Student of the Market

February 2023



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January stock market returns

Fed raising interest rates

Stocks fund flows

Bull market rebounds

Inverted yield curve

Emerging market stocks

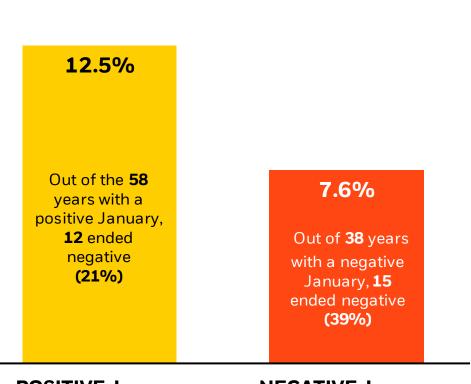
Alternative asset class performance

Timing of Fed pivots

 $Source: Morning star as of 1/31/23. \label{eq:morningstar} \textbf{Past performance is no guarantee of future results.} \ Index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance is shown for illustrative purposes only. You cannot invest directly in an index performance in the performance is shown for illustrative purposes only. You cannot invest directly in an index performance in the p$

So goes January...?

Average return following January (next 11 months)Since 1926



	January return	Return for rest of year (11 months)
2023	6.3%	?
2022	-5.2%	-13.6%
2021	-1.0%	30.0%
2020	-0.0%	18.5%
2019	8.0%	21.7%
2018	5.7%	-9.6%
2017	1.9%	19.6%
2016	-5.0%	17.8%
2015	-3.05	4.5%
2014	-3.5%	17.8%
2013	5.2%	25.9%
2012	4.5%	11.0%
2011	2.4%	-0.3%
2010	-3.6%	19.4%
2009	-8.4%	38.1%

POSITIVE January NEGATIVE January

Source: Morningstar as of 1/31/23. U.S. stocks are represented by the S&P 500 Index from 3/4/57 to 1/31/23 and the IA SBBI US. Lrg Stock Tr USD Index from 1/1/26 to 3/4/57, unmanaged indexes that are generally considered representative of the U.S. stock market during each given time period. **Past performance does not guarantee or indicate future results.** Index performance is for illustrative purposes only. You can not invest directly in the index.

How much the Fed raises rates is key

Performance based on how much the Fed raises rates

Average returns since 1994, broken into instances when the Fed increased rates 1%+ and <1%

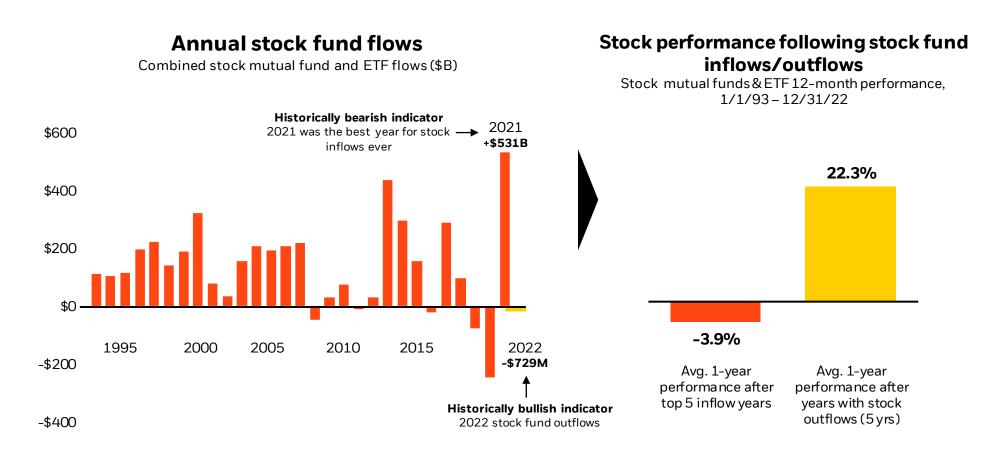


Year	# Rate hikes	% of rate rise	U.S. Stocks	U.S. Bonds	Int'l Stocks	Growth	Value	Small Cap	High Yield	Multi-Sector Bond	Short Bond	Bank Loan
2022	7	4.3%	-18.1	-13.0	-14.5	-29.0	-7.5	-20.4	-10.1	-9.9	-5.2	-2.5
1994	6	2.5%	1.3	-2.9	7.8	2.6	-2.0	-1.8	-3.1	-4.4	-0.6	6.6
2005	8	2.0%	4.9	2.4	13.5	5.3	7.1	4.6	2.6	2.2	1.5	4.6
2004	5	1.25%	10.9	4.3	20.3	6.3	16.5	18.3	10.0	8.1	1.6	5.0
2000	3	1.0%	-9.1	11.6	-14.2	-22.4	7.0	-3.0	-7.2	1.7	7.5	6.2
2006	4	1.0%	15.8	4.3	26.3	9.1	22.3	18.4	10.1	6.7	4.1	6.6
2018	4	1.0%	-4.4	0.0	-13.8	-1.5	-8.3	-11.0	-2.8	-1.6	0.9	-0.3
1999	3	0.75%	21.0	-0.8	27.0	33.2	7.4	21.3	5.0	2.7	2.3	6.2
2017	3	0.75%	21.8	3.5	25.0	30.2	13.7	14.7	6.4	6.1	1.7	3.5
2015	1	0.5%	1.4	0.6	-0.8	5.7	-3.8	-4.4	-4.1	-2.0	0.2	-1.3
1995	1	0.5%	37.6	18.5	11.2	37.2	38.4	28.5	17.5	17.5	11.1	7.8
2016	1	0.25%	12.0	2.7	1.0	7.1	17.3	21.3	13.2	7.1	2.0	9.2
1997	1	0.25%	33.4	9.7	1.8	30.5	35.2	22.4	13.6	9.2	6.6	7.3

Source: St Louis Federal Reserve and Morningstar as of 1/31/23. US stocks represented by the S&P 500 Index, US bonds by theBloomberg US Agg Bond Index, Large Growth stocks by the Russell 1000 Growth index and Large Value by the Russell 1000 Value Index Bank loans by the Morningstar US Fund Bank loan category, Short bonds by the Morningstar US Fund Multisector by the Morningstar US Fund Multisector Bond category, Past performance does not quarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Don't follow the flows

Stock fund flows and performance have been inversely correlated. History suggests that outflows in 2022 could make it a good time to consider adding to stock positions

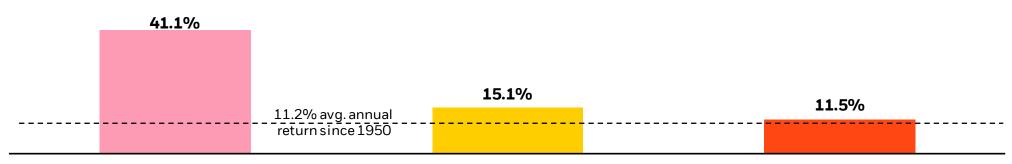


Source: Morningstar as of 12/31/22. Stocks represented by the S&P 500 TR Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You can not invest directly in the index.

Anatomy of bull market rebounds

Average performance following a bear market

Since 1950, 11 bear markets



Average return 1 year after

Average return 3 years after

Average return 5 years after

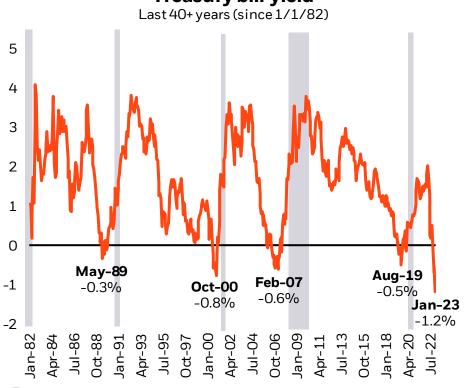
Rebounds from bear markets since 1950												
Bear Market Low	10/22/5 7 -21.5%	6/26/62 -28.0%	10/7/66 -22.2%	5/26/70 -36.1%	10/3/74 -48.2%	3/6/78 -19.4%	8/12/82 -27.1%	12/4/87 -33.5%	10/9/02 -49.1%	3/9/09 -56.8%	3/23/20 -33.9%	10/12/2 2 -25.4%
Return needed to break- even	27.3%	38.8%	28.5%	56.4%	93.1%	24.1%	37.2%	50.4%	96.6%	129.5%	51.3%	34.1%
Days to break- even	233	299	143	451	1,462	366	58	414	1,166	1008	101	÷.
1-yr after	31.0%	32.4%	32.9%	43.7%	38.0%	12.6%	58.3%	22.5%	33.7%	68.6%	77.8%	?
3-yr after	15.2%	16.7%	8.3%	15.9%	15.8%	14.3%	22.4%	16.4%	15.5%	10.4%	?	?
5-yr after	9.9%	11.9%	6.4%	5.5%	12.0%	2.1%	26.6%	17.4%	15.0%	7.9%	?	?

Morningstar as of 1/31/23. Stock market represented by S&P 500. Stocks PR Index. Principal return only, dividends not included. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Recessionary period

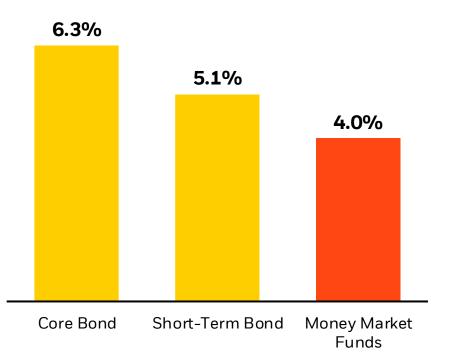
The most reliable recession indicator and the bonds versus cash question





Asset class performance 12 months following an inversion in 10-year/3-month Treasury yields



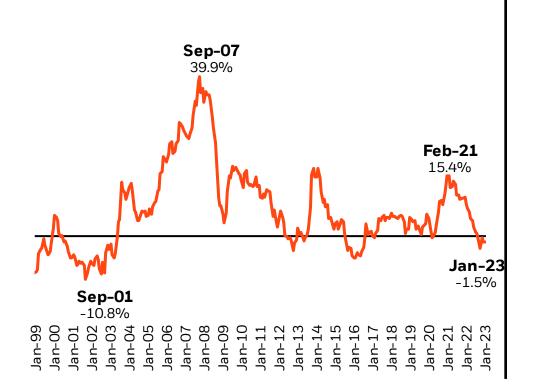


Source: Morningstar as of 1/31/23. U.S. stocks are represented by the S&P 500TR Index. Bond categories shown are represented by their respective Morningstar open-end fund category averages. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You can not invest directly in the index.

Time to consider emerging markets?

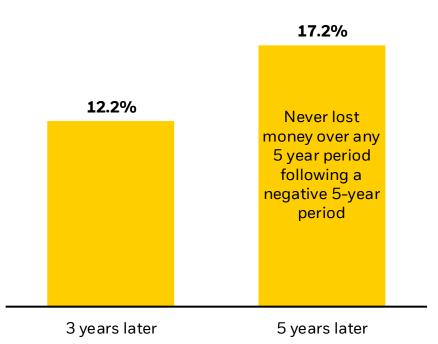
Emerging market stocks rolling 5 year returns

5-year rolling returns since index inception (1/1/1994)



Investing in emerging market stocks following a negative 5-year return period

Average returns since 1994

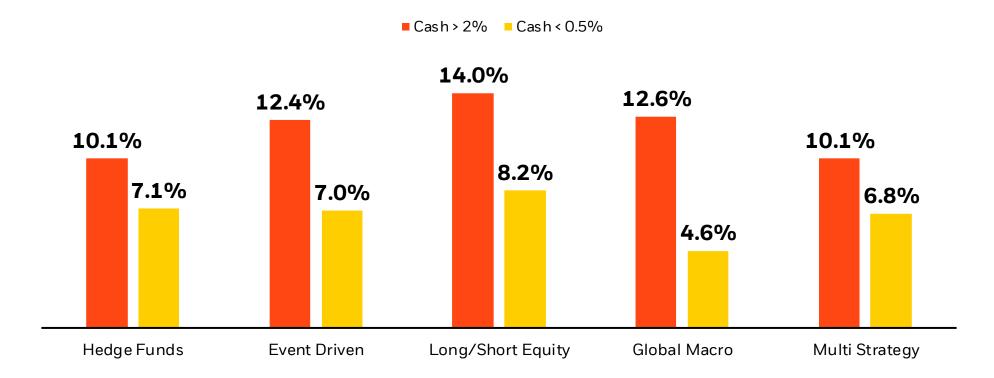


Source: Morningstar as of 1/31/23. U.S. stocks are represented by the FTSEEmerging Index from 1/1/94 to 12/31/00 and the MSCI EM Index from 1/1/01 to 1/31/23, unmanaged indexes that are generally considered representative of the U.S. stock market during each given time period. **Past performance does not guarantee or indicate future results**. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Alternative asset classes do better historically when the return on "cash" is higher

Alternative index performance in different cash return environments

Median return since 1/1/1994



Source: Morningstar as of 12/31/22. Hedge Funds are represented by the Credit Suisse Hedge Fund Index, Event Driven by the Cedit Suisse Event Driven Index, Long Short Equity by the Credit Suisse Long/Short Equity Index and Global Macro by the Credit Suisse Global Macro Index, Multi-Strategy by the Credit Suisse Multi Strategy Index. **Past performance does not guarantee or indicate future results.**

The last interest rate hike to the first cut

Historically the time between the last time the Federal Reserve raises interest rates until they pivot and cut

Average time between the last Fed rate hike and the first Fed rate cut

(1/1/94 - 1/31/22)



The range of time has been as short as 6 months ('95 was the last time they quickly raised rates) and as long as 18 months

Specific periods the last Fed increase to the first cut

Last Federal Reserve rate increase	First Federal Reserve rate cut	Time in between
2/1/95	7/6/95	6 months
3/25/97	9/29/98	18 months
5/16/00	1/3/01	7.5 month
6/29/06	9/18/07	14.5 months
12/20/18	8/1/2019	7.5 months
Avei	10.5 months	

Source: Morningstar, Federal Reserve as of 1/31/23. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

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Returns as of 1/31/23	1 Year Return	5 Year Avg. Annual Return 📗 1	LO Year Avg. Annual Return
S&P 500 TR USD	-8.22	9.54	12.68
Bloomberg US Agg Bond TR USD	-8.36	0.86	1.43
Bloomberg US Corporate High Yield TR USD	-5.22	2.96	4.28
Credit Suisse Equity Market Neutral USD	1.71	1.16	1.87
Credit Suisse Event Driven USD	-6.80	3.19	3.45
Credit Suisse Global Macro USD	15.89	8.33	5.46
Credit Suisse Hedge Fund USD	1.06	4.25	4.24
Credit Suisse Multi-Strategy USD	1.27	3.95	5.19
FTSE Emerging TR USD	-10.75	-0.21	2.79
IA SBBI US IT Govt TR USD	-6.45	1.04	1.06
IA SBBI US Large Stock TR USD Ext	-8.22	9.54	12.68
MSCI EAFE NR USD	-2.83	2.13	4.95
MSCI EM NR USD	-12.12	-1.48	2.07
Russell 1000 Growth TR USD	-16.02	11.22	14.53
Russell 1000 Value TR USD	-0.43	6.94	10.15
Russell 2000 TR USD	-3.38	5.54	9.36
US Fund Bank Loan	-0.11	2.31	2.81
US Fund High Yield Bond	-4.82	2.33	3.43
US Fund Intermediate Core Bond	-8.76	0.70	1.26
US Fund Multisector Bond	-5.61	1.45	2.44
US Fund Short-Term Bond	-2.96	1.26	1.18

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. 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 1/31/23 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 guarantee 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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