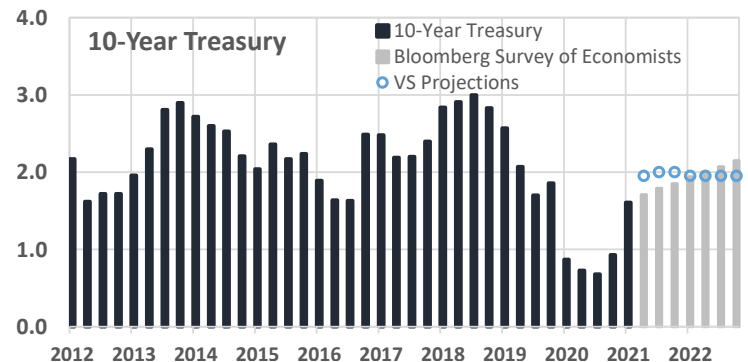
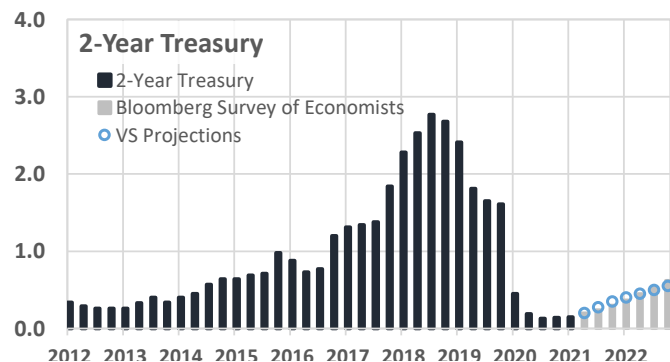
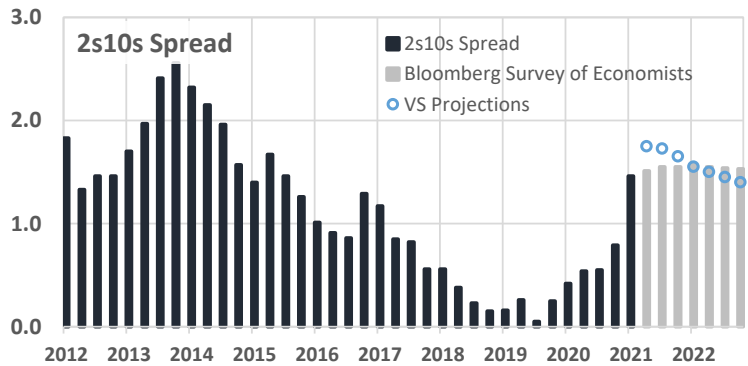
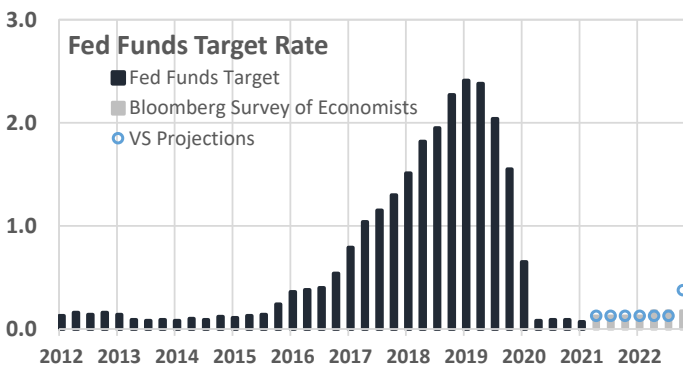
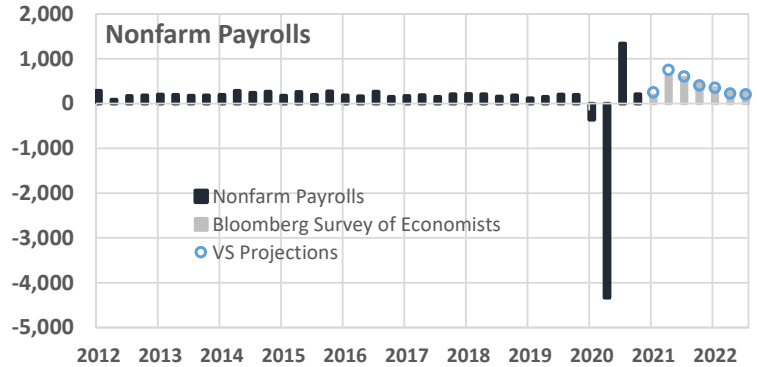
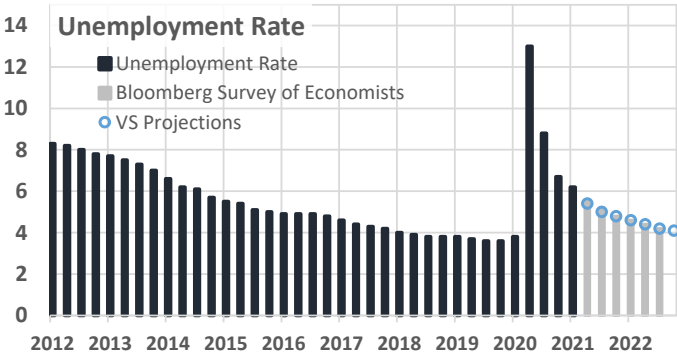
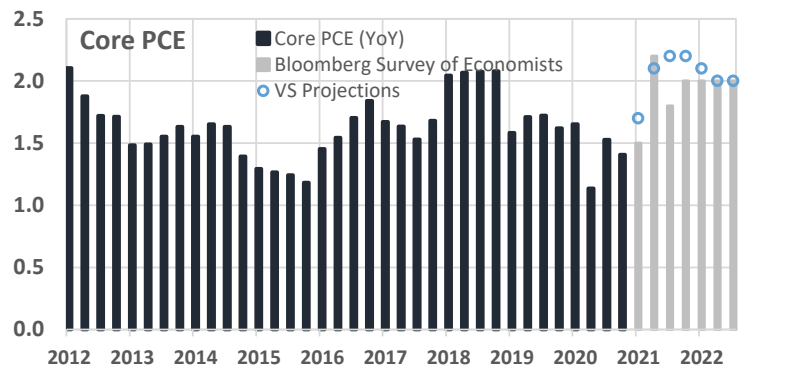
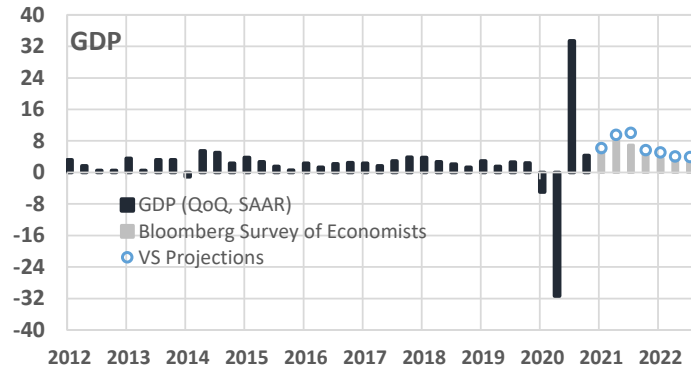


Vining Sparks Economic and Interest Rate Projections

April 2021

	Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
GDP (QoQ, SAAR)	6.1	9.5	10.0	5.6	5.0	4.0	7.6	4.0
Headline CPI (YoY)	2.1	3.0	2.6	2.6	2.2	2.1	2.5	2.1
Core PCE (YoY)	1.7	2.1	2.2	2.2	2.1	2.0	2.2	2.0
Unemployment Rate	6.0	5.4	5.0	4.8	4.6	4.4	5.4	4.5
Nonfarm Payrolls (Monthly)	250	750	600	400	350	220	513	233

	Q121	Q221	Q321	Q421	Q122	Q222	Q322	Q422
Fed Funds Target	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.38
2-Year Treasury Yield	0.15	0.20	0.28	0.35	0.40	0.45	0.50	0.55
10-Year Treasury Yield	1.75	1.95	2.00	2.00	1.95	1.95	1.95	1.95
30-Year Treasury Yield	2.43	2.68	2.72	2.70	2.62	2.60	2.59	2.57
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.50
30-Year Mortgage Rate	3.55	3.80	3.90	3.95	3.90	3.90	3.90	3.90



Bloomberg Survey of Economists

April BBG Survey

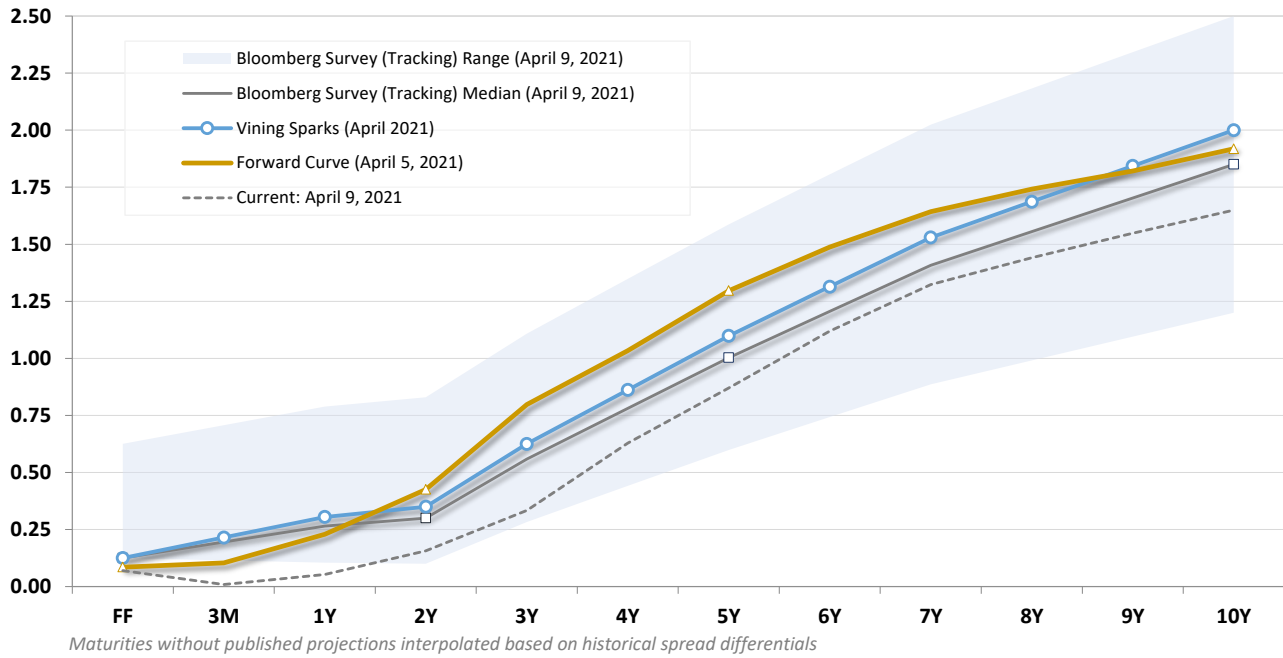
GDP		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
Vining Sparks Projections	4/9/2021	6.1	9.5	10.0	5.6	5.0	4.0	7.6	4.0
April BBG Survey	4/9/2021	5.4	8.1	7.0	4.8	3.7	3.0	6.2	4.1
March BBG Survey	3/5/2021	4.8	6.8	7.0	4.5	3.3	2.9	5.5	4.0
Personal Consumption		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
Vining Sparks Projections	4/9/2021	7.1	9.1	6.7	4.7	4.4	3.9	6.8	4.3
April BBG Survey	4/9/2021	7.5	8.4	7.0	5.0	3.7	3.0	6.9	4.4
March BBG Survey	3/5/2021	5.1	6.9	6.9	4.8	3.5	3.0	6.0	4.2
Private Investment		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
April BBG Survey	4/9/2021	5.6	9.4	8.7	6.4	4.5	4.1	12.1	5.6
March BBG Survey	3/5/2021	6.9	7.7	7.5	6.1	4.5	4.1	11.1	5.0
Government Expenditures		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
April BBG Survey	4/9/2021	3.0	3.2	2.4	2.0	1.6	1.4	1.5	1.8
March BBG Survey	3/5/2021	2.2	3.0	2.5	1.4	1.0	1.1	1.3	1.5
Headline CPI		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
Vining Sparks Projections	4/9/2021	2.1	3.0	2.6	2.6	2.2	2.1	2.5	2.1
April BBG Survey	4/9/2021	1.8	3.1	2.6	2.6	2.2	2.2	2.5	2.1
March BBG Survey	3/5/2021	1.8	2.9	2.4	2.4	2.2	2.2	2.3	2.1
Core PCE		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
Vining Sparks Projections	4/9/2021	1.7	2.1	2.2	2.2	2.1	2.0	2.2	2.0
April BBG Survey	4/9/2021	1.5	2.2	1.9	2.0	2.0	2.0	1.9	2.0
March BBG Survey	3/5/2021	1.5	2.1	1.8	1.9	1.9	1.9	1.8	1.9
Unemployment Rate		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
Vining Sparks Projections	4/9/2021	6.0	5.4	5.0	4.8	4.6	4.4	5.4	4.5
April BBG Survey	4/9/2021	6.3	5.6	5.2	4.8	4.6	4.4	5.5	4.3
March BBG Survey	3/5/2021	6.3	5.9	5.5	5.1	4.8	4.6	5.7	4.5
Nonfarm Payroll (Monthly)		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
Vining Sparks Projections	4/9/2021	250	750	600	400	350	220	513	233
April BBG Survey	4/9/2021	177	634	593	485	350	290	564	275
March BBG Survey	3/5/2021	173	530	552	461	350	300	379	296
New Home Sales		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
April BBG Survey	4/9/2021	890	929	943	943	929	911	930	928
March BBG Survey	3/5/2021	900	938	899	874	865	871	927	871
Existing Home Sales		Q121	Q221	Q321	Q421	Q122	Q222	2021	2022
April BBG Survey	4/9/2021	6,400	6,400	6,300	6,200	6,100	6,200	6,300	6,300
March BBG Survey	3/5/2021	6,500	6,300	6,200	6,200	6,100	6,000	6,300	6,000
Fed Funds Target ¹		Q121	Q221	Q321	Q421	Q122	Q222	Q322	Q422
Vining Sparks Projections	4/9/2021	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.38
April BBG Survey	4/9/2021	0.13	0.13	0.13	0.13	0.13	0.18	0.18	0.18
March BBG Survey	3/5/2021	0.13	0.13	0.13	0.13	0.18	0.18	0.18	0.23
2-Year Treasury ¹		Q121	Q221	Q321	Q421	Q122	Q222	Q322	Q422
Vining Sparks Projections	4/9/2021	0.15	0.20	0.28	0.35	0.40	0.45	0.50	0.55
April BBG Survey	4/9/2021	0.15	0.20	0.24	0.30	0.37	0.45	0.53	0.62
March BBG Survey	3/5/2021	0.15	0.20	0.25	0.31	0.39	0.46	0.55	0.62
10-Year Treasury ¹		Q121	Q221	Q321	Q421	Q122	Q222	Q322	Q422
Vining Sparks Projections	4/9/2021	1.75	1.95	2.00	2.00	1.95	1.95	1.95	1.95
April BBG Survey	4/9/2021	1.61	1.71	1.79	1.85	1.94	2.00	2.07	2.15
March BBG Survey	3/5/2021	1.61	1.58	1.63	1.71	1.80	1.88	1.95	2.02

*Sources: Bloomberg Survey of Economists, ¹ Economists' Real-Time Updates, Vining Sparks

Year-End Rate Projections

April 2021

YE2021 Treasury Yield Projections



Bloomberg Survey Tracking Index and Vining Projections

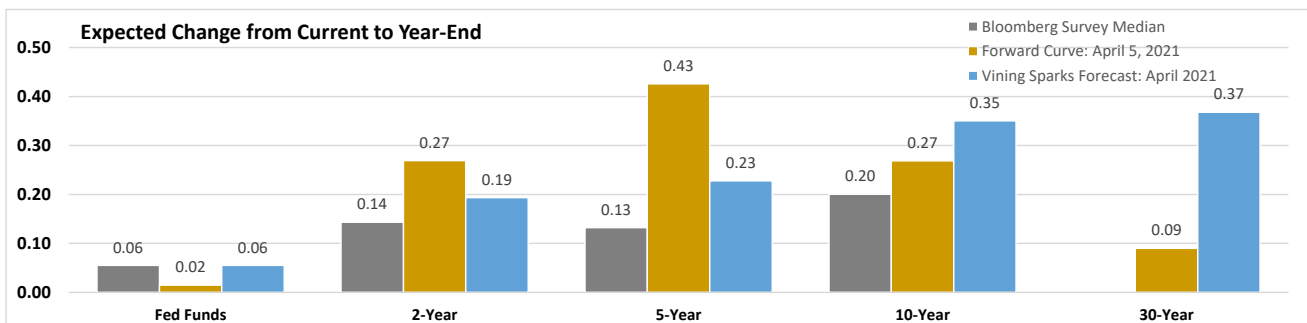
Interest Rate Projections

April 5, 2021

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
Bloomberg Survey - Tracking: April 9, 2021									
Low Forecast	0.13			0.10		0.60		1.20	
Median Forecast	0.13			0.30		1.00		1.85	
High Forecast	0.63			0.83		1.59		2.50	
Forward Curve: April 5, 2021	0.09	0.10	0.23	0.43	0.80	1.30	1.64	1.92	2.42
Vining Sparks Forecast: April 2021	0.13	0.22	0.31	0.35	0.63	1.10	1.53	2.00	2.70
Current: April 9, 2021	0.07	0.01	0.05	0.16	0.33	0.87	1.32	1.65	2.33

Projected Δ by Year-End

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
Bloomberg Survey - Tracking: April 9, 2021									
Low Forecast	0.06			-0.06		-0.27		-0.45	
Median Forecast	0.06			0.14		0.13		0.20	
High Forecast	0.56			0.67		0.72		0.85	
Forward Curve: April 5, 2021	0.02	0.10	0.18	0.27	0.46	0.43	0.32	0.27	0.09
Vining Sparks Forecast: April 2021	0.06	0.21	0.25	0.19	0.29	0.23	0.21	0.35	0.37

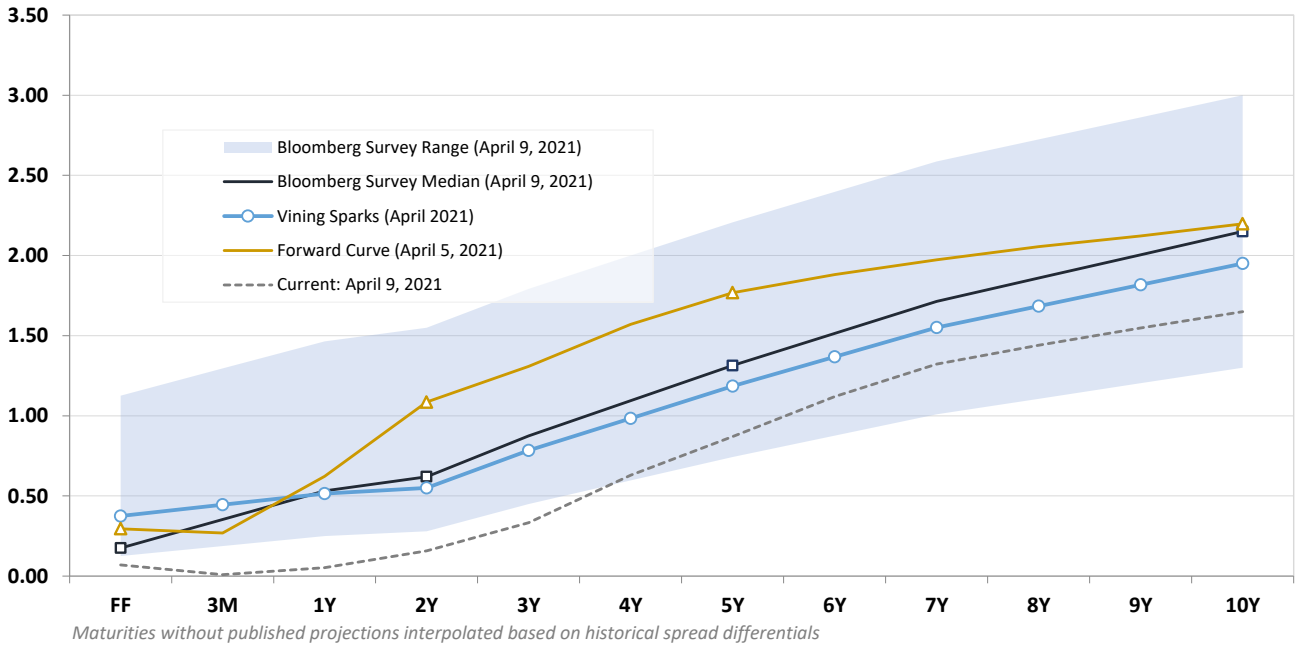


Sources: Bloomberg Survey of Economists Real-Time Tracking Index, Vining Sparks

Year-End Rate Projections

April 2021

YE2022 Treasury Yield Projections



Bloomberg Survey Tracking Index and Vining Projections

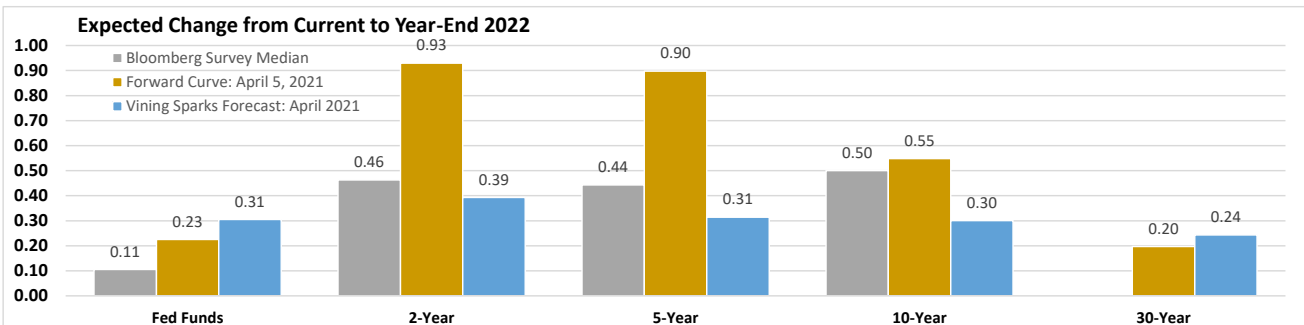
Interest Rate Projections

April 5, 2021

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
Bloomberg Survey - Tracking: April 9, 2021									
Low Forecast	0.13			0.28		0.74		1.30	
Median Forecast	0.18			0.62		1.31		2.15	
High Forecast	1.13			1.55		2.21		3.00	
Forward Curve: April 5, 2021	0.30	0.27	0.62	1.09	1.31	1.77	1.97	2.20	2.52
Vining Sparks Forecast: April 2021	0.38	0.45	0.52	0.55	0.78	1.19	1.55	1.95	2.57
Current: April 9, 2021	0.07	0.01	0.05	0.16	0.33	0.87	1.32	1.65	2.33

Projected Δ by Year-End

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
Bloomberg Survey - Tracking: April 9, 2021									
Low Forecast	0.06			0.12		-0.13		-0.35	
Median Forecast	0.11			0.46		0.44		0.50	
High Forecast	1.06			1.39		1.34		1.35	
Forward Curve: April 5, 2021	0.23	0.26	0.57	0.93	0.97	0.90	0.65	0.55	0.20
Vining Sparks Forecast: April 2021	0.31	0.44	0.46	0.39	0.45	0.31	0.23	0.30	0.24



Sources: Bloomberg Survey of Economists Real-Time Tracking Index, Vining Sparks

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