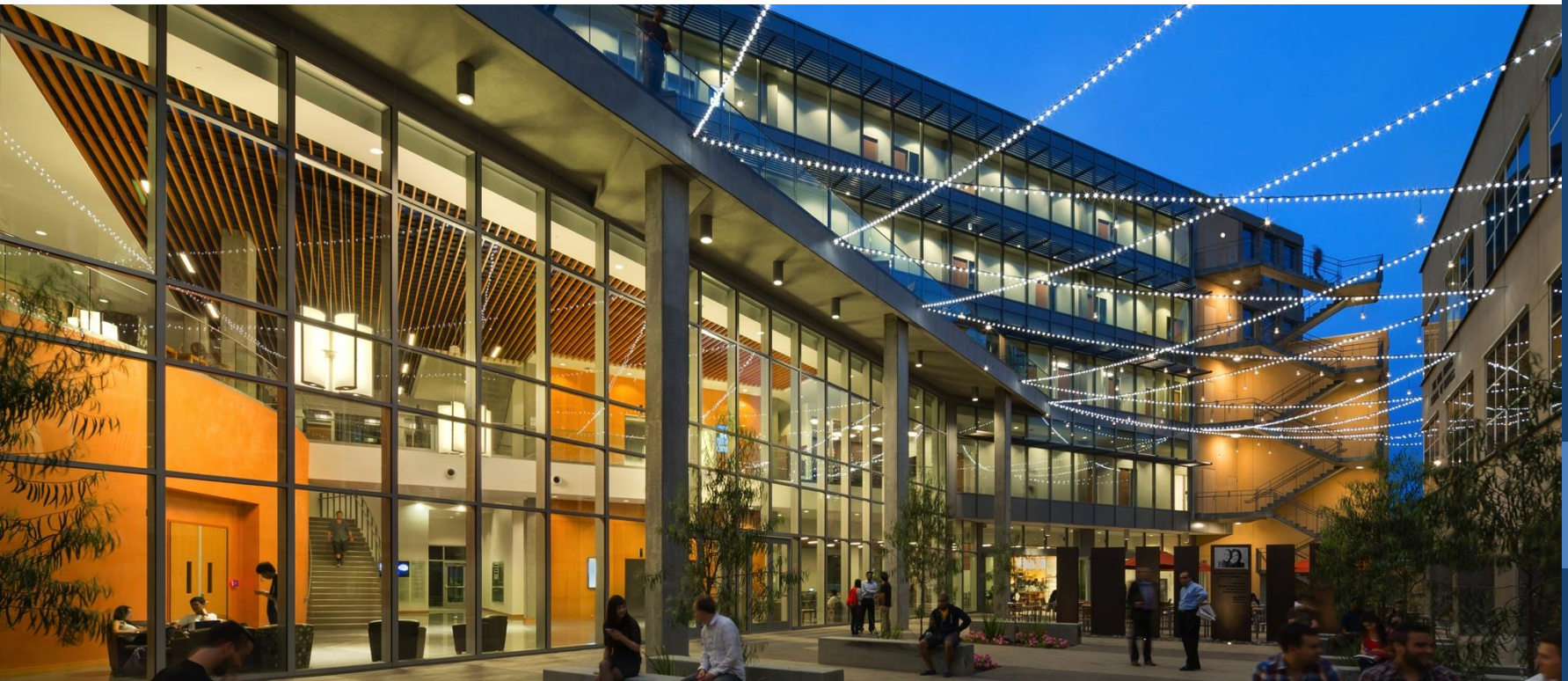


Inflation, Interest Rates and Real Estate: What's happened and What's to Come

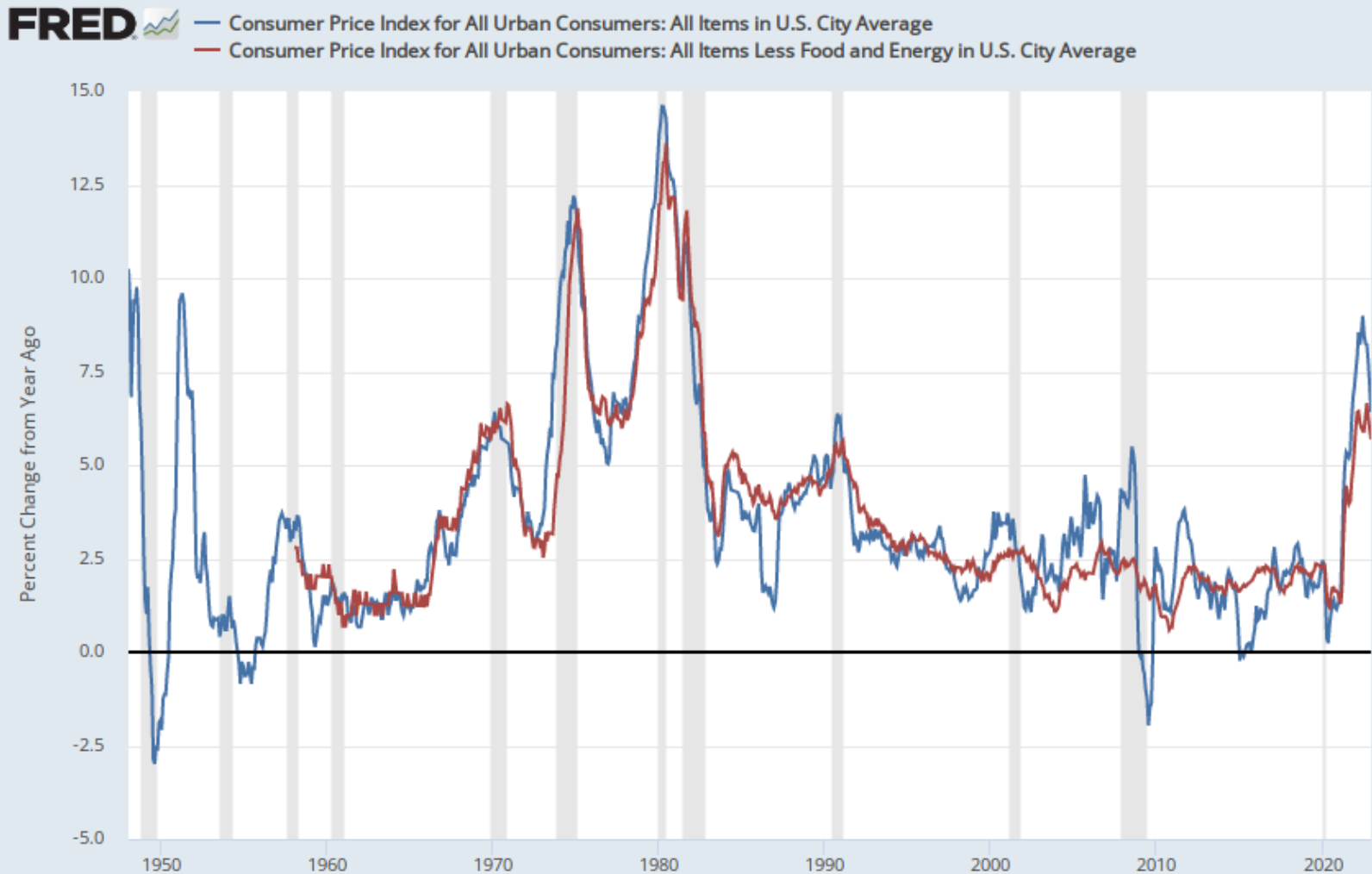
Ed Coulson,

Professor and Area Head, Economics

Director, Center for Real Estate



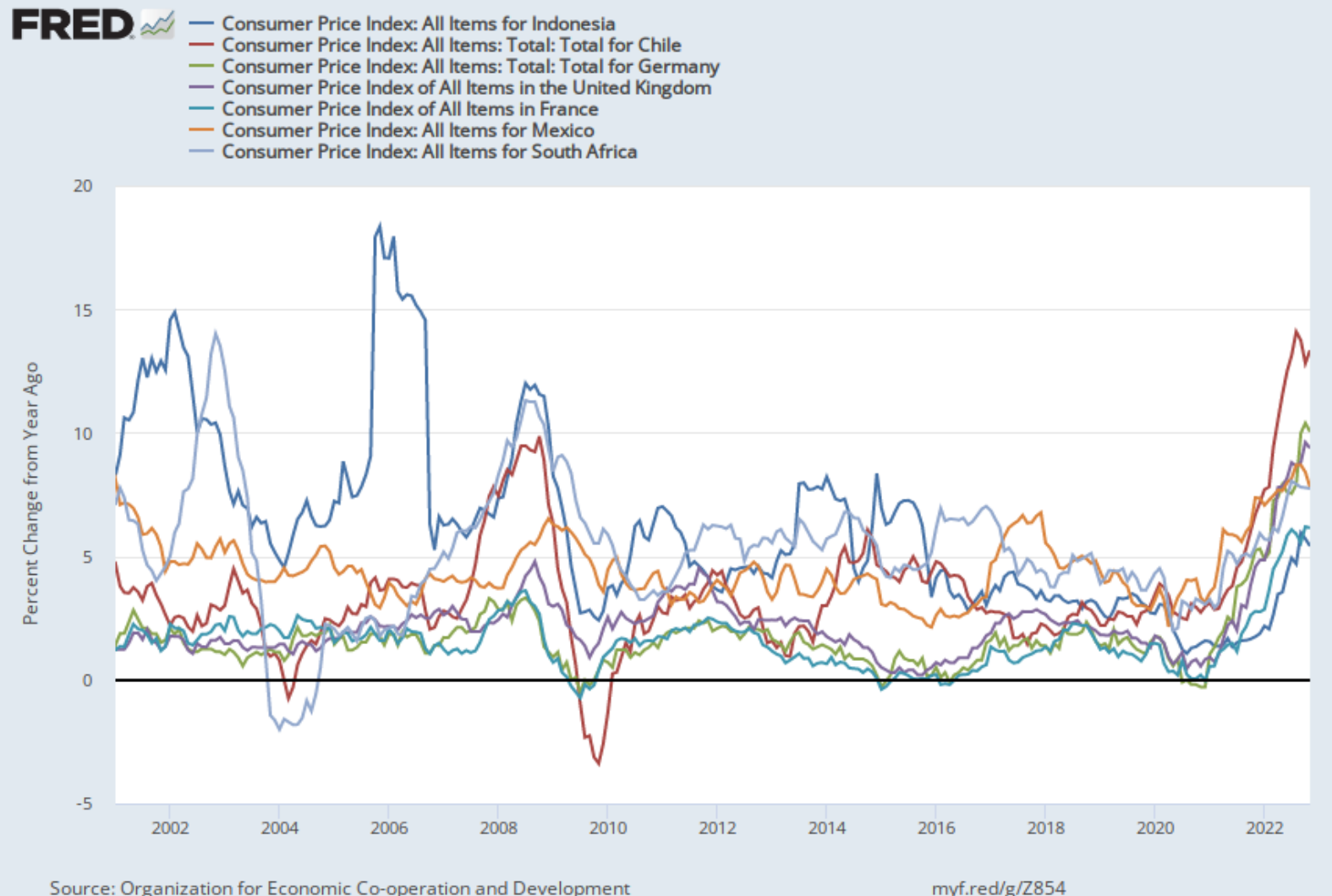
What's new?



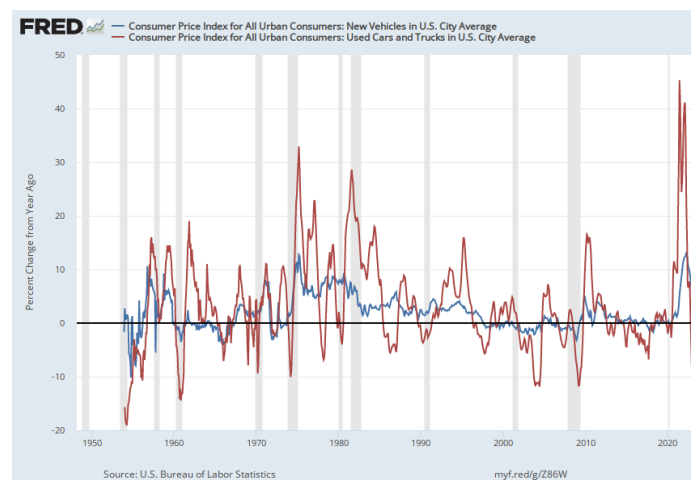
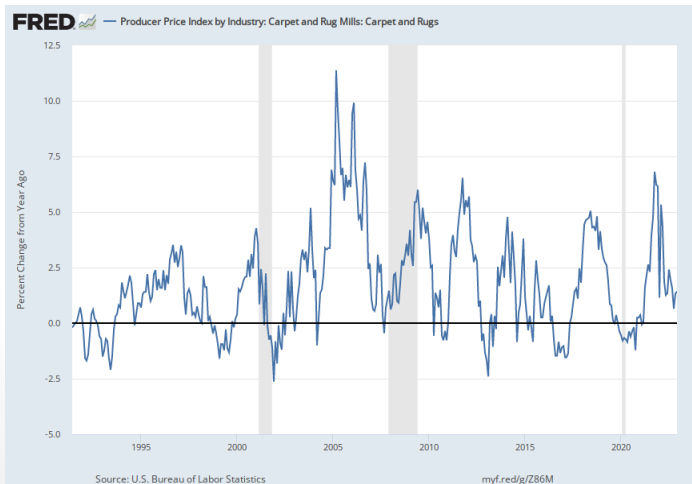
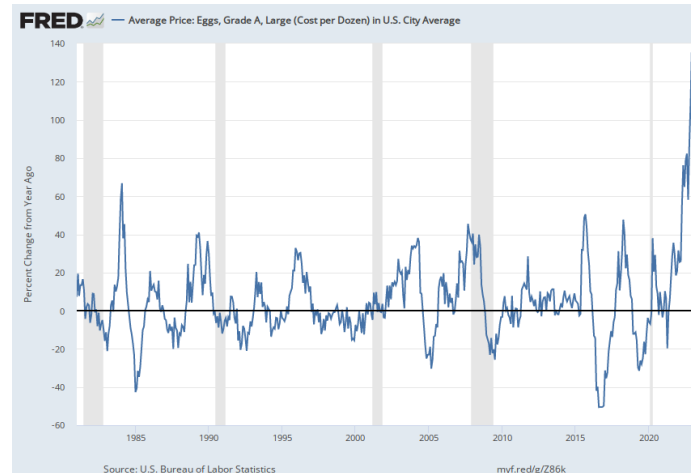
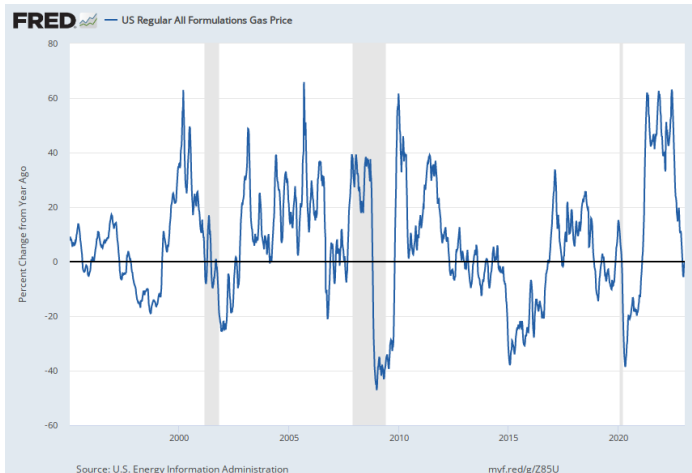
Source: U.S. Bureau of Labor Statistics

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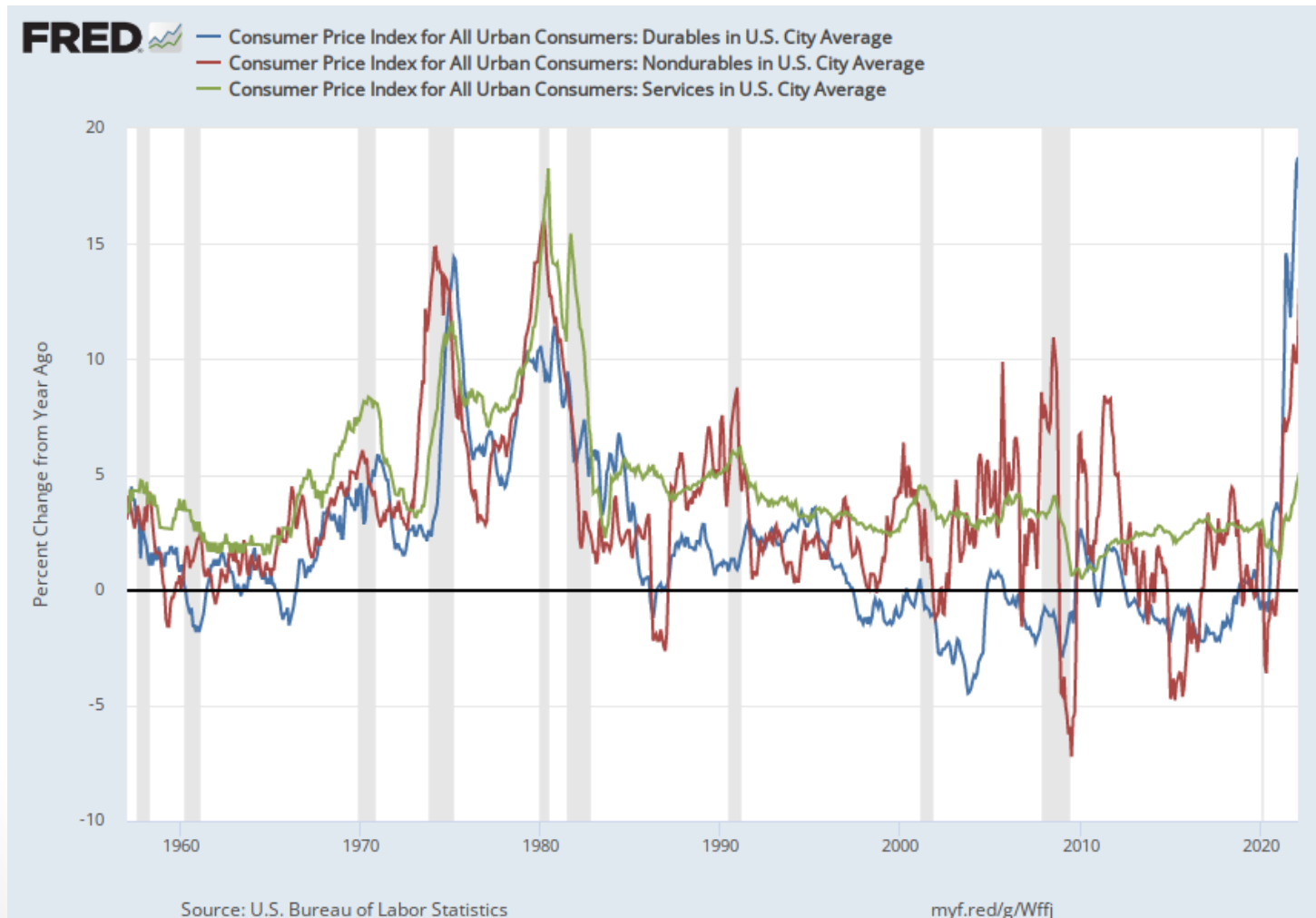
Not just our problem...



Inflation is just supply and demand



As of January 2022 it was clear where the problem was

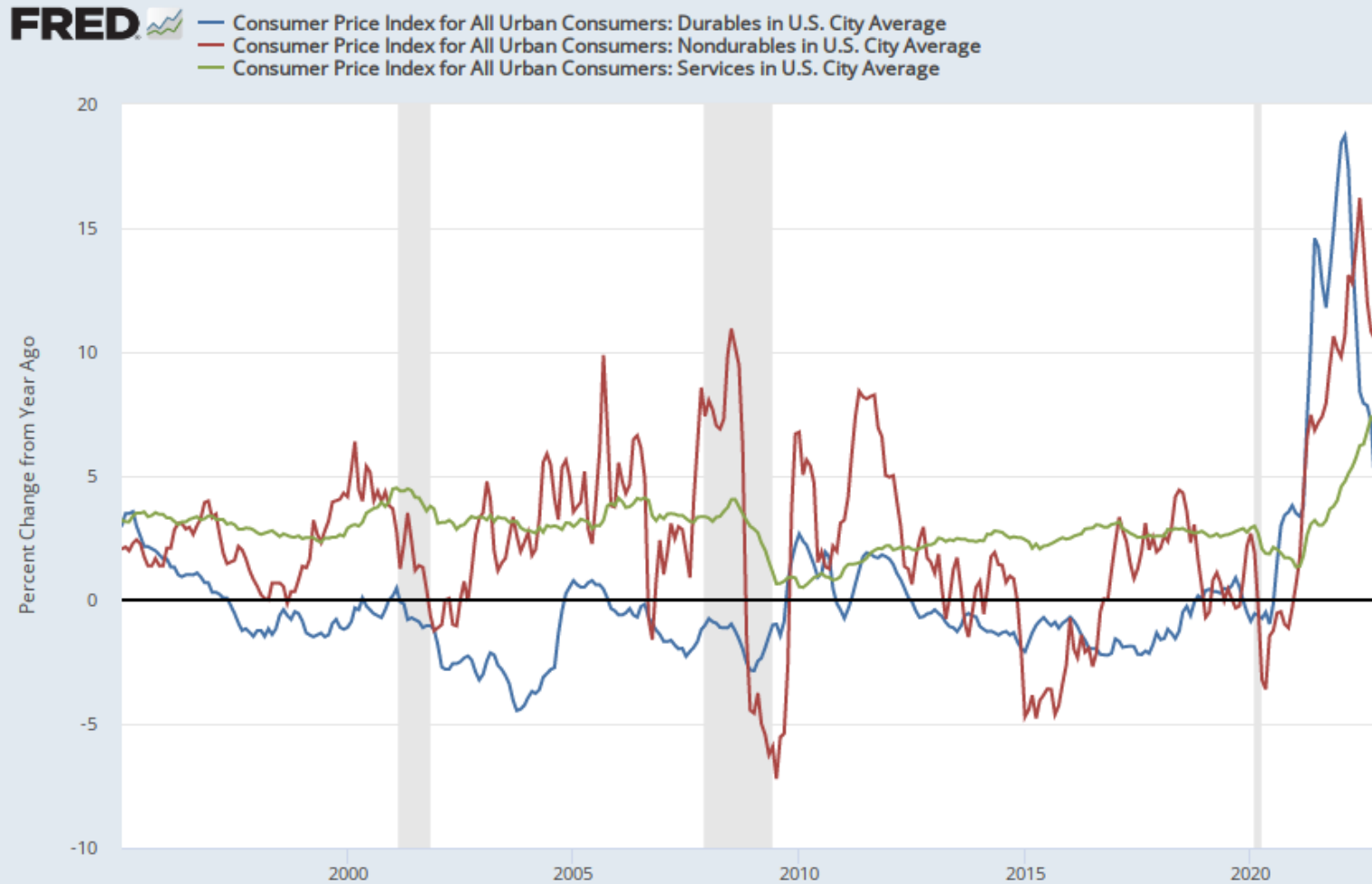


Supply chain

- Efficient, but fragile, JIT supply chain was disrupted.
- COVID



It changed...



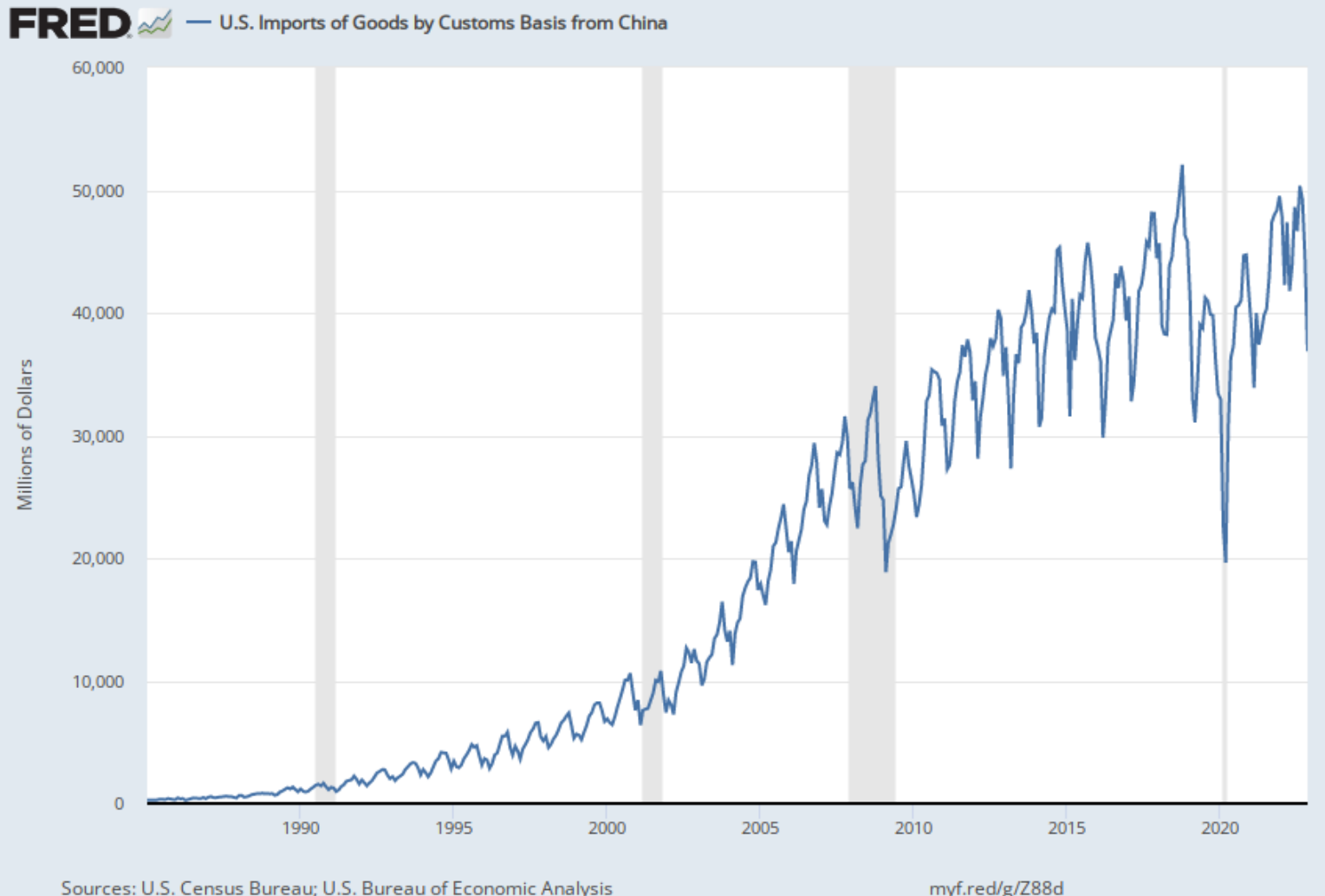
Source: U.S. Bureau of Labor Statistics

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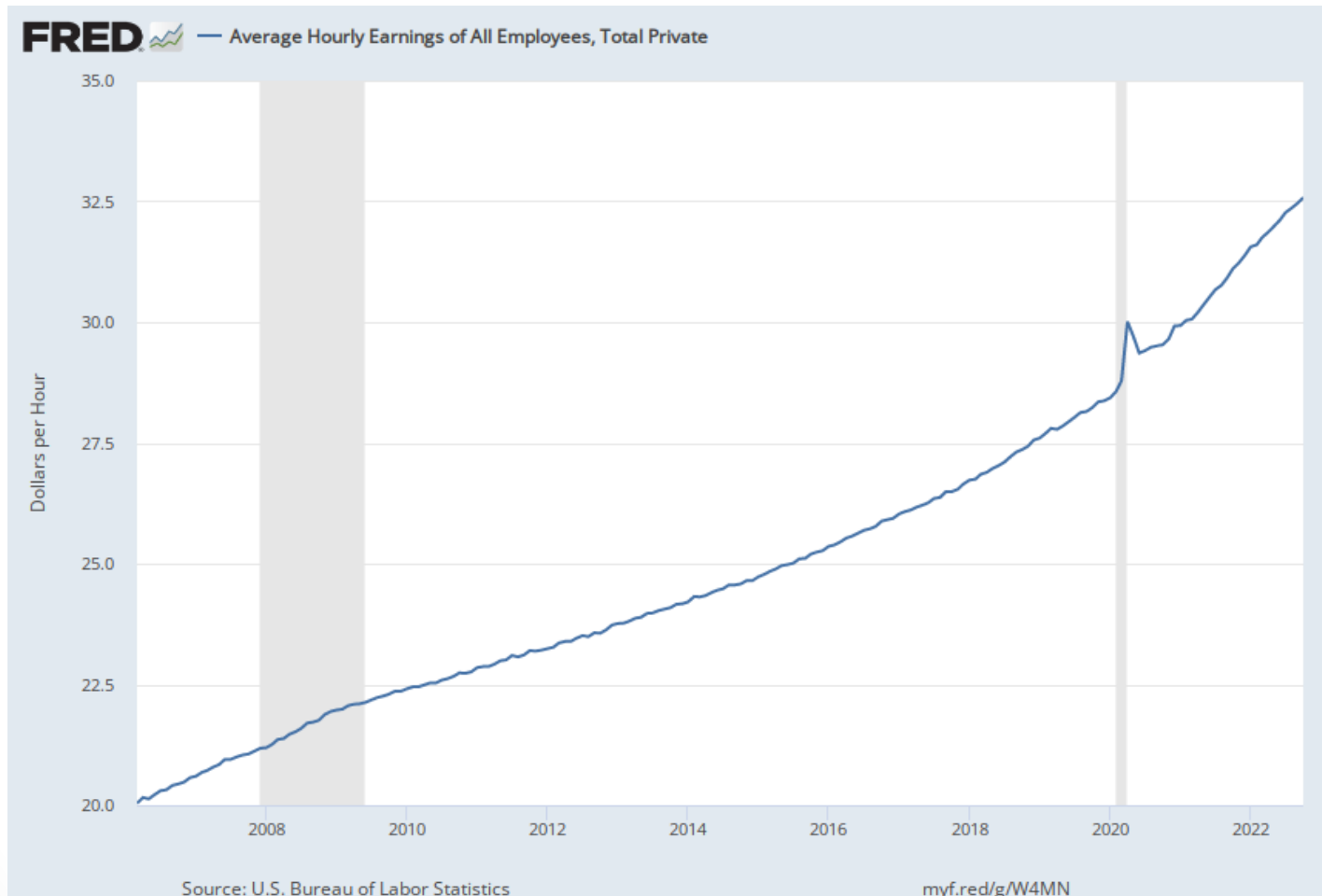
Supply or demand?

- Services inflation now higher than for durables (and MoM would be more dramatic)
- “Cost push” or “demand pull”?

Supply side: China imports are still not what they were. (There is a bright side to this)



Wages



FRED

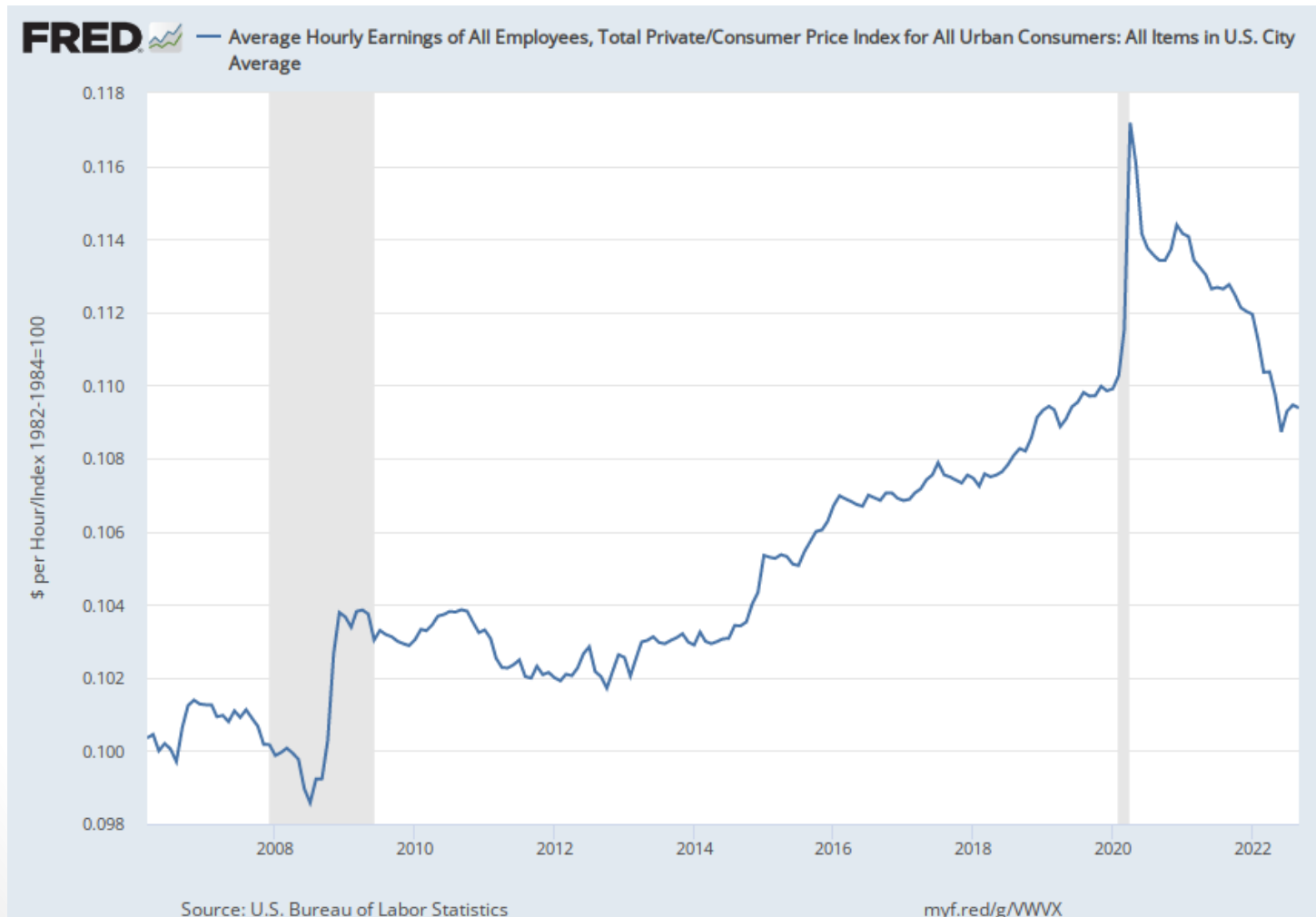
— Average Hourly Earnings of All Employees, Total Private



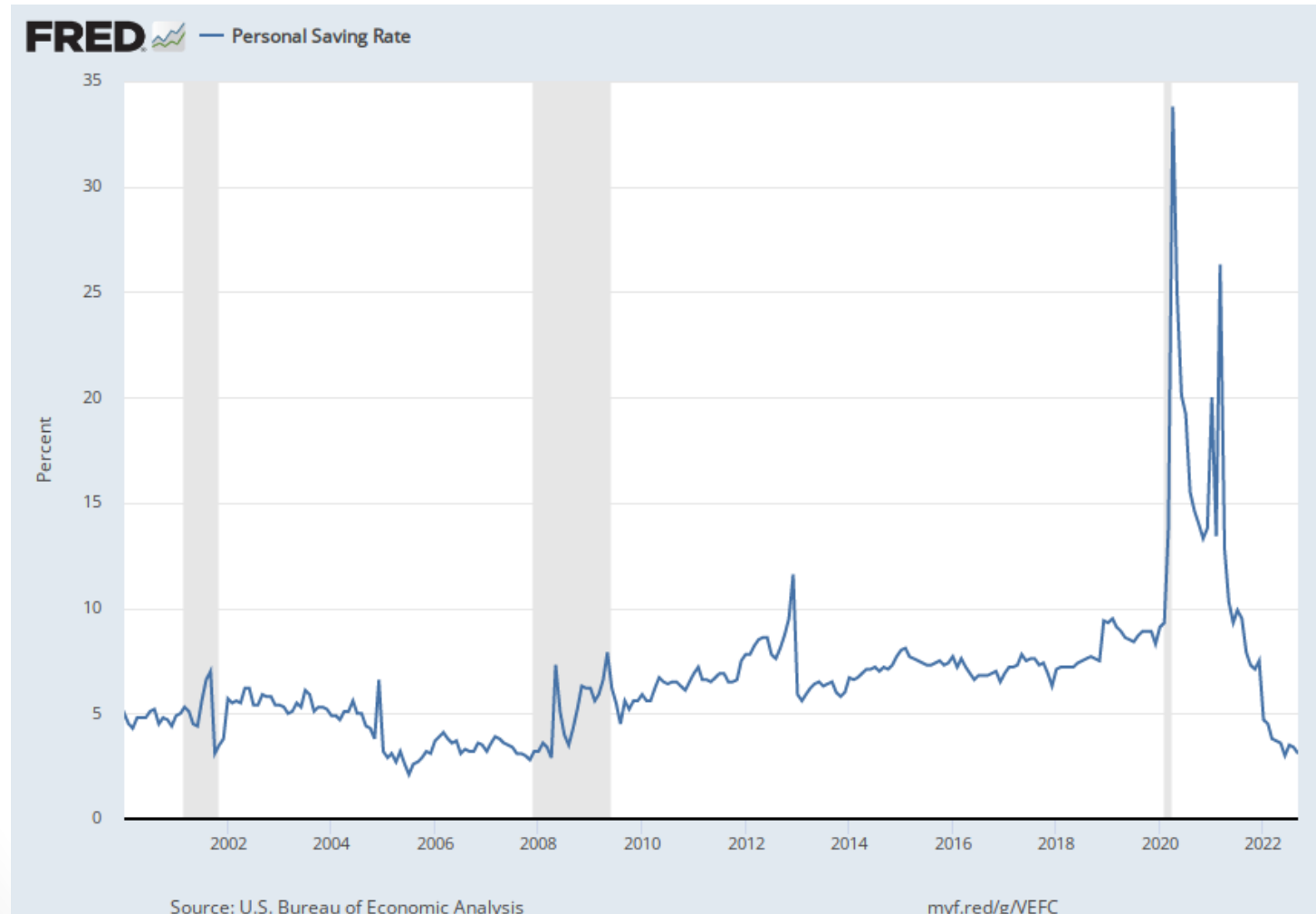
Source: U.S. Bureau of Labor Statistics

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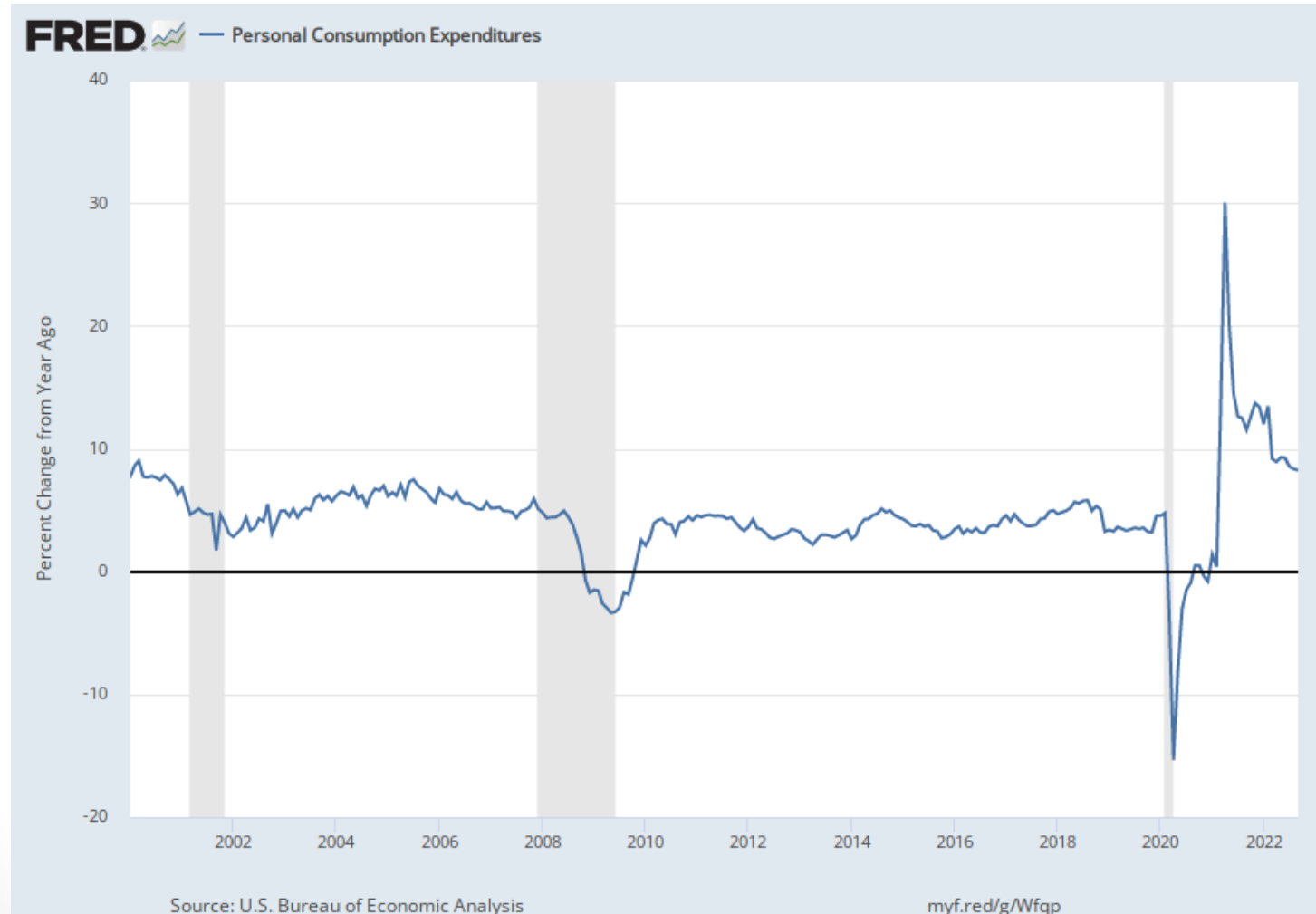
And while wages and prices form a circular bond, clearly wages have not really kept up with prices.



And demand: the role of stimulus payments

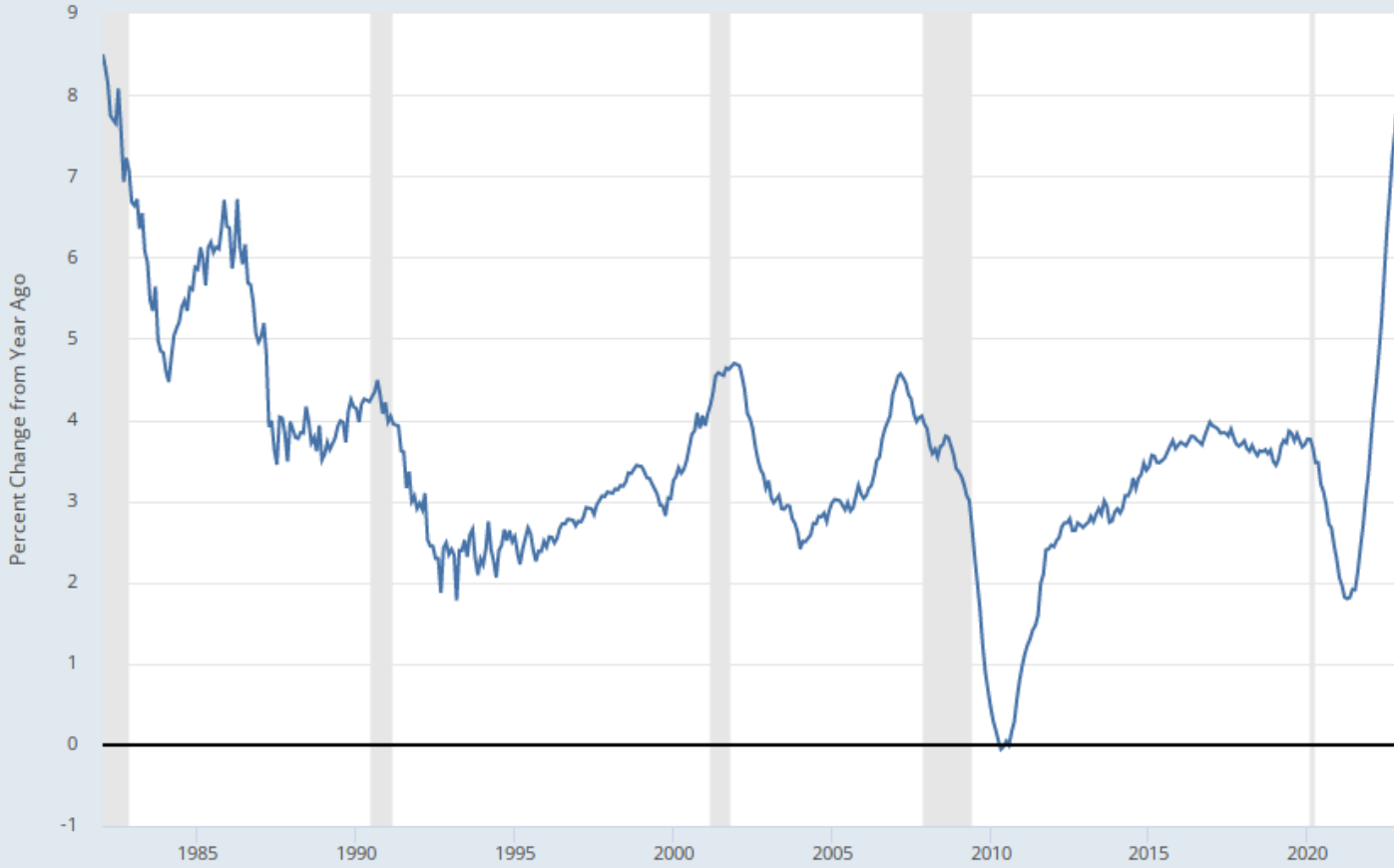


A lot of spending chasing a lot of goods (which makes for a healthy economy!)



What's missing so far?

FRED — Consumer Price Index for All Urban Consumers: Rent of Primary Residence in U.S. City Average



Source: U.S. Bureau of Labor Statistics

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Rent

- Rent is the biggest component in the CPI, and it is has the worst measurement problems
 - Panels of rotating households report their current rent (from leases that were signed months previously).
 - This is not real time rent data, inadequate for macro policy
 - The ACY research agenda is here to help!

We have been harping on this since 2015, finally getting attention paid.

THE REPEAT RENT INDEX

Brent W. Ambrose, N. Edward Coulson, and Jiro Yoshida*

Abstract—We employ a weighted repeat rent estimator to construct quarterly indexes that expand the profession's ability to make cross-sectional comparisons of housing markets. Our analysis shows that there is considerable heterogeneity in the behavior of rents across cities over the 2000–2010 decade, but the number of cities and years for which nominal rents fell is substantial: rents fell in many cities following the onset of the housing crisis in 2007; and the repeat rent and Bureau of Labor Statistics indexes differ due to sampling and construction methods.

only leases that are signed by new tenants in order to avoid possible tenure biases. Second, we employ a weighted repeat rent estimator that replicates for the rental market, as closely as possible, the weighted repeat sales estimator of Calhoun (1996), following Case and Shiller (1989) and Bailey, Muth, and Nourse (1963).¹ This method of estimating house price

DOI: 10.1111/jmcb.12971

BRENT W. AMBROSE
N. EDWARD COULSON
JIRO YOSHIDA

Housing Rents and Inflation Rates

This paper develops a quality-adjusted measure of marginal housing rents using a monthly statistic of landlord net rental income. The marginal rent index (MRI) exhibits deflation during recessions and leads the official rent index by 7 months. The modified inflation rate based on MRI suggests that the annual official inflation rate was overestimated by 1.7–4.1% during the Great Recession but underestimated by 0.3–0.7% during the subsequent expansionary period.

Reassessing Taylor rules using improved housing rent data[☆]

Brent W. Ambrose^a, N. Edward Coulson^b, Jiro Yoshida^c



^aInstitute for Real Estate Studies and the Department of Risk Management, Smeal College of Business, The Pennsylvania State University, University Park, PA 16802-3306, USA

^bMerage School of Business, University of California, Irvine, CA 92697-3125, USA

^cDepartment of Risk Management, Smeal College of Business, The Pennsylvania State University, 368 Business Building, University Park, PA 16802, USA

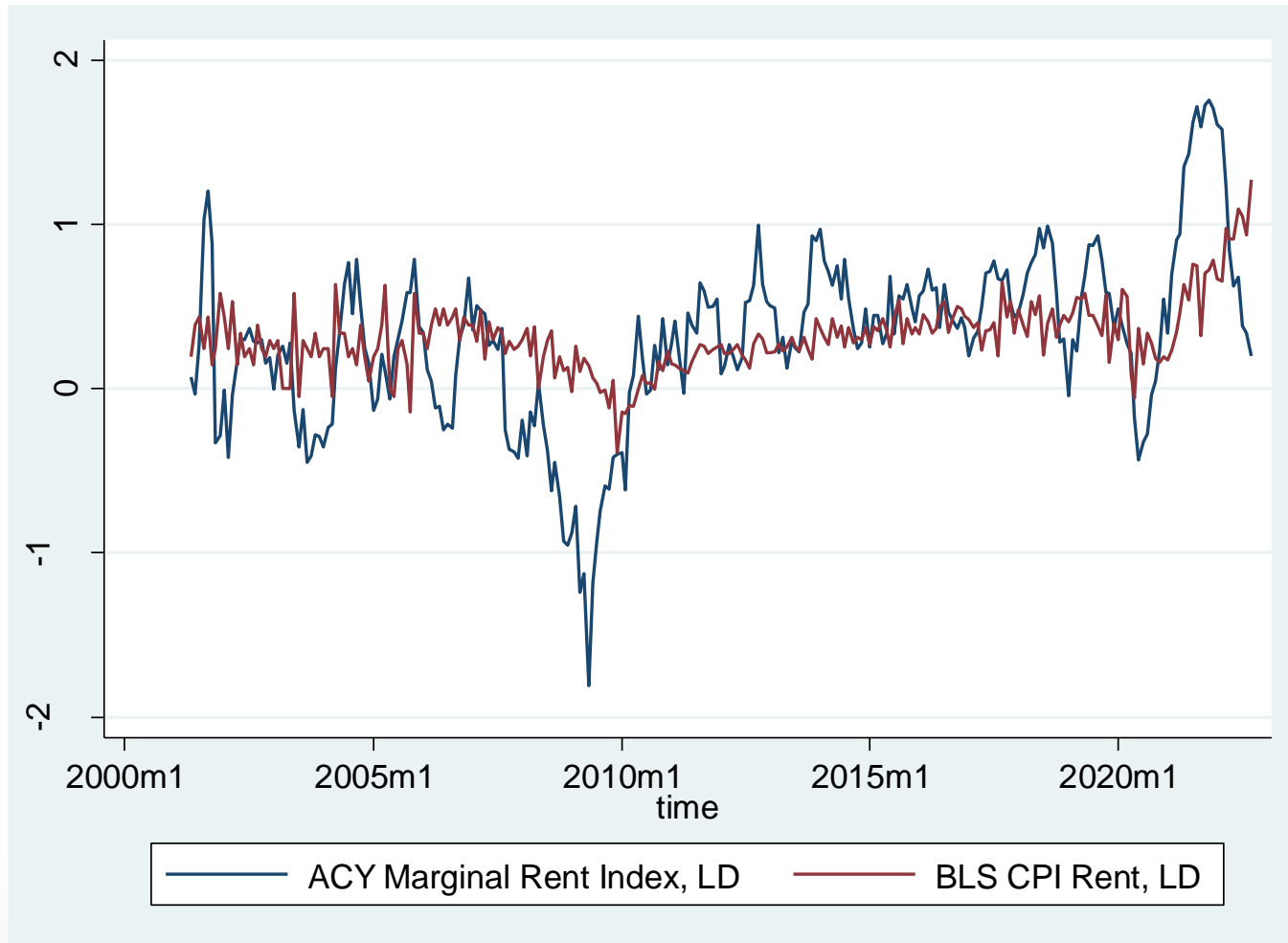
ARTICLE INFO

Keywords:
Monetary policy
Federal funds rate
Taylor rule
Personal consumption expenditures
Inflation measures
Housing rent
JEL classification:

ABSTRACT

There is a debate whether the federal funds rate deviated from the Taylor rule. We present evidence that standard inflation measures do not reflect the contemporaneous state of housing rents, which are a large part of price indexes. Using a new housing rent index (RRI) developed by Ambrose et al. (2015), we compute the RRI-based Taylor rule for the period from 2000 to 2010. The modified Taylor rule indicates that seemingly large deviations are better understood as delays due to the stale information regarding housing rents. It also provides a justification for Quantitative Easing and a better alternative to other versions of Taylor rules.

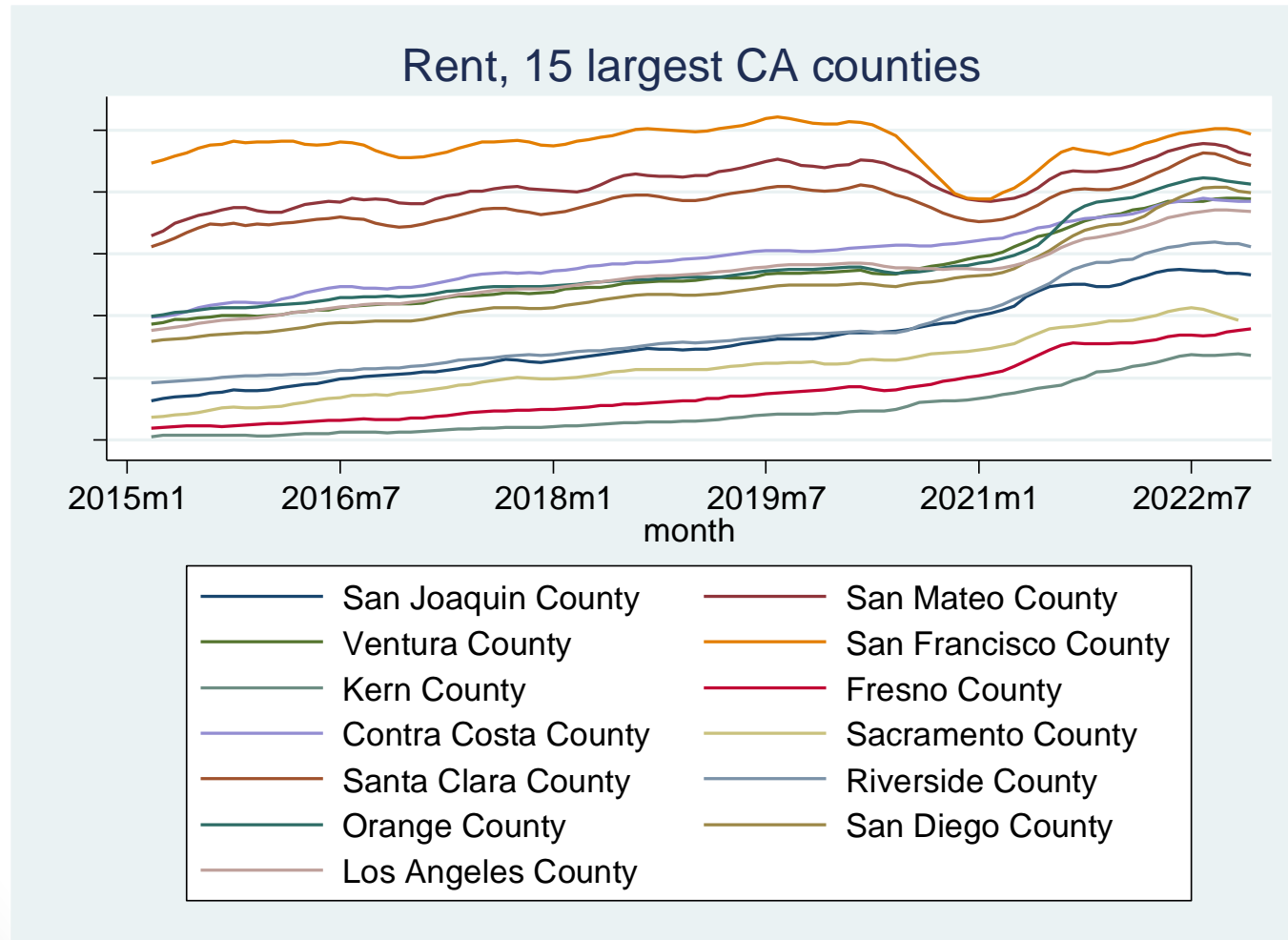
Month over month rental inflation: ACY vs. BLS



Don't take our word for it!

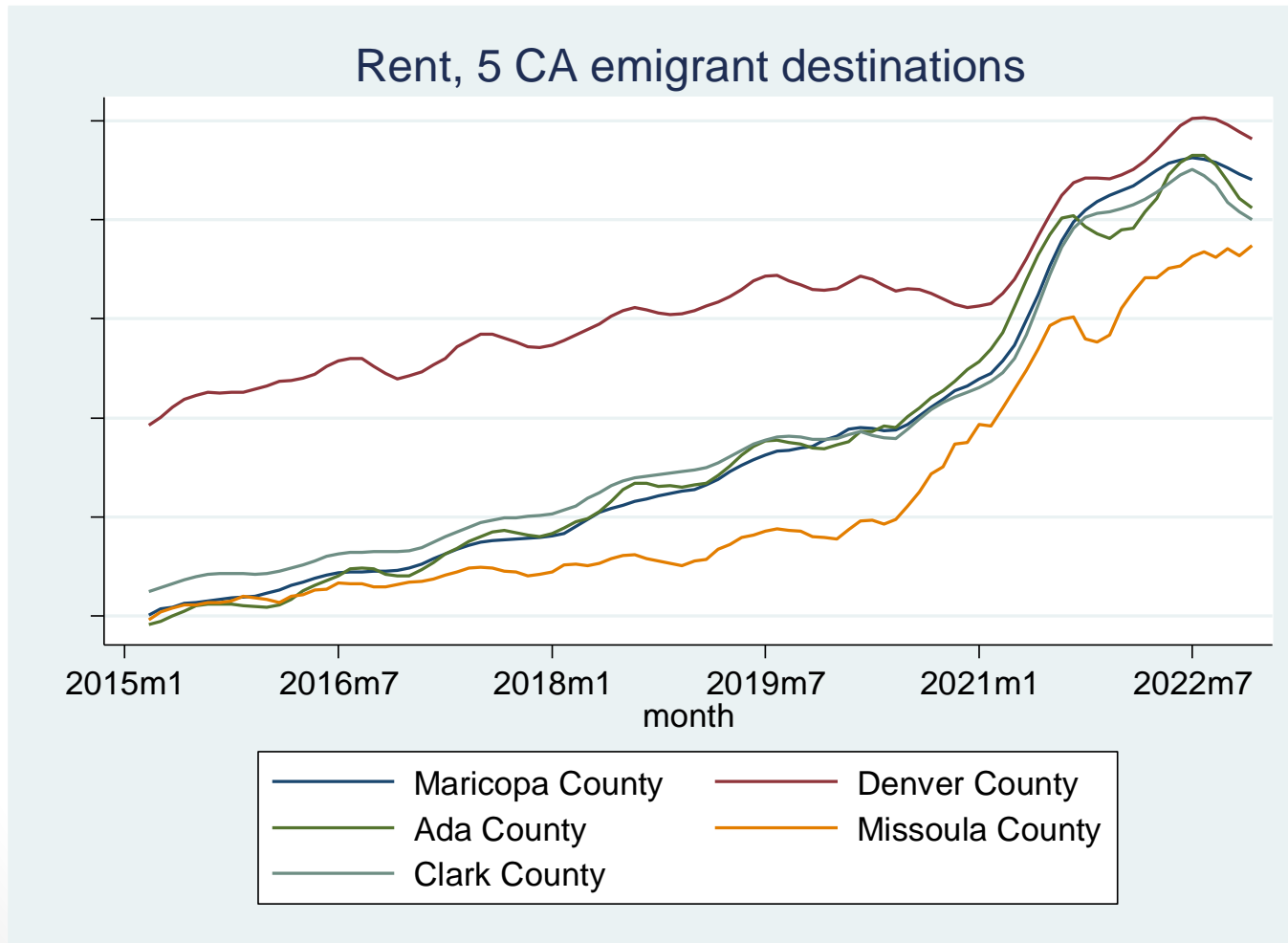
Let's check with Zillow!

Rents in California are already exhibiting this trend



- The story of rents:
 - Through 2020, rising demand and unresponsive supply
 - Pandemic:
 - Initial panic, especially in Norcal/Silicon Valley
 - Super strong recovery
 - COVID induced
 - Again, demand is not met with increased supply
 - But we have worked through that.
 - Some equilibration with other places
 - California is expensive and not everybody thinks that it's worth it.
 - Sorting out who really values the good life!
 - But these other places (mostly) have very similar histories.

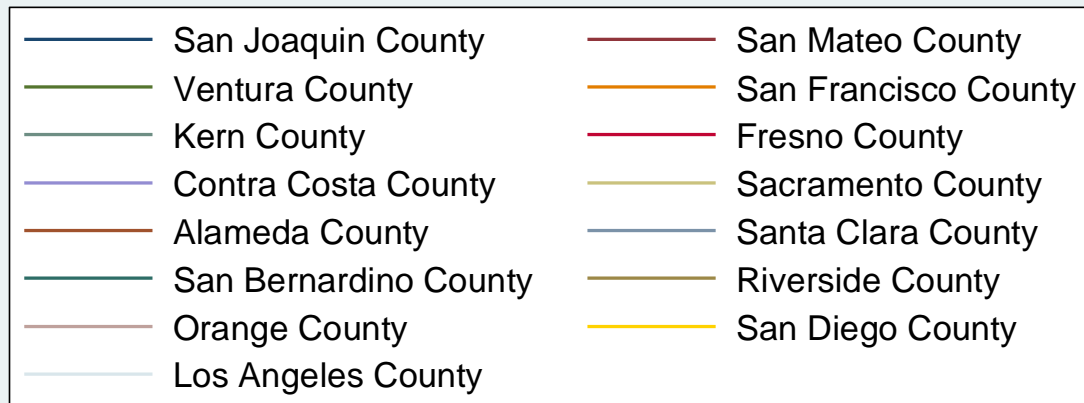
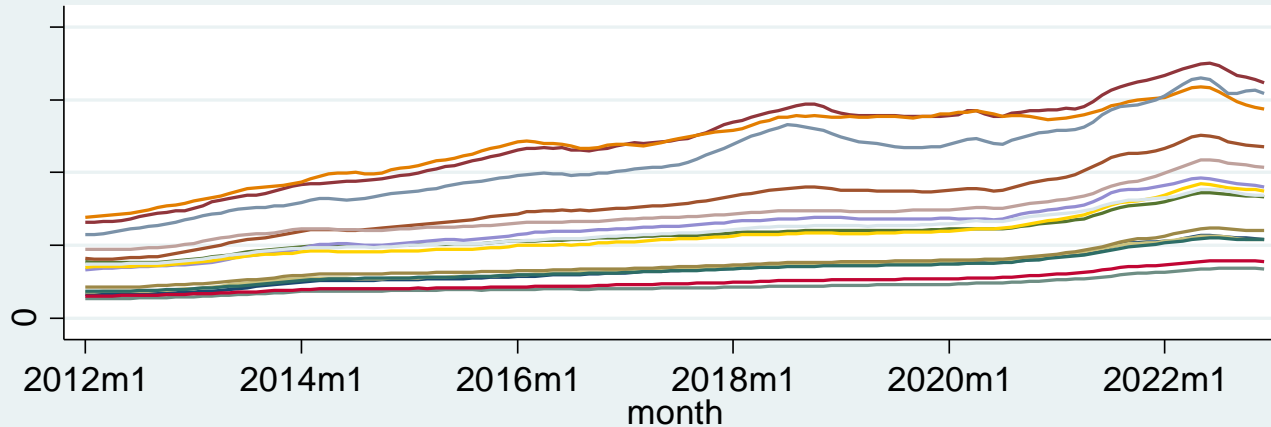
Alternatives to California



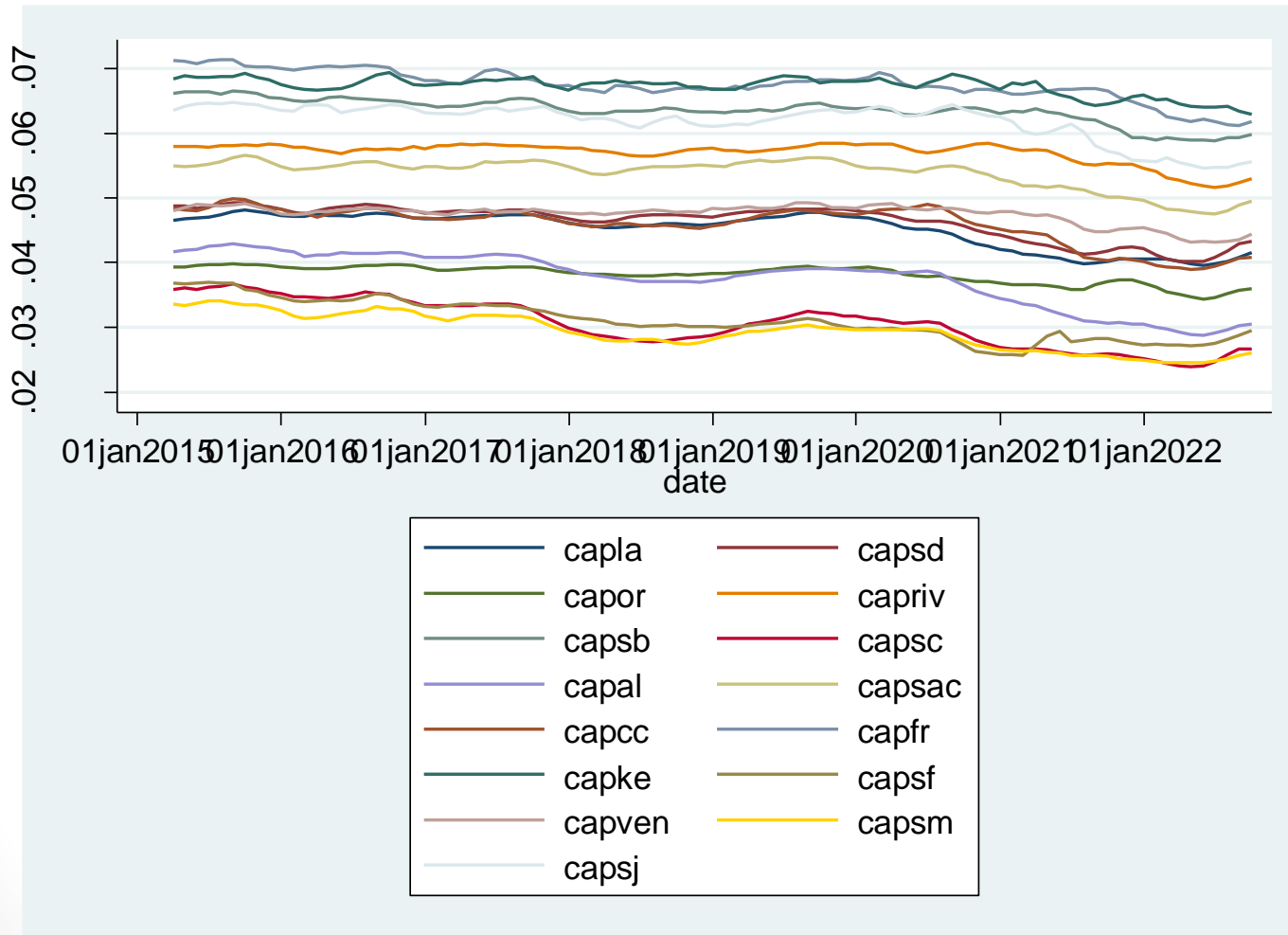
So what about home prices?

Home price

Home prices, 15 largest CA counties



The first year gross rate of return (R/P)

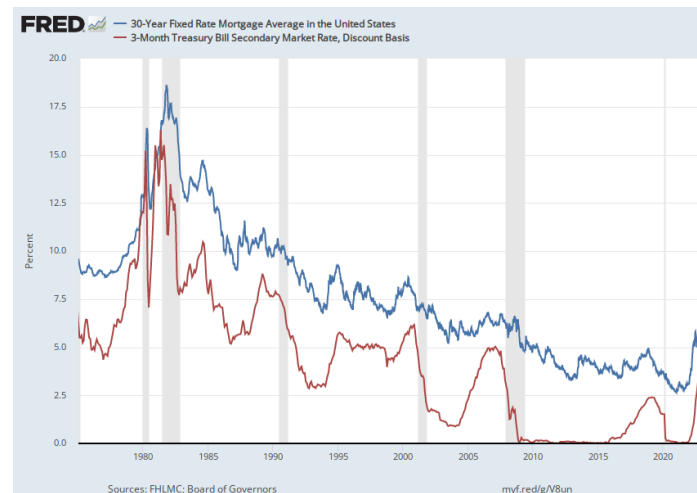


Three facts about prices

- The run up of prices from 2015-2020 was not a bubble, even though interest rates were quite low
- The steeper run up of prices from 2020 to early 2022, was bubblish.
 - Some was rents
 - Some was interest rates
 - Falling cap
- The decline is the result of both interest rate increases and flattening rents

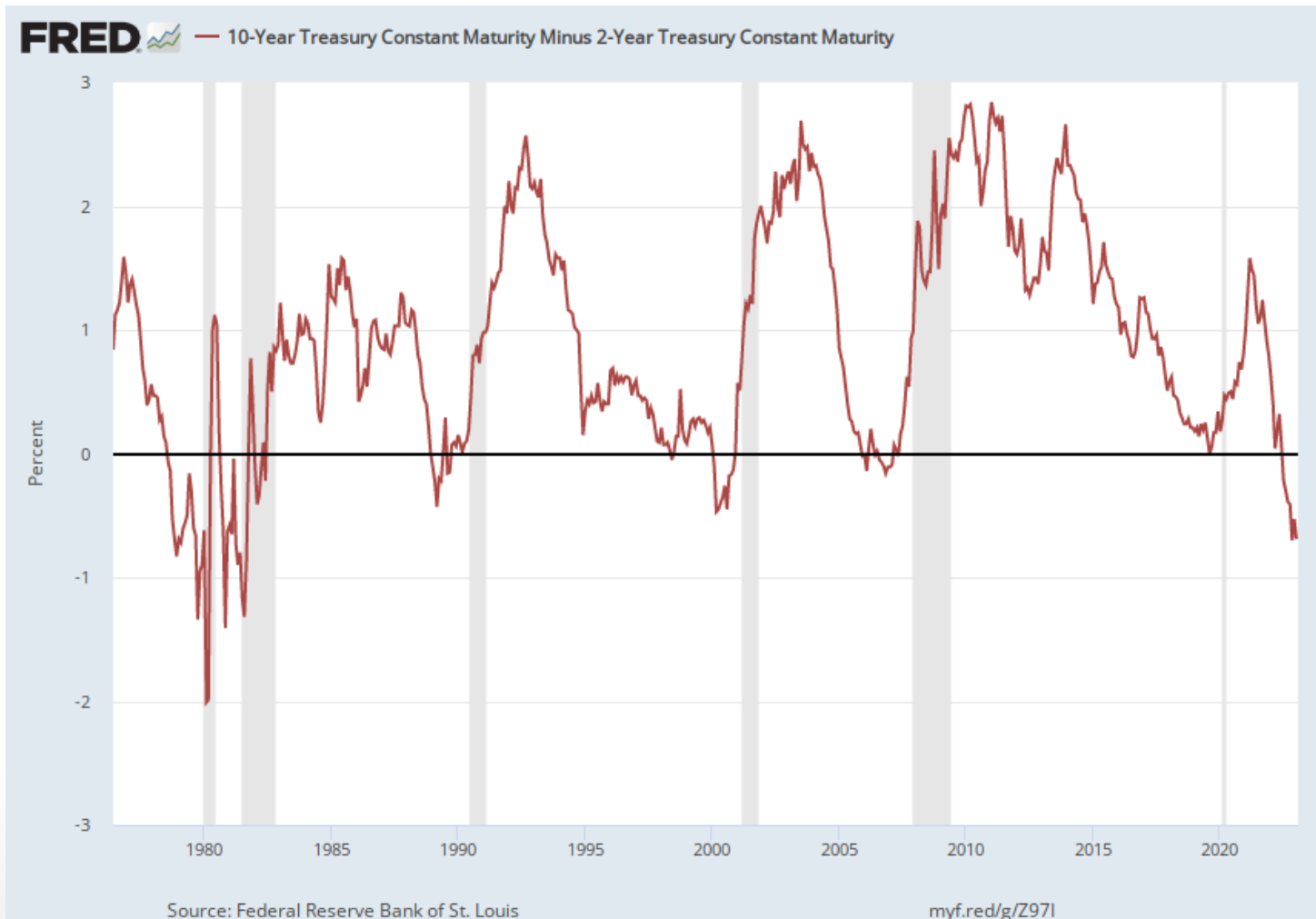
The second major headwind for home prices

- Higher interest rates
 - This is especially bad for new homebuyers (and developers) but the impacts will leak into all home prices

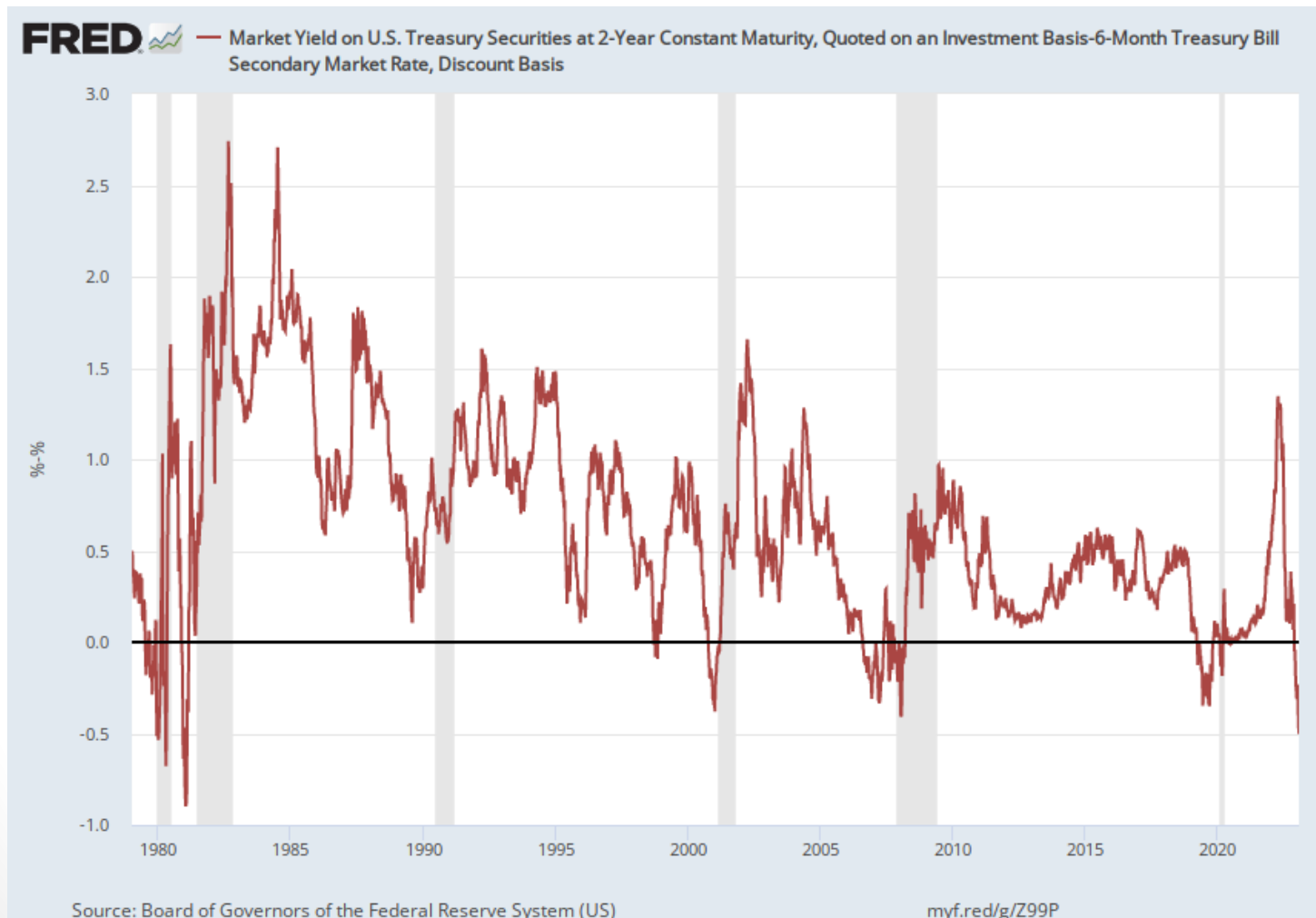


- Nobody will want to move (refinance). Stifles the economy.

The inversion of the yield curve(s)



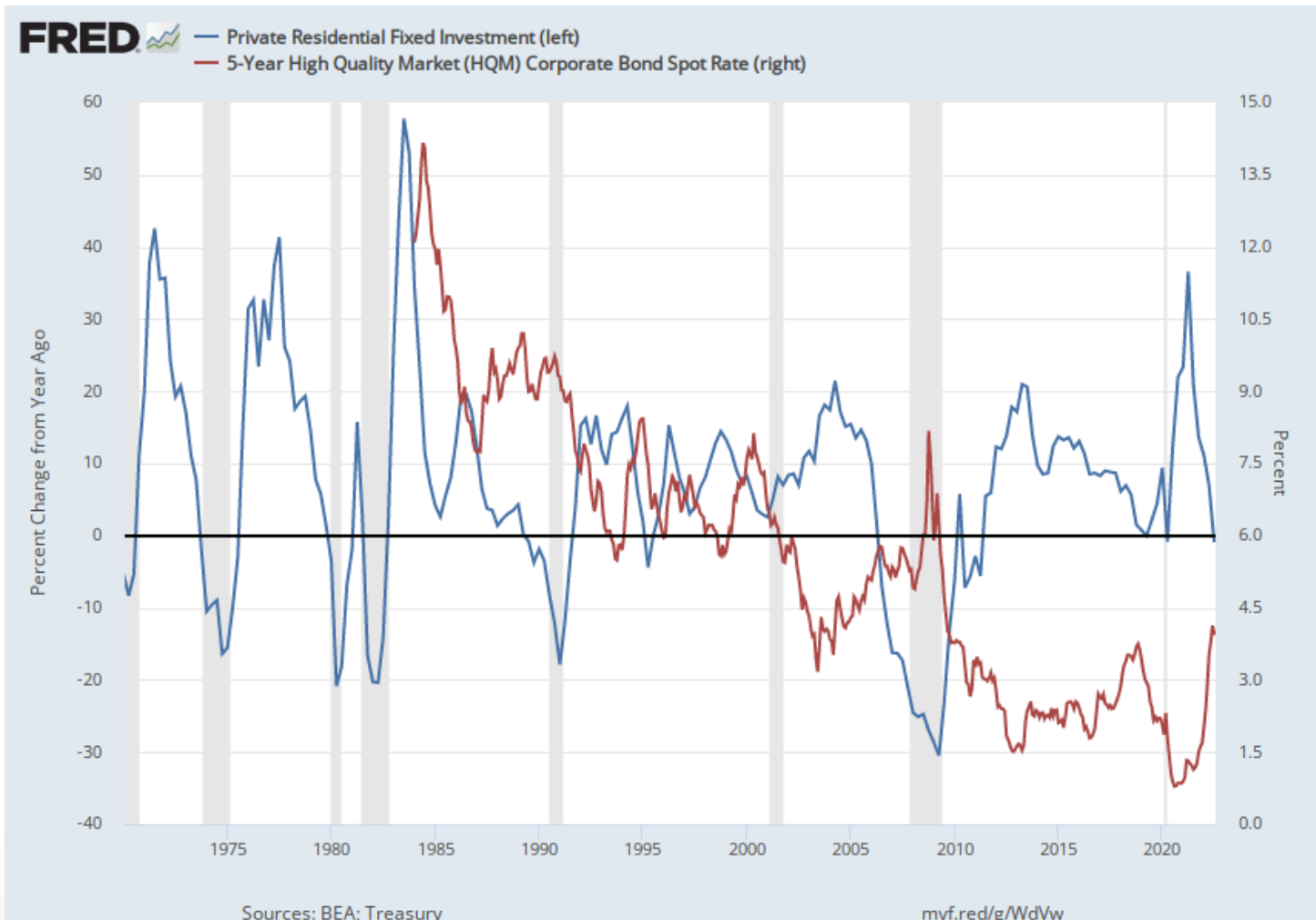
Alternative yield curve inversion



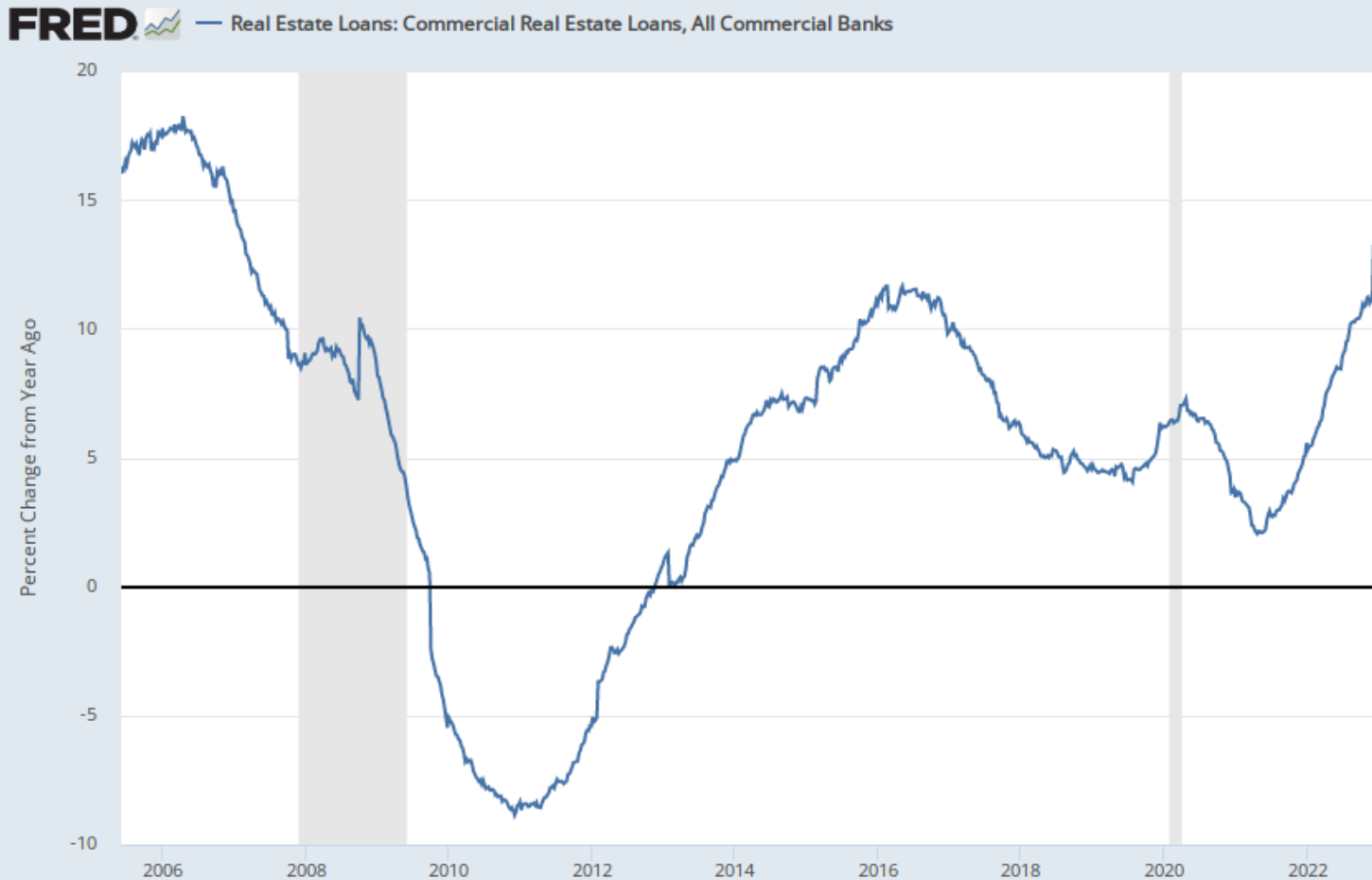
The Chairman will not rest

- Powell's signals are that this inequality should be reversed.
- Suggests that rates increases will continue until this happens, either because rates keep rising or inflation subsides
- If I am right about housing element of market basket, this will happen sooner rather than later.
- Many other signals of easing inflation (gas, cars, not eggs!)

Construction activity will flatten



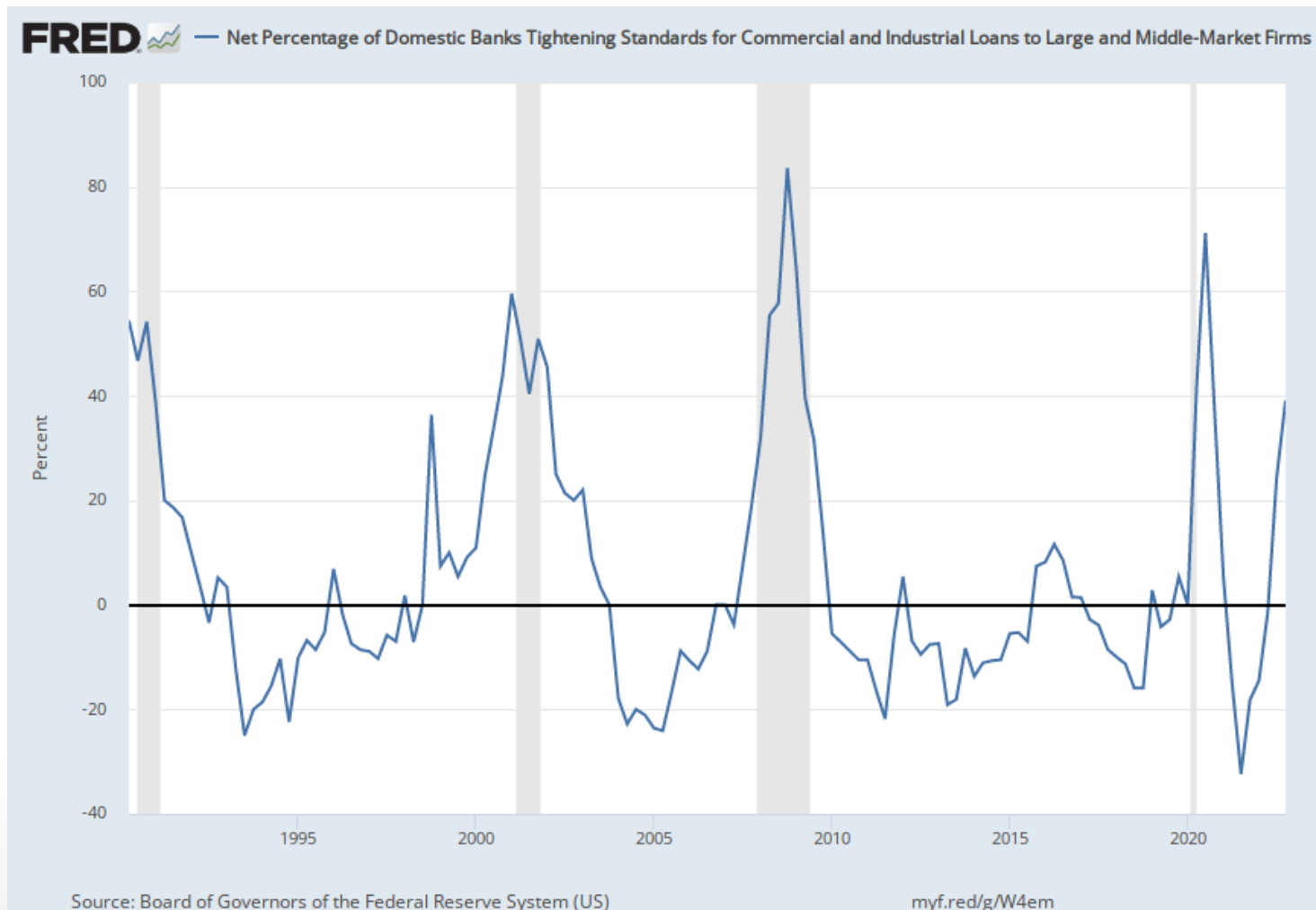
Lending is still healthy,



Source: Board of Governors of the Federal Reserve System (US)

myf.red/g/Z9af

But lenders are concerned



So, predictions

- Inflation will slacken, and sooner rather than later (sort of coming true now!)
- But probably not quick enough for Powell to change his mind about (milder) rate hikes.
- So there will be major pull backs in residential construction
- And later, commercial development.
- Could be over pretty soon