Comments on U.S. and New York State Economy and Financial Markets

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Introductory Comment

Below, for the most part, is a report that we have completed on February 13th. Since we completed and submitted the report much has transpired. U.S. 4th quarter real gross domestic product has been revised lower, four reports on January inflation have been released, January retail sales and personal consumption expenditures have been reported and a great deal more. We have updated this report primarily by updating a table (page 6) which summarizes our forecast for the US economy through 2025. We have not changed our forecasts for New York State, other states in New England, or New York State revenues.

We currently anticipate:

- The U.S. economy will expand .8% in 2023, 1.2% in 2024, and 2.1% in 2025.
- Consumer spending will increase by on average .6% (2023), 1.2% (2024), and 2.1% (2025).
- Nonfarm payroll employment will increase by a monthly average of 27,000 (2023), 157,000 (2024) and 184,000 (2025).
- The unemployment rate will average 4.0% (2023), 4.3% (2024), and 4.1% (2025).
- The consumer price index will increase by 3.2% (2023), 2.3% (2024), and 3.2% (2025).[1]
- The Federal Reserve will increase its target for the federal funds rate 3 times in 2023 and leave the target unchanged at 5.375% through 2024.[2]
- Short-term interest rates (91-day U.S. Treasury bill) will average 4.90% (2023), 4.95% (2024), and 4.70% (2025).
- Longer-term interest rates (10-year U.S. Treasury note) will average 3.60% in 2023, 4.00% in 2024, and 3.70% in 2025.
- Stock prices (S&P 500) will average 3850 in 2023, 4050 in 2024, and 4250 in 2025.
- The New York State economy will expand .9% (2023), 1.5% (2024), and 2.3% (2025). New York State employment will increase by 1.9% (2023), .6% (2024), and 1.7% (2025). We estimate employment gains of 178,000 (2023), 56,000 (2024), and 163,000 (2025).

Updates (A Possible Alternative Explanation)

Since 1890 there have been 25 bear markets and all 25 have been accompanied by/followed by economic contractions which have been accompanied by/followed by inflation-interest rate declines. The current bear market began on January 4th, 2022, and arguably ended on October 13th, 2022. The 2022 bear market has been accompanied/followed by a contraction in the economy. Real gross

[1] Annual average/annual average

[2] March 25 basis points, May 25 basis points, June 25 basis points, September 25 basis points.

domestic product declined in Q1 and Q2 2022. The contraction in the economy has been followed by a decline in inflation and longer-term interest rates. Inflation peaked in February 2022 (8.6%) and longer-term interest rates peaked in October 2022 (4.23%).

The current cycle has been unfolding as previous cycles have unfolded.

There are, however, observations that state that it is mistaken (or premature) to conclude that the bear market has ended, and a bull market has begun. It is mistaken (or premature) to say the contraction in the economy has occurred and ended and a recovery has begun.

1. Technically, many justifiably conclude that the contraction in the US economy in Q1 and Q2 does not qualify as a recession since employment conditions remained robust. As Secretary of the U.S. Treasury Janet Yellen has stated, ""We have a very strong labor market. When you are creating almost 400,000 jobs a month, that is not a recession."
2. Index of Coincident Economic Indicators, an index which correlates with real gross domestic product, has continued to expand through 2022.
3. There continue to be indicators that signal that the economy will contract (recede). The Index of Leading Economic Indicators, an index which has consistently signaled turning points in real gross domestic product, has declined for 10 successive months.

It is mistaken and premature to conclude that the "down stage" of the stock market-economic-inflation/interest cycle has ended and the "up stage" has begun. The Hugh Johnson Economics forecast reflects these concerns and forecasts a recession in Q2 and Q3, a decline in nonfarm payroll employment in Q2 and Q3, and further declines in inflation.

Overview

Identifying the turning points in stock market-economic-interest rate cycles remains *the* critical issue for all forecasters and policymakers.

There are two important steps to the HJA methodology for understanding cycles. First, HJ Economics identifies important trends in financial market variables. HJ Economics research concludes that the financial markets perform in very specific ways at the beginning, middle, and end of a stock market-economic-interest rate cycle. Hence, by identifying important trends in financial market variables it is possible to identify where we are in the stock market-economic-interest rate cycle.

Second, HJ Economics identifies the trends in important monetary and economic variables. The purpose of the second step is to determine if the performance of the financial markets is rational. Is the performance of the financial markets consistent with a rational forecast for the economy, earnings, inflation, and interest rates? More specifically, is the performance of the financial markets justified?

Financial market performance has been, on balance, negative. (January 4th, 2022, to October 13th 2022)

- Stock prices have declined 14.2%.

- Less volatile ("bear market") stock market sectors (consumer staples, utilities, healthcare) have outperformed more volatile ("bull market") stock market sectors (basis materials, technology, consumer discretionary).
- Value equities (higher dividend yield, lower price-earnings ratios) have outperformed growth equities (lower dividend yield, higher price-earnings ratios).
- Spreads (differences) between yield on AAA-rated investment grade fixed income securities and yield on 10-year U.S. Treasury securities have narrowed. Spreads (differences) between yield on BAA-rated investment grade fixed income securities and yield on 10-year U.S. Treasury securities have remained little changed. Spreads (differences) between yield on below investment grade fixed income securities and yield on 10-year U.S. Treasury securities have widened. The gradation in performance is important,
- Yield curves as measured by the spread (difference) between the yield on a 10-year U.S. Treasury note and the yield on a 91-day U.S. Treasury bill have inverted. Based upon the yield curve the probability of a recession beginning in 12 months has increased from 6.0% to 47.3%.

<u>Financial market performance has been on balance negative due to shifts in monetary and fiscal policy. That is, the performance of the financial markets has been rational, or investors collectively have been justified.</u>

In 2020-2021 monetary and fiscal policy was accommodative; the growth rate of the money supply accelerated; consumer spending accelerated; Inflation increased.

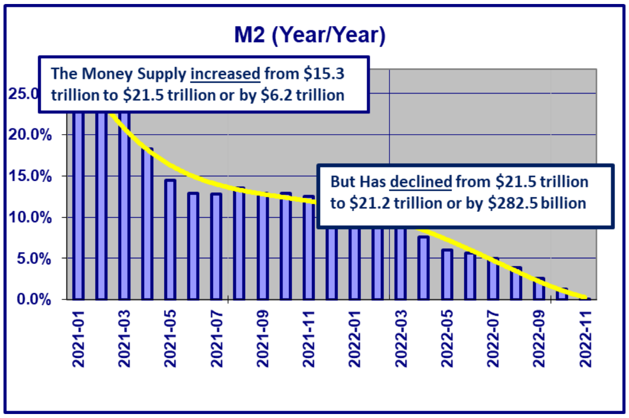
- The Federal Reserve increased its holdings of financial assets by $4.5 *trillion*.
- The Federal government increased total spending by $2.1 *trillion*.
- The money supply as measured by M2 (seasonally adjusted) increased by $2.4 *trillion* in 2020 and $3.8 *trillion* in 2021.
- Consumer spending declined by $276.5 billion in 2020 and increased by $1.8 *trillion* in 2021.[3]
- Consumer inflation increased from 1.2% (2020) to 4.7% (2021) to 8.1% (2022).

In 2022 monetary and fiscal policy tightened; the growth rate of the money supply slowed; consumer spending slowed; Inflation increased.

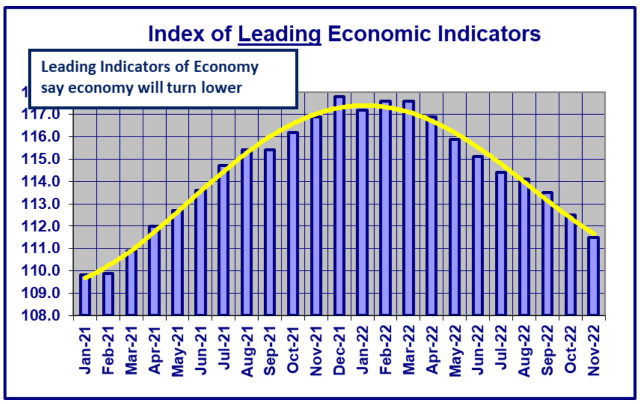
- The Federal Reserve *reduced* its holdings of financial assets by $2.2 trillion.[4]
- The Federal government *reduced* spending by $1.045 trillion[5]
- The money supply as measured by M2 (seasonally adjusted) *declined* by $282.5 billion in 2022.
- Consumer spending increased by $1.5 trillion in 2022.
- Consumer inflation has increased from 4.7% (2021) to 8.1% (2022) and is anticipated to decline to 3.7% (2023) and 2.5% (2024).[6]

[3] Nominal consumer spending: Bureau of Economic Analysis.
[4] H.4.1, Federal Reserve Statistical Release, December 29, 2022.
[5] Subsidies to individuals ("other") and unemployment benefits paid in 2022 versus 2021.
[6] Bloomberg Economics.

As a result, domestic money conditions and domestic liquidity conditions have turned negative.



Predictably the Index of Leading Economic Indicators declined.



Forecast Details:

We include two sets of tables. The first set summarizes the Hugh Johnson Economics forecast for the U.S. economy. The second set summarizes the Hugh Johnson Economics forecast for the New York State economy.

Forecast for U.S. Economy, Employment, Inflation, Interest Rates, and Stock Prices

Variable	Actual	Actual	Forecast	Forecast	Forecast
	2021	2022	2023	2024	2025
Real GDP	5.9%	2.1%	0.8%	1.2%	2.1%
Consumption	8.3%	2.8%	0.6%	1.2%	2.1%
Investment	9.0%	3.9%	-2.5%	-0.1%	2.5%
Exports	6.1%	7.2%	0.2%	0.5%	3.4%
Imports	14.1%	8.2%	-2.6%	0.2%	2.9%
Government	0.6%	-0.6%	2.5%	2.4%	1.7%
Federal	2.3%	-2.5%	3.9%	3.0%	3.7%
State	-0.5%	0.6%	1.7%	2.0%	0.4%
Personal Income	7.4%	2.4%	5.8%	4.1%	4.1%
Wages & Salaries	8.8%	9.1%	7.2%	7.4%	9.0%
Corporate Profits (ptw)	22.6%	7.7%	3.9%	2.4%	4.9%
Productivity					
Employment	2.9%	4.3%	1.4%	0.5%	1.5%
Unemployment Rate	5.4%	3.6%	4.0%	4.3%	4.1%
CPI-Urban	4.7%	8.0%	3.2%	2.3%	3.2%
S&P 500 Stock Price	32.6%	-3.8%	-6.0%	5.0%	4.6%
Treasury Bill Rate (3-Month)	0.0%	2.5%	4.9%	4.9%	4.7%
Treasury Note Rate (10-Year)	1.5%	3.3%	3.6%	4.0%	3.7%

Forecast for New York State Economy, Employment, and Inflation

Variable	Actual	Actual	Forecast	Forecast	Forecast
	2020	2021	2022	2023	2024
Gross State Product (chained 2012 $)	-4.6%	5.7%	3.4%	0.9%	1.5%
Employment (CES)	-9.2%	2.2%	4.3%	1.3%	0.7%
Payroll gains (losses)	-905	192	395	125	66
Personal Income	5.9%	5.6%	0.7%	6.4%	4.7%
Total Wages (calendar year basis)	-1.1%	8.6%	7.7%	2.6%	1.3%
Supplement	0.4%	5.7%	4.9%	3.1%	3.6%
Variable Compensation					
New York Area CPI (1)	1.7%	3.6%	6.4%	3.3%	3.5%
Source: Bureau of Labor Statistics, Bureau of Economic Analysis					

Comments on Forecast Details:

Forecasts for U.S. Economy, Employment, and Inflation

We include a table that summarizes the consensus forecast and the Hugh Johnson Economics forecast for the U.S. economy. Both the consensus and HJ Economics forecast that the U.S. economy will contract in Q1, Q2, and Q3. Although nonfarm payroll employment remains strong and consumer spending was solid in Q3 and Q4 (2022), both are slowing.

February 2023 Forecast		
Quarter	Consensus-Real GDP	HJ Economics-Real GDP
2022-Q1	-1.6%	-1.6%
2022-Q2	-0.6%	-0.6%
2022-Q3	3.2%	3.2%
2022-Q4	2.9%	2.7%
2023-Q1	-0.1%	0.2%
2023-Q2	-0.5%	-0.5%
2023-Q3	-0.1%	-0.3%
2023-Q4	0.6%	1.0%
2024-Q1	1.4%	1.5%
2024-Q2	1.9%	1.9%
2024-Q3	2.1%	2.2%
2024-Q4	2.2%	2.1%
2021	5.9%	5.9%
2022	2.1%	2.1%
2023	0.7%	0.8%
2024	1.2%	1.2%
Source: Blue Chip Economic Indicators; HJ Economics		

HJ Economics estimates that nonfarm payroll employment (NFP) will decline by on average 108,000 in Q2 and 63,000 in Q3 2022. The consensus estimates that nonfarm payroll employment will decline 45,000 in Q2 and 104,000 in Q3 and 58,000 in Q4.

February 2023 Forecast		
Quarter	Consensus-NFP	HJ Economics-NFP
2022-Q1	563	563
2022-Q2	399	399
2022-Q3	429	429
2022-Q4	318	318
2023-Q1	291	293
2023-Q2	75	-71
2023-Q3	-71	-123
2023-Q4	13	9
2024-Q1	46	83
2024-Q2	82	154
2024-Q3	100	197
2024-Q4	NA	196
2021	549	549
2022	427	427
2023	-27	27
2024	100	157
Source: Bloomberg Economics; HJ Economics		

HJ Economics anticipates that consumer inflation will increase 3.2% in 2023, 2.8% in 2024, and 3.6% in 2025 after increasing 8.0% in 2022.[7]. In addition, HJ Economics anticipates that the Personal Consumption Price Index will increase 2.7% in 2023 and 2.5% in 2024 and 3.0% in 2025 after increasing 6.2% in 2022. HJ Economics anticipates that the Core Personal Consumption Price Index will increase 3.6% in 2023 and 3.3% in 2024 and 3.3% in 2025 after increasing 5.0% in 2022.

February 2023 Forecast		
Quarter	Consensus-CPI	HJ Economics CPI
2022-Q1	8.0%	8.0%
2022-Q2	8.6%	8.6%
2022-Q3	8.3%	8.3%
2022-Q4	7.1%	7.1%
2023-Q1	5.6%	5.3%
2023-Q2	3.8%	3.4%
2023-Q3	3.1%	2.4%
2023-Q4	3.0%	1.8%
2024-Q1	2.7%	1.9%
2024-Q2	2.5%	2.1%
2024-Q3	2.3%	2.4%
2024-Q4	2.2%	2.7%
2021	4.7%	4.7%
2022	8.1%	8.0%
2023	3.6%	3.2%
2024	2.4%	2.3%
Source: Blue Chip Economic Indicators; HJ Economics		

Forecasts for Federal Reserve Policy, Interest Rates, and Stock Prices

Both the consensus and Hugh Johnson Economics forecast that the Federal Reserve will raise interest rates further in 2023 and hold interest rates at the 2023 terminal level through 2024. Specifically, HJ Economics anticipates that the Federal Reserve will raise interest rates from 4.625% (February) to 4.875% (March) and to 5.125% (May). An increase in the projected terminal rate for the federal funds rate from 5.00% to 5.5% is a strong likelihood at the March 2023 meeting. Assuming the Open Market Committee increases the terminal rate for 203 from 5.0% to 5.5% HJ Economics anticipoate4s that the Federal Reserve will increase its target for the federal funds rate to 5.375% (September) and 5,625% (December).

An increase in the terminal rate is reflected in the HJ Economics forecast for the federal funds rate for Q3 2023 (5.375%) and Q4 2023 (5.625%).

[7] Q4/Q4

February 2023 Forecast		
Quarter	Consensus Fed Funds Rate	HJ Economics Fed Funds Rate
2022-Q1	0.375	0.375
2022-Q2	1.375	2.500
2022-Q3	2.875	3.125
2022-Q4	4.375	4.375
2023-Q1	4.875	4.875
2023-Q2	4.875	5.375
2023-Q3	4.875	5.375
2023-Q4	4.875	5.375
2024-Q1	4.250	5.375
2024-Q2	3.875	5.375
2024-Q3	3.375	5.375
2024-Q4	3.125	5.375
2022	2.250	2.594
2023	4.875	5.250
2024	3.656	5.375
Source: Bloomberg Economics		

The Federal Reserve has reduced its holdings of financial market instruments from $8.289 trillion (12-29-2021) to $8.153 trillion (12-28-2022). We anticipate that they will continue to reduce holdings of U.S. Treasuries and mortgage-backed securities through 2023.

<u>If the economy contracts in Q2, and Q3 as forecast and if inflation rates continue to decline as forecast, Federal Reserve policy is likely to change from what we have outlined.</u> Importantly, federal funds rate futures and other financial market instruments current reflect investor expectations that the target rate for the federal funds rate will be reduced to 4.976% (June) and to 4.536% (December) 2023. <u>This is an important difference between investor expectations and comments made by members of the Federal Open Market Committee.</u>

The HJ Economics federal funds rate forecast summarized above implies statistically the following outcome for the yield on 90-day U.S. Treasury bills and the yield on 10-year U.S. Treasury notes. The continuous increase in the HJ Economics forecast for the yield on 90-day U.S. Treasury bills and 10-year U.S. Treasury notes reflect the HJ Economics forecast for the federal funds rate which is equally continuous through 2024.

February 2023 Forecast		
Quarter	Consensus 91-Day UST	HJ Economics 91-Day UST
2022-Q1	0.30	0.52
2022-Q2	1.10	1.67
2022-Q3	2.70	3.37
2022-Q4	4.20	4.32
2023-Q1	4.70	4.53
2023-Q2	4.90	5.02
2023-Q3	4.80	4.96
2023-Q4	4.60	4.97
2024-Q1	4.20	4.95
2024-Q2	3.90	4.94
2024-Q3	3.50	4.93
2024-Q4	3.30	4.93
2022	2.08	2.47
2023	4.75	4.87
2024	3.73	4.94
Source for Consensus: Blue Chip Economic Indicators		

February 2023 Forecast		
Quarter	Consensus 10-Year	HJ Economics 10-Year
2022-Q1	1.90	2.37
2022-Q2	2.90	3.17
2022-Q3	3.10	3.83
2022-Q4	3.80	3.64
2023-Q1	3.70	3.52
2023-Q2	3.70	3.73
2023-Q3	3.60	3.59
2023-Q4	3.50	3.65
2024-Q1	3.40	3.84
2024-Q2	3.40	4.07
2024-Q3	3.30	4.10
2024-Q4	3.20	4.01
2022	2.93	3.25
2023	3.63	3.62
2024	3.33	4.01
Source: Blue Chip Economic Indicators; HJ Economics		

HJ Economics Forecast for S&P 500					
Quarter	S&P 500 Operating Earnings	Y/Y%	10-Year UST	Price-Earnings	S&P 500
2023-Q1	$218.50	2.7%	3.52	17.4	3811
2023-Q2	$215.78	-0.3%	3.73	17.6	3798
2023-Q3	$217.30	-0.2%	3.59	17.7	3856
2023-Q4	$222.36	2.6%	3.65	17.8	3958
2024-Q1	$227.63	5.6%	3.84	17.8	4043
2024-Q2	$229.27	7.8%	4.07	17.7	4051
2024-Q3	$229.50	7.4%	4.10	17.6	4045
2024-Q4	$229.86	5.3%	4.01	17.7	4057
2025-Q1	$232.27	5.3%	3.81	17.7	4120
2025-Q2	$235.11	5.3%	3.77	17.8	4195
2025-Q3	$237.84	5.3%	3.67	18.0	4271
2025-Q4	$240.78	5.3%	3.61	18.1	4348
Sources: HJ Economics; Refinitiv Proprietary Research					

New York State Economy and Tax Receipts

We anticipate that the New York State economy will expand .9% in 2023, 1.5% in 2024, and 2.3% in 2025 after expanding 3.4% in 2022. That is, the economy of New York State, as measured by real Gross State Product, recovered above the pre-pandemic levels of 2019.

Gross State Product (2022-2024)				
State	2022	2023	2024	2023-2024
US	2.1%	0.6%	1.2%	0.9%
Vermont	2.9%	0.7%	1.6%	1.3%
Massachusetts	2.1%	0.8%	1.6%	1.2%
New York	3.4%	0.9%	1.5%	1.2%
Connecticut	2.6%	0.3%	1.4%	1.0%
Rhode Island	1.6%	0.5%	1.2%	0.9%
Maine	1.8%	0.0%	0.6%	0.3%
New Hampshire	-0.2%	-2.2%	0.6%	-0.1%
New England	2.0%	0.4%	1.3%	0.9%
Bureau of Economic Analysis				

We anticipate that New York State employment will increase 1.9% in 2023, .6% in 2024, and 1.7% in 2025 after increasing 4.3% in 2022. That is, we anticipate that New York State will add 177,679 jobs in 2023, 56,380 jobs in 2024, and 162,993 jobs in 2025 after adding 394,750 jobs in 2020.

State Nonfarm Payroll Employment (2021-2023)				
State	2022	2023	2024	2023-2024
Massachusetts	4.6%	2.1%	0.8%	1.2%
NewHampshire	3.0%	1.7%	0.8%	1.2%
NY	4.3%	1.9%	0.6%	1.0%
Maine	2.7%	1.5%	0.5%	0.8%
Connecticut	2.5%	1.2%	0.4%	0.8%
RhodeIsland	2.9%	0.7%	0.4%	0.7%
Vermont	2.5%	0.6%	0.3%	0.6%
US	2.2%	0.6%	1.2%	*0.9%*
Source: Bureau of Labor Statistics (Annual Totals)(000)				

We anticipate that the level of employment in New York State will recover to the levels of Q4 2019 in Q1 2025.

We anticipate that New York State quarterly tax receipts will be as follows. These results are consistent with the Hugh Johnson Economics forecast for New York State gross state product, New York state employment, New York State personal income, and New York State wages as summarized in tables included in this report.

NYS Qiarterly Tax Receipts ($ Millions)										
Quarter	Total	pit	user	business	sales	corpfranchise	utilities	allother	estate	realestate
2023-Q1	$39,474	$19,655	$4,921	$4,582	$6,244	$2,195	$203	$957	$397	$314
2023-Q2	$40,663	$21,789	$4,757	$4,329	$5,603	$2,523	$113	$902	$352	$339
2023-Q3	$31,484	$13,151	$5,012	$4,511	$5,226	$1,830	$88	$945	$436	$386
2023-Q4	$30,388	$11,805	$5,079	$4,614	$5,132	$1,918	$120	$987	$458	$339
2024-Q1	$40,389	$22,585	$4,671	$4,245	$4,853	$2,322	$203	$919	$336	$319
2024-Q2	$38,993	$21,810	$4,695	$4,161	$4,426	$2,316	$106	$903	$332	$380
2024-Q3	$31,865	$14,691	$4,973	$4,393	$4,264	$1,836	$85	$970	$411	$420
2024-Q4	$29,668	$12,093	$5,099	$4,546	$4,275	$1,812	$123	$1,036	$447	$390
2025-Q1	$40,020	$22,857	$4,701	$4,209	$4,203	$2,328	$195	$979	$330	$355
2025-Q2	$42,753	$26,424	$4,581	$4,010	$3,838	$2,377	$105	$932	$280	$412
2025-Q3	$31,770	$15,239	$5,020	$4,361	$3,638	$1,807	$83	$1,017	$403	$479
2025-Q4	$30,155	$13,016	$5,124	$4,545	$3,841	$1,799	$117	$1,077	$441	$437

Risks:

There are risks for policymakers:

1. Monetary policy (a shift toward greater restraint)
2. Ukraine-Russia (see below)
3. China regulatory/property risks
4. Cryptocurrencies/stablecoins
5. Political uncertainty
6. China slowdown

Comment on Monetary Policy

A 40-page research paper completed by two Federal Reserve Economists studying the accuracy of Federal Reserve forecasts for the economy concludes

> "We draw several conclusions. First, if past performance is a reasonable guide to future accuracy, considerable uncertainty surrounds all macroeconomic projections, including those of FOMC participants."[8]

In part because of this, the Federal Reserve makes mistakes.

We have taken a hard look at a number of studies that attempt to identify the causes of the end of cycles. One particularly comprehensive study completed by Capital Economics concludes that monetary tightening has contributed to 29 of 45 downturns for the major G7 economies since 1960. They conclude, as do we, that the current U.S. stock market-economic-interest rate cycle will end because of "old-fashioned monetary tightening."

Comment on Ukraine-Russia

[8] David Reifschneider and Peter Tulip: "Gaging the Uncertainty of the Economic Outlook Using Historical Forecasting Errors: The Federal Reserve's Approach." February 2017.

We have reviewed 10 stock market corrections that have been started by 10 financial crises: the Suez Canal crisis (1956), the Cuban Missile crisis (1962), the Soviet invasion of Czechoslovakia (1968), the OPEC oil embargo (1973), Soviet-Afghan War (1979), the Gulf War (1990), the WTC bombing (1993), 9/11 (2011), the Iraq War (2003), and the Crimea annexation (2014). The median change over the 6 months following the start of a crisis has been +6.6% for equities (7 positive, 3 negative), .8% for the U.S. economy (7 positive, 3 negative), 1.4% for the consumer price index (10 higher), and +.26% basis points) for the yield on a 10-year U.S. Treasury note (6 increases, 4 declines). That is, based upon the positive performance of equities, inflation, interest rates, and the economy, it would appear as though the stock market-economic-interest rate cycles were not, on balance, derailed.

Currently, the S&P 500 is overvalued and the upside potential, given assumptions for interest rates, price-earnings ratios, and earnings, is limited for 2023 and 2024.