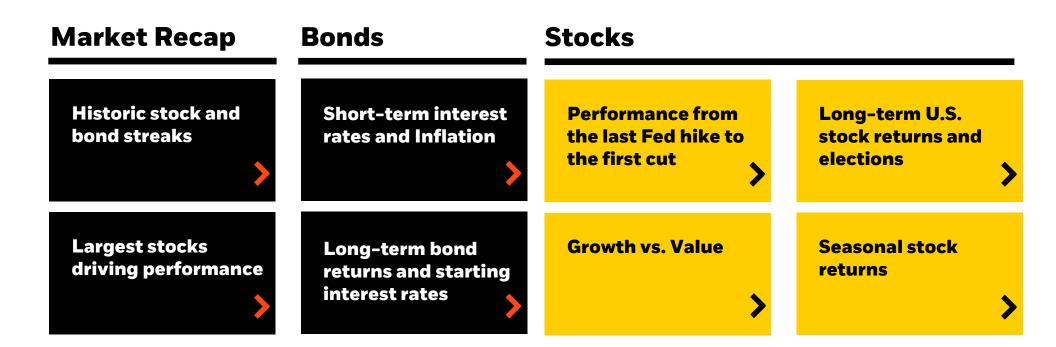
November 2023

Student of the Market



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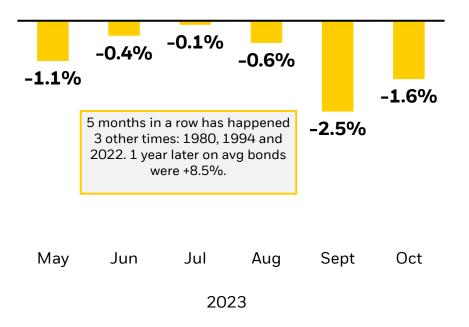
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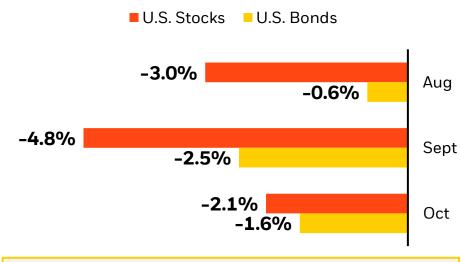
Historic losing streak for stocks and bonds

Potentially peak pessimism for bonds?

First time in history that U.S. bonds have lost money in 6 consecutive months



Only 2nd time in history that both U.S. stocks and U.S. bonds lost money in 3 consecutive months



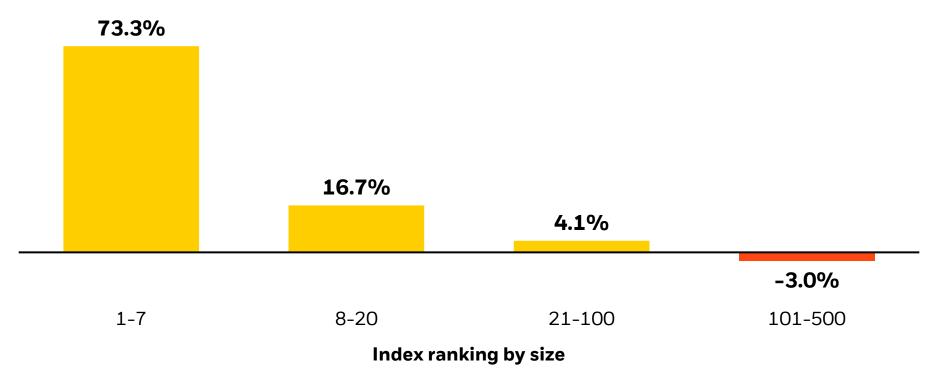
The last time this happened was Jun–Aug 1966. 1 year later stocks +26.5% and bonds +7.1% (9/66-8/67).

Morningstar as of 10/31/23. U.S. stocks are represented by the S&P 500 TR Index from 3/4/57 to 10/31/23 and the IA SBBI U.S. Lrg Stock TR USD Index from 1/1/26 to 3/4/57, U.S. bonds represented by the IA SBBI US Gov IT Index from 1/1/26 to 1/3/89 and the Bloomberg U.S. Agg Bond TR Index from 1/3/89 to 10/31/23. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Largest stocks have been driving index returns in 2023

Not all stocks within the S&P 500 are the same

Average 2023 YTD performance of individual companies in the S&P 500 Index, grouped by rank according to market cap size (1/1/23 - 10/31/23)



Source: Morningstar as of 10/31/23. Stocks represented by the individual stocks of the S&P 500 Index, non-voting dual-class shares excluded. **Past performance does not guarantee or indicate future results.** Index performance is for illustrative purposes only. You cannot invest directly in the index.

Inflation has fallen below short-term interest rates

Short-term interest rates historically have followed inflation

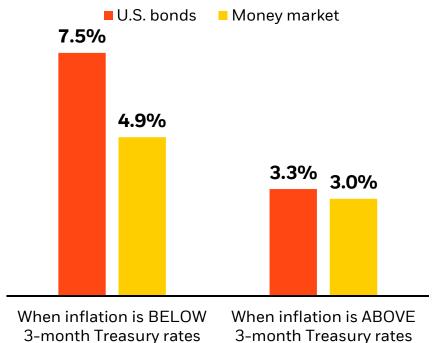
3-month Treasury and inflation rates, 1/1/54 - 9/30/23

14

22 Jan-54 2 May-60 3 Jul-63 3 Sep-66 3 Nov-69 3 Jan-73 4 May-79 3 Jul-01 3 Sep-04 5 Nov-07 5 Jul-01 5 Sep-04 8 Nov-07 5 Jul-01 8 Sep-04 8 Nov-07 5 Jul-01 8 Sep-04 8 Sep-04

Bonds have historically performed better when short-term rates are below inflation

Average annual returns over following 12 months, since 1954



Source: Morningstar and the St Louis Federal Reserve as of 10/31/23.. Money markets are represented by the IA SBBI US 30 day Tbill TR USD, U.S. bonds represented by the IA SBBI US Gov IT Index from 1/3/89 and the Bloomberg U.S. Agg Bond TR Index from 1/3/89 to 10/31/23. Inflation represented by the annual consumer price index. **Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only.** You cannot invest directly in the index.

Over the long term, bond returns tend to reflect starting interest rate levels

Average annual returns for various interest rate scenarios

Starting at a 5% interest rate and assuming a constant 5-year duration (price return only possible by change in rate)



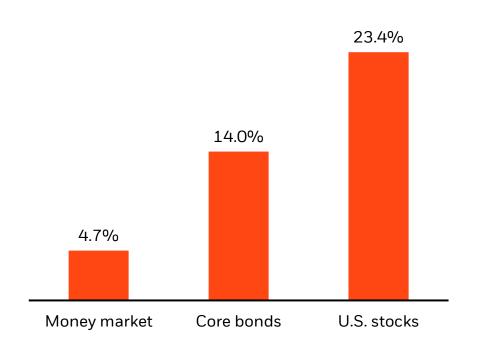
Year	Annual total return of various interest rate scenarios				
	Up 0.5%	Up 0.5% Rates stay the			
	per year	same	per year		
1	3.0%	5.0%	7.0%		
2	3.5%	5.0%	6.5%		
3	4.0%	5.0%	6.0%		
4	4.5%	5.0%	5.5%		
5	5.0%	5.0%	5.0%		
6	5.5%	5.0%	4.5%		
7	6.0%	5.0%	4.0%		
8	6.5%	5.0%	3.5%		
9	7.0%	5.0%	3.0%		
10	7.5%	5.0%	2.5%		
Avg. ann. total return	5.2%	5.0%	4.7%		

Source: BlackRock as of 10/31/23. Hypothetical example for illustrative purposes only. Scenarios assume investment in a hypothetical fund with no maturity, a starting market interest rate of 5% and changes in total return being driven only by the interest rate movements described in each scenario. Total return for each year is displayed as a sum of price return and income, with each 0.5% move in interest rates resulting in a 2.5% change for the price return in the opposite direction, dure to the assumed 5-year duration. The market interest rate is affected by the interest rate movements cumulatively over time, but the duration impact is reset each year due to the lack of maturity. For example, in the "Up 0.5% per year", the starting interest rate in year 1 is 5%, but a 0.5% upward movement in interest rate results in a 2.5% downward move in price, resulting in a 3% total return (2.5% return plus 0.5% increased income). In year 2, the starting interest rate is now 5.5% due to the 0.5% upward movement the year before, and the 2.5% reduction in price return is assessed off that new rate. This continues through year 10, and these affects are reversed for the "Down 0.5% per year" scenario Past performance does not quarantee or indicate future results.

A Fed pause has historically signaled a sweet spot for stock and bond returns

Strong performance during periods between Fed's last hike and first cut

Average annualized returns (%), 1990 – 20231



Performance during periods between Fed's last hike and first cut

Average annualized returns (%), 1990 – 20231

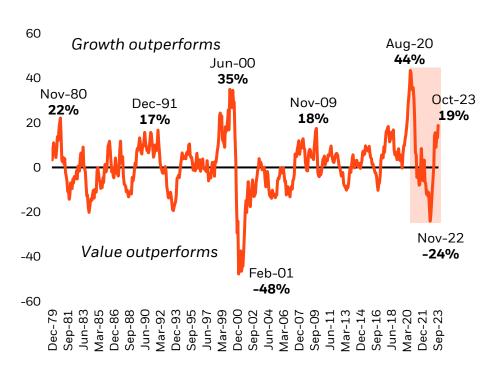
	2/2/95 to 7/6/95	3/26/97 to 9/29/98	5/17/00 to 1/3/01	6/30/06 to 9/18/07	12/21/18 to 8/1/19	Average
Large value	47.2	18.1	8.3	17.4	29.3	24.1
U.S. stocks	51.3	22.7	-11.4	17.8	36.7	23.4
Large growth	52.9	25.0	-30.3	17.7	46.1	22.3
Core bond	25.2	10.2	15.8	6.6	12.3	14.0
Int'l stocks	16.5	4.2	-15.0	21.0	21.9	9.7
Short bond	14.7	7.6	11.1	5.2	6.3	9.0
Money market	5.4	5.0	6.3	4.8	2.0	4.7

Source: Morningstar, Federal Reserve as of 10/31/23. US stocks represented by the S&P 500 Index, Large Growth stocks by the Russell 1000 Growth index and Large Value by the Russell 1000 Value Index Short bonds by the Morningstar US Fund Intermediate Core Bond Fund category, Money market represented by the Morningstar US Fund Money Market Fund category, International stocks represented by the MSCI EAFE index. **Past performance does not guarantee or indicate future results.** Index performance is for illustrative purposes only. You cannot invest directly in the index.

Large swings between growth and value outperformance over the last couple of years

1-year outperformance, growth vs value

Large growth performance minus large value performance, since 1979 (%)



Growth vs. value after periods of large growth outperformance

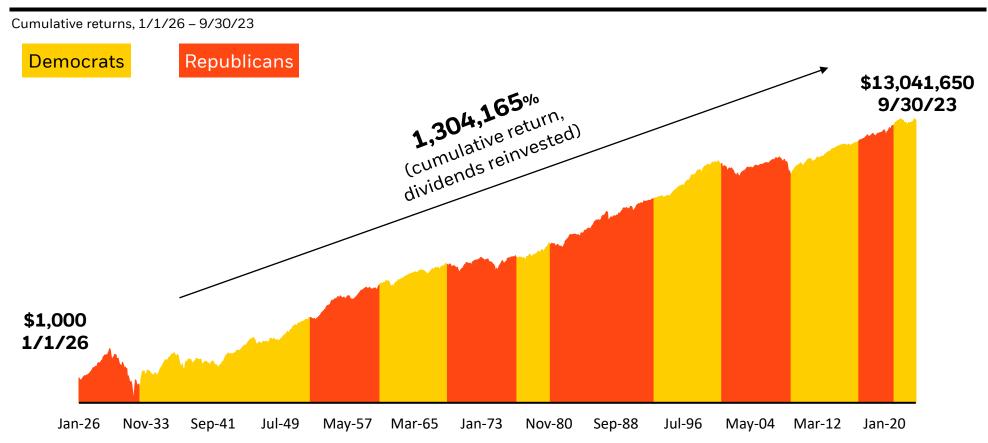
Large growth performance minus large value performance, since 1979 (%)

Largest growth outperforms	Growth outperformance	1 year later (Growth – value)	
Sept-2020	43.5%	-7.9%	
Jun-2000	34.6%	-46.5%	
Nov-1980	22.2%	-14.2%	
Oct-2023	18.8%	,	
Nov-2009	17.5%	+5.1%	
Dec-1991	16.7%	-8.6%	

Source: Morningstar as of 10/31/23. Large growth stocks are represented by the Russell 1000 Growth Index and large value stocks represented by the Russell 1000 Value Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You can not invest directly in the index.

Stocks have continued higher regardless of party holding the presidency

Growth of \$1k since 1926



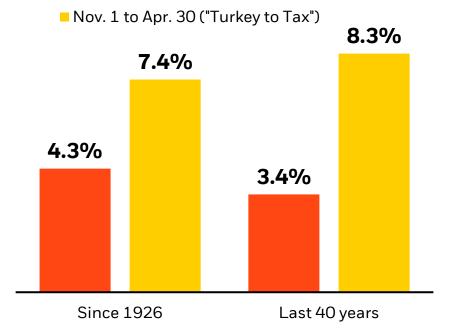
Morningstar as of 9/30/23. Stock market represented by the S&P 500 Index from 1/1/70 to 9/30/23 and IA SBBI U.S. large cap stocks index from 1/1/70. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Stocks have entered an optimal seasonal return period

Stocks have performed best during "turkey to tax"

Since 1926, Average for all 6-month periods

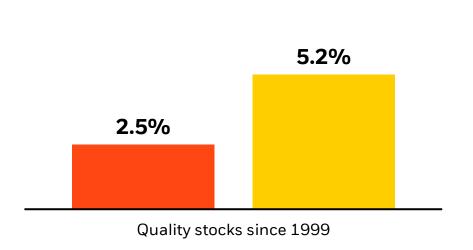
■ May 1 to Oct. 31 ("Mommies to Mummies")



Quality stocks have performed best during "turkey to tax"

Since 1999, Average for all 6-month periods

- May 1 to Oct. 31 ("Mommies to Mummies")
- Nov 1. to Apr. 30 ("Turkey to Tax")



Morningstar as of 10/31/23. U.S. stocks are represented by the S&P 500 TR Index from 3/4/57 to 10/31/23 and the IA SBBI U.S. Lrg Stock TR USD Index from 1/1/26 to 3/4/57, Quality stocks by the MSCI USA Sector Neutral Quality NR Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

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Returns as of 10/31/23	1 Year Return	5 Year Avg. Annual Return	10 Year Avg. Annual Return
Bloomberg US Agg Bond TR USD	0.36	-0.06	0.88
IA SBBI US IT Govt TR USD	-0.47	0.15	0.65
IA SBBI US Large Stock TR USD Ext	10.14	11.01	11.18
MSCI EAFE NR USD	14.40	4.10	3.05
Russell 1000 Growth TR USD	18.95	14.22	13.82
Russell 1000 Value TR USD	0.13	6.60	7.60
S&P 500 TR USD	10.14	11.01	11.18
MSCI USA Sector Neutral Quality NR USD	16.74	10.58	10.48
US BLS CPI All Urban NSA 1982-1984	3.70	4.04	2.77
US Fund Intermediate Core Bond	0.56	-0.16	0.76
US Fund Short-Term Bond	3.84	1.33	1.23
US Fund Money Market - Taxable	4.48	1.52	0.94
IA SBBI US 30 Day TBill TR USD	4.69	1.69	1.09

Source: Morningstar. Performance data quoted represents past performance and is no guarantee of future results. Current performance may be lower or higher than that shown. ©2023 Morningstar. All Rights Reserved. The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by a financial advisor which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. This material is not intended to be relied upon as a forecast, research or investment advice, and is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. The opinions expressed are as of 10/31/23 and may change as subsequent conditions vary. The information and opinions contained in this material are derived from proprietary and nonproprietary sources deemed by BlackRock to be reliable, are not necessarily all-inclusive and are not guaranteed as to accuracy. Past performance is no guarantee of future results. There is no quarantee that any forecasts made will come to pass. Reliance upon information in this material is at the sole discretion of the reader.

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