

### August 2019 Update

#### Trade Discussions Take Outlook to Brink

For the third time in four months, we have lowered our short- and medium-term interest rate expectations as trade negotiations have devolved more than expected and global uncertainty has increased.

Coming into the year, our basecase view was that a trade policy truce, at the very least, would be reached in 2019. We expected this to pave the way for the U.S. expansion to continue and interest rates to remain between 2.50% and 3.00%.

However, a trade deal now looks improbable and a truce increasingly difficult as both U.S. and Chinese officials have fully entrenched themselves in seemingly intractable positions. Particularly challenging today, the potential outcomes for U.S.-China trade policy are binary, difficult to handicap, and result in markedly divergent interest rate paths.

As highlighted in our *2019 Outlook*, “the largest risk to our basecase forecast is found in trade policy... failure to reach a trade agreement could lead to a marked slowdown in global and U.S. growth. In such a scenario, interest rates could move meaningfully lower than expected. This will be a key development to watch.” Going forward, that risk appears to be materializing with the only questions now being the degree of slowdown and how much interest rates will decline. Our forecast revision now presumes a détente in trade rhetoric in the second half of the year, albeit short of a new trade agreement.

From an economic standpoint, the uncertainty has already taken a small toll on the outlook. We have lowered our expectation for full-year-2019 growth 0.2% to 2.2%. Moreover, we continue to expect growth to slow in 2020, down to 1.9% for the full year. The consumer has, thus far, sufficiently buoyed the U.S. economy and government spending has proven to be a stronger tailwind than expected (state and local spending has outpaced expectations). The risks to stability, however, have increased with manufacturing output slowing, business investment remaining tepid, and the global backdrop worsening. While our basecase expectation does not foresee an imminent recession, the risk remains more acute so long as trade policy remains unresolved.

As for interest rates, we now expect the Fed to cut 75 basis points (including the 25-basis point cut in July) to a target range of 1.50-1.75%. If trade discussions deteriorate further, a larger policy response would likely become necessary. Longer maturity interest rates have already been driven lower by a combination of the riskier economic outlook, the revised expectation for monetary policy, and a synchronized shift to easing from other central banks. These factors are likely to continue weighing on interest rates until there is less policy uncertainty.

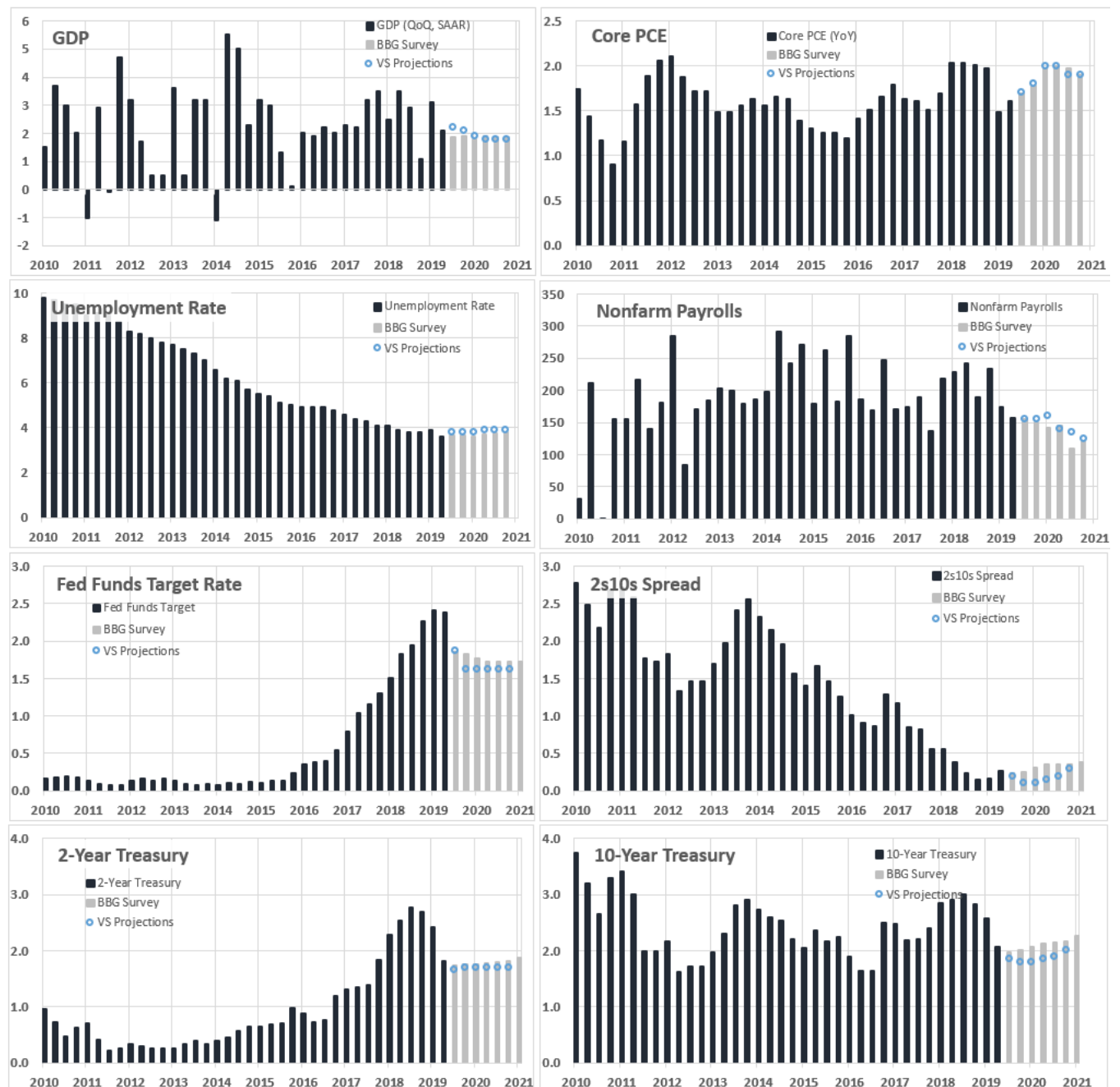
Vining Sparks Projections

August 2019

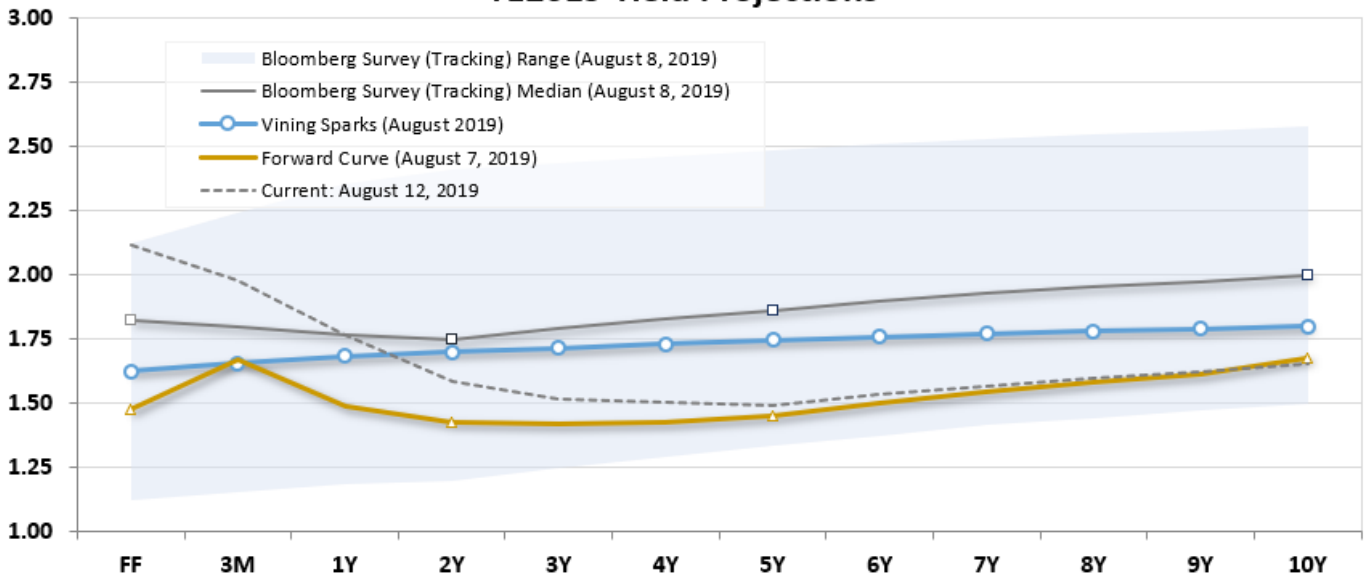
	Q319	Q419	Q120	Q220	Q320	Q420	2019	2020
GDP (QoQ, SAAR)	2.2	2.1	1.9	1.8	1.8	1.8	2.2	1.9
Headline CPI (YoY)	1.8	1.9	1.9	1.9	2.0	2.0	1.9	1.9
Core PCE (YoY)	1.7	1.8	2.0	2.0	1.9	1.9	1.8	1.9
Unemployment Rate	3.8	3.8	3.8	3.9	3.9	3.9	3.8	3.9
Nonfarm Payrolls (Monthly)	155	155	160	140	135	125	162	135

	Q319	Q419	Q120	Q220	Q320	Q420	Q121	Q221
Fed Funds Target	1.88	1.63	1.63	1.63	1.63	1.63	1.63	1.63
2-Year Treasury Yield	1.65	1.70	1.70	1.70	1.70	1.70	1.70	1.70
10-Year Treasury Yield	1.85	1.80	1.80	1.85	1.90	2.00	2.00	2.00
30-Year Treasury Yield	1.98	1.87	1.87	1.95	2.03	2.20	2.20	2.20
Prime Rate	5.00	4.75	4.75	4.75	4.75	4.75	4.75	4.75
30-Year Mortgage Rate	3.80	3.70	3.65	3.65	3.65	3.70	3.70	3.70

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



### YE2019 Yield Projections



Maturities without published projections interpolated based on historical spread differentials

Bloomberg Survey Tracking Index and Vining Projections

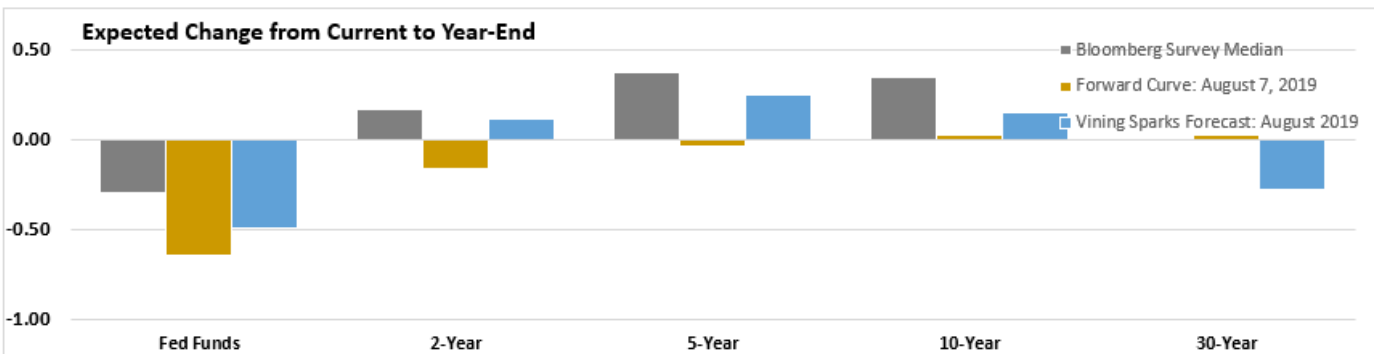
#### Interest Rate Projections

August 7, 2019

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
<b>Bloomberg Survey - Tracking: August 8, 2019</b>									
Low Forecast	1.13			1.20		1.34		1.50	
Median Forecast	1.83			1.75		1.86		2.00	
High Forecast	2.13			2.41		2.49		2.58	
Forward Curve: August 7, 2019	1.48	1.67	1.49	1.43	1.42	1.45	1.54	1.68	2.17
Vining Sparks Forecast: August 2019	1.63	1.66	1.69	1.70	1.72	1.75	1.77	1.80	1.87
<b>Current: August 12, 2019</b>	<b>2.12</b>	<b>1.98</b>	<b>1.77</b>	<b>1.59</b>	<b>1.52</b>	<b>1.49</b>	<b>1.57</b>	<b>1.65</b>	<b>2.15</b>

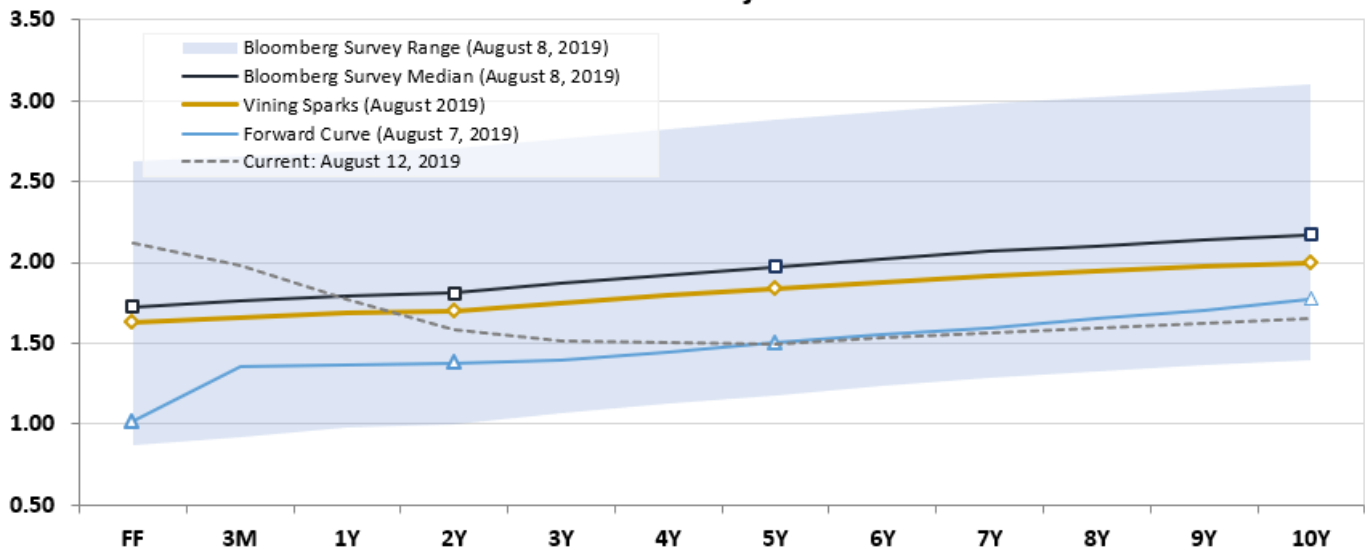
#### Projected Δ by Year-End

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
<b>Bloomberg Survey - Tracking: August 8, 2019</b>									
Low Forecast	-1.00			-0.39		-0.16		-0.15	
Median Forecast	-0.30			0.16		0.37		0.35	
High Forecast	0.00			0.82		0.99		0.93	
Forward Curve: August 7, 2019	-0.65	-0.31	-0.28	-0.16	-0.10	-0.04	-0.02	0.02	0.02
Vining Sparks Forecast: August 2019	-0.50	-0.33	-0.08	0.11	0.20	0.25	0.21	0.15	-0.28



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

### YE2020 Yield Projections



Maturities without published projections interpolated based on historical spread differentials

Bloomberg Survey Tracking Index and Vining Projections

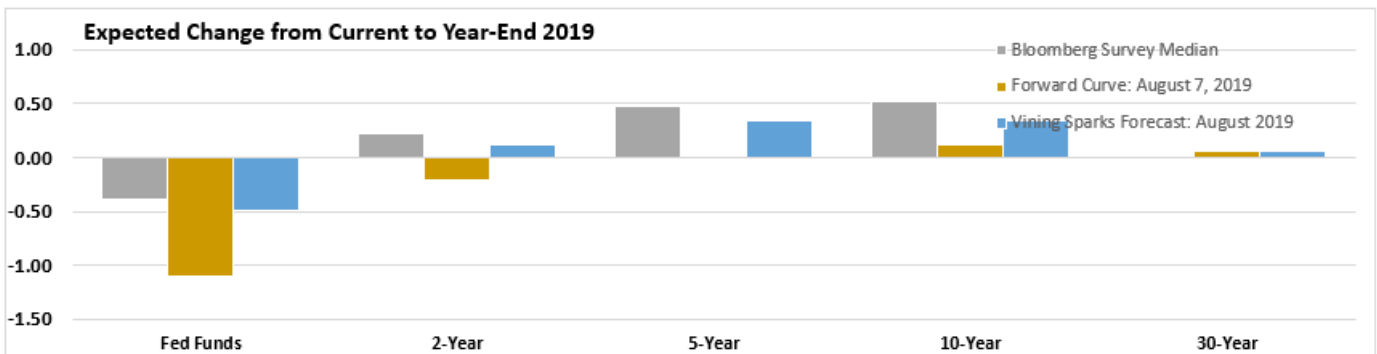
#### Interest Rate Projections

August 7, 2019

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
<b>Bloomberg Survey - Tracking: August 8, 2019</b>									
Low Forecast	0.88			1.00		1.18		1.40	
Median Forecast	1.73			1.81		1.97		2.17	
High Forecast	2.63			2.70		2.88		3.10	
Forward Curve: August 7, 2019	1.02	1.35	1.36	1.38	1.40	1.50	1.60	1.77	2.21
Vining Sparks Forecast: August 2019	1.63	1.66	1.69	1.70	1.75	1.84	1.91	2.00	2.20
<b>Current: August 12, 2019</b>	<b>2.12</b>	<b>1.98</b>	<b>1.77</b>	<b>1.59</b>	<b>1.52</b>	<b>1.49</b>	<b>1.57</b>	<b>1.65</b>	<b>2.15</b>

#### Projected Δ by Year-End 2019

	Fed Funds	3M T-Bill	1-Year	2-Year	3-Year	5-Year	7-Year	10-Year	30-Year
<b>Bloomberg Survey - Tracking: August 8, 2019</b>									
Low Forecast	-1.25			-0.59		-0.31		-0.25	
Median Forecast	-0.40			0.22		0.48		0.52	
High Forecast	0.51			1.11		1.39		1.45	
Forward Curve: August 7, 2019	-1.11	-0.63	-0.41	-0.21	-0.11	0.01	0.03	0.12	0.06
Vining Sparks Forecast: August 2019	-0.50	-0.33	-0.08	0.11	0.23	0.34	0.35	0.35	0.05



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

**Survey of Economists**

August Survey

		Q319	Q419	Q120	Q220	Q320	Q420	2019	2020
<b>GDP</b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>2.2</b>	<b>2.1</b>	<b>1.9</b>	<b>1.8</b>	<b>1.8</b>	<b>1.8</b>	<b>2.2</b>	<b>1.9</b>
August Survey	8/8/2019	1.8	1.9	1.8	1.9	1.8	1.8	2.3	1.8
July Survey	7/12/2019	1.9	1.8	1.8	1.8	1.8	1.8	2.5	1.8
<b>Personal Consumption</b>									
August Survey	8/8/2019	2.4	2.2	2.0	2.1	2.0	2.0	2.5	2.2
July Survey	7/12/2019	2.1	2.0	2.0	2.0	2.0	2.0	2.4	2.1
<b>Private Investment</b>									
August Survey	8/8/2019	1.5	2.0	2.0	2.2	2.2	2.4	2.8	1.9
July Survey	7/12/2019	1.9	2.0	2.0	2.2	2.3	2.5	3.6	2.1
<b>Government Expenditures</b>									
August Survey	8/8/2019	1.6	1.6	1.5	1.5	1.4	1.1	2.3	1.6
July Survey	7/12/2019	1.7	1.5	1.3	1.4	1.1	1.0	1.9	1.4
<b>Headline CPI</b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>2.0</b>	<b>2.0</b>	<b>1.9</b>	<b>1.9</b>
August Survey	8/8/2019	1.8	2.0	2.2	2.0	2.0	2.0	1.8	2.0
July Survey	7/12/2019	1.9	2.0	2.2	2.0	2.1	2.1	1.8	2.1
<b>Core PCE</b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>1.7</b>	<b>1.8</b>	<b>2.0</b>	<b>2.0</b>	<b>1.9</b>	<b>1.9</b>	<b>1.8</b>	<b>1.9</b>
August Survey	8/8/2019	1.7	1.8	2.0	2.0	1.9	1.9	1.7	1.9
July Survey	7/12/2019	1.8	1.8	2.0	2.0	2.0	1.9	1.7	2.0
<b>Unemployment Rate</b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>3.8</b>	<b>3.8</b>	<b>3.8</b>	<b>3.9</b>	<b>3.9</b>	<b>3.9</b>	<b>3.8</b>	<b>3.9</b>
August Survey	8/8/2019	3.7	3.7	3.6	3.7	3.8	3.8	3.7	3.6
July Survey	7/12/2019	3.6	3.6	3.7	3.7	3.8	3.8	3.7	3.7
<b>Nonfarm Payroll (Monthly)</b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>155</b>	<b>155</b>	<b>160</b>	<b>140</b>	<b>135</b>	<b>125</b>	<b>162</b>	<b>135</b>
August Survey	8/8/2019	159	150	143	145	109	118	162	136
July Survey	7/12/2019	156	152	145	152	104	126	167	140
<b>New Home Sales</b>									
August Survey	8/8/2019	644	648	645	651	647	642	652	654
July Survey	7/12/2019	656	656	655	660	659	659	660	663
<b>Existing Home Sales</b>									
August Survey	8/8/2019	5,300	5,300	5,300	5,400	5,400	5,400	5,300	5,400
July Survey	7/12/2019	5,350	5,350	5,350	5,370	5,390	5,400	5,320	5,380
<b>Fed Funds Target<sup>1</sup></b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>1.88</b>	<b>1.63</b>	<b>1.63</b>	<b>1.63</b>	<b>1.63</b>	<b>1.63</b>	<b>1.63</b>	<b>1.63</b>
August Survey	8/8/2019	1.98	1.83	1.78	1.73	1.73	1.73	1.73	1.78
July Survey	7/12/2019	2.03	1.93	1.88	1.83	1.78	1.78	1.78	1.78
<b>2-Year Treasury<sup>1</sup></b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>1.65</b>	<b>1.70</b>	<b>1.70</b>	<b>1.70</b>	<b>1.70</b>	<b>1.70</b>	<b>1.70</b>	<b>1.70</b>
August Survey	8/8/2019	1.73	1.75	1.76	1.77	1.79	1.81	1.87	1.91
July Survey	7/12/2019	1.86	1.87	1.88	1.91	1.92	1.91	1.91	1.88
<b>10-Year Treasury<sup>1</sup></b>									
<b>Vining Sparks Projections</b>	<b>8/12/2019</b>	<b>1.85</b>	<b>1.80</b>	<b>1.80</b>	<b>1.85</b>	<b>1.90</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>
August Survey	8/8/2019	1.96	2.00	2.07	2.12	2.14	2.17	2.26	2.32
July Survey	7/12/2019	2.10	2.15	2.20	2.23	2.26	2.27	2.32	2.34

<sup>1</sup>Sources: Bloomberg Survey of Economists, <sup>1</sup>Economists' Real-Time Updates, Vining Sparks

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