

**JULEX** CAPITAL

# Interest rates and inflation - What to expect

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## Let's set the table . . .

- Interest rates bottomed out mid-day Aug 4, 2020 . . . . Pretty close to zero
- Since that date
- Super-safe intermediate-term U.S. Treasury bonds (7-10 year maturities) lost -17.0%
- The last time we saw anything remotely similar . . . Was the beginning of the great bond bear market that started in Nov 1944

## Why this is important

- It's headline news
- Clients are asking
- Some clients are reacting poorly . . . with great fear and emotion
- Interest rates and inflation may be
  - On a new and quite different trajectory
  - Lasting many decades
- If true . . . this has important implications for
  - Investment opportunity
  - Investment risk
  - Portfolio design
  - The investment industry developing new products targeting the naive and gullible

- Both interest rates and inflation
- Will continue to rise for several decades
- This is due to a complex confluence of numerous factors . . . all of which are forcing interest rates and inflation higher
  
- BUT . . . inflation will not rise from today's level . . . instead it will fall radically
- INSTEAD . . . inflation will rise from where it was “before COVID”

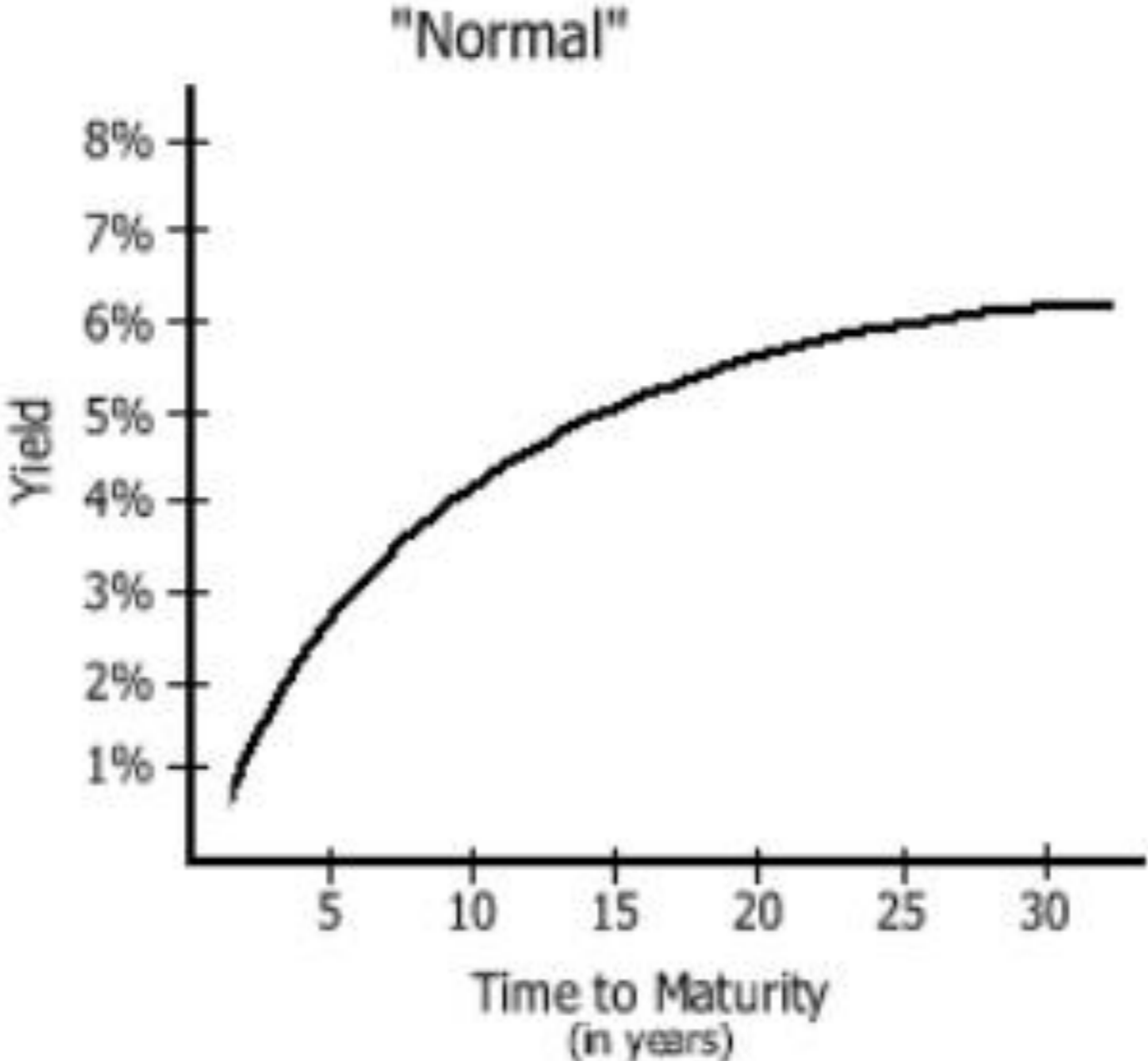
# Interest rates

Argh . . .

No the Fed does not set or control interest rates

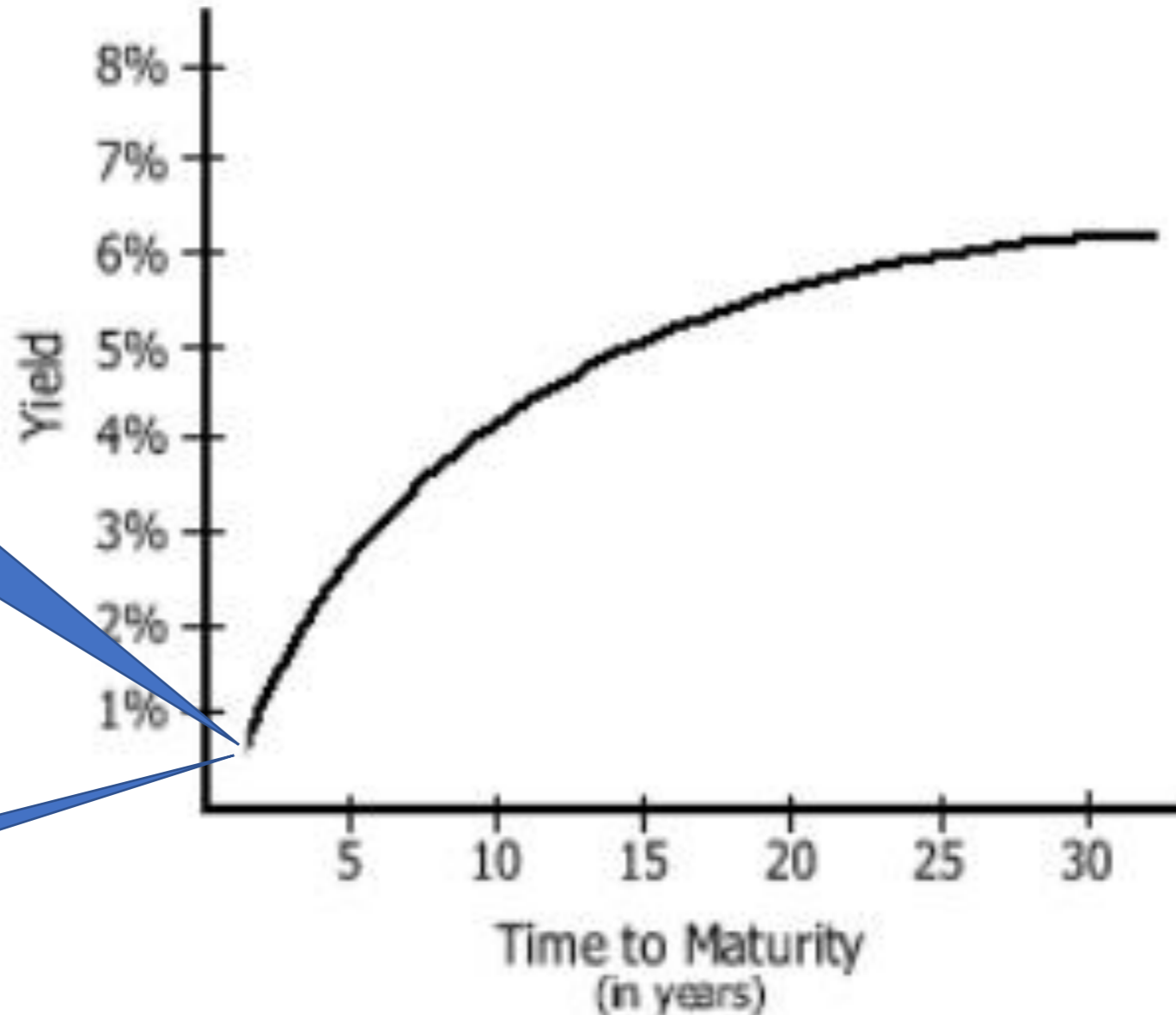
## Does the Fed set or control interest rates . . . NO !

- Argh
- NO, the Fed does not set or control interest rates
- What do they control
  
- So, where does this crazed falsehood come from?
  - Human beings have a desperate need to identify someone to blame
  
- Is there more to the story . . . Of course
  - Back in WWII
  - Response to 2007/2009 Great Recession
  - Response to the global pandemic, COVID



# Term structure of interest rates . . . What the Fed absolutely controls

"Normal"



Yes, the Fed does set this single interest rate

i.e., the over-night borrowing rate

They anchor one end of the curve . . . that's it

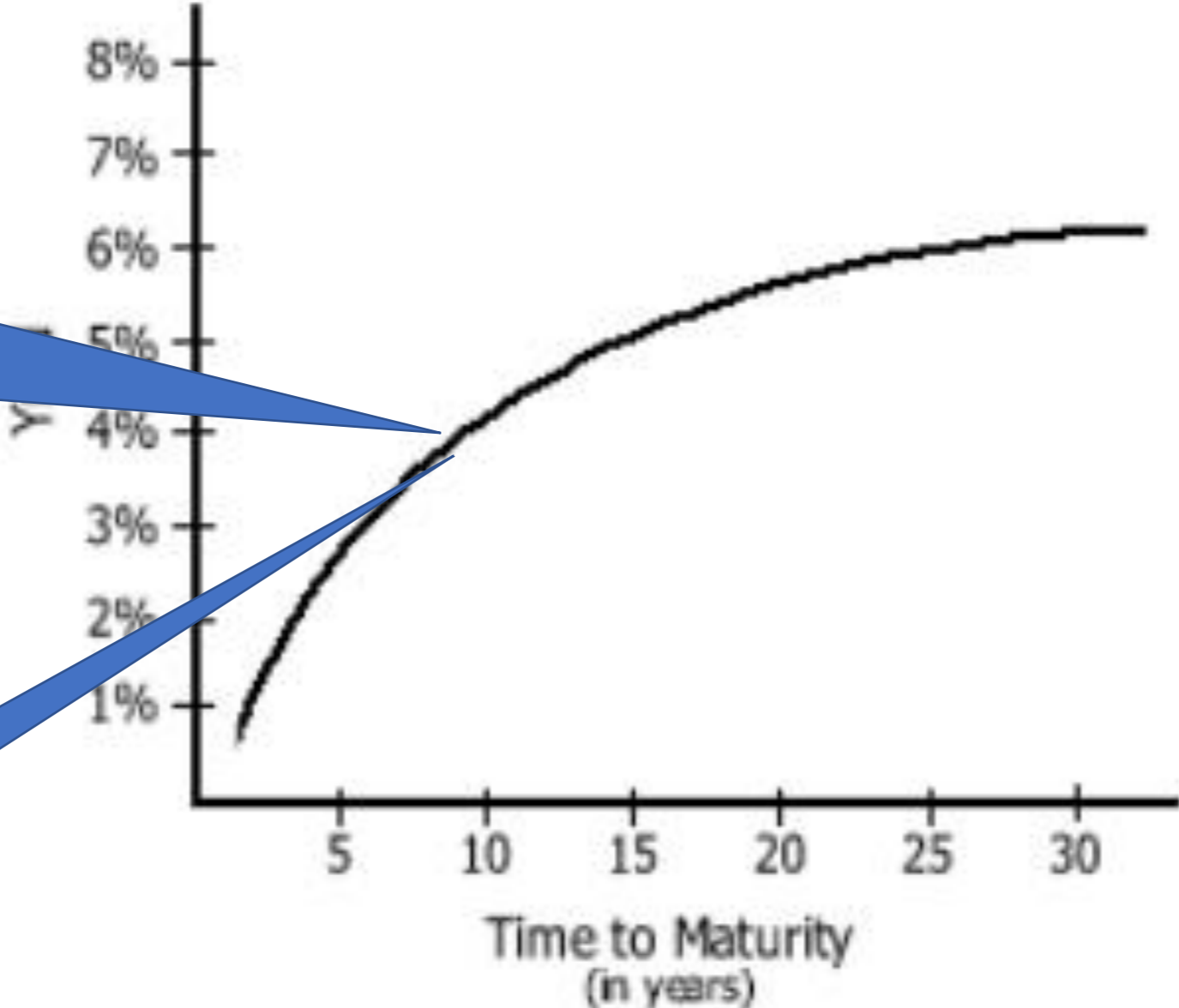


## Does the Fed set or control interest rates . . . NO !

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# Term structure of interest rates . . . What the Fed weakly influenced

"Normal"

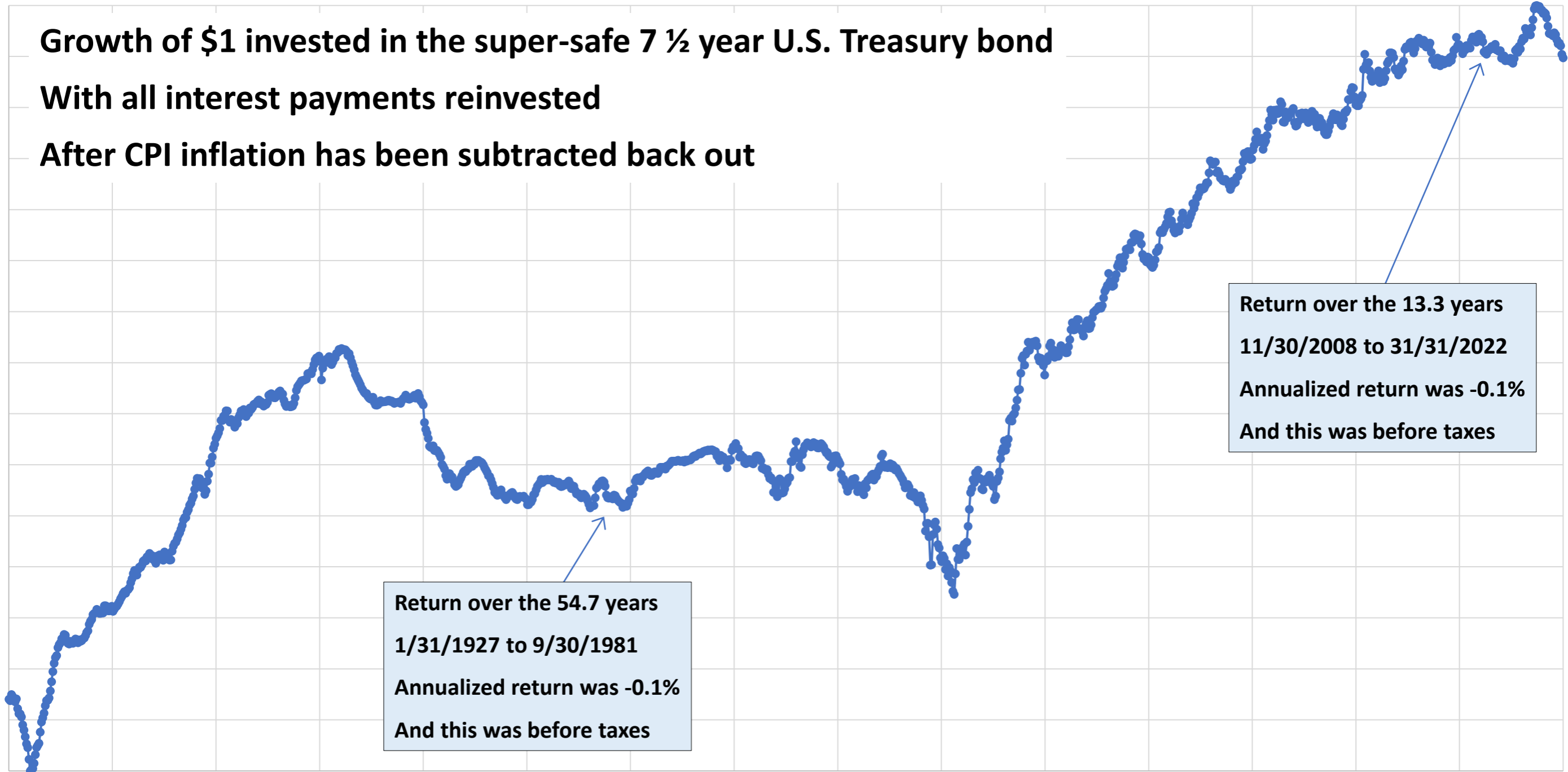


During the Great Recession of 2007/2009 they intervened in the intermediate portion of the market . . . But such intervention can only last for a very short period of time

They did so again in response to COVID

# History of intermediate-term safe U.S. Treasury bonds (after inflation)

**Growth of \$1 invested in the super-safe 7 ½ year U.S. Treasury bond**  
**With all interest payments reinvested**  
**After CPI inflation has been subtracted back out**



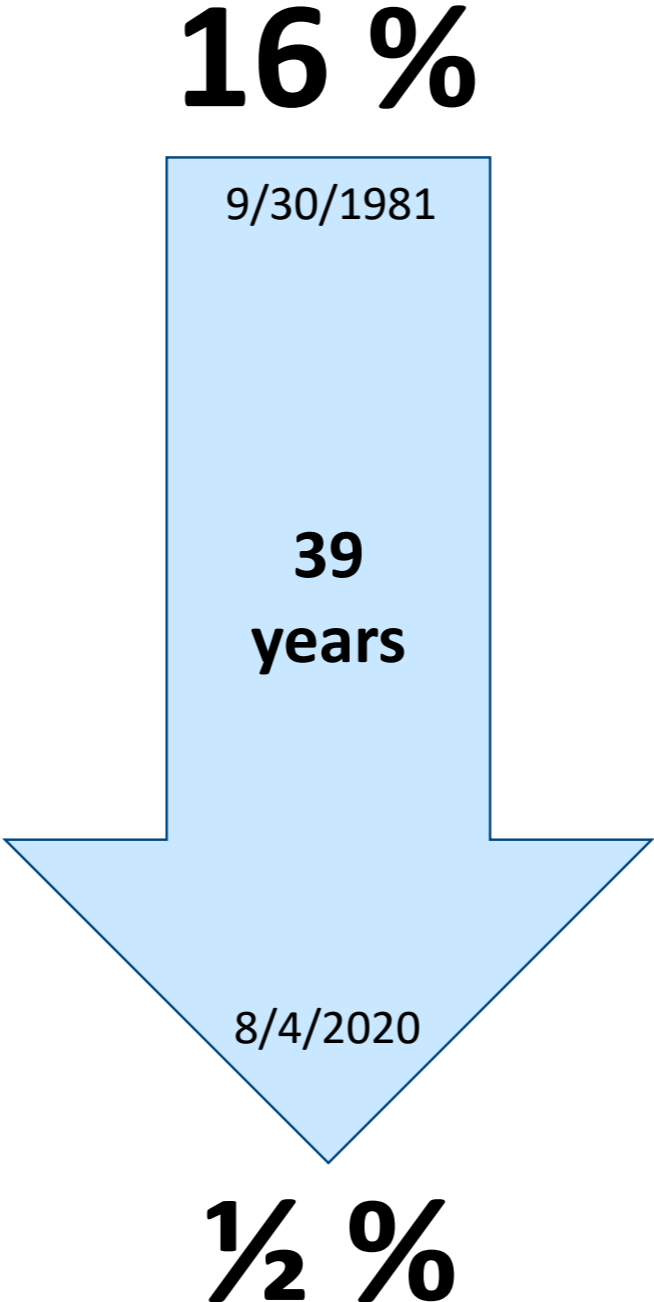
**Return over the 54.7 years**  
**1/31/1927 to 9/30/1981**  
**Annualized return was -0.1%**  
**And this was before taxes**

**Return over the 13.3 years**  
**11/30/2008 to 31/31/2022**  
**Annualized return was -0.1%**  
**And this was before taxes**

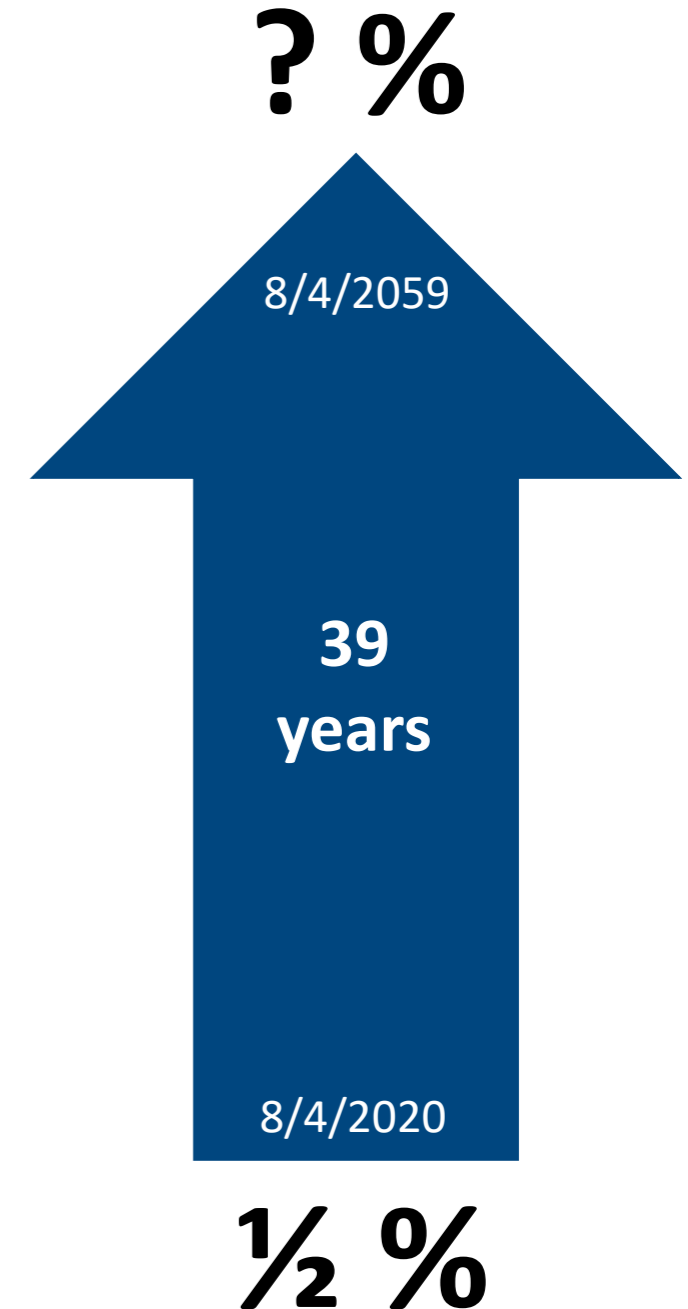
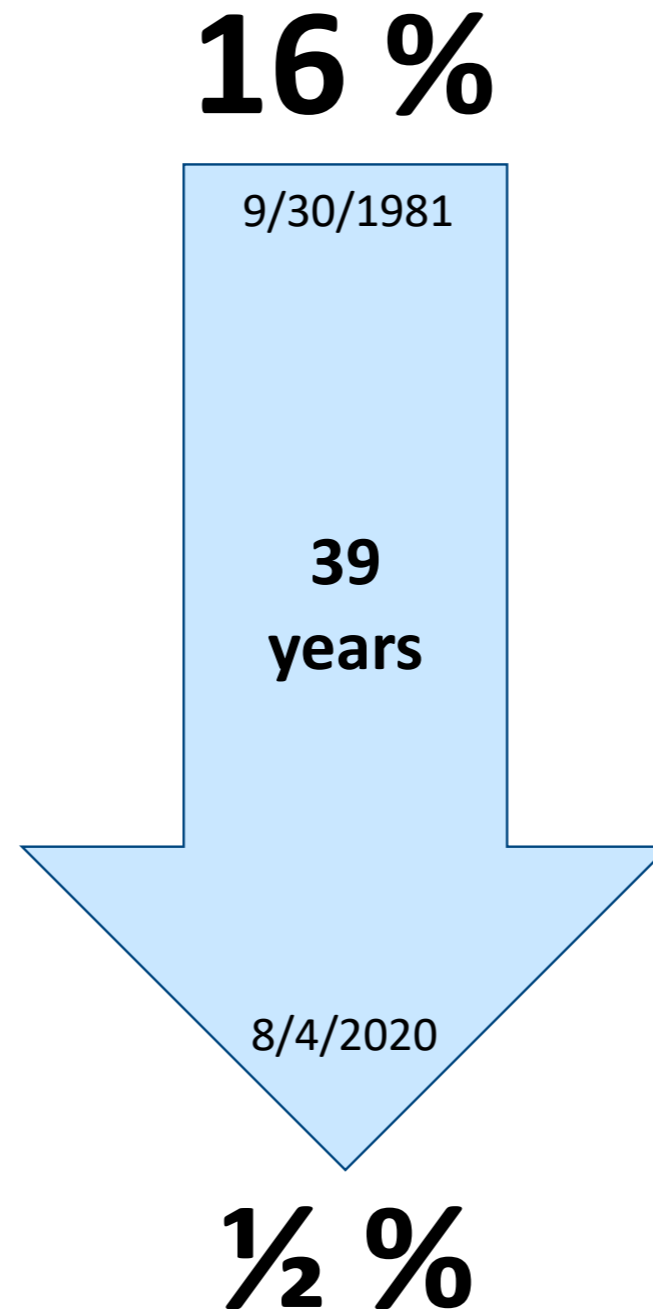
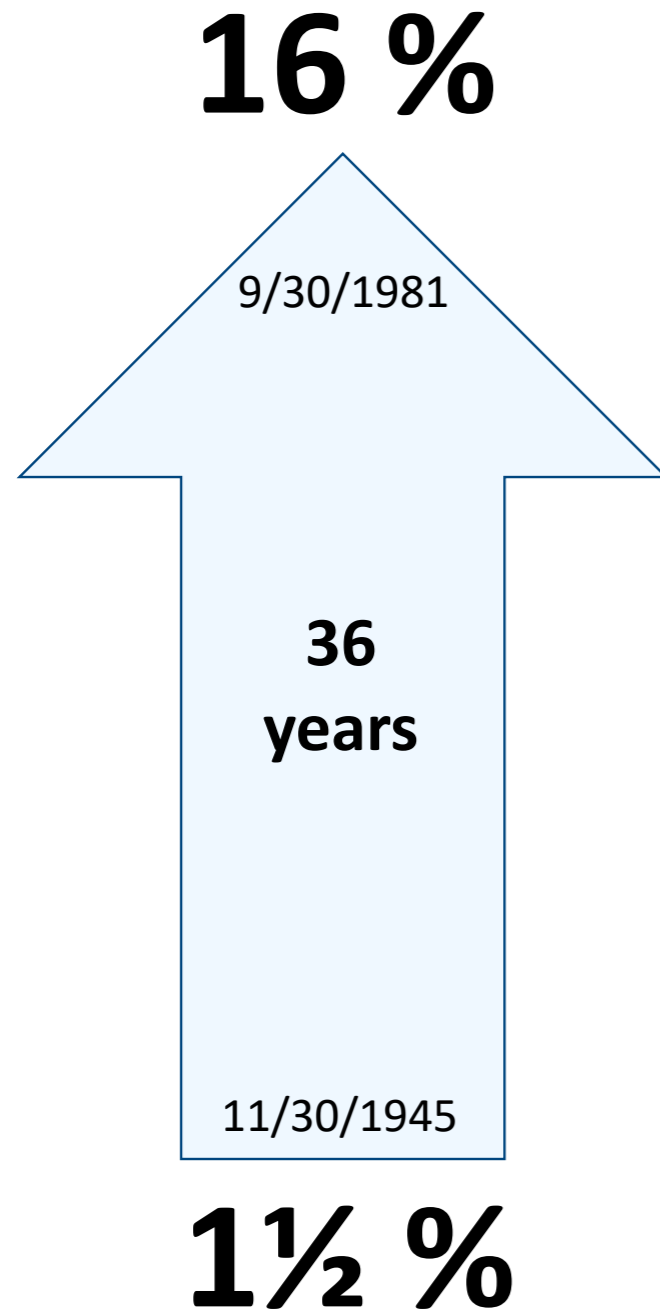
## Let's get real . . . Let's get solid and hardnosed

- What should you expect going forward from this instant?
- Well . . . For the 54.7 years spanning 1/31/1927 to 9/30/1981
- The intermediate-term U.S. Treasury bond (7.5-year maturity) lost you (burned) **-0.1%** per year for 54.7 years
- And this was before you paid taxes
- **After tax . . . the result was horrific**

- Why am I reminding us that investing in super-safe intermediate-term Treasuries would have lost you money . . . even after investing for 54.7 years
- Because our understanding of interest rates (and therefore bonds) is grossly distorted by our experience since 1981 . . . the last 41 years
- We falsely think that the last 41 years is
  - Normal
  - Typical
  - Representative
  - Useful for predicting the future



# Interest rates . . . What do the next “39 years” hold for us?



# Where are interest rates today?

Impossibly low . . . . . staring into the eyes of a massive increase



## Interest rates

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- Where are they today
- Is this low or high
- How did they get to today's level
- What happens next
- Why is this necessary
- What's normal
- What would be abnormal and seriously peculiar

## Treasury Yields

| NAME                        | COUPON | PRICE | YIELD |
|-----------------------------|--------|-------|-------|
| GB3:GOV<br><b>3 Month</b>   | 0.00   | 0.80  | 0.81% |
| GB6:GOV<br><b>6 Month</b>   | 0.00   | 1.29  | 1.31% |
| GB12:GOV<br><b>12 Month</b> | 0.00   | 1.92  | 1.97% |
| GT2:GOV<br><b>2 Year</b>    | 2.50   | 99.56 | 2.73% |
| GT5:GOV<br><b>5 Year</b>    | 2.75   | 98.50 | 3.08% |
| GT10:GOV<br><b>10 Year</b>  | 1.88   | 89.53 | 3.13% |
| GT30:GOV<br><b>30 Year</b>  | 2.25   | 81.42 | 3.23% |

# Treasury Inflation Protected Securities (TIPS)

| NAME                         | COUPON | PRICE  | YIELD  |
|------------------------------|--------|--------|--------|
| GTII5:GOV<br><b>5 Year</b>   | 0.13   | 101.41 | -0.16% |
| GTII10:GOV<br><b>10 Year</b> | 0.13   | 98.70  | 0.26%  |
| GTII20:GOV<br><b>20 Year</b> | 2.13   | 126.15 | 0.64%  |
| GTII30:GOV<br><b>30 Year</b> | 0.13   | 85.86  | 0.65%  |

## Are interest rates low or high, today

- A 5-year Treasury is paying 3.08%
- If your marginal tax rate (state and federal) is 36%
- You are left with 1.97% after tax
- The market is expecting inflation to be 3.24% over the next 5 years
- You are left with a loss of -1.27% after subtracting out inflation
- You tell me . . . are interest rates low or high . . . if you anticipate **losing -1.27%** per year, every year, over the next 5 years

## How did interest rates get to today's levels

- Slow economic growth
- Lack of attractive investment . . . by businesses
- Monetary stimulus
- People have been slow to realize just how much they are losing every year to taxes and inflation . . . they're still playing catchup

- **Go up**

- A lot
- Over decades . . . not over years

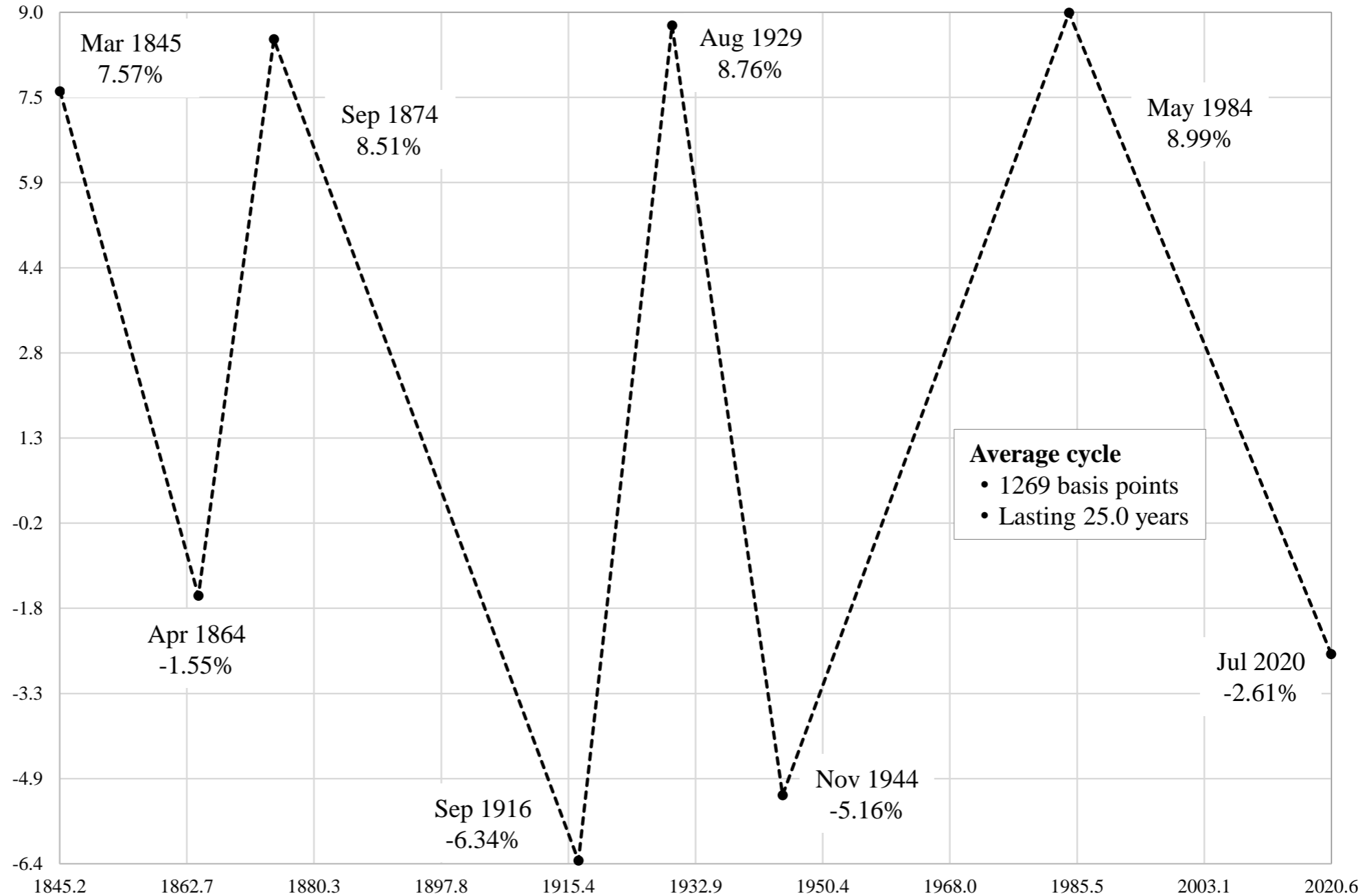
- **Why**

- Because people don't lend money with the objective of losing money
- Negative interest rates (which is what we have today) can last for several years, but not indefinitely
- People are not permanently irrational
- They will stop lending their money . . . until such time as interest rates rise sufficiently to return a fair (if modest) return
- Interest always overshoot

## Why is it necessary that interest rates rise from today's levels

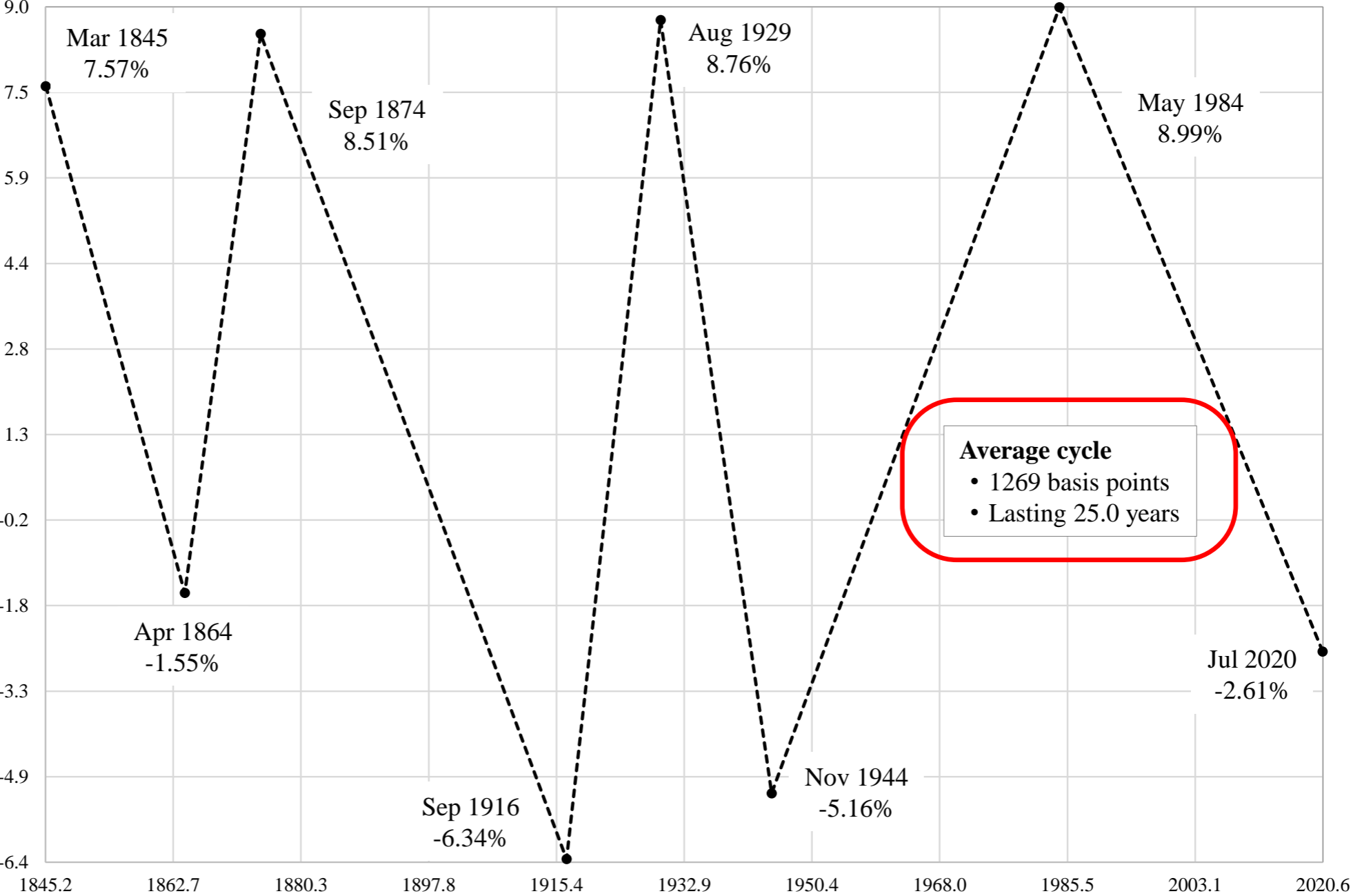
- People are not permanently irrational
- They do not lend money with the objective of losing money
- When you lend money, you
  - Give up the use of that money
  - Suffer from illiquidity
  - Suffer from various risks
- People require a large enough return to fully offset these three disadvantages

## Inflation-adjusted 10-year U.S. Treasury yields





## Inflation-adjusted 10-year U.S. Treasury yields



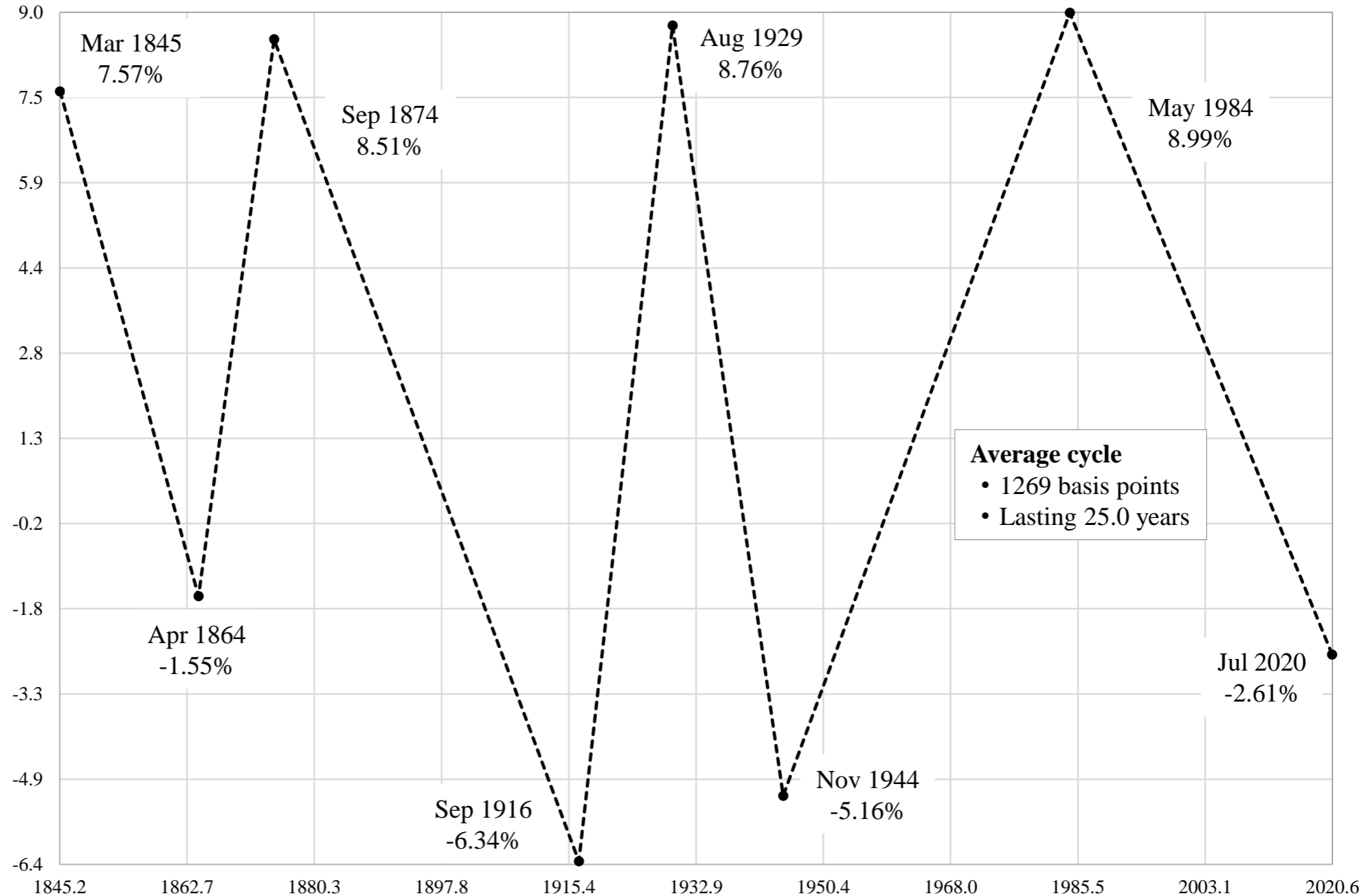
## What would be abnormal and seriously peculiar for interest rates

- The 10-year Treasury stays at its current level
- It's currently at just 3.13%
- Which after taxes and inflation is losing you **-0.87%** every single year
- Equally abnormal and peculiar . . . would be that it fails to overshoot

# What would be abnormal and seriously peculiar for interest rates

**Interest rates  
always  
overshoot**

## Inflation-adjusted 10-year U.S. Treasury yields



# Where is inflation today?

Pretty darn high . . . . proceeding haltingly towards normality

- Where is it today
- Is it low or high
- How did it get to today's level
- What happens next
- Why is this necessary
- What's normal
- What would be abnormal and seriously peculiar

## Where is inflation today

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- 8.5% on a year-over-year basis
- That was the March 31<sup>st</sup> number

## Is inflation low or high, today

- **8.5%** is abnormally high . . . . by a wide margin
- **2.3%** is its very long run average
- **3.6%** is its average since the end of WWII
- **4.1%** is its average since the beginning of the Johnson administration (the beginning of large federal welfare programs)

- **Why is inflation happening . . .**
  - **COVID**
    - Millions left the labor force . . . stopped working
    - The global supply chain broke . . . and it takes years (not months) to reconnect it
    - Consumers got bored . . . and just started buying stuff . . . a lot of stuff
  - **Federal government stimulus**
    - Monetary - by Federal Reserve
    - Fiscal - spending by the US Congress
  - **Ukraine**
  - **Deglobalization**



## What happens to inflation next

- It goes down
- The typical forecast has year-over-year CPI falling to 3.65% by Nov 30<sup>th</sup> of 2022
- And to 3.1% by July of 2023
- Security markets are forecasting inflation to AVERAGE just
  - 3.24% over the next five years
  - 2.87% over the next ten years

- Why must inflation fall from current levels?

- COVID

- Millions left the labor force . . . stopped working
- The global supply chain broke . . . and it takes years (not months) to reconnect it
- Consumers got bored . . . and just started buying stuff . . . a lot of stuff

- Federal government stimulus

- Monetary - by Federal Reserve
- Fiscal - spending by the US Congress

These five factors are all working in reverse, serving to push inflation back down

- Ukraine

- Deglobalization

These two factors are working hard to drive inflation higher

# What's normal for inflation



## What would be abnormal and seriously peculiar for inflation

- Inflation staying at 8.5% . . . . or at a similarly high level
- NO
- For inflation to stay this high the Federal government would need to make the following policy mistakes
  - Cut taxes
  - Expand spending
  - Print more money
- But all three of these are now moving in the opposite direction . . . driving inflation lower

# But

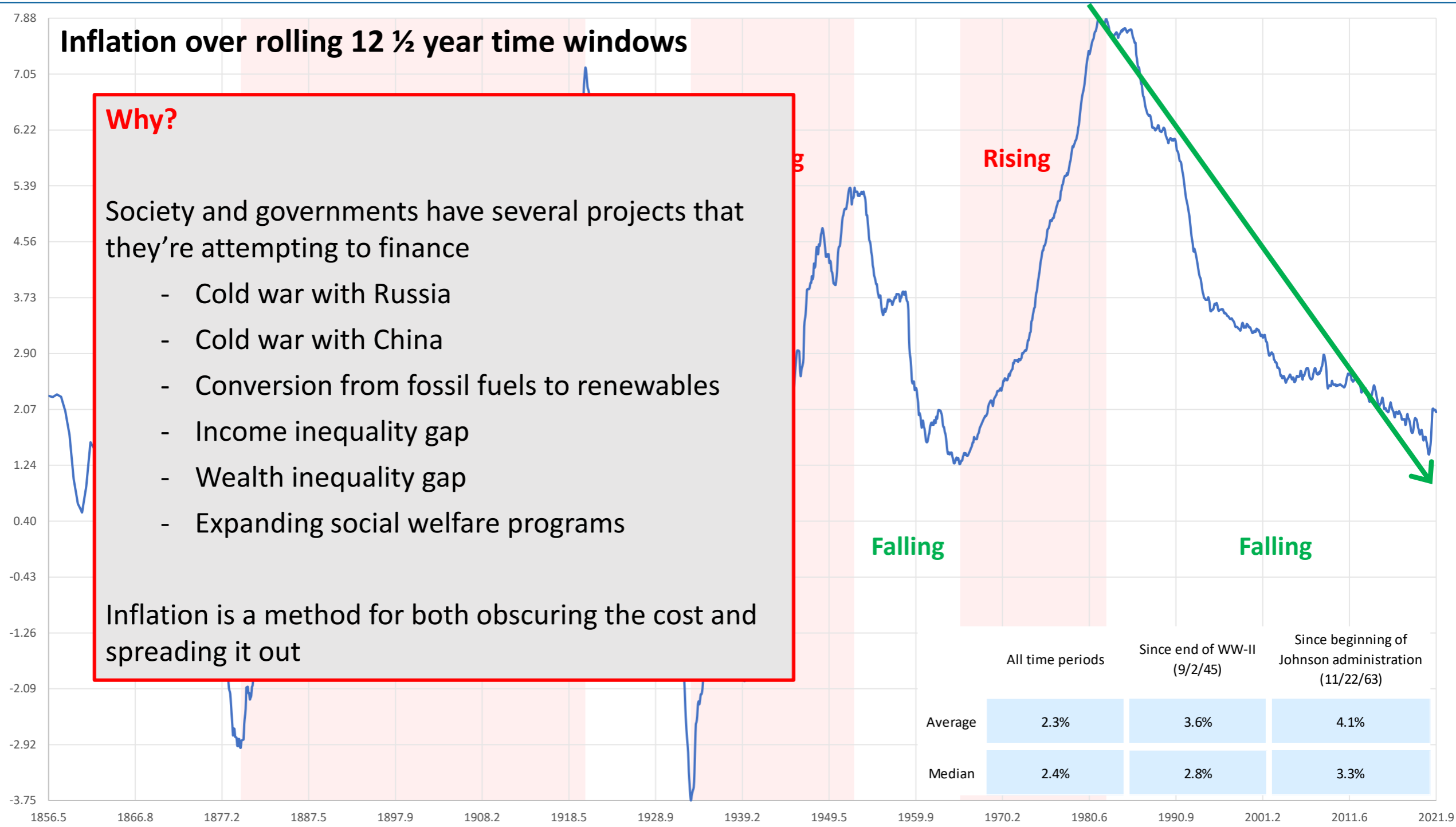
Don't confuse inflation falling over the short-run

... And it rising over the long-run

# What's normal for inflation



# What's normal for inflation



# What works, what fails, when interest rates and inflation are rising

Growth versus Value

TAA - Tactical Asset Allocation



TAA

# When interest rates are rising - fast

## Statistics over entire time period (102 years) using inflation-adjusted monthly returns

|   |                               | TAA portfolio | 55/45 global stocks/bonds | 65/35 global stocks/bonds | 75/25 global stocks/bonds | 85/15 global stocks/bonds | 75/25 U.S. stocks/bonds | 70/24/6 global stocks/bonds/commodities |
|---|-------------------------------|---------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------------------|---|
| 10% of the time when interest rates were rising the fastest | Real return                   | 5.13          | -3.27                     | -2.00                     | -0.72                     | 0.56                      | -2.77                   | -0.62                                   |
|   | Annualized standard deviation | 12.4          | 8.1                       | 9.0                       | 10.0                      | 11.1                      | 11.7                    | 9.6                                     |
| 20% of the time when interest rates were rising the fastest | Real return                   | 4.30          | -3.34                     | -2.57                     | -1.81                     | -1.06                     | -5.14                   | -1.69                                   |
|   | Annualized standard deviation | 13.1          | 7.7                       | 8.8                       | 9.9                       | 11.1                      | 12.1                    | 9.5                                     |
| 30% of the time when interest rates were rising the fastest | Real return                   | 5.49          | -2.19                     | -1.48                     | -0.78                     | -0.09                     | -4.06                   | -0.57                                   |
|   | Annualized standard deviation | 13.3          | 8.1                       | 9.1                       | 10.2                      | 11.4                      | 12.4                    | 9.8                                     |

# When inflation is rising

# When inflation is rising - fast

## Statistics over entire time period (102 years) using inflation-adjusted monthly returns

|   |                               | TAA portfolio | 55/45 global stocks/bonds | 65/35 global stocks/bonds | 75/25 global stocks/bonds | 85/15 global stocks/bonds | 75/25 U.S. stocks/bonds | 70/24/6 global stocks/bonds/commodities |
|---|-------------------------------|---------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------------------|---|
| 10% of the time when inflation was rising the fastest | Real return                   | -0.47         | -7.46                     | -7.29                     | -7.13                     | -6.99                     | -8.66                   | -6.63                                   |
|   | Annualized standard deviation | 13.6          | 9.9                       | 11.0                      | 12.1                      | 13.3                      | 13.9                    | 11.4                                    |
| 20% of the time when inflation was rising the fastest | Real return                   | 1.69          | -3.45                     | -3.37                     | -3.31                     | -3.27                     | -2.76                   | -3.20                                   |
|   | Annualized standard deviation | 12.9          | 8.9                       | 9.8                       | 10.8                      | 11.9                      | 13.6                    | 10.2                                    |
| 30% of the time when inflation was rising the fastest | Real return                   | 1.69          | -1.32                     | -1.26                     | -1.22                     | -1.20                     | -0.99                   | -1.23                                   |
|   | Annualized standard deviation | 12.5          | 8.6                       | 9.6                       | 10.7                      | 11.8                      | 13.3                    | 10.2                                    |

When both interest rates and  
inflation are rising

# When both inflation and interest rates are rising - fast

## Statistics over entire time period (102 years) using inflation-adjusted monthly returns

|  |                                  | TAA portfolio | 55/45 global<br>stocks/bonds | 65/35 global<br>stocks/bonds | 75/25 global<br>stocks/bonds | 85/15 global<br>stocks/bonds | 75/25 U.S.<br>stocks/bonds | 70/24/6 global<br>stocks/bonds/<br>commodities |
|--|----------------------------------|---------------|------------------------------|------------------------------|------------------------------|------------------------------|----------------------------|--|
| 10% of the time<br>when <b>BOTH</b><br>interest rates and<br>inflation are rising<br>the fastest | Real return                      | 2.22          | -6.11                        | -5.00                        | -3.89                        | -2.78                        | -7.12                      | -3.83  |
|  | Annualized<br>standard deviation | 12.4          | 8.5                          | 9.5                          | 10.6                         | 11.7                         | 12.6                       | 10.1   |
| 20% of the time<br>when <b>BOTH</b><br>interest rates and<br>inflation are rising<br>the fastest | Real return                      | 4.14          | -4.16                        | -3.36                        | -2.56                        | -1.78                        | -5.75                      | -2.32  |
|  | Annualized<br>standard deviation | 13.1          | 8.3                          | 9.4                          | 10.5                         | 11.7                         | 12.4                       | 10.0   |
| 30% of the time<br>when <b>BOTH</b><br>interest rates and<br>inflation are rising<br>the fastest | Real return                      | 4.81          | -2.01                        | -1.26                        | -0.52                        | 0.22                         | -3.57                      | -0.30  |
|  | Annualized<br>standard deviation | 13.1          | 7.9                          | 8.9                          | 10.0                         | 11.1                         | 12.1                       | 9.6  |

# Growth vs Value

## Value risk premium (annualized return) during

|                               |   |   |   |  |  |  |
|-------------------------------|---|---|---|--|--|--|
| All months spanning 1926-2022 | 10% of the months when interest rates were rising the fastest | 20% of the months when interest rates were rising the fastest | 30% of the months when interest rates were rising the fastest | 30% of the months when interest rates were falling the fastest | 20% of the months when interest rates were falling the fastest | 10% of the months when interest rates were falling the fastest |
| 1.61%                         | 1.82%   | 2.34%   | 3.35%   | -0.39%   | -3.12%   | -2.24%   |



# During a rising inflation environment

Based on data 1926-2022

## Value risk premium (annualized return) during

|                               |   |   |   |  |  |  |
|-------------------------------|---|---|---|--|--|--|
| All months spanning 1926-2022 | 10% of the months when inflation was rising the fastest | 20% of the months when inflation was rising the fastest | 30% of the months when inflation was rising the fastest | 30% of the months when inflation was falling the fastest | 20% of the months when inflation was falling the fastest | 10% of the months when inflation was falling the fastest |
| 1.61%                         | 6.88%   | 3.33%   | 3.12%   | -0.50%   | -1.89%   | -5.00%   |

# Environments when both interest rates and inflation are rising

Based on data 1926-2022

## Value risk premium (annualized return) during

|                               |  |  |  |   |   |   |
|-------------------------------|--|--|--|---|---|---|
| All months spanning 1926-2022 | 10% of the months when both interest rates and inflation were rising the fastest | 20% of the months when both interest rates and inflation were rising the fastest | 30% of the months when both interest rates and inflation were rising the fastest | 30% of the months when both interest rates and inflation were falling the fastest | 20% of the months when both interest rates and inflation were falling the fastest | 10% of the months when both interest rates and inflation were falling the fastest |
| 1.61%                         | 1.26%  | 5.71%  | 3.53%  | -1.72%  | -2.99%  | -4.37%  |

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# History of economic recessions and what does best

Friday

May 27<sup>th</sup>

11:00 a.m. EASTERN

All data and statistics were provided by Global Financial Data, Inc. and the Kenneth R. French Data Library from Dartmouth University (unless otherwise indicated in the exhibit)

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