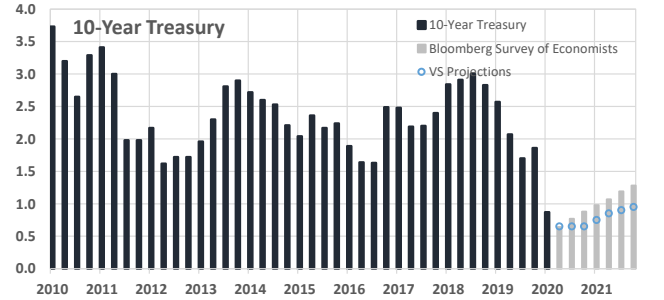
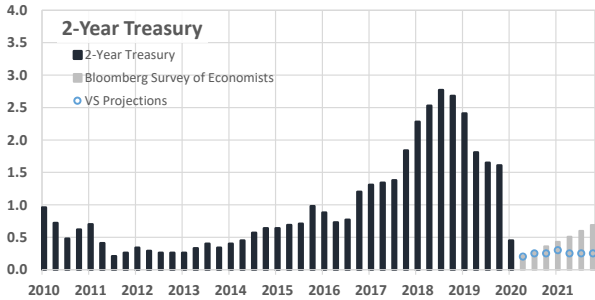
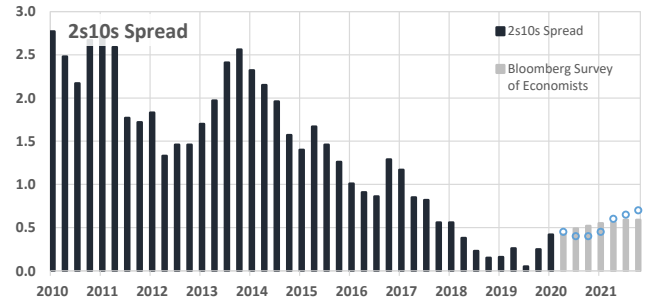
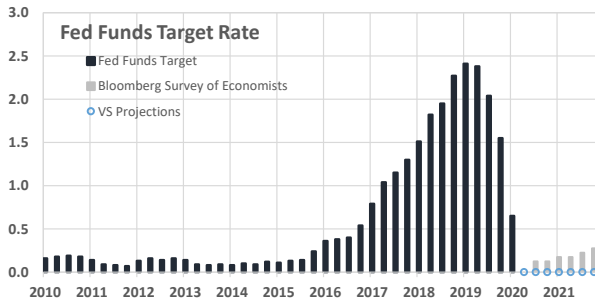
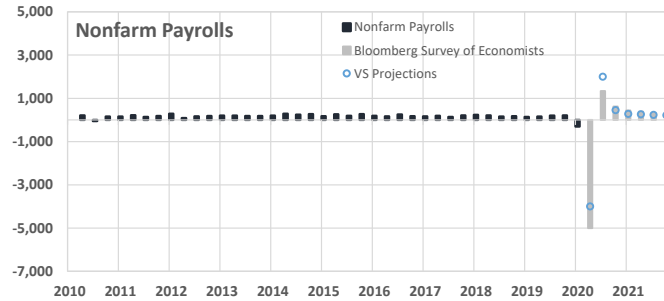
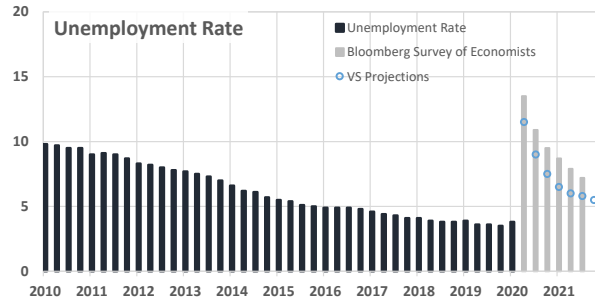
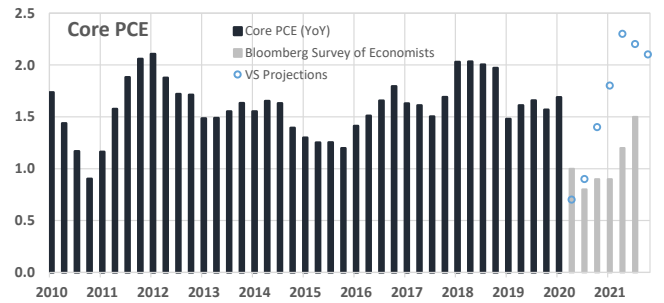
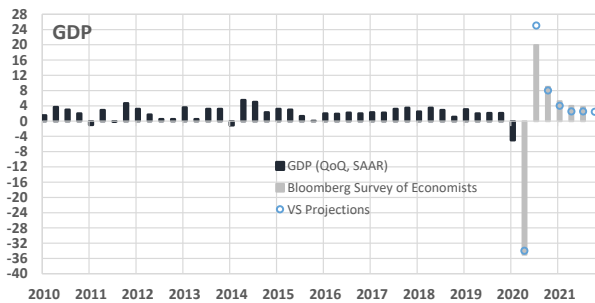


Vining Sparks Economic and Interest Rate Projections

June 2020

	Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
GDP (QoQ, SAAR)	-34.0	25.0	8.0	4.0	2.5	2.5	-5.5	2.9
Headline CPI (YoY)	-0.2	0.0	1.1	1.8	2.8	2.6	0.7	2.7
Core PCE (YoY)	0.7	0.9	1.4	1.8	2.3	2.2	1.2	2.4
Unemployment Rate	11.5	9.0	7.5	6.5	6.0	5.8	7.5	5.6
Nonfarm Payrolls (Monthly)	(4,000)	2,000	450	280	260	240	-300	250

	Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122
Fed Funds Target	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-Year Treasury Yield	0.20	0.25	0.25	0.30	0.25	0.25	0.25	0.25
10-Year Treasury Yield	0.65	0.65	0.65	0.75	0.85	0.90	0.95	1.00
30-Year Treasury Yield	1.30	1.21	1.16	1.25	1.45	1.53	1.61	1.70
Prime Rate	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13
30-Year Mortgage Rate	3.00	2.75	2.65	2.65	2.65	2.70	2.75	2.80



Sources: ¹ Bloomberg Survey of Economists, ² Economists' Real-Time Tracking Updates, Vining Sparks

Bloomberg Survey of Economists

June Survey

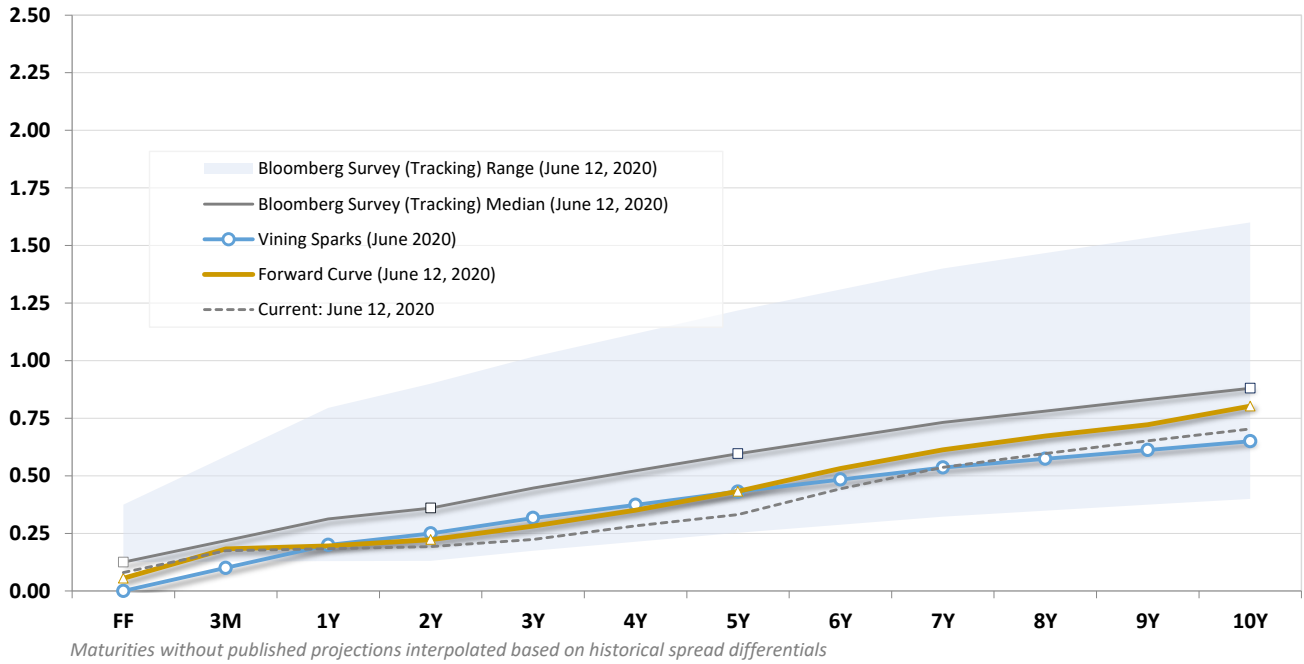
GDP		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
Vining Sparks Projections	6/12/2020	-34.0	25.0	8.0	4.0	2.5	2.5	-5.5	2.9
June Survey	6/12/2020	-35.0	19.8	8.8	5.2	4.0	3.7	-5.7	4.0
May Survey	5/15/2020	-32.7	14.8	7.5	5.0	4.1	3.6	-5.7	3.9
Personal Consumption		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
June Survey	6/12/2020	-40.4	25.0	10.0	4.5	4.0	3.7	-6.4	4.3
May Survey	5/15/2020	-38.7	15.0	10.0	4.5	4.2	3.3	-6.8	4.0
Private Investment		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
June Survey	6/12/2020	-34.6	-1.8	7.6	11.4	7.3	6.7	-9.5	5.7
May Survey	5/15/2020	-42.8	-2.4	12.2	11.1	9.0	5.3	-10.5	5.5
Government Expenditures		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
June Survey	6/12/2020	2.3	3.3	2.5	1.5	1.5	1.8	2.0	1.5
May Survey	5/15/2020	2.6	3.5	2.1	1.5	1.5	1.5	2.2	1.8
Headline CPI		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
Vining Sparks Projections	6/12/2020	-0.2	0.0	1.1	1.8	2.8	2.6	0.7	2.7
June Survey	6/12/2020	0.4	0.5	0.5	0.8	1.8	1.8	0.8	1.6
May Survey	5/15/2020	0.4	0.4	0.3	0.8	1.9	2.0	0.8	1.7
Core PCE		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
Vining Sparks Projections	6/12/2020	0.7	0.9	1.4	1.8	2.3	2.2	1.2	2.4
June Survey	6/12/2020	0.9	0.7	0.7	0.8	1.2	1.4	1.0	1.3
May Survey	5/15/2020	1.3	1.0	0.9	0.9	1.2	1.4	1.2	1.3
Unemployment Rate		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
Vining Sparks Projections	6/12/2020	11.5	9.0	7.5	6.5	6.0	5.8	7.5	5.6
June Survey	6/12/2020	13.4	10.7	9.5	8.7	7.9	7.2	9.5	7.5
May Survey	5/15/2020	16.1	12.6	10.3	9.0	8.0	7.4	11.0	7.9
Nonfarm Payroll (Monthly)		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
Vining Sparks Projections	6/12/2020	(4,000)	2,000	450	280	260	240	-300	250
June Survey	6/12/2020	(5,060)	1500	752	468	399	310	-789	338
May Survey	5/15/2020	-7850	1314	998	508	468	300	-1260	451
New Home Sales		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
June Survey	6/12/2020	626	642	648	651	655	664	655	656
May Survey	5/15/2020	449	583	578	578	617	665	564	642
Existing Home Sales		Q220	Q320	Q420	Q121	Q221	Q321	2020	2021
June Survey	6/12/2020	4,300	4,800	4,900	5,100	5,200	5,300	4,800	5,300
May Survey	5/15/2020	4,100	4,500	4,900	4,900	5,200	5,300	4,700	5,200
Fed Funds Target ¹		Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122
Vining Sparks Projections	6/12/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June Survey	6/12/2020	0.13	0.13	0.13	0.18	0.18	0.23	0.28	0.43
May Survey	5/15/2020	0.13	0.13	0.13	0.18	0.18	0.23	0.28	0.43
2-Year Treasury ¹		Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122
Vining Sparks Projections	6/12/2020	0.20	0.25	0.25	0.30	0.25	0.25	0.25	0.25
June Survey	6/12/2020	0.22	0.28	0.36	0.43	0.51	0.60	0.69	0.79
May Survey	5/15/2020	0.22	0.28	0.36	0.43	0.51	0.60	0.69	0.79
10-Year Treasury ¹		Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122
Vining Sparks Projections	6/12/2020	0.65	0.65	0.65	0.75	0.85	0.90	0.95	1.00
June Survey	6/12/2020	0.64	0.77	0.88	0.98	1.07	1.19	1.28	1.40
May Survey	5/15/2020	0.64	0.77	0.88	0.98	1.07	1.19	1.28	1.40

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

Year-End Rate Projections

June 2020

YE2020 Treasury Yield Projections



Bloomberg Survey Tracking Index and Vining Projections

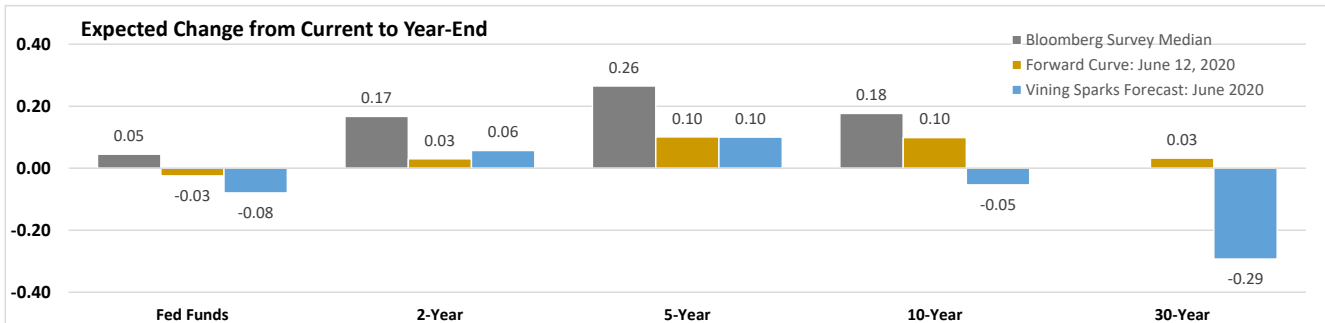
Interest Rate Projections

June 12, 2020

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
Bloomberg Survey - Tracking: June 12, 2020									
Low Forecast	0.13			0.13		0.25		0.40	
Median Forecast	0.13			0.36		0.60		0.88	
High Forecast	0.38			0.90		1.22		1.60	
Forward Curve: June 12, 2020	0.06	0.18	0.20	0.22	0.28	0.43	0.61	0.80	1.49
Vining Sparks Forecast: June 2020	0.00	0.10	0.20	0.25	0.32	0.43	0.54	0.65	1.16
Current: June 12, 2020	0.08	0.18	0.18	0.19	0.22	0.33	0.54	0.70	1.46

Projected Δ by Year-End

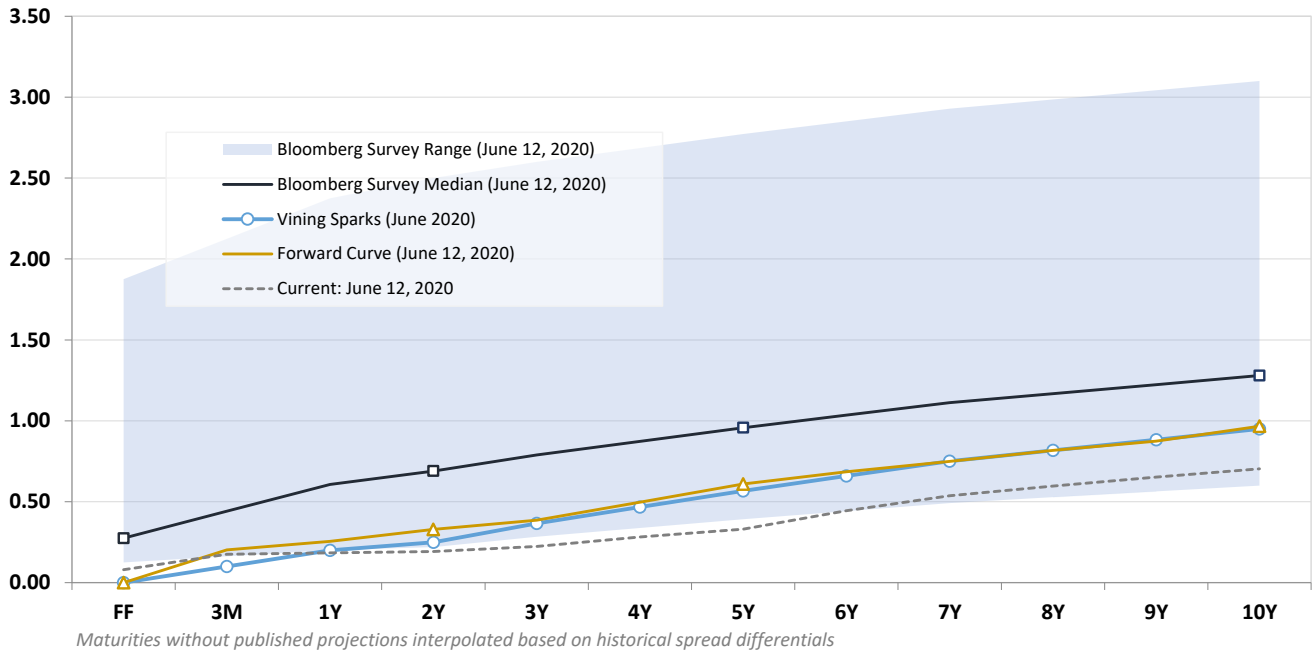
	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
Bloomberg Survey - Tracking: June 12, 2020									
Low Forecast	0.05			-0.06		-0.08		-0.30	
Median Forecast	0.05			0.17		0.26		0.18	
High Forecast	0.30			0.71		0.89		0.90	
Forward Curve: June 12, 2020	-0.03	0.01	0.01	0.03	0.06	0.10	0.08	0.10	0.03
Vining Sparks Forecast: June 2020	-0.08	-0.08	0.02	0.06	0.09	0.10	0.00	-0.05	-0.29



Year-End Rate Projections

June 2020

YE2021 Treasury Yield Projections



Bloomberg Survey Tracking Index and Vining Projections

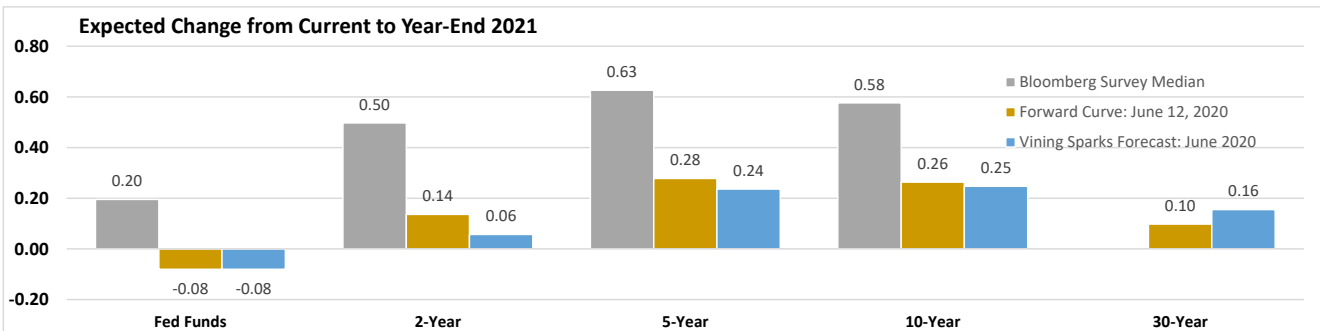
Interest Rate Projections

June 12, 2020

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
Bloomberg Survey - Tracking: June 12, 2020									
Low Forecast	0.13			0.22		0.39		0.60	
Median Forecast	0.28			0.69		0.96		1.28	
High Forecast	1.88			2.50		2.77		3.10	
Forward Curve: June 12, 2020	0.00	0.20	0.25	0.33	0.39	0.61	0.75	0.97	1.56
Vining Sparks Forecast: June 2020	0.00	0.10	0.20	0.25	0.37	0.57	0.75	0.95	1.61
Current: June 12, 2020	0.08	0.18	0.18	0.19	0.22	0.33	0.54	0.70	1.46

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: June 12, 2020									
Low Forecast	0.05			0.03		0.06		-0.10	
Median Forecast	0.20			0.50		0.63		0.58	
High Forecast	1.80			2.31		2.44		2.40	
Forward Curve: June 12, 2020	-0.08	0.03	0.07	0.14	0.16	0.28	0.21	0.26	0.10
Vining Sparks Forecast: June 2020	-0.08	-0.08	0.02	0.06	0.14	0.24	0.21	0.25	0.16



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

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