Beyond the Basics

Looking to the Past to Help Invest for the Long-Term

FGFOA: School of Governmental Finance

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About This Session

The DeLorean fires up and takes you to a time in history influenced by war, inflation, supply chain bottlenecks, rising rates, and recession concerns. The younger population is wondering if their wages will keep up with inflation, middle-aged folks are wondering if they'll ever be able to afford a home, and the older people are wondering if their decimated retirement portfolios will last them during their golden years. Are you in the 1980s or did you never leave the 2020s? Join us for a lively history lesson that offers wisdom for today, told through a first-hand perspective of what it was like to navigate record-high interest rates in the ’80s. After this session, you’re sure to walk away from the ’80s with more than great music and iconic fashion.

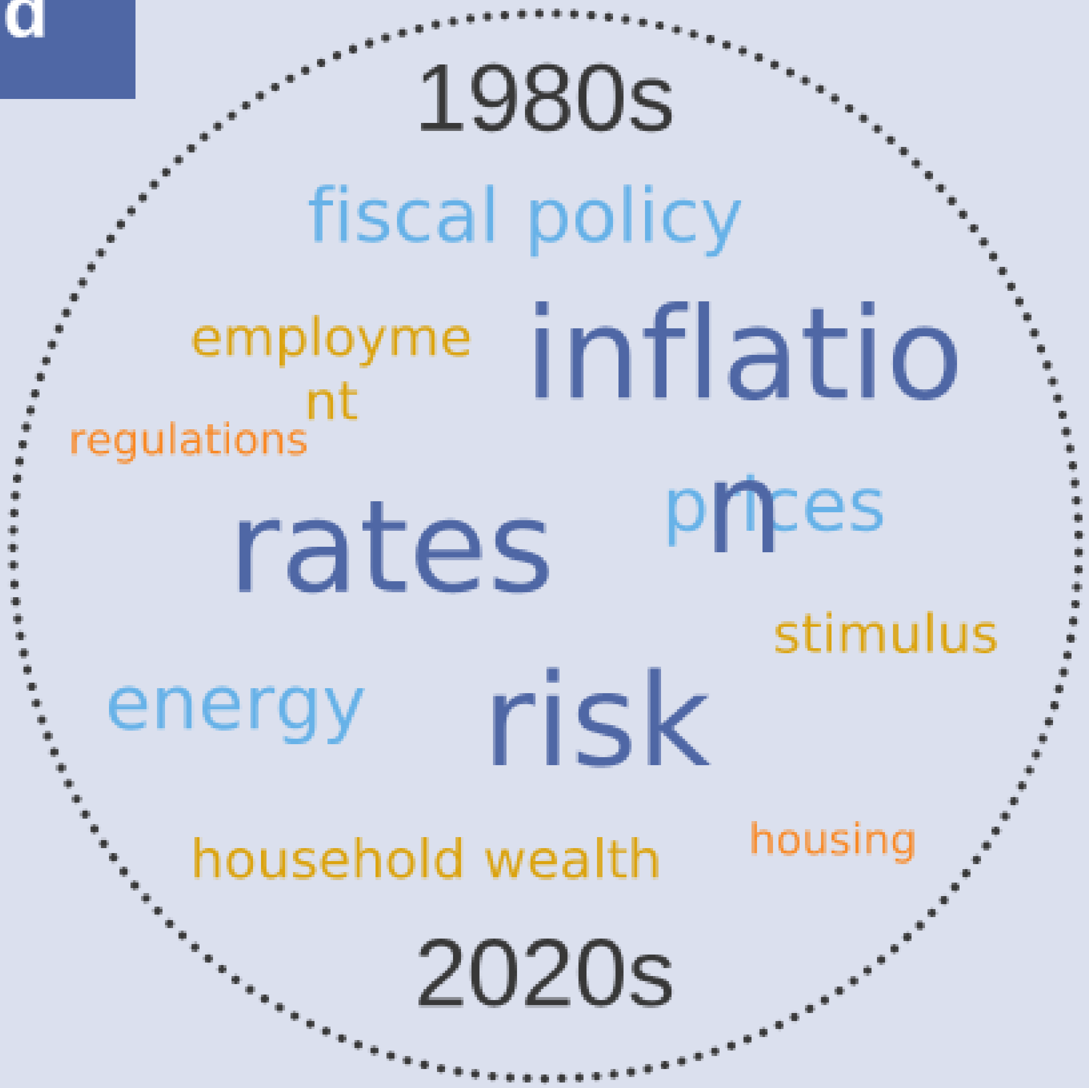
When you complete this session, you should be able to:

- List the differences between the economic challenges of the ’80s and today.
- Define the relationship between interest rates and inflation.
- Identify three takeaway lessons from the financial environment of the ’80s.

Is It From the '80s or Today?

For illustrative purposes only.

Trends Come Back Around



Big Picture of Each Market Environment

1980s

- Inflation had been spurred on by oil prices, currency speculations, supply chain bottlenecks related to union strikes, and a wage-price spiral.
- With Arthur Burns as Chairman, the Federal Open Market Committee (FOMC) hiked rates to 12.5%, matching inflation. Gross domestic product (GDP) dropped from 5% to 0%. In response, the FOMC lowered rates to 5%. GDP recovers but inflation does not drop below 5%.
- Paul Volcker was appointed as Chairman in August 1979 when inflation was nearly 12% and GDP was decelerating. The FOMC hiked rates up to 20% in early 1980. Rates stayed above 7.5% until 1986, when inflation had stabilized between 2.5-5%.

2020s

- In 2012 (after the global financial crisis), the FOMC imposed a target inflation rate of 2%. Low inflation relative to the 2% target permitted rates to stay low for a long period of time.
- The COVID-19 pandemic caused a brief and extreme recession. In response, the FOMC dropped rates to ~0%. Congress passed several fiscal policy measures.
- In the wake of the COVID-19 pandemic, the lack of supply caused a tight labor market while fiscal stimulus spurred spending on goods. The FOMC labels inflation as "transitory" due to supply chain bottlenecks. Spending shifted toward services.
- The Russian invasion of Ukraine spiked commodities prices and the FOMC began hiking rates. The persistence of inflation throughout 2022 pushed the FOMC to enact its most aggressive rate hiking cycle ever.

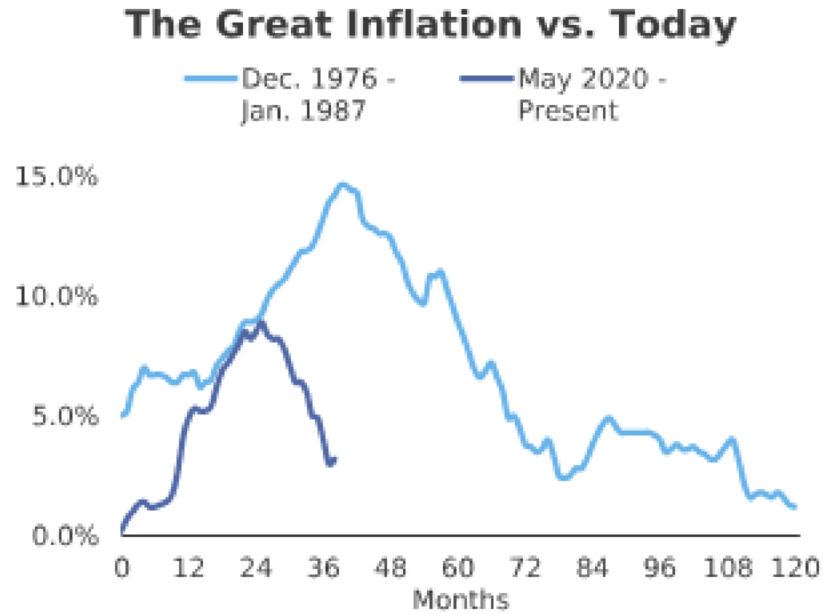
Recurring Theme: Inflation

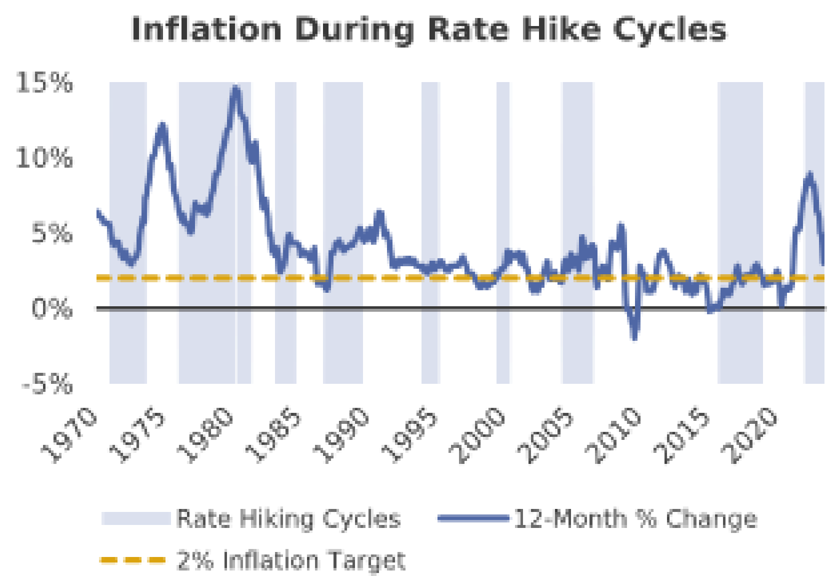
Complicated inner workings and hard to navigate

Inflation Targets Have Changed

- The FOMC has adjusted its inflation targets over time:
  - Before 2012: **0-4%**
  - Since 2012: **2% over the longer-term**
- In 1979, inflation was nearly 12%. Federal Reserve (Fed) Chairman Paul Volcker wanted to:
  - Lower inflation to 4% by 1983 – accomplished in Dec. 1982
  - Lower inflation to 0% by 1988 – came close in Jan. 1987 (at 1.2%) but not achieved until 2009.
- Post-1990, rate hiking cycles were infrequent as inflation became tamer with a more targeted inflation approach by the Fed.

Source: CPI Inflation Rate from Bureau of Labor Statistics.



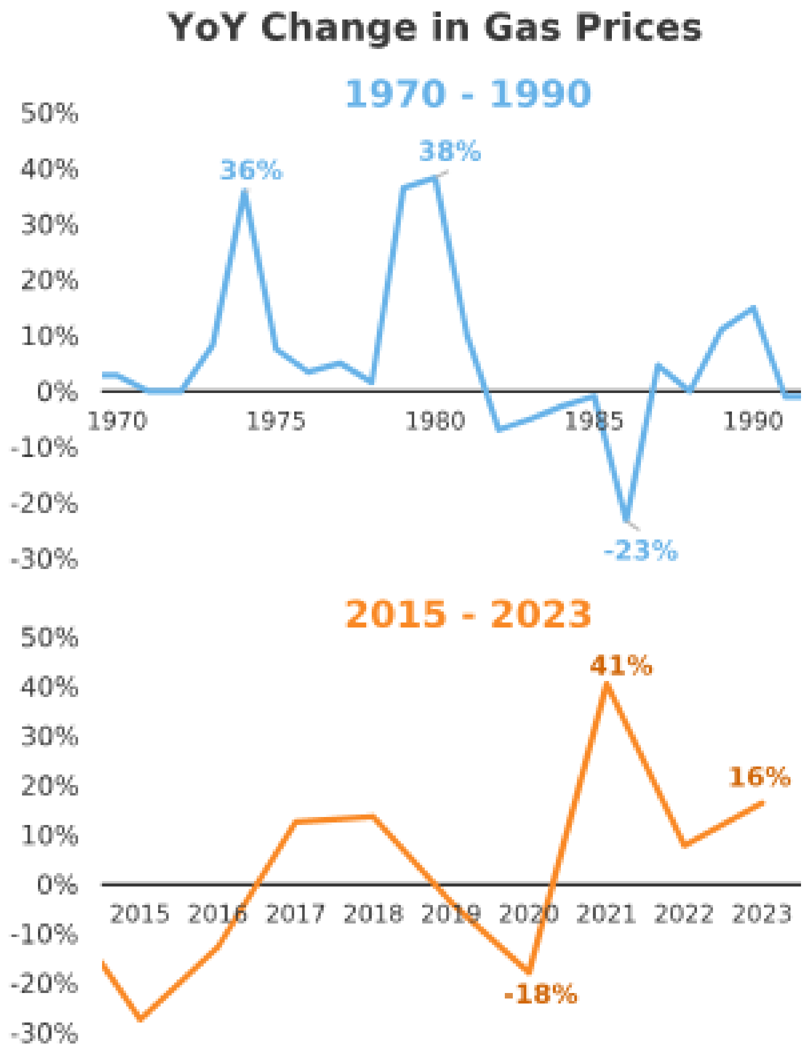


Energy Prices Are Still a Volatile Driver of Inflation

- 1973: Organization of the Petroleum Exporting Countries (OPEC) embargo caused prices to rise due to **lack of supply.**
- 1979: Iranian revolution caused prices to spike due primarily to **increased demand** as people sought to stock up out of fear.
- 1986: Prices crashed due to **oversupply** – a result of adjustments from an undersupply in the '70s – combined with a **fall in demand** and recession.
- 2021: Prices were shocked from the **demand hike** via the pace of recovery post-COVID.

Energy prices tend to decrease during recessions due to a lack of demand (vice versa for booms).

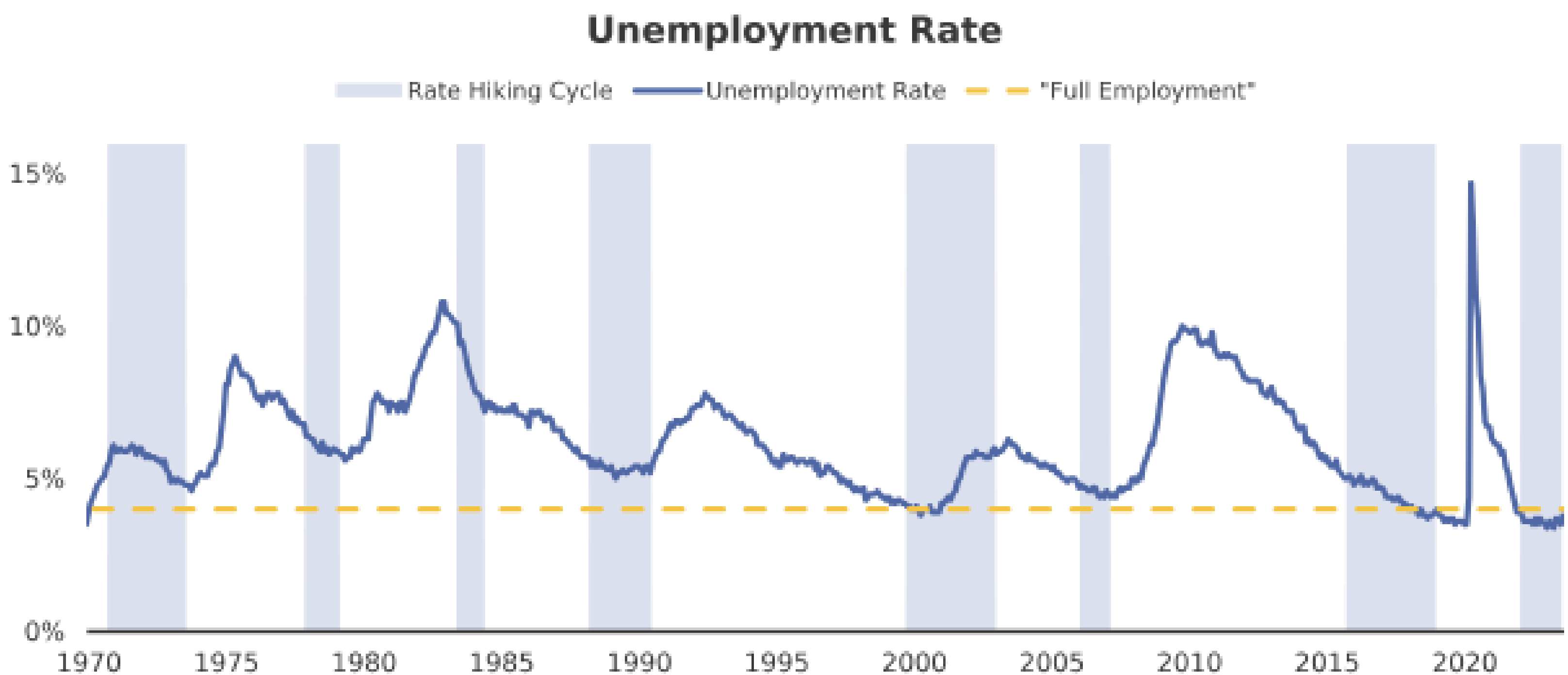
Though the U.S. energy market is volatile, its strength as a producer of energy keeps it largely insulated from supply/demand shocks abroad.



Source: Gas Prices from Bloomberg.

Tight Labor Markets Raise Wages, Adding to Inflation

- Rate hikes typically occur during times of low/falling unemployment.
- The current unemployment rate is below the Fed's long-run "full employment" projection.

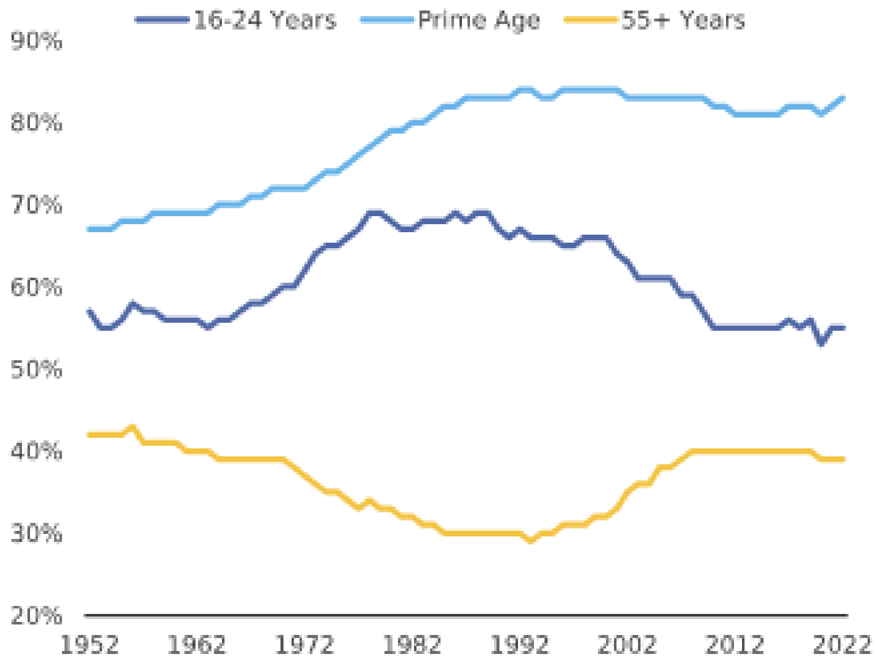


Source: FRED.

A Decelerating Labor Force Can Lead to Inflationary Pressures

- The 1970s/80s showed a dramatic drop in the number of retirement-age workers, as did 2020.
- Many workers exited for retirement during the COVID-19 pandemic.

- Union strikes throughout the 1970s also stagnated labor force participation growth.
- Population ageing is the largest single factor for declines in the labor force participation rate since 2000.

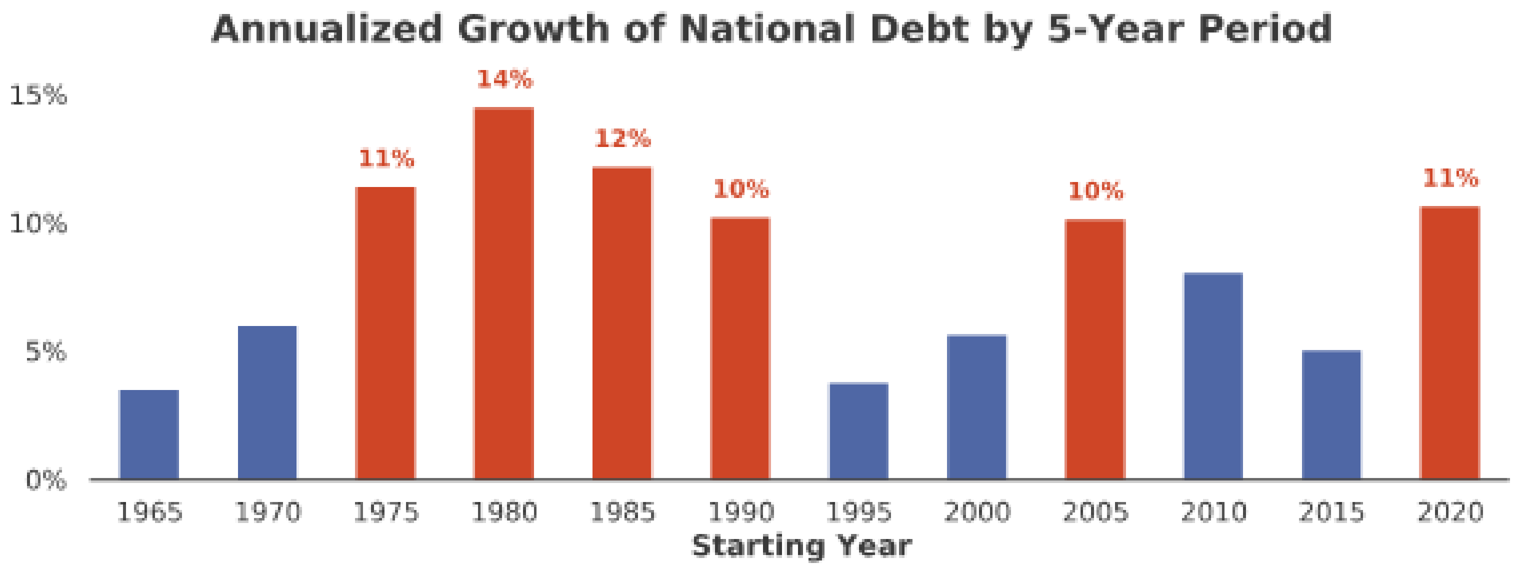


Source: Bloomberg.

Fiscal Stimulus Creates Price Pressures

- During the '80s, tax cuts and military spending outweighed cuts to social programs, raising the federal budget deficit from $74 billion in 1980 to $221 billion in 1986.
- Throughout COVID-19, approximately $5 trillion in stimulus was injected into the economy while it was locked down.
- In 2022, the Inflation Reduction Act was passed primarily to lower energy costs by funding clean energy investment with $370 billion of federal dollars.
- Since 1965, there have been six 5-year periods of national debt growth greater than 10%: periods starting in 1975, 1980, 1985, 1990, 2005 and 2020-present.

Fiscal stimulus increases money supply in the economy, naturally increasing price pressures.



Source: FRED, Federal Debt: Total Public Debt as of January 2023. Annualized growth of national debt is the geometrically-linked rate for each 5-year period. The period starting January 1, 2020 is through December 31, 2022.

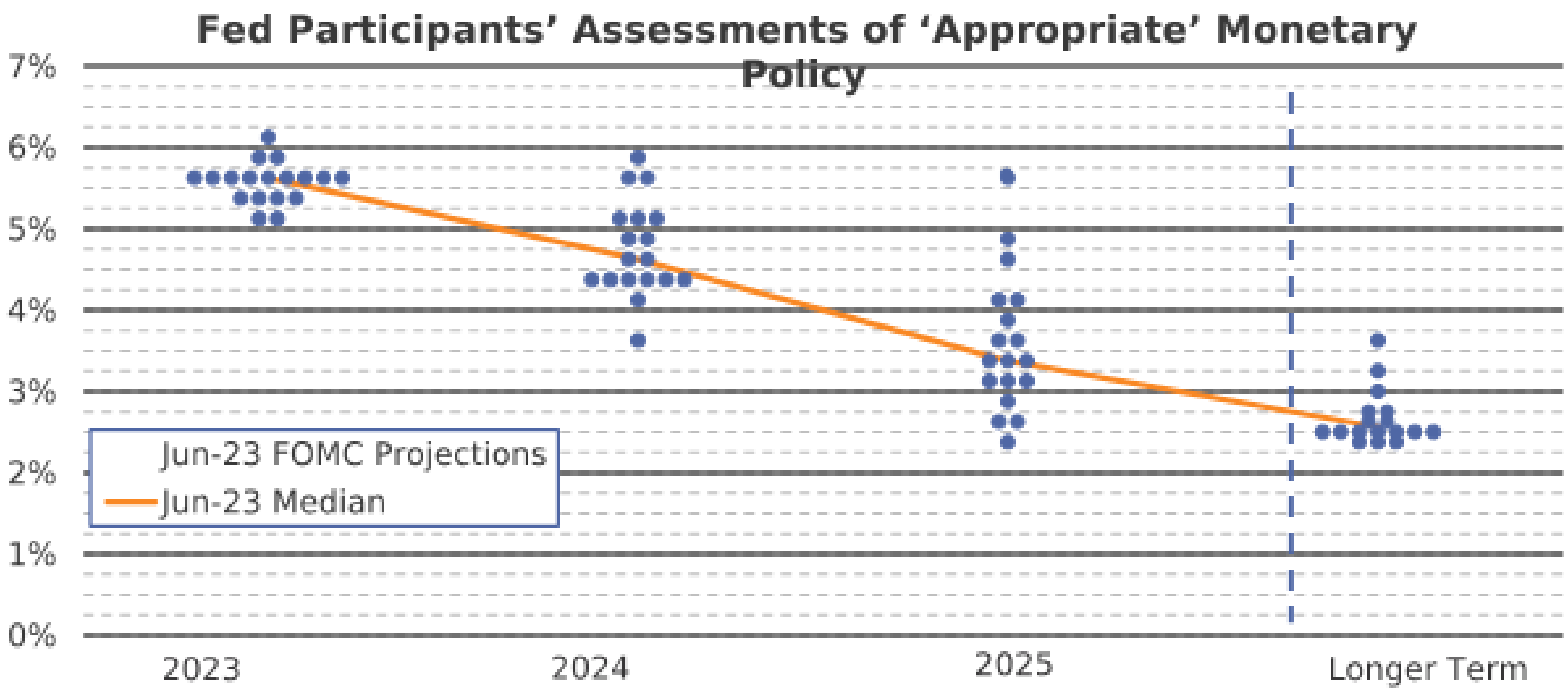
Recurring Theme: Fed Action

Tinkering and pulling levers to see what works

Fed Signaling Has Evolved

Source: Fed Funds Upper Bound from Bloomberg.

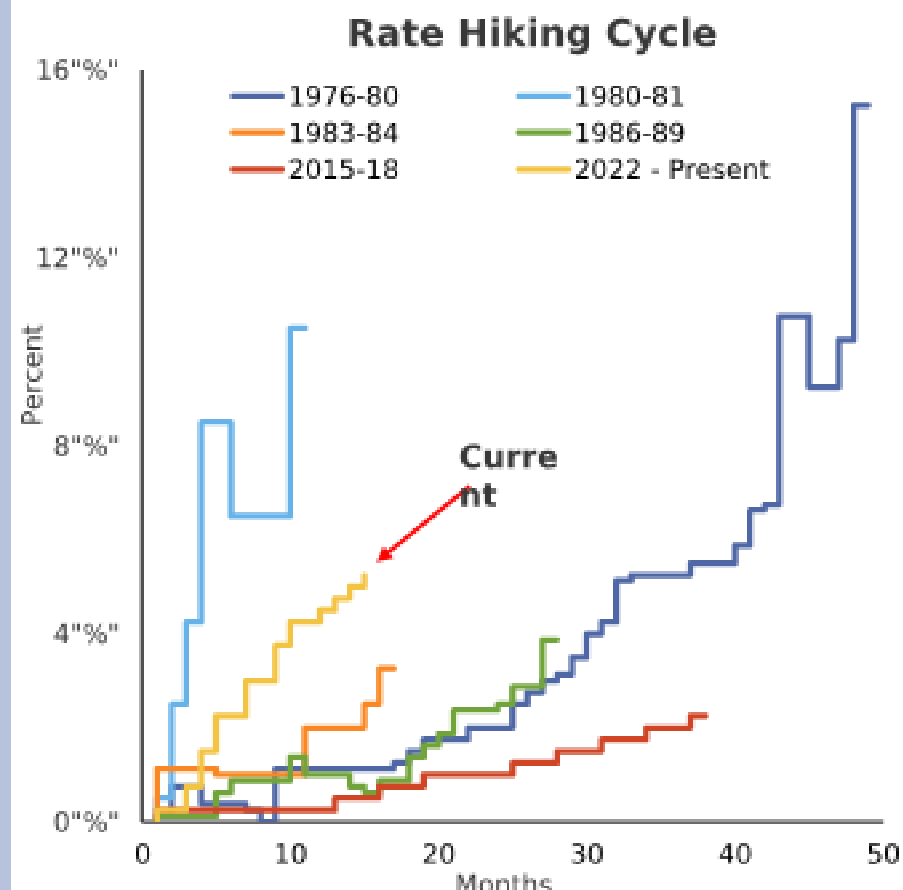
- Prior to 1994, the FOMC did not release moves in the overnight rate.
  - Instead, the markets calculated FOMC moves.
- In 1998, the FOMC began communicating the likely direction of future policy.
  - Information flow and "Fed speak" could now be used as additional tools at the Fed's disposal and has helped support the Fed's credibility.



Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year-end.

Pace of Rate Hiking Cycles

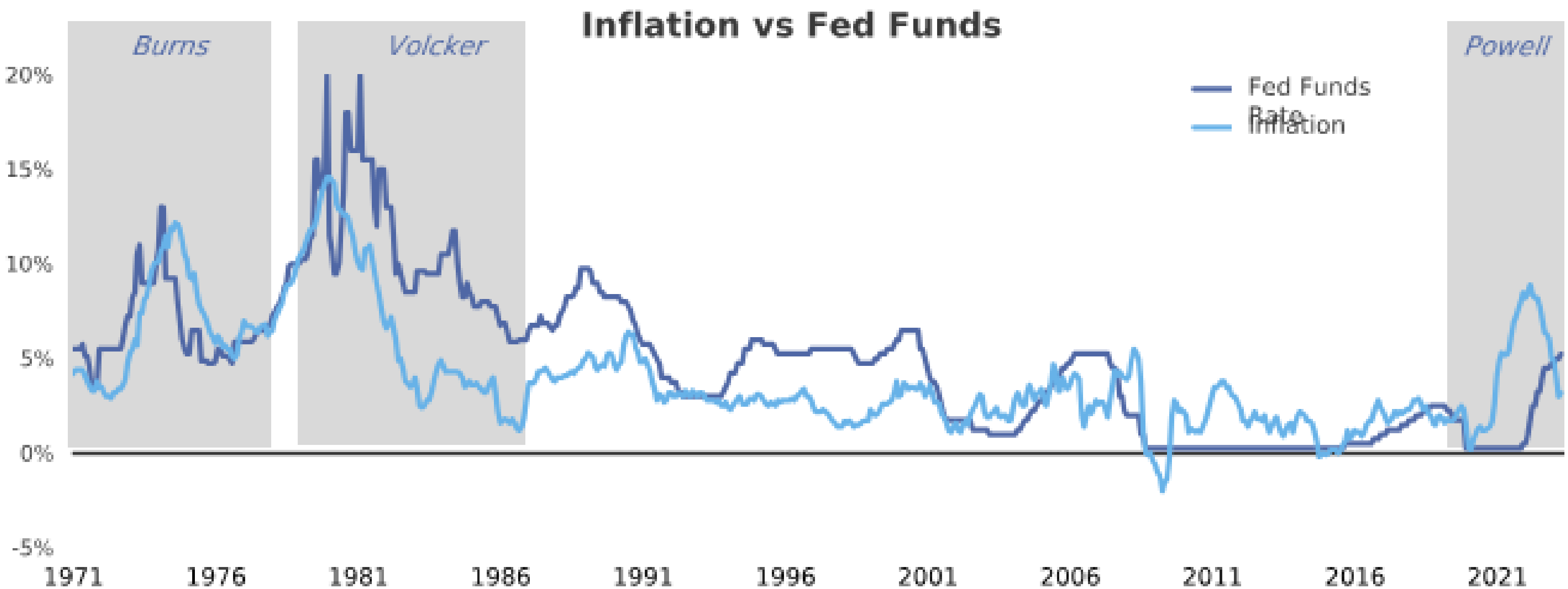
- The current hiking cycle has had the fastest pace since the Volcker era in the early '80s.
- Pace is not the only factor to consider in hiking cycles – duration is also key.
- The amount of time rates are above a long-term goal plays a large role in overall economic health.



Source: Fed Funds Upper Bound from Bloomberg.

Whose Path Will Powell Follow, or Somewhere in the Middle?

- With Arthur Burns as Fed Chairman, the FOMC hiked rates but **backed off** when the economy showed signs of slowing.
- With Paul Volcker as Fed Chairman, the FOMC **hiked rates much higher** to quell inflation, but at a cost to the economy (negative GDP and unemployment peaked at 10.7%).
- With Jerome Powell as Fed Chairman, the FOMC labeled real inflation as transitory and **delayed hikes**.
- Fixed income markets have had dramatically worse performance for Chair Powell as the hiking cycle started at **0%** rates vs. the **5%+** rates for Burns and Volcker.



Source: Fed Funds Upper Bound and CPI from Bloomberg.

Recurring Theme: Deregulation

The industry's version of going back in time

Bank Deregulation Followed Rising Rates

1982 Regulation Q

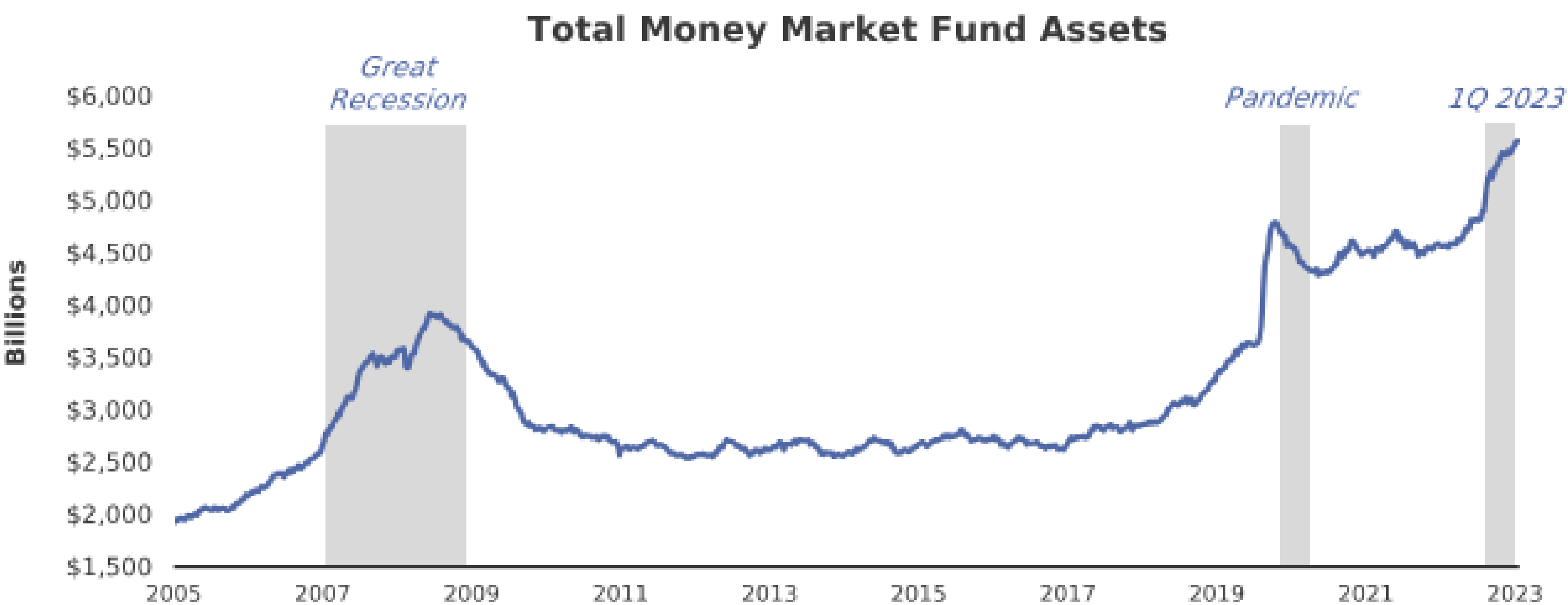
- **Preceding Environment:** Rising interest rates.
- **Deregulation:** Congress passed law removing Regulation Q (loan-to-value requirements and interest rate caps for banks), creating a hunt for the highest rate among depositors.

2018 Dodd-Frank

- **Preceding Environment:** Rising interest rates.
- **Deregulation:** Congress rolled back Dodd-Frank threshold for the strictest regulations on banks with total assets of $50B to $250B.

Money Market Funds Became Attractive to Investors

- With rates forced higher due to inflation along with other factors such as market uncertainty, higher-yielding money market funds have historically become a favorable alternative for investors.



Source: Bloomberg, ICI, and Moody's.

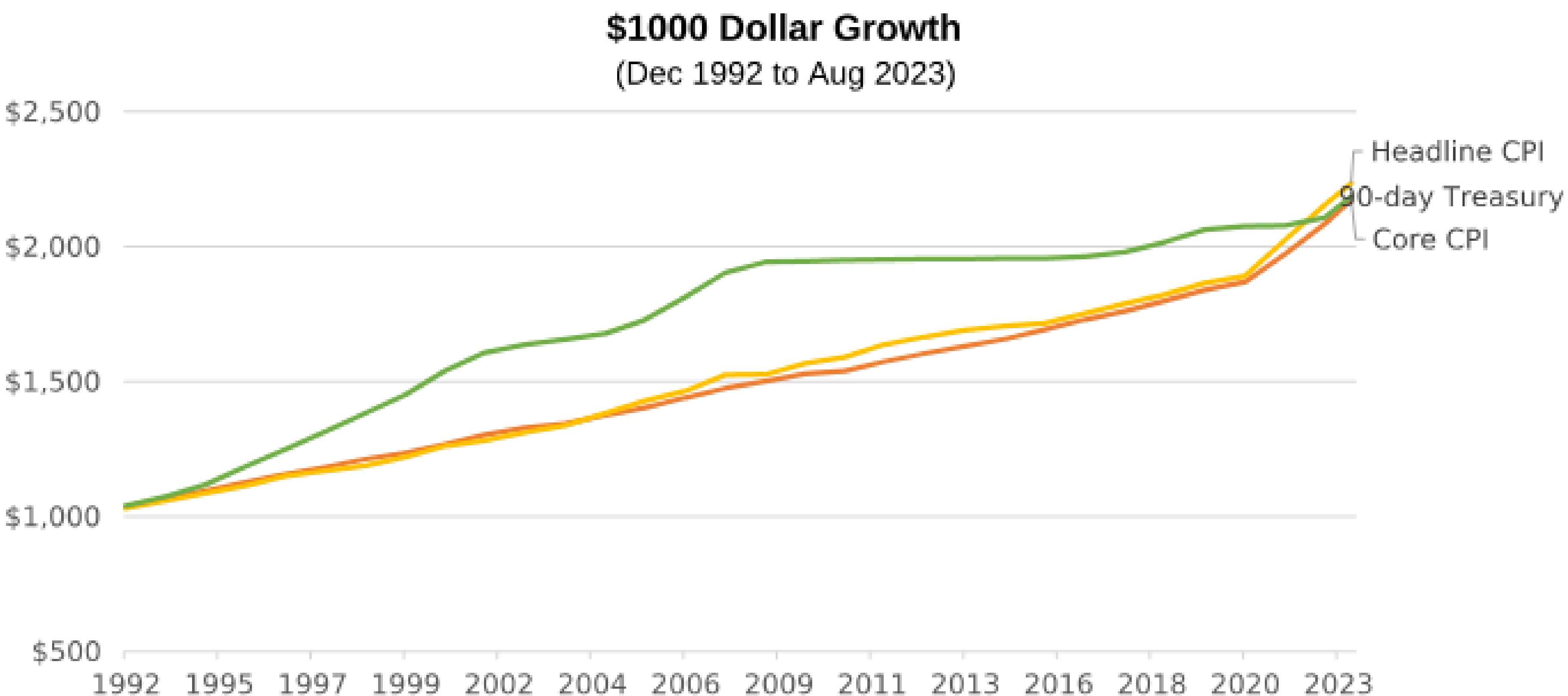
What To Take Back (to the Future) With You

- Inflation was a crucial input to economic stability. The Fed's limited and blunt tools to achieve price stability led to higher rates.
  - The FOMC now uses a targeted approach to help create long-term stability for inflation and interest rate expectations.
- The Fed's focus and how policies are communicated have evolved over the years, dependent on who is the Fed Chair.
  - Maintaining credibility at the Fed is extremely important. Without it, future policy communications hold less weight, resulting in potentially higher rates and the possibility for added economic uncertainty.
- Tight labor markets and financial stimulus created inflationary price pressure.
  - Elevated rates and a strong labor market may create opportunity to capture additional yield.
- Interest rate cycles played a key role in deposit flows over time.
  - Managing portfolio duration and maintaining diversification help manage risk.

The Future is Here: Equities

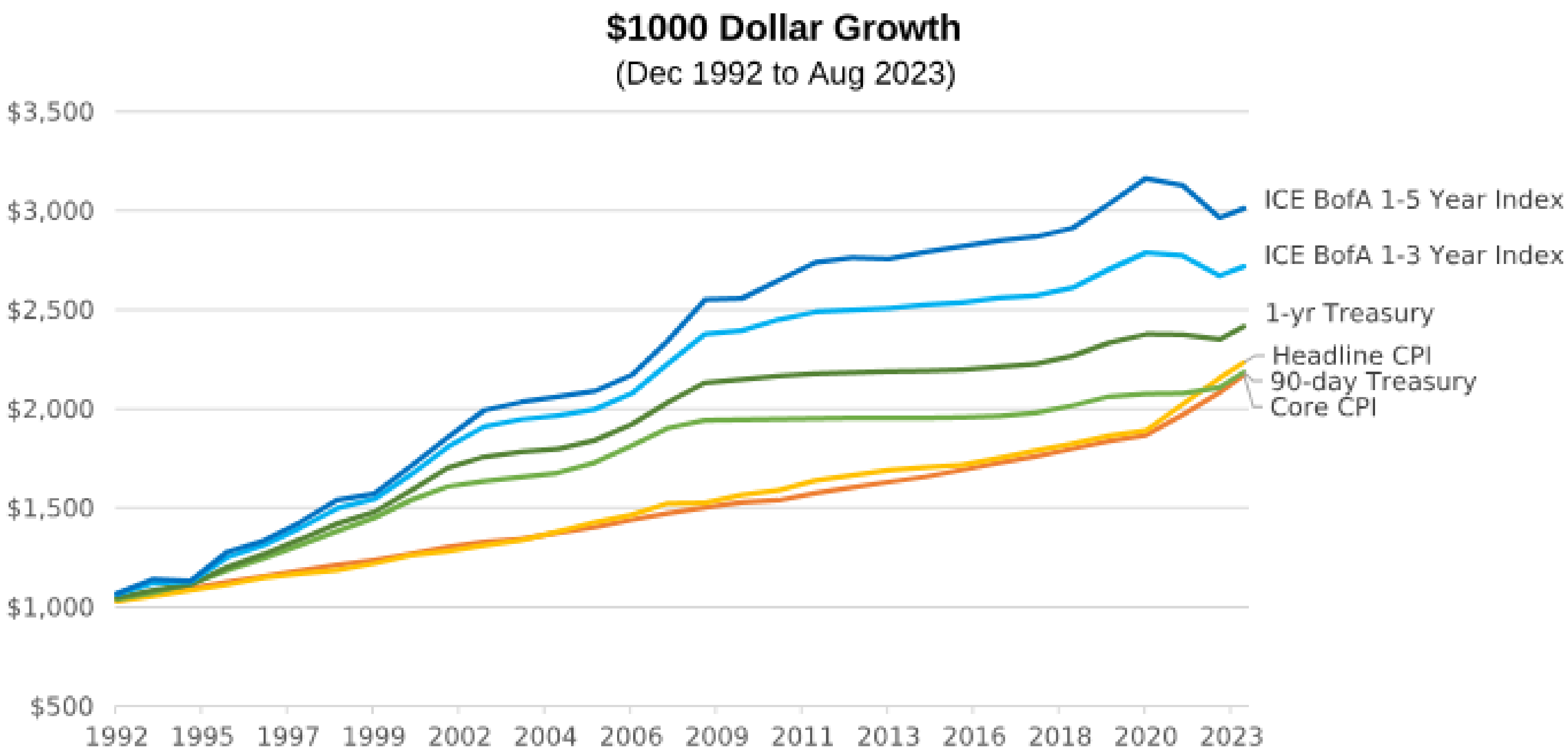
Preserving Purchasing Power

Cash/T-Bills Can't Beat Inflation: 1992-Now



Source: Bloomberg. As of August 31, 2023. Calculation based on monthly periodicity. Core CPI: US CPI Urban Consumers Less Food & Energy YoY; Headline CPI: US CPI Urban Consumers YoY; 90-Day Treasury: ICE BofA US 3-Month Treasury Bill Index.

Longer Duration Outperformed Inflation: 1992-Now



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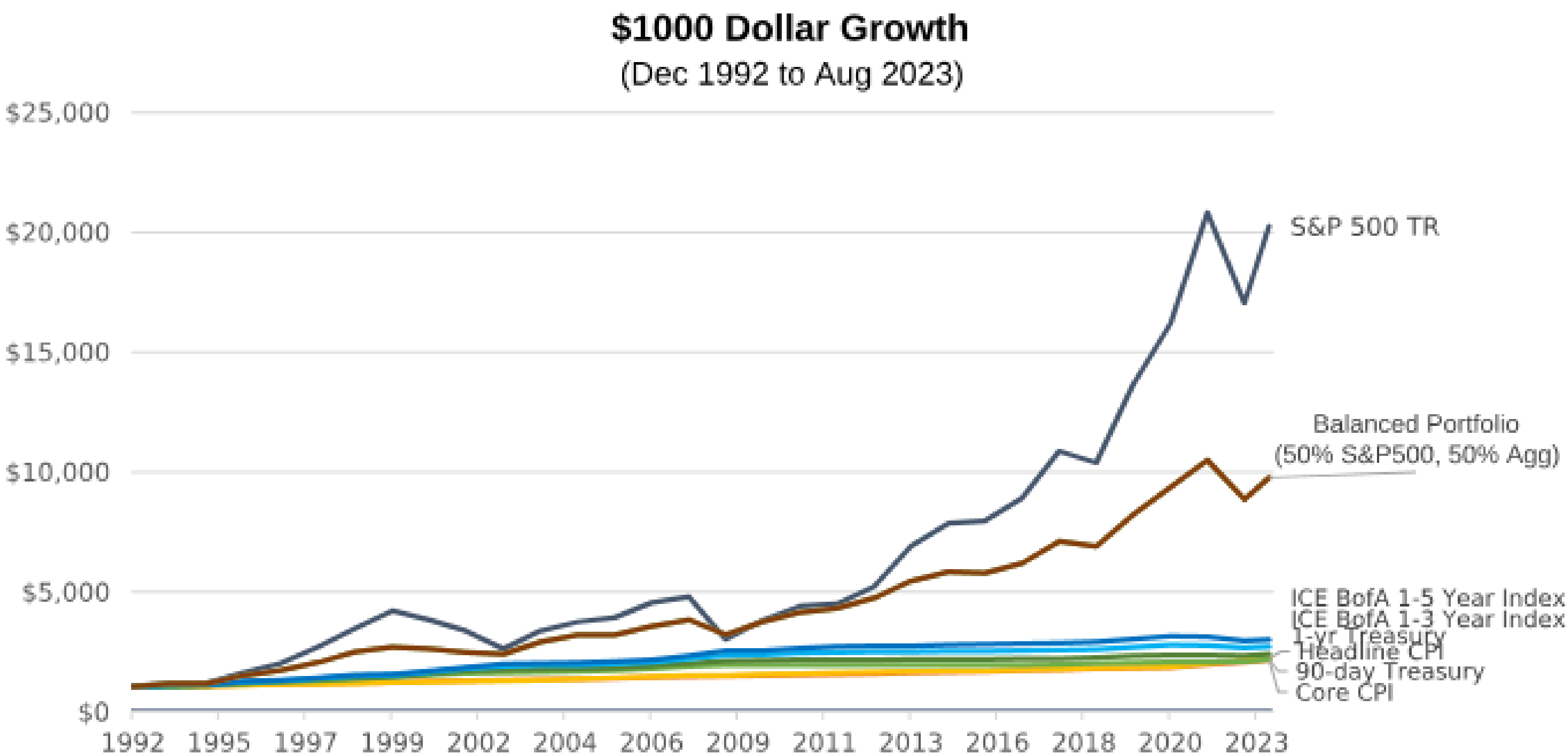
Equities: 1992-Now



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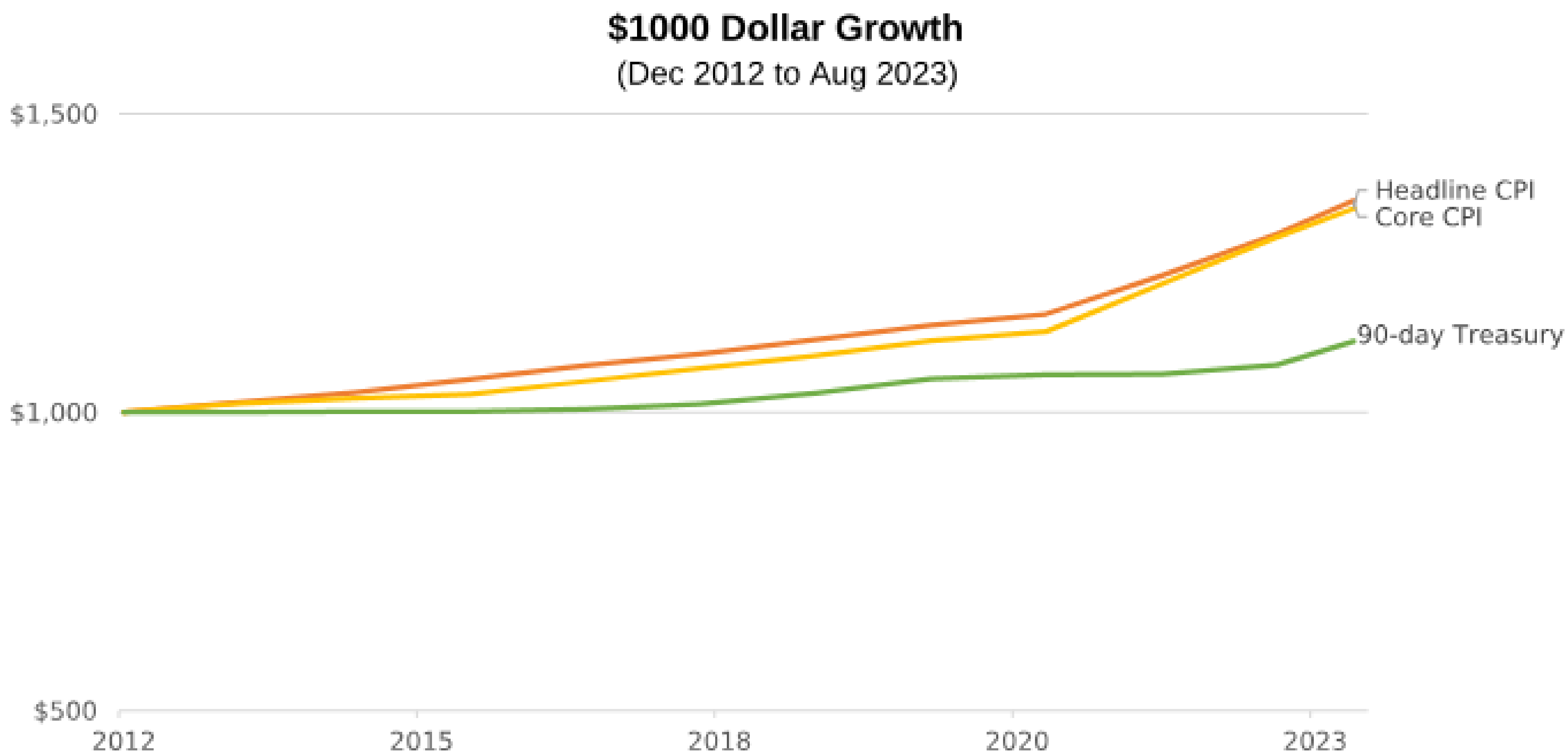
Last Decade: Cash/T-Bills Lost Purchasing Power



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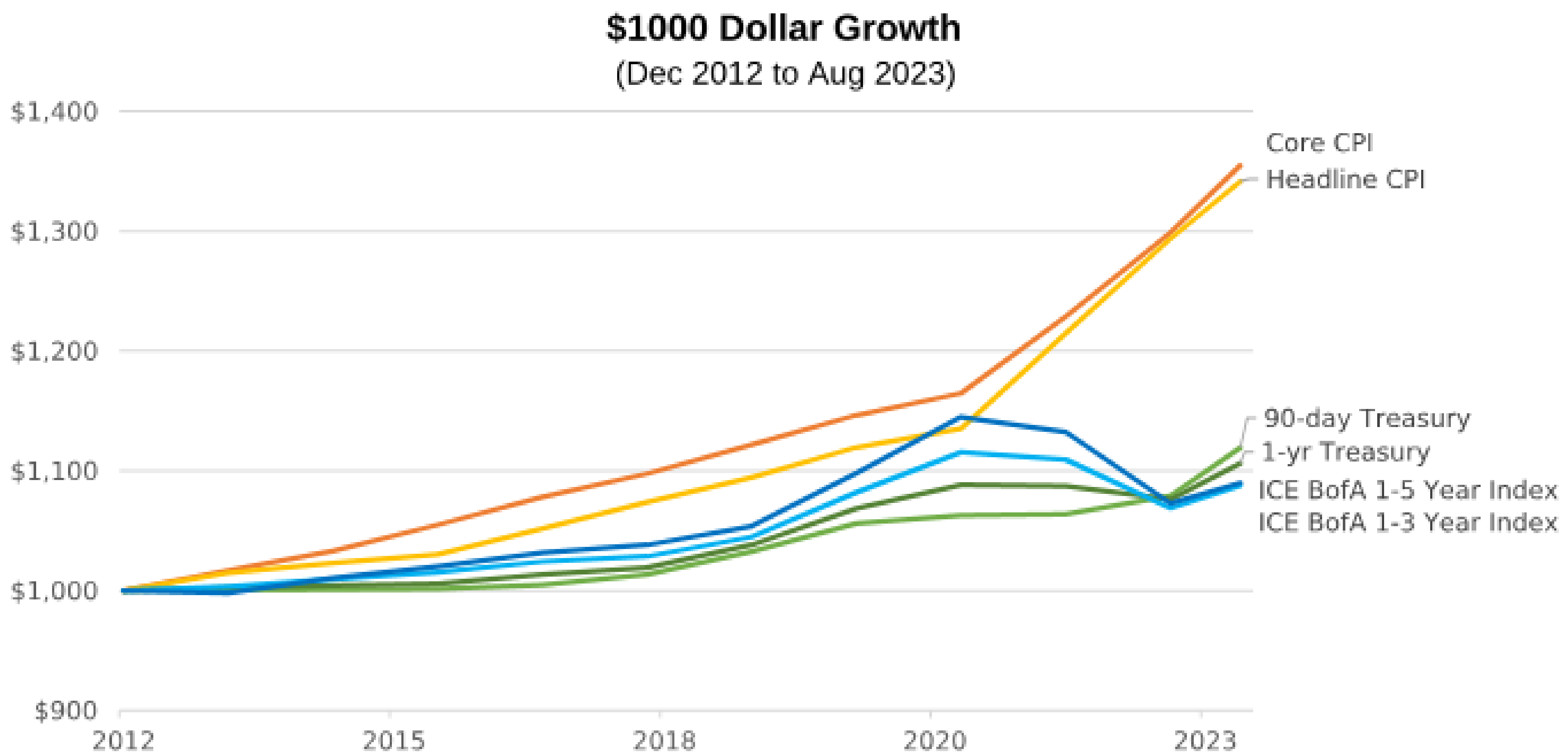
Last Decade: Longer Duration Did Not Help



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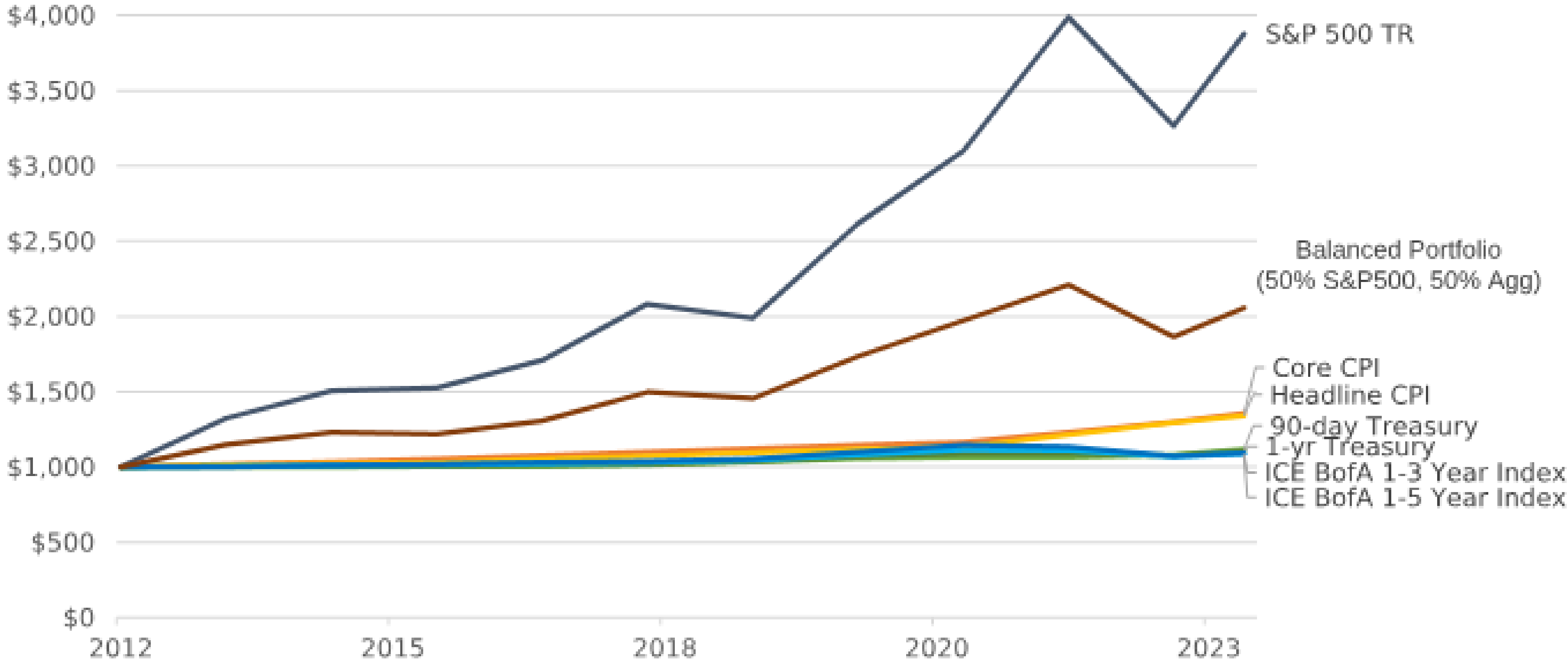
Last Decade: Equities Preserved Purchasing Power

$1000 Dollar Growth

(Jan 2013 to Aug 2023)



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Local Government Investment Challenges

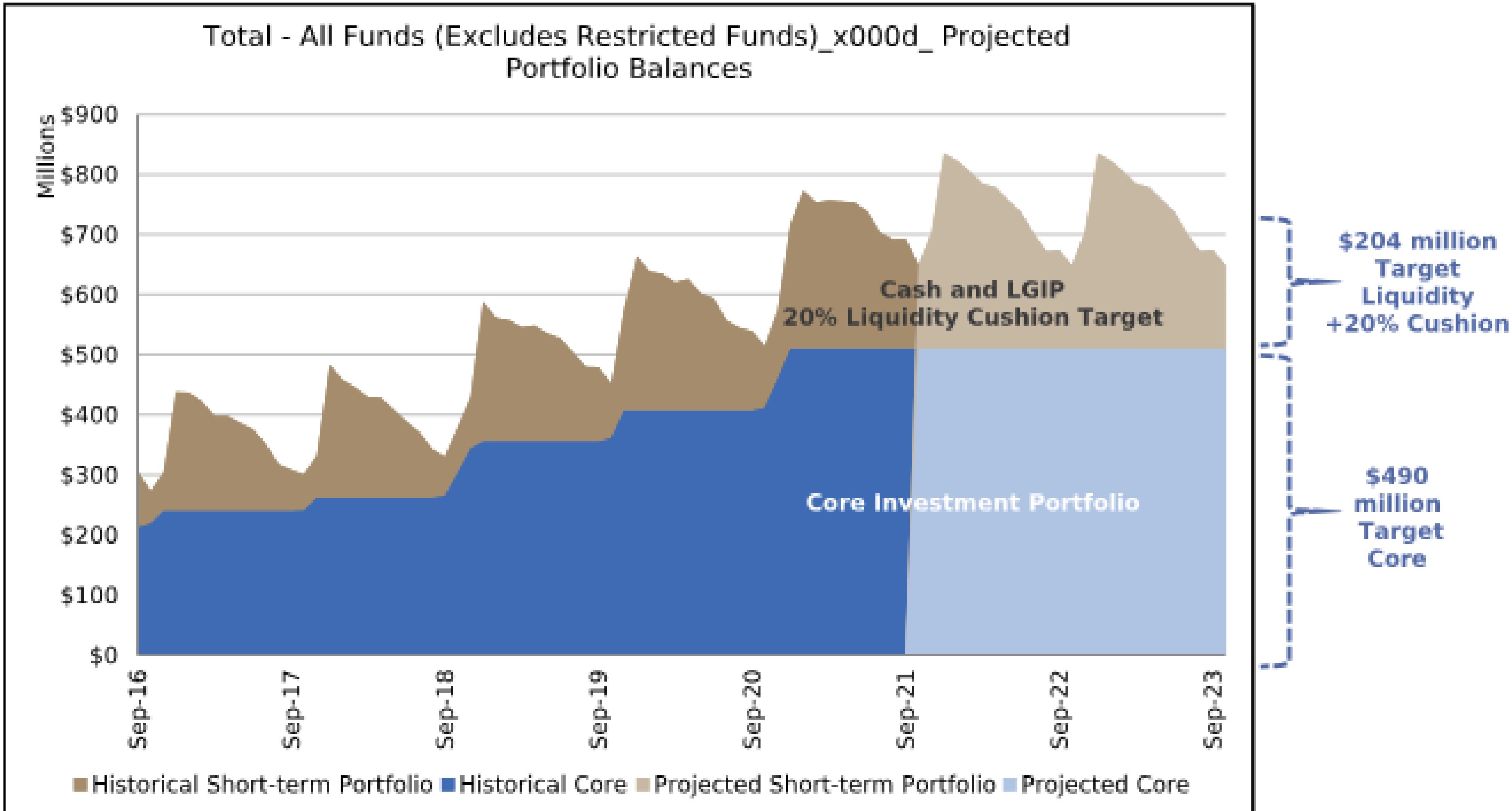
- General Fund investment objectives: **<u>S</u>**afety, **<u>L</u>**iquidity, then **<u>Y</u>**ield
- If cash loses purchasing power to inflation, how do we define "safety"?
  a) Never "break-the-buck" (but guarantee losing value)?
  b) Withstand short-term volatility but preserve long-term value?

Putting the Strategy to Work

Case Study: Florida County

Step 1: Identified Liquidity Needs
Step 2: Identified "Core Portfolio"

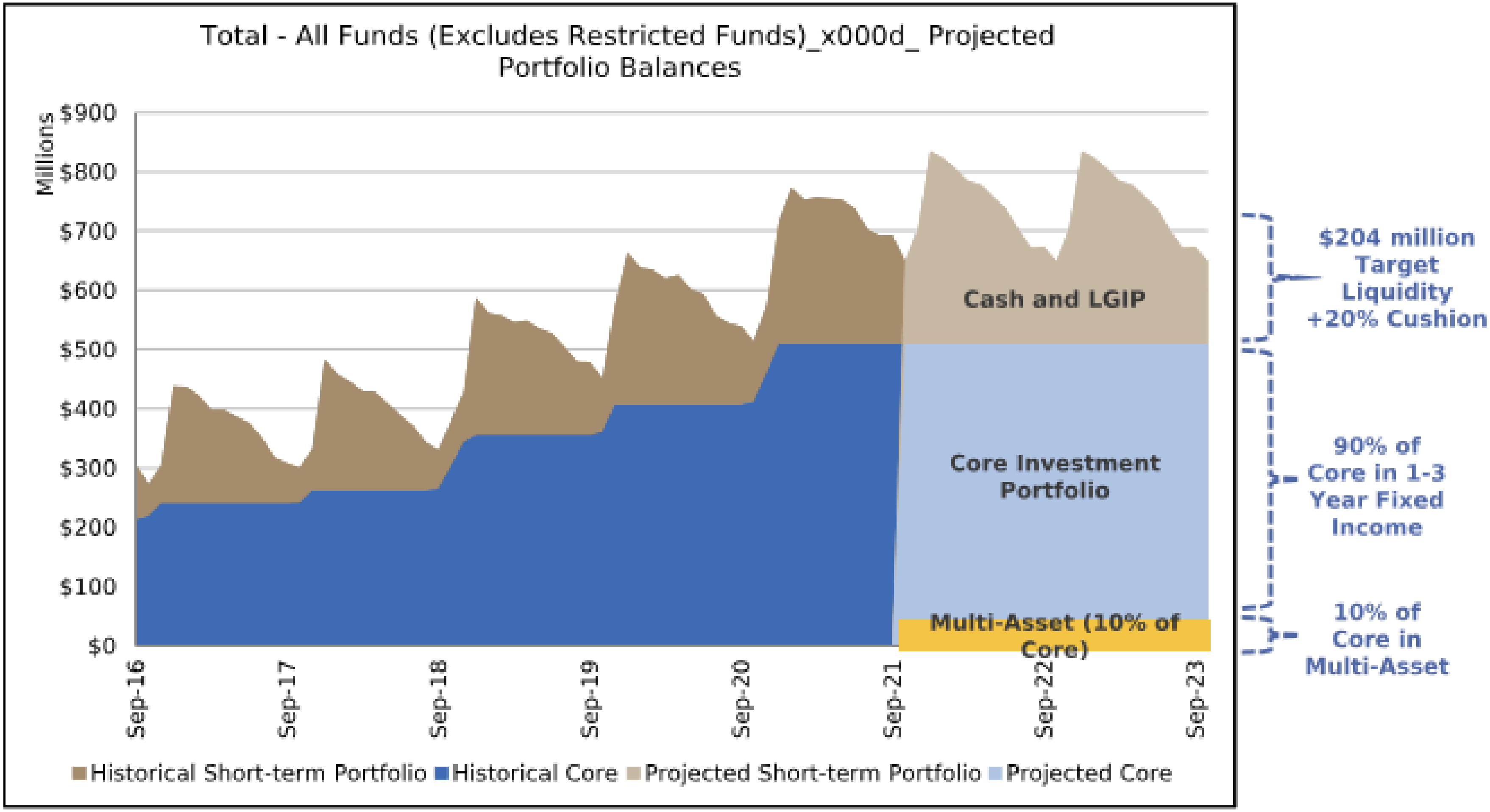
- Based on a cash flow analysis, $490 million were identified that could be invested in a long-term investment portfolio, providing a liquidity cushion of 20% above projected needs



Balances for liquidity target and investment portfolio as of September 30, 2021.

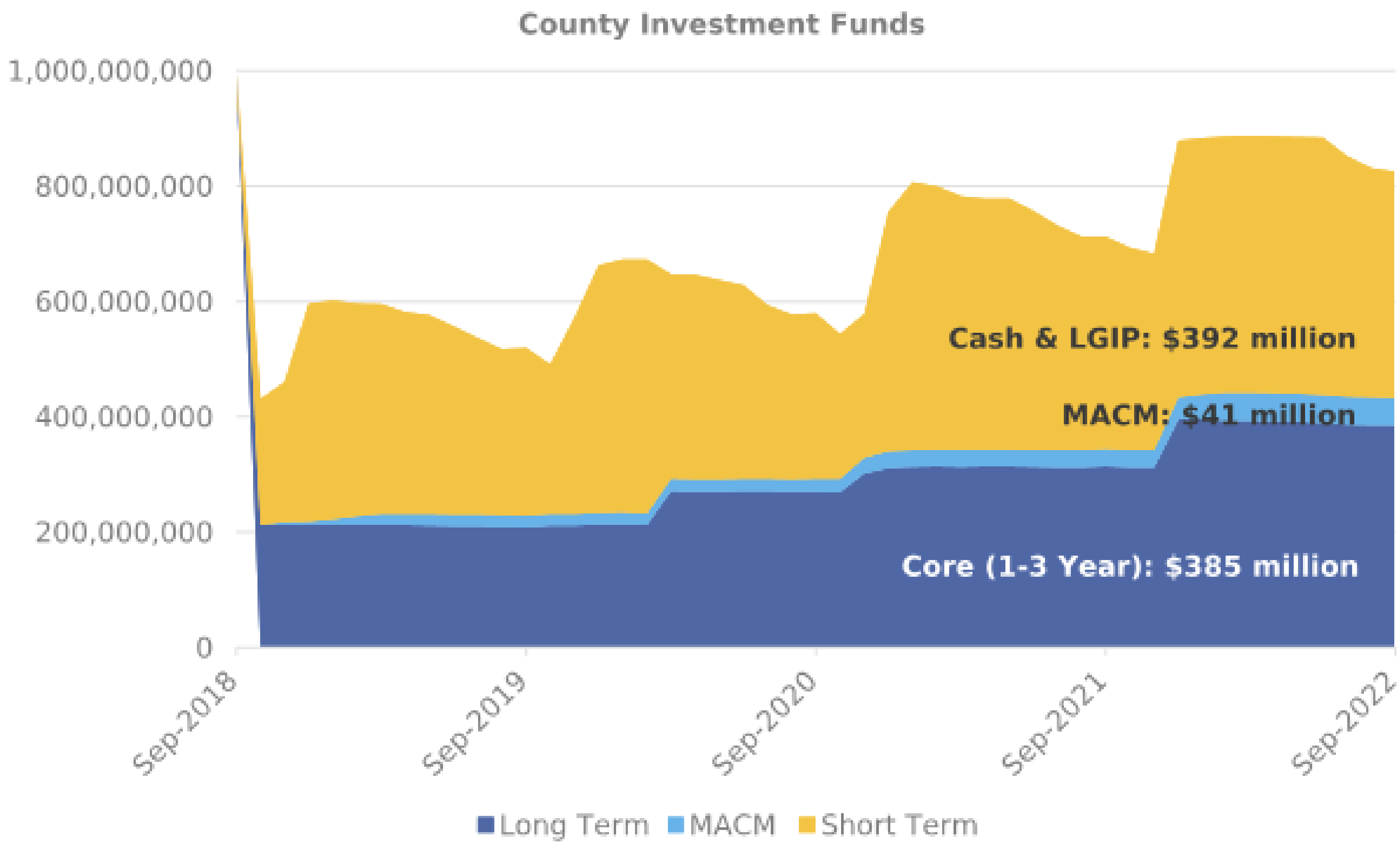
Step 3: Established an Investment Strategy Matching Assets with Liabilities and their Time Horizon on Nov 1, 2018

- As time horizon allows, added a balanced multi-asset class sleeve for diversification and protecting long-term purchasing power



Balances for liquidity target and investment portfolio as of September 30, 2021.

Actual Portfolio Balances Over Time

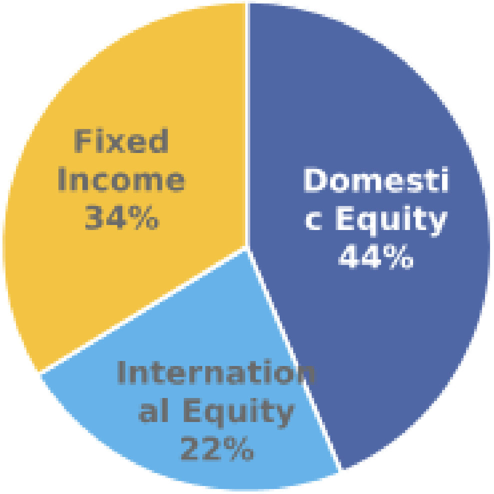


Balances as of 9/30/2022.

County Multi-Asset Class Portfolio Allocation

As of 6/30/2023

Asset Class		Market Value	%
Domestic Equity	Russell 3000	$23,063,360	44%
International Equity	ACWI ex US	$11,923,932	23%
Fixed Income	Bloomberg Agg	$17,814,335	34%
Total Fund		**$52,801,627**	**100 %**



As of June 30, 2023.

County Multi-Asset Class Portfolio Trailing Returns

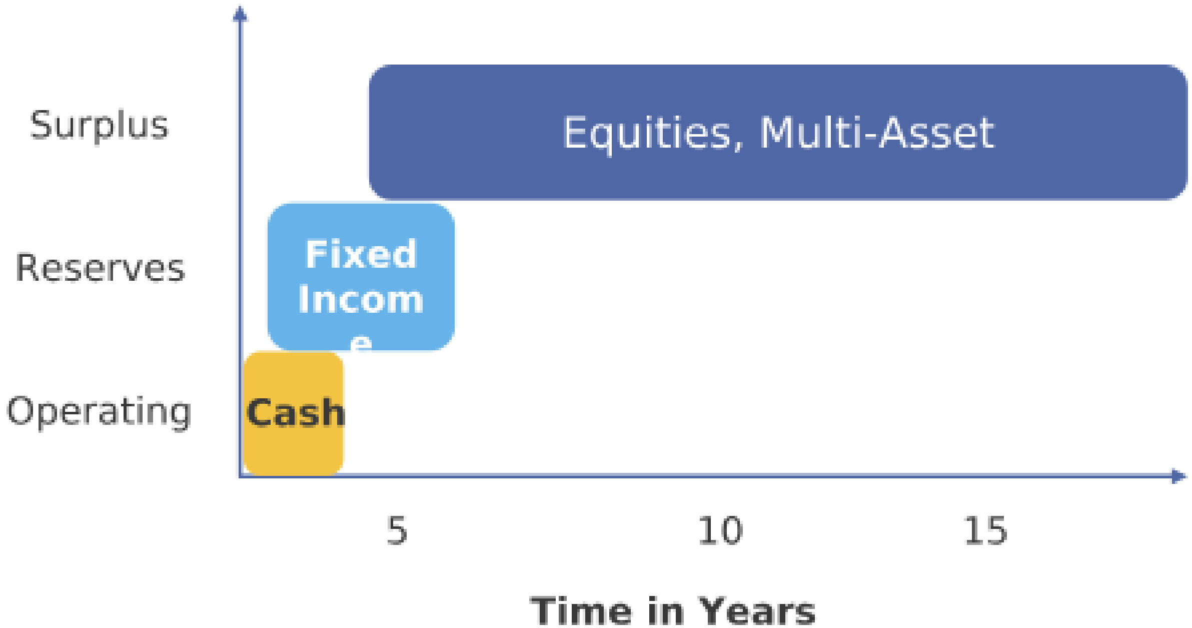
As of 6/30/2023

- Annualized Rate of Return: 6.93% (Nov 1, 2018 to Jun 30, 2023)

	Allocation		Performance(%)						
	Market Value ($)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Date
Total Fund	52,801,627	100.00	3.30	8.78	8.93	6.39	N/A	6.93	11/01/2018

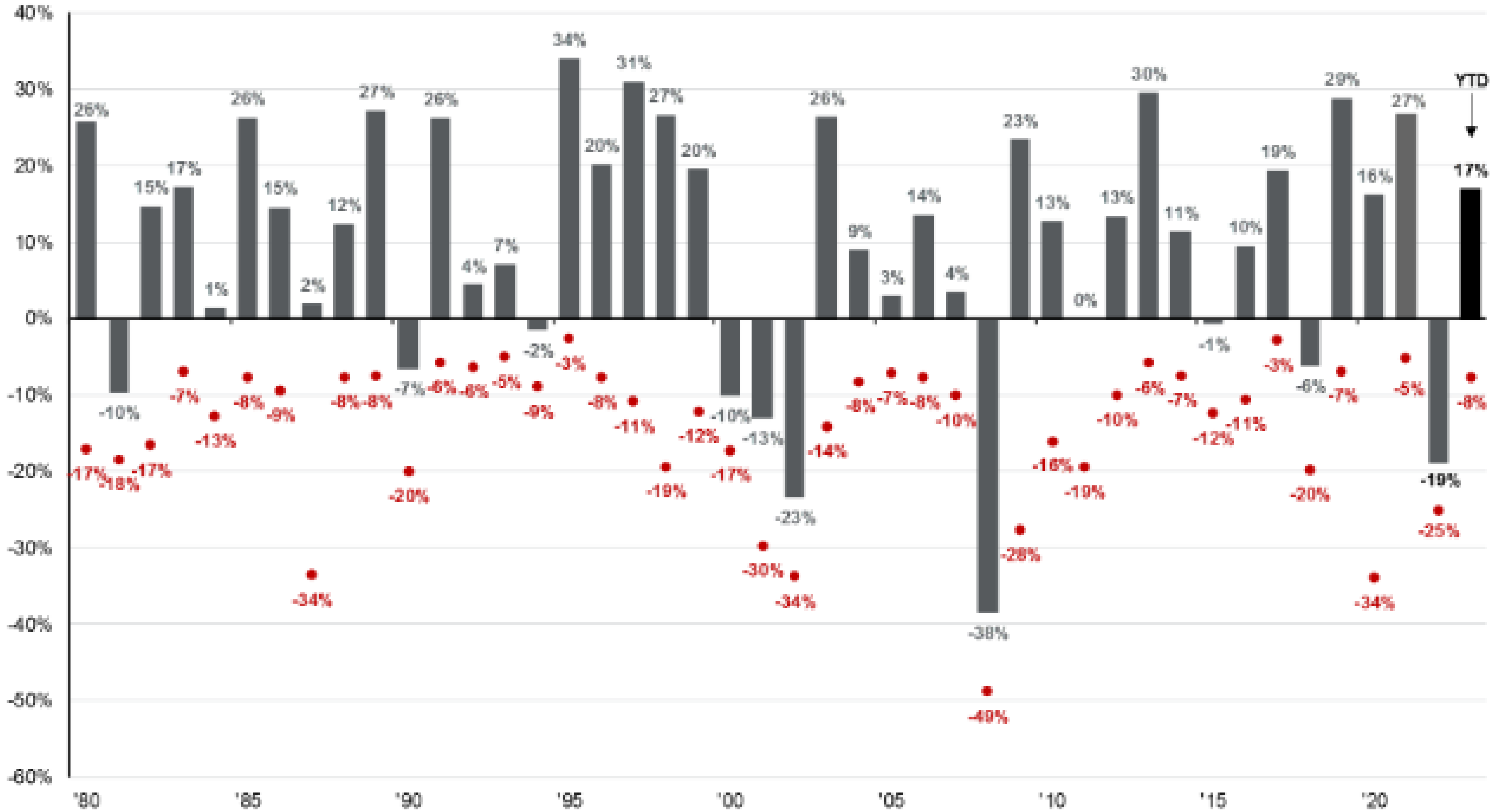
As of June 30, 2023.

It is Efficient to Match Assets with their Liabilities' Time Horizon



Despite an Average Intra-year drops of 14%, Market was Positive in 32 of 43 Years

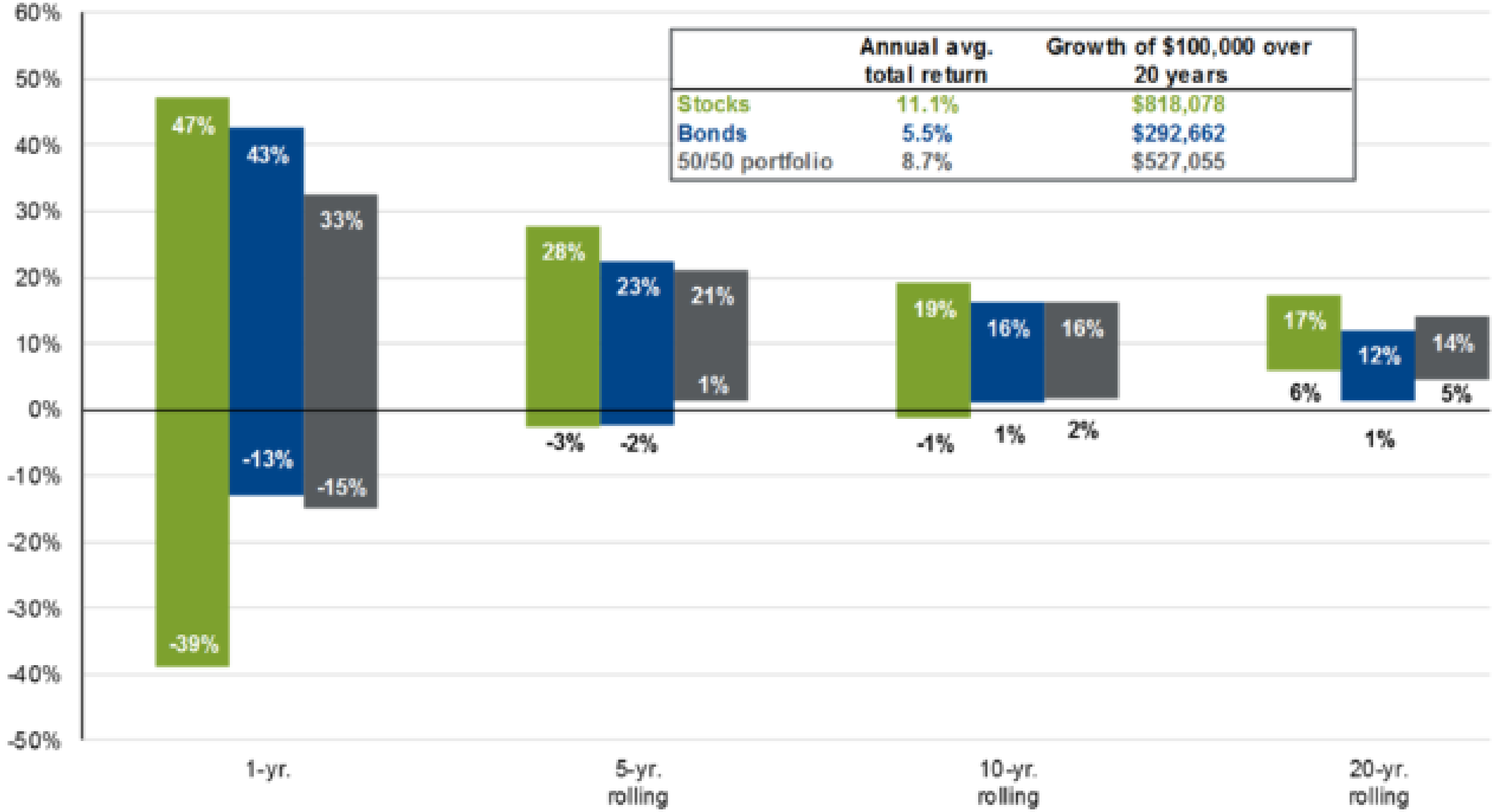
S&P Intra-year declines vs. calendar year returns



Source: J.P. Morgan Asset Management, Guide to the Markets

Time and Diversification Reduce Risk

Range of stock, bond and blended total returns
Annual total returns, 1950-2022



	Annual avg. total return	Growth of $100,000 over 20 years
Stocks	11.1%	$818,078
Bonds	5.5%	$292,662
50/50 portfolio	8.7%	$527,055

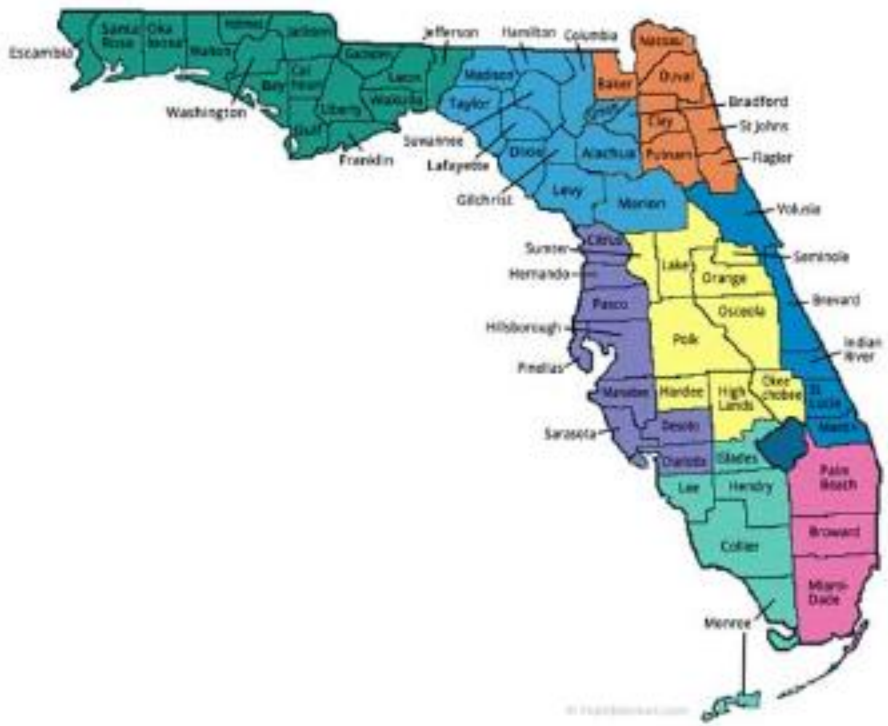
Source: JP Morgan Guide to the Markets, June 30, 2023.

Florida Investment Statutes

Generally, Florida Investment Statutes do not prohibit Equities/Multi-Asset Classes

P Chapter 218

P Chapter 517



Getting Started

Step 1
- Run a cash flow analysis model to project liquidity and investment needs

Step 2
- Update investment policies establishing the fund's target allocation
- Open a separate custody account for the new fund

Step 3
- Begin dollar-cost-averaging by investing a small portion of Core portfolio (e.g., 15% sleeve of Core invested 1/3 over three trades)

Step 4
- Review targets each year and add to the fund if surplus assets grow

Investment Policy Considerations

- Establish governance structure with delineated roles and responsibilities
- Establish a time horizon and risk tolerance
- Establish investment goals and objectives
- Outline anticipated cash flow or liquidity needs
- Establish a strategic asset allocation target with ranges for each asset class
- Establish limits or constraints for individual securities, industries or sectors
- Establish ongoing portfolio monitoring protocols

Active vs. Passive Management

Use low-cost passive management (index funds or exchange traded funds “ETFs”), unless there is high conviction in an active manager

Use passive management in efficient markets, active in lesser efficient:

- Domestic Equity: passive
- International Equity: active and passive
- Fixed Income: active

Considerations for Managing Risk

- Hire an independent custodian for Transparency
- Diversify investments / risk in multiple asset classes
  - Establish security and industry limits within each asset class
- Investment Types:
  - Pooled Vehicles (ex: mutual funds or ETFs) diversify securities risk for you
  - Individual Securities Portfolio: you need to work with manager on diversifying
- Rebalance portfolio periodically back to IPS targets
- Review IPS and portfolio strategy at least annually
  - Hold quarterly meetings with advisors/managers

Concluding Remarks

- When permitted, it is advisable to separate investment funds into their respective liquidity and time horizon buckets.

- To help preserve purchasing power, a Core portfolio needs to consider equities (multi-asset class) investments. For example:

  - Operating Funds: Daily Liquidity

  - Operating Reserves/Core: 1-3 (or 1-5 year) Fixed Income

  - Surplus/Core/Quasi-Endowment: Multi-Asset Class

Thank you!
Questions?

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Contact us

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