

Bond Markets Through the Virus

Analysis of Treasury, Taxable and Municipal Markets

Analysis of Fed Monetary Policy

Administration of Fiscal Policy

Oxford University

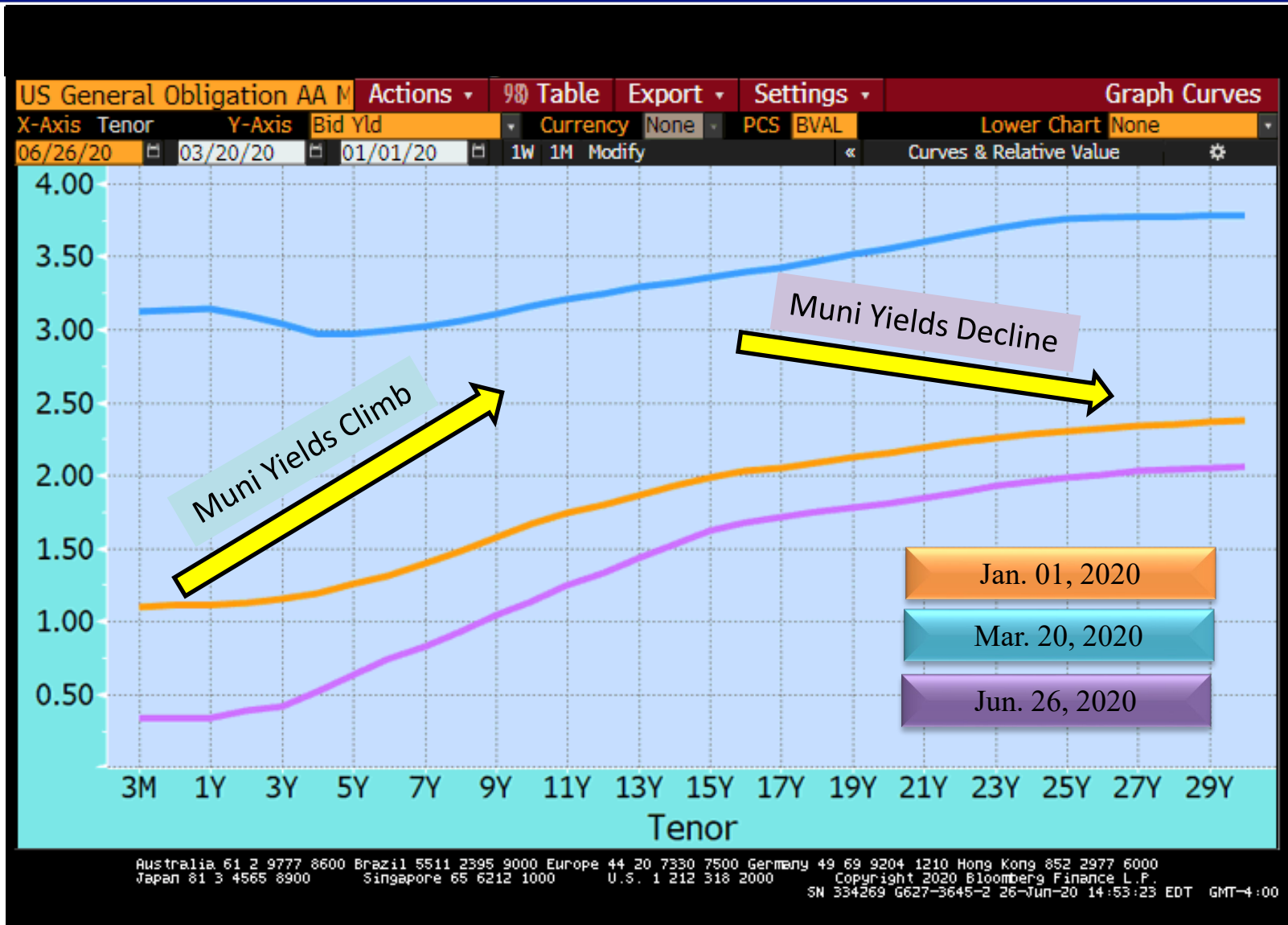
June 29, 2020

John R. Mousseau, CFA

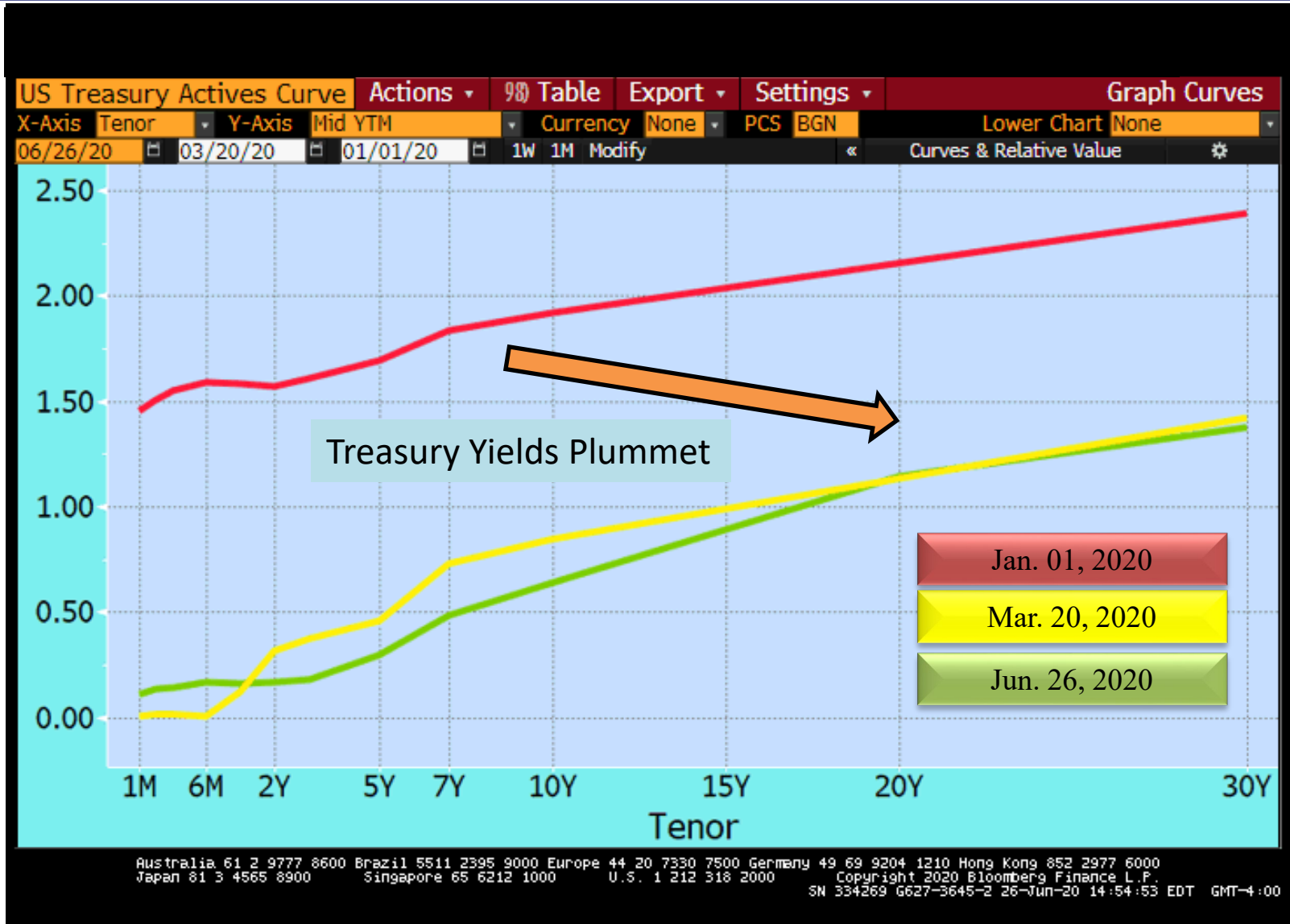
President, Chief Executive Officer & Director of Fixed Income

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Muni Yield Curve this year



Treasury Yield Curve this year



Source: Bloomberg

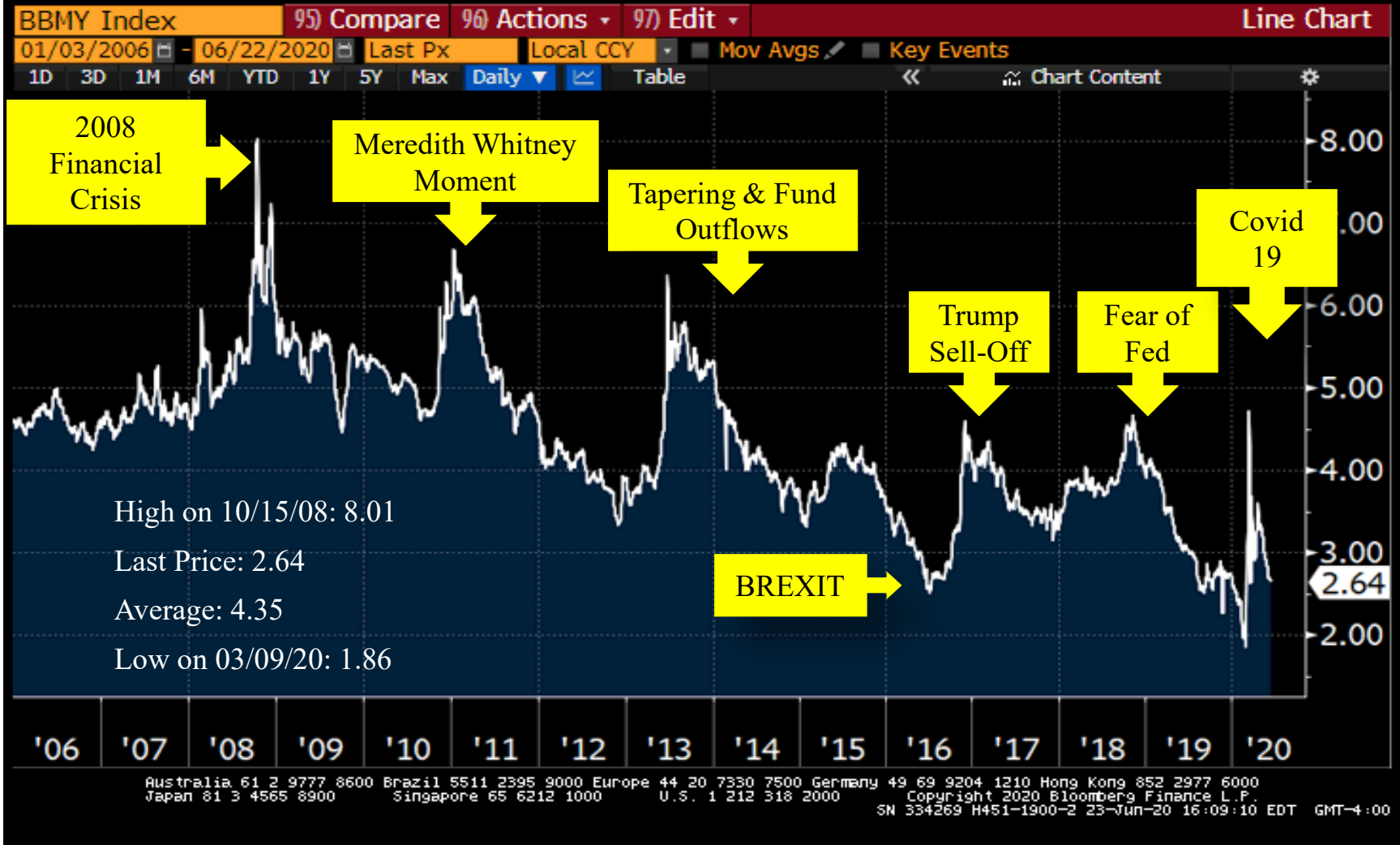
Bond Buyer 40 Yield vs US Treasury 30 Yield



Source: Bloomberg

Muni Market Feast & Famine

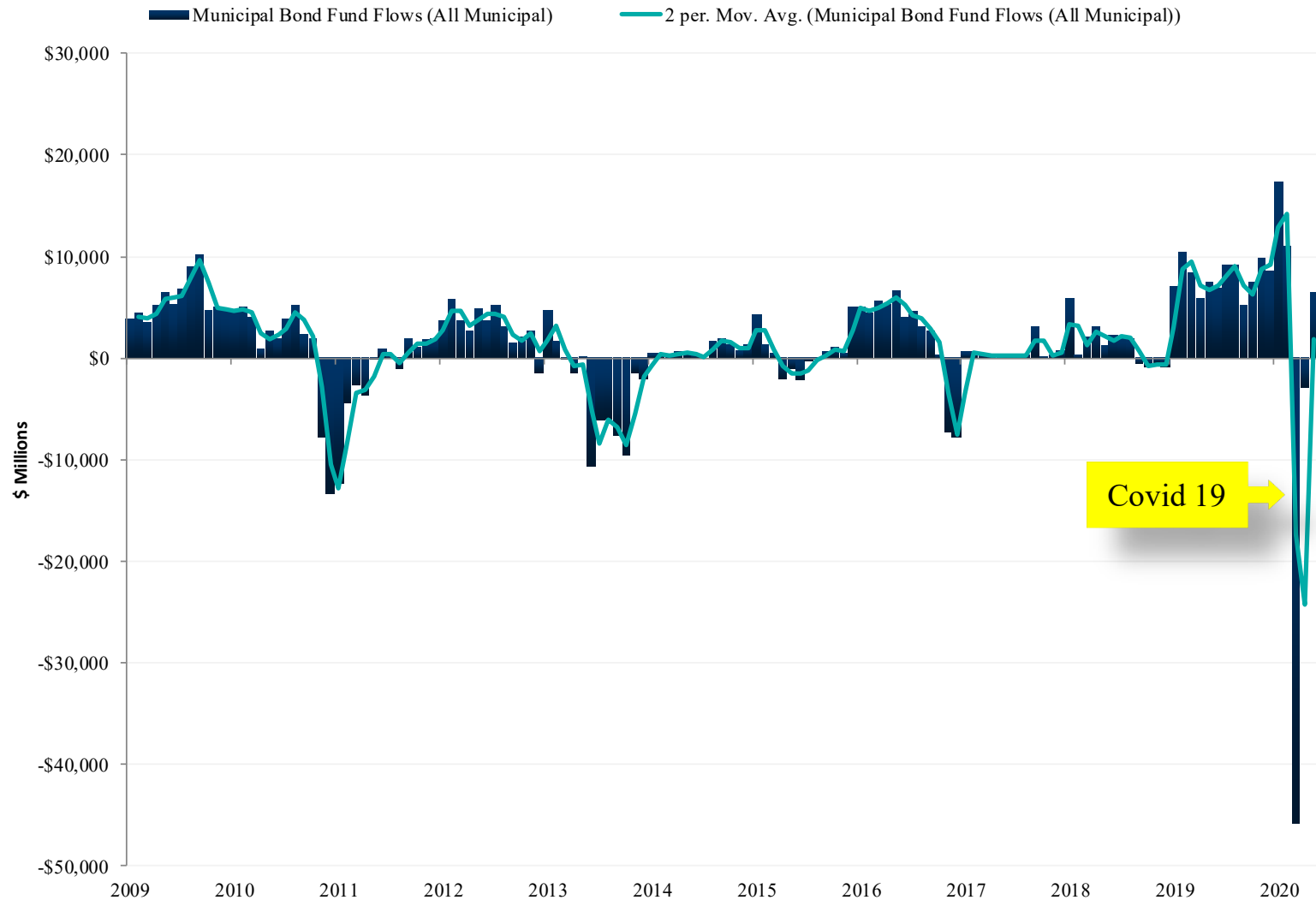
This graph illustrates the performance of the municipal bond market since 2006. Since then, the market has experienced 3 major sell-offs: 1) Flight into Treasuries out of risk, 2) Panic selling because of Meredith Whitney, 3) Fears of Fed tapering.



Source: Bloomberg

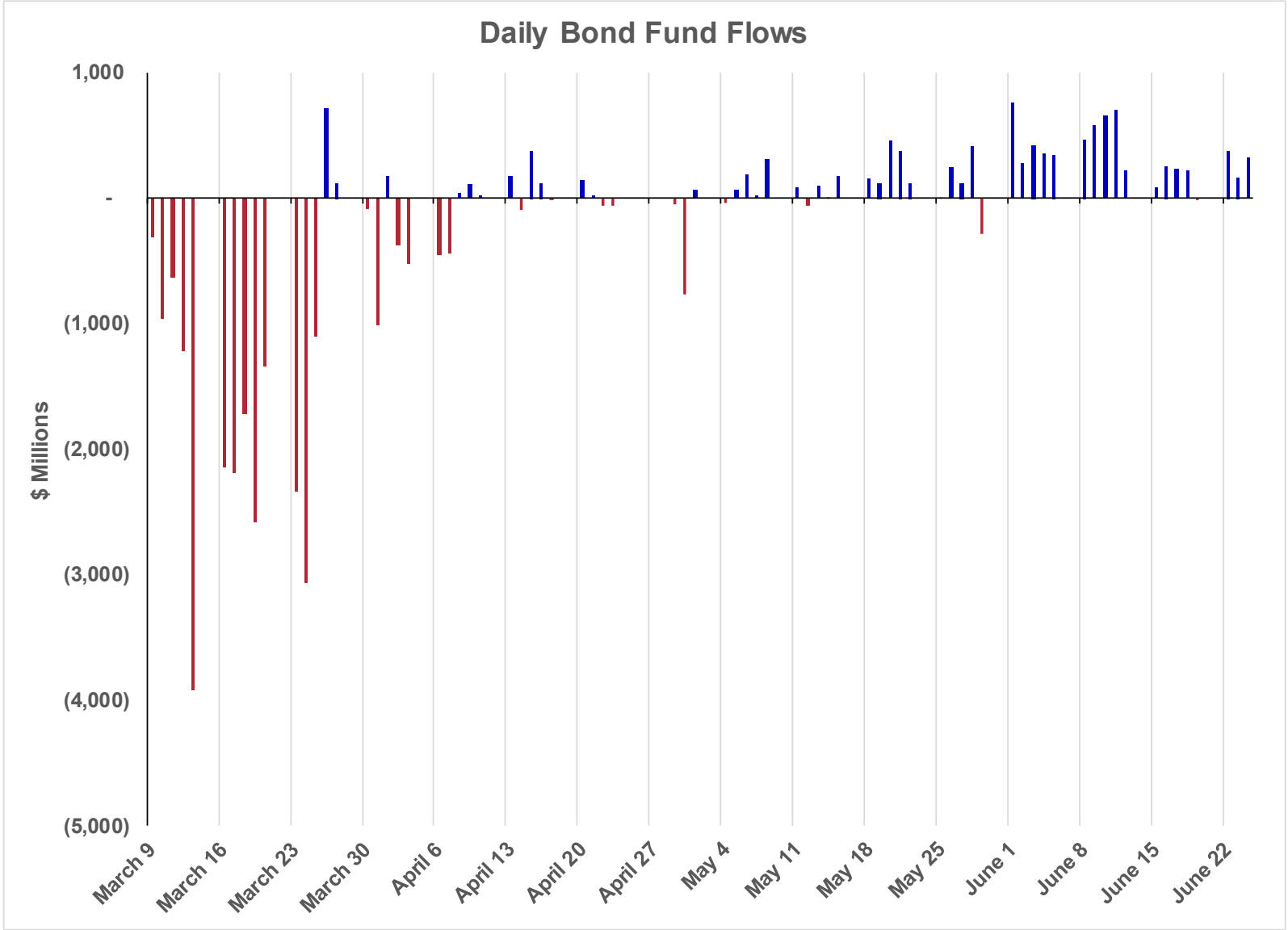
Muni Bond Flows

Municipal Bond Fund Flows (All Municipal)



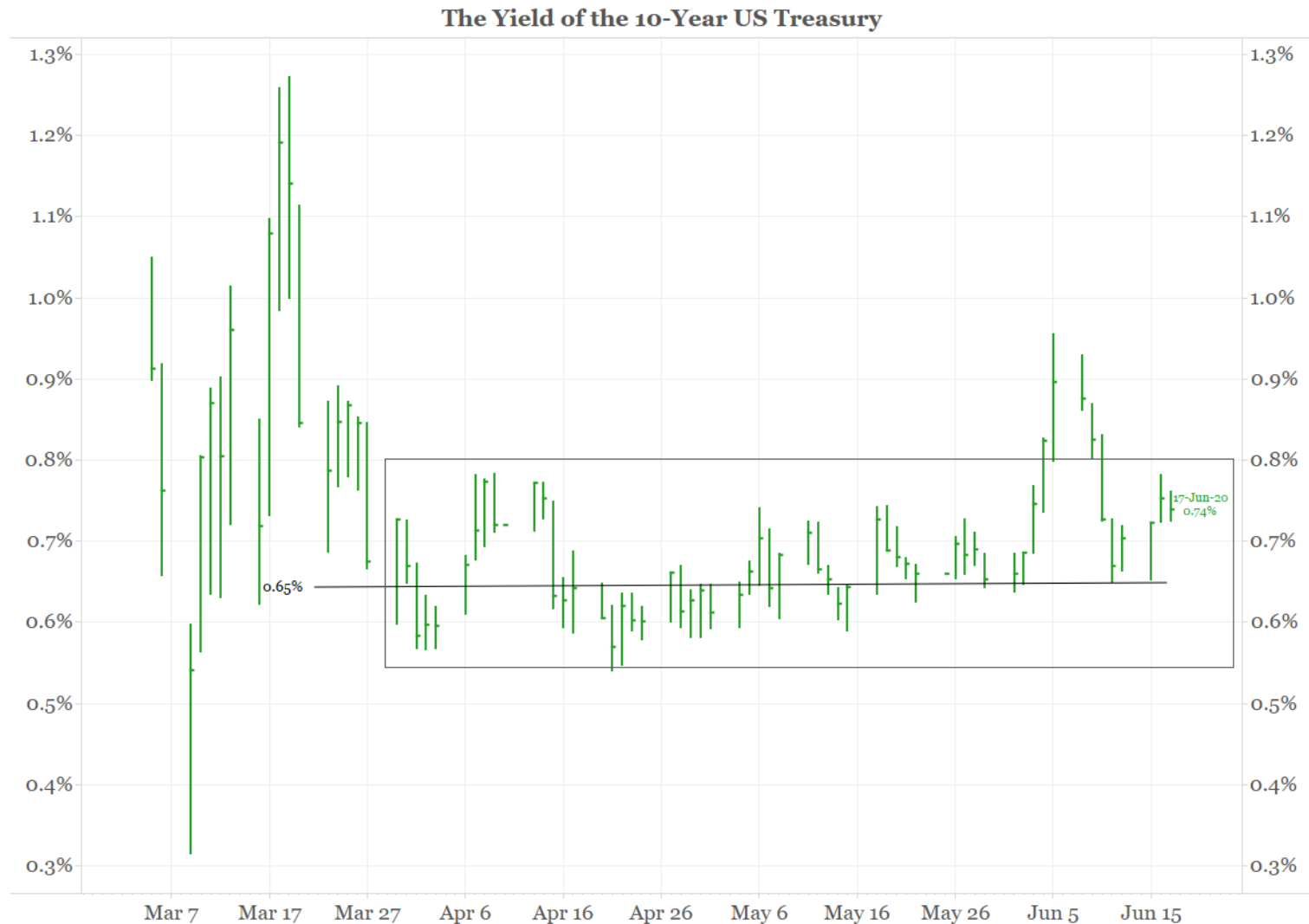
Source: Lipper

Recent Daily Bond Fund Flows



Source: EPFR

The Yield of the 10-Year US Treasury



Data Source: Bloomberg

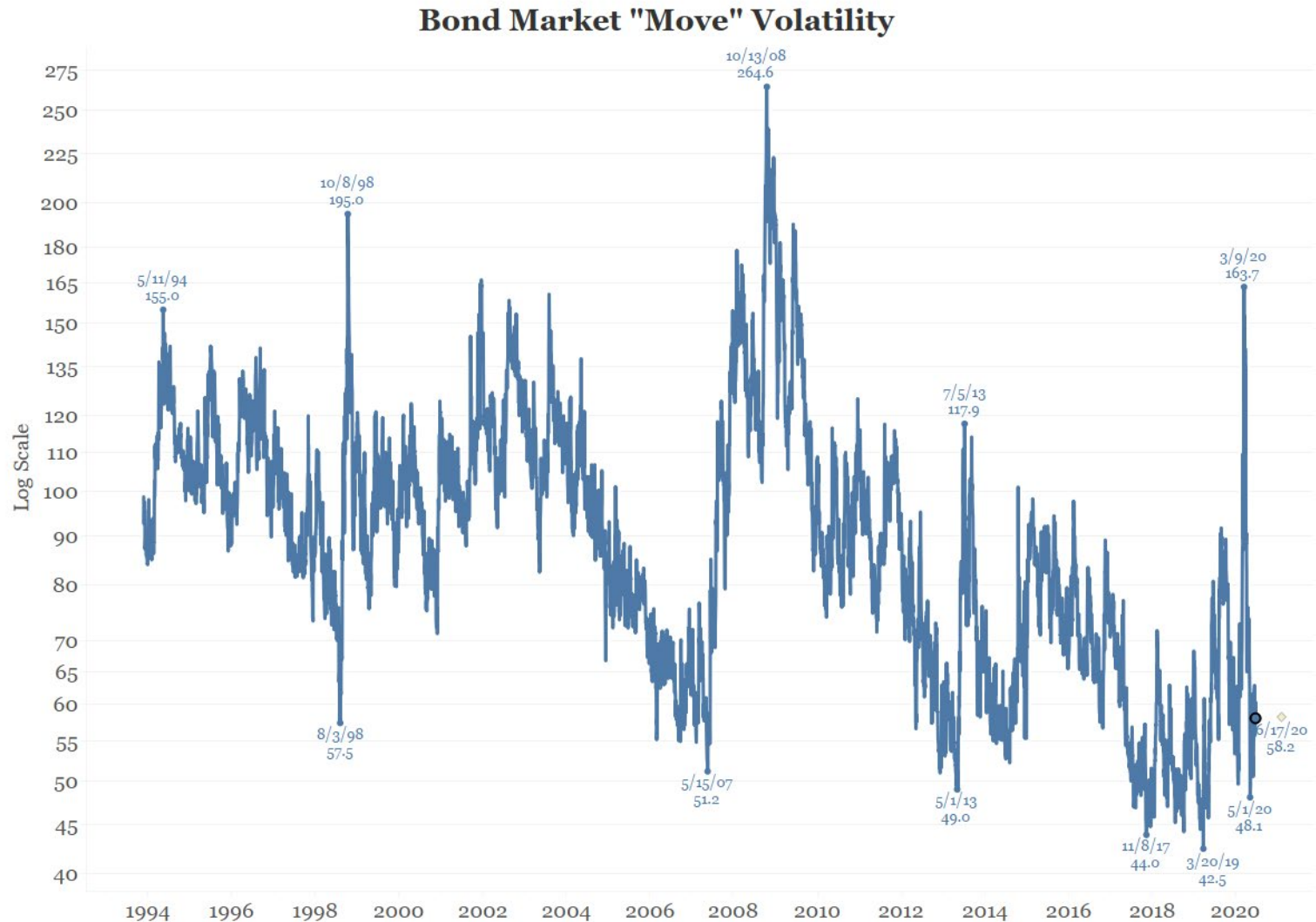
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Bond Market “Move” Volatility



Source: Bloomberg

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2-yr vs. 10-yr Treasury Yields



Source: Bloomberg

2-yr vs. 30-yr Treasury Yields



Source: Bloomberg

Investment Grade Corporate Spreads



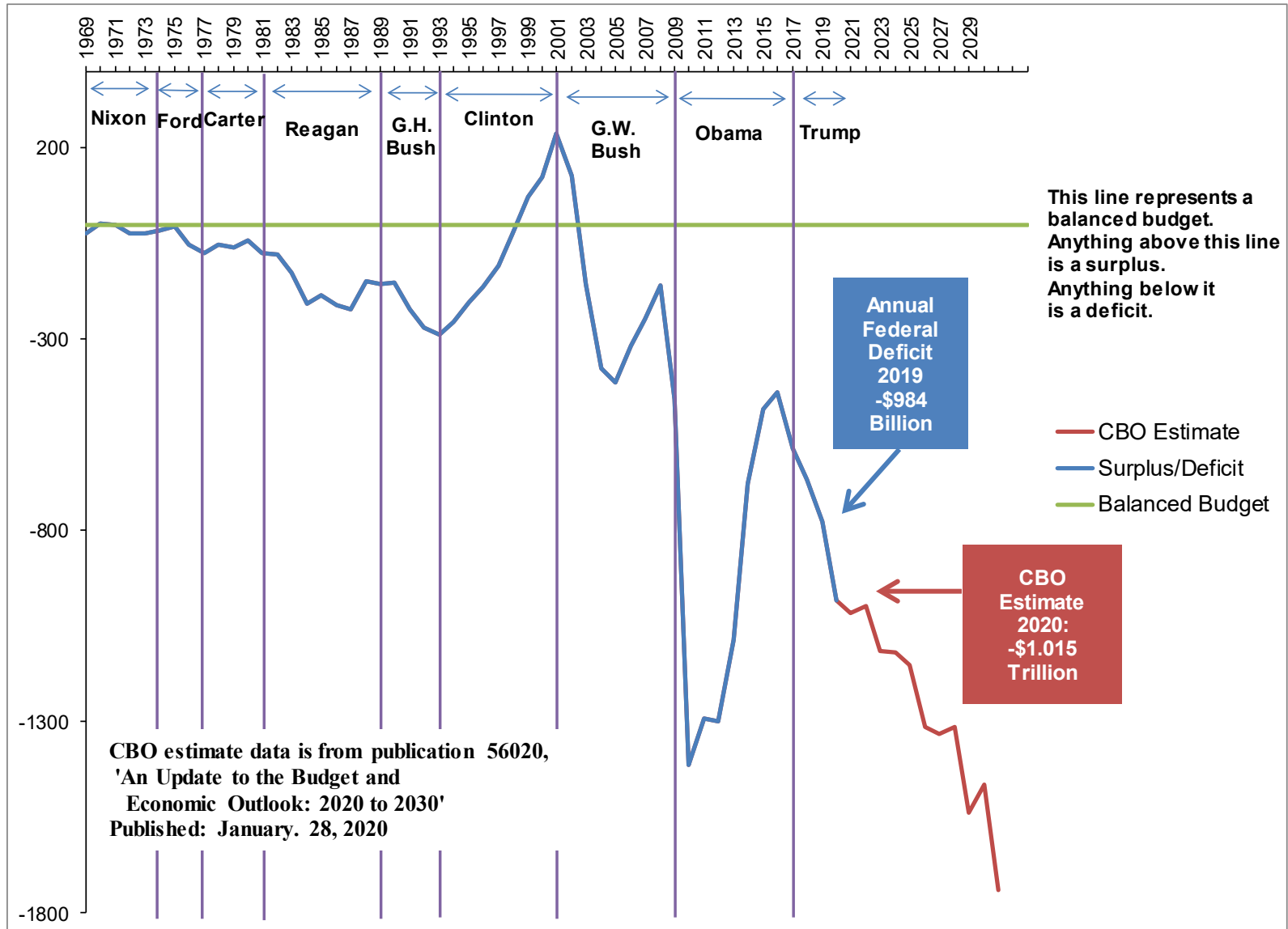
Source: Bloomberg

10yr Treasury and Core CPI



Source: Bloomberg

Federal Deficit



Source: Bloomberg, CBO.gov

G7 Government Bond Yields

Country	2-year Yields (%)	10-year Yields (%)
As of June 23, 2020		
USA	0.190	0.712
Canada	0.293	0.541
UK	-0.071	0.208
France	-0.595	-0.208
Germany	-0.678	-0.411
Italy	0.069	1.252
Japan	-0.172	0.004
Swiss	-0.733	-0.438

Source: Bloomberg

Muni Default Probabilities Are Smaller

Cumulative Default Rates, Average over the Period 1970-2018, Municipal Issuers

Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Municipal Issuers	%	%	%	%	%	%	%	%	%	%
Aaa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aa	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02
A	0.00	0.01	0.02	0.03	0.03	0.04	0.06	0.08	0.09	0.11
Baa	0.03	0.11	0.22	0.35	0.48	0.63	0.76	0.89	1.02	1.13
Ba	0.25	0.69	1.12	1.62	2.03	2.34	2.71	3.06	3.38	3.65
B	2.84	5.63	8.31	10.41	12.52	14.04	15.09	15.85	16.71	17.91
Caa-C	9.20	14.42	17.79	19.65	20.90	22.17	23.12	24.15	25.14	25.75
Investment-Grade	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.10
Speculative-Grade	1.32	2.47	3.47	4.31	5.05	5.62	6.13	6.59	7.03	7.47
All Rated	0.02	0.04	0.05	0.07	0.09	0.10	0.12	0.14	0.15	0.16

Source: Moody's

Higher Corp. Default Experience

Cumulative Default Rates, Average over the Period 1970-2018, Corporate Issuers

Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Corporate Issuers	%	%	%	%	%	%	%	%	%	%
Aaa	0.00	0.01	0.01	0.03	0.08	0.13	0.19	0.24	0.30	0.37
Aa	0.02	0.06	0.11	0.19	0.29	0.39	0.51	0.61	0.70	0.78
A	0.05	0.15	0.32	0.50	0.72	0.96	1.22	1.50	1.80	2.10
Baa	0.16	0.43	0.75	1.13	1.52	1.93	2.33	2.74	3.20	3.70
Ba	0.89	2.44	4.23	6.13	7.91	9.55	11.03	12.47	13.95	15.48
B	3.33	7.87	12.54	16.80	20.66	24.11	27.19	29.84	32.24	34.28
Caa-C	10.03	17.59	24.00	29.42	34.02	37.63	40.74	43.71	46.34	48.23
Investment-Grade	0.09	0.23	0.42	0.65	0.89	1.15	1.41	1.69	1.98	2.28
Speculative-Grade	4.03	8.11	11.98	15.43	18.43	21.01	23.25	25.25	27.11	28.79
All Rated	1.53	3.04	4.42	5.62	6.64	7.51	8.26	8.92	9.55	10.13

Source: Moody's

10-yr Treasury vs. 10-yr German Bond



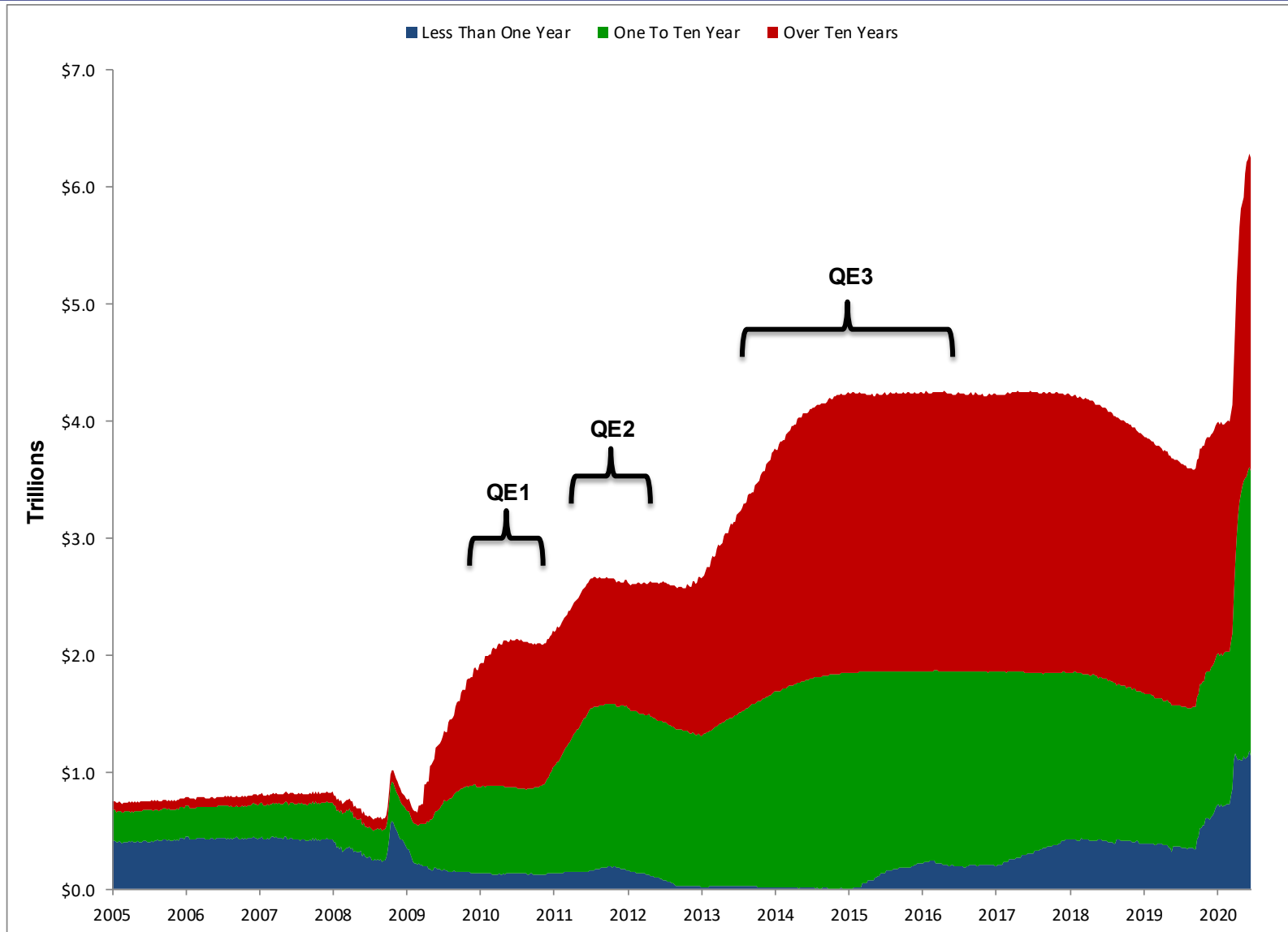
Source: Bloomberg

57 years of Government Yields



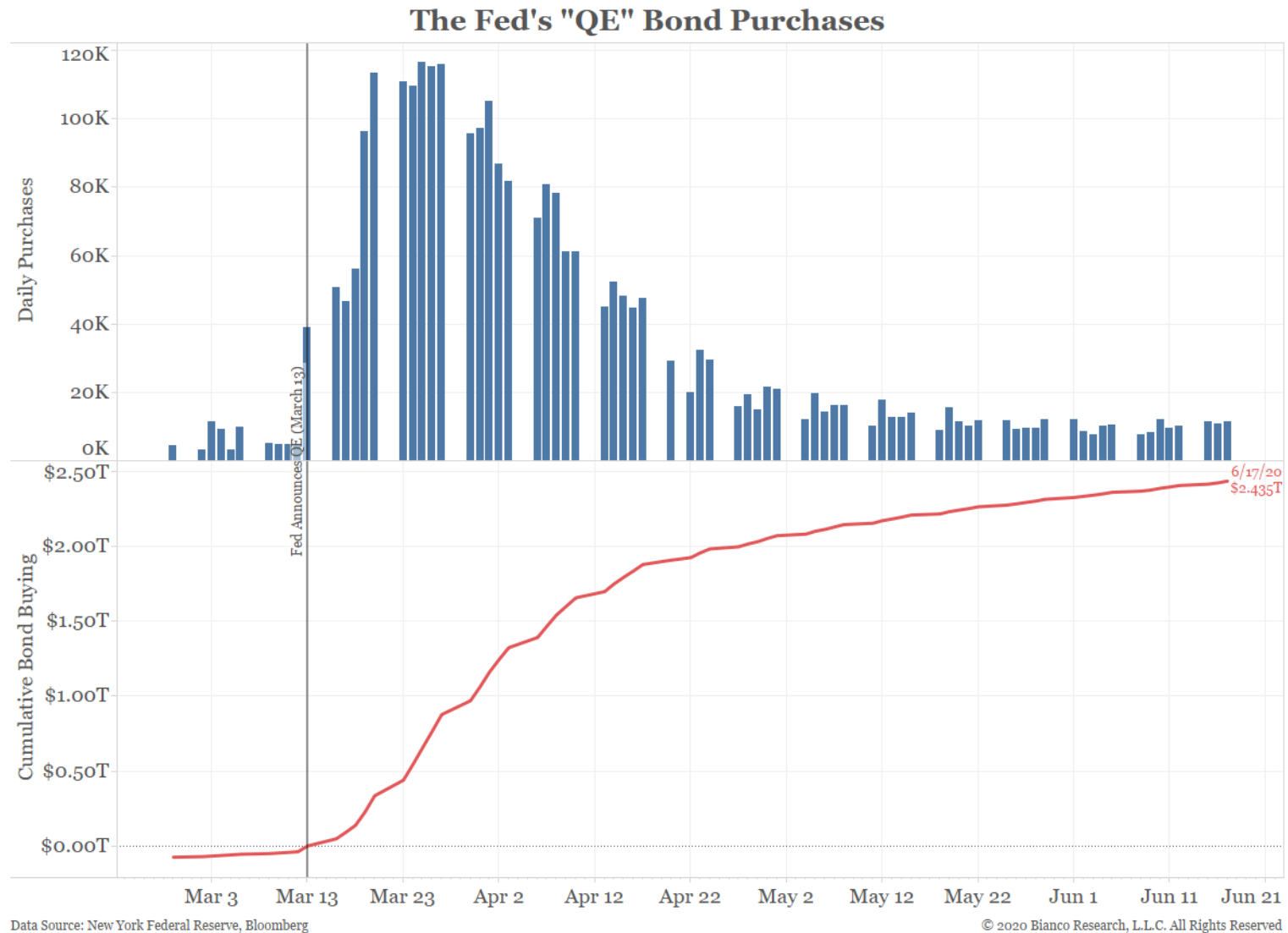
Source: Bloomberg

Fed Maturity Structure: Assets



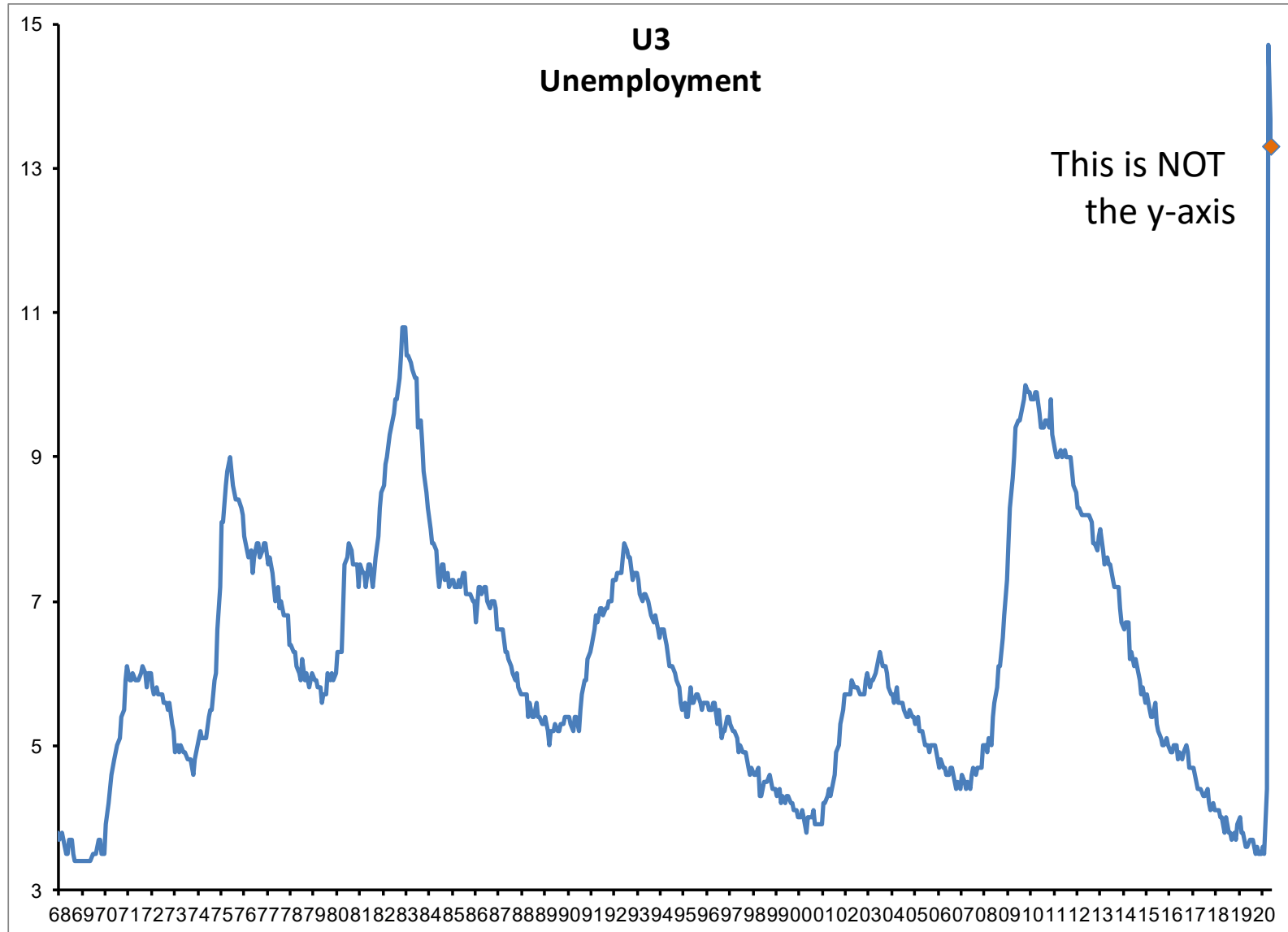
Source: Bloomberg

The Fed's QE Bond Purchases



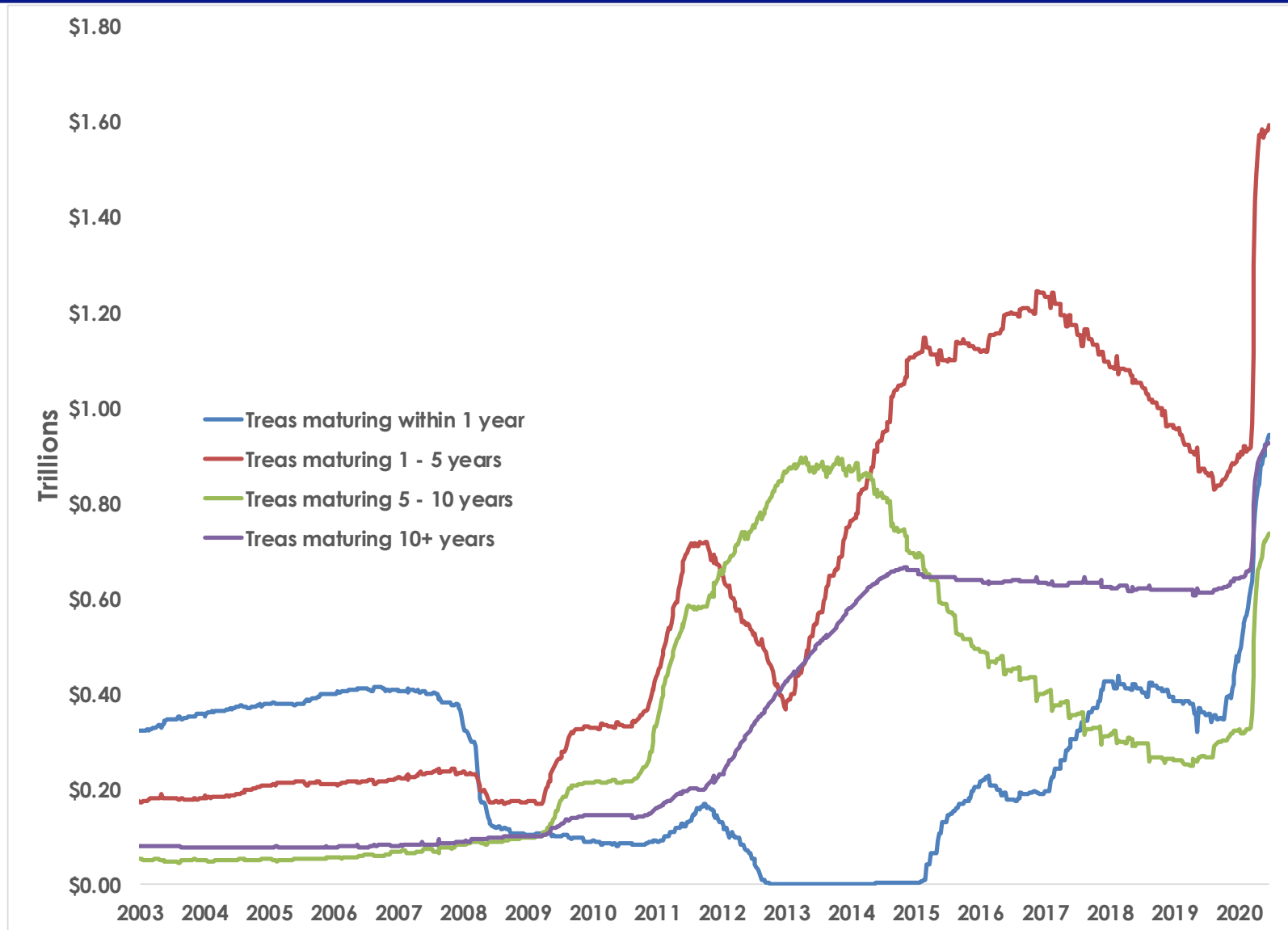
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Unemployment



Source: St. Louis Fed, Bureau of Labor Statistics

The Fed's Maturing Treasury Portfolio

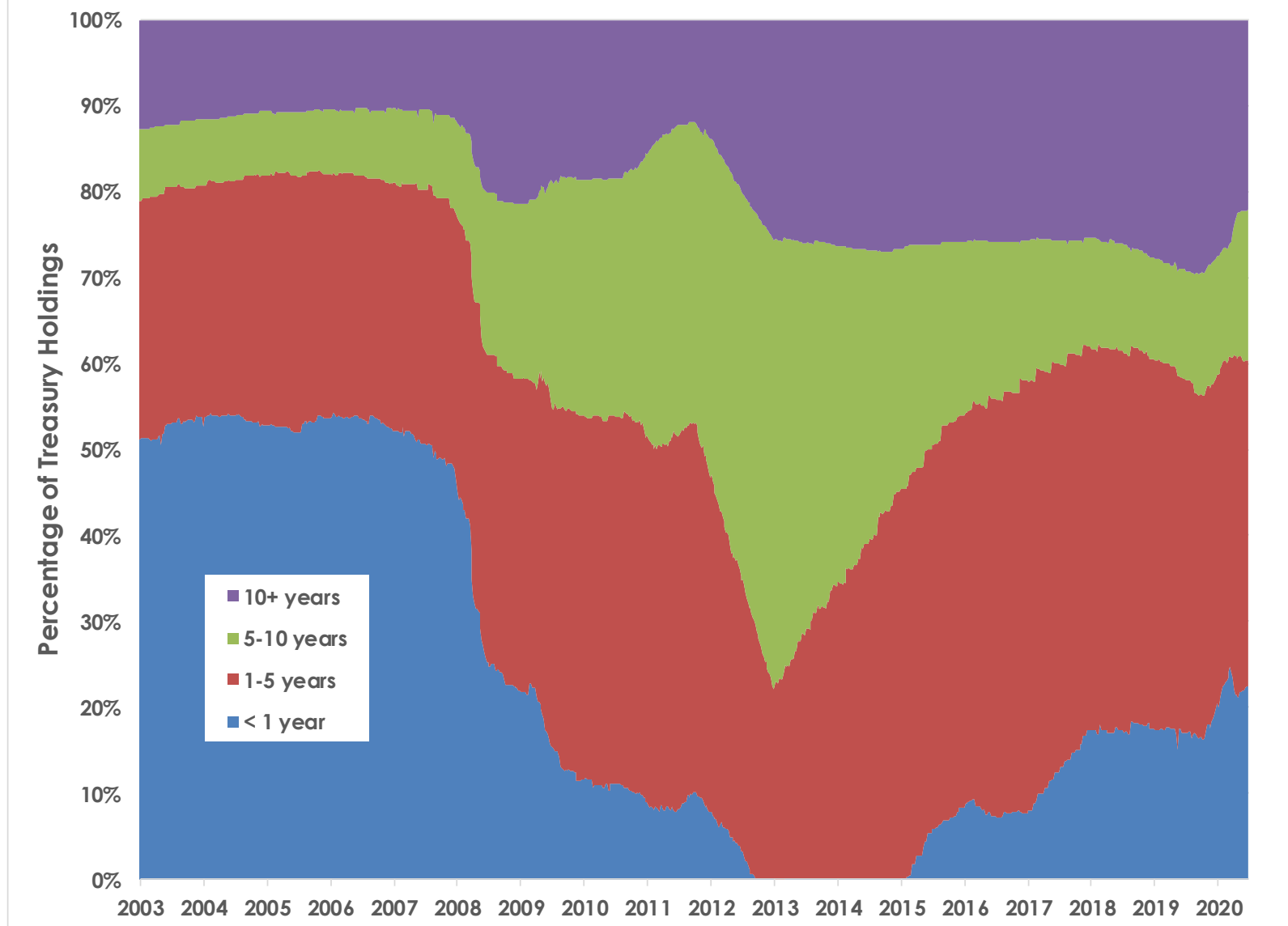


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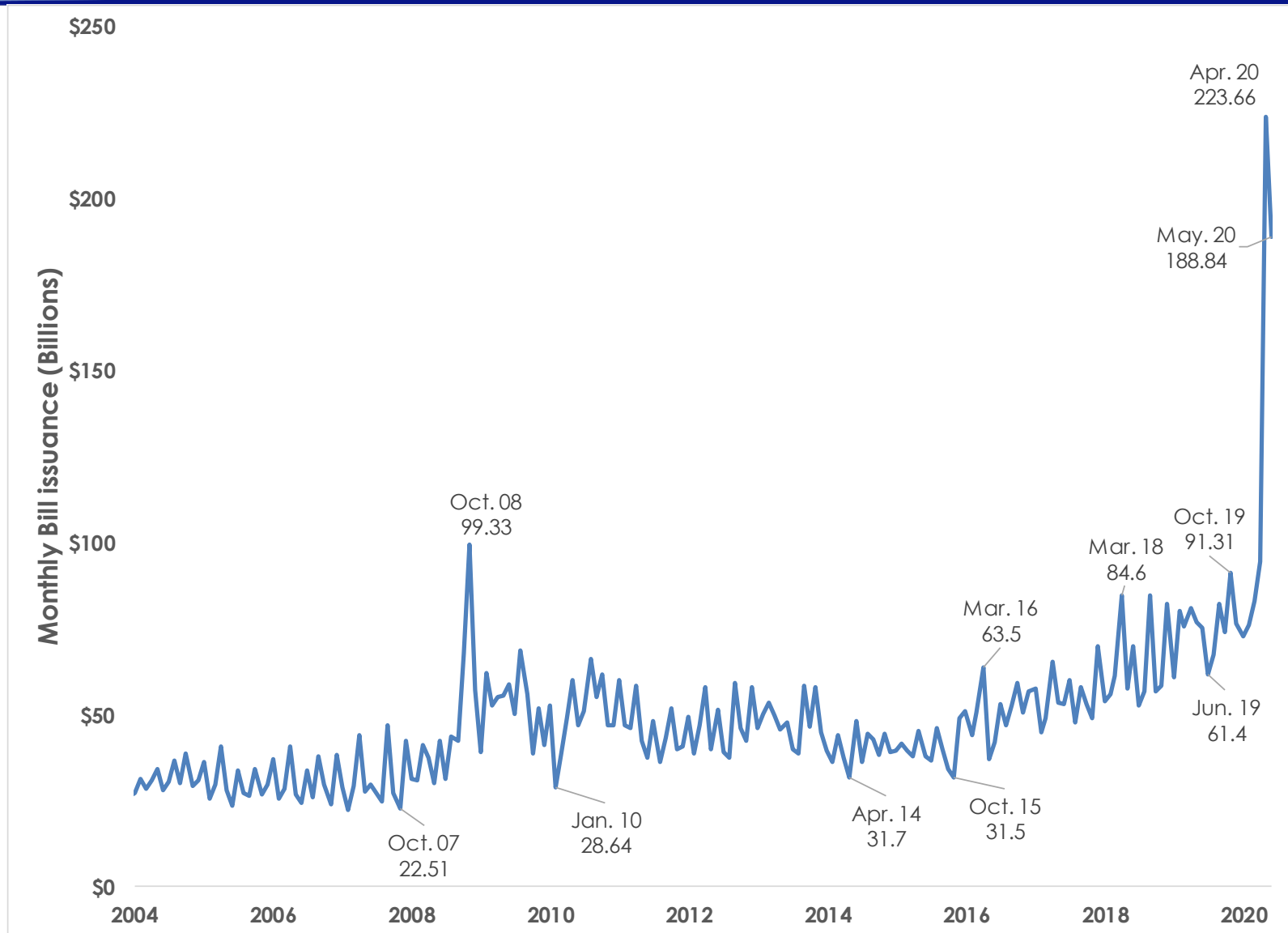
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The Fed's Treasury Portfolio by Maturity



Source: Bloomberg Concept Credit: Bianco Research, LLC

T-Bill Issuance Ramps Up

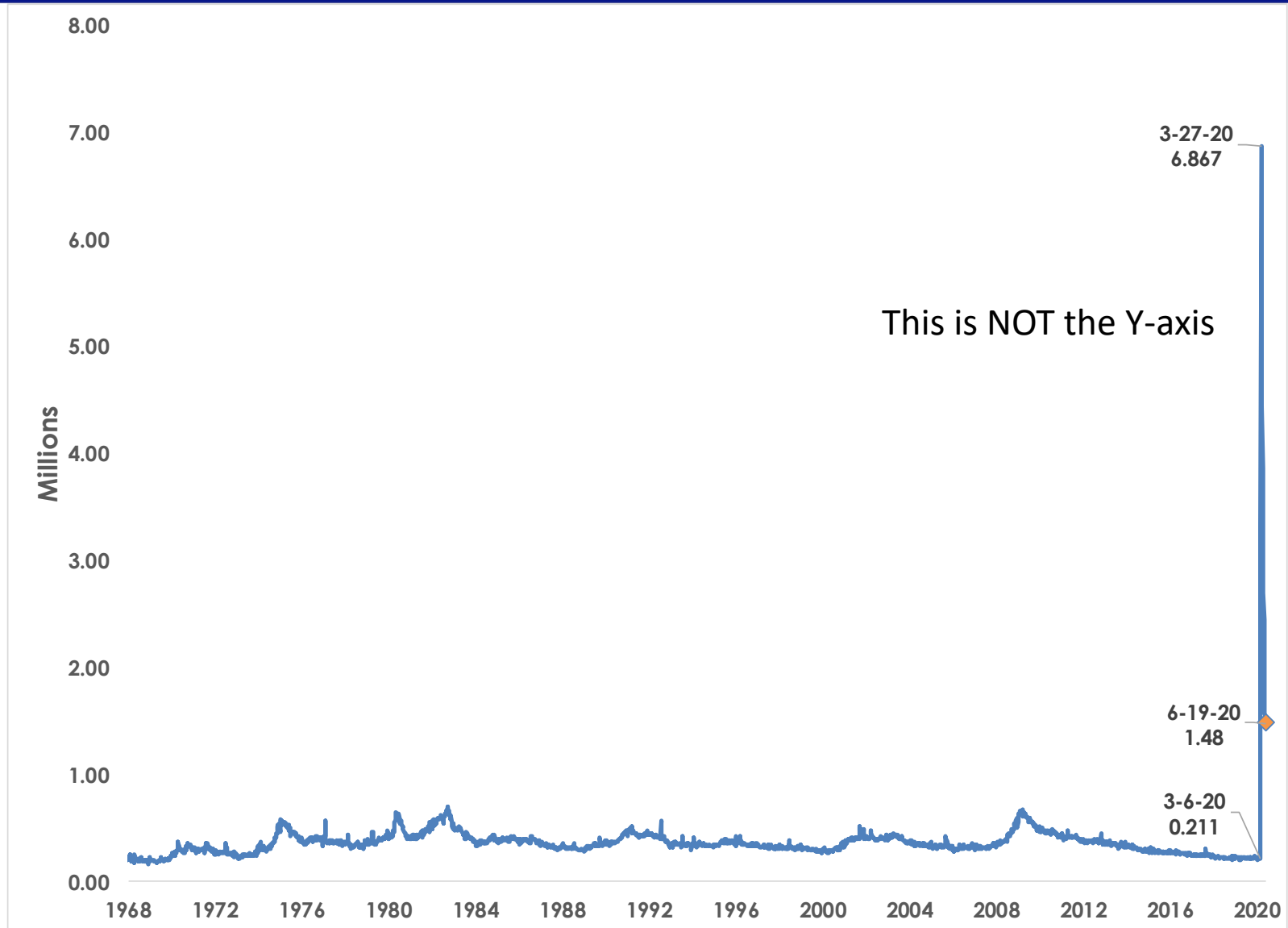


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A Look At Unemployment Claims

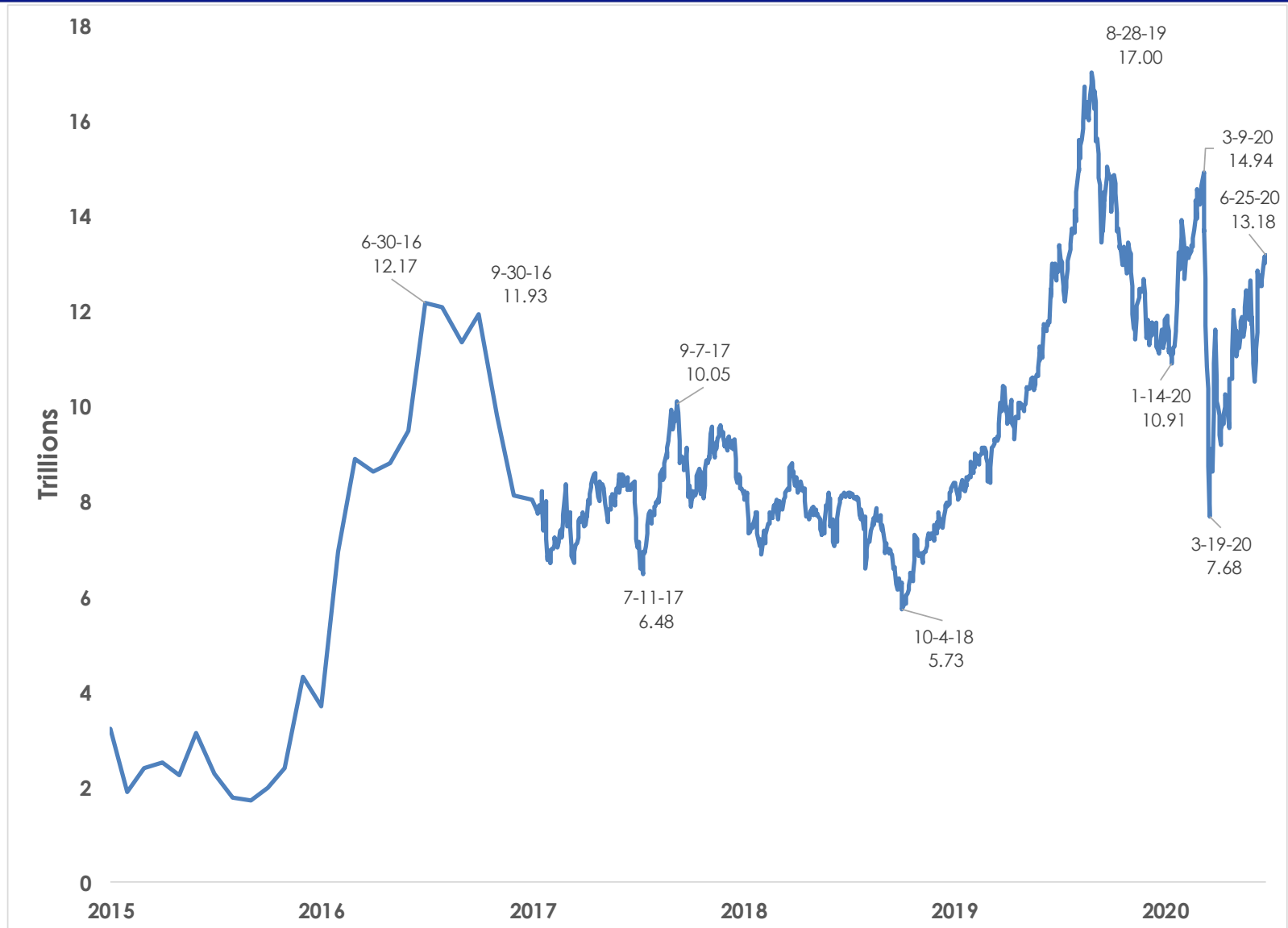


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Total Negative Yielding Bonds Outstanding



Source: Bloomberg Concept Credit: Bianco Research, LLC

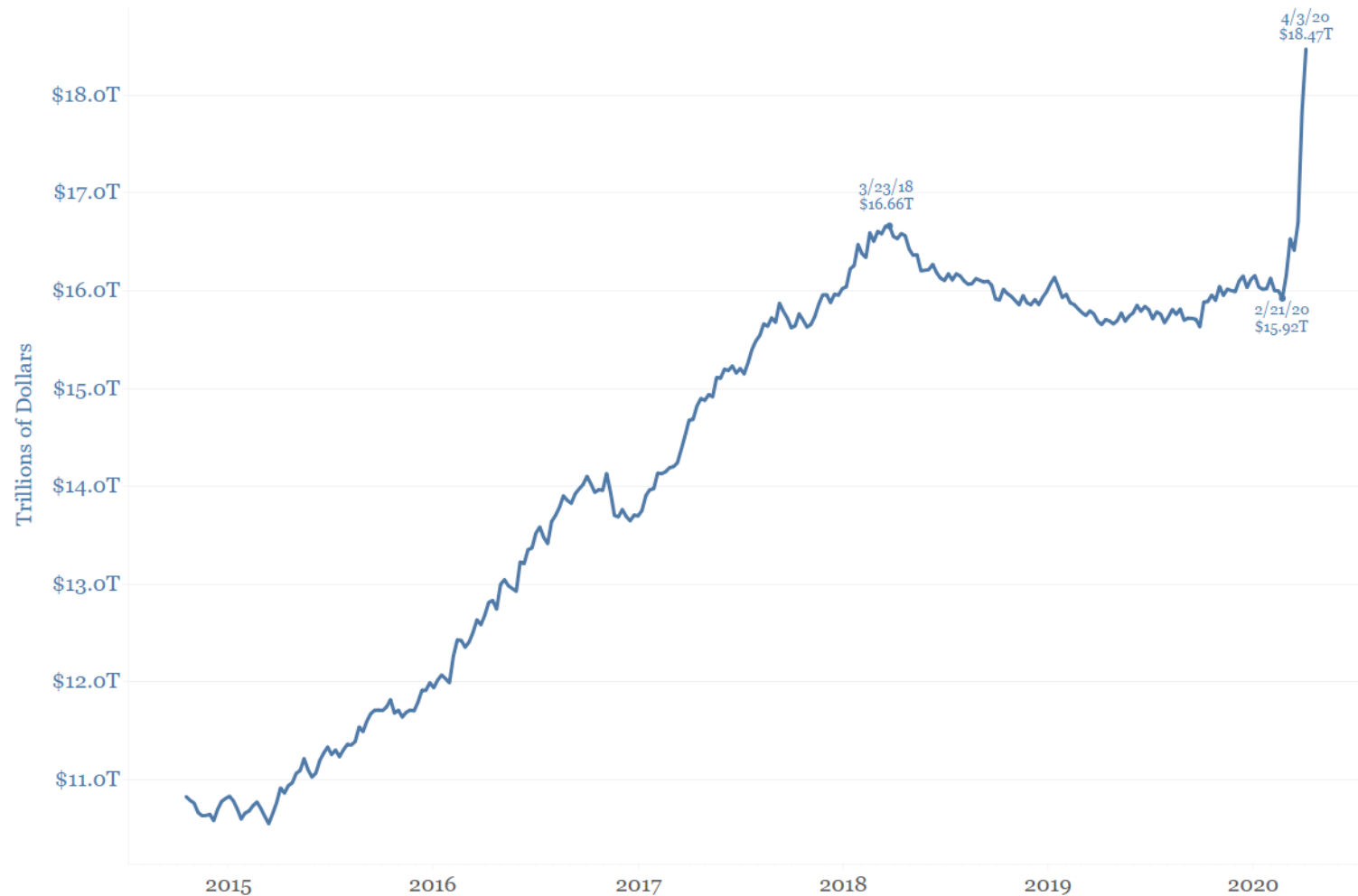
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Combined Central bank Balance Sheets

Cumulative Central Bank Balance Sheets

Includes the Fed, ECB, BOE, BOJ and SNB



Data Source: Fed, ECB, BoJ, BoE, SNB, Bloomberg

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S&P 500 Forward PE Ratio



Data Source: Bloomberg

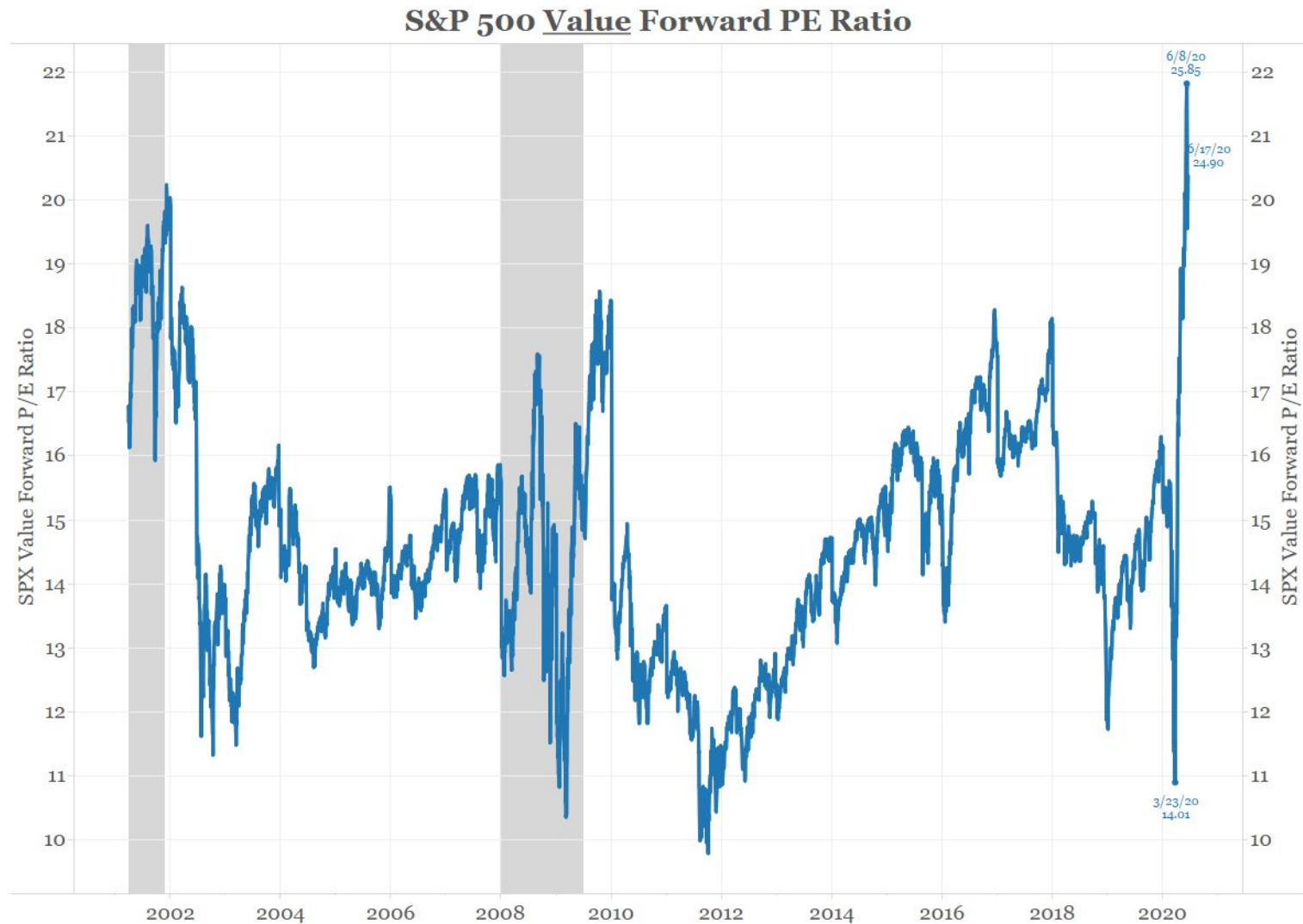
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S&P 500 Value Forward PE Ratio



Data Source: Bloomberg

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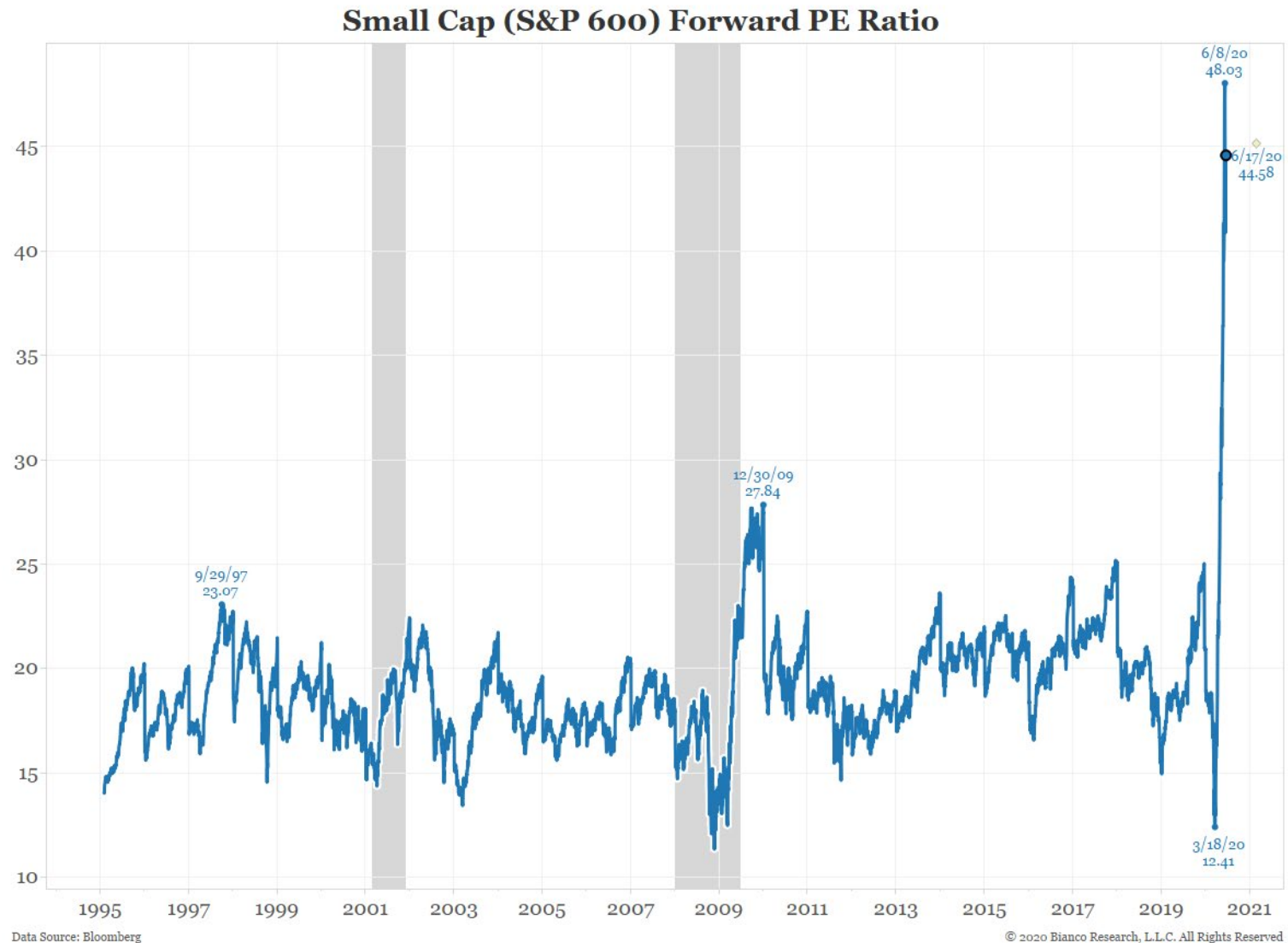
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Small Cap (S&P 600) Forward PE Ratio



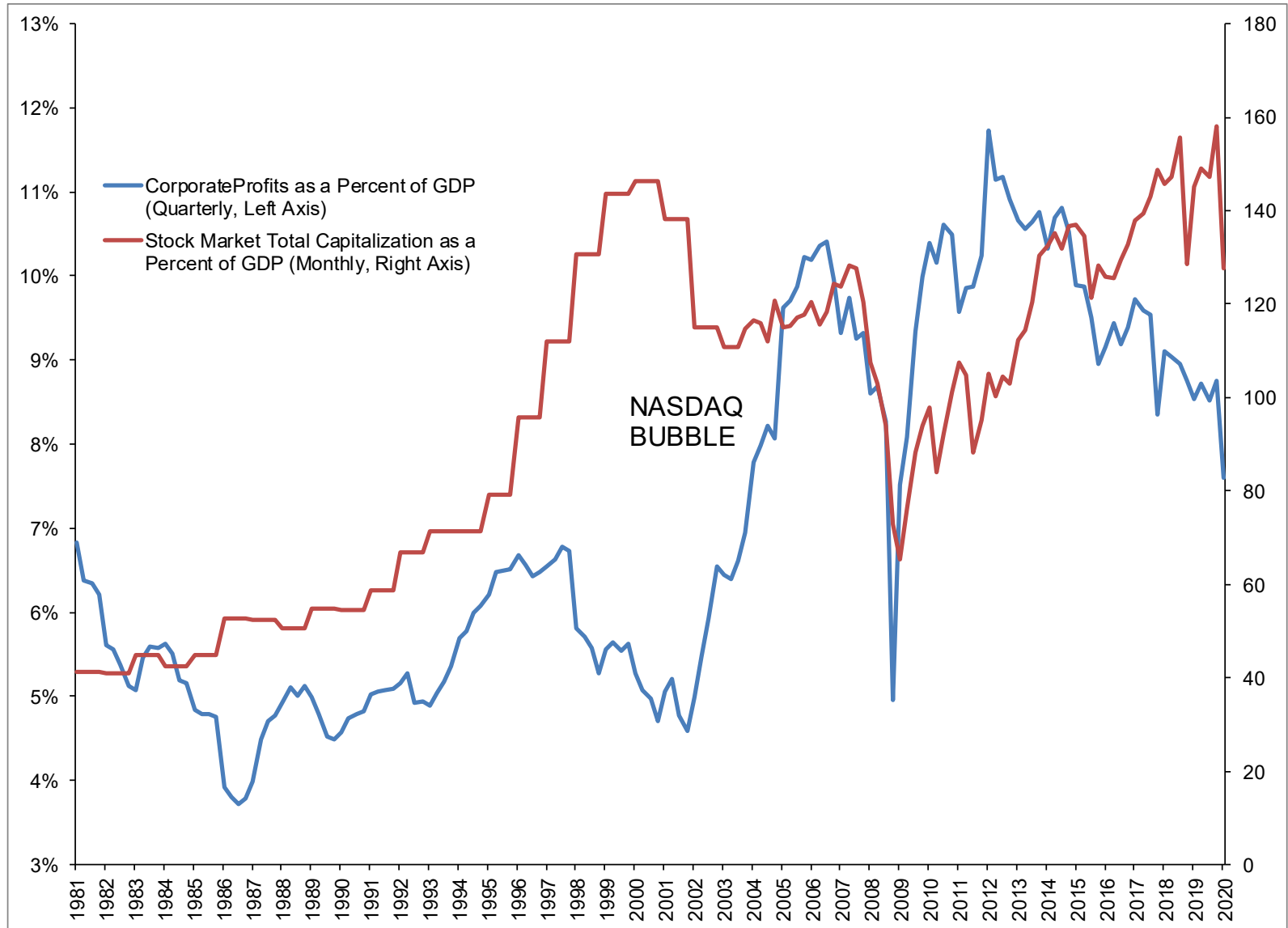
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Corp. Profits & Stock Market Cap.



Source: Bloomberg, St. Louis Fed. Concept: Ned Davis Research

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