



**National Rural Utilities
Cooperative Finance Corporation**

SERVICE | INTEGRITY | EXCELLENCE

Macro-Economic & Interest Rate Update

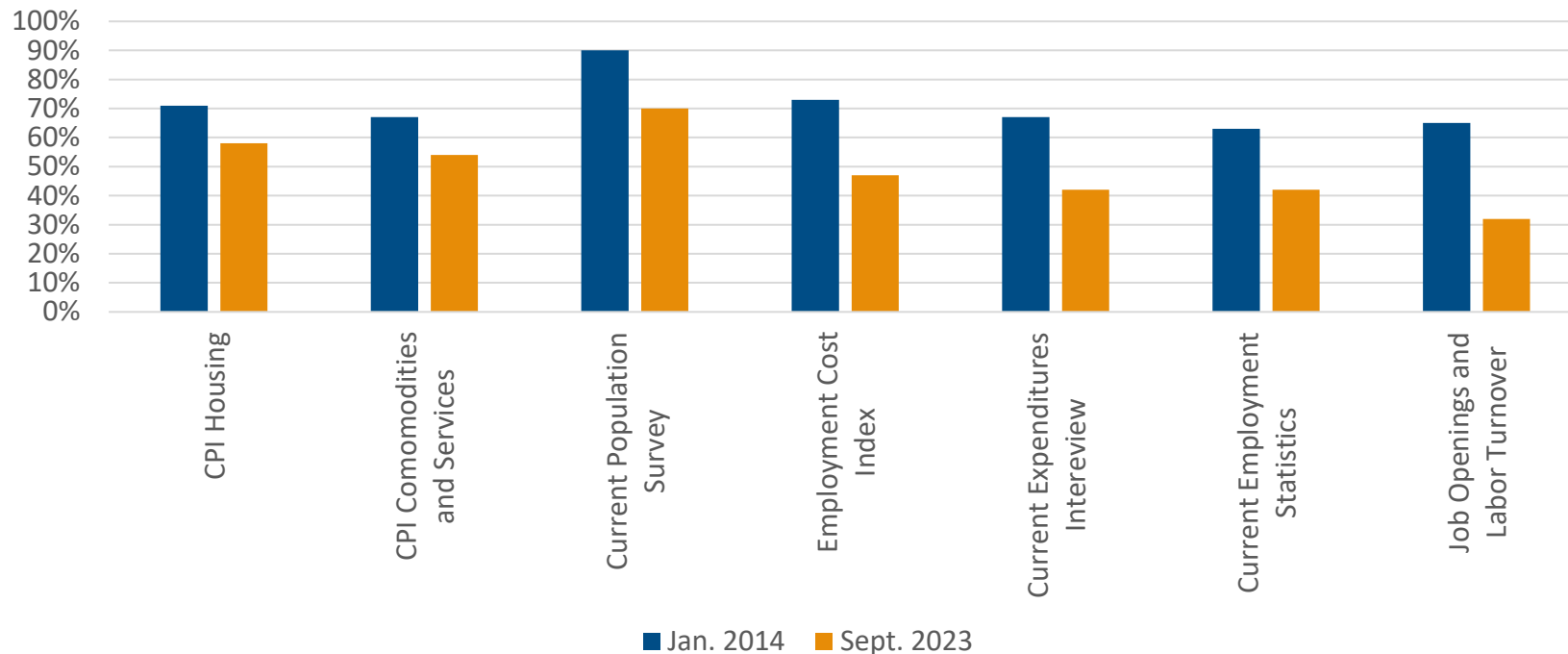
February 2024

To briefly summarize...

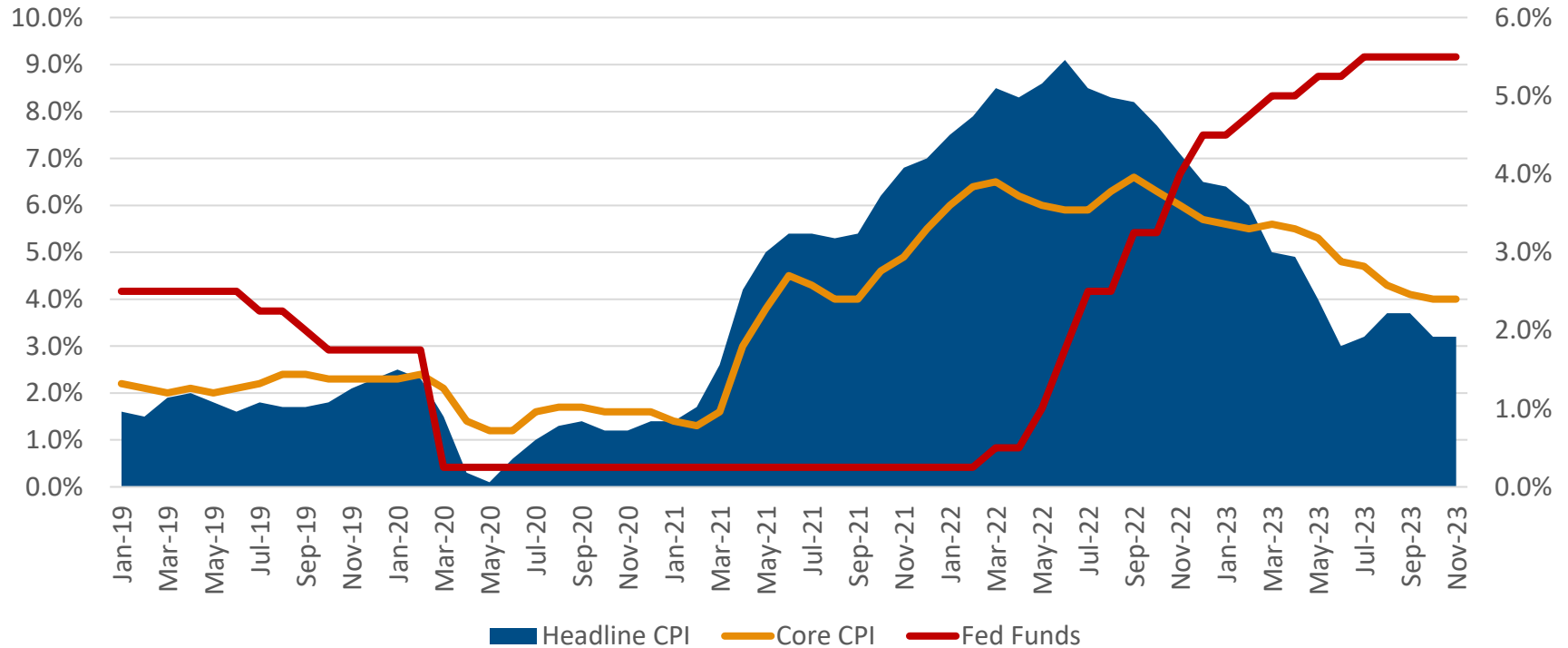
“Can’t someone bring me a one-handed Economist?”

President Harry Truman, 1945-1953

Data, and its use, aren't getting better...



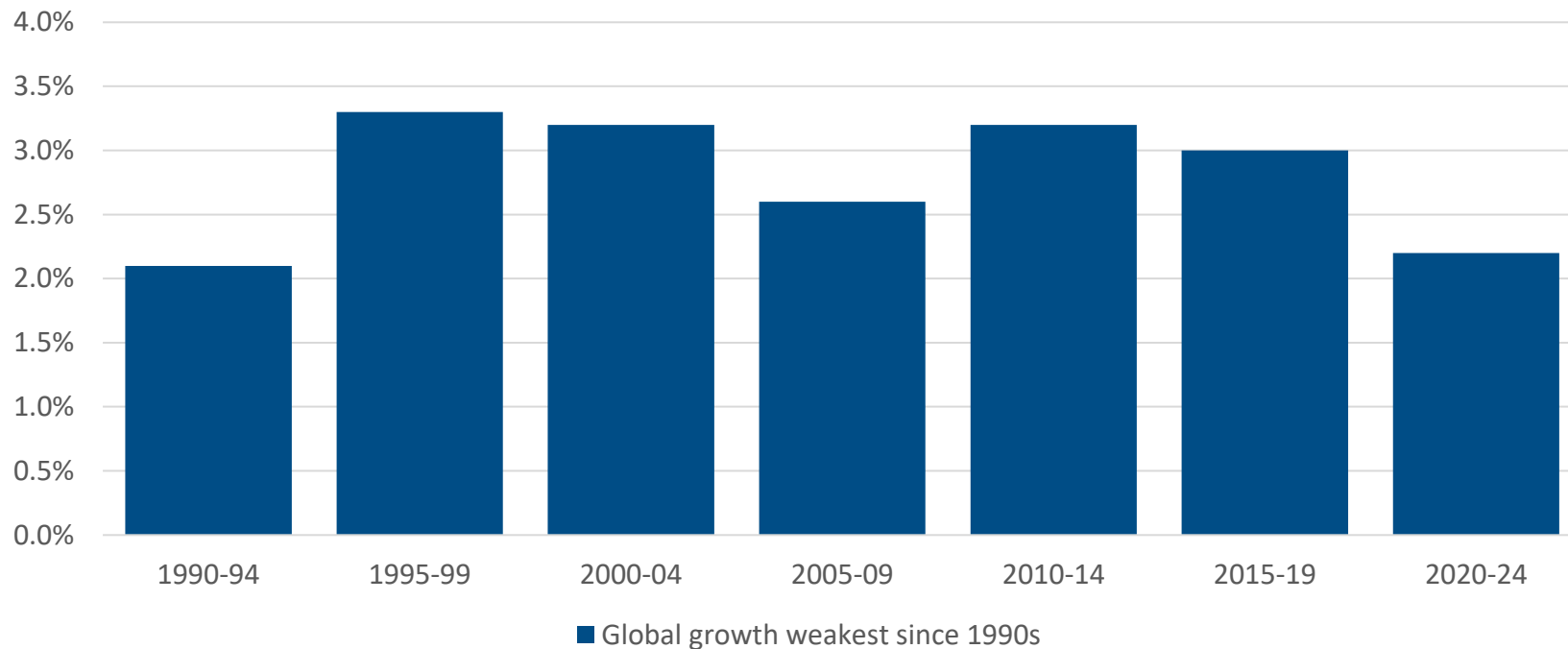
A big mis-read by the Federal Reserve...



2023 was pleasant compared to 2022...but,

**2024 could be
a pivot year!**

World growth shrinking to past low



A pessimist's guide to global economic risks in 2024



2. The Fed could get burned (again)

8. U.S. election could upend the world

3. Europe's growth feels the chill

7. Game-changing elections in Taiwan

4. China looks wobbly

9. Red Sea attacks by Houthi rebels

1. The Middle East is on the brink

6. Ukraine at a tipping point

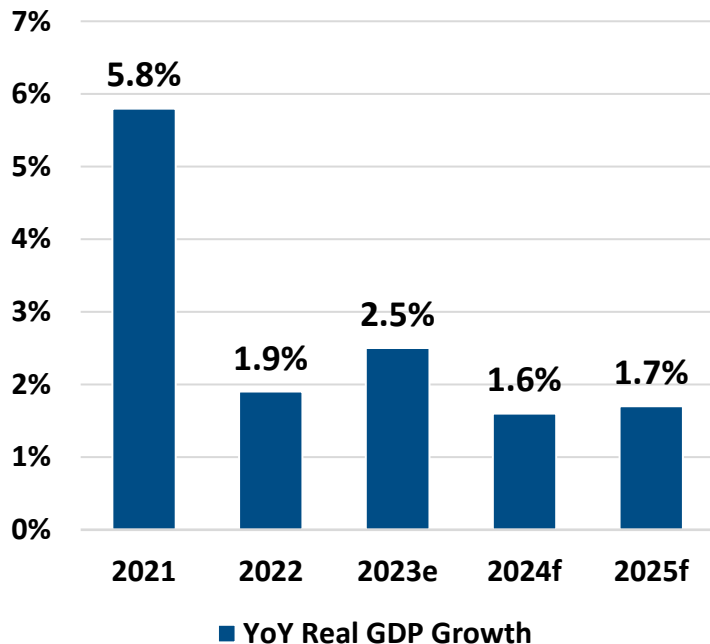
5. Japan risks losing (yield curve) control

Our favorite gas station stop



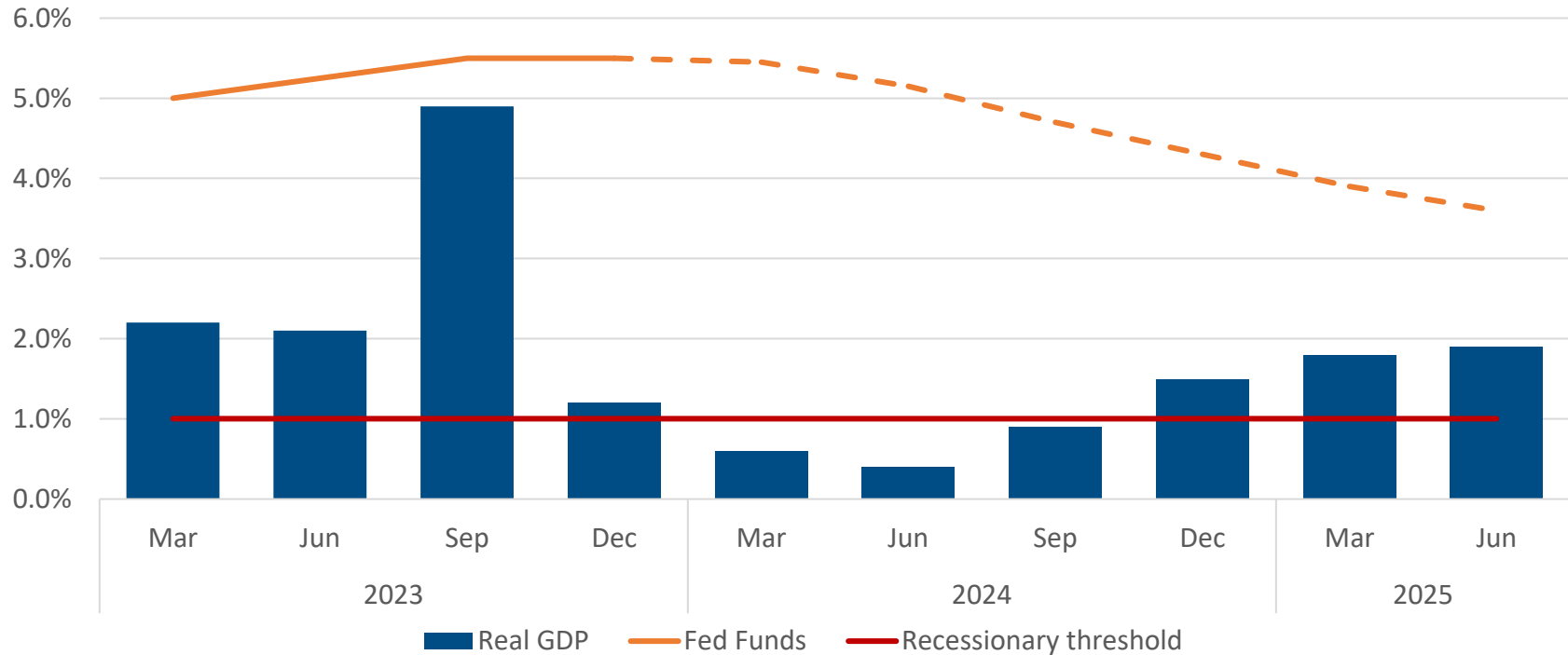


2024 U.S. Growth Outlook



KEY DRIVERS OF 2024 OUTLOOK	✓	Structurally tight labor markets & wage growth
	✓	Stronger corporate & consumer balance sheets
	✓	Implementation of budgeted large-scale infrastructure (Inflation Reduction Act, CHIPS Act)
	✓	Advances in productivity enhancing technology (AI)
	✓	Inflation normalizing
	✗	Depleted excess savings/restart of student loan payments
	✗	More restricted access to capital for smaller businesses
	✗	Contracting business investment
	✗	Election uncertainty and posturing in Washington impacting fiscal policy/budgeting (ongoing shutdown risk, tighter fiscal policy)

Continued economic growth or recession?



Past recessions and severity

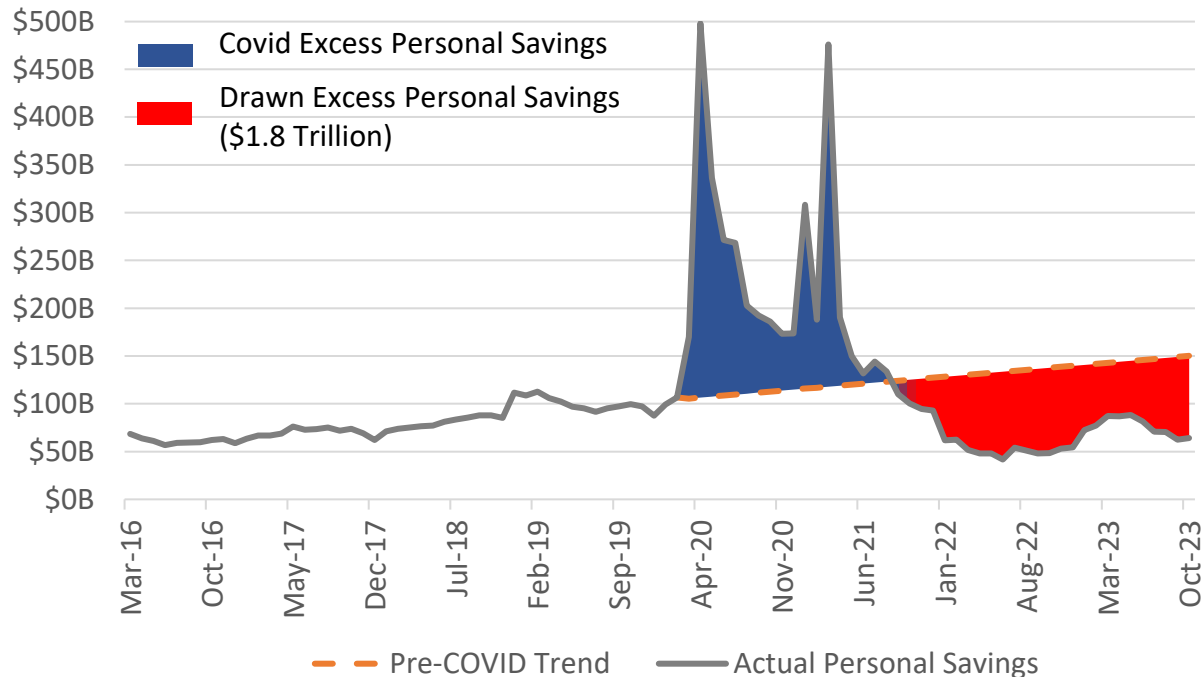
Time Period	Duration	Change in GDP	Peak Unemployment Rate
August 1929-March 1933	3 years, 7 months	-26.3%	24.9%
December 2007-June 2009	1 year, 6 months	-4.0%	9.5%
November 1973-March 1975	1 year, 4 months	-3.1%	8.6%
July 1981-November 1982	1 year, 4 months	-2.5%	10.8%
May 1937-June 1938	1 year, 1 month	-3.3%	19.0%
November 1948-October 1949	11 months	-1.5%	7.9%
December 1969-November 1970	11 months	-0.2%	5.9%
July 1953-May 1954	10 months	-2.4%	5.9%
April 1960-February 1961	10 months	-0.1%	6.9%
January-December 2024	?	TBD	TBD
March 2020- April 2020	2 months	-31.2%	14.7%

Six Causes: 1. Industry, 2. Inflation, 3. Oil, 4. Financial, 5. Fiscal, and 6. External Force

61 Percent of Americans better have a Plan B



This year will mark the end of the free-lunch economy

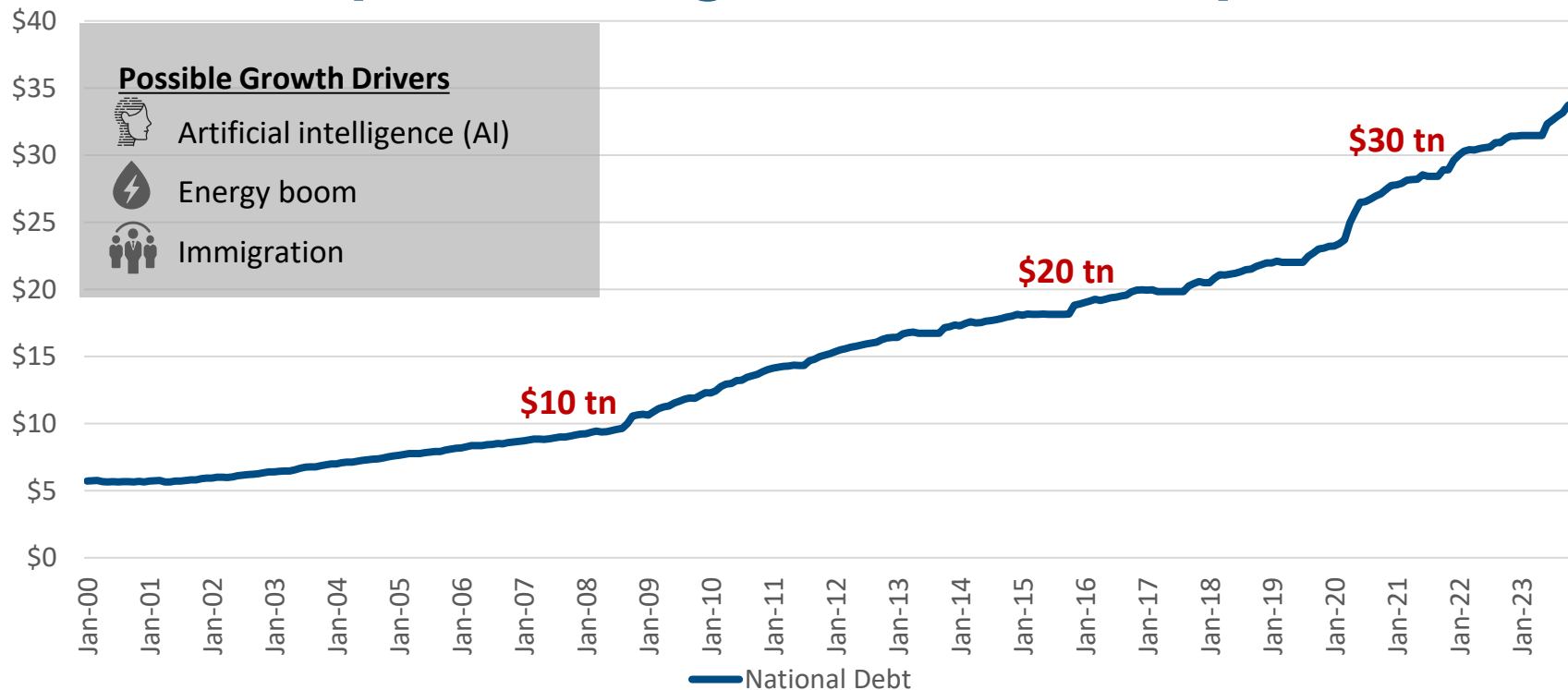


\$350 Billion

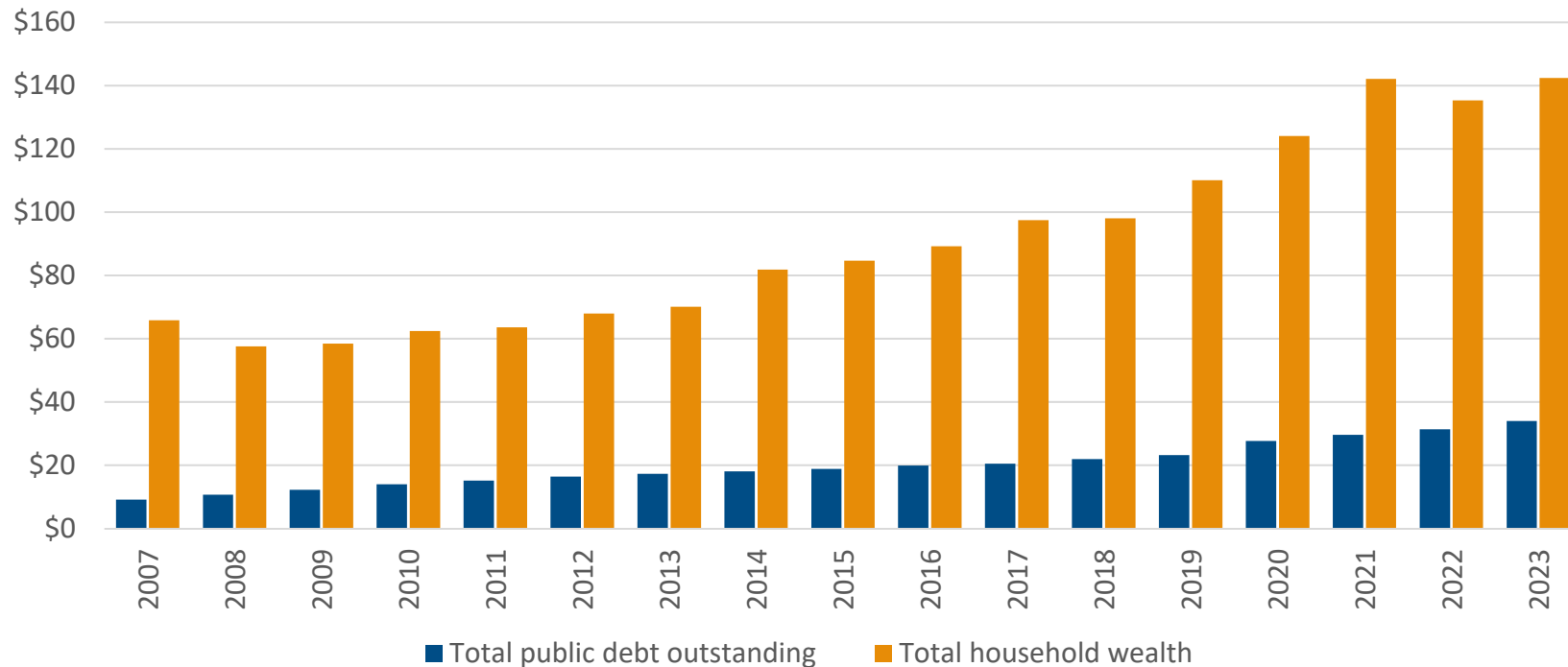
Estimated remaining excess savings in October 2023

(most likely concentrated in high-income households)

Better to pivot and grow the country out of debt!



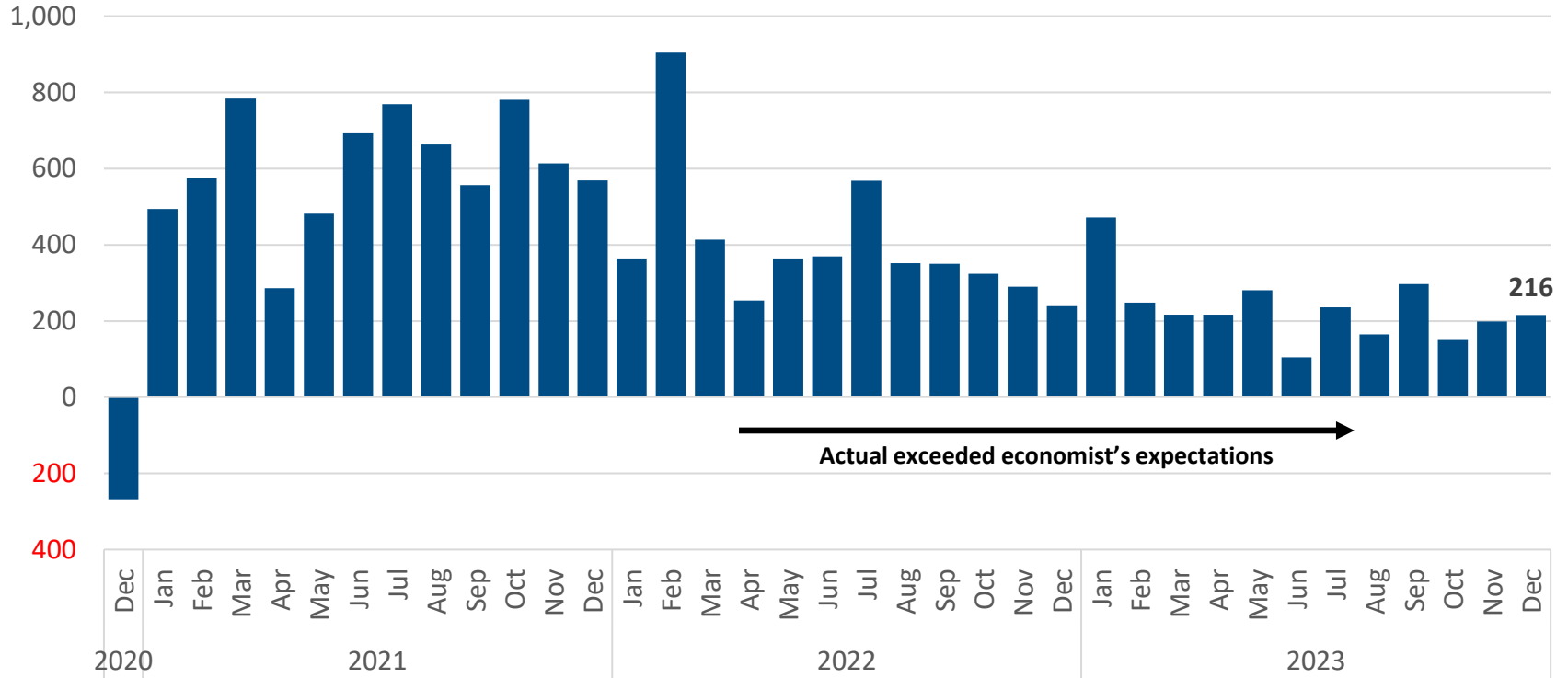
Why worry? – the U.S. “exorbitant privilege”



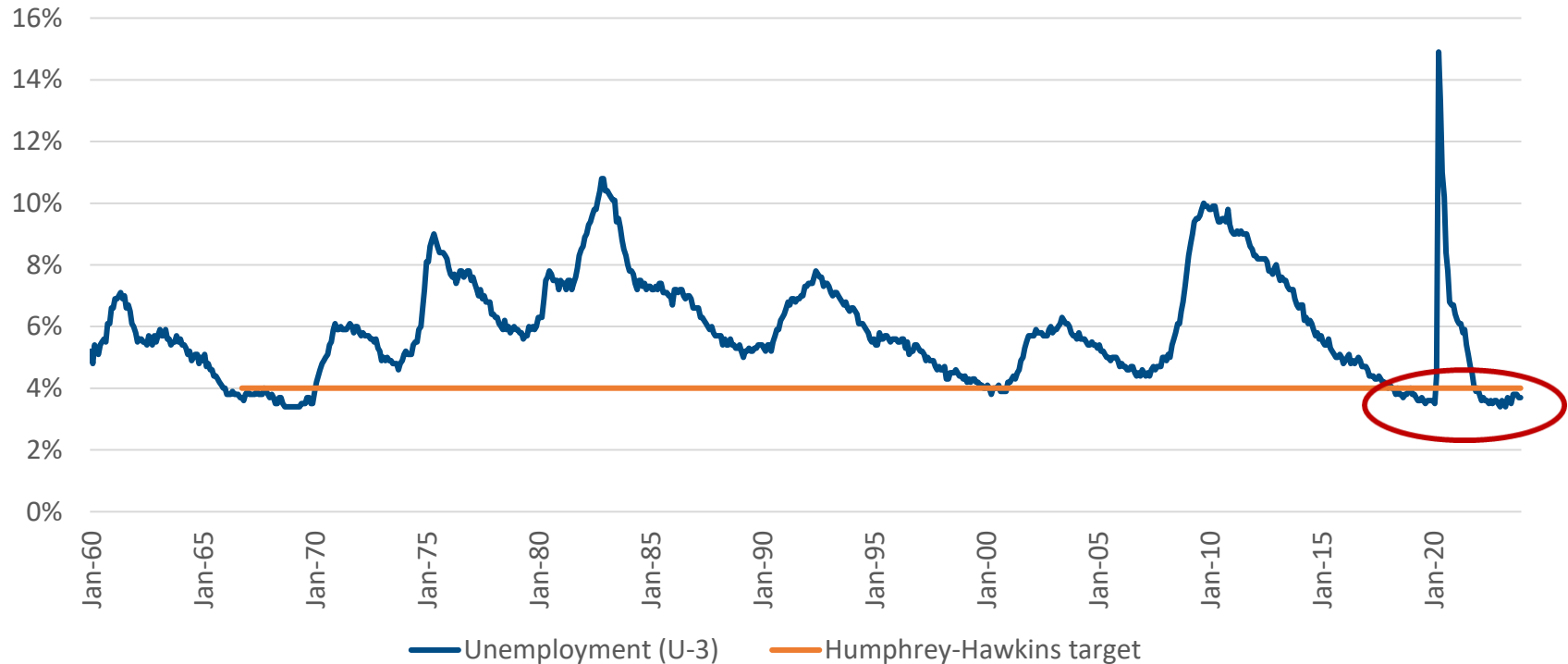
The four key elements comprising an economic mix, plus one more...



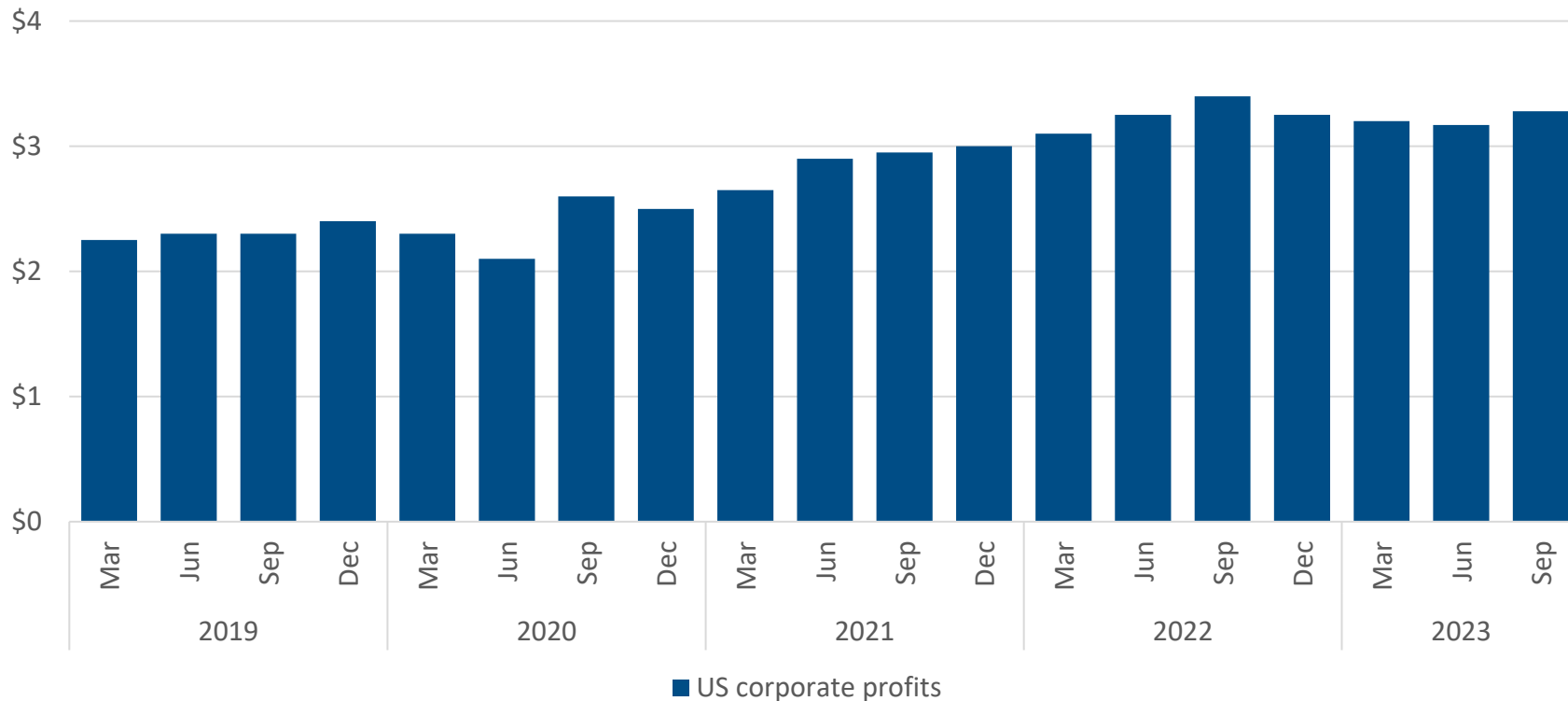
#1: Payrolls: a continued pillar of strength



Unemployment has remained below 4.0%



#2: Profitability: on a upward trend



Costco's “forever” commitment!

KIRKLAND Signature

pepsi

1.49
ICE CREAM
SANDWICH
CHOCOLATE
VANILLA
850-850 cal.

1.99
ICE CREAM
CUP
VANILLA
850 cal.

2.49
KIND BROWN
MILKSHAKE
850 cal.

2.99
FRUIT SMOOTHIE
850 cal.

1.50
**1/4 POUND PLUS
ALL BEEF HOT DOG
AND 20 oz. SODA (With Refill)**
580 - 850 cal.

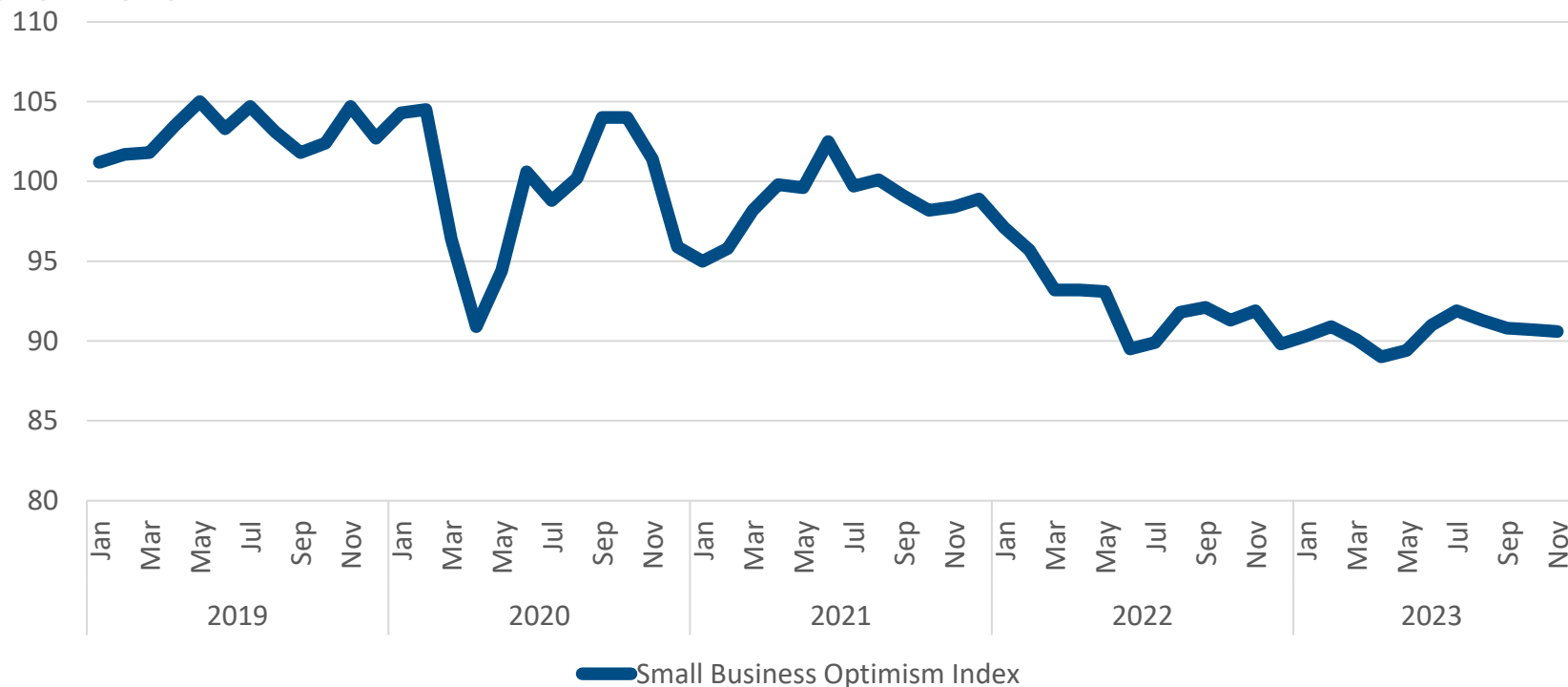
KIRKLAND Signature

PIZZA

	SLICE	18" WHOLE
CHEESE:	710 cal.	4,260 cal.
PEPPERONI:	650 cal.	3,880 cal.

CHICKEN BAKE
CHICKEN BREAST, CHEESE
BACON, CAESAR DRESSING

Small business owners have a more pessimistic outlook



Small Business Outlook Survey

WSJ/Vistage Small Business Index Components: December 2023

■ Negative

■ Neutral

■ No Opinion

■ Positive



Overall Economy

Compared with a year ago, have overall economic conditions in the United States improved, remained the same, or worsened?

44%

35%

20%

Future Economy

During the next 12 months, do you expect the overall economic conditions in the U.S. will be better, about the same, or worse than now?

35%

42%

22%

Expected Revenues

Do you anticipate that your firm's sales revenues will increase, remain about the same, or decrease during the next 12 months?

12%

25%

62%

Profitability Projections

Do you expect your firm's profitability to improve, remain about the same, or worsen during the next 12 months?

18%

33%

49%

Future Investments

Are your firm's total fixed investment expenditures likely to increase, remain about the same, or decrease during the next 12 months?

17%

49%

33%

Future Employment

Do you expect your firm's total number of employees will increase, remain about the same, or decrease during the next 12 months?

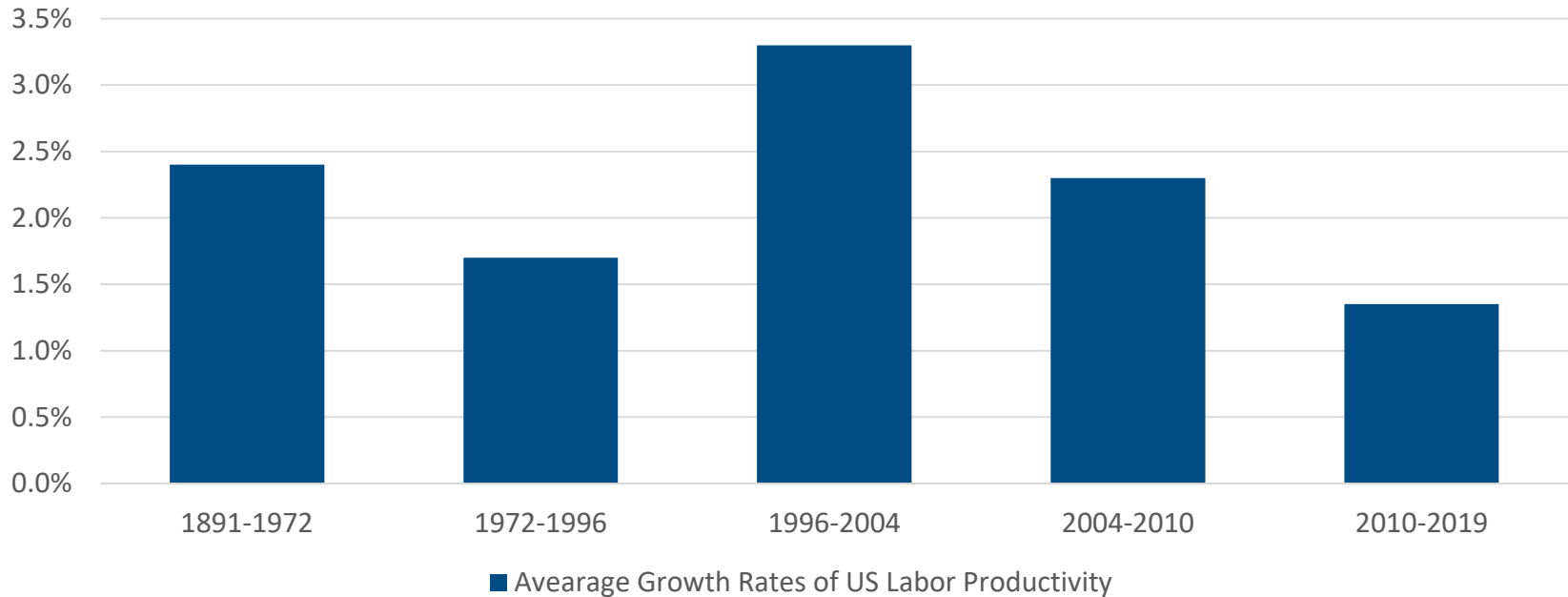
36%

57%

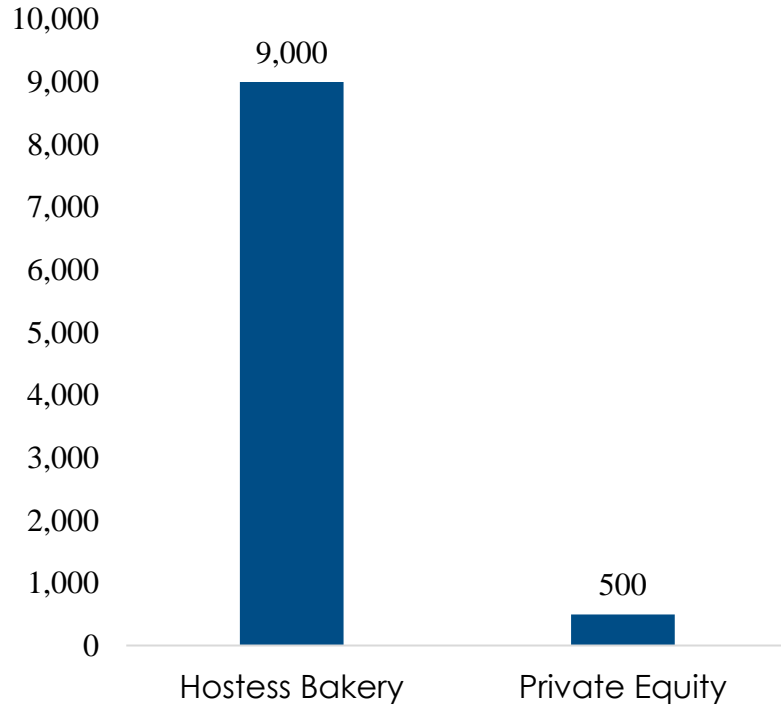
Source: WSJ/Vistage Small Business CEO Confidence Index



#3: Recent productivity gains have been lacking



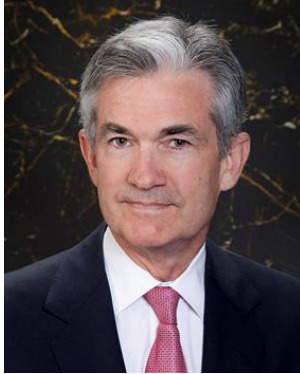
Productivity is hard to measure: think Twinkie!



130 calories and 14.5 grams of sugar compared to a Coke that has 140 calories and 39.0 grams of sugar.



#4: P for “Powell”, the current Fed Chairman



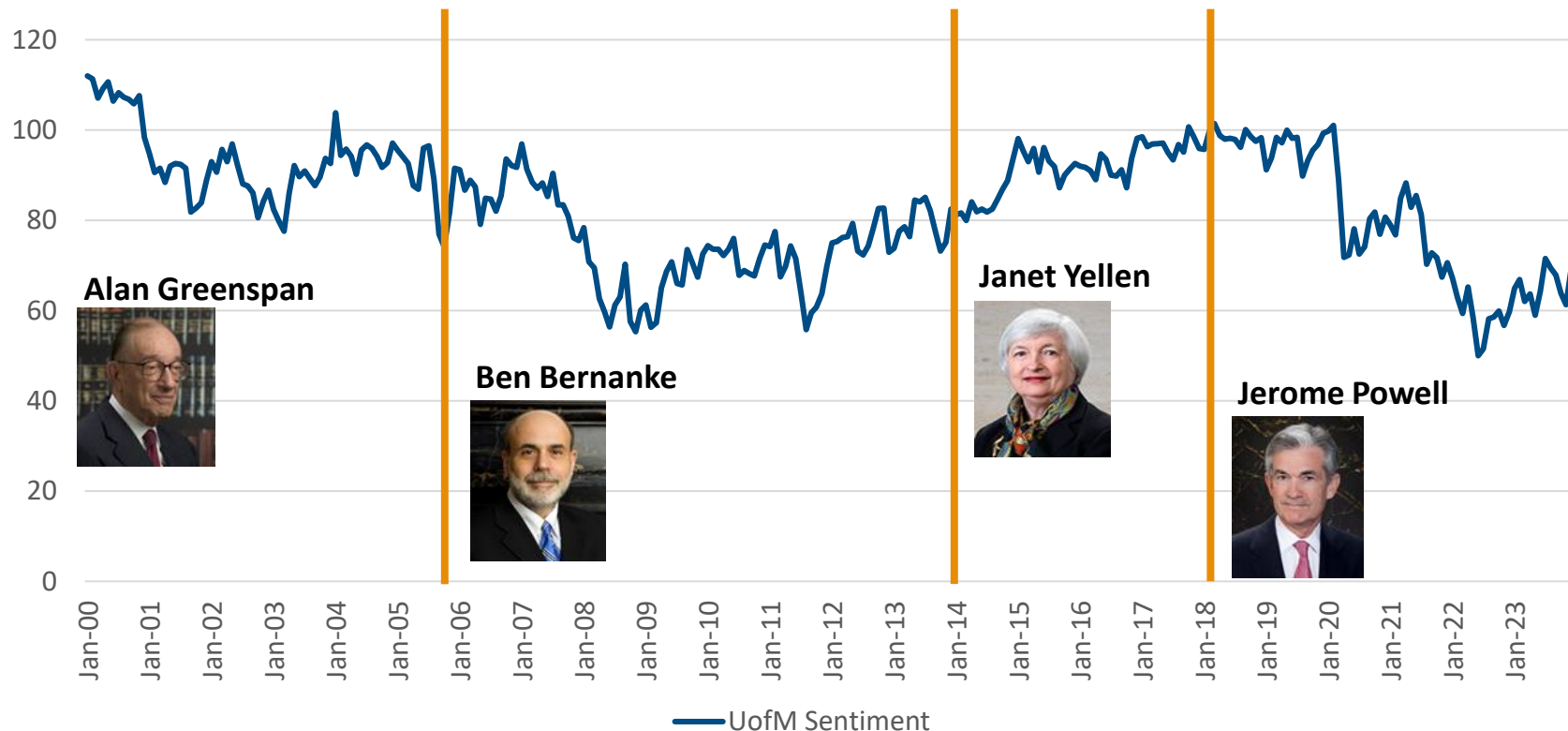
- **Jerome H. Powell: February 2018**

- Law Degree, Georgetown
- Salomon Brothers, investment banker
- Carlyle Group, partner
- Severn Capital Partners, founder
- Federal Reserve chair nominee
- Nominated by President Trump (R)
- 2017 New Worth \$112.3m (estimate)



- Considered to be a consensus-builder
- Governing style is expected to be a continuation of previous Fed chair, Janet Yellen whose hallmark was caution and watching data; Powell trusts evidence as much as economic models
- Tax cuts, infrastructure spending, and budget deficits expected to be challenges for Powell
- Expected to have to fight to maintain independence from White House
- History suggests that in Powell's four years he will face a recession

Powell: re-establishing public confidence



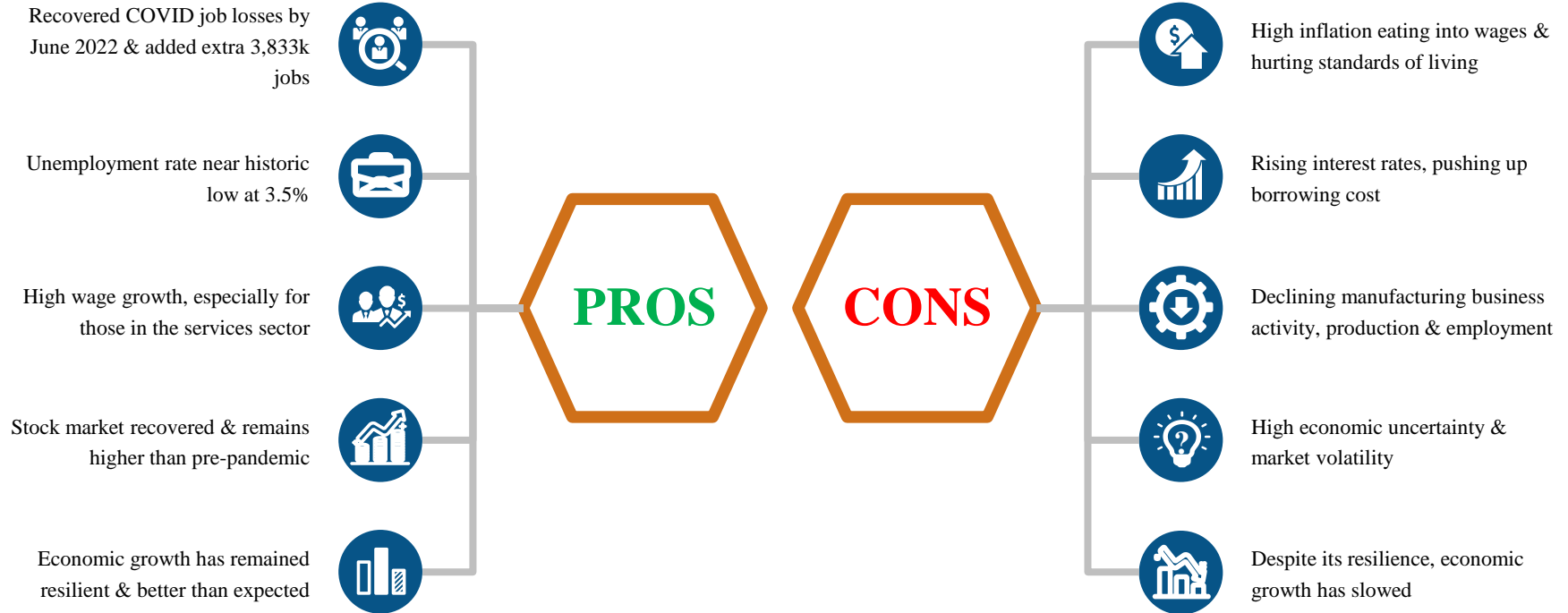
#5: Politics: presidential election year



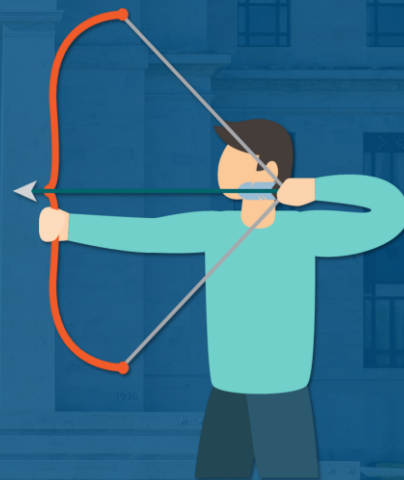
versus



Biden's economic performance



The challenge of a dual mandate



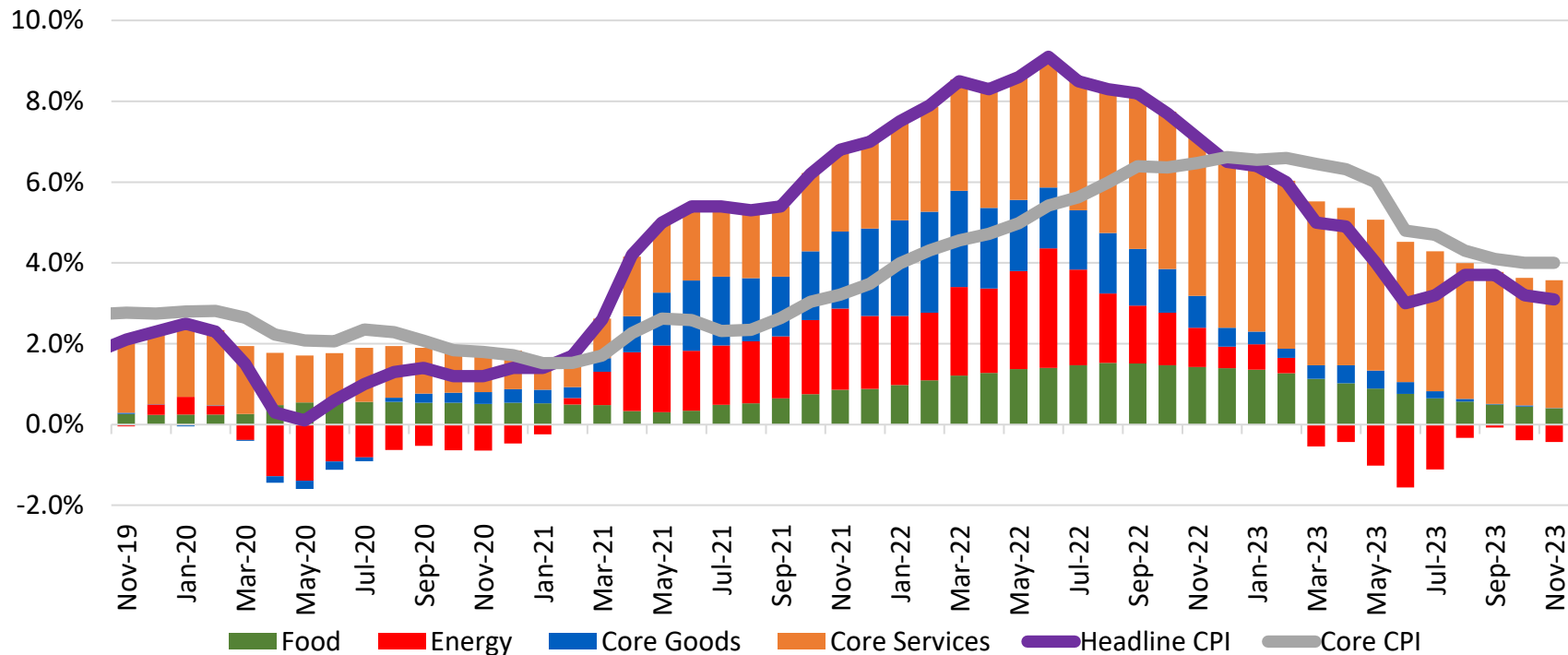
Jerome Powell

Simple guidelines to keep in mind

- Fed controls just one, and only one, interest rate.
- In the past 11 Fed rate-hiking cycles, recessions have typically started about two year after the central bank begins raising interest rates.
- Fed rate hikes take 12-24 months to fully work themselves through the economy.
- High treasury yields are the exception, not the norm.
- Long-term rates follow short-term rates with a lag.
- Long-term rate adjustment is not one-for-one with short-term rates.
- Borrow the cheapest money you can for as long as you can.



Inflation resurgence or continued decline?



Source: U.S. Bureau of Labor Statistics

Put simply – American's hate inflation

People's inflation

1. Can't afford to buy a home?
2. Using credit card debt to buy groceries?
3. Paying out of pocket for prescription drugs?

Inflation Is Making Americans Hate the US Economy



Item	Jan. 2020	Oct. 2023
ORANGE JUICE	2.32	3.67
12-PACK SODA	4.33	6.77
COFFEE	4.17	6.18
WHITE BREAD	1.35	2.00
EGGS	1.46	2.07
YOGURT (32 OZ.)	4.43	6.28
CHICKEN BREAST (2 LBS.)	6.12	8.44
GROUND BEEF (1 LB.)	3.89	5.23
UNCOOKED RICE (1 BOX)	1.43	1.92
ROMAINE LETTUCE	2.16	2.72
LARGE POTATOES (4)	3.21	4.02
MILK	3.25	3.95
BUTTER	3.86	4.55
BANANA BUNCH (2 LBS.)	1.14	1.25
TOMATOES	2.22	1.87
TOTAL	45.34	60.98

That's \$15.56 more!

Grocery prices for items, ordered by percentage increase since 2020. Illustration: Steph Davidson
Source: Bureau of Labor Statistics

Will first Fed cut be sooner versus later?



Raising rates rapidly to catch-up



Raising rates at a slower pace

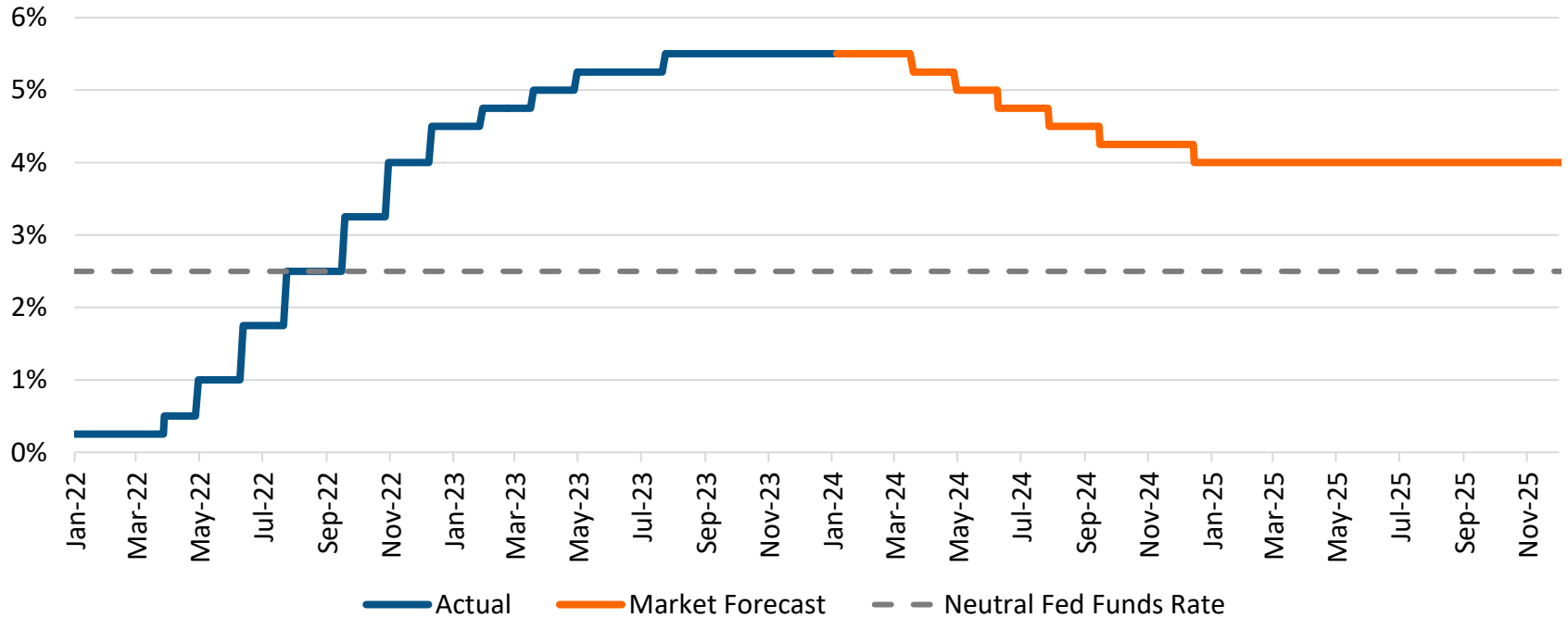


Holding rates at a given high level

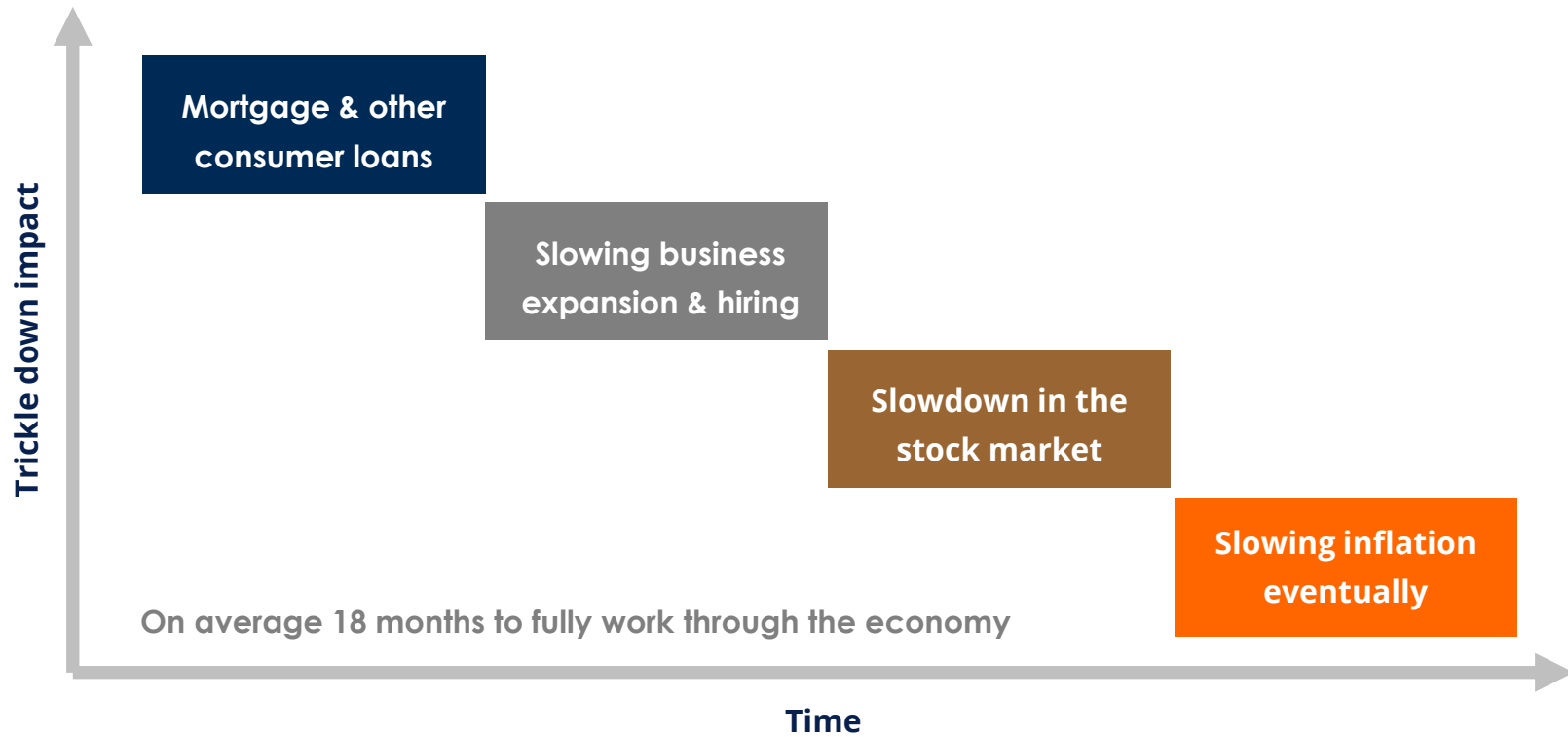


First rate cut and the pace thereafter

Markets see rate cuts starting in Q1 24

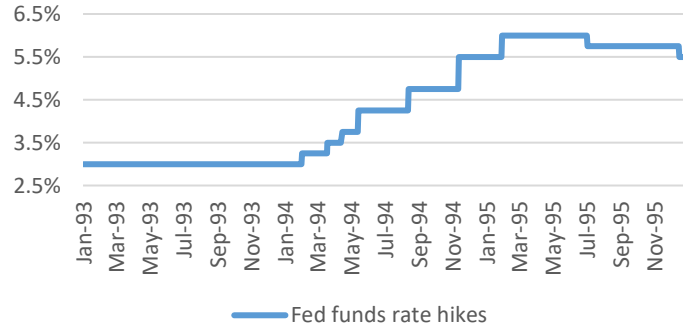


Monetary policy works with long & variable lags

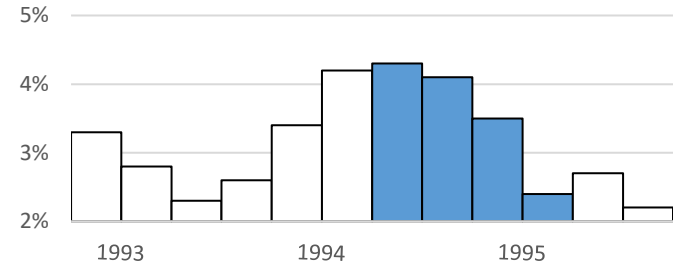


Alan Greenspan's soft landing in 1994 - 1995

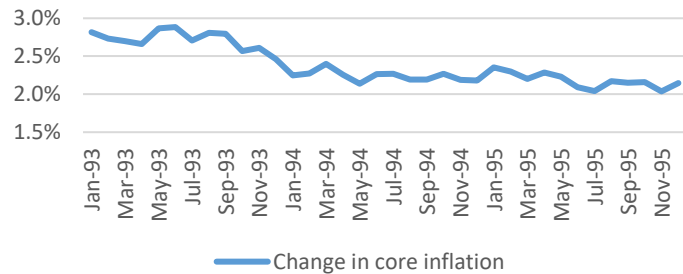
Fed doubled short-term interest rates ...



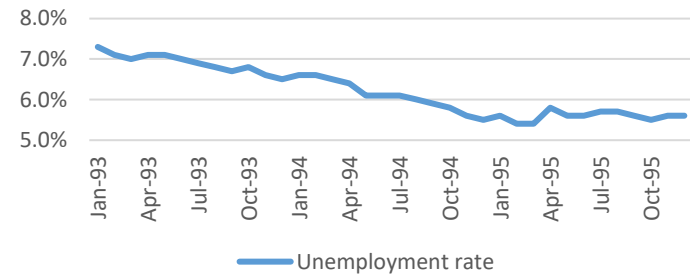
... which slowed U.S. growth



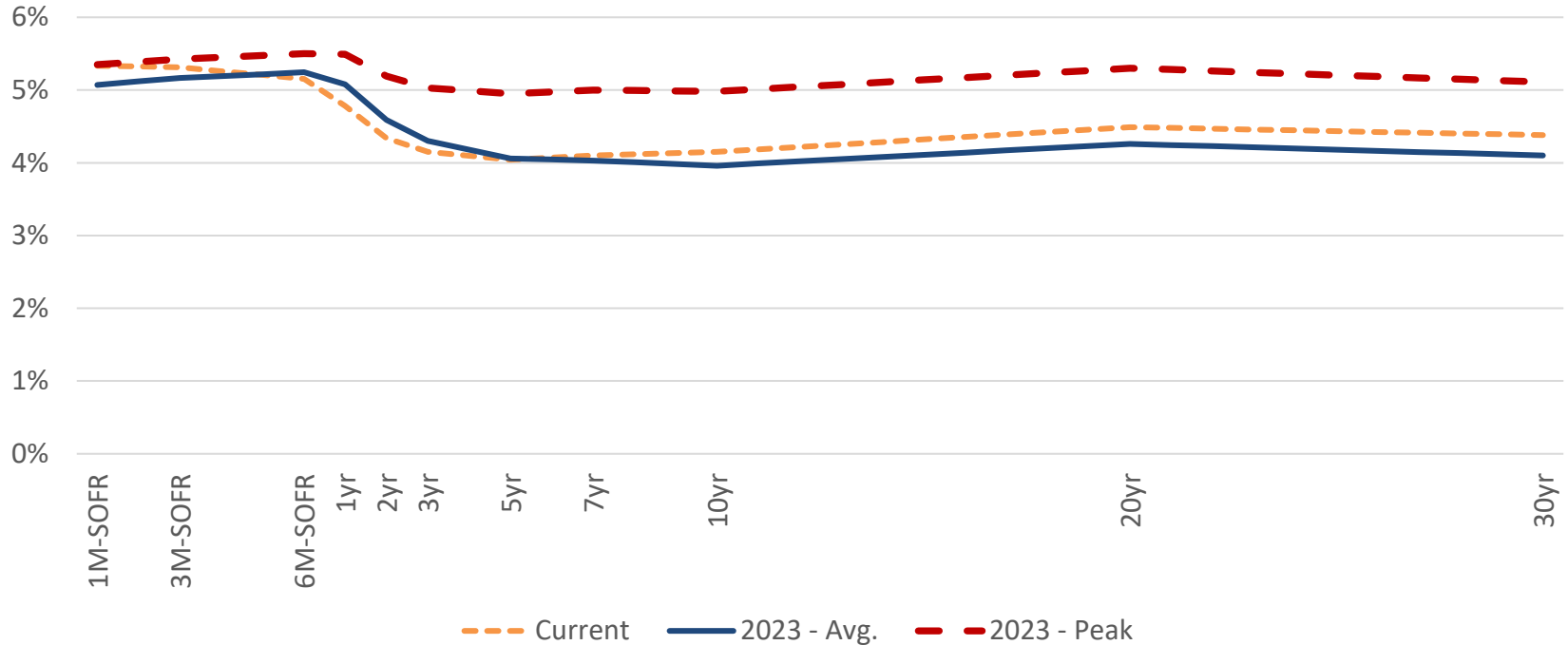
... and caused inflation to fall ...



Change in inflation-
... while unemployment leveled off



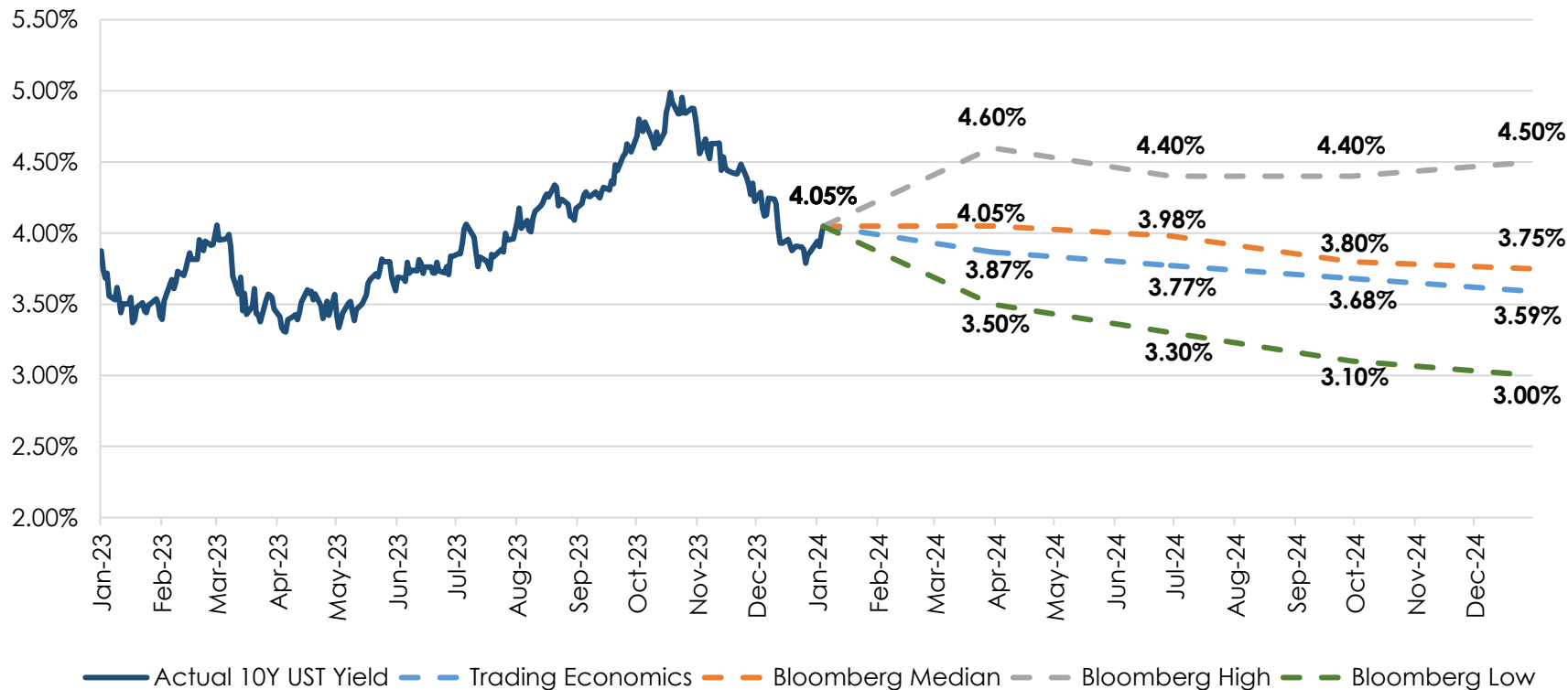
Term interest rates have trended back down



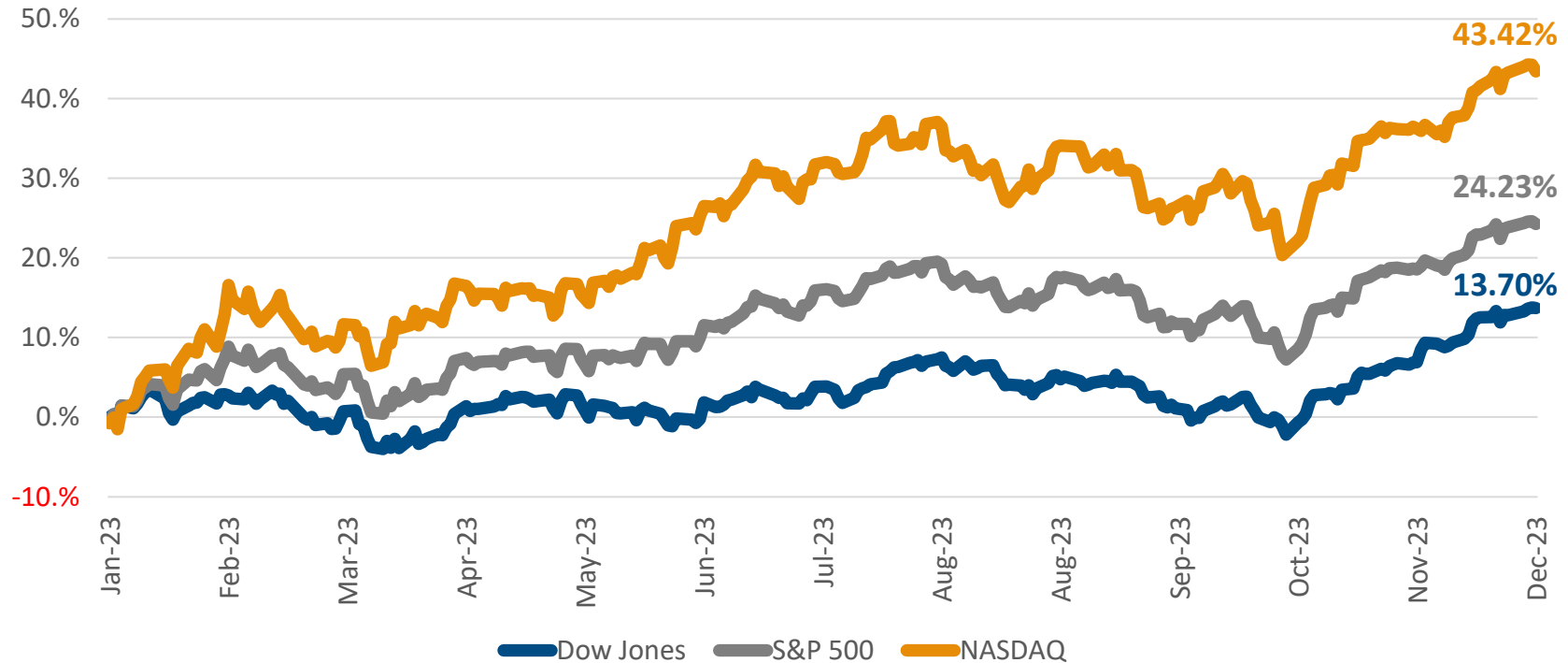
Markets during Fed easing cycles

Date of Last Rate Hike	Time Between Last Rate Hike & First Rate Cut	Total Rate Cuts in 12 months After Last Rate Hike	Total Rate Cuts Over Entire Easing Cycle	10-year UST	S&P 500
1981	5 months	200 bps	550 bps	+47 bps	(-16%)
1984	6 months	199 bps	350 bps	(-154 bps)	+10%
1989	3 months	150 bps	675 bps	(-84 bps)	+13%
1995	5 months	75 bps	75 bps	(-206 bps)	+36%
1997	18 months	0 bps	75 bps	(-113 bps)	+40%
2000	8 months	250 bps	550 bps	(-98 bps)	(-12%)
2006	15 months	0 bps	500 bps	(-17 bps)	+18%
2018	7 months	75 bps	225 bps	(-83 bps)	+28%
Median	7 months	97 bps	425 bps	(-91 bps)	+16%

Don't bother forecasting the 10-year UST!



With no recession, stocks leap into 2024



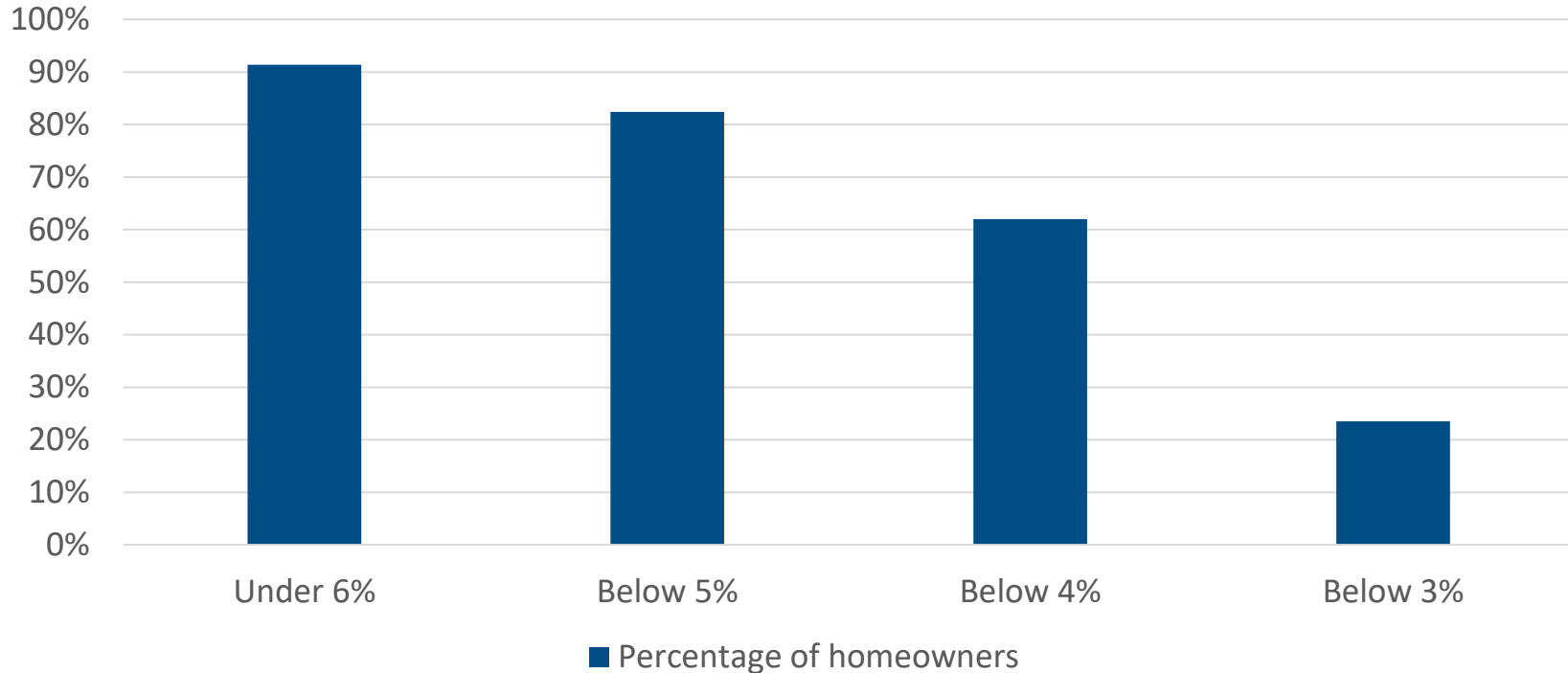
Not the movie – these companies...



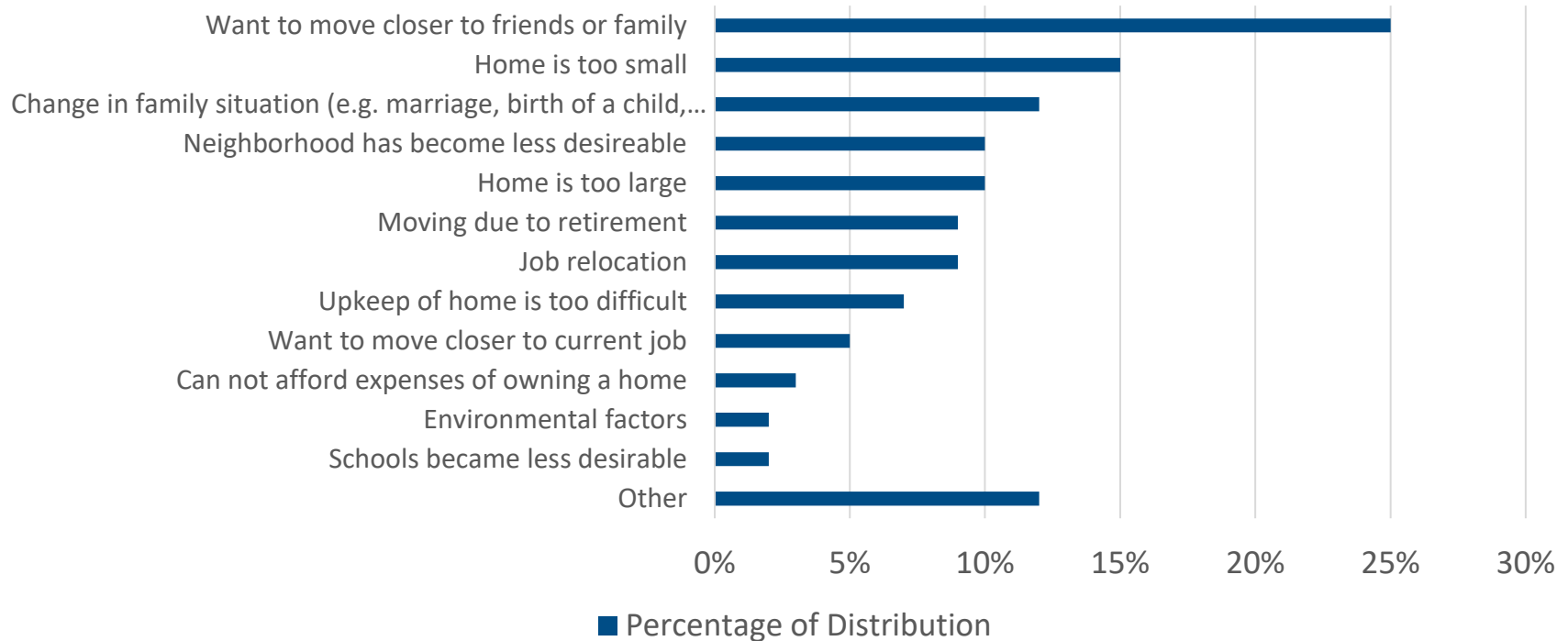
- Microsoft – MSFT
- Apple – AAPL
- Nvidia – NVDA
- Amazon – AMZN
- Meta – META
- Tesla – TSLA
- Alphabet - GOOGL

63.4%

MORTGAGE IMPOSSIBLE: no room for first-time buyers



Family and relationships trump all else!



The price you pay for a career in finance!



**Start (7/3/1984):
Clueless**



**Halfway (19yrs):
Contemplating**



**Near the End (39yrs):
Beat Down**



**National Rural Utilities
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***Created
and Owned
by America's
Electric Cooperative
Network***