When interest rates rise - Does real estate fail?

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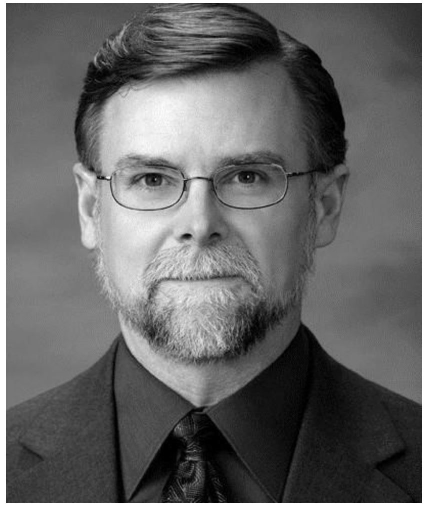

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"... low interest rates and cheap credit also cause people to act foolishly or greedily ..."

Fareed Zakaria

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What happens when interest rates rise?

And the next cycle will be . . . . back up again

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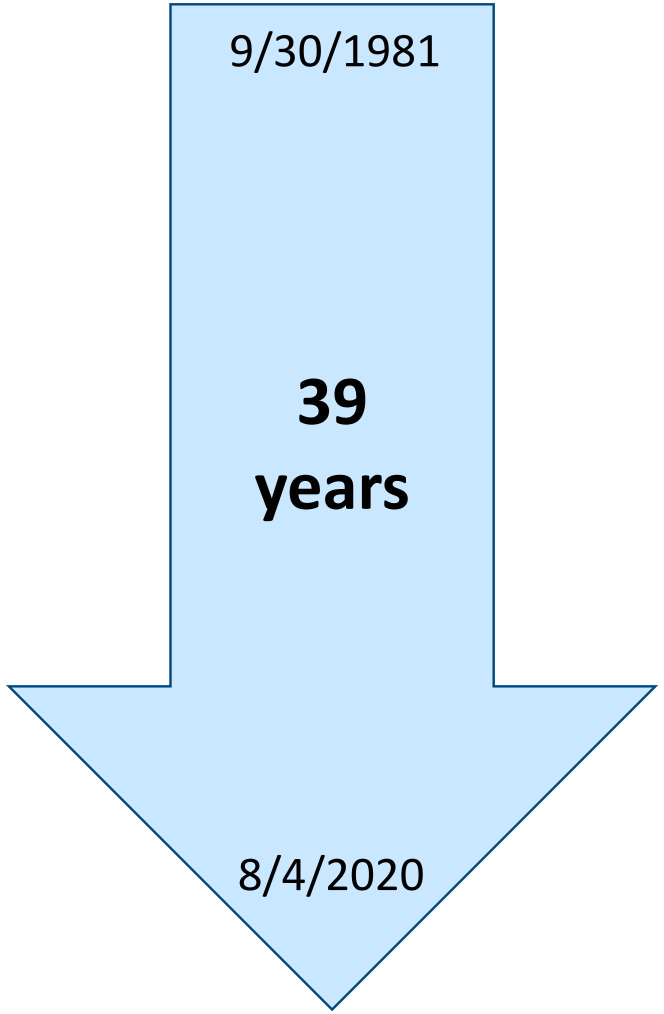
16 %



½ %

And the next cycle will be . . . . back up again

16 %

9/30/1981

36
years

11/30/1945

1½ %

16 %

9/30/1981

39
years

8/4/2020

½ %

And the next cycle will be . . . . back up again

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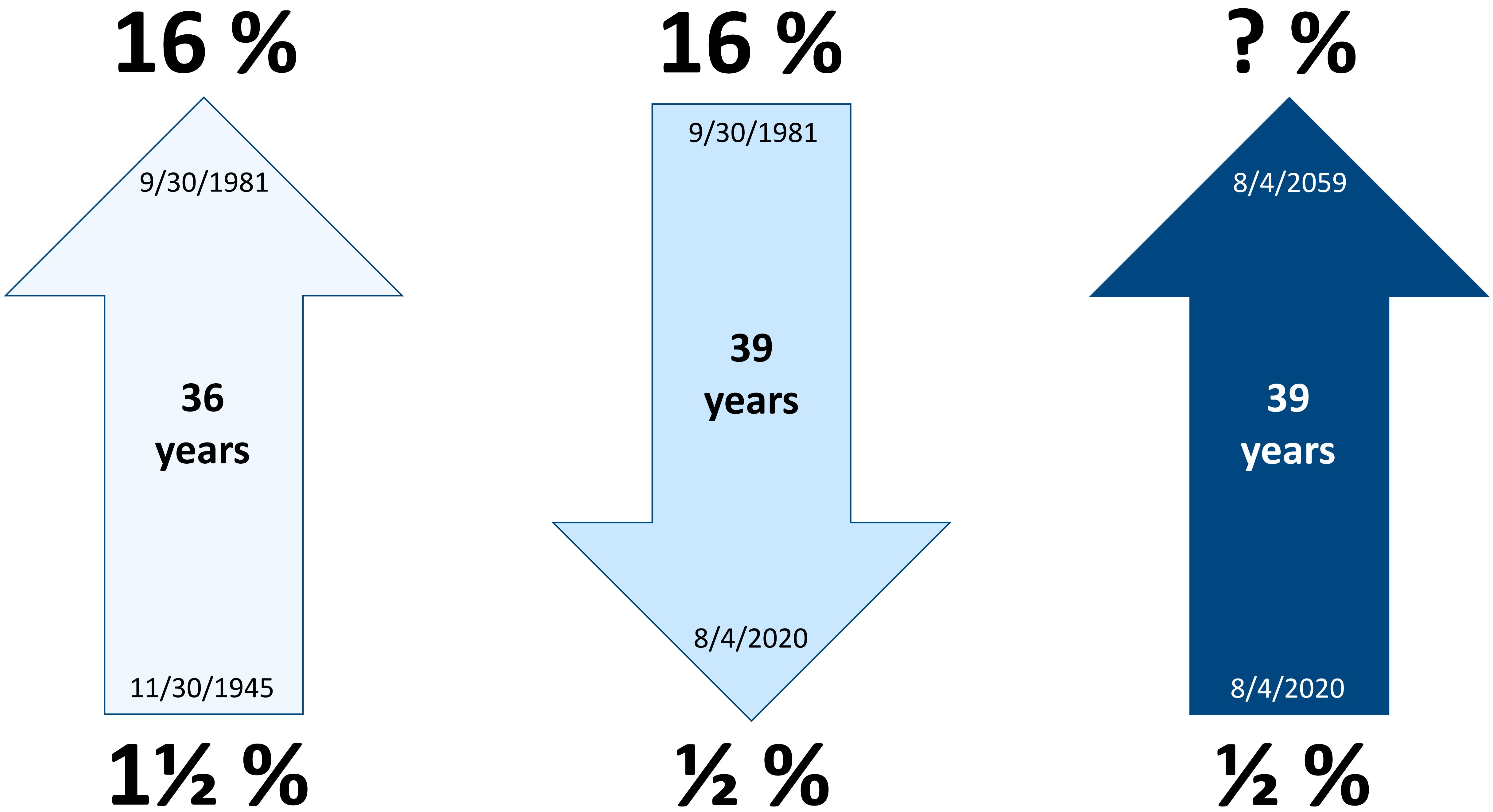

Are you in denial about interest rates . . . or bonds?

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Bond bulls - history and the average

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Bull markets for inflation-adjusted U.S. bonds since 1845

	Cumulative percentage return, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were POSITIVE	Annualized return during BULL market
	184	17.58	Aug 1845	Mar 1863	5.3	70	6.1
	1075	43.08	Nov 1865	Dec 1908	3.5	75	5.9
	379	20.67	May 1920	Jan 1941	5.2	73	7.9
	26	7.75	Aug 1957	May 1965	2.6	70	3.0
	1008	38.83	Sep 1981	Jul 2020	6.8	61	6.4
Median BULL market	379	20.67			5.2	70	6.1
Mean BULL market	534	25.58			4.7	70	5.9

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Bear markets for inflation-adjusted U.S. bonds since 1845

	Cumulative percentage return, unannualized	Duration in years	Start date	End date	Volatility, annualized standard deviation of monthly returns	Percentage of monthly returns that were POSITIVE	Annualized return during BEAR market
	-22	2.67	Mar 1863	Nov 1865	6.1	31	-9.1
	-50	11.42	Dec 1908	May 1920	4.8	41	-5.9
	-31	16.58	Jan 1941	Aug 1957	3.3	45	-2.2
	-40	16.33	May 1965	Sep 1981	6.4	45	-3.0
	?	?	Jul 2020	?	?	?	?
Median BEAR market	-35	13.87			5.4	43	-4.5
Mean BEAR market	-36	11.75			5.1	40	-5.0

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Bear markets for inflation-adjusted U.S. bonds since 1845

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Why must interest rates go back up?

- When you lend . . .

- You . . .
  - Give up use of your money
  - Give up control
  - Incur possible loss

- So why do you lend your money?
  - You expect to get something **valuable** and **meaningful** in return
  - That requires that you must experience a net gain
  - Therefore, your **return must be greater than taxes** . . . **and inflation**

Why must interest rates go back up?

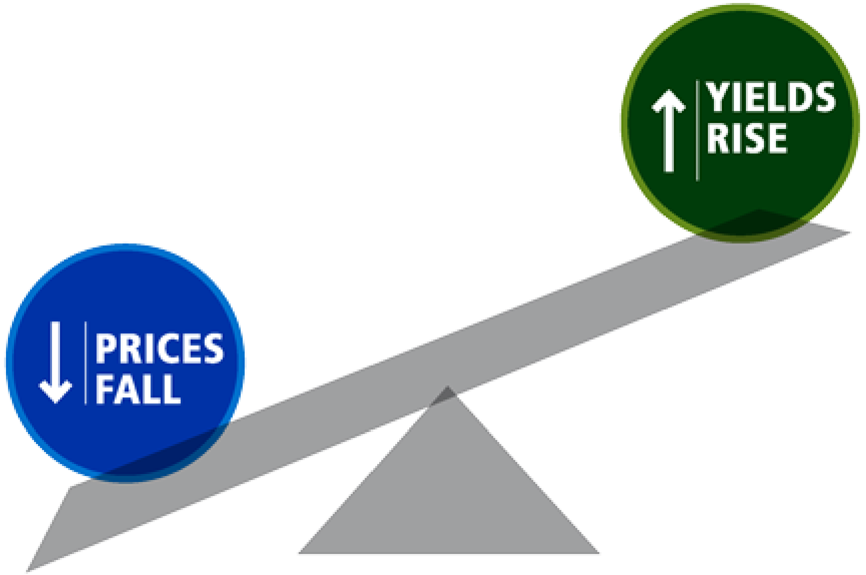
- Example
  - Your marginal state/federal tax rate is 45%
  - Inflation is 2.5%
  - You only require to net ¼ % . . . genuine gain

- What must interest rates be?
- Answer is 5.0%
- But today the interest rate (on 10-year Treasury) is only 1.4%

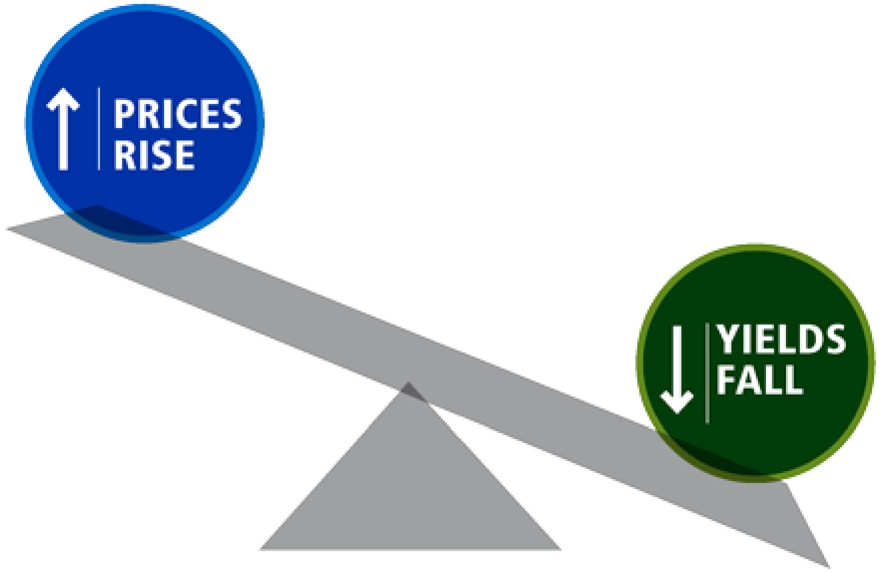
- What do you think will happen? . . . . the answer is pretty ugly

Relationship between interest rates and bond prices

When interest rates rise



When interest rates fall



So, why not sell your bonds and replace them with real estate?

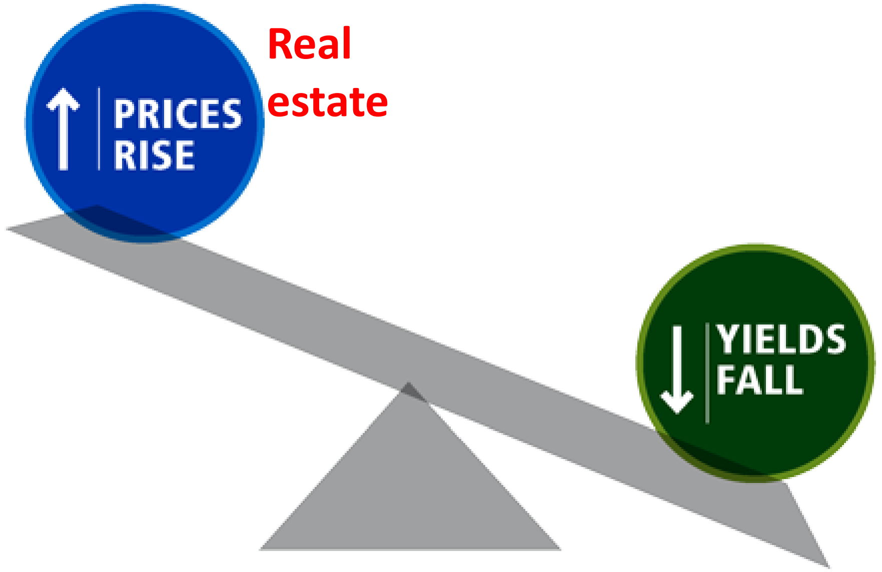
Many suggest that real estate thrives during rising interest rate environments

BUT . . . does it really . . . or is this just another one of those endless stories

Does this picture also apply to real estate? *OUCH !!*

When interest rates rise

When interest rates fall



Well . . . What did cap rates on real estate do?

- Fell from 9.4%
- Down to 4.8%

Cap rates on commercial institutional-quality real estate

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What’s today’s VALUE for a single commercial building

- Institutional-quality commercial building

- Delivers $1 million back to the owner . . . each and every year . . . for the next 50 years
- Depreciates over 50 years
- Has zero value . . . at the end of 50 years

Does this picture also apply to real estate? *OUCH !!*

Ouch . . . serious *ouch !!*

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- At one point . . . The building was worth $10.6 million
- At another point, it was worth $18.9 million

- In other words . . . . if the only only thing that happened was that cap rates went from today's level to back where they were in 1997 then the value of your real estate would FALL by -44%
- Do you consider a loss of -44% . . . to represent a safe conservative investment?

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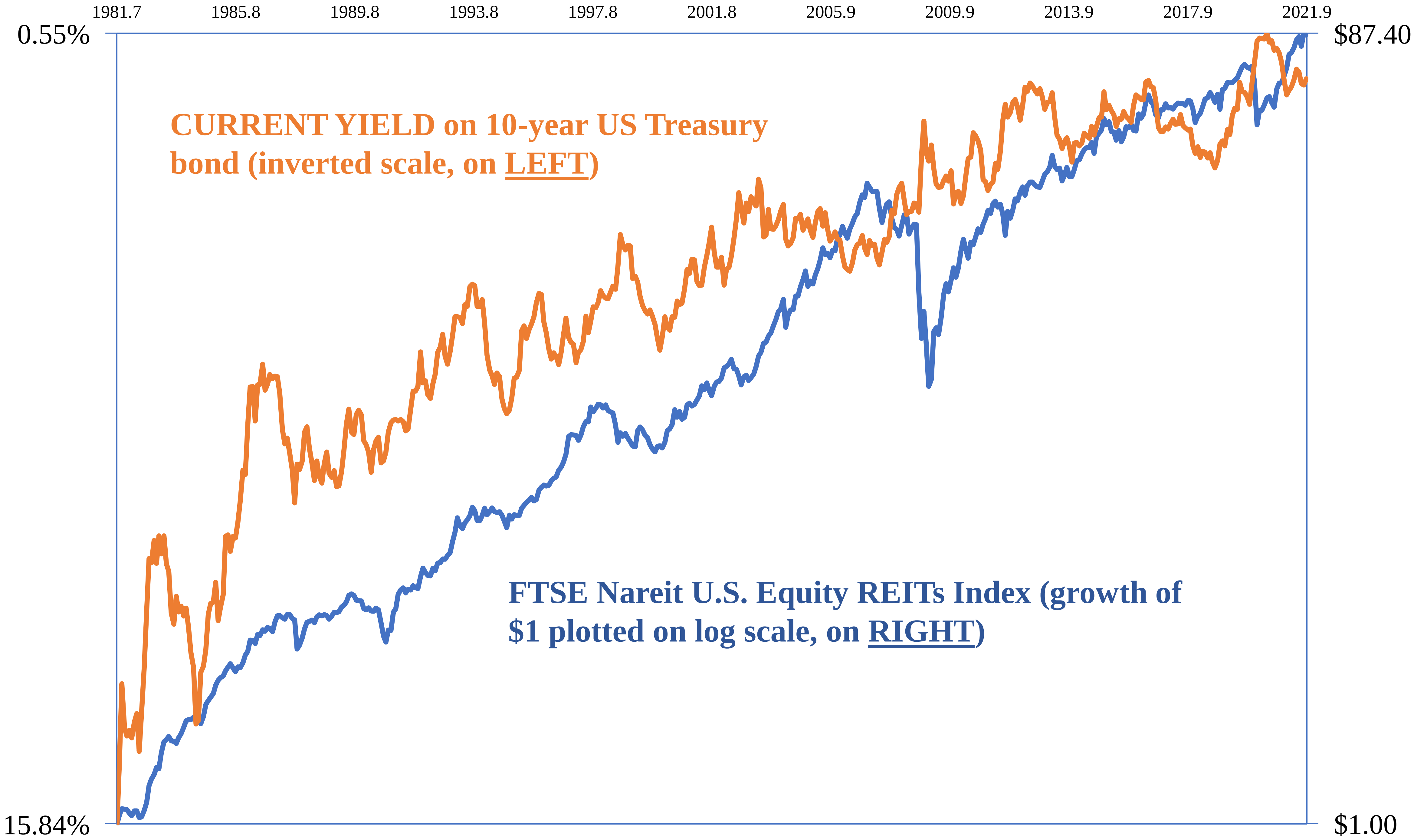

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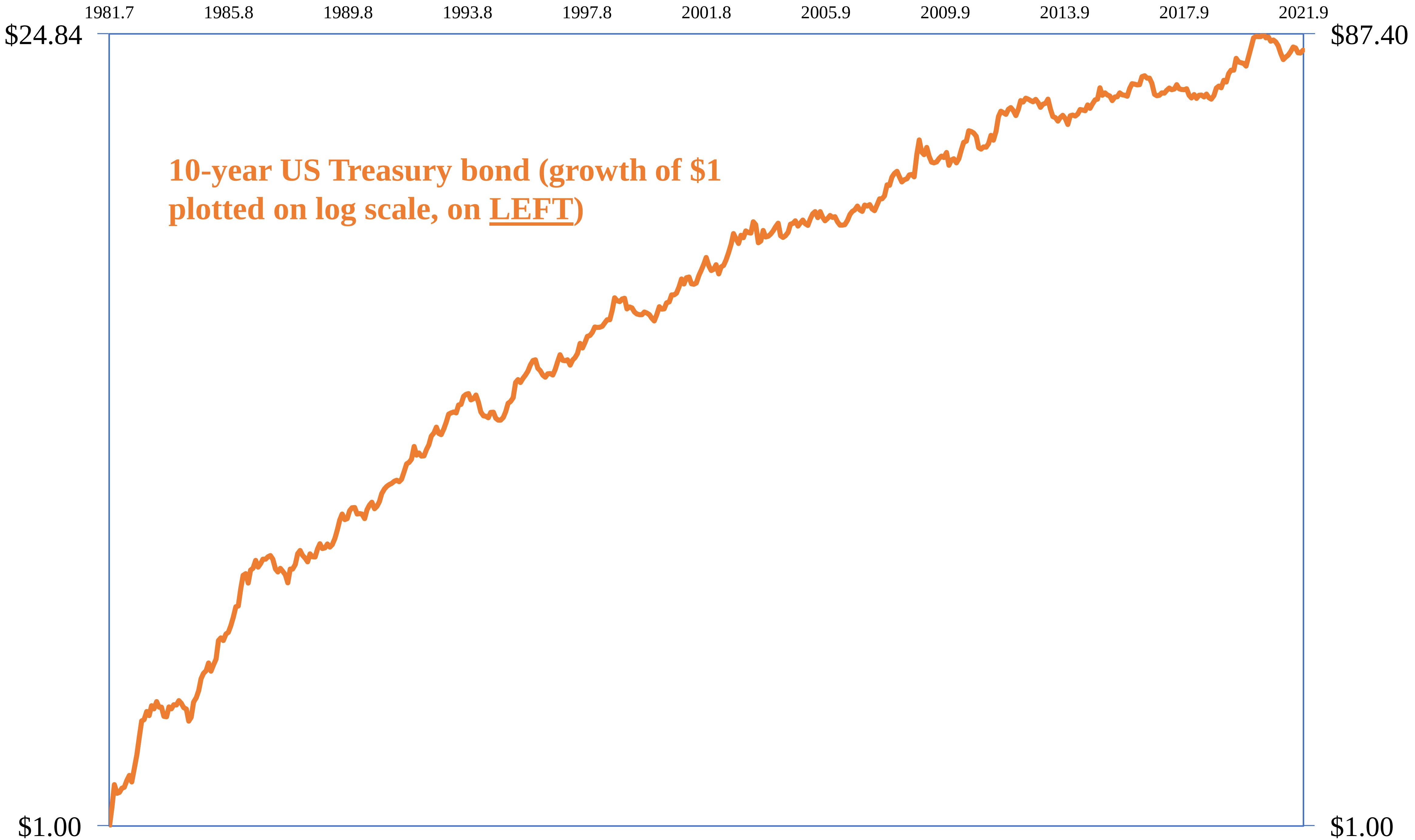

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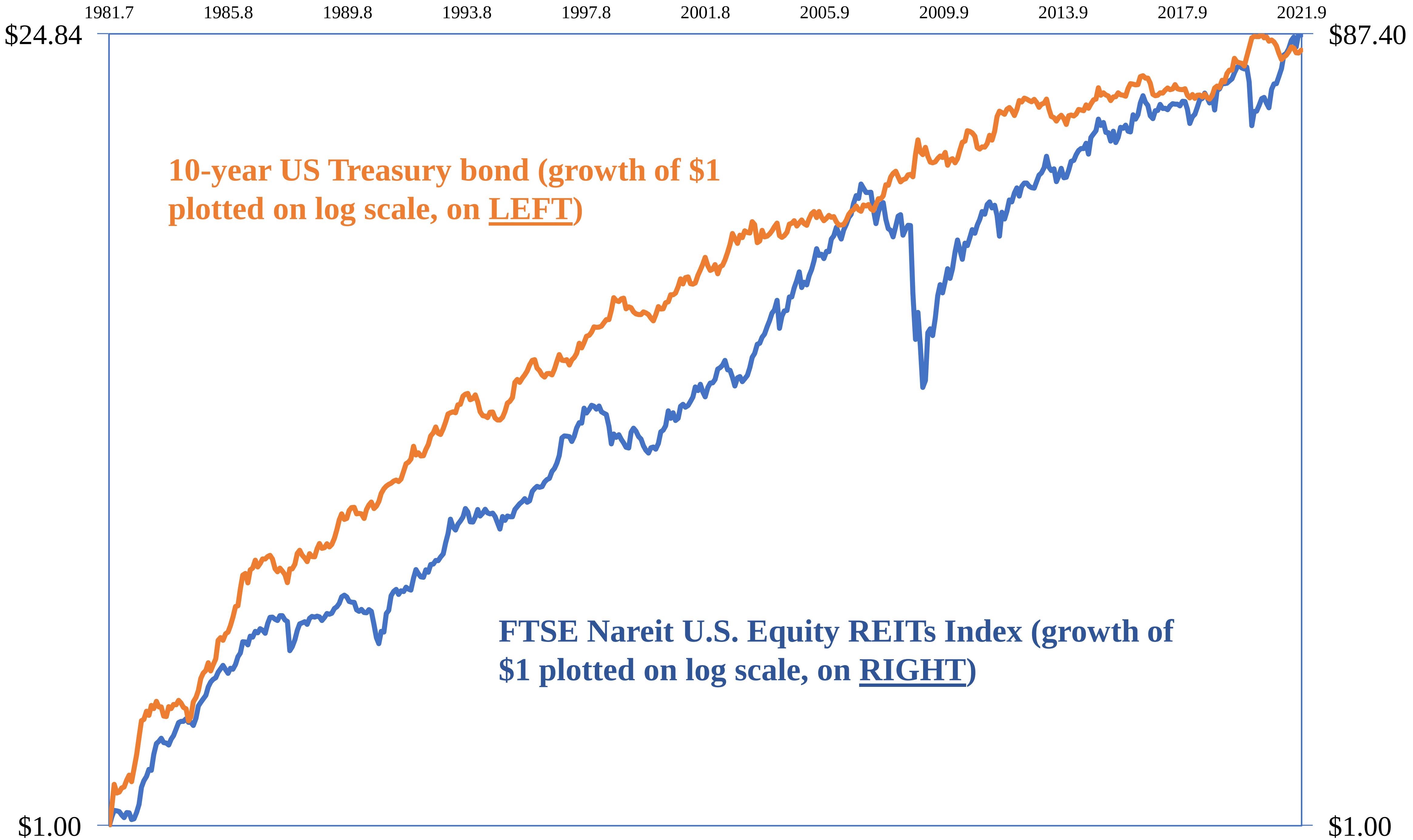

What's the problem with real estate

- Is it really a different asset category?
- Or is it nothing more than a *wolf in sheep's clothing*
- Is it nothing more than a 30-year bond dressed up to look like something different
- When cap-rates go back up . . . won't real estate crash and burn . . . just like bonds?
- What does the data show?

Maybe real estate is just an ugly bond

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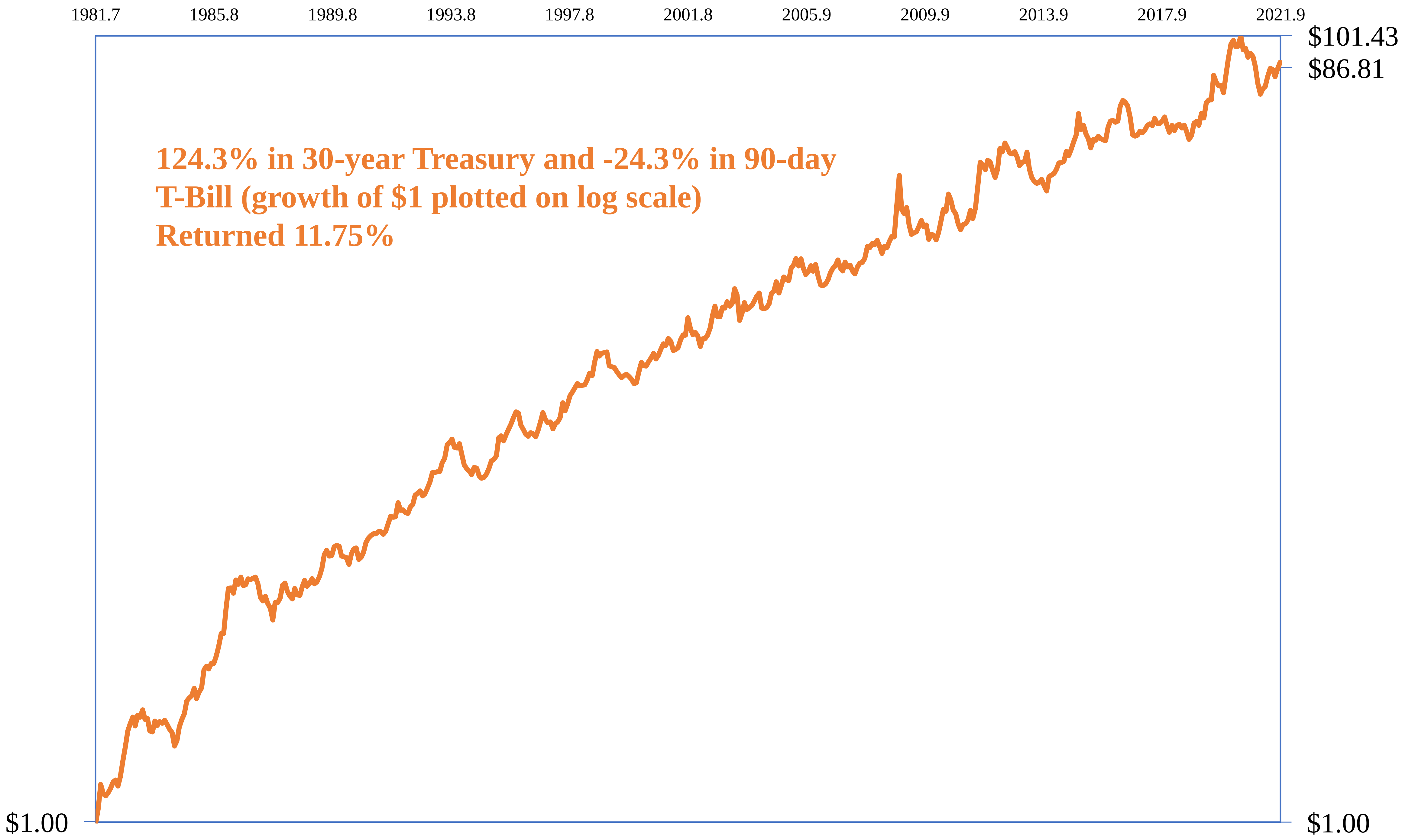
- Maybe commercial real estate is nothing more than a . . . .
- Levered long-bond
- If so . . . . *Ouch !!*

Does this picture also apply to real estate? *OUCH !!*



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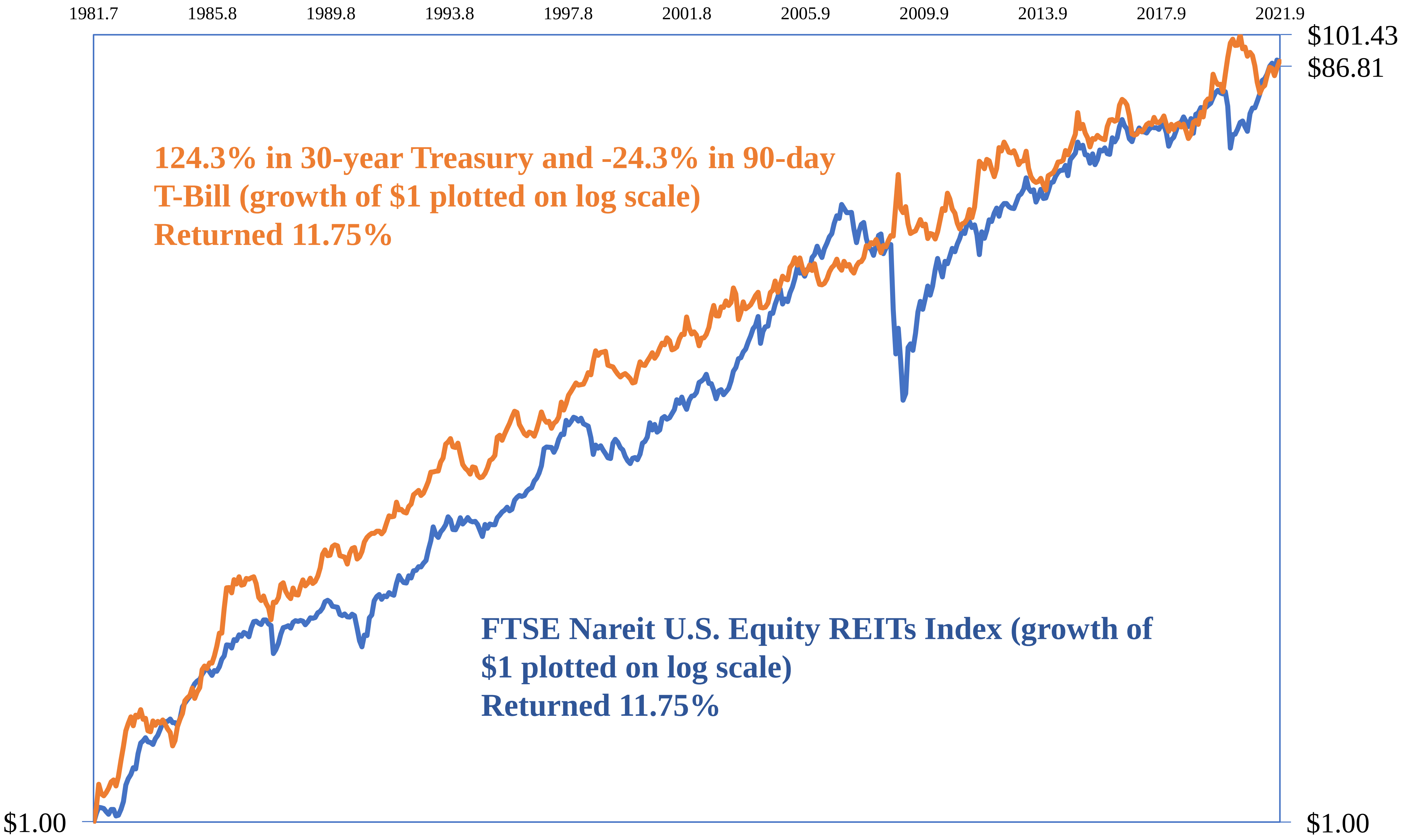
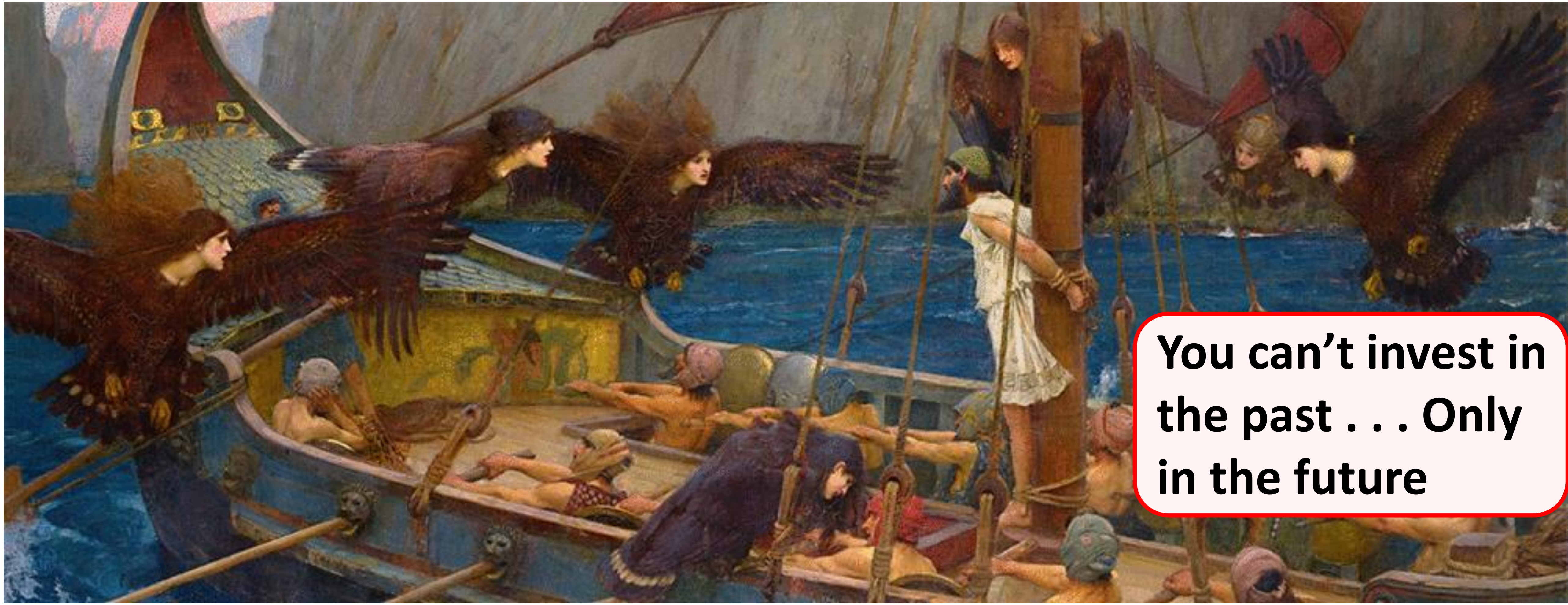


Don’t fall for the siren call . . . of the real estate wholesalers

- *“But the returns have been so good for 30 years”*
- *“The current yield is so high”*



You can’t invest in the past . . . Only in the future

So how do we answer the dead serious question

What happens to real estate when interest rates rise?

The analysis

The data

The data source

- NCREIF (National Council of Real Estate Investment Fiduciaries)

- Gross of fee NFI-ODCE Index
  - The NFI-ODCE is a capitalization-weighted, gross of fee, time-weighted return index. NCREIF began calculating the NFI-ODCE in 2006 with data back to 1977. Supplemental data is also provided, such as equal-weight and net of fee returns, for informational purposes and additional analysis. Open-end Funds are generally defined as infinite-life vehicles consisting of multiple investors who have the ability to enter or exit the fund on a periodic basis, subject to contribution and/or redemption requests, thereby providing a degree of potential investment liquidity. The term Diversified Core Equity style typically reflects lower risk investment strategies utilizing low leverage and generally represented by equity ownership positions in stable U.S. operating properties. There are currently 24 private funds that are included in the index.

- Spans the time period 1977 to the present

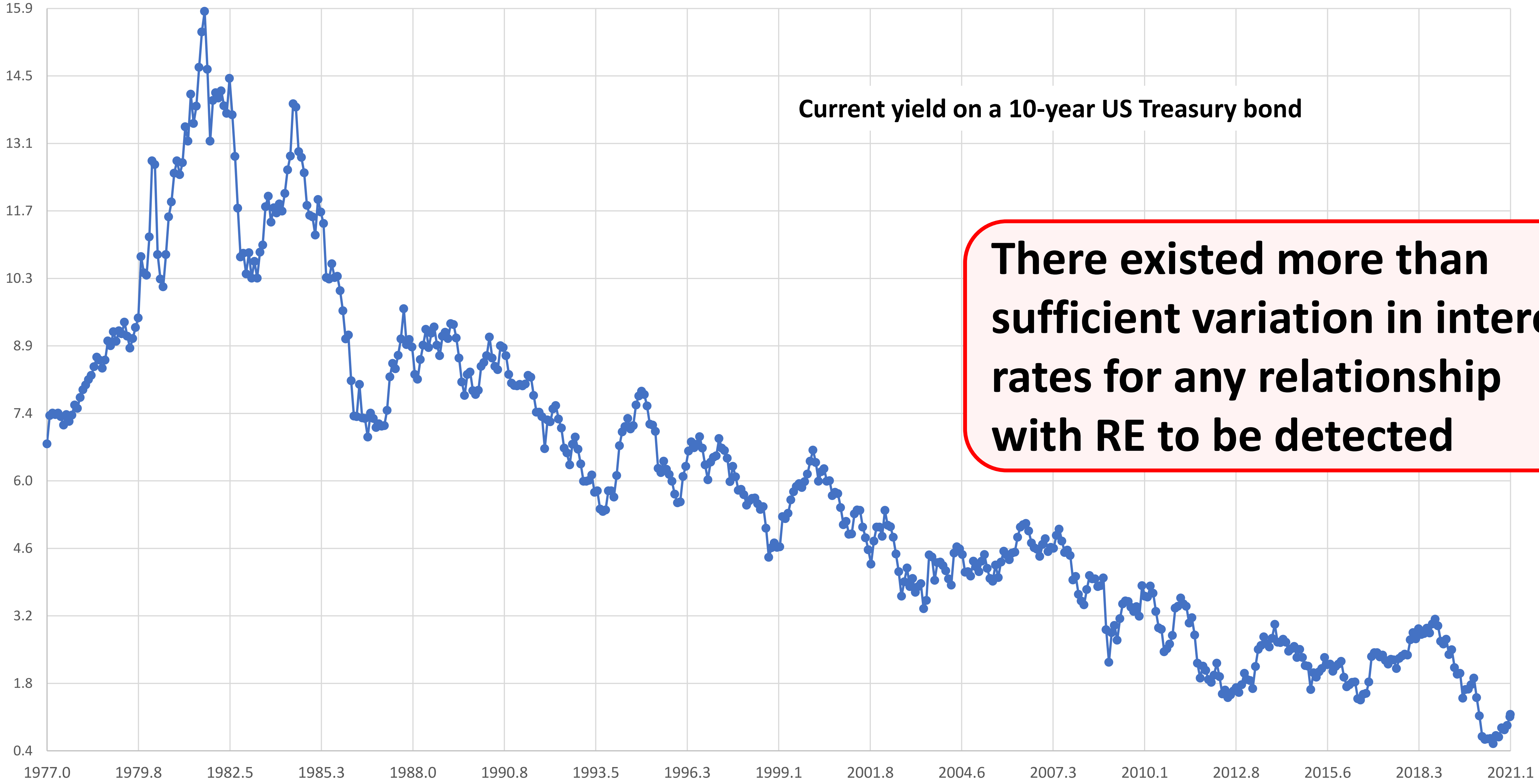
Statistical analysis

- Stepwise regression

- Two approaches
  - Fair and balanced . . . an unbiased attempt to pursue the statistical analysis with honesty
  - Bring the data into the backroom . . . and make it confess, even though you know the confession is a lie

- Result
  - Based on live portfolio results spanning 1977-2022
  - It is absolutely impossible to show even the slightest relationship between real estate and interest rates (other than 90-day T-Bills)

Interest rates since 1977



There existed more than sufficient variation in interest rates for any relationship with RE to be detected

Based on 44 years of quality data . . .

- Based on live results over the last 44 years

- Don’t worry about rising interest rates . . . or a bond bear market

- Based on actual commercial real estate returns since 1977, there exists absolutely NO statistical evidence (not even a mere suggestion) that one needs to worry about rising interest rates

True commercial real estate marches to a different drummer

- It appears that true commercial real estate
- I'm talking the <u>direct ownership of commercial bricks & mortar</u>
- Remains significantly independent of the direction of interest rates and/or bond bull/bear markets

But, are there still concerns

Of course there are . . .

And they have to do with what commercial real estate does correlate to

Since 1977 real estate returns have correlated with . . .

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- Over the last 44 years, commercial core real estate has strongly correlated with
- These are listed in order of association . . . with the strongest determinant listed first

- Industrial Production
- Inflation
- S&P 500 Financials Index
- 90-Day U.S. Treasury Bills
- Core (not value and not growth) U.S. stocks
- Oil prices

Why was there no relationship between interest rates & real estate?

That is a deeper question

But . . . let's take a stab

Why real estate might be uncorrelated with interest rates

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Nareit Real estate working for you®

REITs are real estate working for you

The REIT approach to real estate investing provides investors with a straightforward and transparent means to access a fundamental asset class in order to pursue distinct goals.

Performance
The real estate market is the primary driver of REIT returns, therefore REITs may be used as a liquid proxy for gaining access to the entire commercial real estate asset class[2]

Liquidity
Bought and sold like other stocks, mutual funds and ETFs

Diversification
Low correlation with other stocks and bonds[4]

Dividends
Reliable income returns[3] driven by high and growing income from rents plus capital appreciation over time

Inflation Protection
Due in part to the fact that many leases are tied to inflation and that real estate values have tended to increase in response to rising replacement costs

Key performance statistics through December 31, 2020 include:

10.0%	The trailing 25-year annualized total return of the Index*
15	The total number of years out of the past 25 that the Index* has outperformed the S&P 500
3.8%	The dividend yield of the Index* (which was more than double the S&P 500 dividend yield of 1.5%)

*Key performance data for the FTSE Nareit All Equity

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I would also offer, that commercial real estate portfolios are levered . . . and in that sense are "short" interest rates

This would work to negate part of the exposure

Recap

Does real estate solve the “Bonds are a bomb” problem

Recap

- Real estate is a partial solution

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- Historical evidence suggests that interest rates are not a problem for real estate

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- Future returns will be primarily driven by
  - US economic growth
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  - US stock market - specifically, “financials” and “core”
- If historical relationships continue to hold . . . returns should be satisfactory
- Selection is critical
  - Look for real exposure . . . . look inside to confirm that the reality matches the story
  - Avoid niche investments that are hot stories from the past
  - Keep costs down
  - Find managers with a competitive edge who are operating in the least traveled and most attractively priced slices of the bricks & mortar marketplace

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Tactical asset allocation during bull markets and during rising interest rate environments

Friday

January 7th

11:00 a.m. EASTERN

Important Disclosures

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