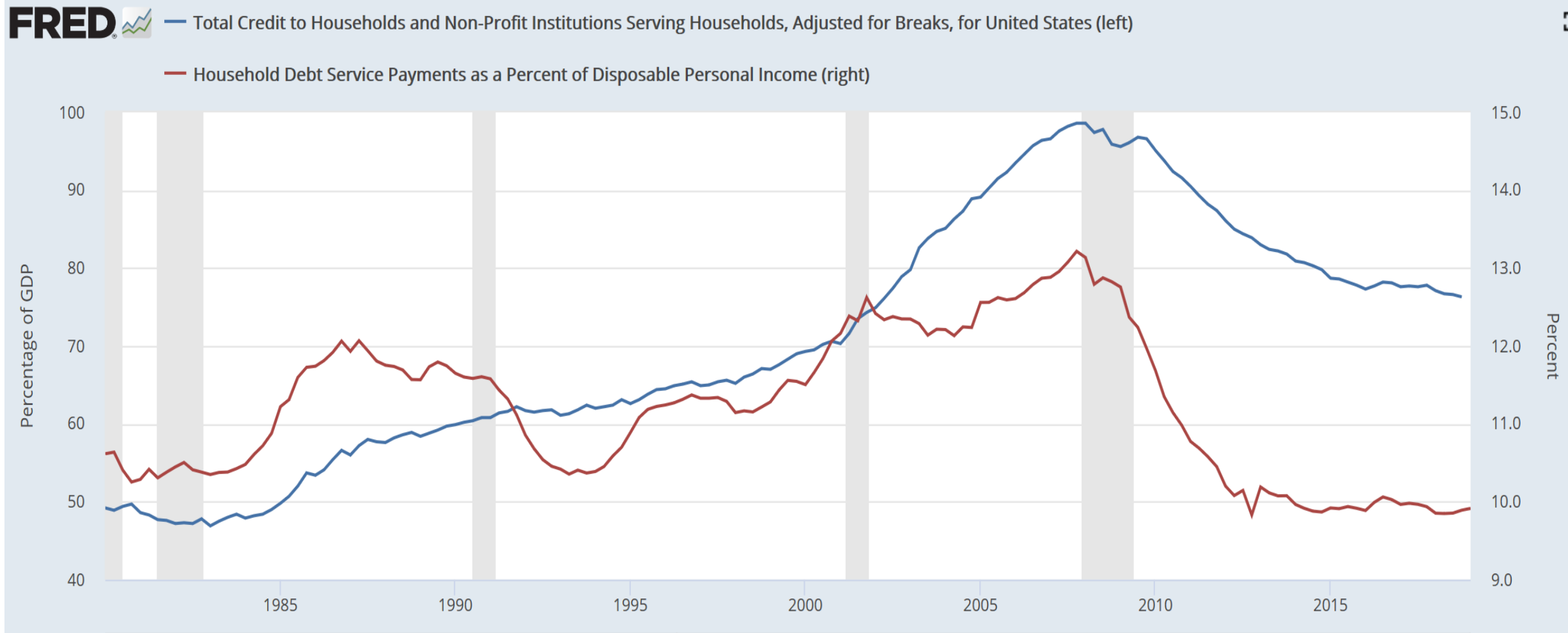
Conference Board Measure of C.E.O. Confidence



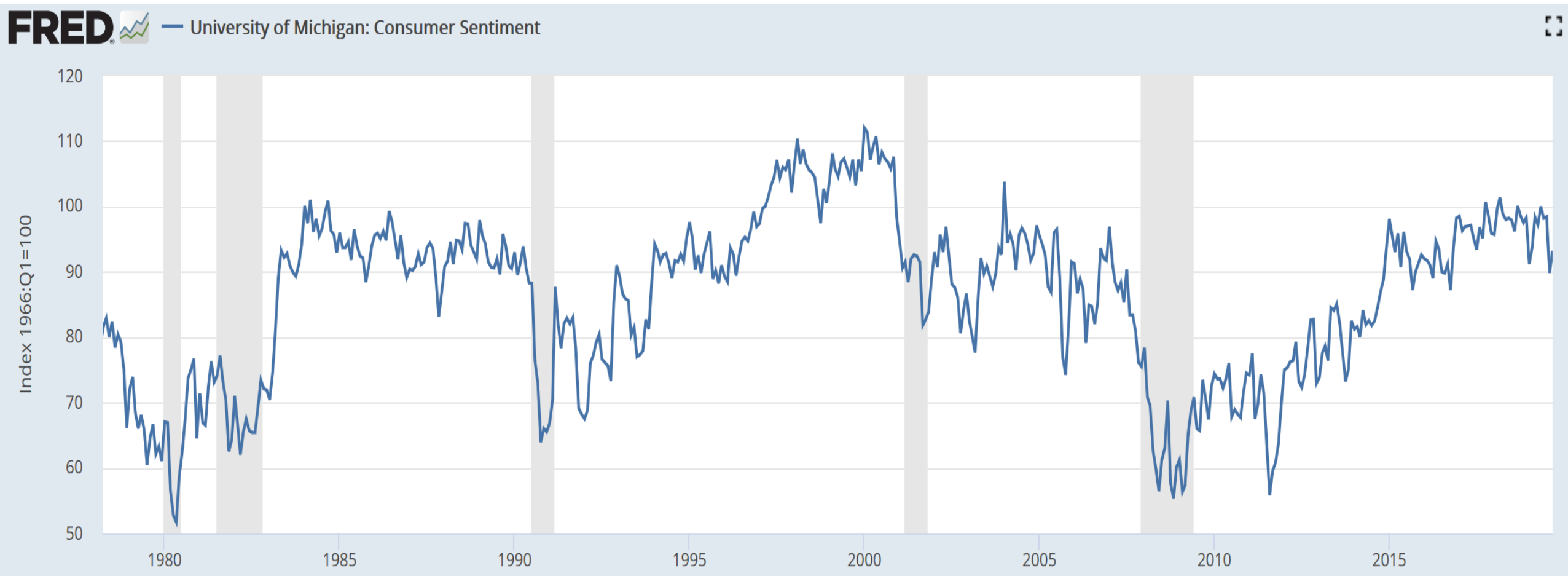
Consumer Spending



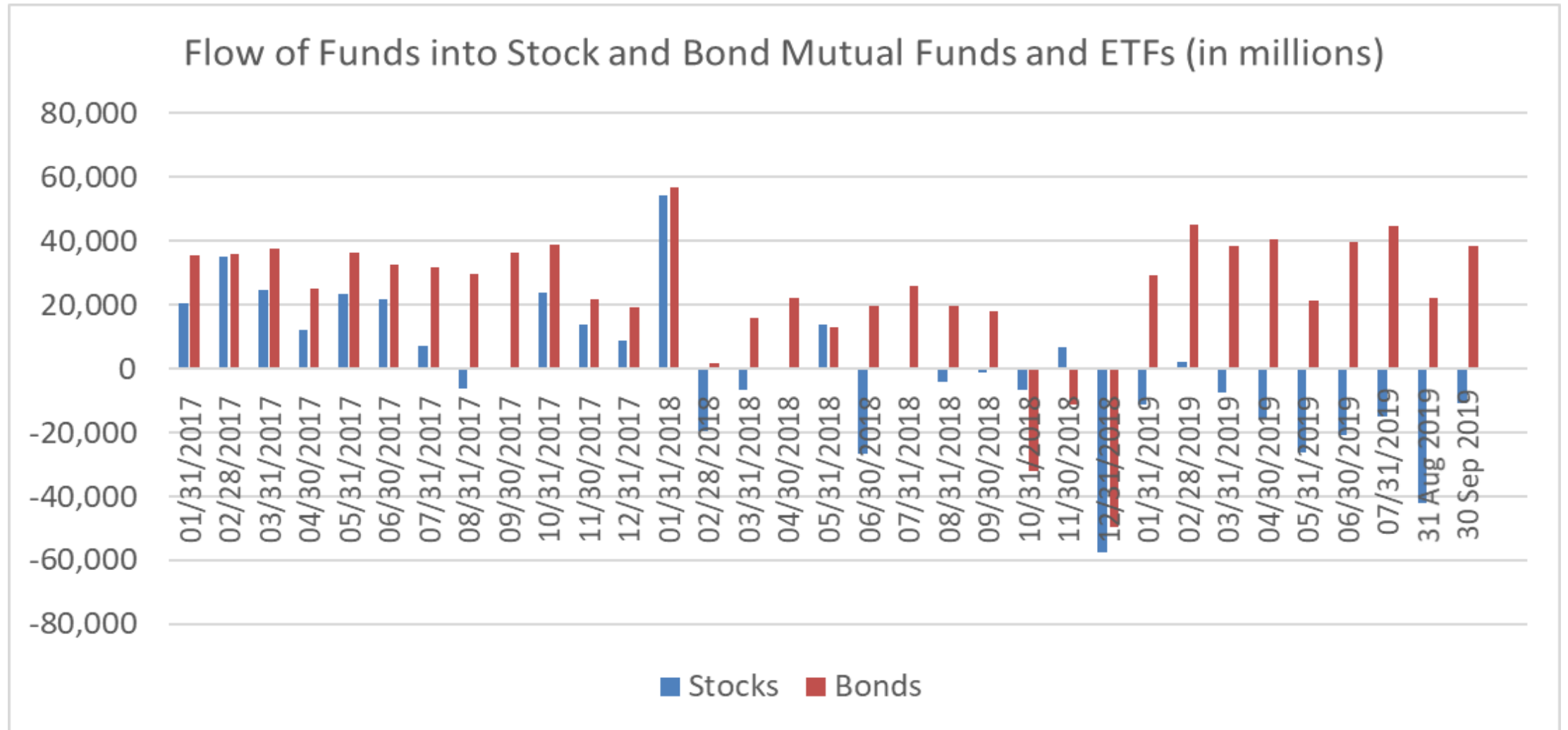
.... Consumer spending: however, consumers have debt service and debt capacity



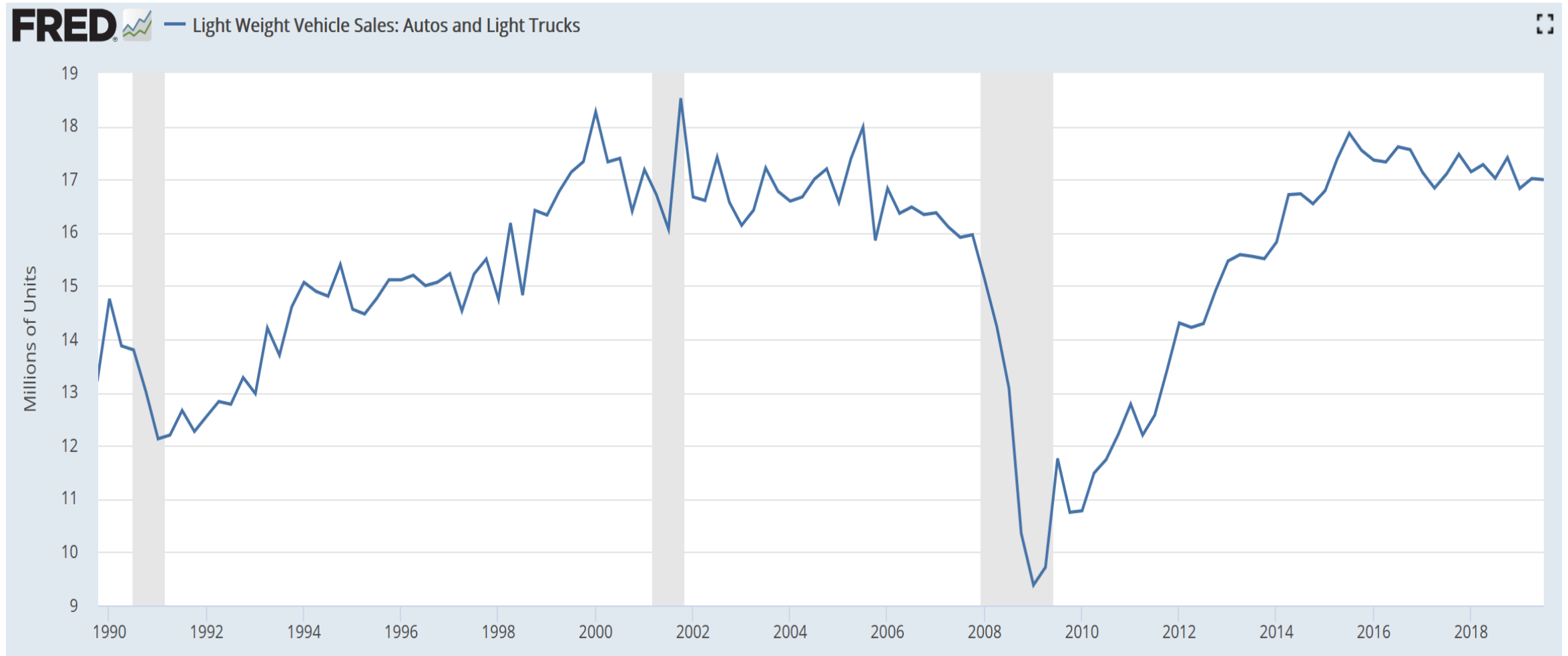
. . . . Consumption: and consumer sentiment remains strong, but turns quickly.



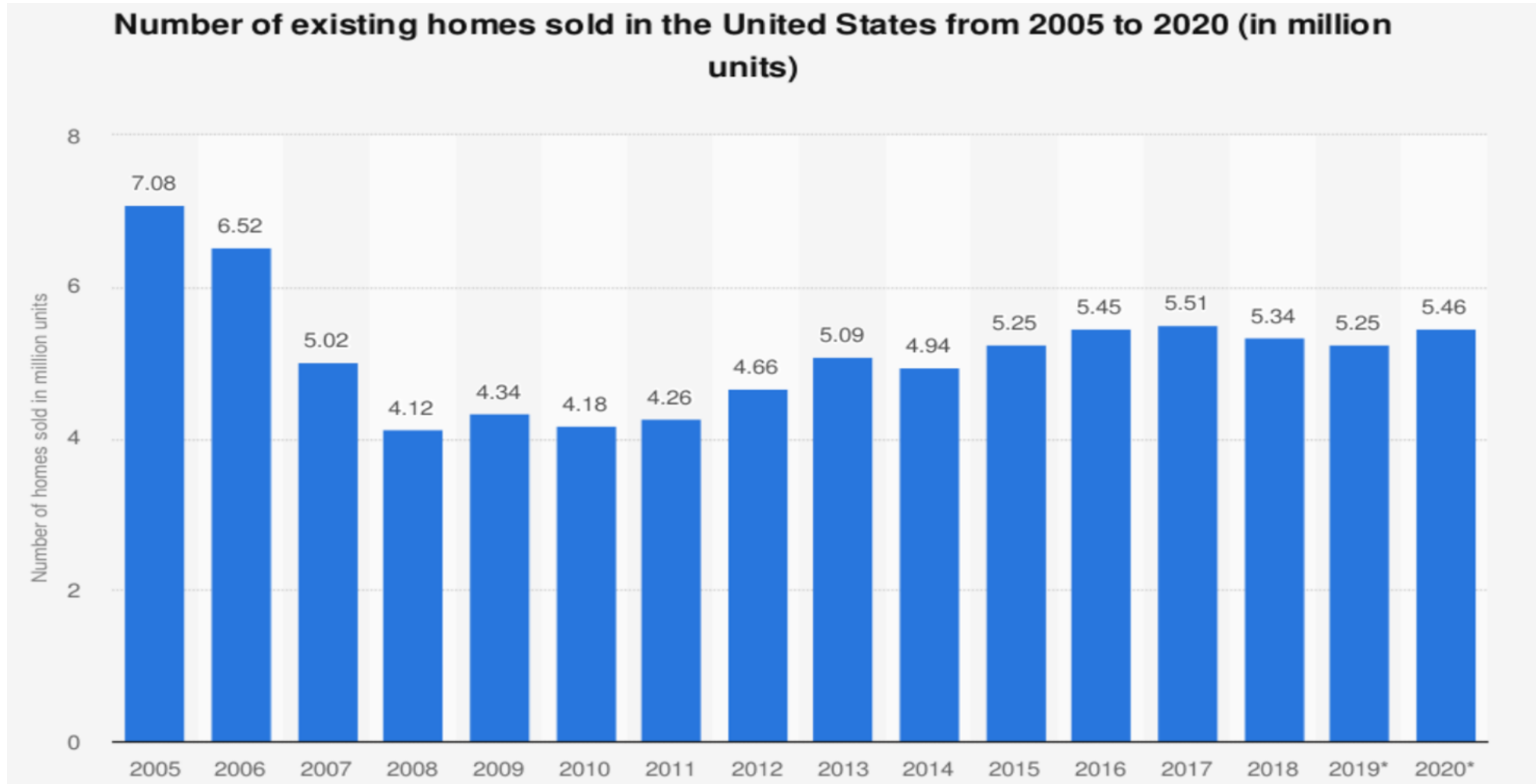
... Consumer Spending: Consumers/Investors are taking less risk ...



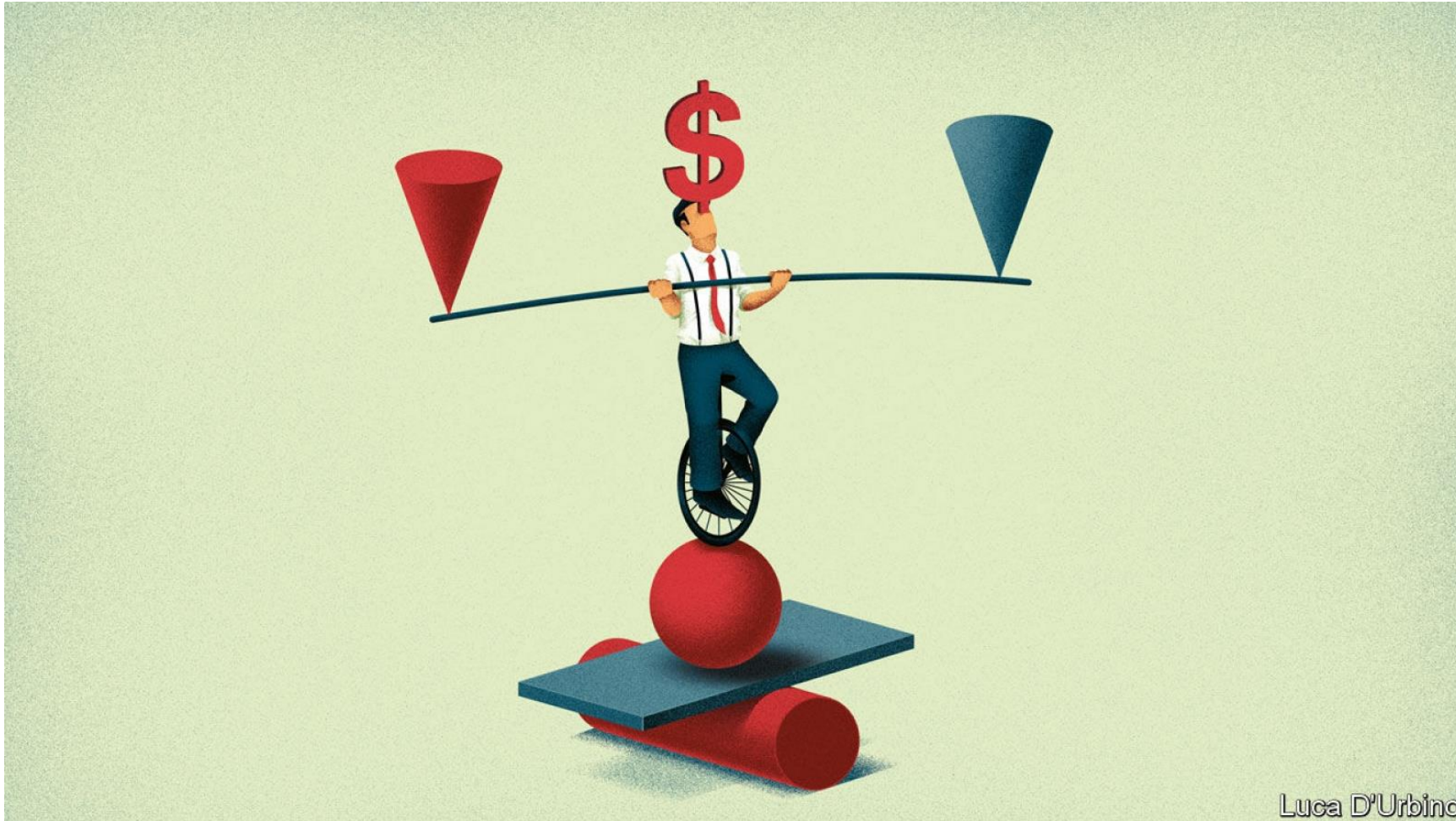
... Consumer spending: vehicle purchases peaked in 2015 at 17.9 million vehicles ...



. . . . Consumer spending: consumers are limiting big purchases.



The Federal Reserve Decision



The Challenge at the Fed. . . .

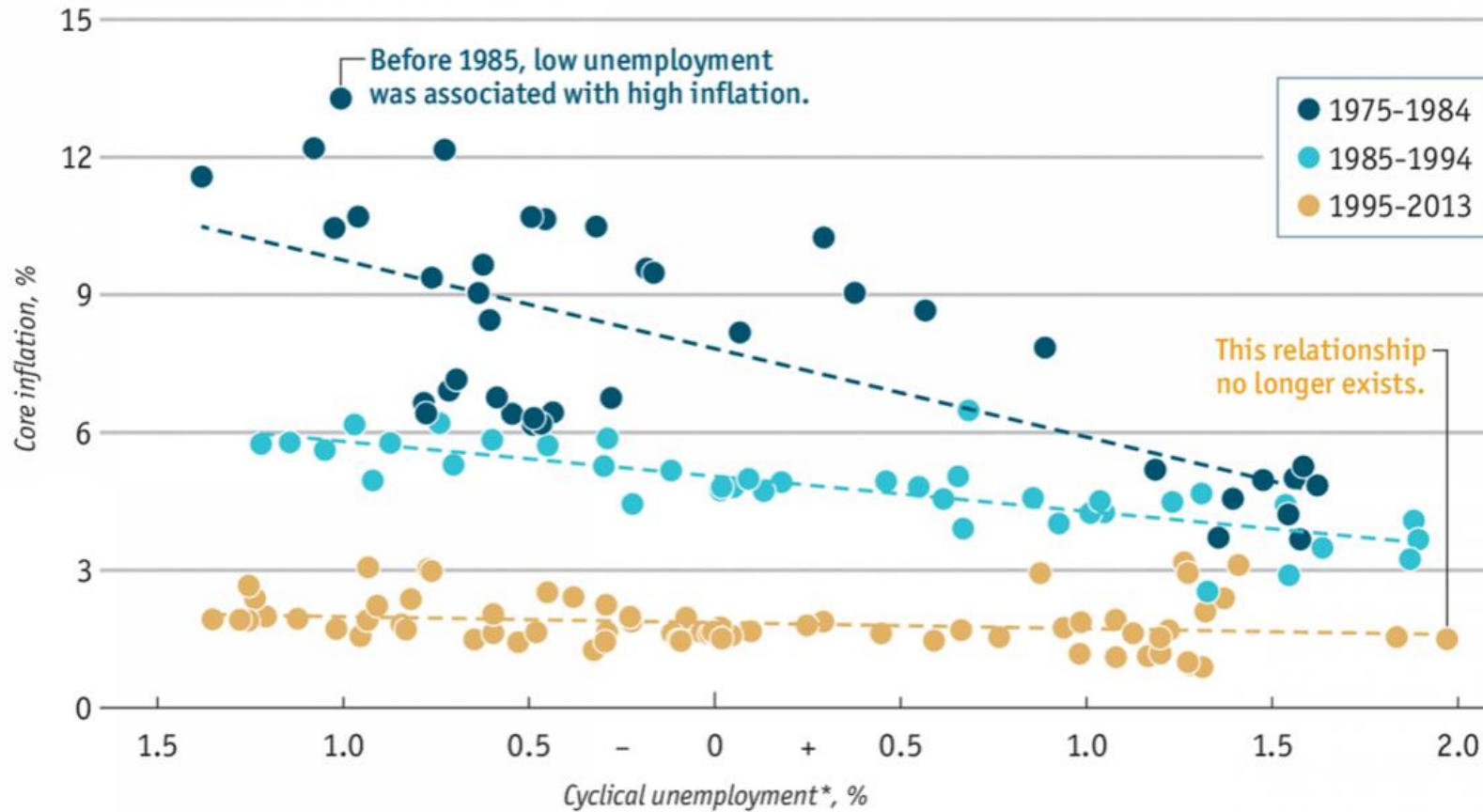
The Phillips Curve: The possibilities. . . .

1. The Phillips Curve is and artefact: observed statistical relationships collapse once they are exploited by policy makers
2. Inflation expectations: the public's ability to anticipate or at least notice rising prices faster and adjust their expectations
3. The Phillips Curve is non-linear: the Phillips curve still exists and could suddenly and quickly accelerate if wages fall below a threshold

. . . . #1, Artefact: Phillips curve is an artefact

Flatlining

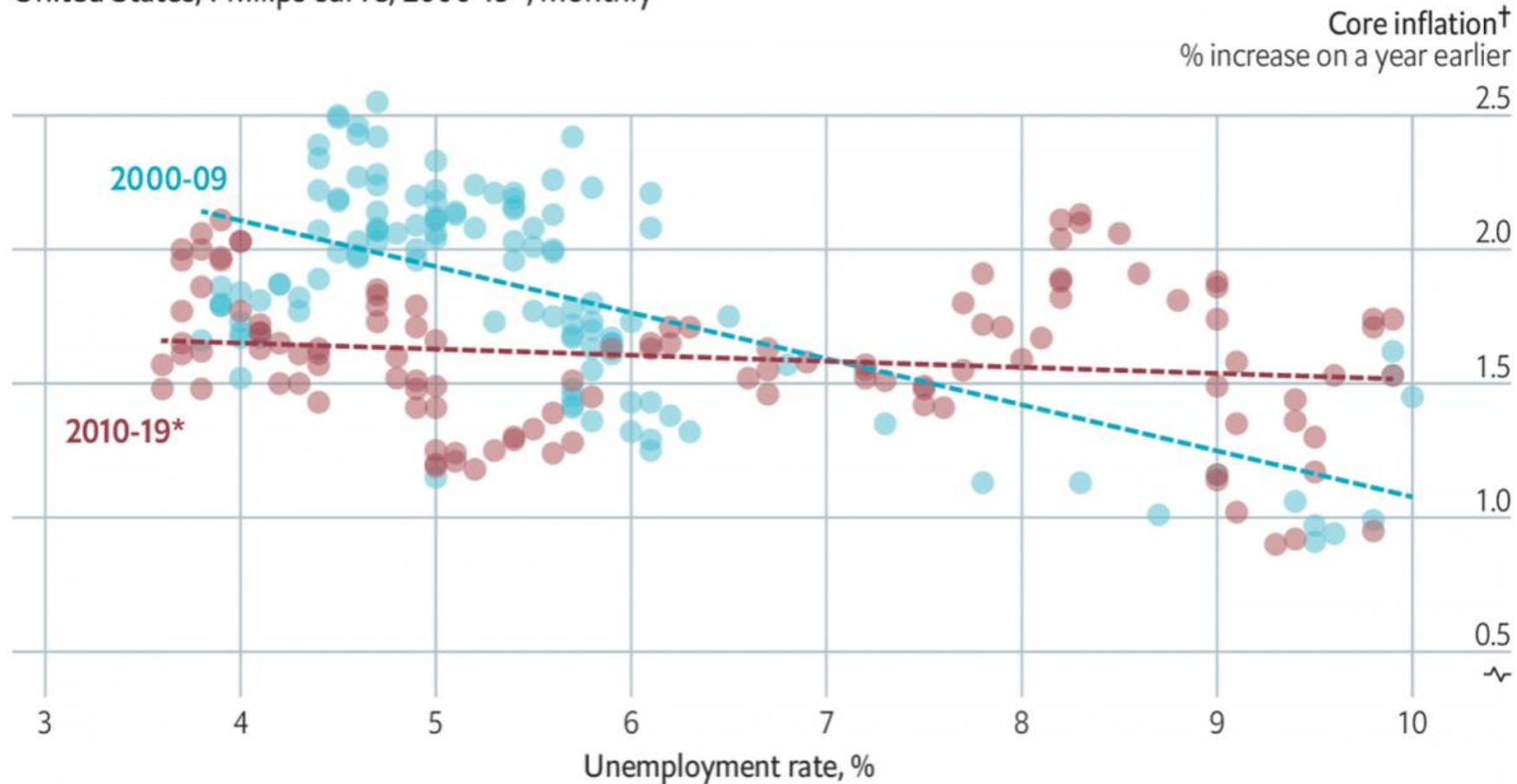
Inflation and cyclical unemployment, average across advanced economies, quarterly



... #1, Artefact: The Phillips curve is and artefact, version 2 ...

Flattening up

United States, Phillips curve, 2000-19*, monthly

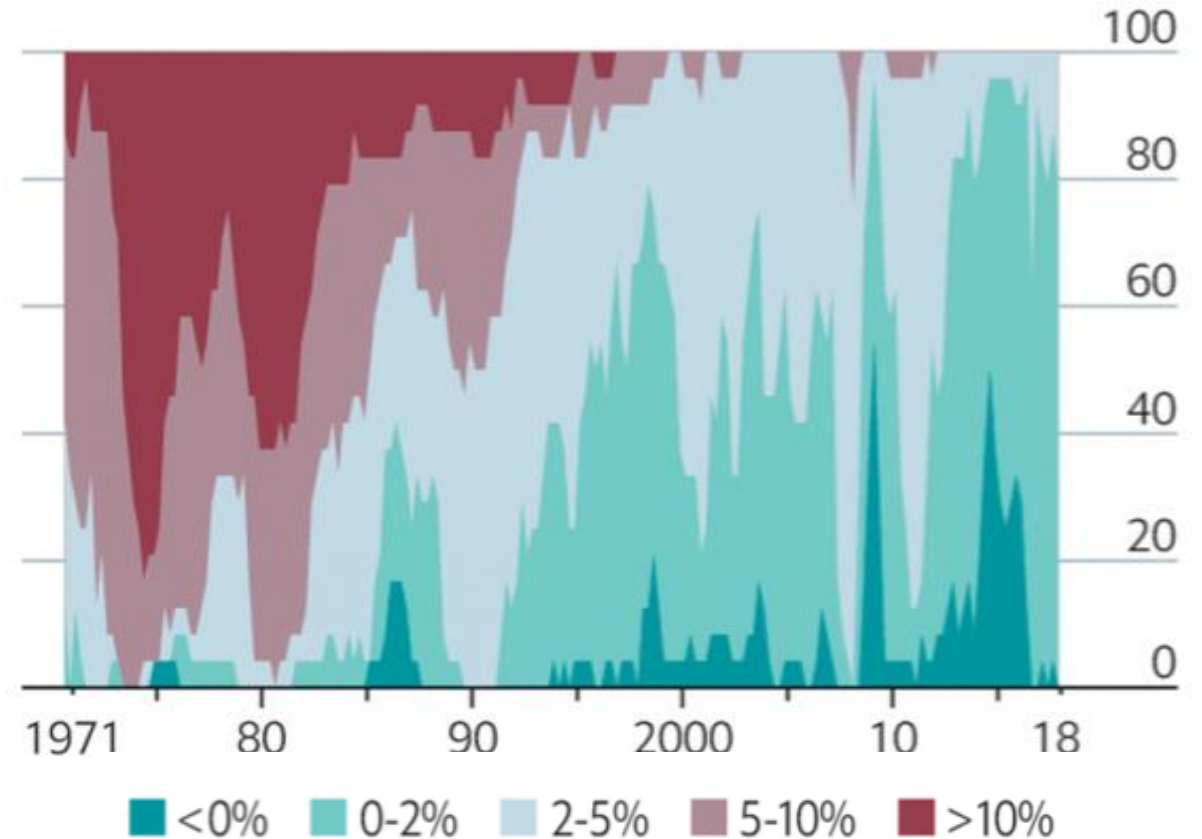


... #2, Inflation expectation:
Businesses and the public better anticipate price increases, and the labor market is global. . . .

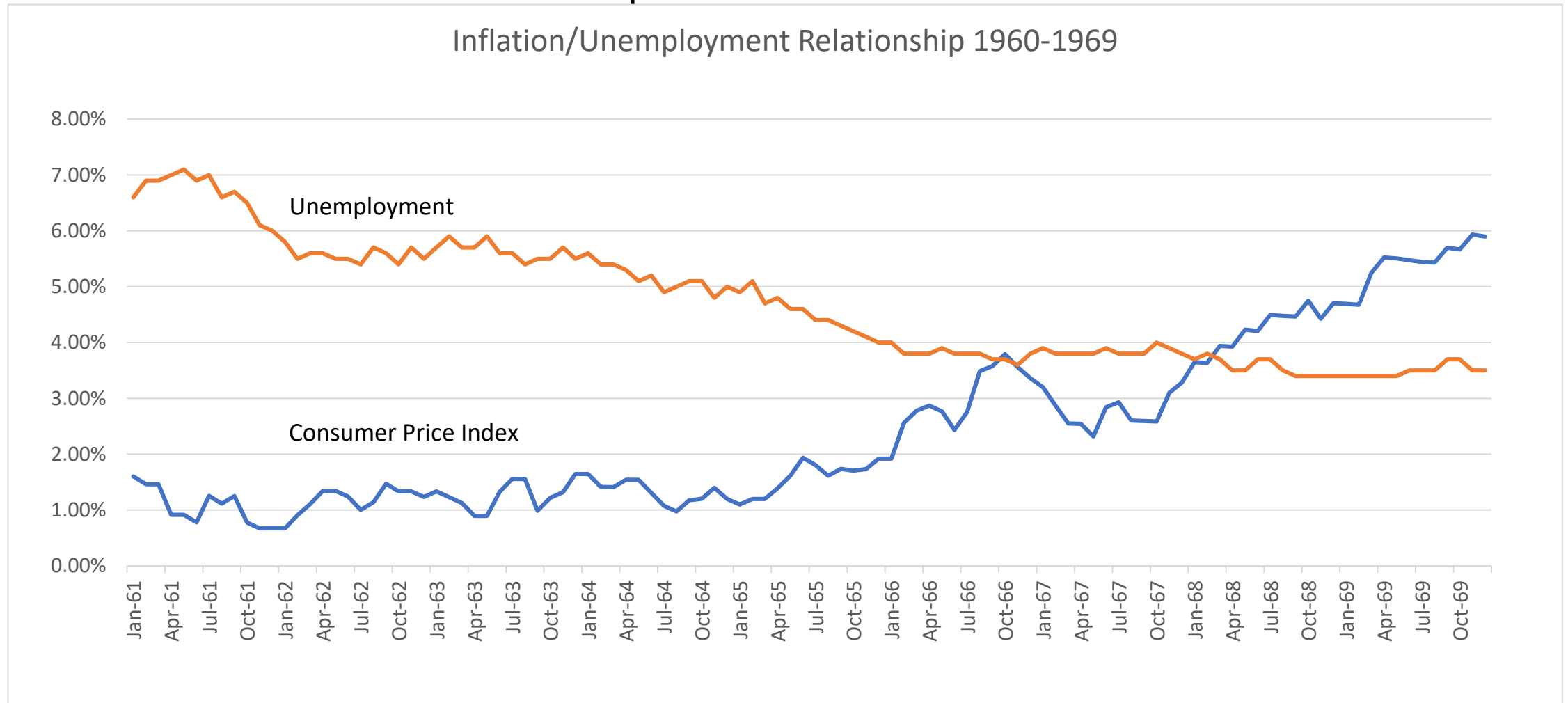
Yesterday's problem

Share of countries by consumer-price inflation rate*, %

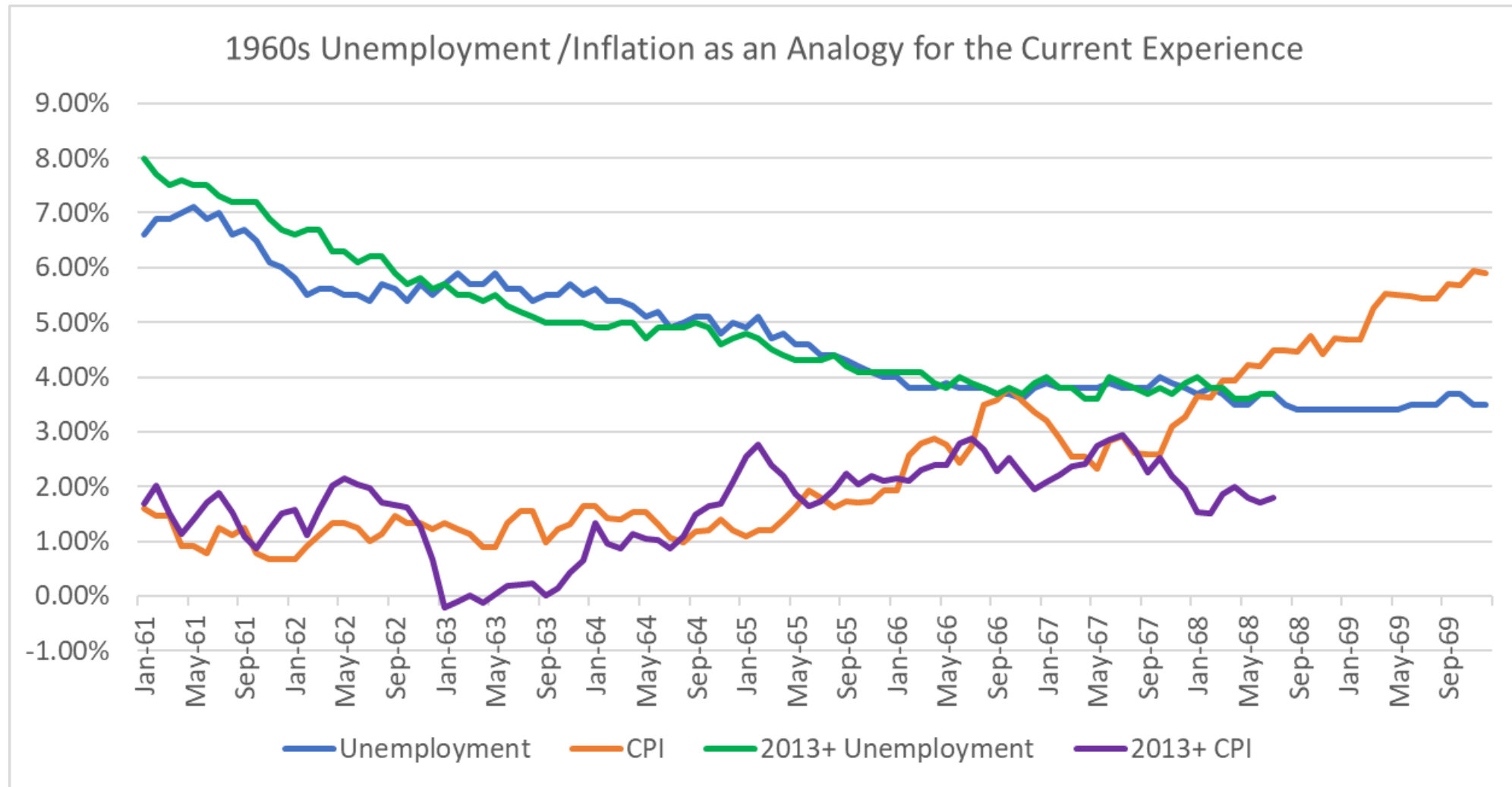
Advanced economies



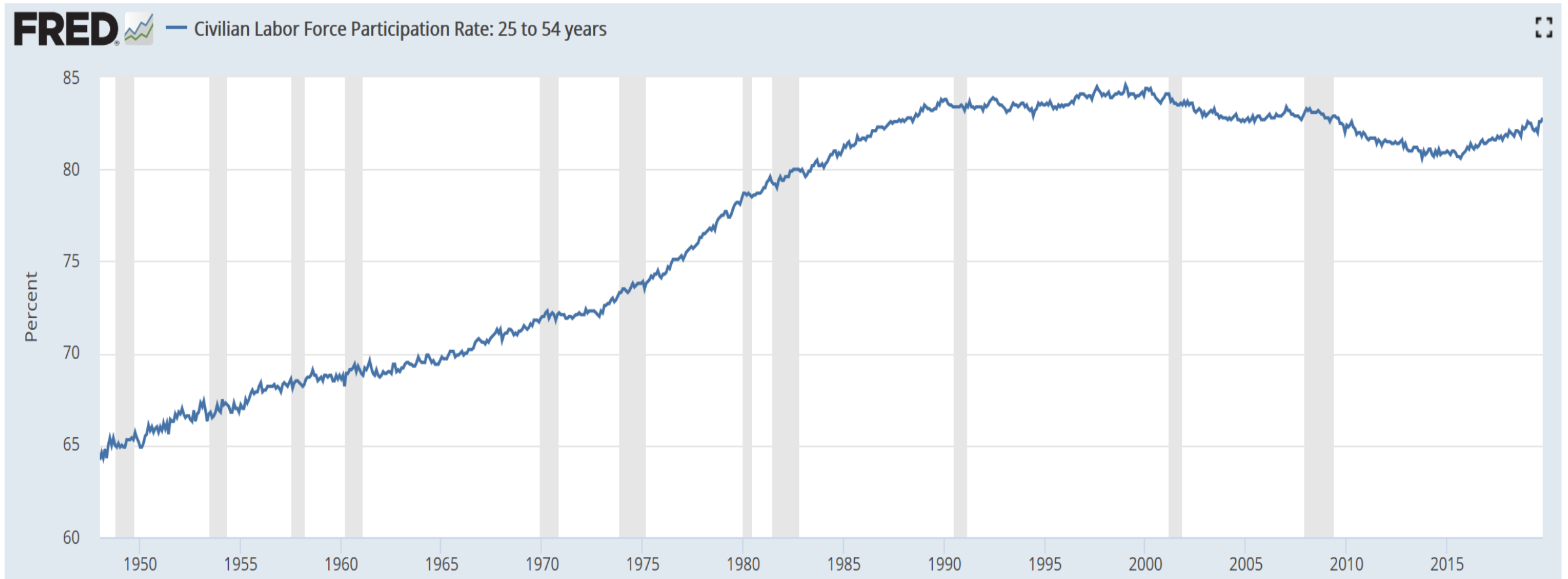
. . . . #3 Non-Linear: the Fed unemployment/inflation trade off – the 1960s experience. . . .



... #3 Non-Linear: comparing the 1960s with the current environment ...

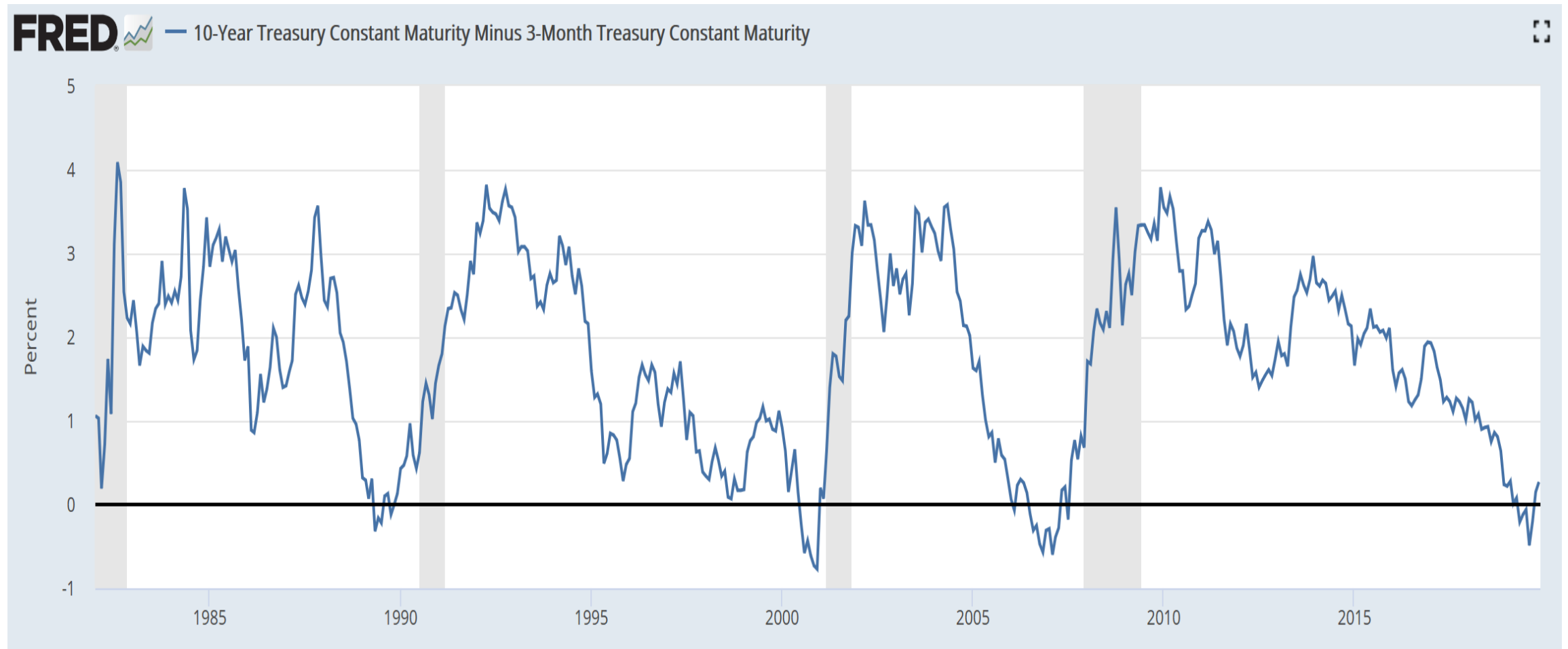


... Adjusted labor force participation rates are at mid-2000 levels.

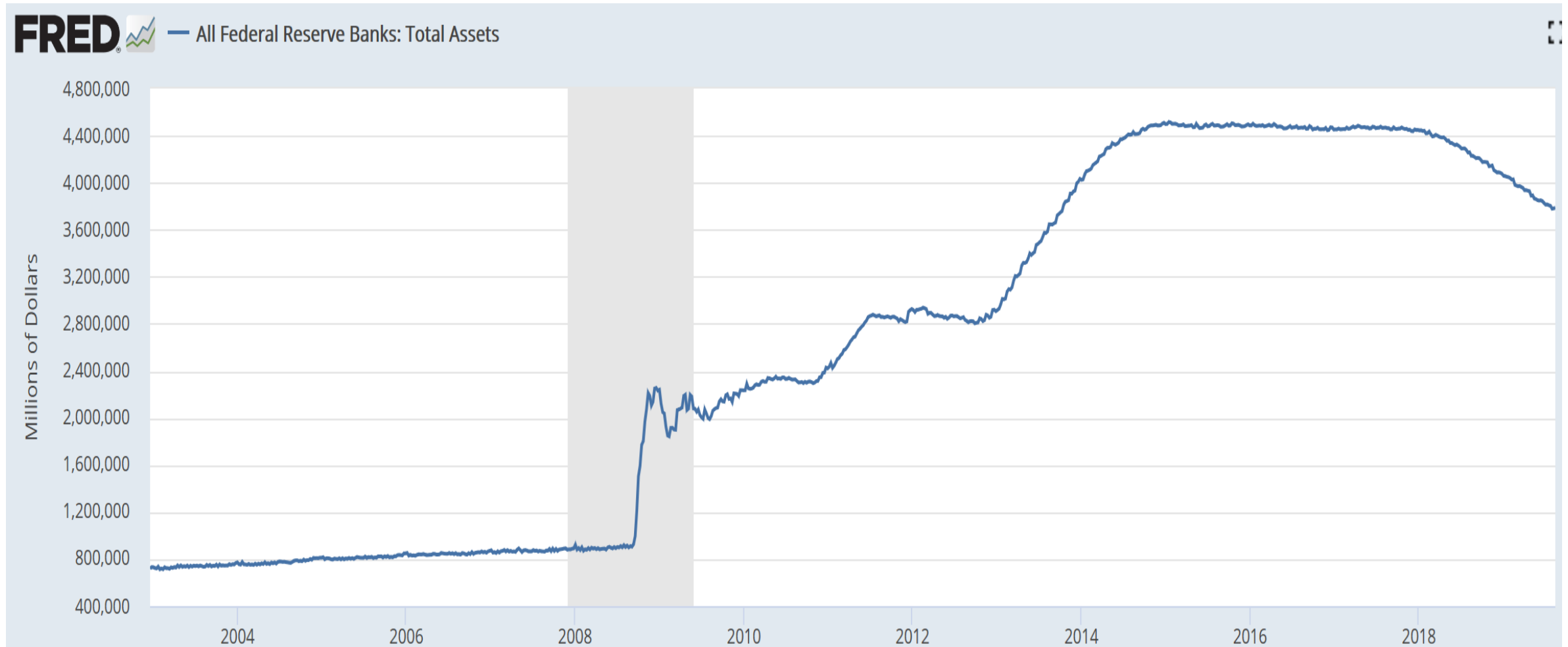


Other Important Federal Reserve Considerations/Actions

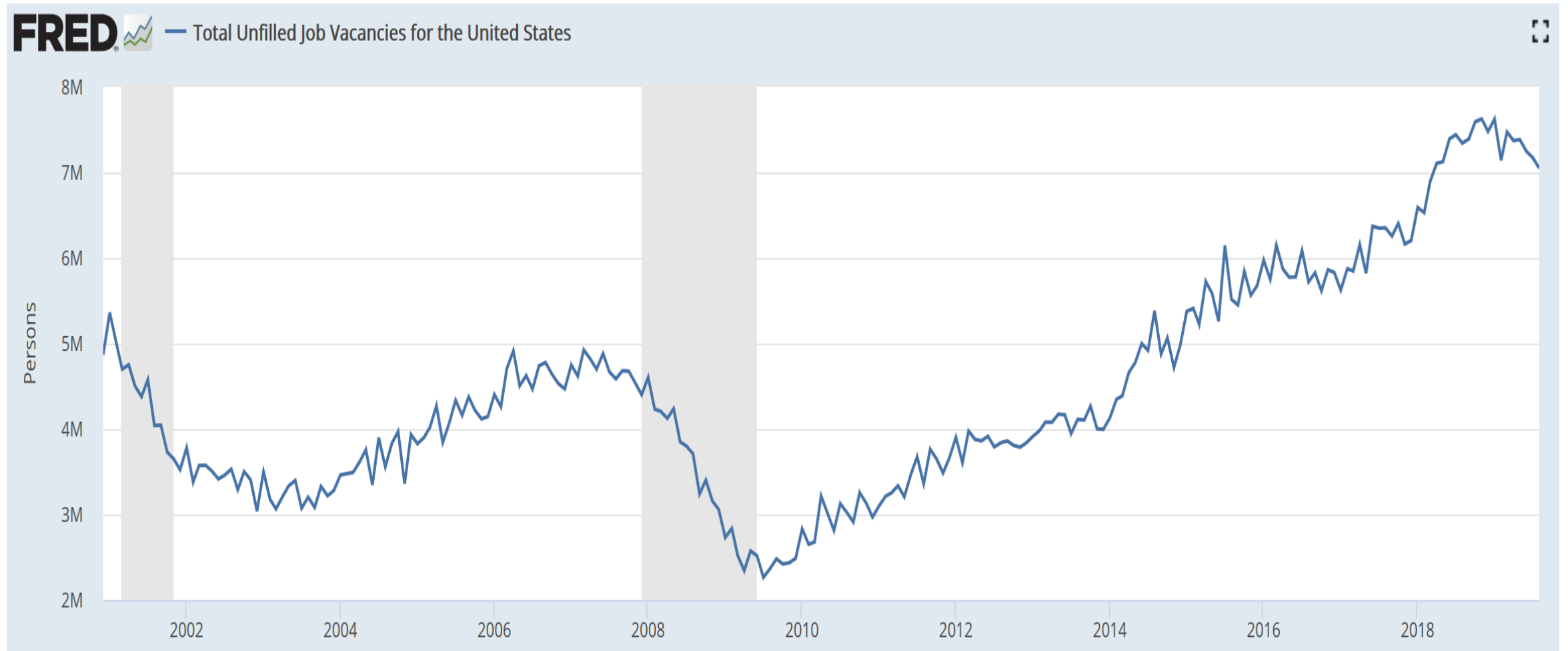
The inverted yield curve (10 yr. less 3 mo. UST), a solid a recession predictor



.... Quantitative Tightening of \$50 billion per month will end in September 2019



... unfilled job vacancies peaked in November 2018 ...



The Global Economy and Trade

- the China/U.S. trade deficit, currency manipulation, and Iran sanctions
- Hong Kong unrest and China debt-fueled growth (150% of GDP in 2009 to 250% today)
- Brexit? Germany's weak economy? The EU? What could possibly go wrong
- U.S. consumer get spooked, import prices/tariffs, market volatility, etc.

GDP/Federal Reserve Decision Summary

I. GDP

- Business Investment will remain be narrowly negative in 2020
- Consumer Spending usually follows Business Investment
- Consumer Spending is unlikely to have a significant trigger event
- **Outcome: GDP will migrate from 2.0% to 1.0% across 2020**

II. The Federal Reserve's Decision

- The Phillips Curve haunts Federal Reserve leadership and economist
- Global labor markets and supply chains broke that relationship
- Solid consumption with weak investment and global demand
- **Outcome: Federal Reserve actions will be limited, with continued accommodation the likely next moves**

Real Estate Capital Markets



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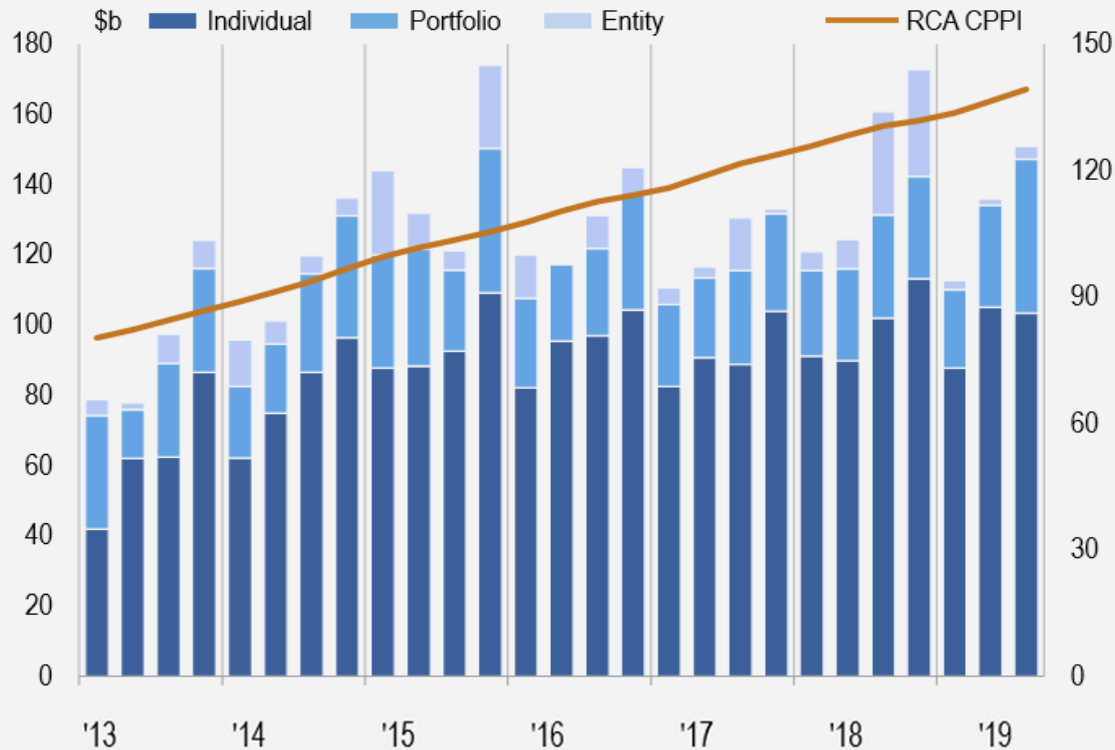
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Equity Capital Markets and Property Returns

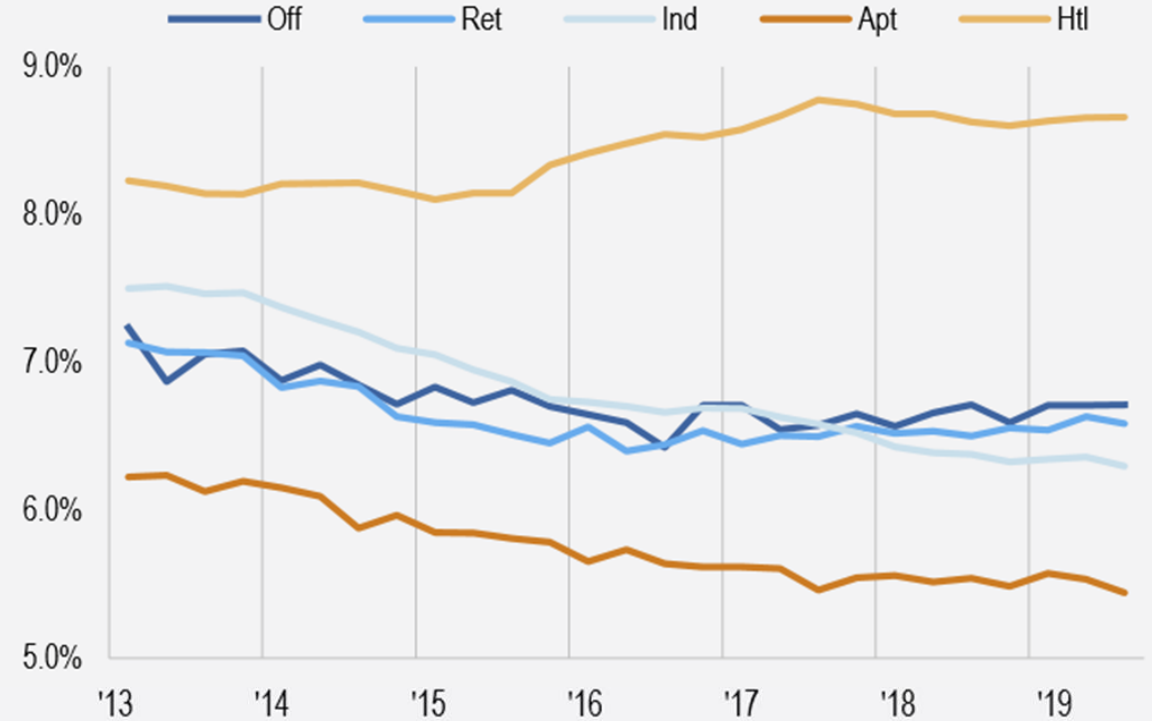
Real estate transaction volume off 6% YOY, cap rates remain stable

Quarterly Transaction Volume & Pricing



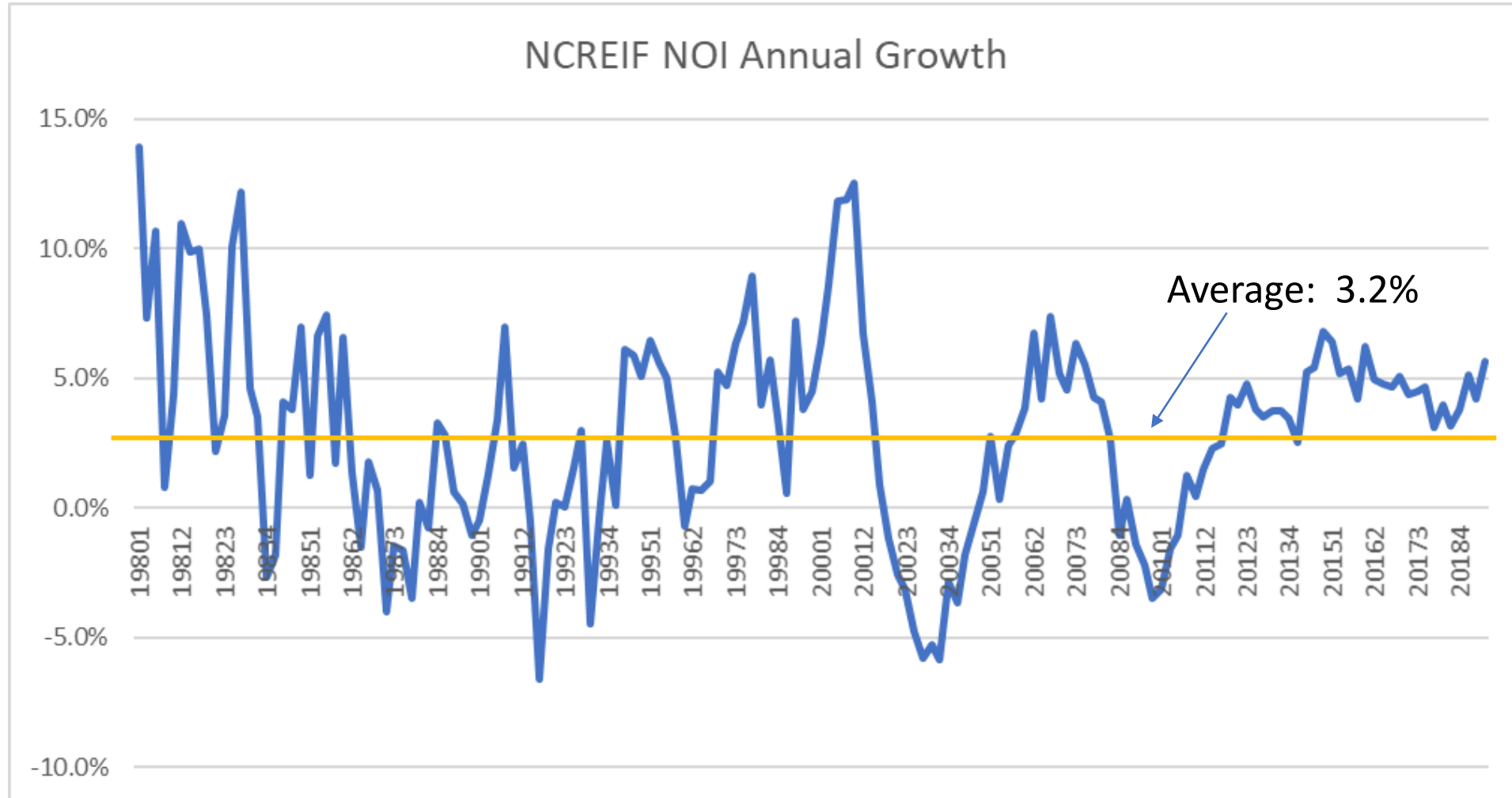
*YOY change in RCA CPPI

Cap Rates



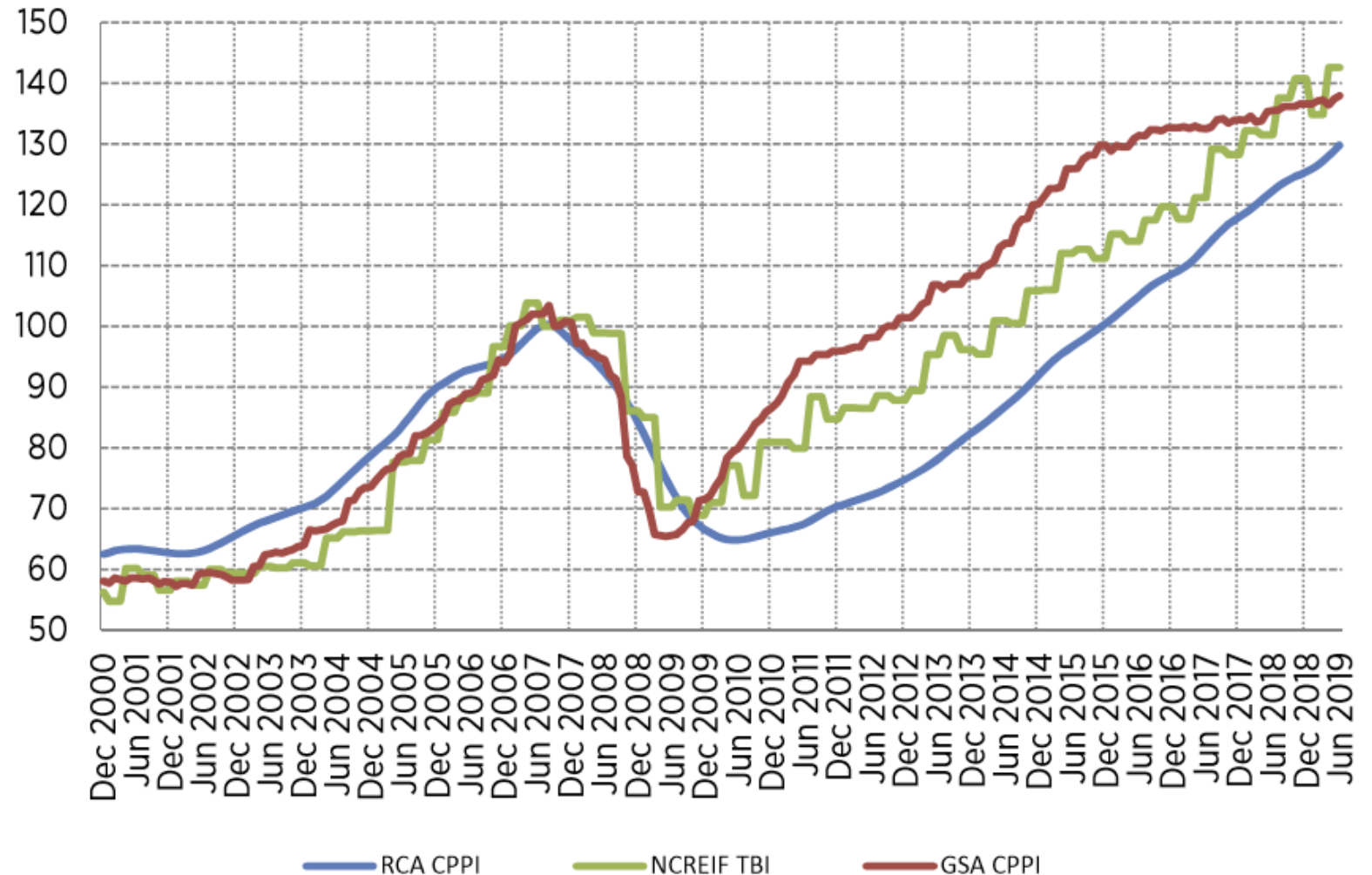
*YOY change in RCA CPPI

. . . . property income growth remains robust, sans retail



... three-year
property price
appreciation rates
range from 2-8%
per annum
depending on
which index you
believe.

Commercial Property Price Indices



. . . .property returns are stable and competitive

Market Index Comparisons (through 2019Q2)

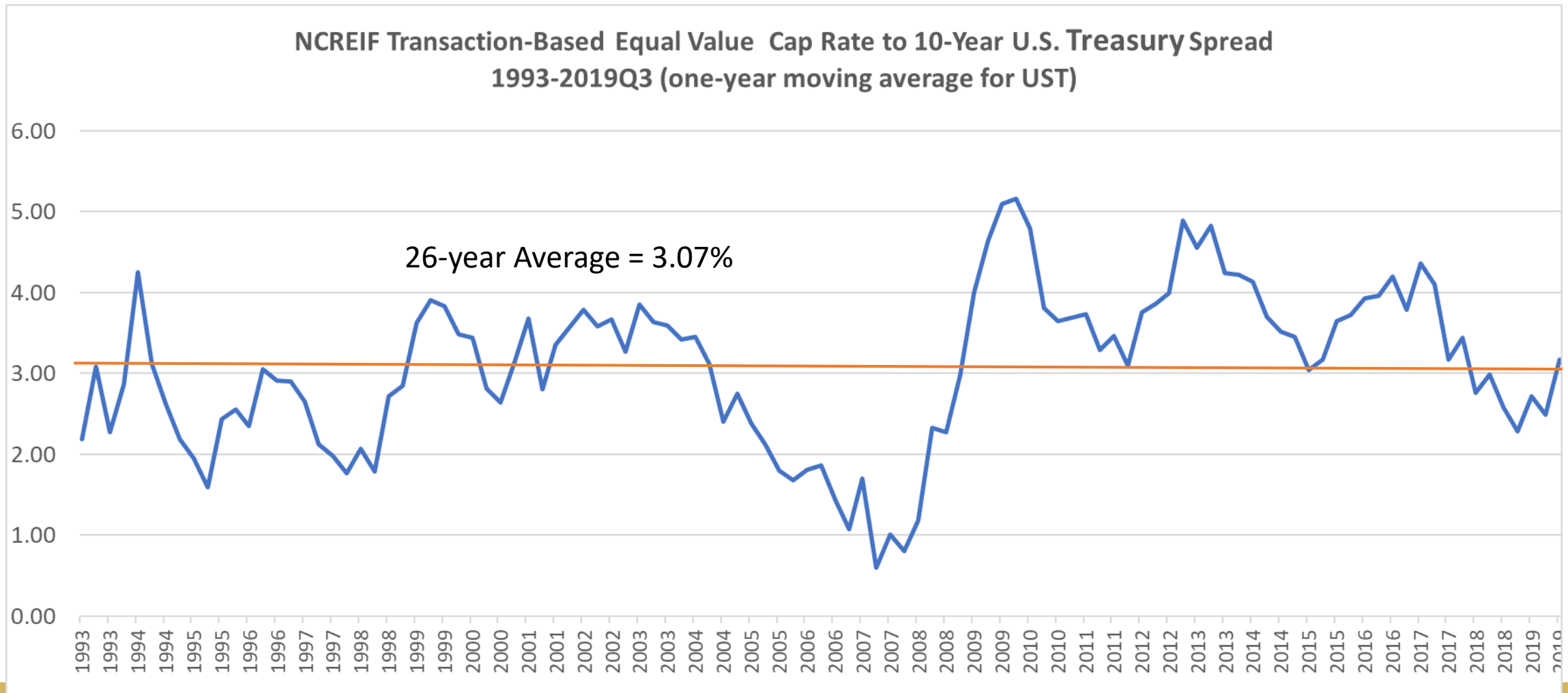
	1 Year	5 Year	10 Year	20 Year
National Property NCREIF Index, (no leverage)	6.5%	8.8%	9.3%	8.9%
S&P 500 Index	10.4%	10.7%	14.7%	5.9%
NAREIT (averages 35% leverage)	12.6%	8.8%	16.0%	10.6%
T-Bills	2.1%	1.0%	0.5%	1.9%
CPI	1.7%	1.5%	1.7%	2.2%

. . . . property returns across property type are similar, in the longer-run office underperforms

National Property Index Returns By Property Type (through 2019Q2)

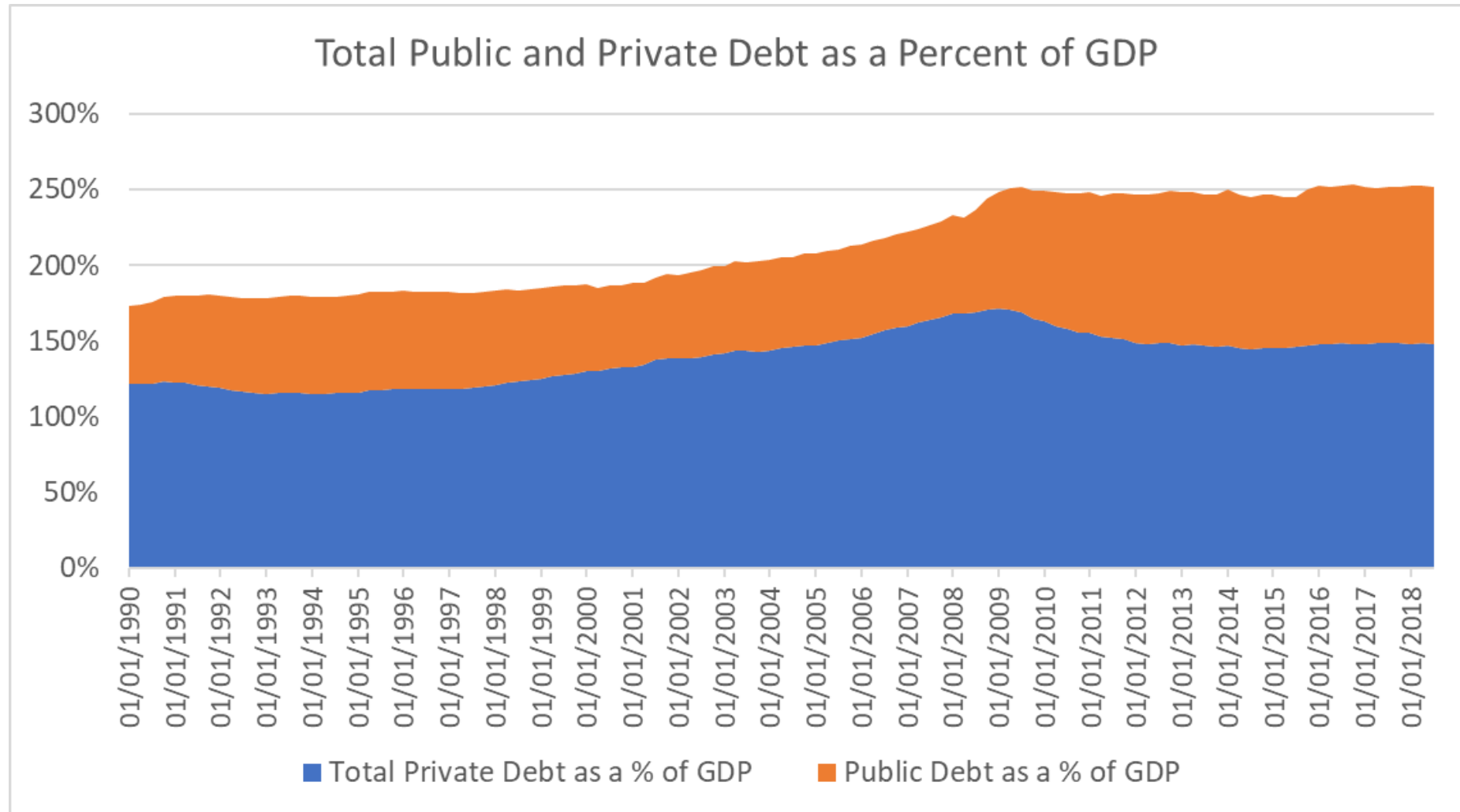
	1 Year	5 Year	10 Year	20 Year
National Property Index	6.5%	8.8%	9.3%	8.9%
Apartments	5.8%	8.0%	9.4%	8.7%
Industrial	13.9%	13.7%	11.4%	10.0%
Office	6.8%	8.2%	8.4%	8.2%
Retail	1.8%	7.7%	9.2%	9.9%

. . . . cap rate risk spreads to 10-year Treasuries are range-bound.

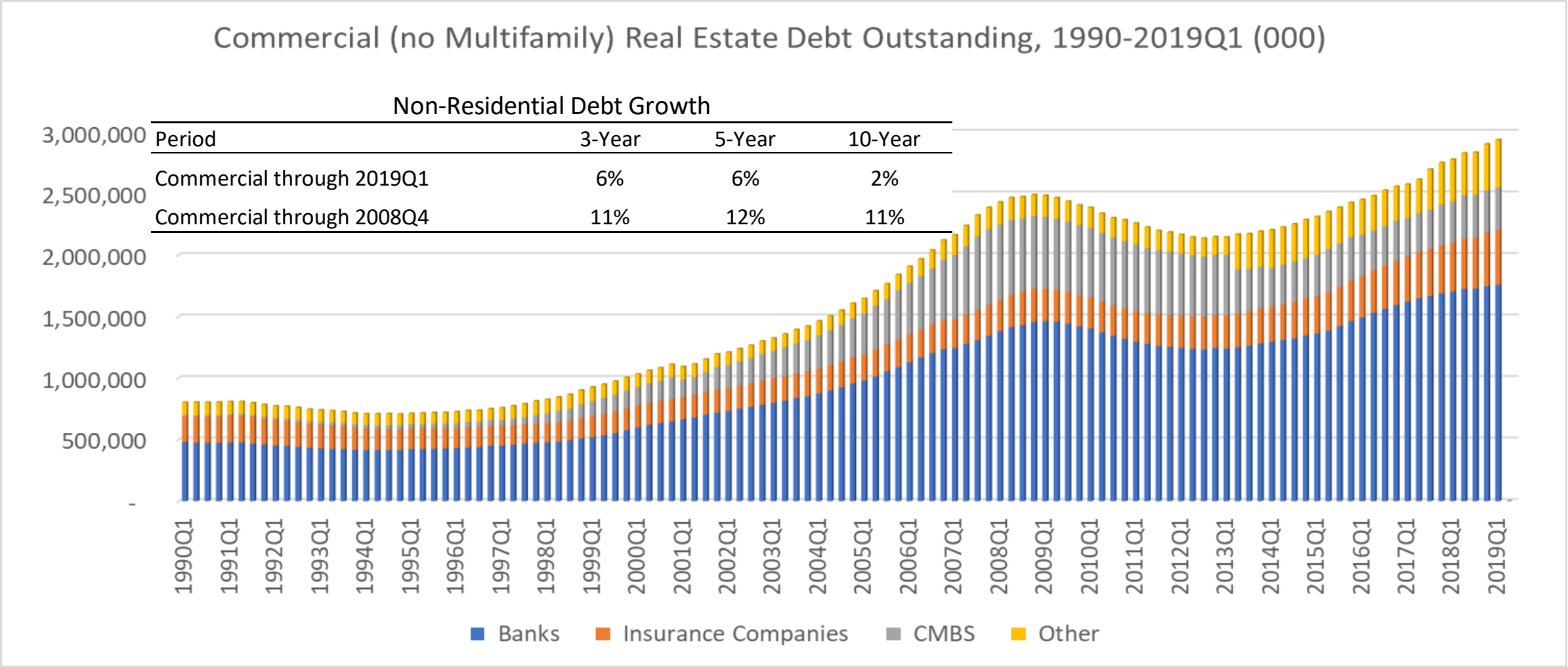


Real Estate Debt Capital Markets

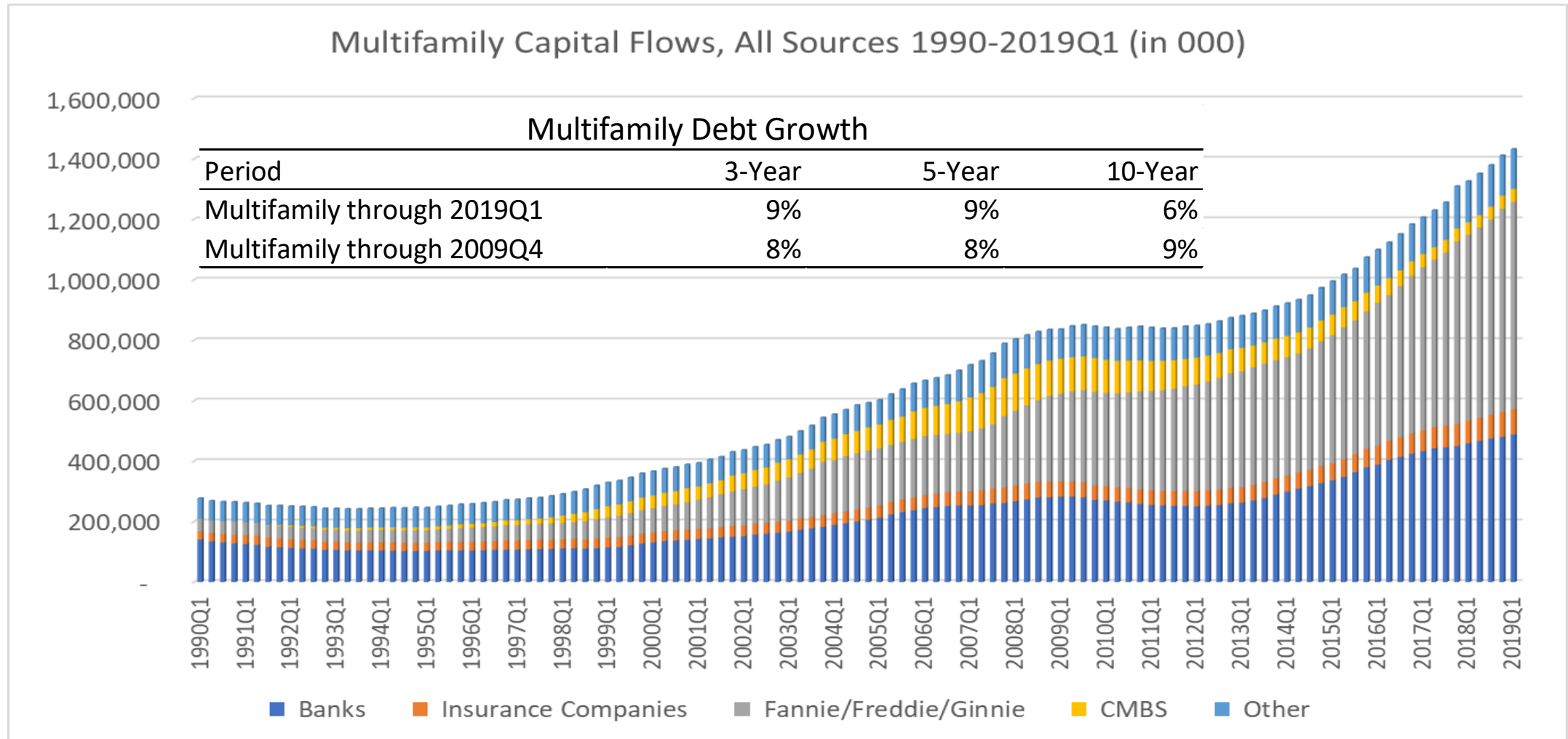
Private debt as a percent of GDP has fallen from 171% in 2009 to 148% today



... commercial real estate debt outstanding has grown over the last several years ...

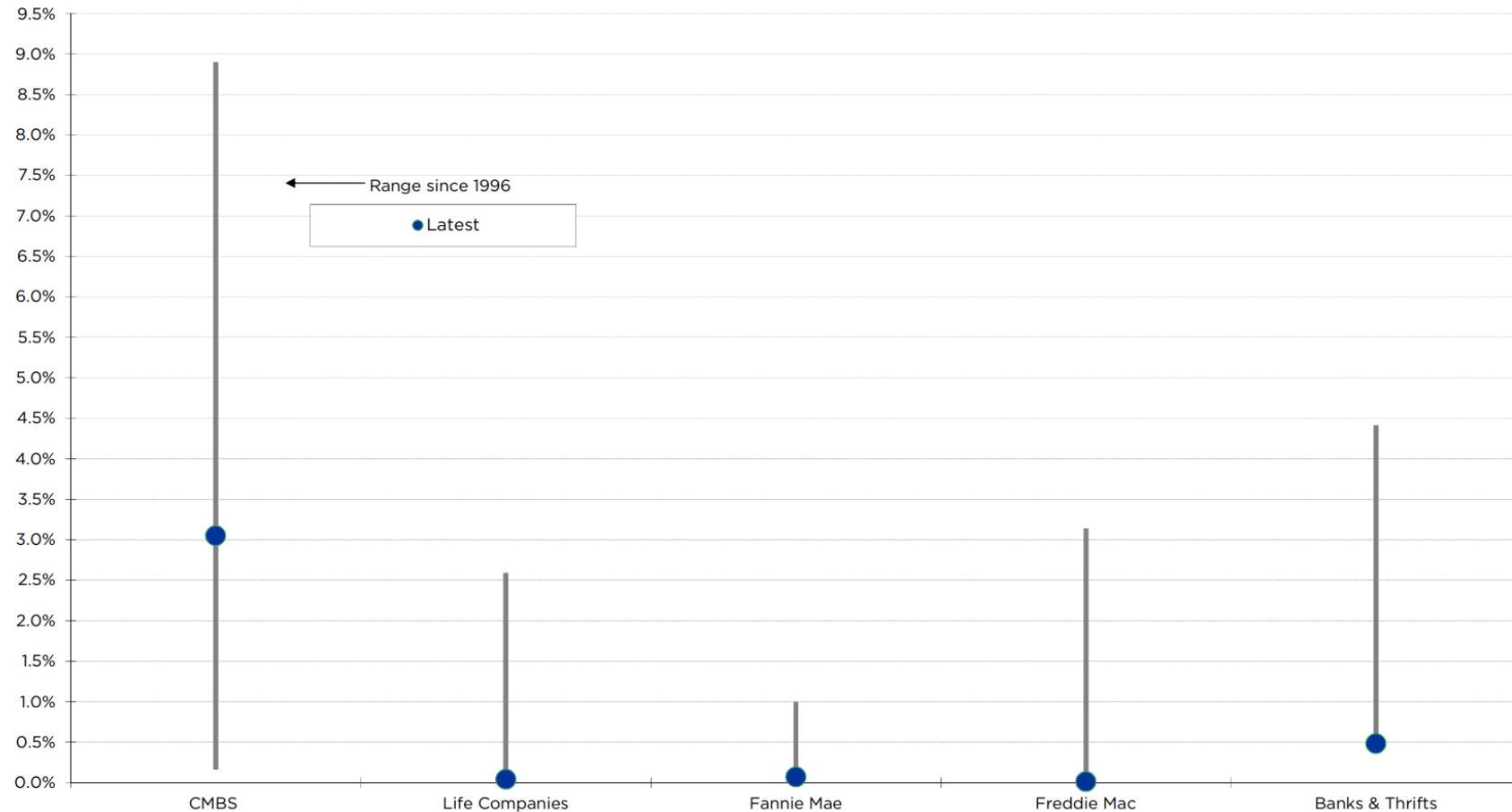


. . . multifamily debt is growing at an unsustainable pace (maybe) . . .

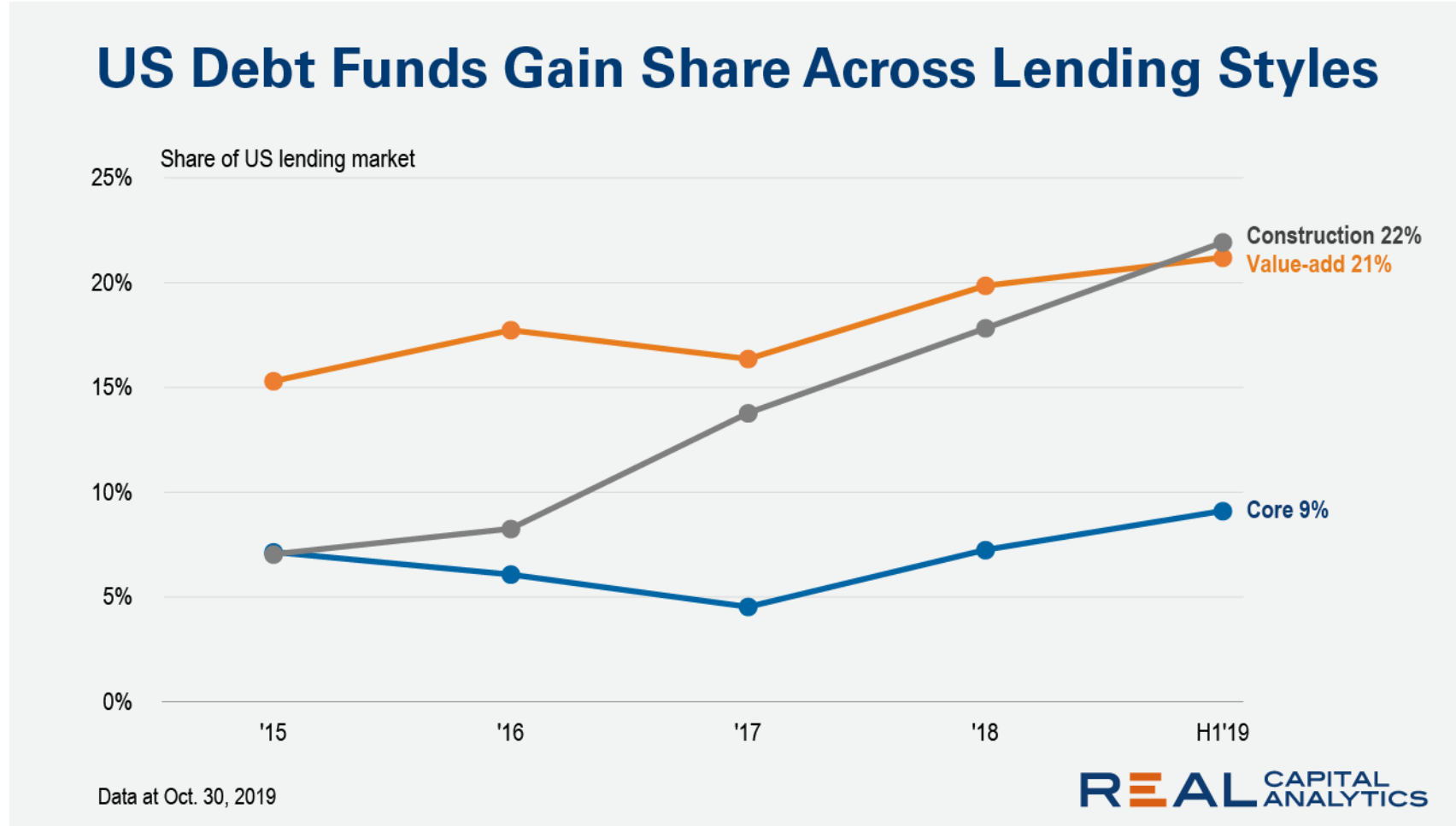


. . . . delinquency rates are at or near 20-year lows for all but CMBS

Delinquency Rate Range 1996-2018 for Select Real Estate Lenders



. . . . leveraged loan lenders are pushing traditional real estate lenders

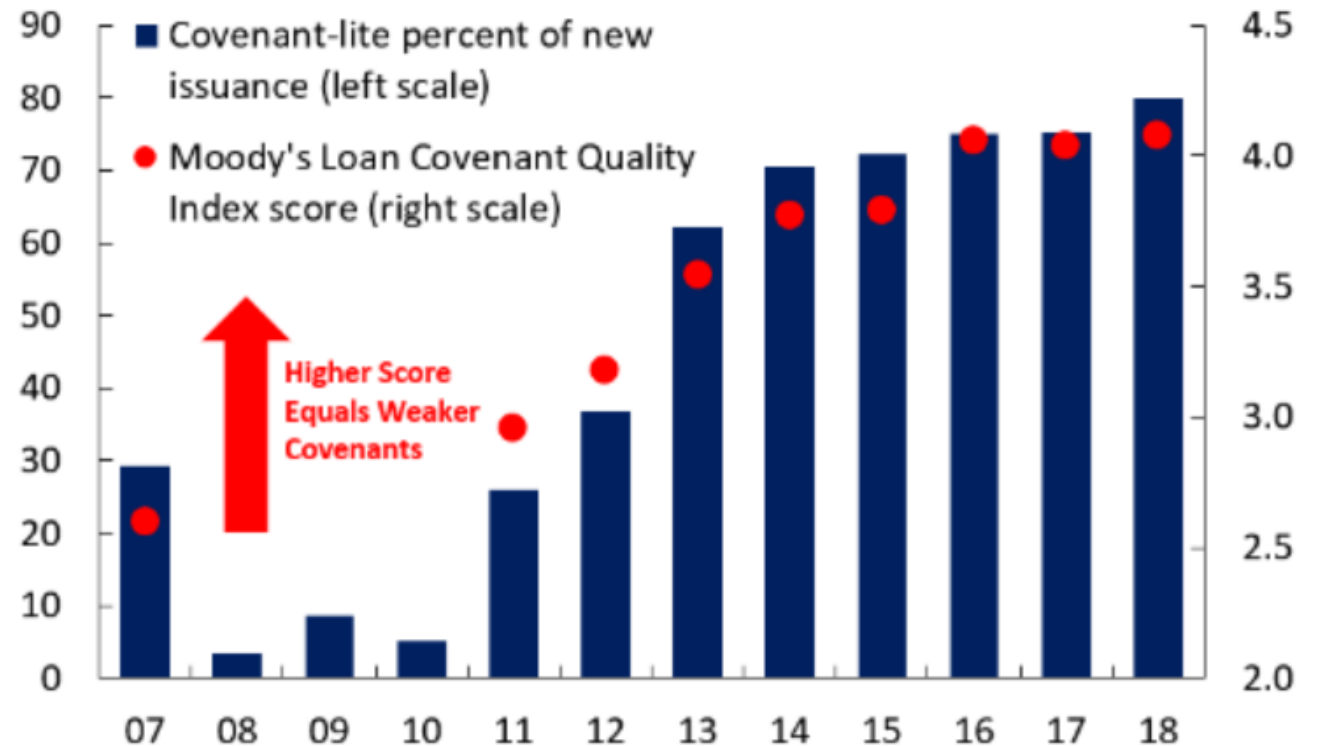


. . . . late cycle,
covenant lite,
corporate
lending is the
norm in
leveraged loan
underwriting . . .

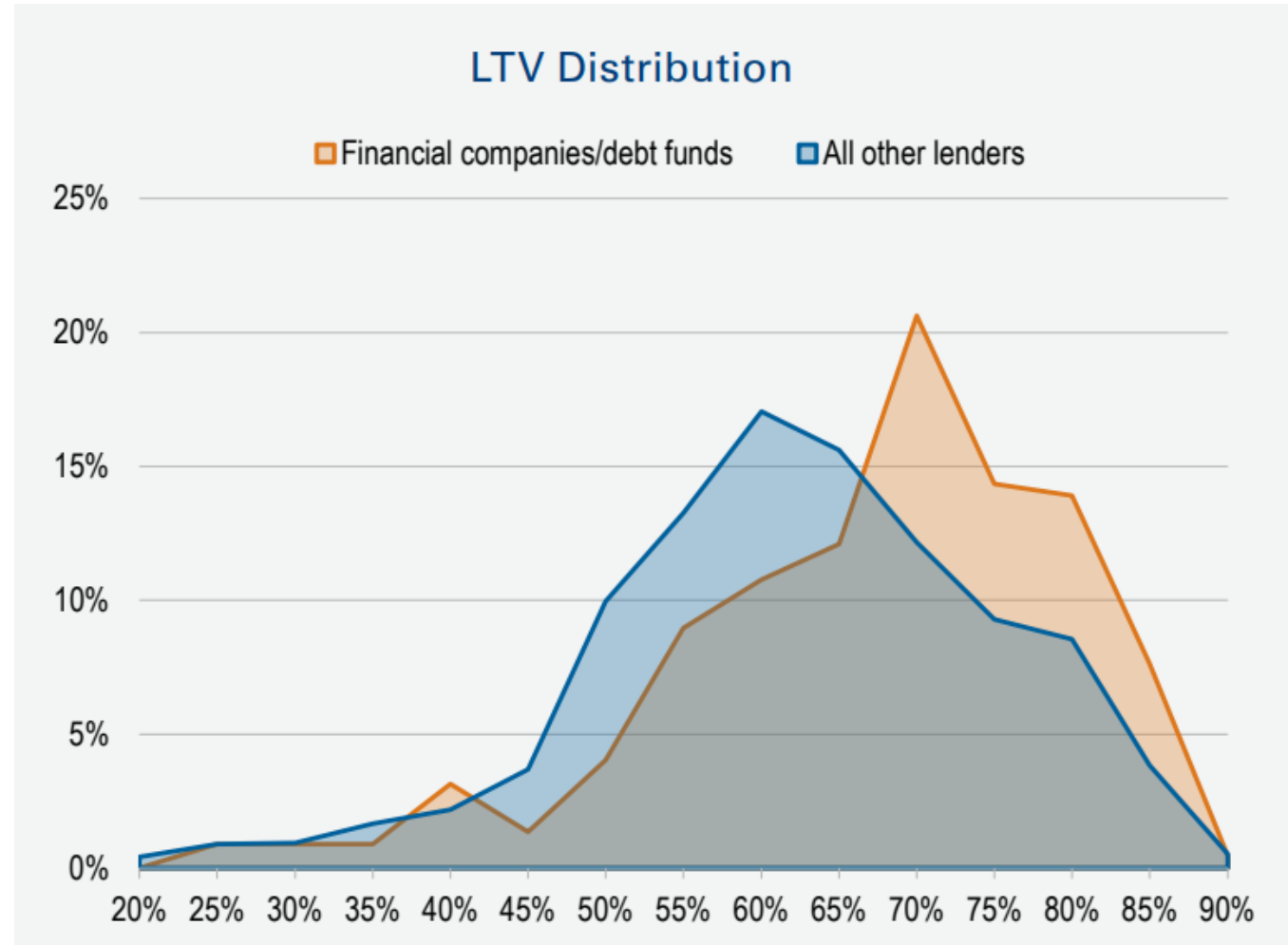
Less investor protection

The volume of loans with fewer investor protections, known as covenants, has grown in the United States, and quality has weakened.

(percent of issuance)



. . . . real estate debt funds are pushing bank debt underwriting.



Real Estate Equity and Debt Markets

There is an abundance of equity capital and it will remain abundant

Equity investment is maintaining discipline at current cap rates

The debt markets are awash in capital, but will start to push risk covenants

Leveraged loan funds pushing traditional bank lender underwriting standards, leveraged loan volume will tighten

The Property Markets



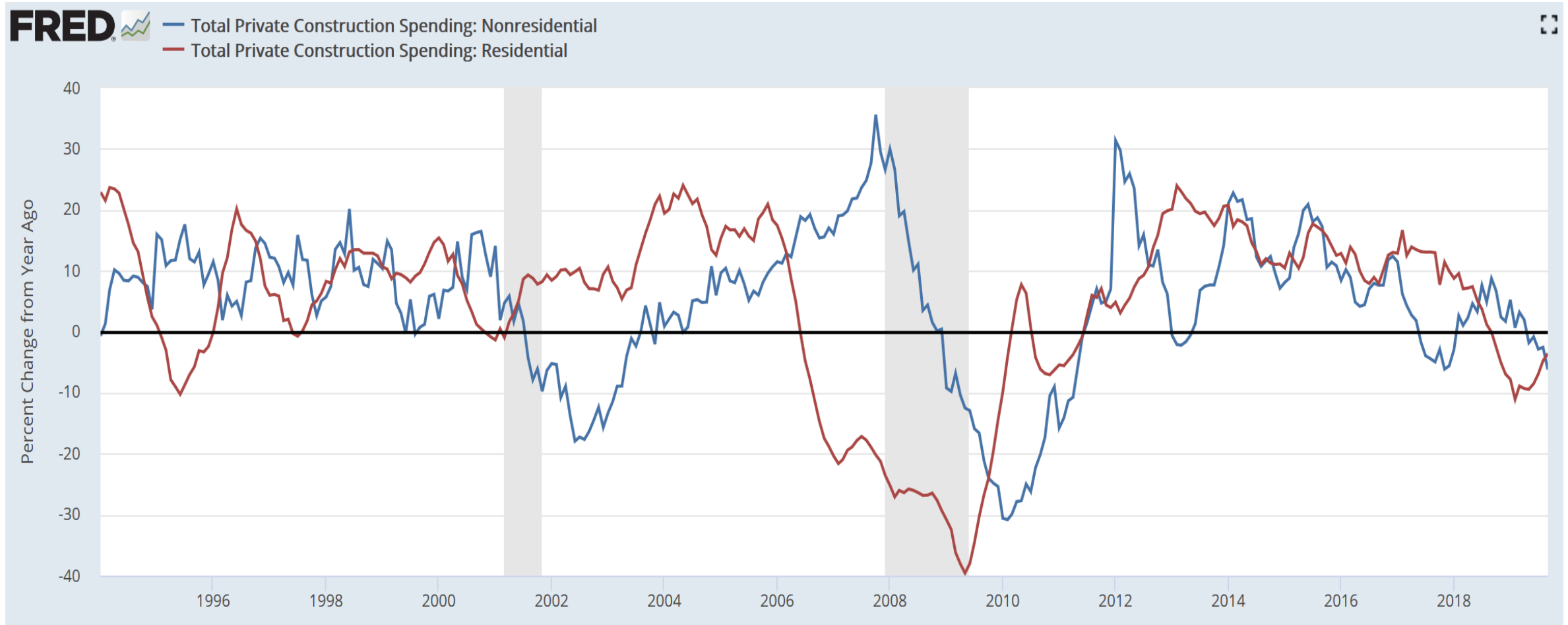
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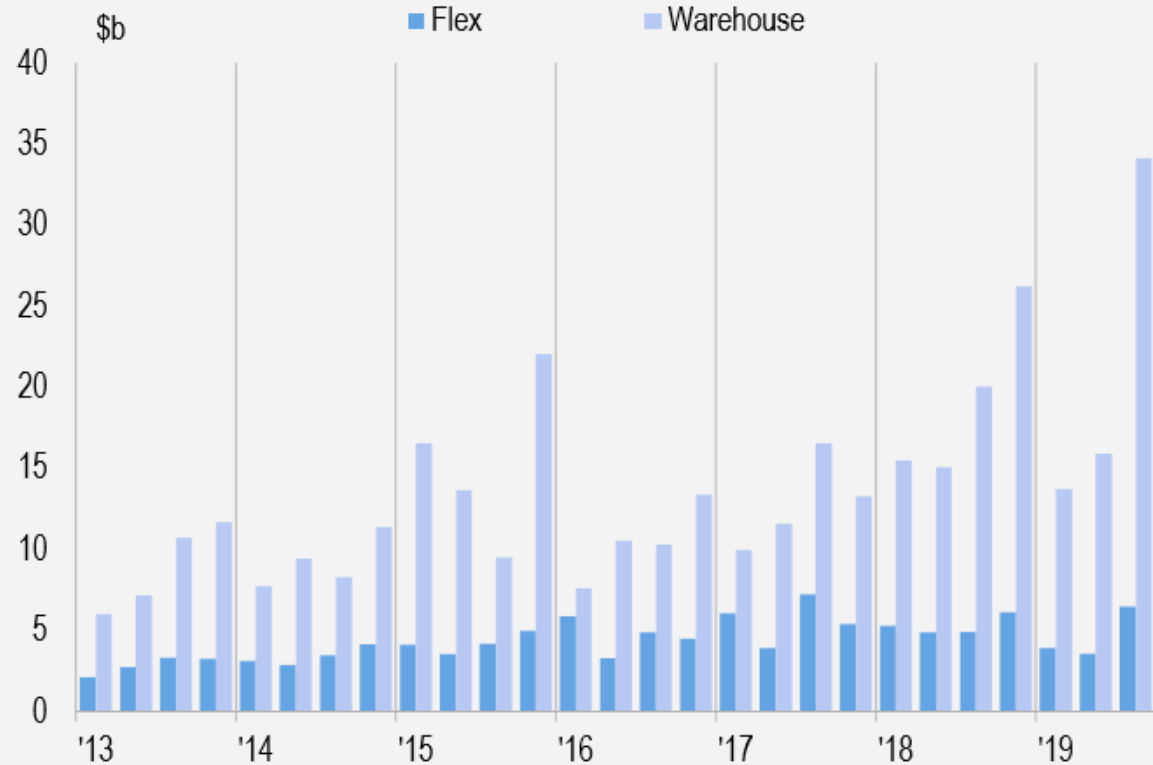
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Residential and non-residential construction is shrinking
supply is getting in check

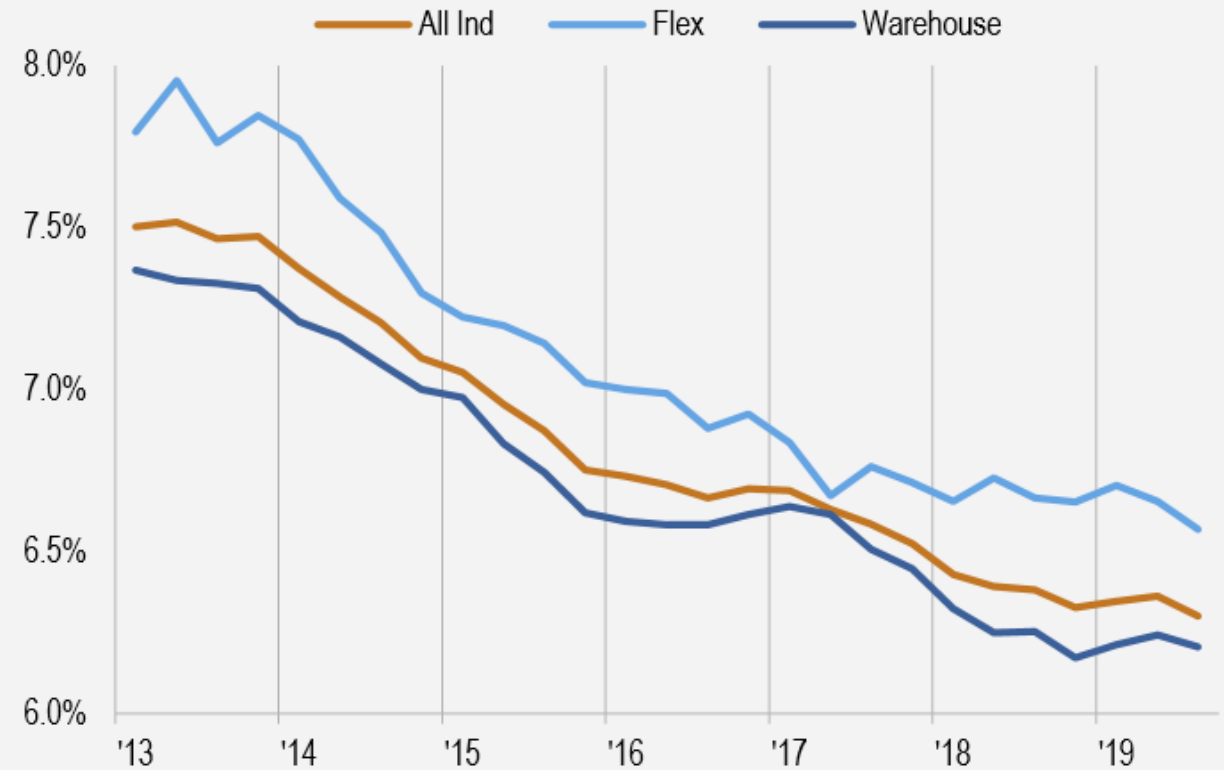


... industrial trends, transaction volume is up 63% YOY ...

Quarterly Transaction Volume

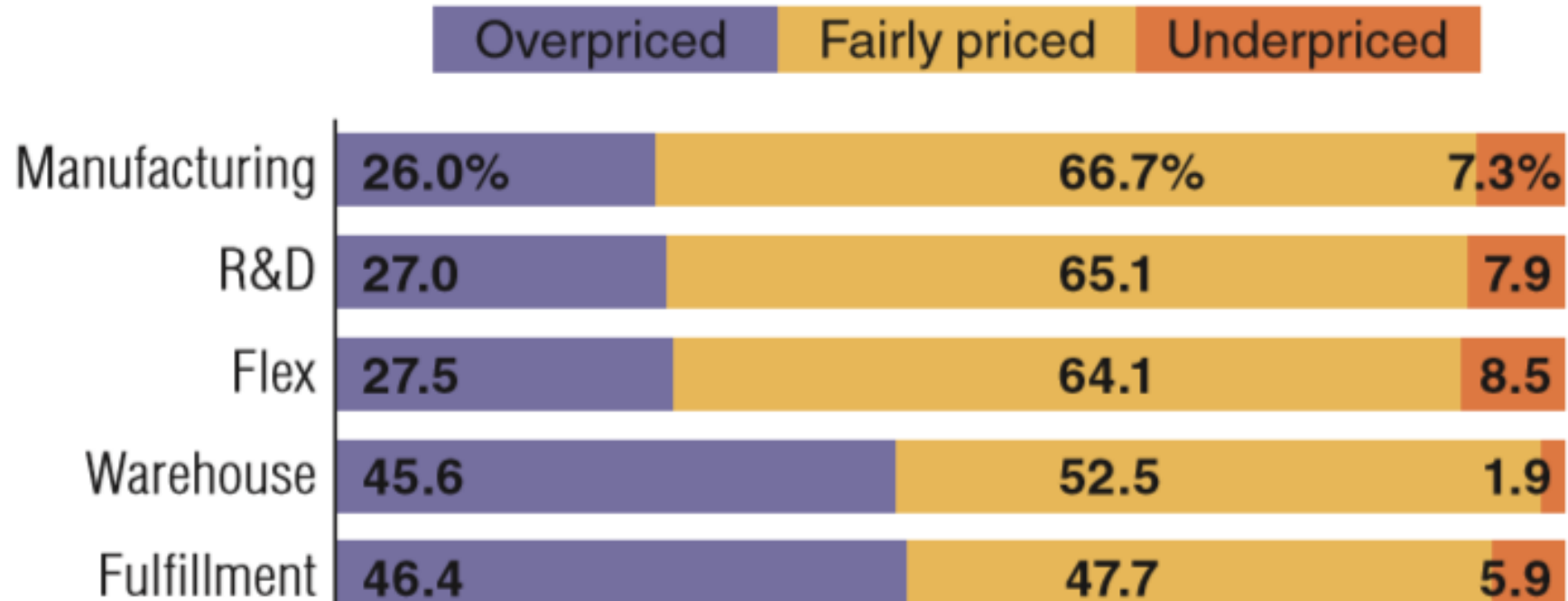


Cap Rates



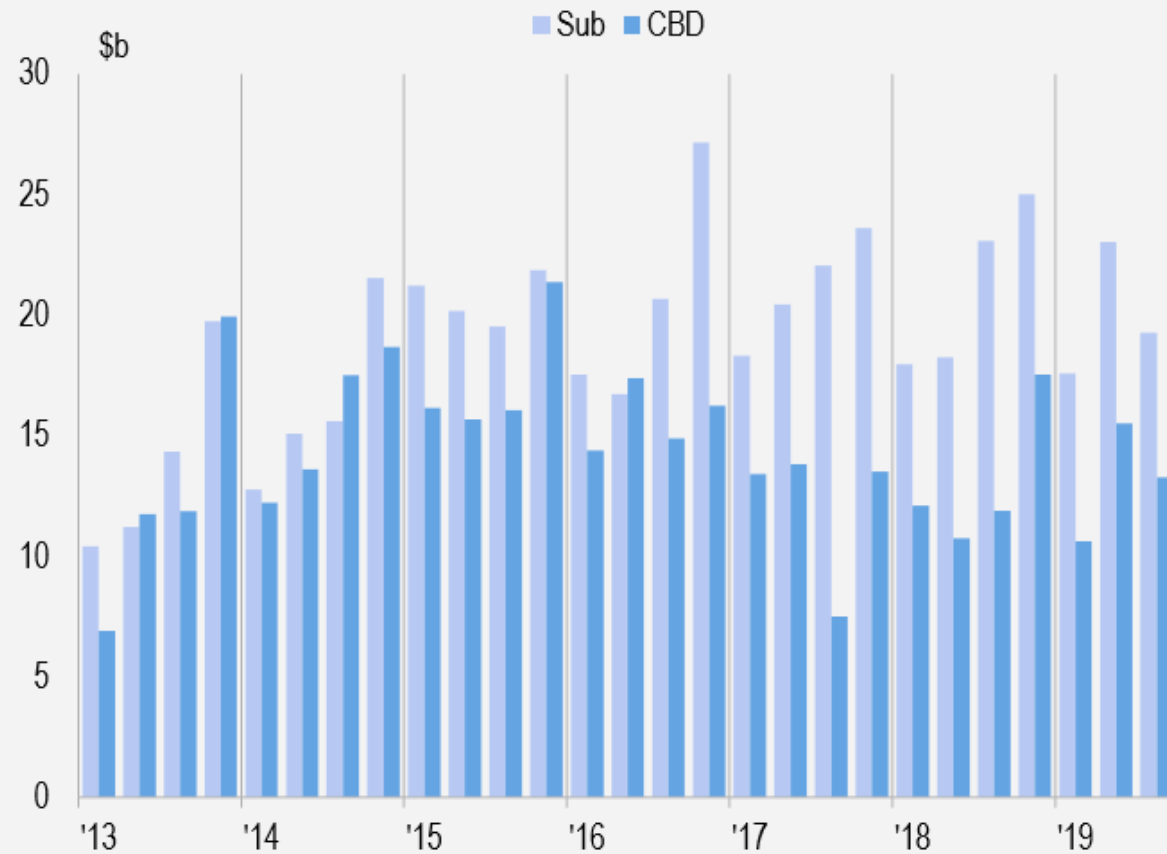
. . . . industrial pricing perceptions

Opinion of Current Industrial Pricing

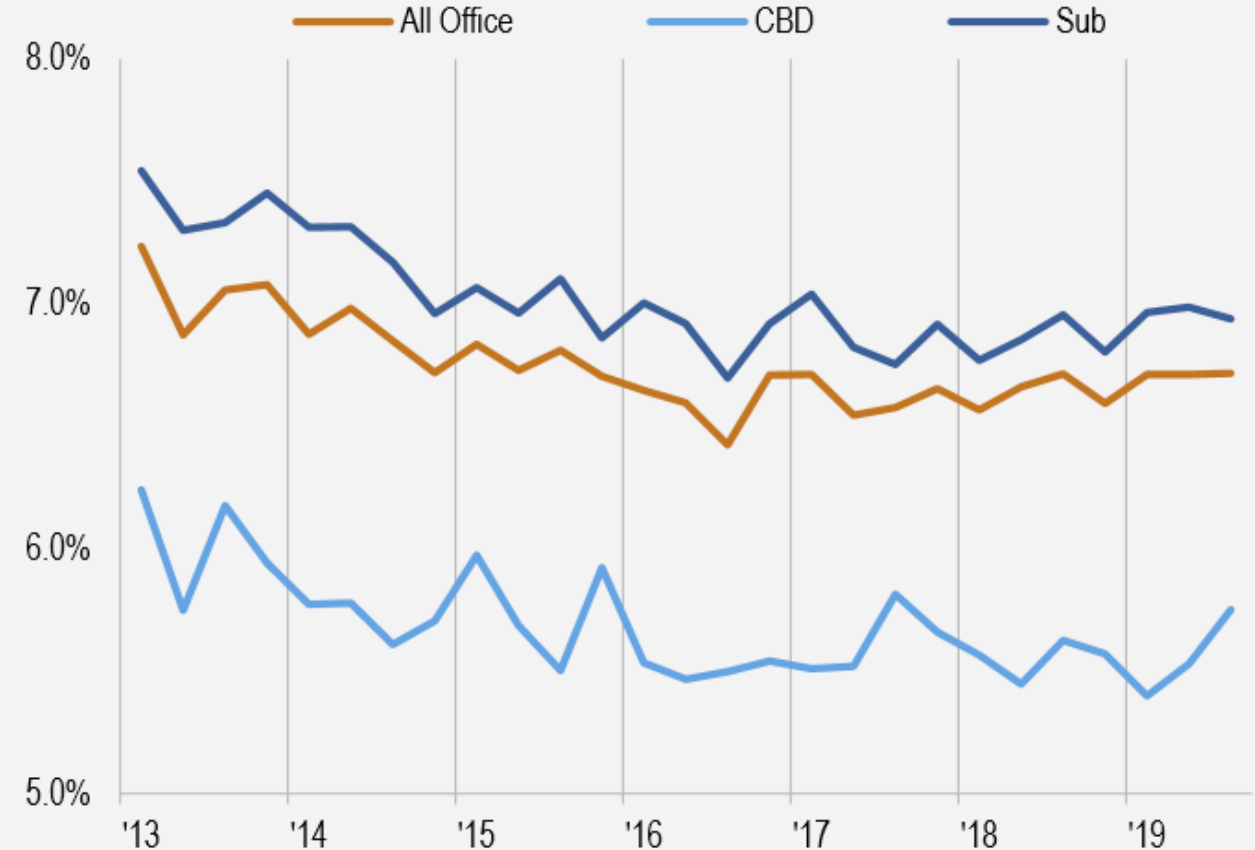


... office trends, transaction volume is off 7% YOY. ...

Quarterly Transaction Volume

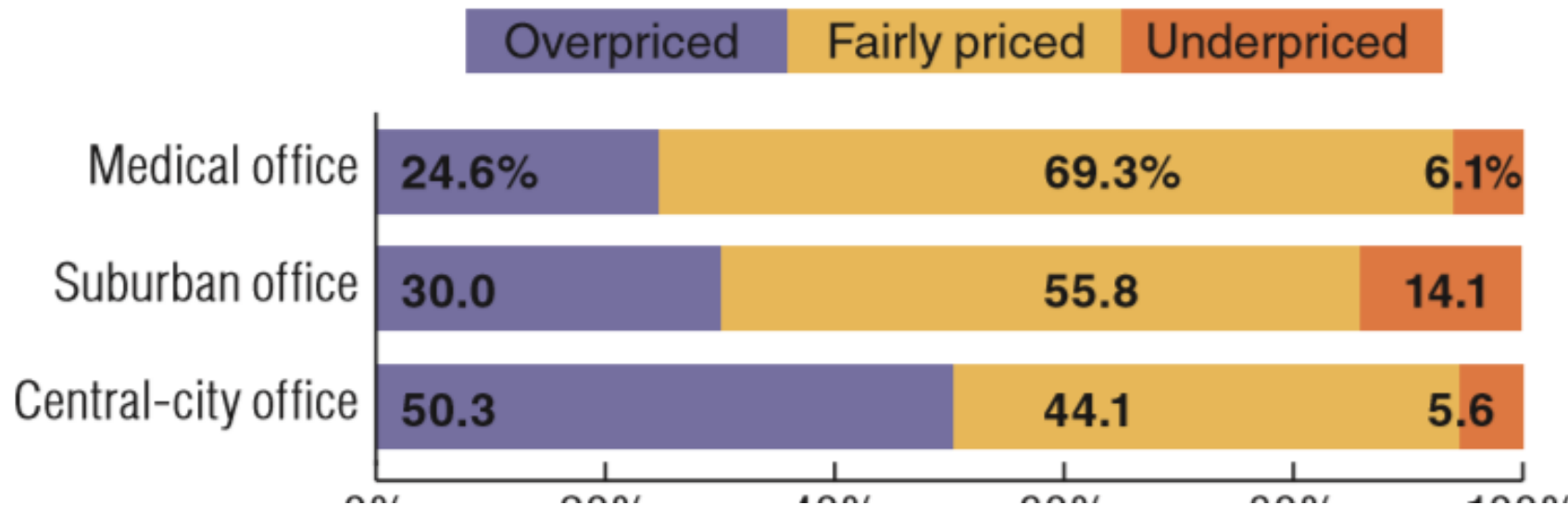


Cap Rates



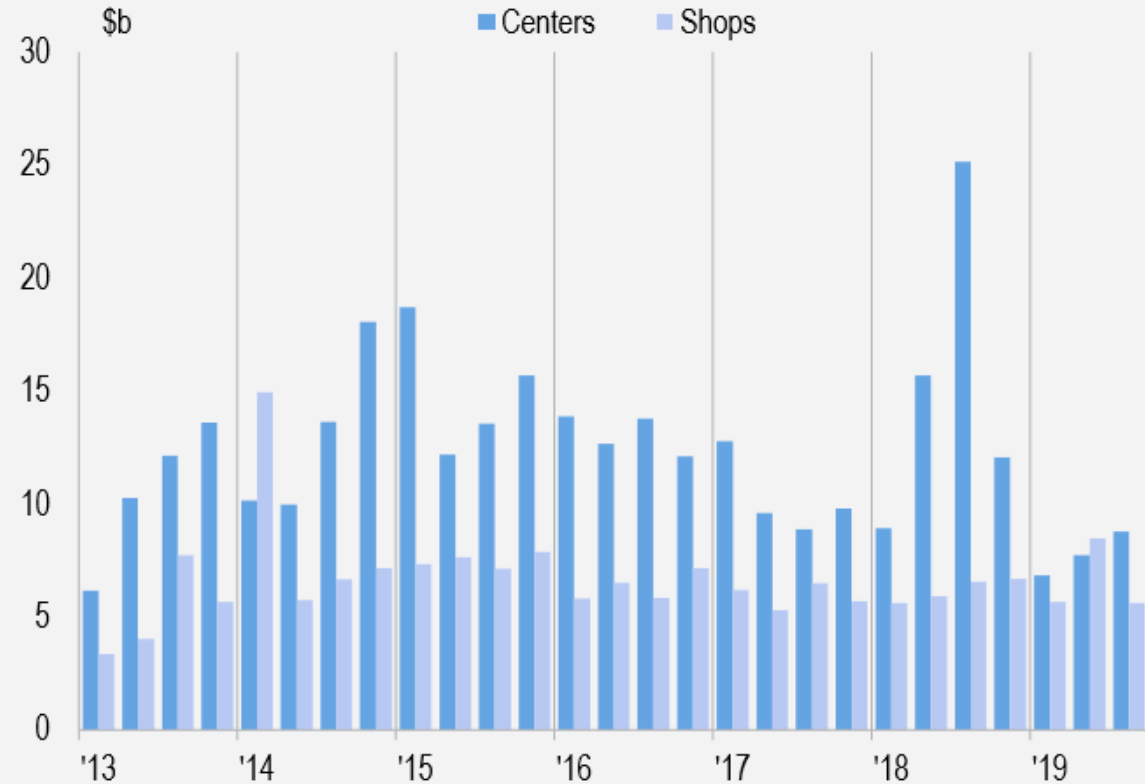
. . . . office pricing perceptions. . . .

Opinion of Current Office Pricing

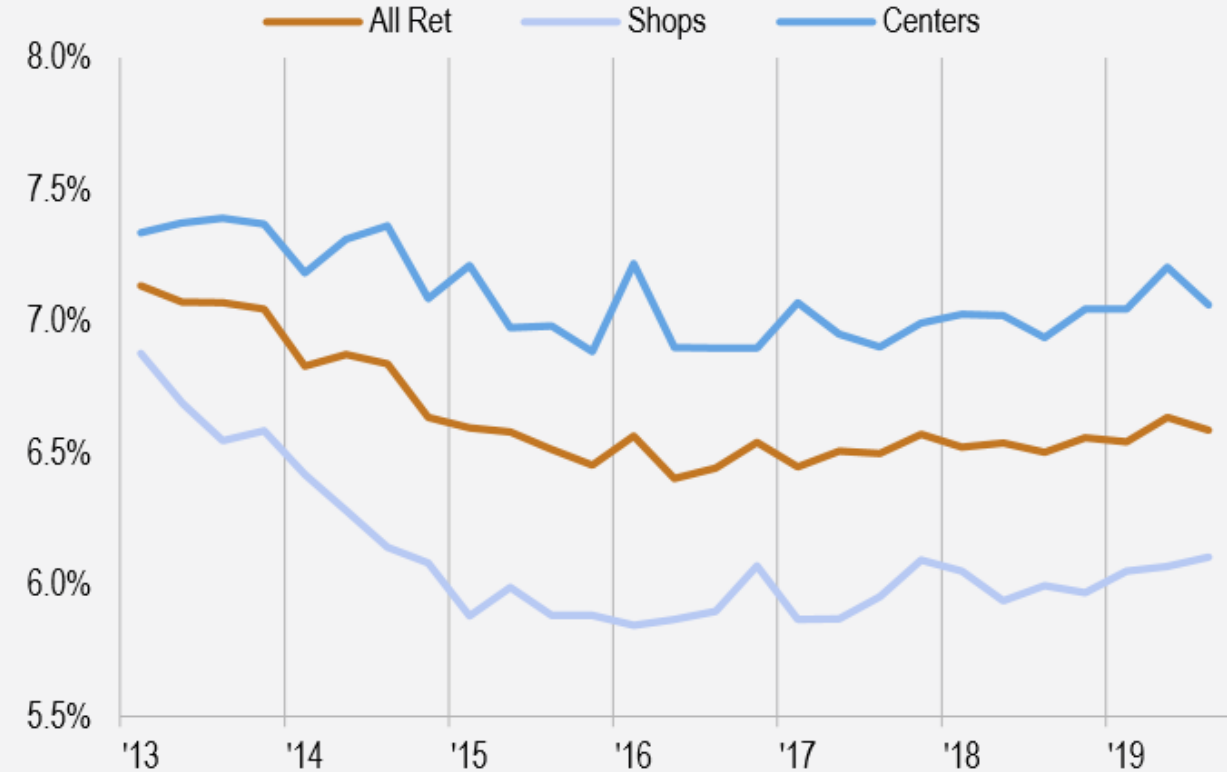


... retail trends, transaction volume has plummeted 55% YOY ...

Quarterly Transaction Volume

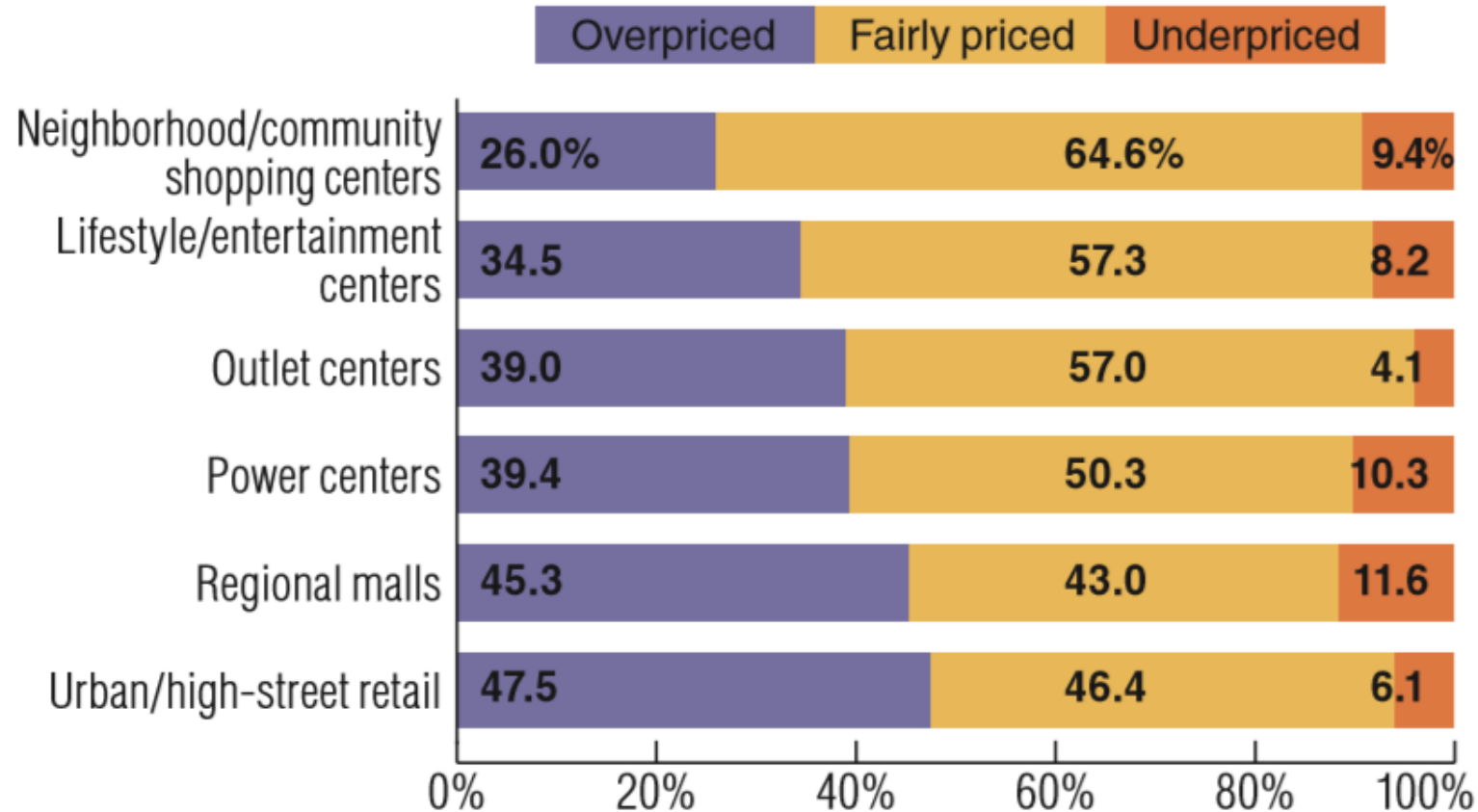


Cap Rates



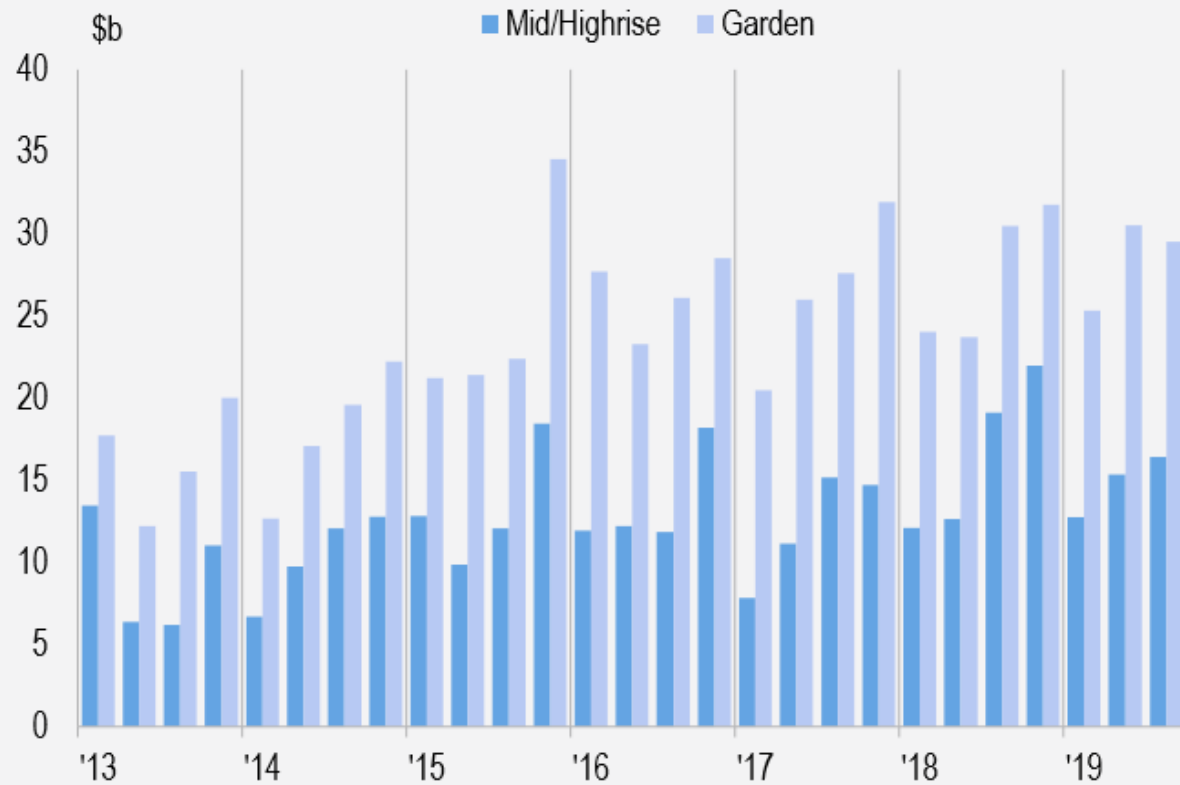
. . . . retail pricing perceptions. . . .

Opinion of Current Retail Pricing

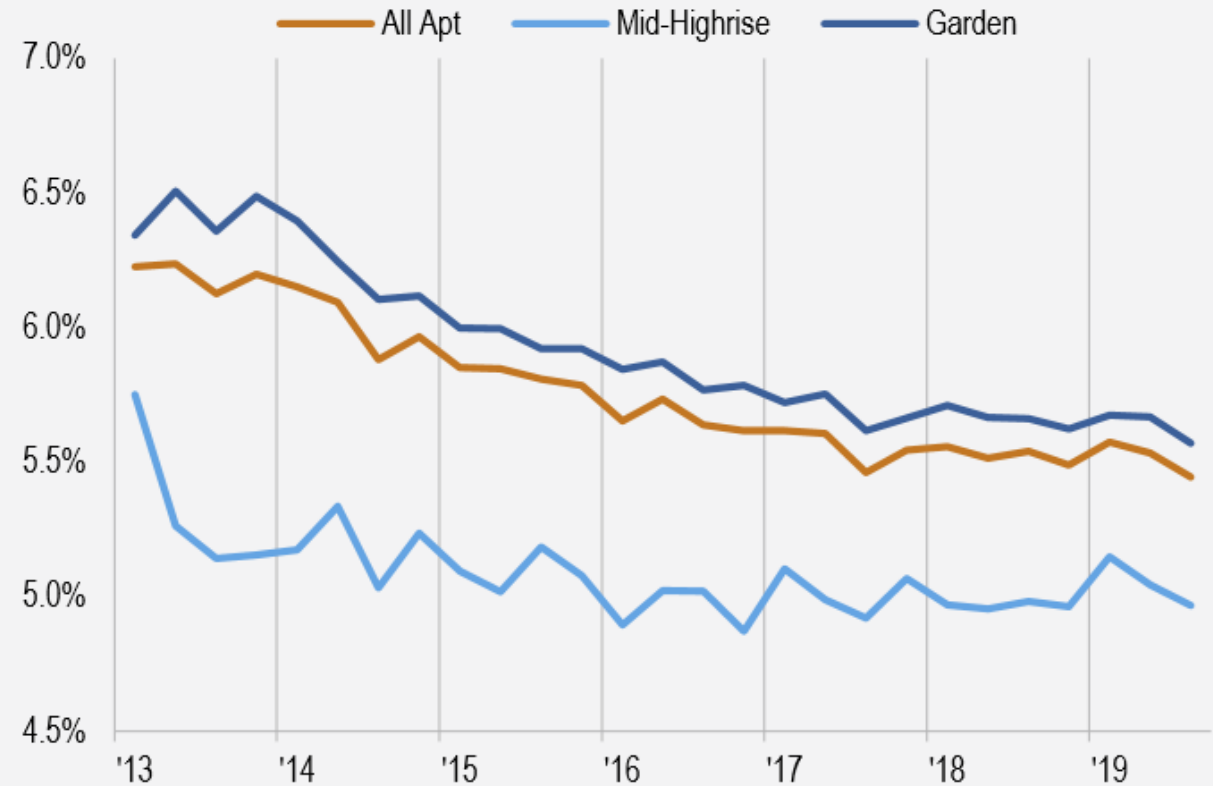


... apartment trends, transaction volume is off 7% YOY. ...

Quarterly Transaction Volume

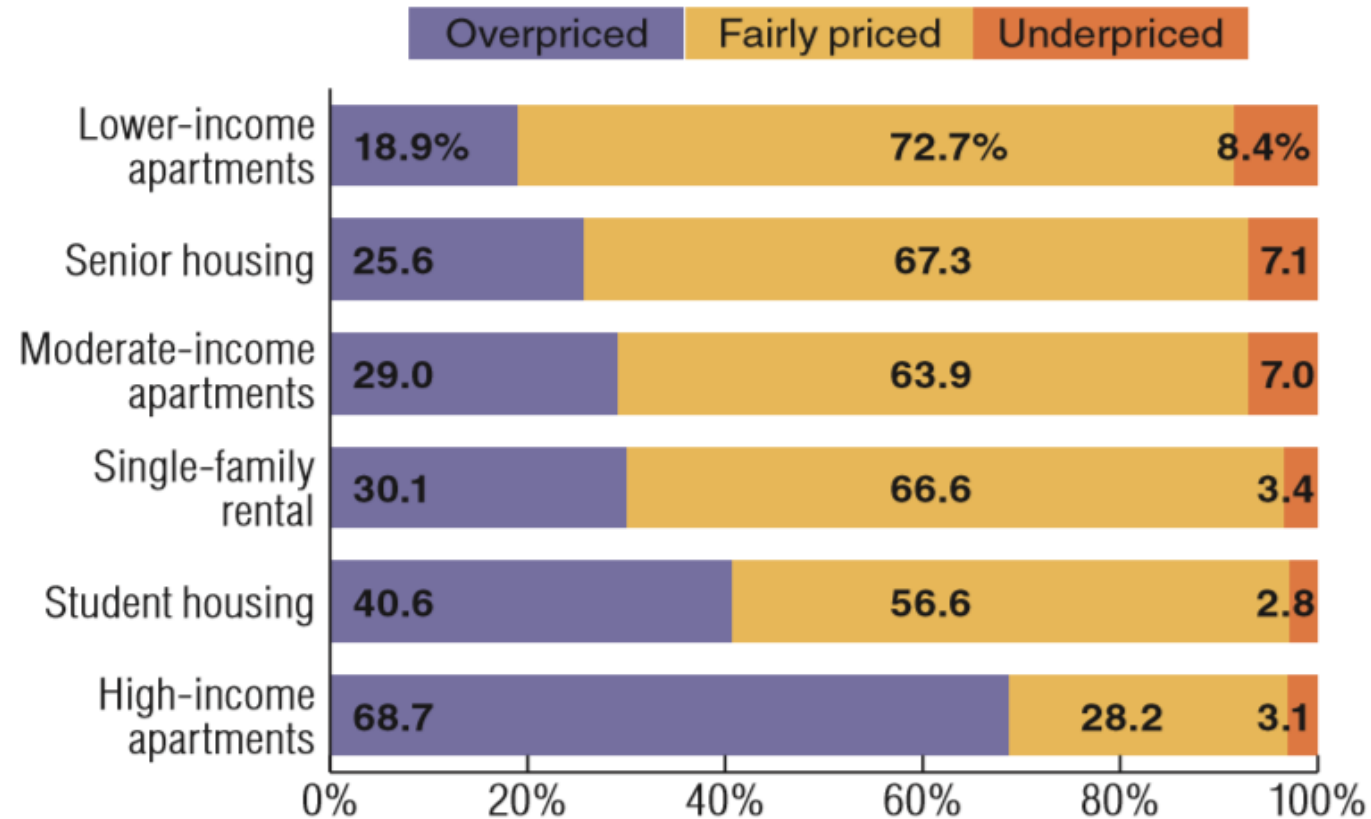


Cap Rates



... apartment pricing perceptions, We are building 90 percent of our housing for 10 percent of our households.” ...

Opinion of Current Apartment Pricing



The Forecast: 2020 “Perfect Vision?”

Asset prices:

- Cap rates will widen out by 25 bp to account for new risk premiums

Equity capital:

- Transaction volumes will fall by 5% over economic and pricing concerns

Debt capital markets:

- Will begin to tighten as the Fed clamps down on leveraged loan banks

Space markets:

- Apartment overbuilding and weaker absorption will reduce YOY NOI
- Business uncertainty will reduce warehouse demand – watch your spec space

GDP growth:

- 2.0% YOY and falling to 1.0%

Wage inflation concerns will keep interest rates from falling, weak economy as an offset

- 10-year UST at about 1.80-2.00% this time next year

2020 REAL ESTATE FORECAST: LOCAL OUTLOOK

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A grayscale background image showing the back of a person's head and their hand raised in a lecture hall, suggesting an audience participating in a Q&A session.

Q&A

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