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

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Updates

The current bull market-economic expansion is the second shortest bull market and the second shortest economic expansion since WWII.¹ Important signals (the yield curve and the index of leading economic indicators) say that the cycle will continue.

Near Term

The U.S. and New York State economies have continued to recover from the March-April 2020 economic contraction although the performance of the financial markets has deteriorated partially in response to important shifts in public policy.

Performance of Important Financial Market Variables:

- The trends in broad stock market indexes (S&P 500, Russell 3000) and trends in interest rates
 remain positive although trends in important internal stock market variables and important
 internal fixed income variables are now negative/defensive.
- "Bear market" or less economically sensitive stock market sectors have generally outperformed "bull market" or more economically sensitive sectors. Less volatile large capitalization stocks have outperformed more volatile mid and small capitalization stocks. Less volatile value stocks have outperformed more volatile growth stocks.
- Quality spreads as measured by the difference between the yield on AAA-rated, BAA-rated, and below investment grade fixed income securities and 10-year U.S. Treasury notes have widened.
- The yield curve (the difference between the yield of a 2-year U.S. Treasury note and the yield of a 91-day U.S. Treasury bill) has narrowed/declined although, importantly, the yield curve as measured by the difference between the yield of a 10-year U.S. Treasury note and the yield of a 91-day U.S. Treasury bill has widened/increased. The Federal Reserve Bank of New York calculates the probability of a recession beginning in twelve months based upon this yield curve. The probability is 6.04% and remains very low. It is hard to make the case for a renewed bear market and recession when the probability is this low.

Performance of Important Monetary and Economic Variables:

The performance of important monetary and economic variables indicates that the performance of the financial markets has been rational or justified.

Monetary policy has been very accommodative but is now shifting toward restraint. The shift toward
restraint will consist of minimally three stages. The first stage ("tapering") is currently ending and will be
followed by stage two consisting (raising interest rates) which will be followed by stage three
(quantitative tightening).

¹ The 1980-1981 bull market lasted 12 months. The current bull market is at the 23-month mark.

- Fiscal policy has been stimulatory. Policy is currently shifting toward being "less stimulatory."
- Money growth and liquidity conditions (as we define them) are positive. When liquidity conditions are
 positive the average annual rate of return for the S&P 500 has been 14.6%% and when liquidity
 conditions are negative the return has been 2.8%.²
- As a result, leading economic indicators have improved for 19 of 20 months.

It is difficult to make the case for a bear market and recession when the yield curve indicates that the probability of a recession staring in 12 months is low, and leading economic indicators are rising.

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	Estim ate	Forecast	Forecast
	2020	2021	2022	2023	2024
Real GDP	-3.4%	5.7%	3.9%	2.6%	2.3%
Consumption	-3.8%	7.9%	3.2%	2.4%	2.1%
Investment	-5.5%	9.5%	9.4%	4.5%	3.7%
Exports	-13.6%	4.6%	9.1%	5.7%	4.4%
Imports	-8.9%	14.0%	7.7%	4.4%	3.6%
Government	2.5%	0.5%	-0.6%	0.6%	1.0%
Federal	5.0%	0.6%	0.2%	1.7%	1.6%
State	0.9%	0.4%	-1.1%	-0.2%	0.6%
Personal Income	6.5%	7.3%	0.2%	4.8%	6.7%
Wages & Salaries	1.3%	9.1%	9.2%	6.8%	5.4%
Corporate Profits	-5.2%	26.7%	14.8%	6.1%	5.9%
Productivity	1.3%	1.3%	1.9%	1.7%	1.5%
Employment	-5.8%	2.8%	3.8%	2.2%	1.4%
Unemployment Rate	8.1%	5.4%	3.3%	2.9%	3.0%
CPI-Urban	1.2%	4.7%	4.7%	3.2%	3.2%
S&P 500 Stock Price	10.5%	32.6%	8.2%	6.8%	1.6%
Treasury Bill Rate (3-Month)	0.1%	0.0%	0.7%	1.6%	2.5%
Treasury Note Rate (10-Year)	0.7%	1.6%	1.8%	2.1%	2.7%

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² Liquidity conditions= M2/nominal GDP (12-month rate of change).

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 \$)	-5.0%	5.3%	4.9%	3.3%	2.6%
Employment (CES)	-9.6%	1.2%	3.5%	1.8%	0.9%
Payroll gains (losses)	-940	102	309	171	88
Personal Income	5.8%	6.3%	2.9%	5.5%	5.6%
Total Wages (calendar year basis)	-1.1%	7.5%	7.3%	5.3%	3.3%
Base Wages					
Variable Compensation					
New York Area CPI (1)	1.7%	3.6%	3.8%	3.4%	3.3%
Source: Bureau of Labor Statistics, Bureau of Economic Analysis					

Comments on Forecast Details:

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

We anticipate that U.S. real Gross Domestic Product will expand 3.9% in 2022, and 2.6% in 2023, and 2.3% in 2024 after expanding 5.7% in 2021.

Quarter	Consensus-Real GDP	HJ Economics
2021-Q1	6.3%	6.3%
2021-Q2	6.7%	6.7%
2021-Q3	2.3%	2.3%
2021-Q4	6.9%	6.9%
2022-Q1	1.8%	2.4%
2022-Q2	4.0%	3.9%
2022-Q3	3.2%	3.4%
2022-Q4	2.6%	2.7%
2023-Q1	2.4%	2.5%
2023-Q2	2.3%	2.3%
2023-Q3	2.2%	2.2%
2023-Q4	2.1%	2.2%
2021 Average	5.7%	5.7%
2022 Average	3.7%	3.9%
2023 Average	2.6%	2.6%
Source: Blue Chip Eco	nomic Indicators; HJ Economics	

We estimate that nonfarm payroll employment will increase by on average 389,000 per month in 2022, 204,000 per month in 2023, and 181,000 in 2022 after increasing by on average 512,000 per month in 2021.

Quarter	Consensus-NFP	HJ Economics			
2021-Q1	421	421			
2021-Q2	484	484			
2021-Q3	565	565			
2021-Q4	578	578			
2022-Q1	400	382			
2022-Q2	328	436			
2022-Q3	260	429			
2022-Q4	219	310			
2023-Q1	200	252			
2023-Q2	168	220			
2023-Q3	160	183			
2023-Q4	NA	162			
2021	512	512			
2022	307	389			
2023	170	204			
Source: Bloomberg Economics; HJ Economics					

Output as measured by real GDP reached the pre-pandemic level in the second quarter of 2021 and employment will reach the pre-pandemic level in the third quarter of 2022.

We anticipate that consumer inflation will increase 4.7% in 2022, 3.2% in 2023, and 3.2% in 2024 after increasing 4.7% in 2021.³

Quarter	Consensus-CPI	HJ Economics-CPI			
2021-Q1	1.9%	1.9%			
2021-Q2	4.8%	4.8%			
2021-Q3	5.3%	5.3%			
2021-Q4	6.6%	6.7%			
2022-Q1	6.9%	6.4%			
2022-Q2	5.7%	5.1%			
2022-Q3	4.7%	4.3%			
2022-Q4	3.3%	3.1%			
2023-Q1	2.7%	3.2%			
2023-Q2	2.4%	3.3%			
2023-Q3	2.4%	3.2%			
2023-Q4	2.3%	3.2%			
2021	4.7%	4.7%			
2022	5.0%	4.7%			
2023	2.5%	3.2%			
Source: Blue Chip Economic Indicators, HJ Economics					

<u>Forecasts for Federal Reserve Policy, Interest Rates, and Stock Prices</u>

Both the consensus and the Hugh Johnson Economics forecast for inflation and Federal Reserve interest rate policy state that the Federal Reserve will lean toward restraint in 2022, 2023, and 2024. We anticipate that they will raise interest rates 4 times in 2022, 2023, and 2024. In addition, we anticipate

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³ Q4/Q4

that they will begin to reduce balance sheet holdings of financial assets in June 2022 and will continue reductions until 2024.

Quarter	Consensus Fed Funds Rate	HJ Economics Fed Funds Rate
2021-Q1	0.125	0.125
2021-Q2	0.125	0.125
2021-Q3	0.125	0.125
2021-Q4	0.125	0.125
2022-Q1	0.375	0.375
2022-Q2	0.625	0.625
2022-Q3	0.875	0.875
2022-Q4	1.125	1.125
2023-Q1	1.375	1.375
2023-Q2	1.625	1.625
2023-Q3	1.875	1.875
2023-Q4	2.125	2.125
2021	0.125	0.125
2022	0.750	0.750
2023	1.750	1.750
Source for Conse	nsus: Bloomberg Survey	

The forecast for Federal Reserve policy implies that short-term and longer-term interest rates will increase in 2022, 2023, and 2024. More specifically, we anticipate that the yield on a 2-year U.S. Treasury note (currently 1.465%) will average 1.37% (Q4 2022), 2.10% (Q4 2023), and 2.72% (Q4 2024) and anticipate that the yield on a 10-year U.S. Treasury note (currently 1.92%) will average 1.83% (Q4 2022), 2.35% (Q4 2023), and 2.81% (Q4 2024).⁴

Quarter	Consensus 2-Year	HJ Economics 2-Year
2021-Q1	0.16	0.16
2021-Q2	0.25	0.25
2021-Q3	0.28	0.28
2021-Q4	0.73	0.73
2022-Q1	1.30	1.18
2022-Q2	1.45	1.24
2022-Q3	1.58	1.53
2022-Q4	1.69	1.37
2023-Q1	1.85	1.53
2023-Q2	1.99	1.70
2023-Q3	2.09	1.86
2023-Q4	2.20	2.10
2021	0.35	0.35
2022	1.51	1.33
2023	2.03	1.80
Source: Bloom be	rg Monthly Survey; HJ Eco	nomics

⁴ Current yield 2-year U.S. Treasury bill 1.55%. Current yield 10-year U.S. Treasury note 1.98%.

Quarter	Consensus 10-Year	HJ Economics 10-Year
2021-Q1	1.74	1.74
2021-Q2	1.47	1.47
2021-Q3	1.49	1.49
2021-Q4	1.65	1.51
2022-Q1	1.90	1.78
2022-Q2	2.05	1.80
2022-Q3	2.15	1.98
2022-Q4	2.25	1.83
2023-Q1	2.30	1.94
2023-Q2	2.40	2.06
2023-Q3	2.45	2.18
2023-Q4	2.50	2.35
2021	1.59	1.55
2022	2.09	1.85
2023	2.41	2.13
Source: Bloom be	erg; HJ Economics	

We anticipate that S&P 500 earnings will expand 7.7% in 2022, 9.9% in 2023, and 1.1% in 2024.

Quarter	S&P 500 Operating Earnings	Y/Y%	10-Year UST	Price-Earnings	S&P 500
2021-Q1	\$158.38	-0.1%	1.74	24.4	3863
2021-Q2	\$182.98	26.0%	1.47	22.9	4183
2021-Q3	\$198.01	39.7%	1.49	22.3	4421
2021-Q4	\$209.06	46.8%	1.51	22.0	4600
2022-Q1	\$211.75	33.7%	1.78	21.5	4555
2022-Q2	\$214.57	17.3%	1.80	21.3	4570
2022-Q3	\$219.25	10.7%	1.98	21.1	4622
2022-Q4	\$225.15	7.7%	1.83	20.9	4712
2023-Q1	\$230.71	9.0%	1.94	20.9	4810
2023-Q2	\$236.26	10.1%	2.06	20.7	4883
2023-Q3	\$241.82	10.3%	2.18	20.6	4973
2023-Q4	\$247.37	9.9%	2.35	20.4	5052
Sources: HJ Econ	omics; Lipper Alpha Insight, Bloomberg	Analytics			

The U.S. stock market (4225.5) is currently undervalued or 7.8% below the level it "should" average in the current quarter. The upside potential for the S&P 500 between now and Q4 2022 is 11.52%. The upside potential for the S&P 500 between now and Q4 2023 is 19.55%. The upside potential for the S&P 500 between now and Q4 2024 is 18.25%.

New York State Economy and Tax Receipts

We anticipate that the New York State economy will expand 4.9% in 2022, 3.3% in 2023, and 3.4% in 2024 after expanding 5.3% in 2020. That is, the economy of New York State, as measured by real Gross State Product, recovered to the levels of Q4 2019 in Q4 2021.

Gross State Product (2021-2023)						
State	2021	2022	2023	2022-2023		
US	5.7%	3.9%	2.6%	2.7%		
Rhode Island	5.5%	5.2%	3.3%	3.6%		
New York	5.3%	4.9%	3.3%	3.4%		
Vermont	3.5%	3.8%	3.1%	3.2%		
Connecticut	4.2%	4.2%	2.9%	3.0%		
Massachusetts	6.4%	4.4%	2.8%	2.9%		
Maine	5.2%	3.1%	2.1%	2.1%		
New Hampshire	8.2%	2.2%	2.0%	1.8%		
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New England	5.8%	4.2%	2.8%	2.8%		
Bureau of Economic Ar	Bureau of Economic Analysis					

We anticipate that New York State employment will increase 3.5% in 2022, 1.8% in 2023, and .9% in 2024 after increasing 1.2% in 2021. That is, we anticipate that New York State will recover 670,000 jobs in 2021-2024 after eliminating 939,000 jobs in 2020.

State Nonfarm Payroll Employment (2021-2023)						
State	2021	2022	2023	2022-2023		
Massachusetts	3.1%	7.4%	2.9%	3.2%		
Rhodelsland	2.6%	5.8%	2.0%	2.8%		
NY	1.2%	3.5%	1.8%	2.7%		
New Hampshire	2.5%	2.6%	1.4%	1.7%		
Maine	2.2%	1.4%	1.0%	1.5%		
Vermont	1.4%	-1.3%	-1.4%	1.1%		
Connecticut	1.4%	3.3%	0.6%	0.4%		
US	4.5%	3.1%	1.6%	2.4%		
Source: Bureau of Labor						

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

Changes in Nonfarm Payroll Employment (000)						
State	2020	2021	2022	2023	Total Recovered	
US	-9416	5646	4847	2993	4070	
New York	-940	102	309	171	582	
Massachusetts	-314	106	259	110	475	
Connecticut	-116	23	53	10	86	
Rhode Island	-39	12	28	10	50	
New Hampshire	-40	16	17	10	43	
Maine	-36	13	8	6	28	
Vermont	-27	4	-4	-4	-4	
Source: Bureau of Labo	r Statistics (Anni	ual Totals)(0	00)			

We anticipate that New York State tax receipts will expand as follows in fiscal years 2021-22, 2022-23, and 2023-24. 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.

New York State Revenues (\$billions)				
State	2021-22	2022-23	2023-24	
total	\$141,624	\$142,684	\$145,817	
pit	\$68,137	\$71,863	\$74,010	
user	\$19,594	\$19,418	\$19,757	
business	\$17,605	\$18,157	\$18,874	
sales	\$22,608	\$19,121	\$19,311	
corpfranchise	\$7,252	\$7,946	\$7,979	

New York State Revenues (% Increase)				
State	2021-22	2022-23	2023-24	
total	1.9%	24.0%	-3.4%	
pit	2.4%	25.4%	-11.3%	
user	-2.2%	19.2%	0.9%	
business	7.7%	25.3%	4.4%	
sales	-3.9%	22.4%	-1.4%	
corpfranchise	2.7%	55.9%	14.8%	

Risks:

There are risks for policymakers:

- 1. Monetary policy (a shift toward 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." ⁵

⁵ David Reifschneider and Peter Tulip: "Gaging the Uncertainty of the Economic Outlook Using Historical Forecasting Errors: The Federal Reserve's Approach." February 2017.

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

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 meaningfully undervalued and the upside potential, given assumptions for interest rates, price-earnings ratios, and earnings, is equally meaningful.