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James Bianco

Discussing The Bond Market
SFBTA 2020 Conference
February 7, 2020



Total Negative Yielding Bonds Outstanding

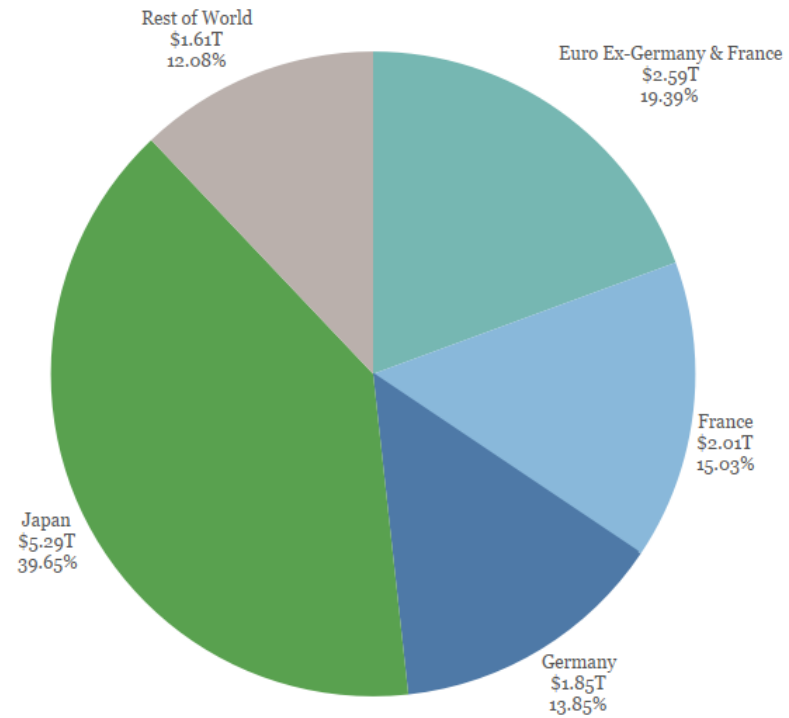


Source: Bloomberg

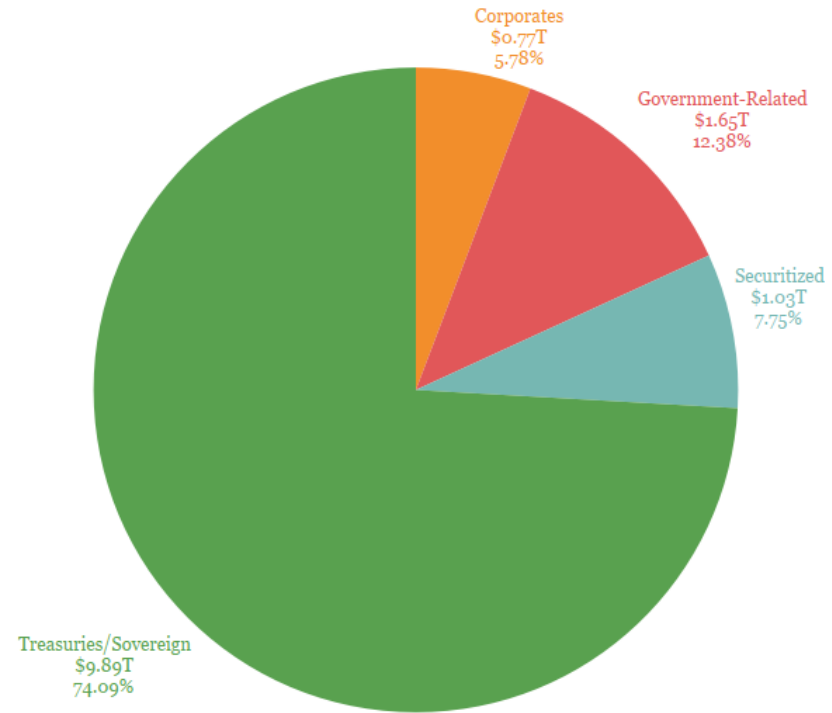
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Negative-Yielding Debt in the Bloomberg/Barclays Agg Index

By Country/Region



By Security Type



Negative Yielding Debt in Agg Index = \$13.35T as of February 5, 2020

Source: Bloomberg

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Interest Rates in the Developed World

As of 2/05/2020

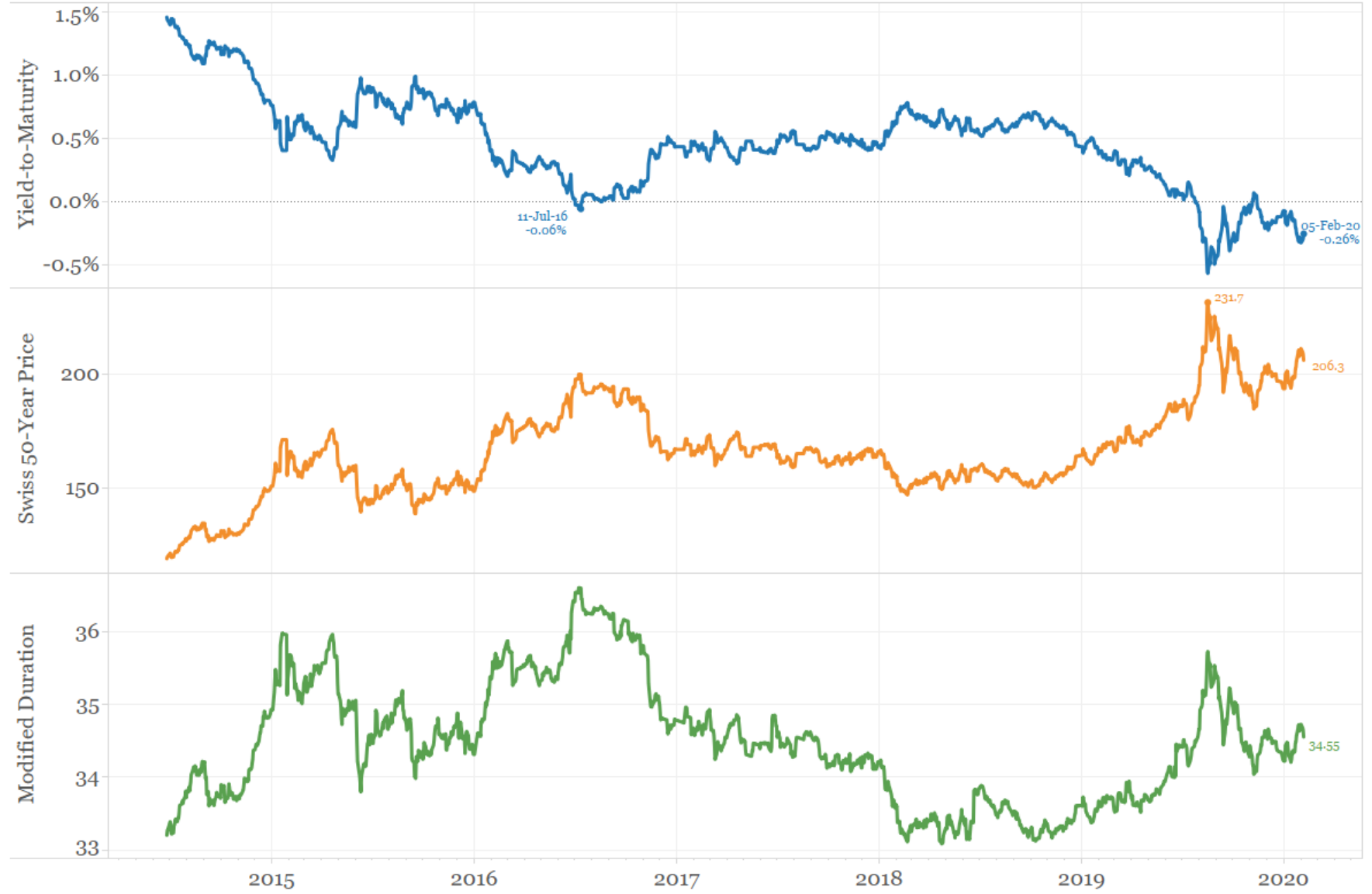
Country	Policy Rate	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	6-Year	7-Year	8-Year	9-Year	10-Year	15-Year	30-Year
Switzerland	-0.75	-0.79	-0.77	-0.79	-0.78	-0.76	-0.76	-0.75	-0.73	-0.75	-0.73	-0.68	-0.54	-0.36
Germany	-0.50	-0.59	-0.60	-0.65	-0.66	-0.64	-0.59	-0.58	-0.53	-0.49	-0.43	-0.36	-0.23	0.17
Netherlands	-0.50	-0.61		-0.63	-0.64	-0.62	-0.56	-0.50	-0.45	-0.38	-0.33	-0.26	-0.13	0.15
Denmark	-0.75	-0.77		-0.66			-0.56			-0.47		-0.35		
Finland	-0.50		-0.61	-0.64	-0.61	-0.57	-0.54	-0.43	-0.38	-0.29	-0.23	-0.16	0.08	0.35
Austria	-0.50		-0.60	-0.62	-0.61	-0.57	-0.50	-0.43	-0.36	-0.32	-0.26	-0.19	0.08	0.42
Japan	-0.10	-0.15	-0.14	-0.14	-0.16	-0.16	-0.14	-0.16	-0.15	-0.13	-0.08	-0.04	0.13	0.42
France	-0.50	-0.59	-0.58	-0.61	-0.59	-0.54	-0.45	-0.41	-0.33	-0.29	-0.19	-0.10	0.16	0.69
Belgium	-0.50	-0.60	-0.58	-0.60	-0.59	-0.54	-0.46	-0.41	-0.33	-0.26	-0.20	-0.12	0.15	0.70
Ireland	-0.50		-0.62		-0.51	-0.45	-0.36	-0.28	0.00		0.00	-0.09	0.31	0.74
Sweden	0.00	-0.20		-0.31		-0.31	-0.26	-0.19		-0.13	-0.06	0.05	0.23	
Spain	-0.50	-0.45	-0.44	-0.42	-0.40	-0.30	-0.20	-0.07	0.02	0.12	0.21	0.30	0.71	1.20
Portugal	-0.50	-0.47	-0.48	-0.40	-0.28	-0.24	-0.10	-0.01	0.06	0.18	0.23	0.34	0.61	1.14
Italy	-0.50	-0.36	-0.32	-0.21	-0.02	0.12	0.34	0.45	0.59	0.71	0.81	0.96	1.45	2.02
United Kingdom	0.75	0.60	0.62	0.50	0.44	0.46	0.46	0.41	0.45	0.49	0.54	0.61	0.86	1.13
Australia	0.75	0.92	0.78	0.75	0.72	0.72	0.75	0.80	0.86	0.95	1.01	1.03	1.26	1.67
New Zealand	1.00		1.73	1.00			1.12		1.24			1.33	1.71	
Canada	1.75	1.63	1.64	1.50	1.46	1.43	1.39		1.39			1.39		1.51
United States	1.63	1.56	1.48	1.44	1.44		1.46		1.57			1.65		2.14

Concept courtesy of @CharlieBilello

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Swiss 50-Year Bond

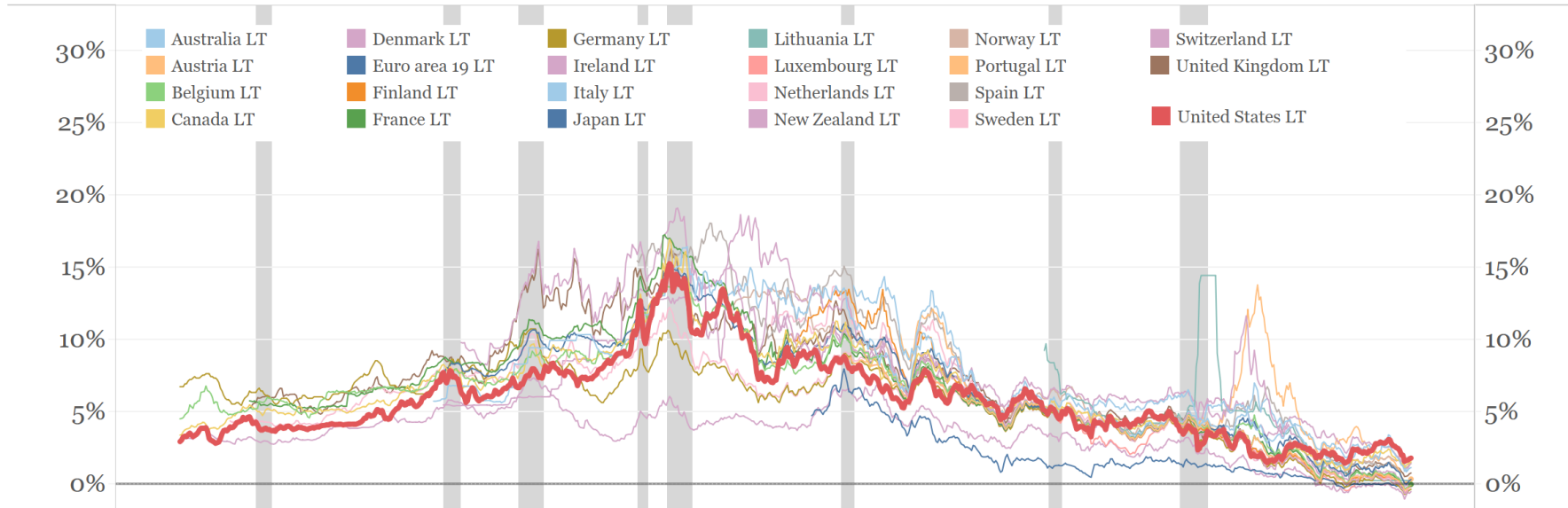
2.0% of Jun-25, 2064 (Rated AAA)



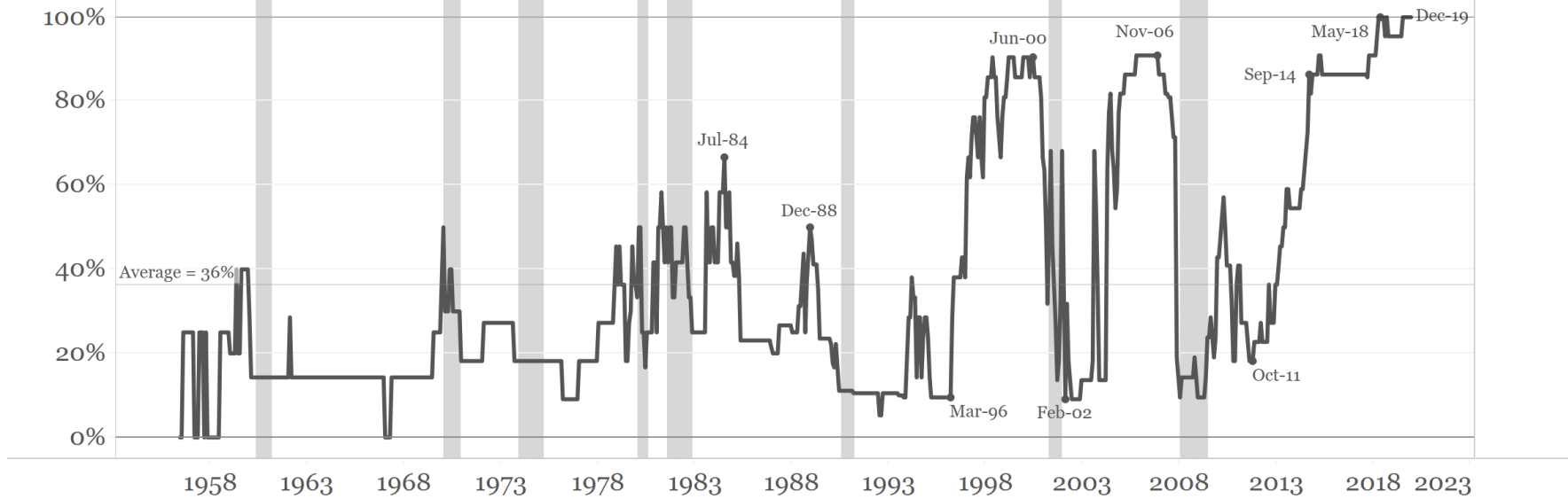
Source: Bloomberg

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Long-Term Yields - Developed Countries



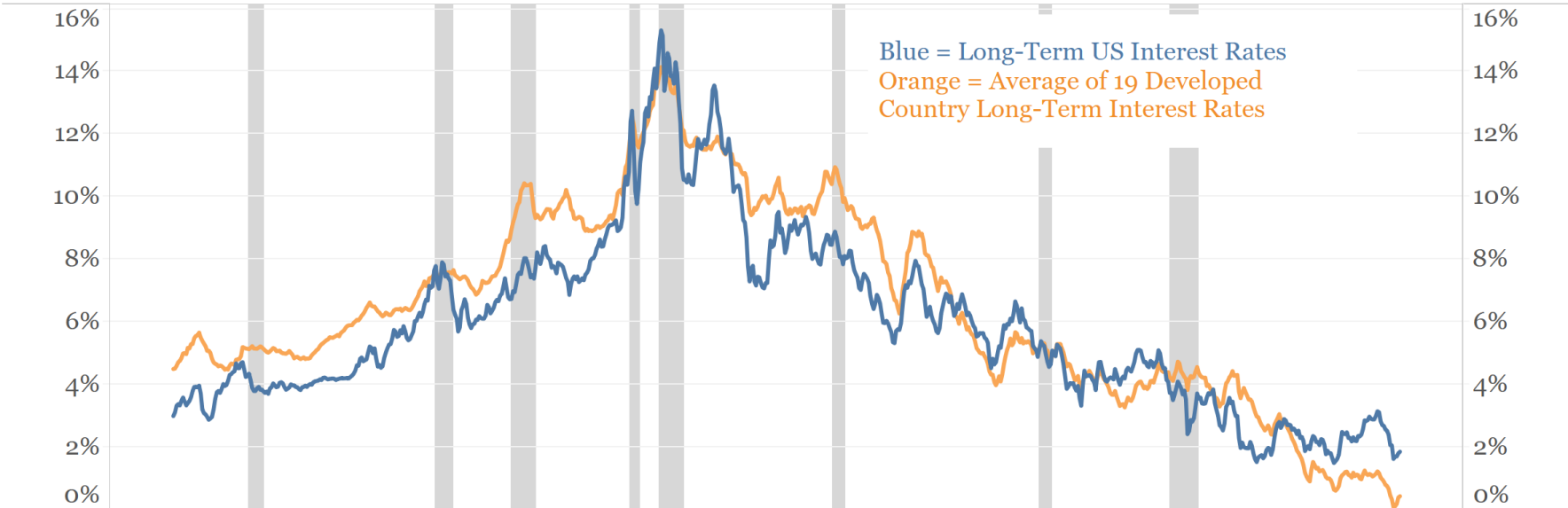
Percentage of Countries With Long-Term Yields Below The United States



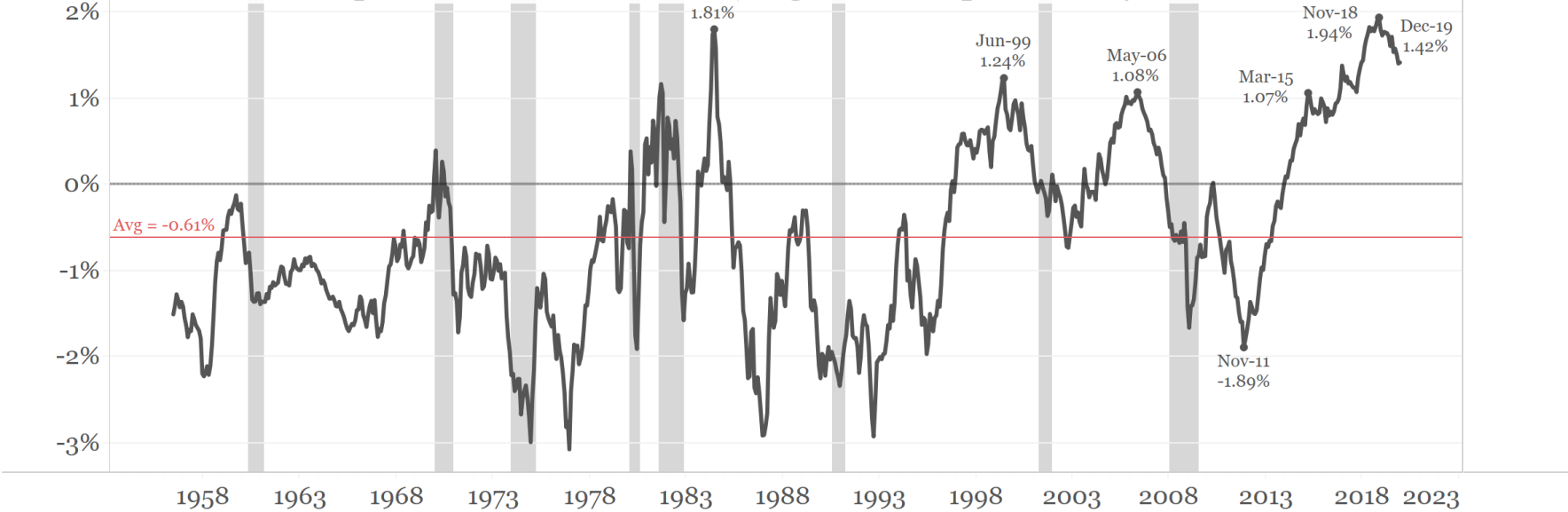
Source: Organization for Economic Cooperation and Development

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Long-Term Yields - Developed Countries



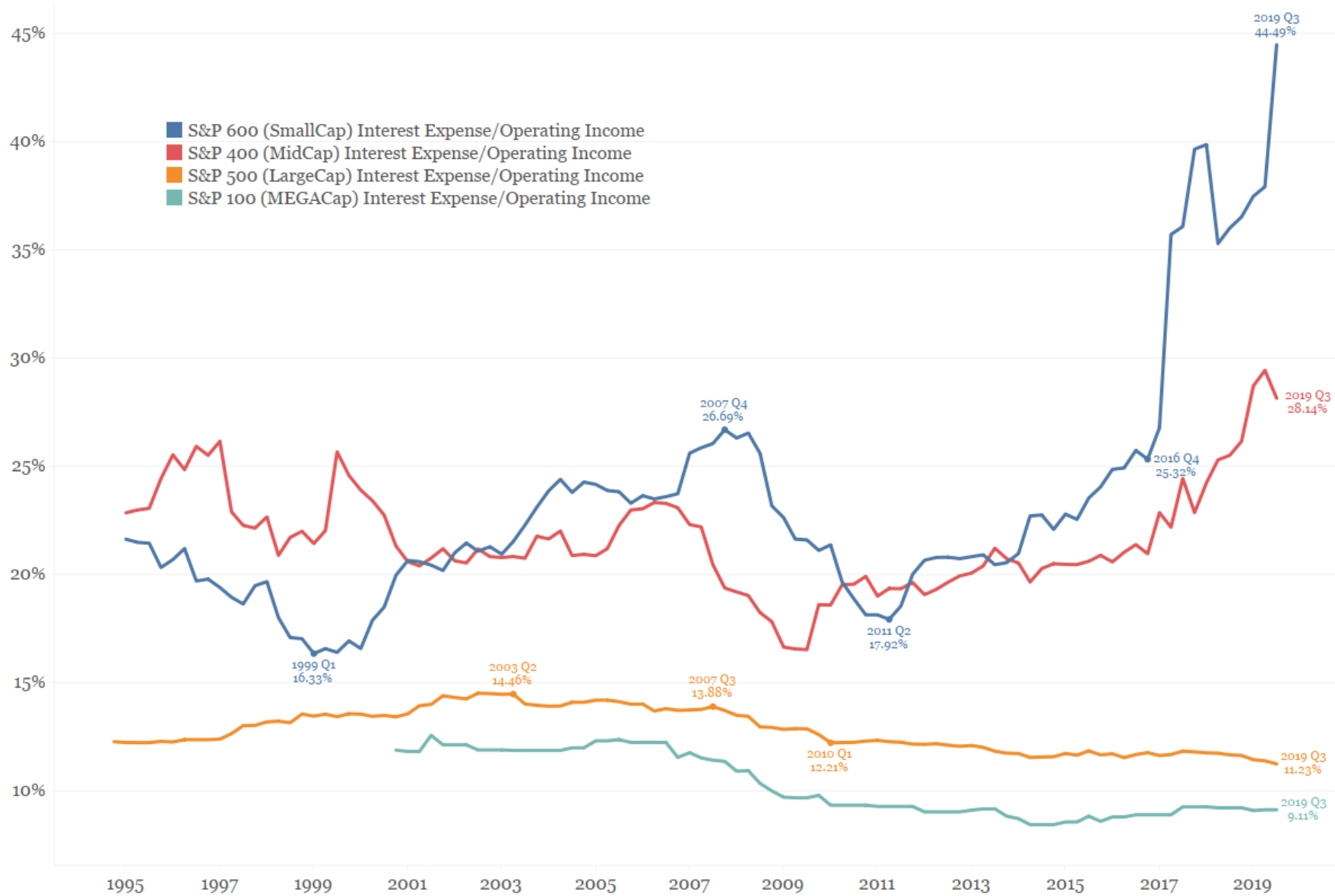
Spread US Rates and the Average of Developed Country Rates



Source: Organization for Economic Cooperation and Development

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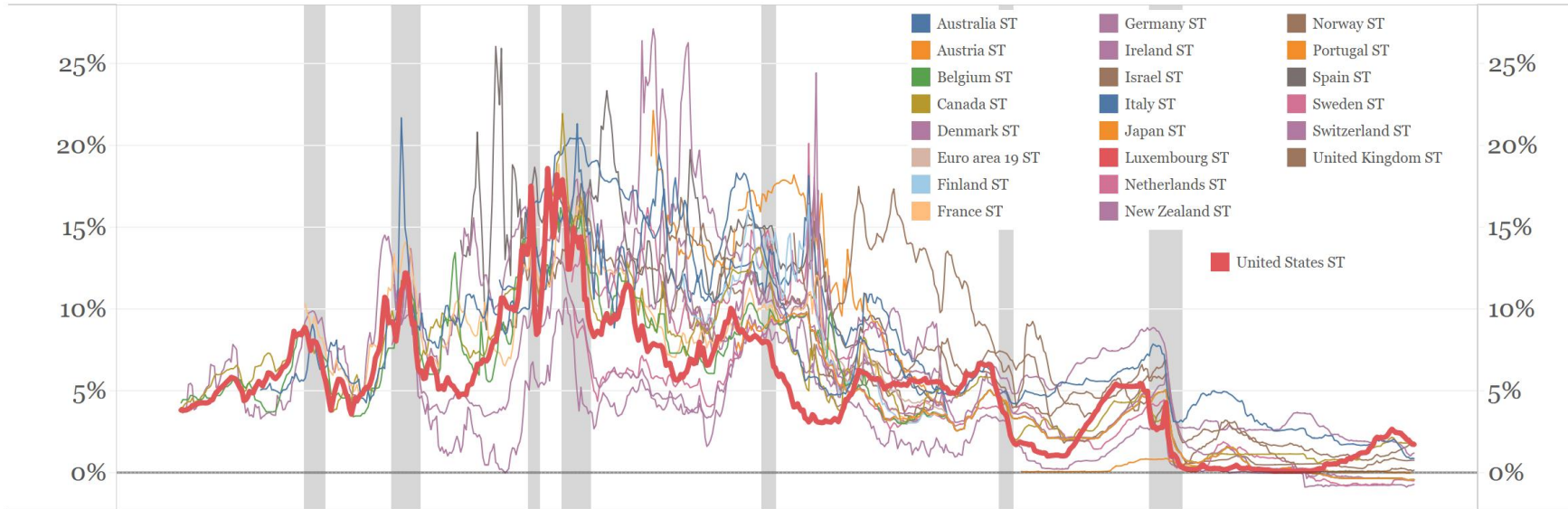
Interest Expense As A Percentage Of Operating Income



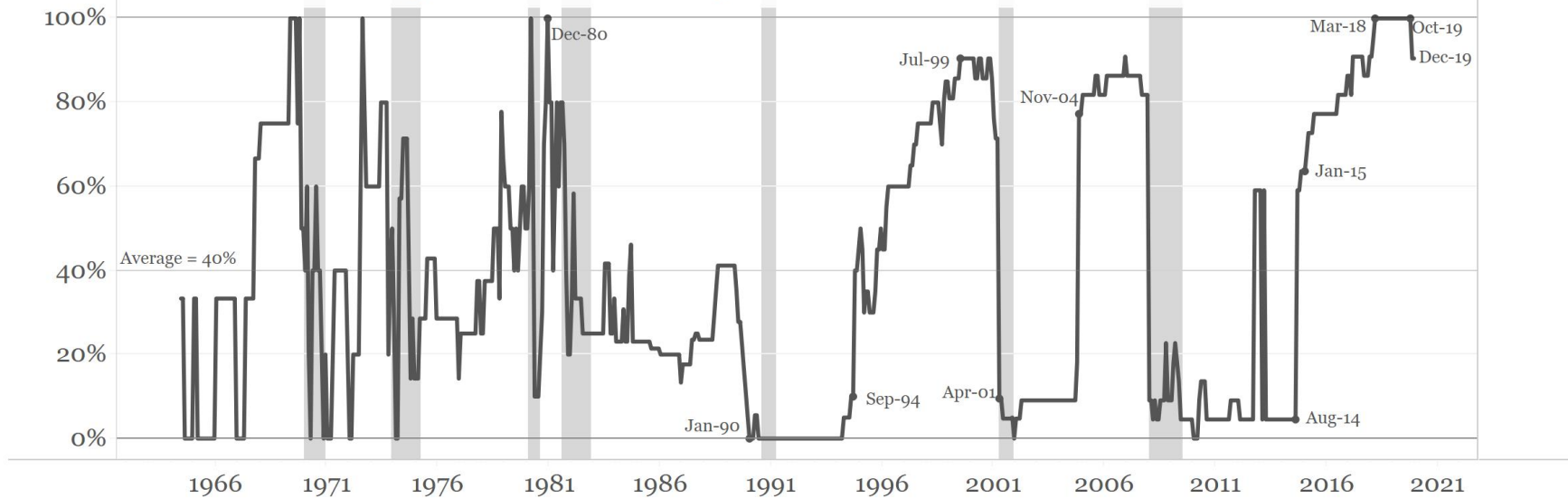
Source: Bloomberg, Standard & Poors

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3-Month Yields - Developed Countries



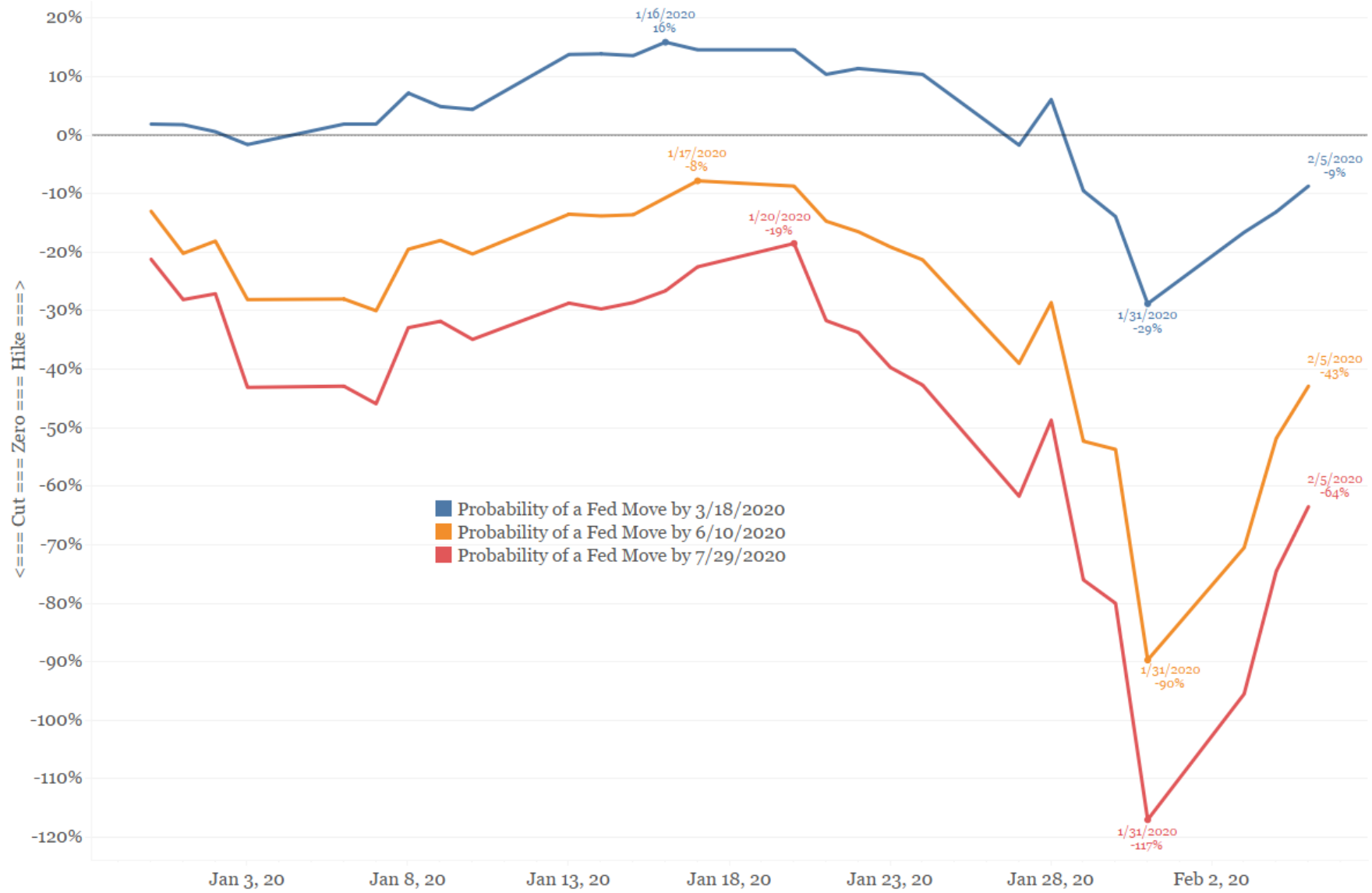
Percentage of Countries With 3-Month Yields Below The United States



Source: Organization for Economic Cooperation and Development

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<https://www.biancoresearch.com/d>

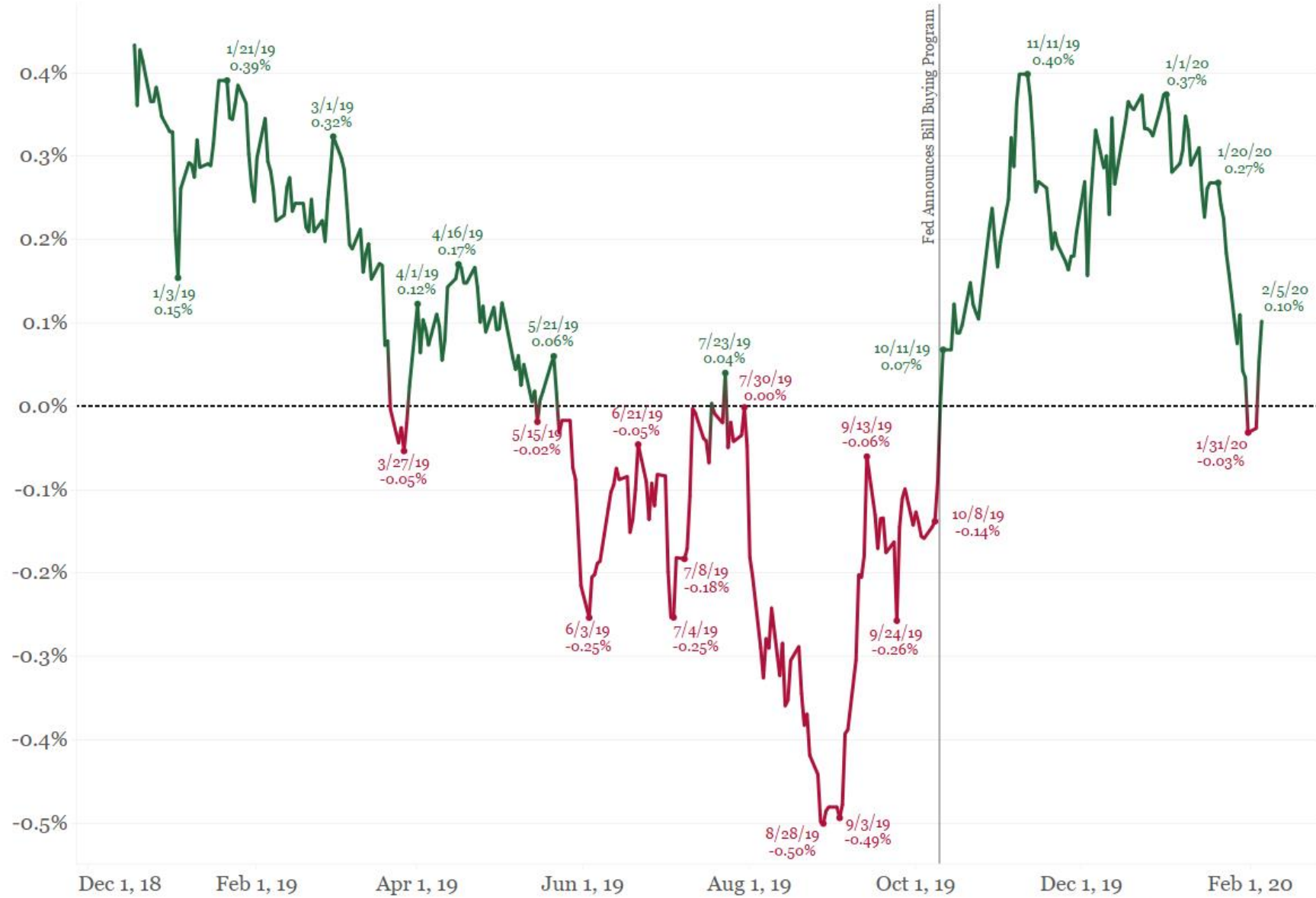
When Will the Fed Move Again? Fed Fund Futures Probability of a Move



Data Source: Bloomberg

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The 10-Year less 3-Month Yield Curve



Source: Bloomberg

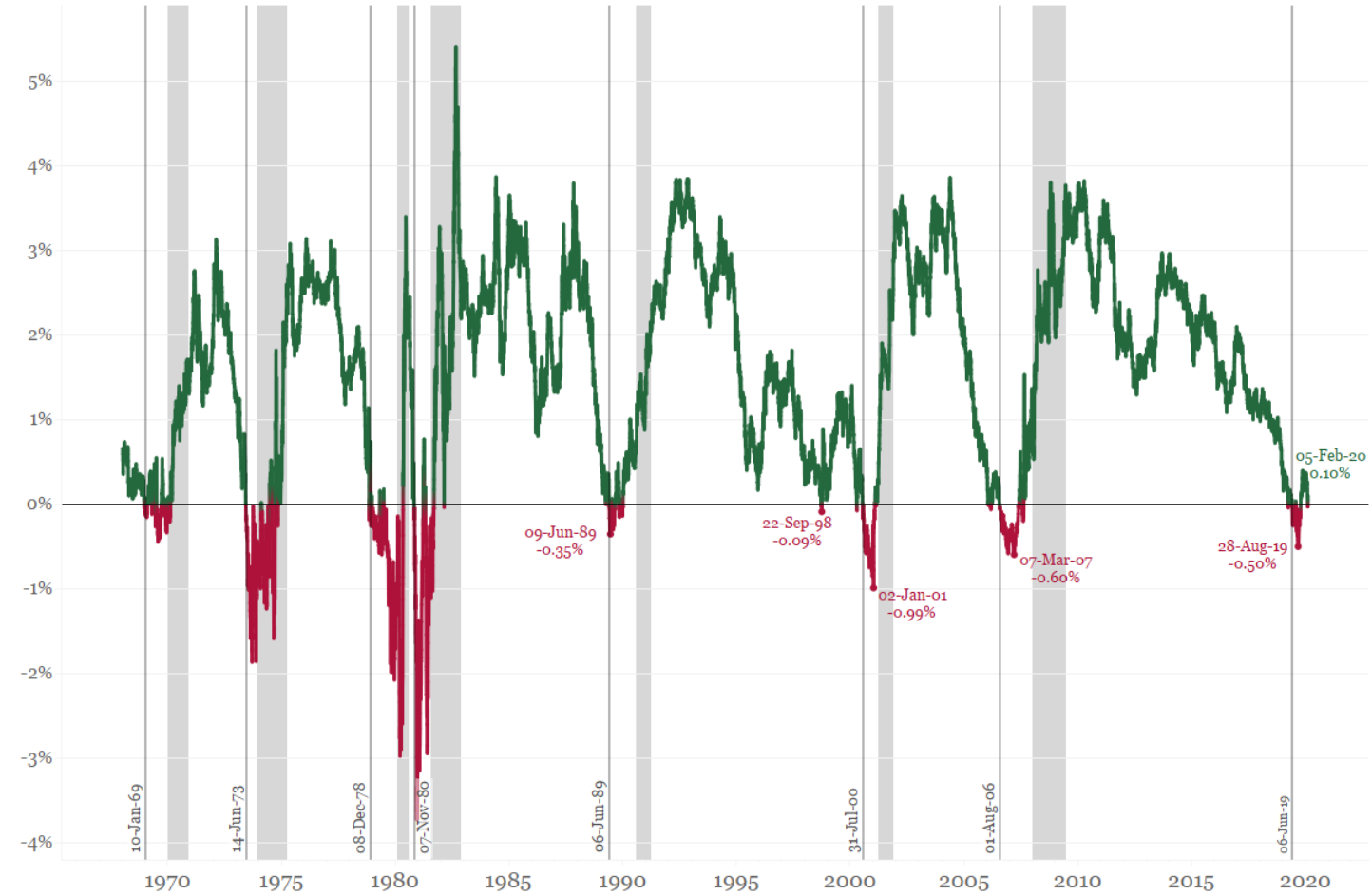
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How Long Until the Recession?			
When the 3-month to 10-year yield curve inverts for 10 consecutive trading days			
Date of Inversion	Consecutive Trading Days Inverted	Date of Next Recession	Calendar Days to Next Recession
1/10/1969	24	Dec-69	325
6/14/1973	177	Nov-73	140
12/8/1978	91	Jan-80	389
11/7/1980	102	Jul-81	236
6/6/1989	30	Jul-90	390
7/31/2000	135	Mar-01	213
8/1/2006	217	Dec-07	487
6/6/2019	41	????	????
Average	111		311

1/10/1969 = inverted for 24 calendar days, went positive for 33 days, then inverted again for 53 days
6/6/1989 = inverted for 30 calendar days, went positive for 9 days, inverted again for 26 days
6/6/2019 = As of July 31 the inversion has been 41 consecutive trading days.
 Positive for 1 day, inverted since (67 days through October 10)

Yield Curve Inversions Lead Recessions

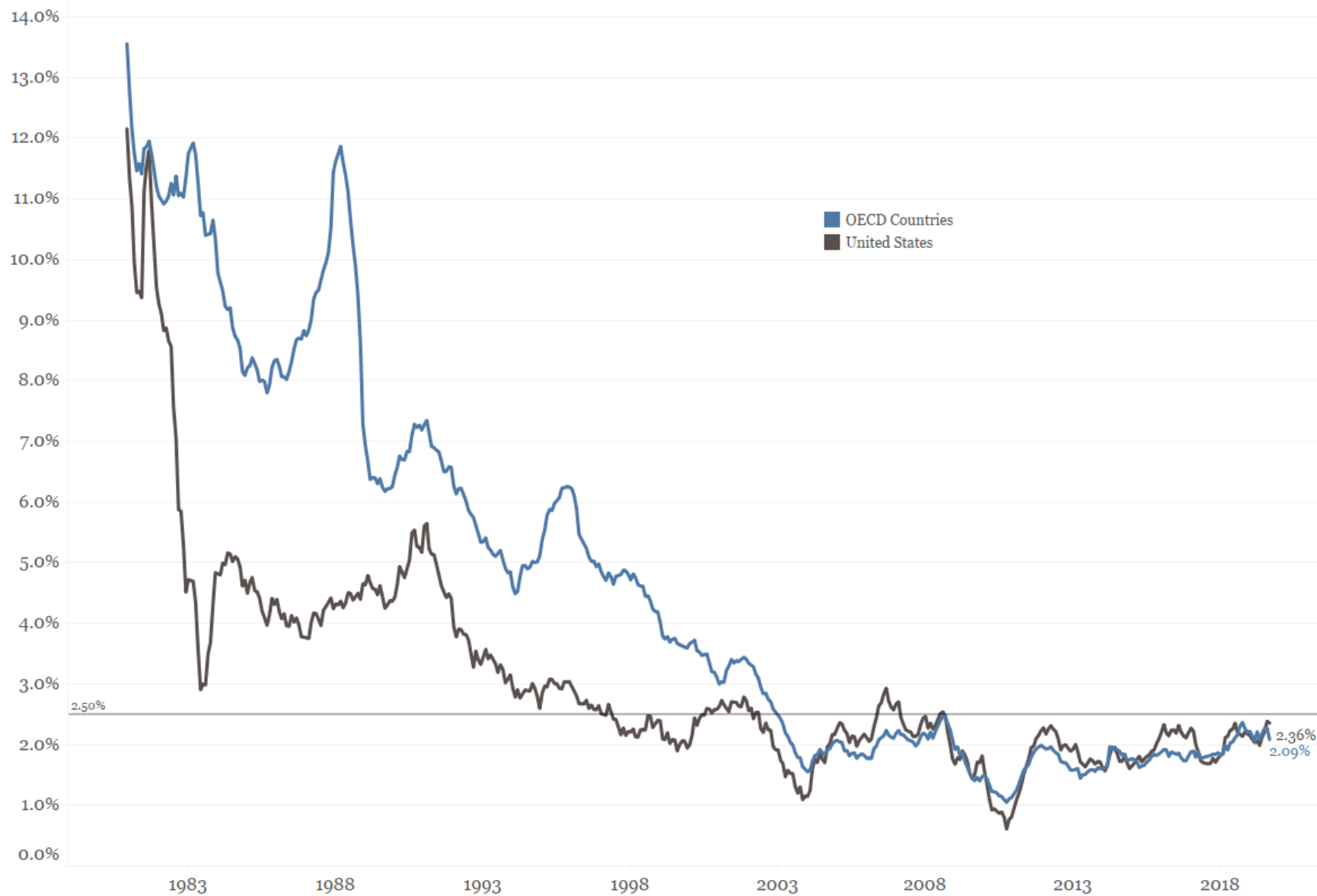
10-Year less 3-Month Yield Curve



Data Source: Federal Reserve and Bloomberg

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Technology Squashes Inflation



Source: Organization for Economic Cooperation and Development

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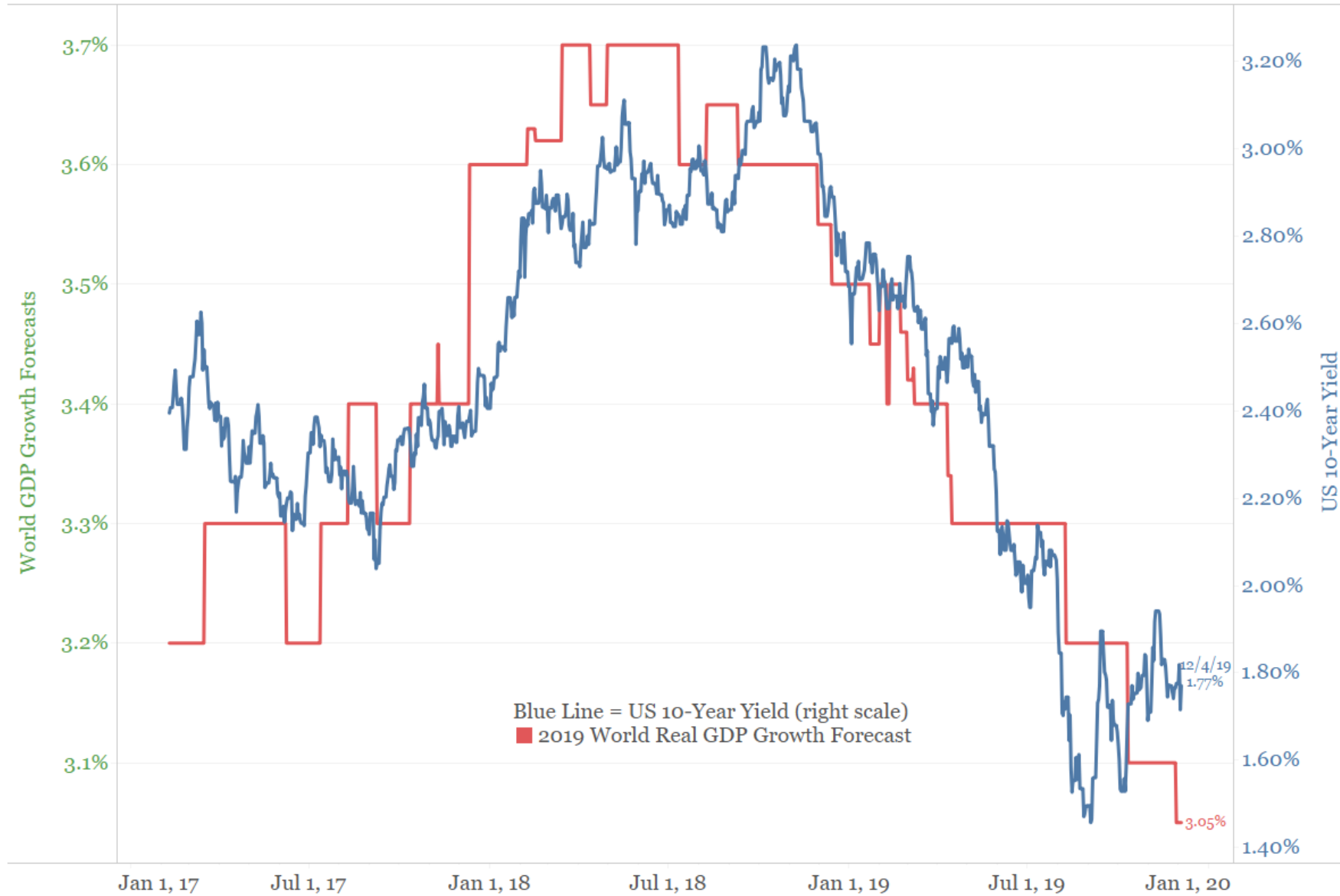
Europe 5-Year/5-Year Forward Inflation Breakeven Rate



Source: Bloomberg

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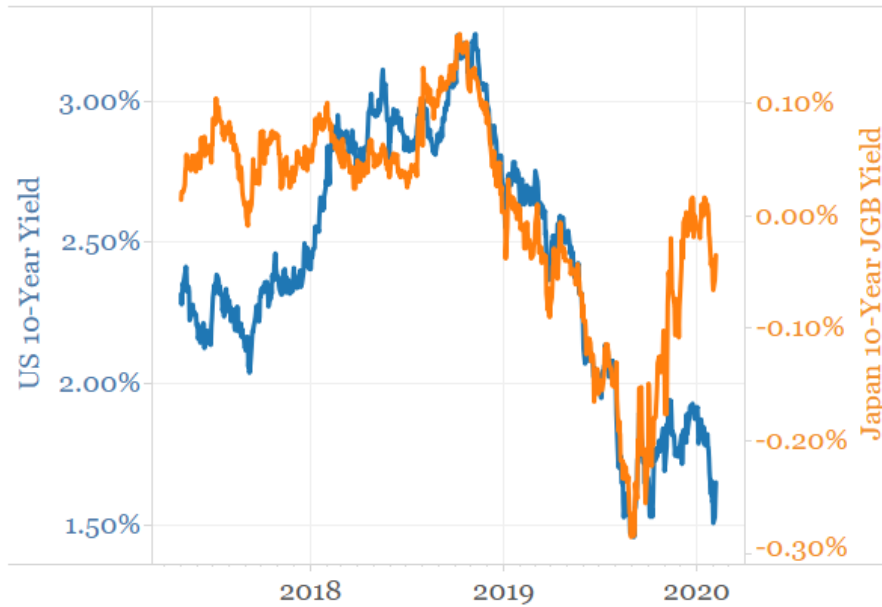
2019 World GDP Forecast and the 10-Year Yield



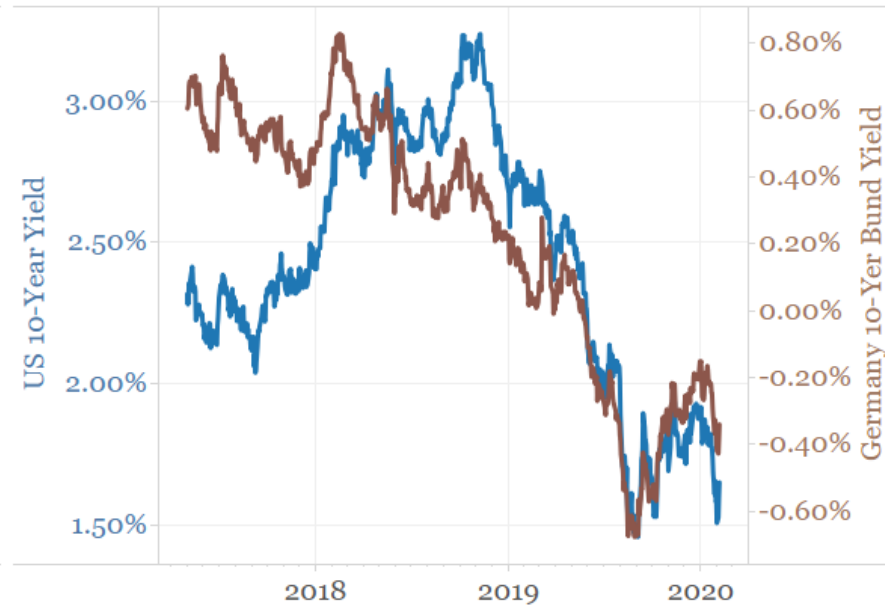
Data Source: Bloomberg

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US and Japanese 10-Year Yields



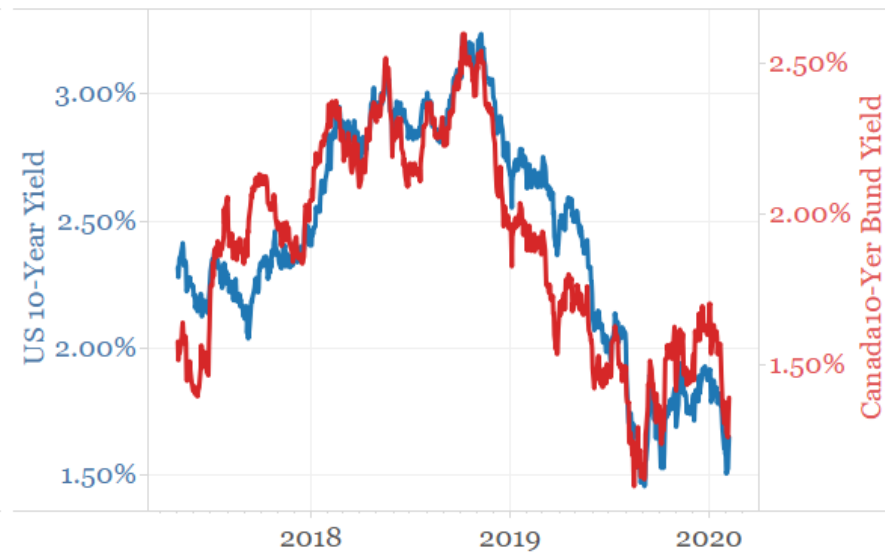
US and German 10-Year Yields



US and UK 10-Year Yields



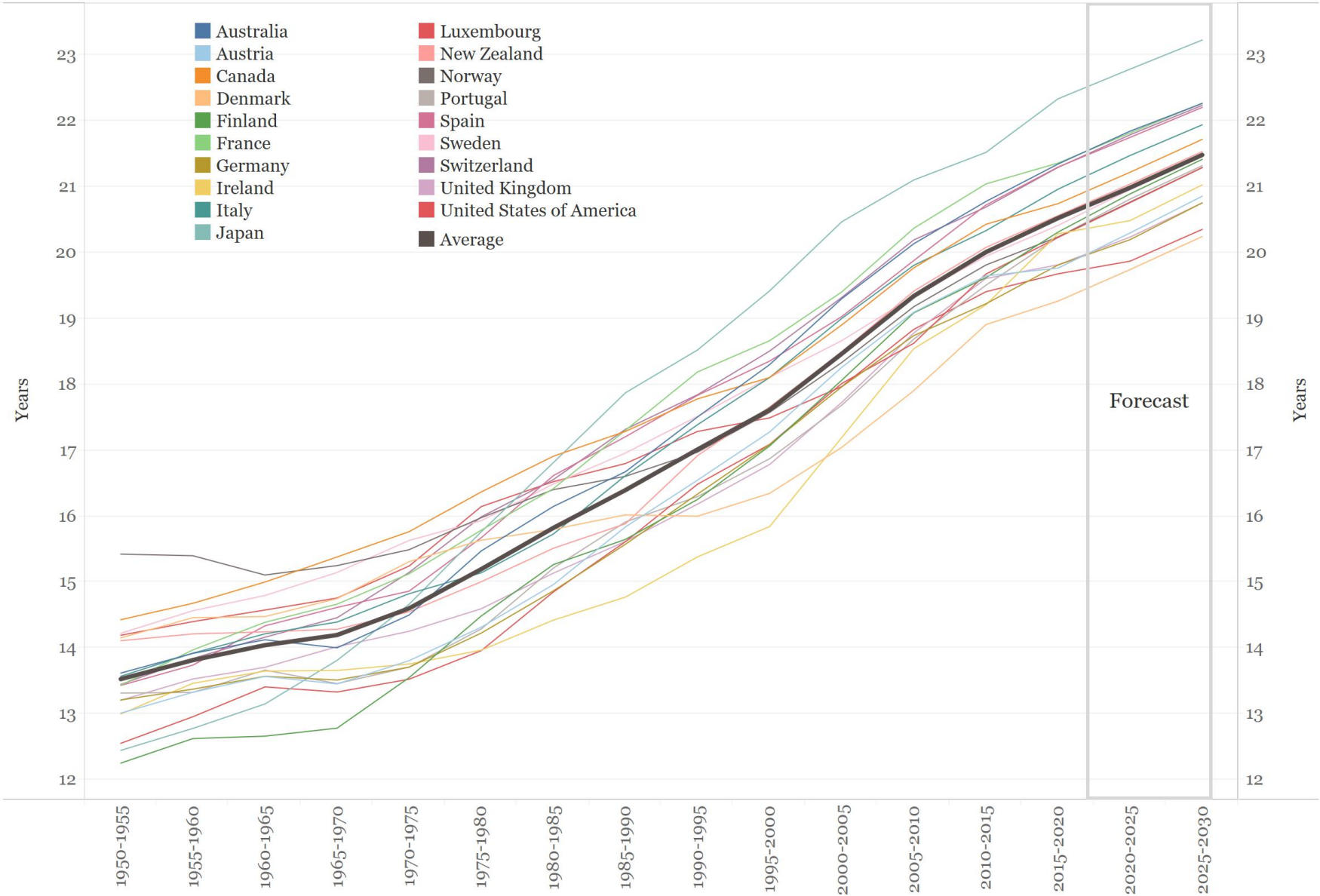
US and Canada 10-Year Yields



Data Source: Bloomberg

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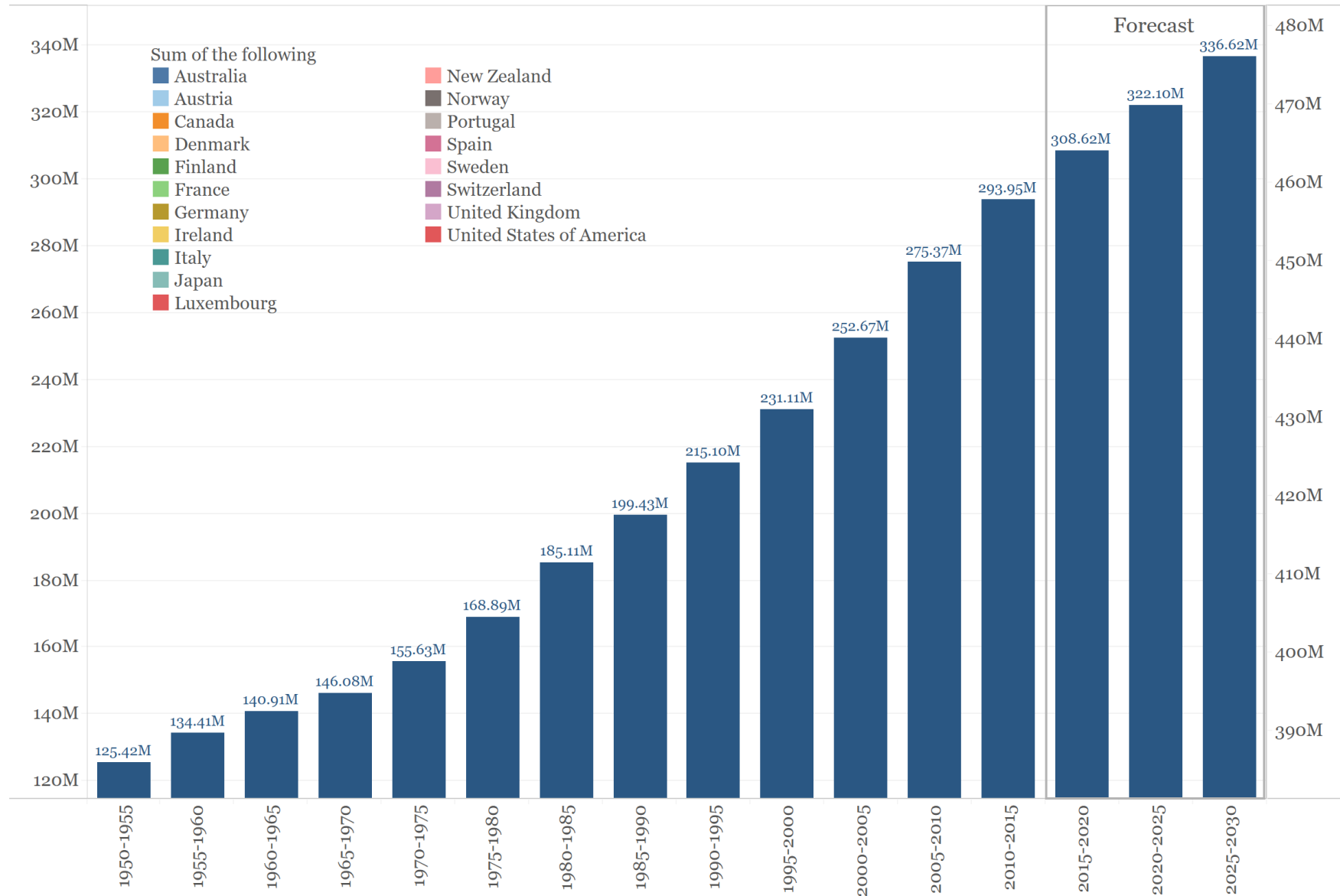
Life Expectancy at 65



Data Source: United Nations, Department of Economic and Social Affairs, Population Division
<http://population.un.org/wpp>

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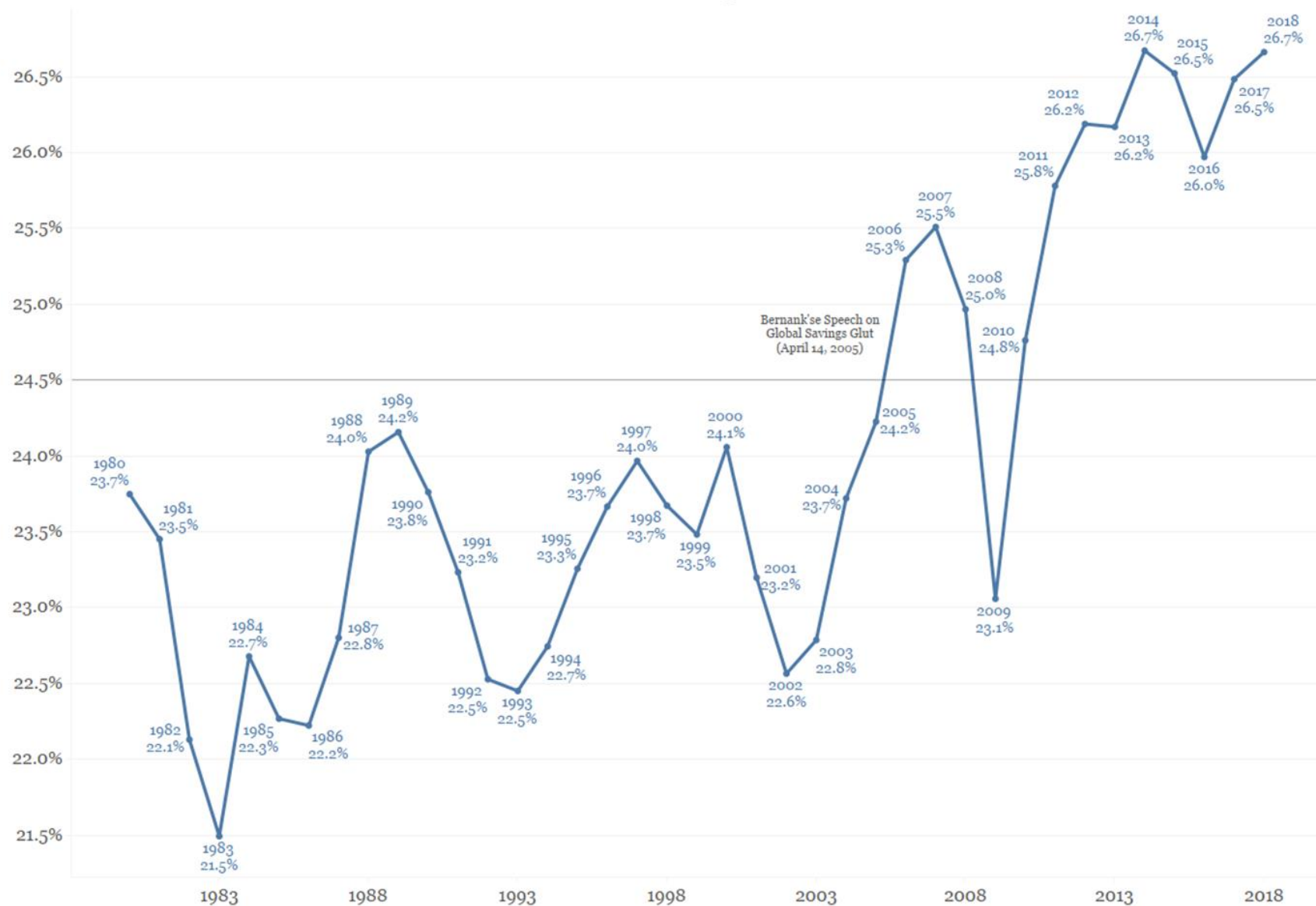
Total Population over 65



Data Source: United Nations, Department of Economic and Social Affairs, Population Division
<http://population.un.org/wpp>

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IMF World Gross National Savings as a Percent of GDP

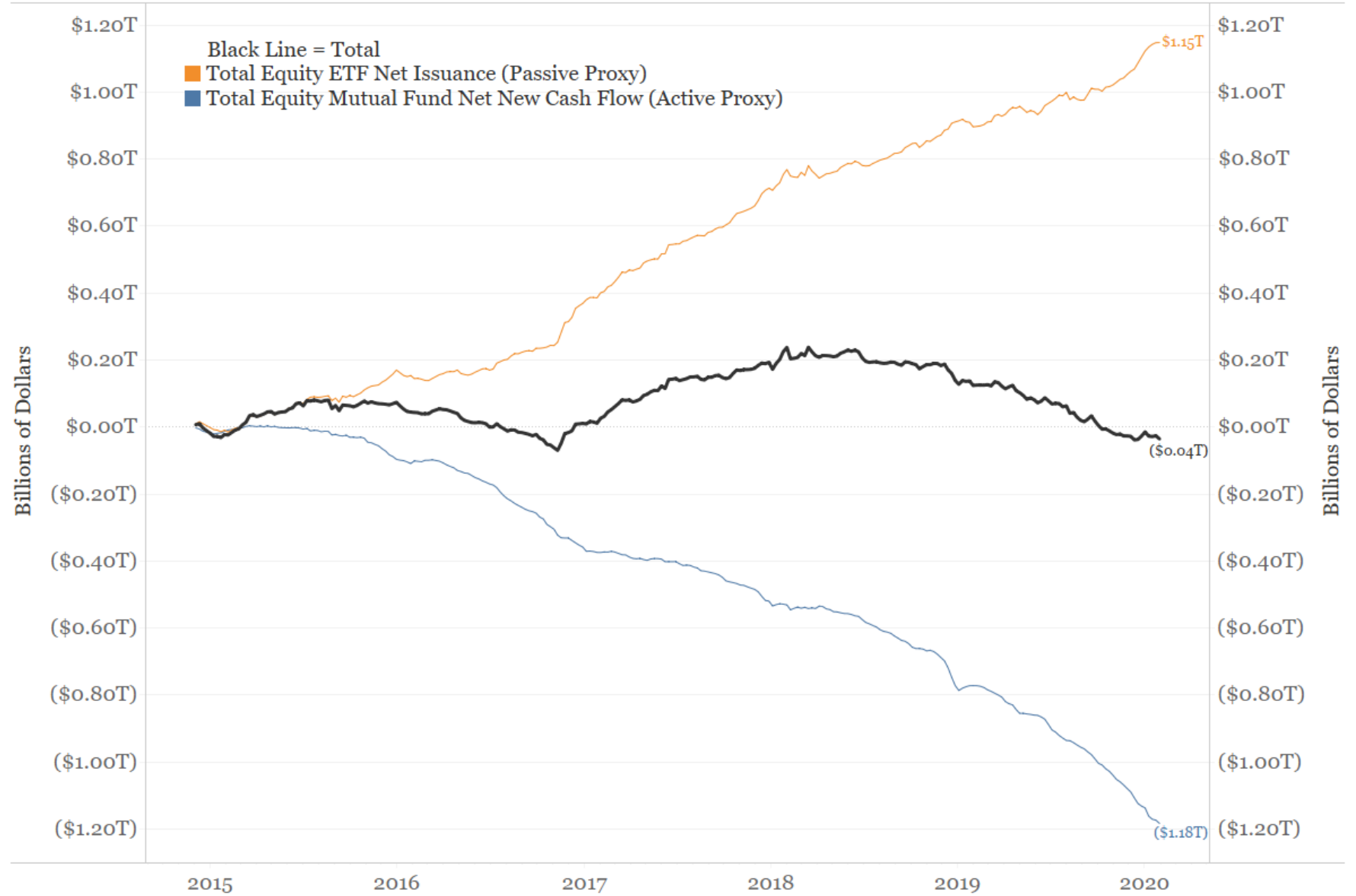


Data Source: International Monetary Fund, Bloomberg

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According to Investment Adviser Association, the U.S. has 13,000 registered investment advisory firms, employing more than 436,000 wealth managers and directing more than 43 million accounts with a combined net worth of nearly \$84 trillion. In other words, most of the wealth in the U.S. is now being directed, or at least influenced, by a wealth manager.

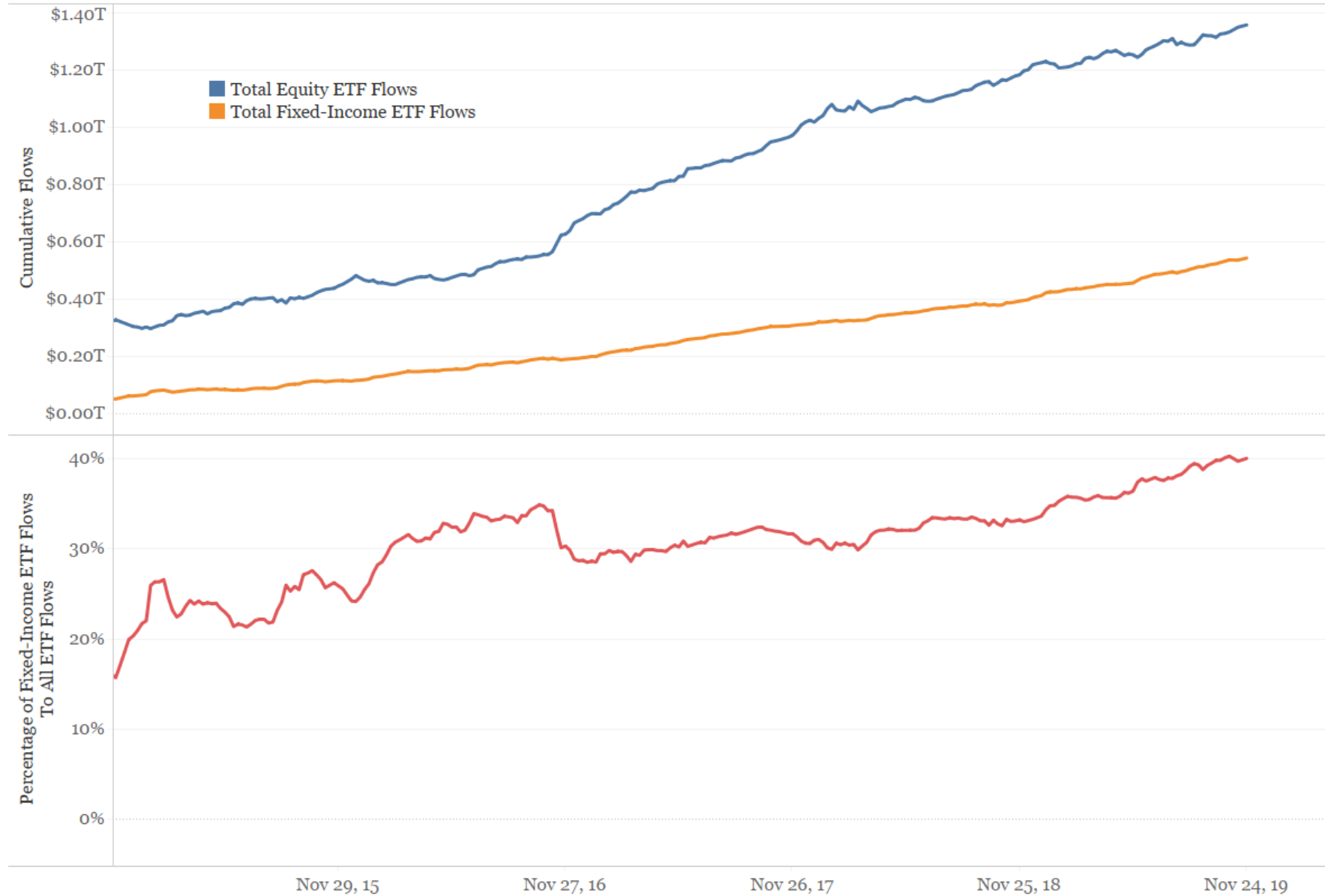
Cumulative Equity Flows



Source: Investment Company Institute, Bloomberg

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Flows Into ETFs Mimick The 60 40 Portfolio



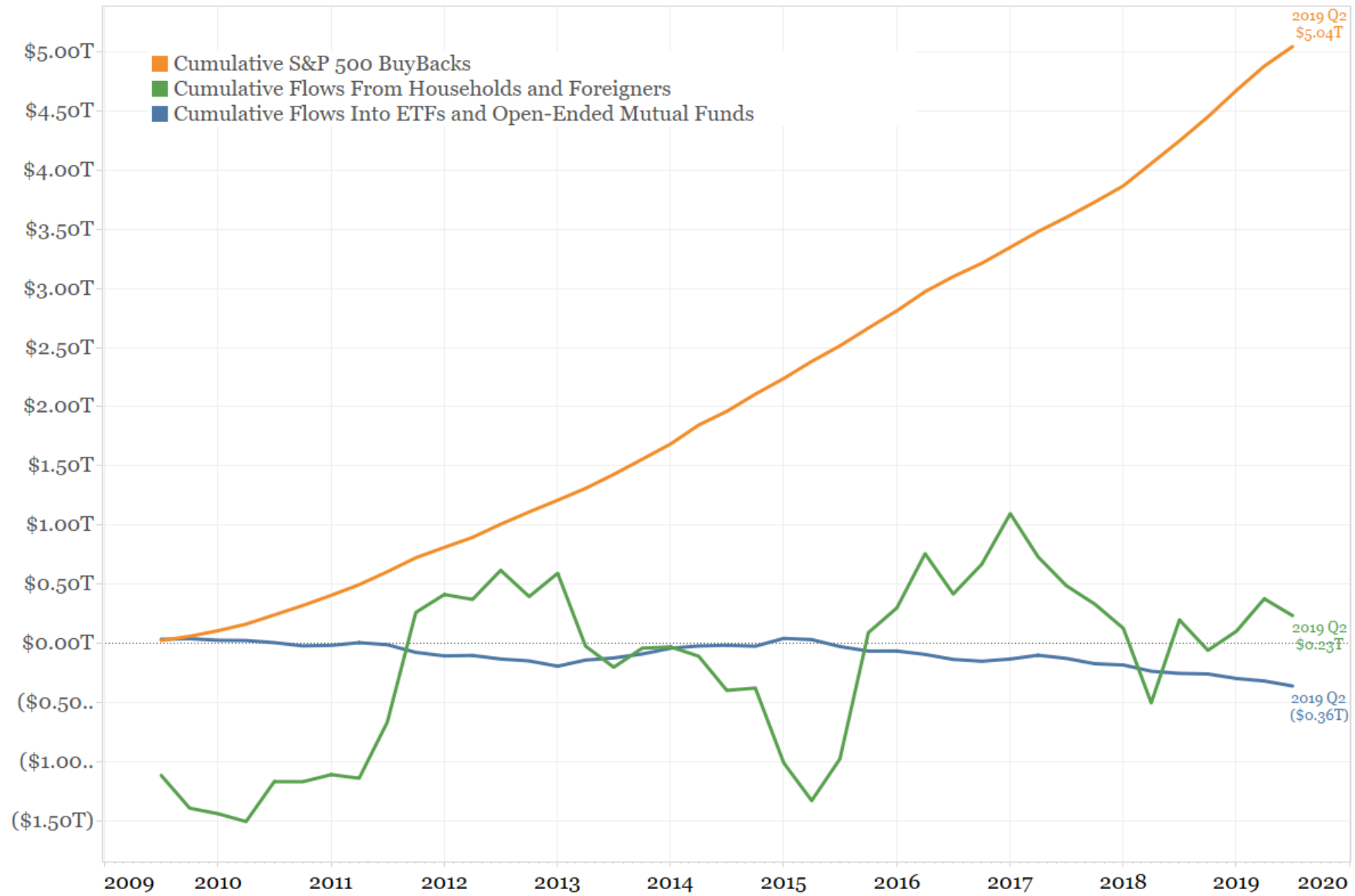
Source: Investment Company Institute, Bloomberg

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The yearly survey conducted by TD Ameritrade Institutional stated that 88% of wealth managers use ETFs, the most popular investment vehicle in their arsenal. It's estimated that two-thirds or more of all ETFs are held in accounts directed by wealth managers. It is not an understatement to say the ETF is the tool that created the wealth management industry.

Are Buybacks Driving The Show?

Cumulative Flows Since The End of the Great Recession



Data Source: Standard & Poors, Investment Company Institute

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Real Interest Rates in the Developed World (Nominal Minus CPI)

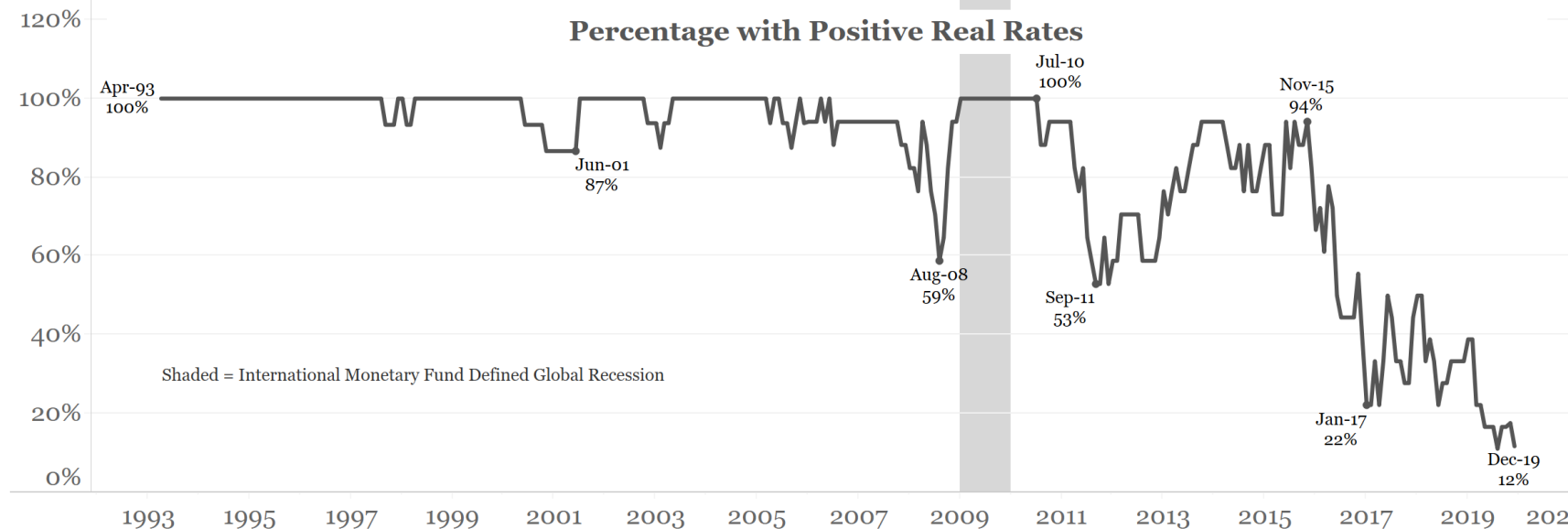
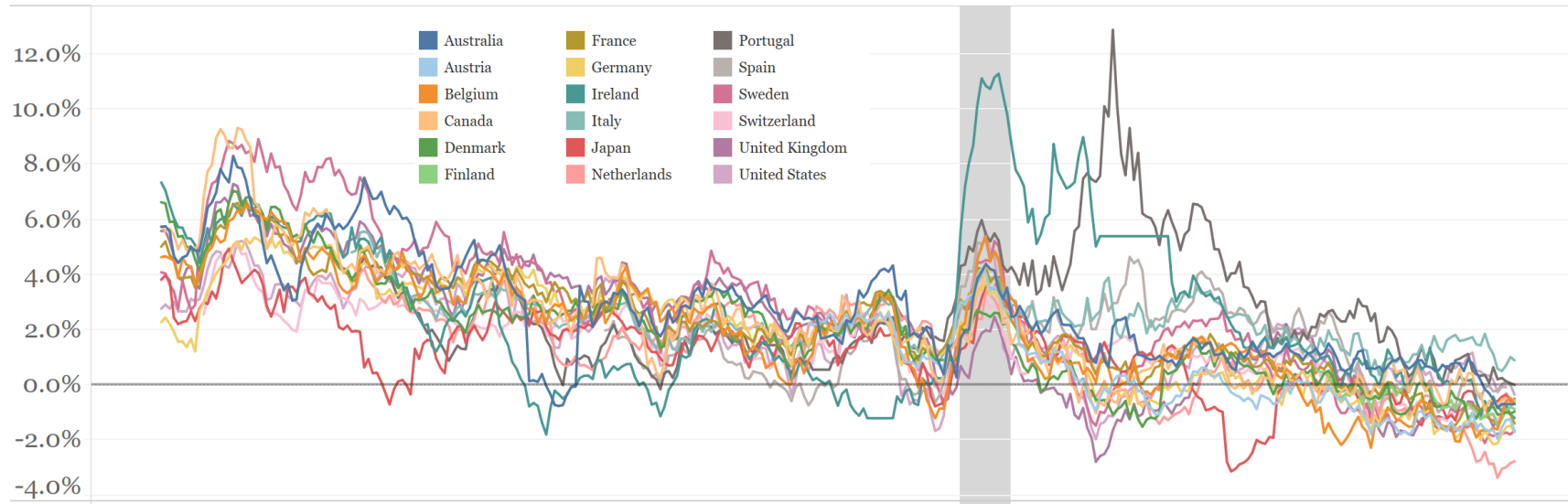
As of 2/05/2020

Country	Inflation Rate	Policy Rate	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	6-Year	7-Year	8-Year	9-Year	10-Year	15-Year	30-Year
Switzerland	0.20	-0.95	-0.99	-0.97	-0.99	-0.98	-0.96	-0.96	-0.95	-0.93	-0.95	-0.93	-0.88	-0.74	-0.56
Germany	1.70	-2.20	-2.29	-2.30	-2.35	-2.36	-2.34	-2.29	-2.28	-2.23	-2.19	-2.13	-2.06	-1.93	-1.54
Netherlands	2.70	-3.45	-3.47		-3.36			-3.26			-3.17		-3.05		
Sweden	1.80	-1.80	-2.00	-1.80	-2.11	-1.80	-2.11	-2.06	-1.99	-1.80	-1.93	-1.86	-1.75	-1.57	-1.80
Denmark	0.80	-1.55	-1.57		-1.46			-1.36			-1.27		-1.15		-0.80
Finland	0.90	-1.40		-1.51	-1.54	-1.51	-1.47	-1.44	-1.33	-1.28	-1.19	-1.13	-1.06	-0.83	-0.55
Austria	1.70	-2.20		-2.30	-2.32	-2.31	-2.27	-2.20	-2.13	-2.06	-2.02	-1.96	-1.89	-1.62	-1.29
Japan	0.80	-0.90	-0.95	-0.94	-0.94	-0.96	-0.96	-0.94	-0.96	-0.95	-0.93	-0.88	-0.84	-0.67	-0.38
France	1.50	-2.00	-2.09	-2.08	-2.11	-2.09	-2.04	-1.95	-1.91	-1.83	-1.79	-1.69	-1.60	-1.34	-0.81
Belgium	1.41	-1.91	-2.01	-1.99	-2.01	-2.00	-1.95	-1.87	-1.82	-1.74	-1.67	-1.61	-1.53	-1.26	-0.71
Ireland	1.30	-1.80		-1.92		-1.81	-1.75	-1.66	-1.58	-1.30		-1.30	-1.39	-0.99	-0.56
Spain	1.10	-1.60	-1.55	-1.54	-1.52	-1.50	-1.40	-1.30	-1.17	-1.08	-0.98	-0.89	-0.80	-0.39	0.10
Portugal	0.80	-1.30	-1.27	-1.28	-1.20	-1.08	-1.04	-0.90	-0.81	-0.75	-0.62	-0.57	-0.46	-0.19	0.34
Italy	0.60	-1.10	-0.96	-0.92	-0.81	-0.62	-0.48	-0.27	-0.15	-0.01	0.11	0.21	0.36	0.85	1.42
United Kingdom	1.30	-0.55	-0.70	-0.68	-0.80	-0.86	-0.84	-0.84	-0.89	-0.85	-0.81	-0.76	-0.69	-0.44	-0.17
Australia	1.80	-1.05	-0.88	-1.03	-1.05	-1.09	-1.08	-1.05	-1.00	-0.94	-0.85	-0.79	-0.77	-0.54	-0.13
New Zealand	1.90	-0.90		-0.18	-0.90			-0.78		-0.66			-0.57	-0.19	
Canada	2.20	-0.45	-0.57	-0.56	-0.70	-0.74	-0.77	-0.81		-0.81			-0.81		-0.69
United States	2.30	-0.68	-0.74	-0.82	-0.86	-0.86		-0.84		-0.73			-0.65		-0.16

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Falling 10-Year Headline Real Rates

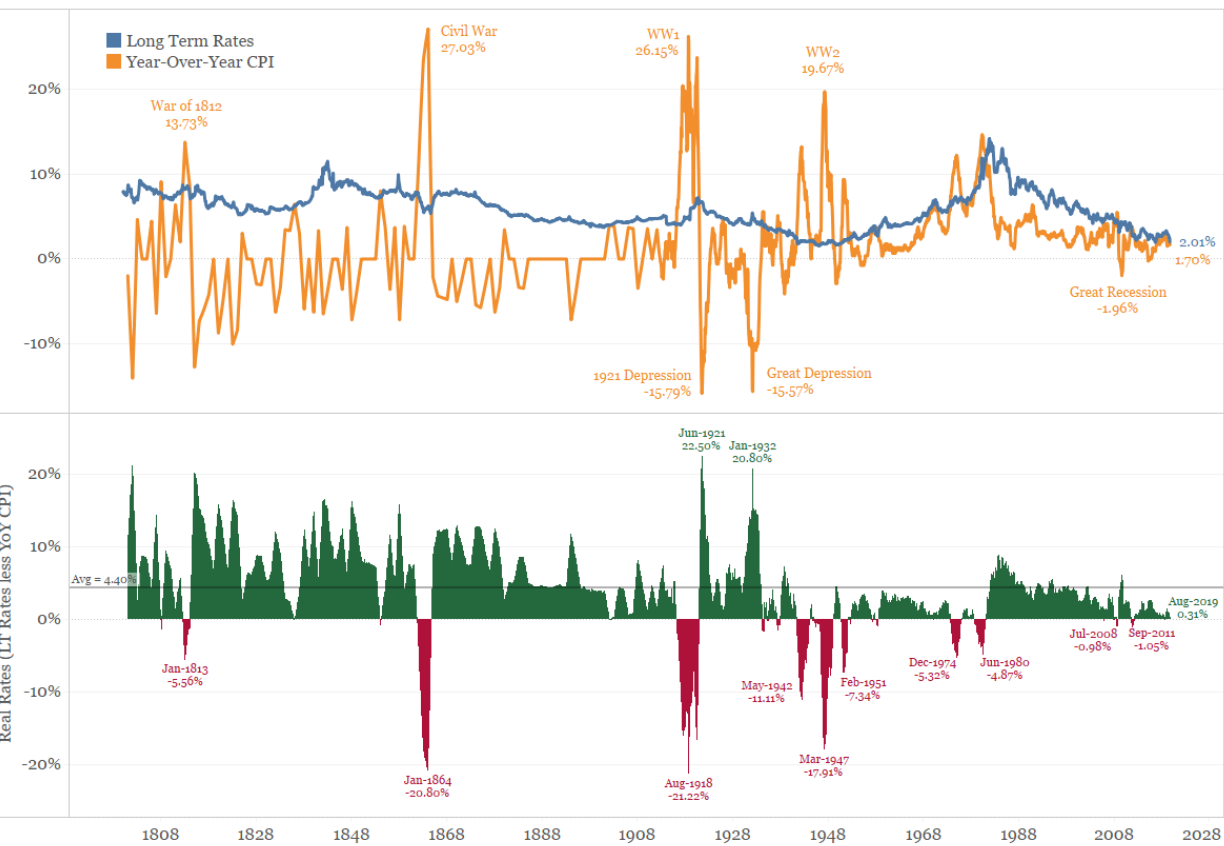
10-Year Yields Deflated by Headline CPI



Source: Bloomberg, International Monetary Fund

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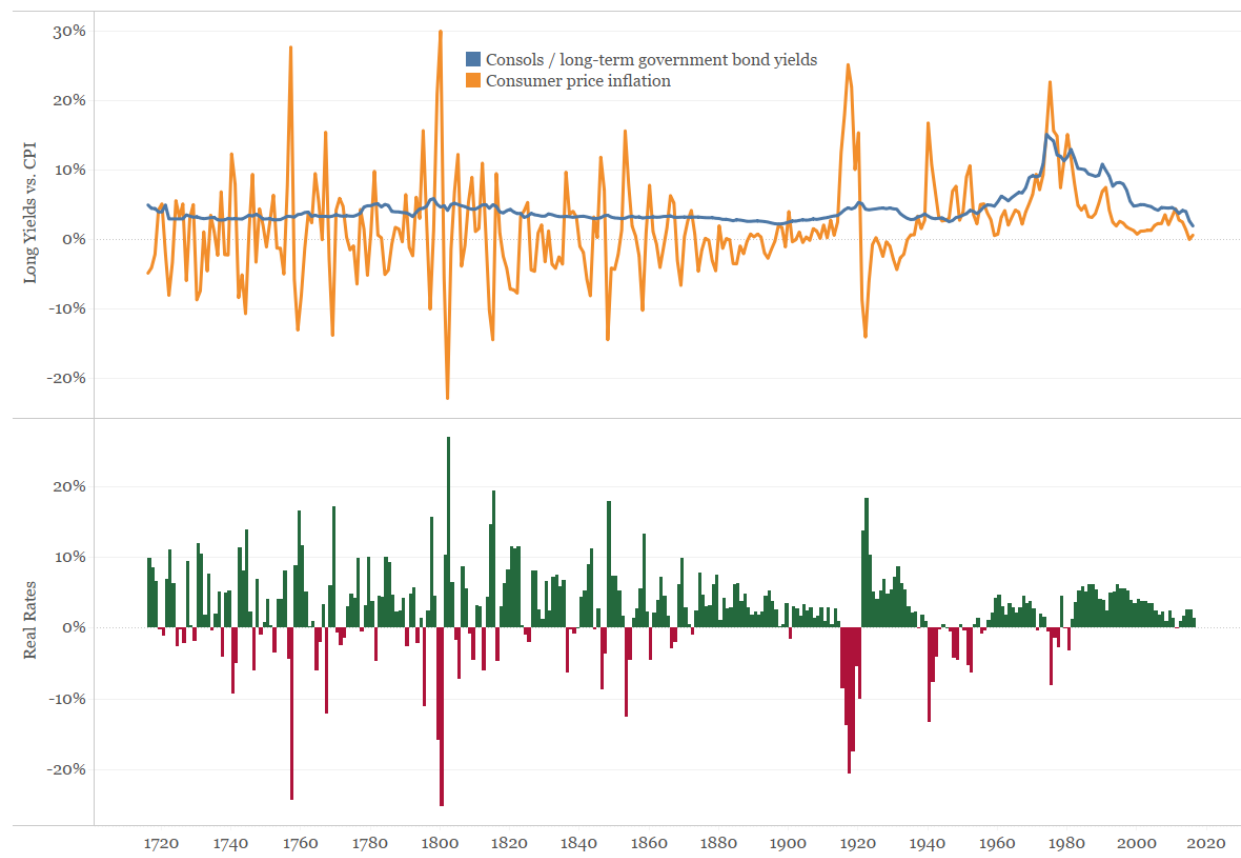
Long-Term Interest Rates vs. Year-Over-Year CPI



Source: The Federal Reserve & BLS

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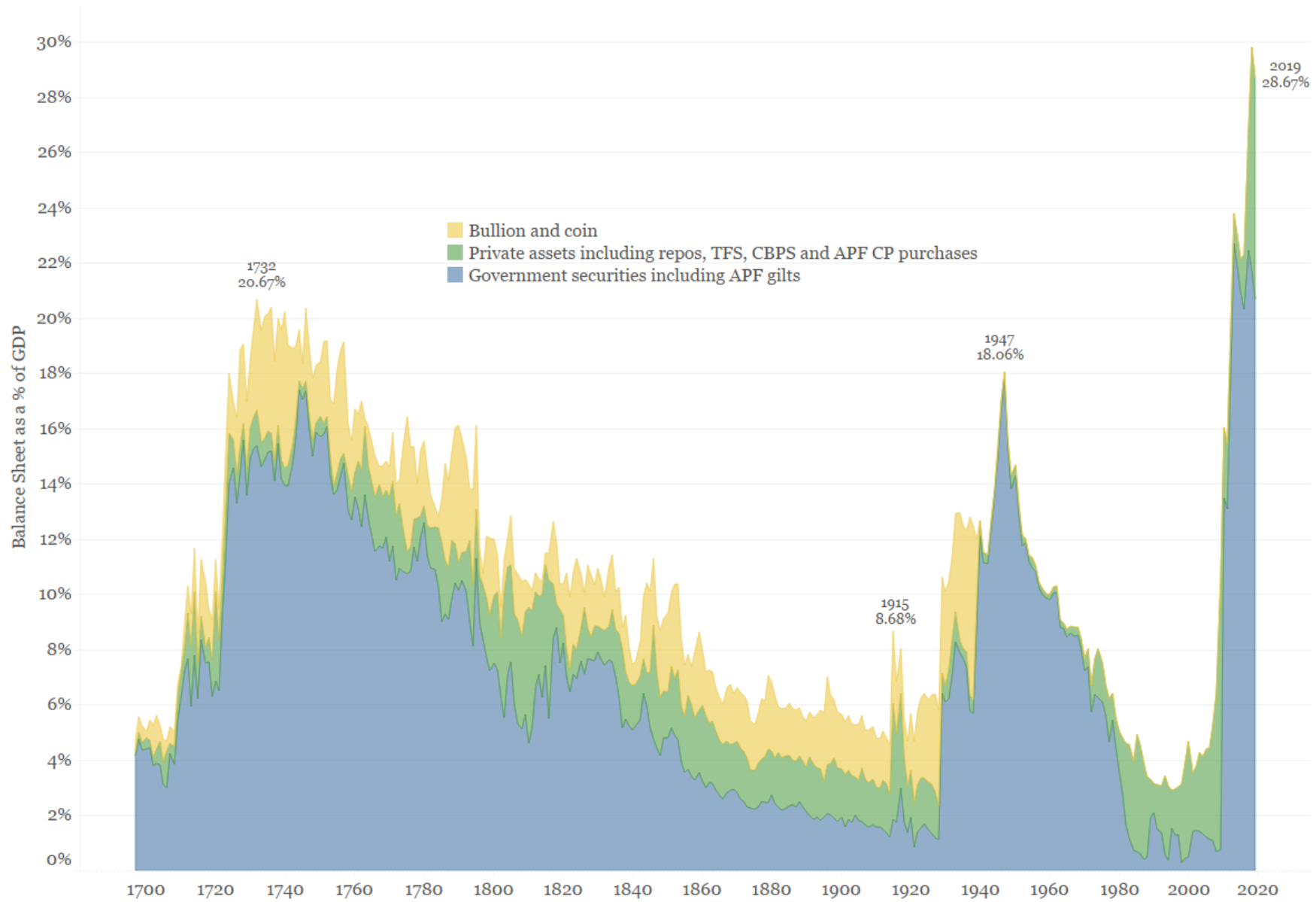
UK Real Rates



Source: BOE

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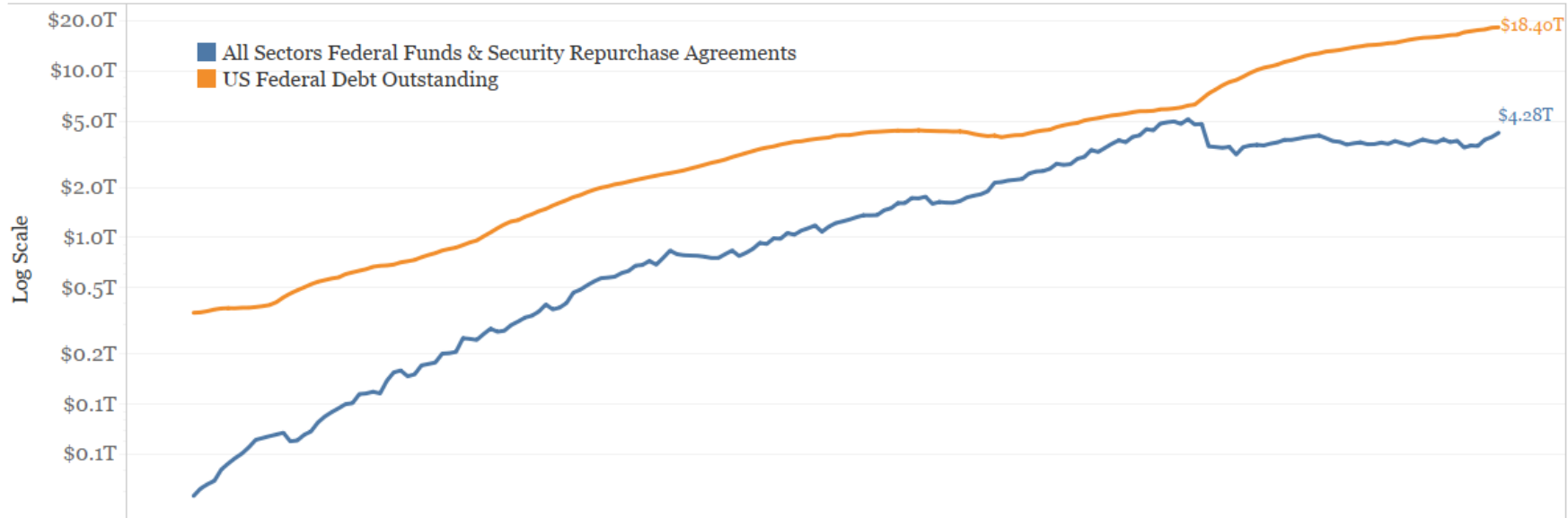
The BOE's Balance Sheet as a Percentage of GDP



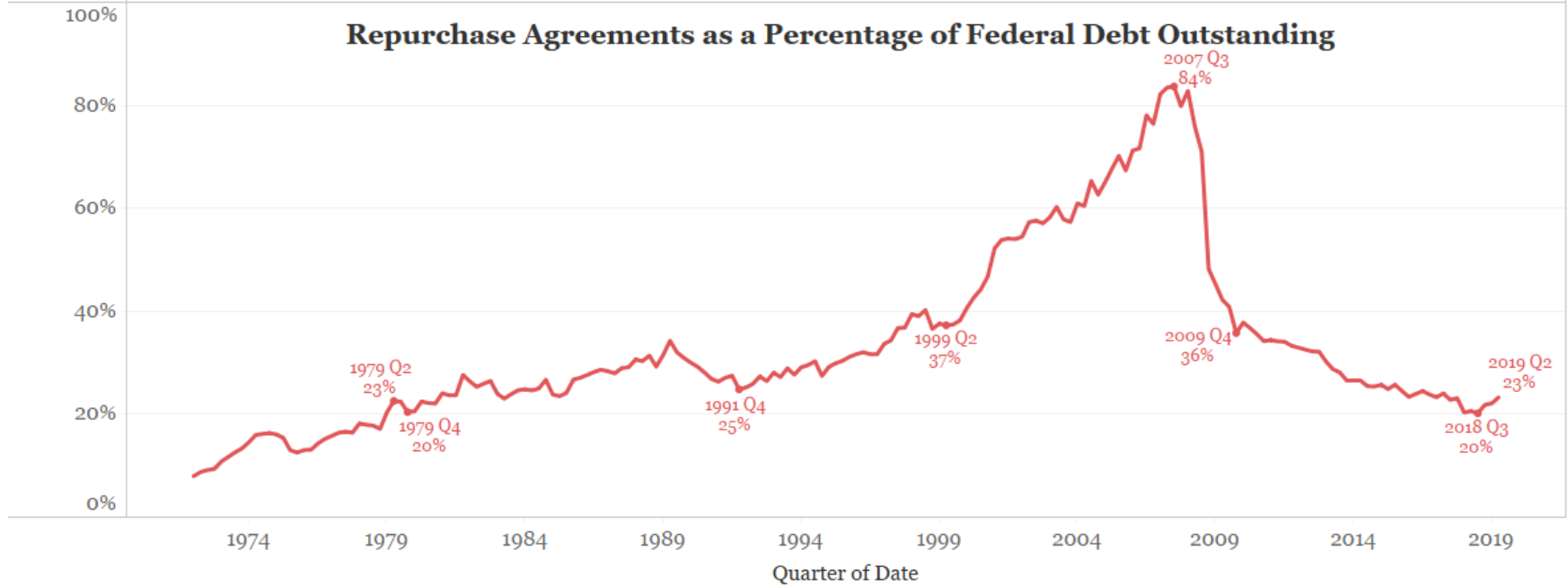
Source: BOE

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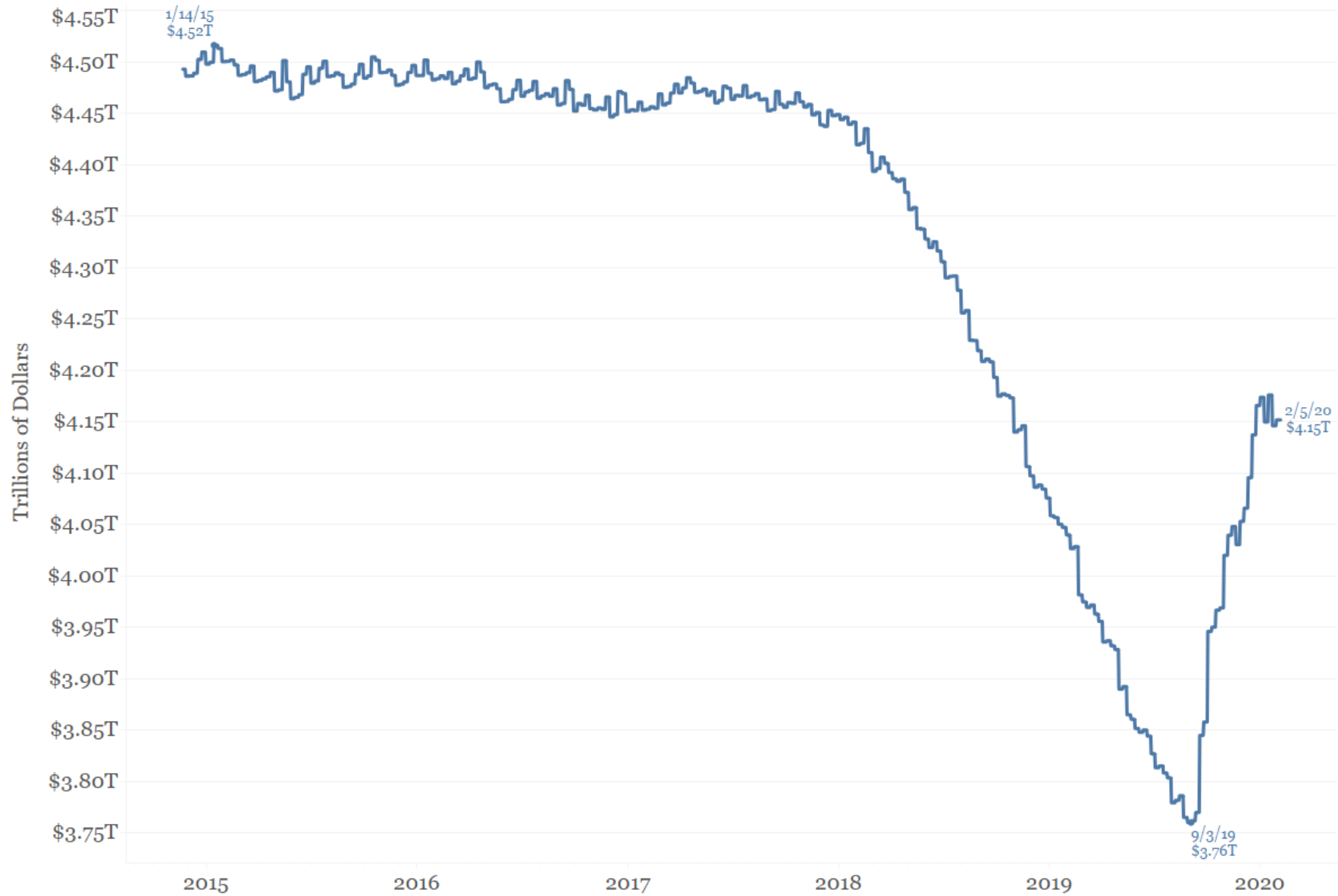
The Shrinking Repo Market



Repurchase Agreements as a Percentage of Federal Debt Outstanding



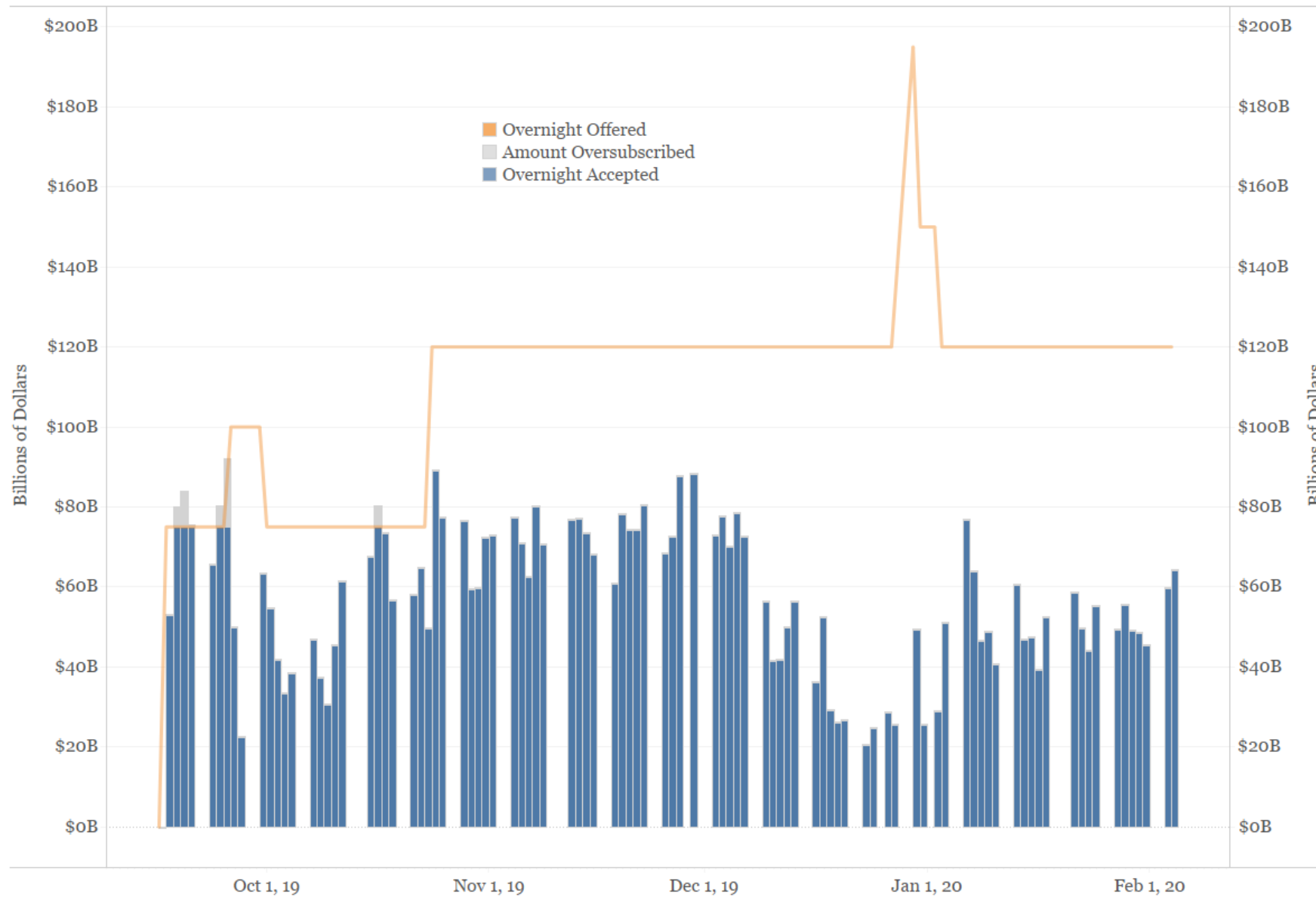
The Federal Reserve's Balance Sheet



Data Source: Fed, Bloomberg

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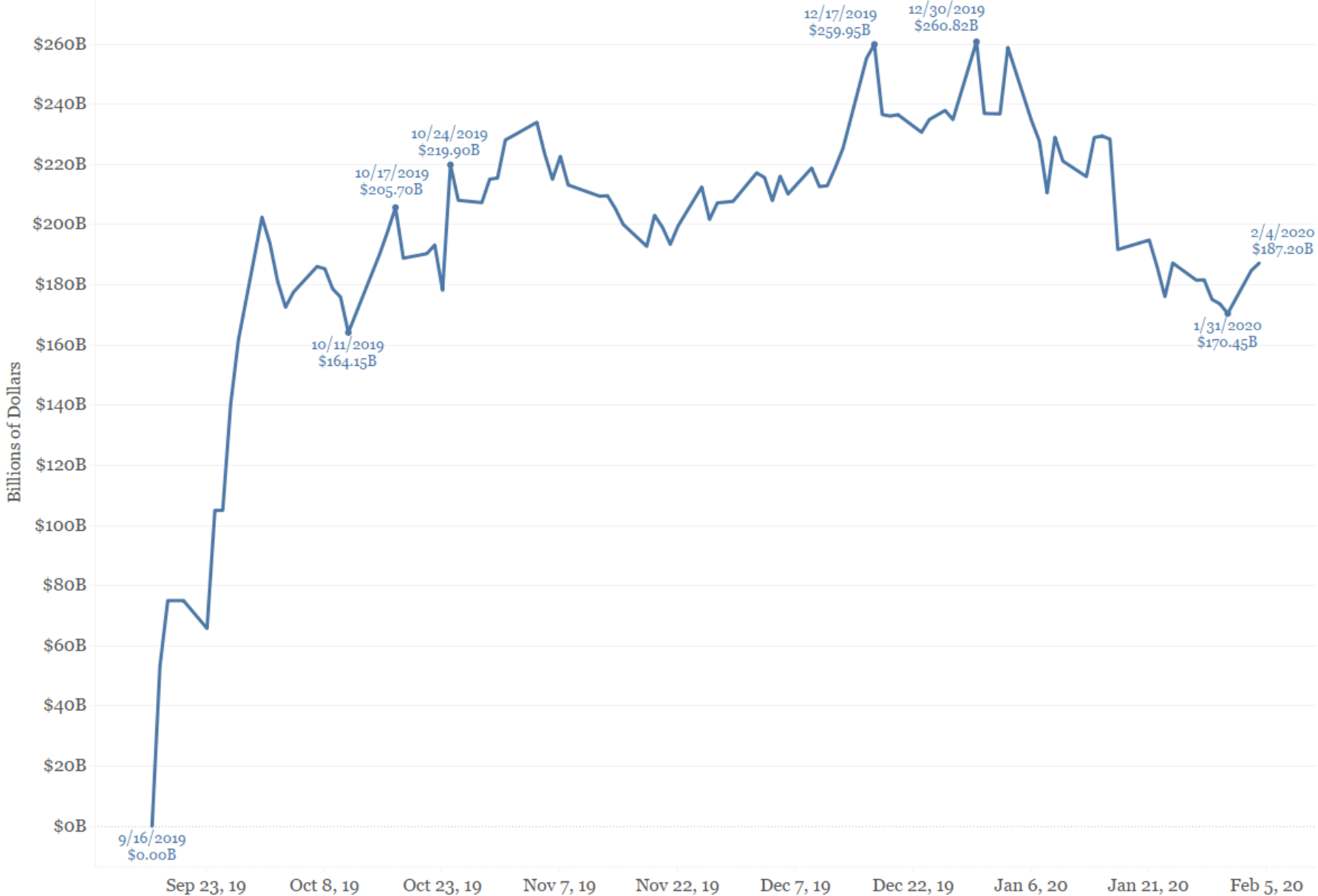
A Look at the Fed's Overnight Repo Operations



Source: NY Federal Reserve

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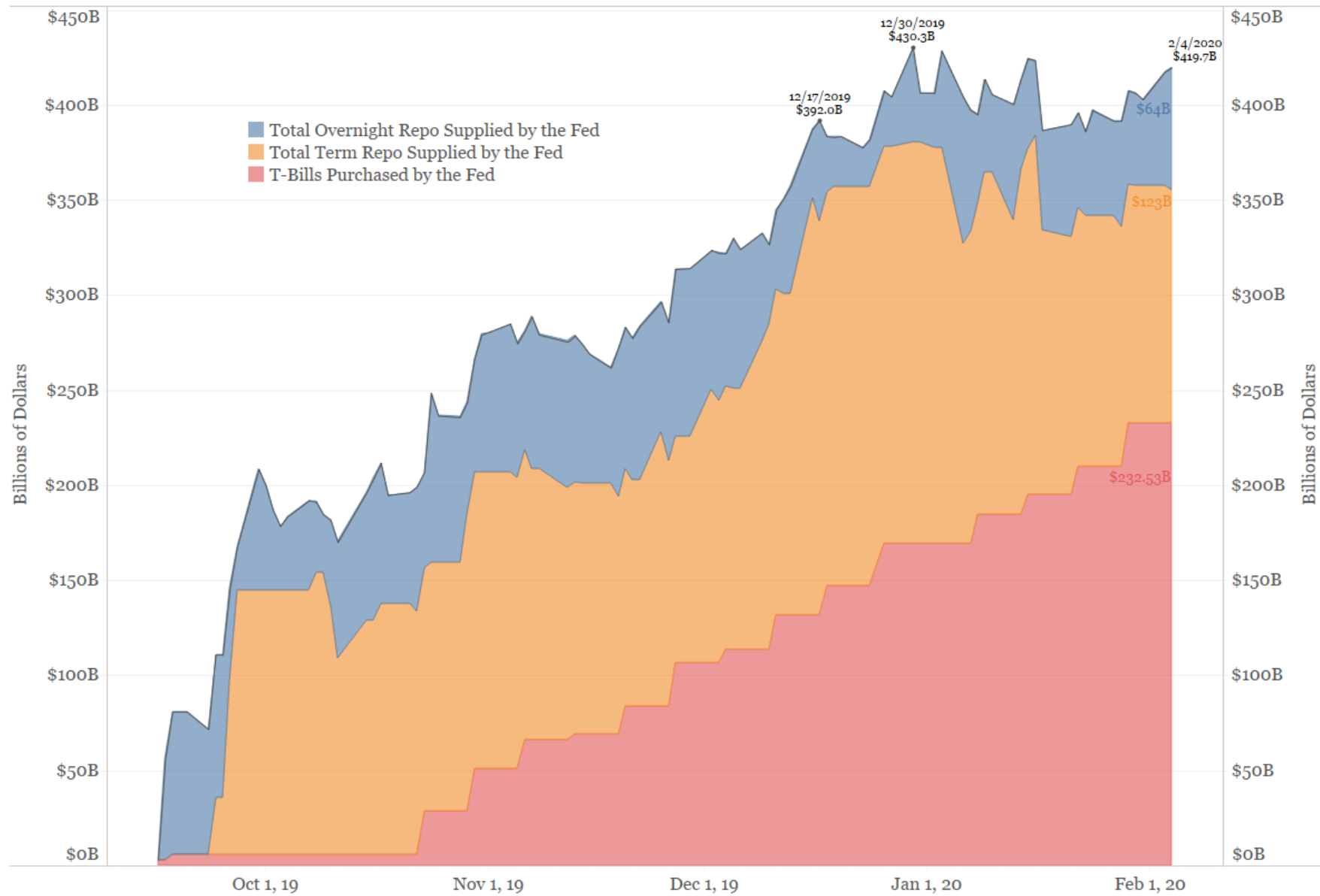
Total Amount of Money Injected Into Repo Market by the Fed



Source: NY Federal Reserve

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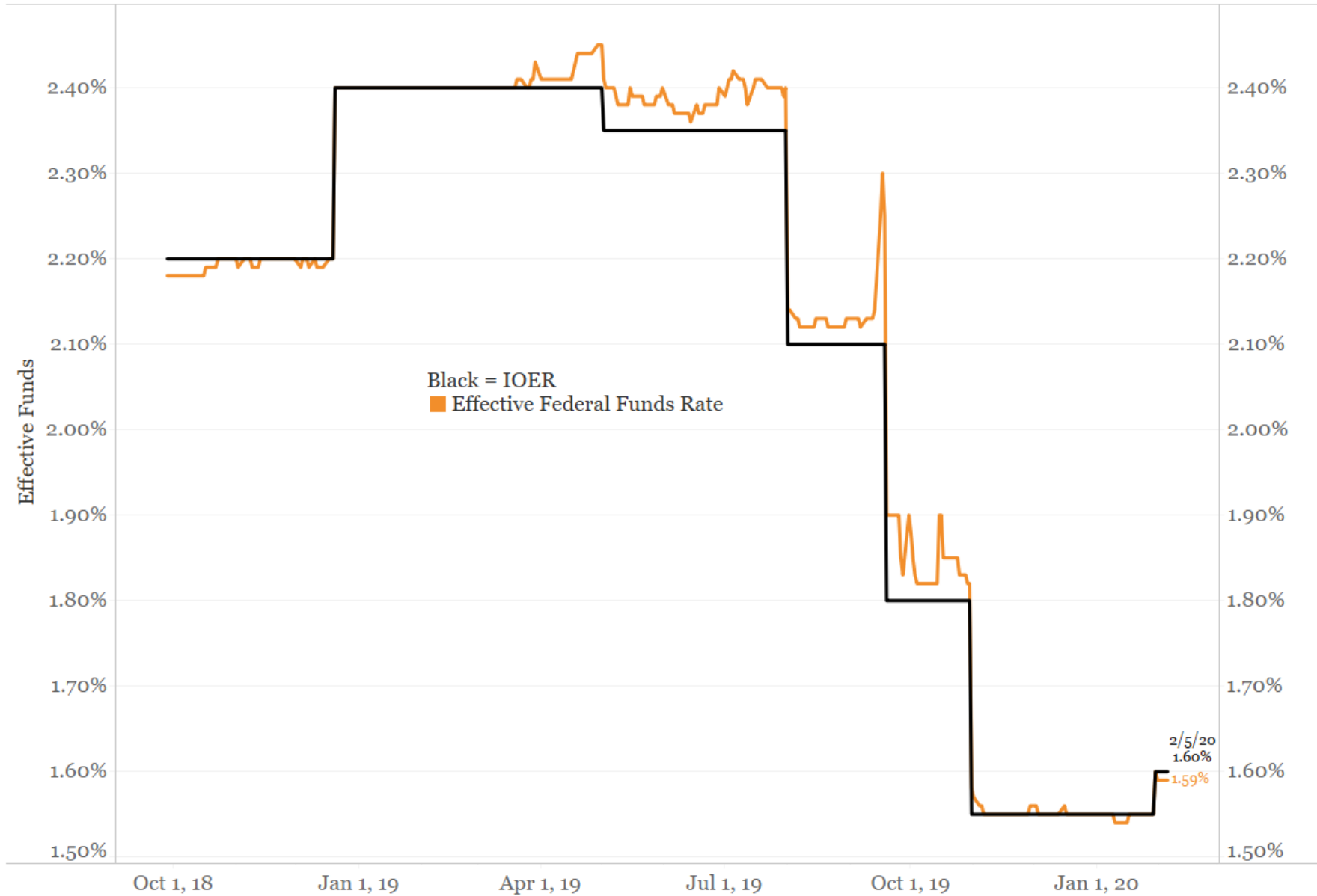
How Much Fed Support Is Needed to Calm the Repo Market?



Source: NY Federal Reserve

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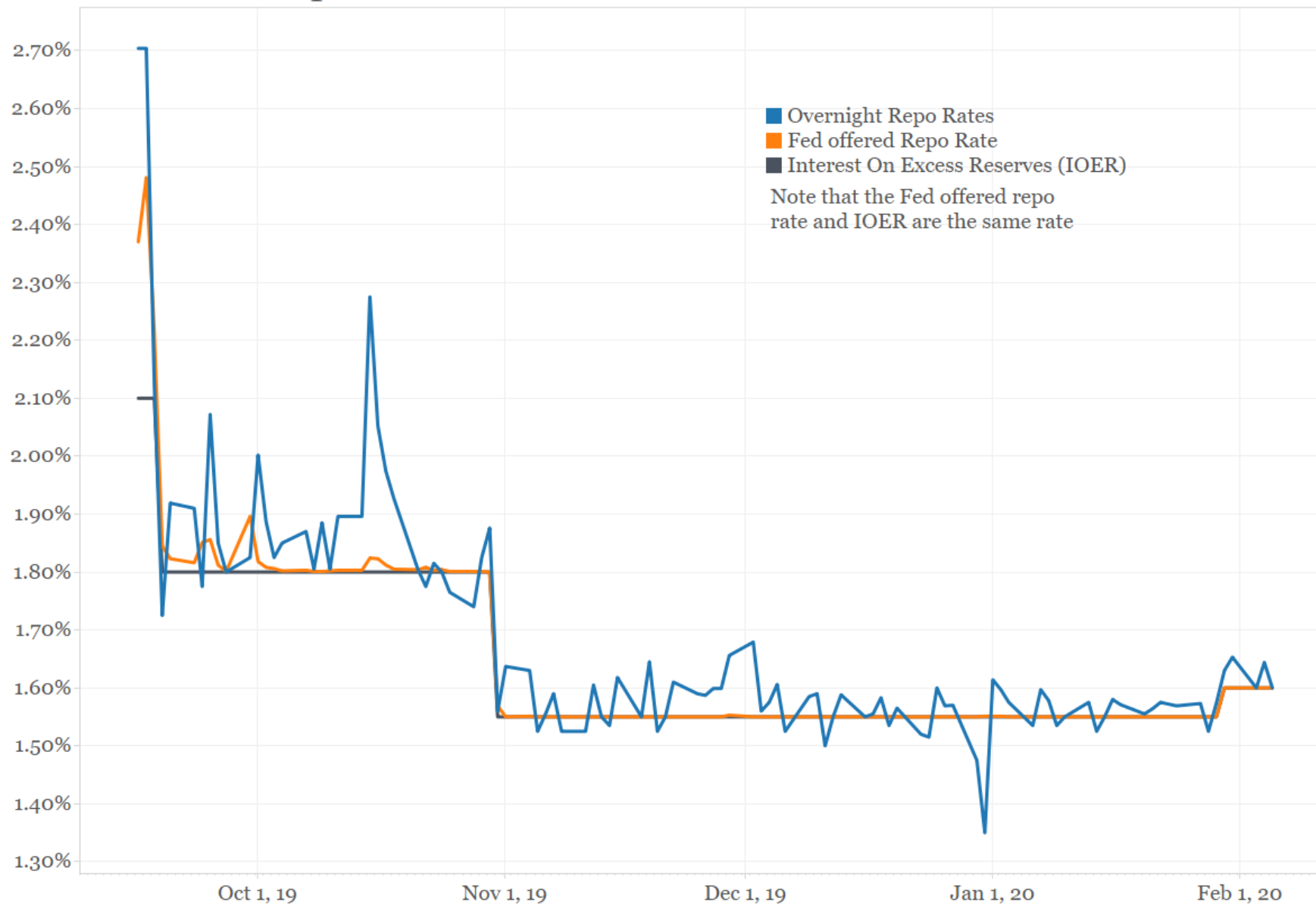
Effective Fed Funds Breaks Above Interest on Excess Reserves (IOER)



Data Source: The New York Federal Reserve

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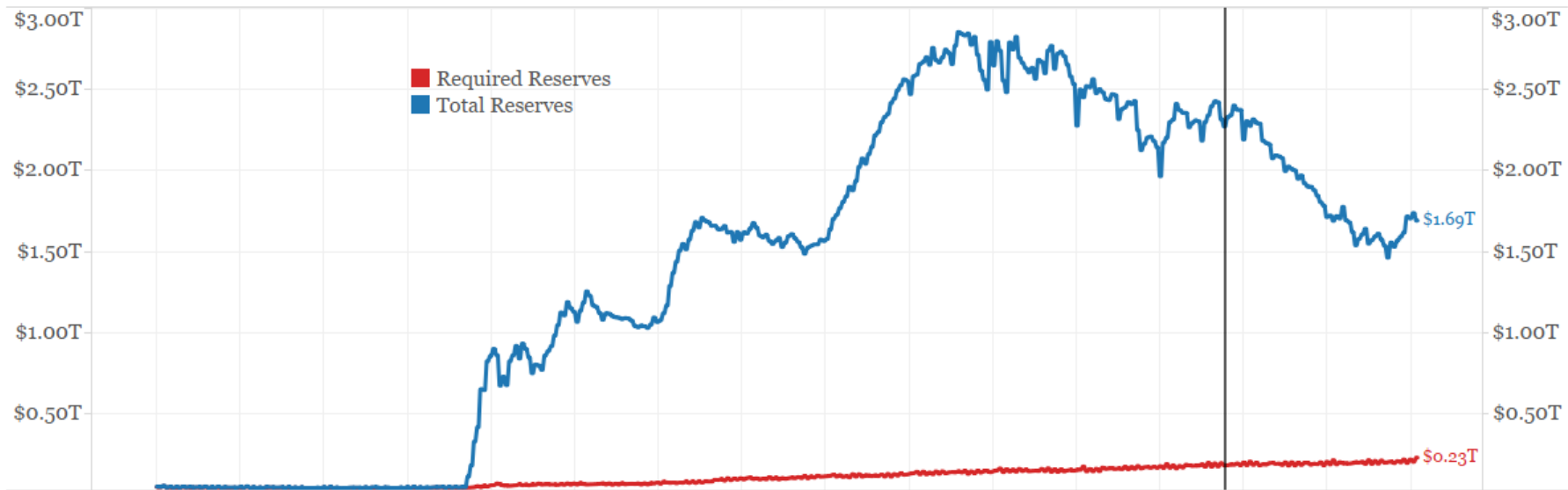
Repo Rates and Interest on Excess Reserves (IOER)



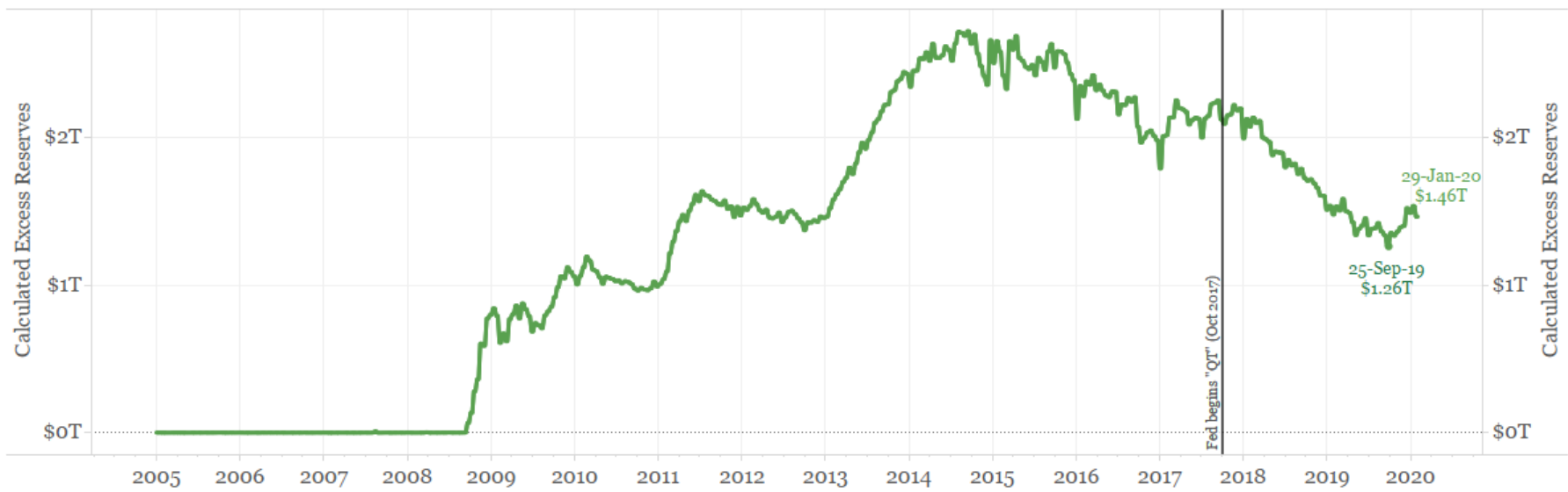
Data Source: New York Federal Reserve, Bloomberg

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Total And Required Reserves



Excess Reserves



Data Source: The Federal Reserve

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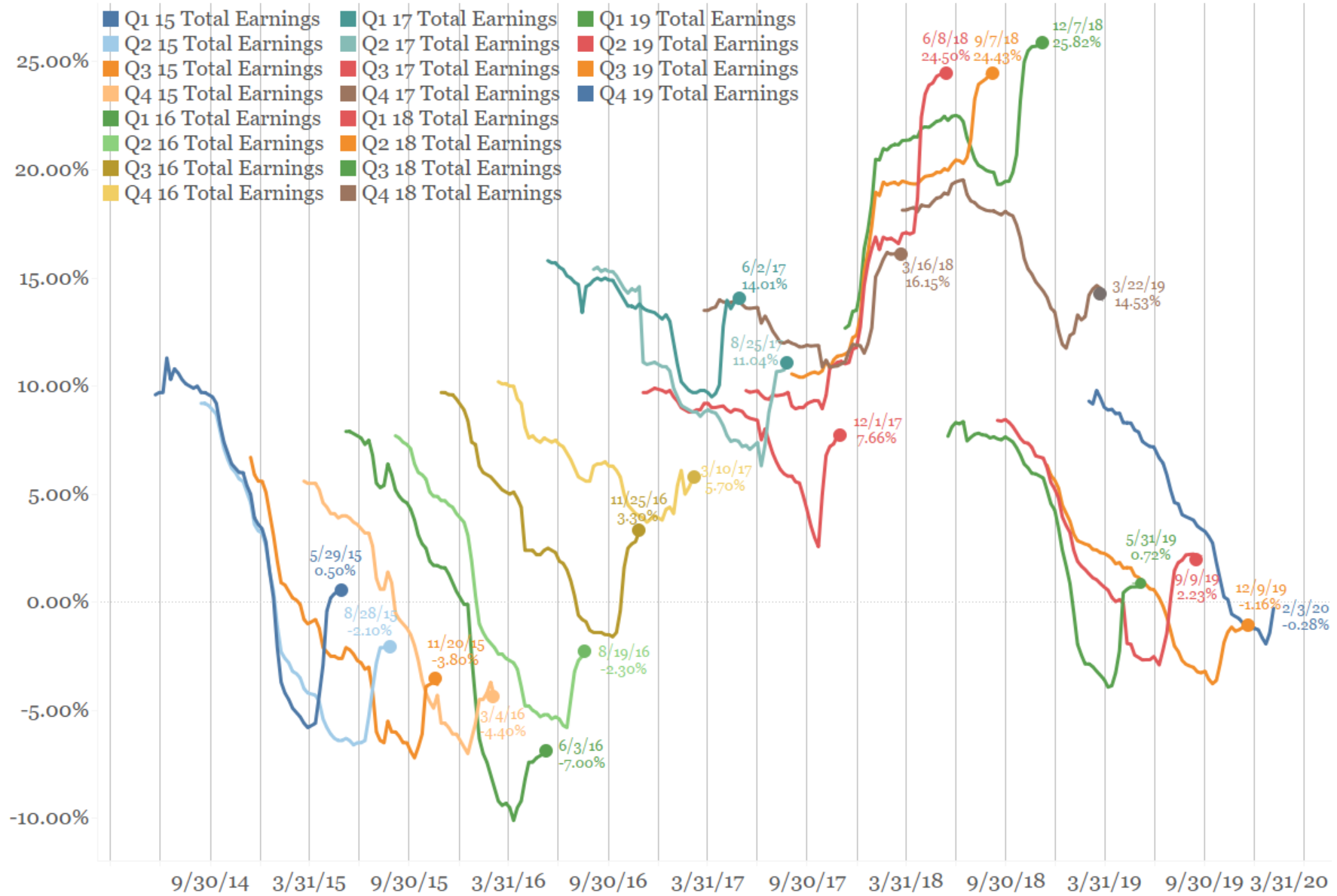
S&P 500 Forward PE Ratio



Data Source: Bloomberg

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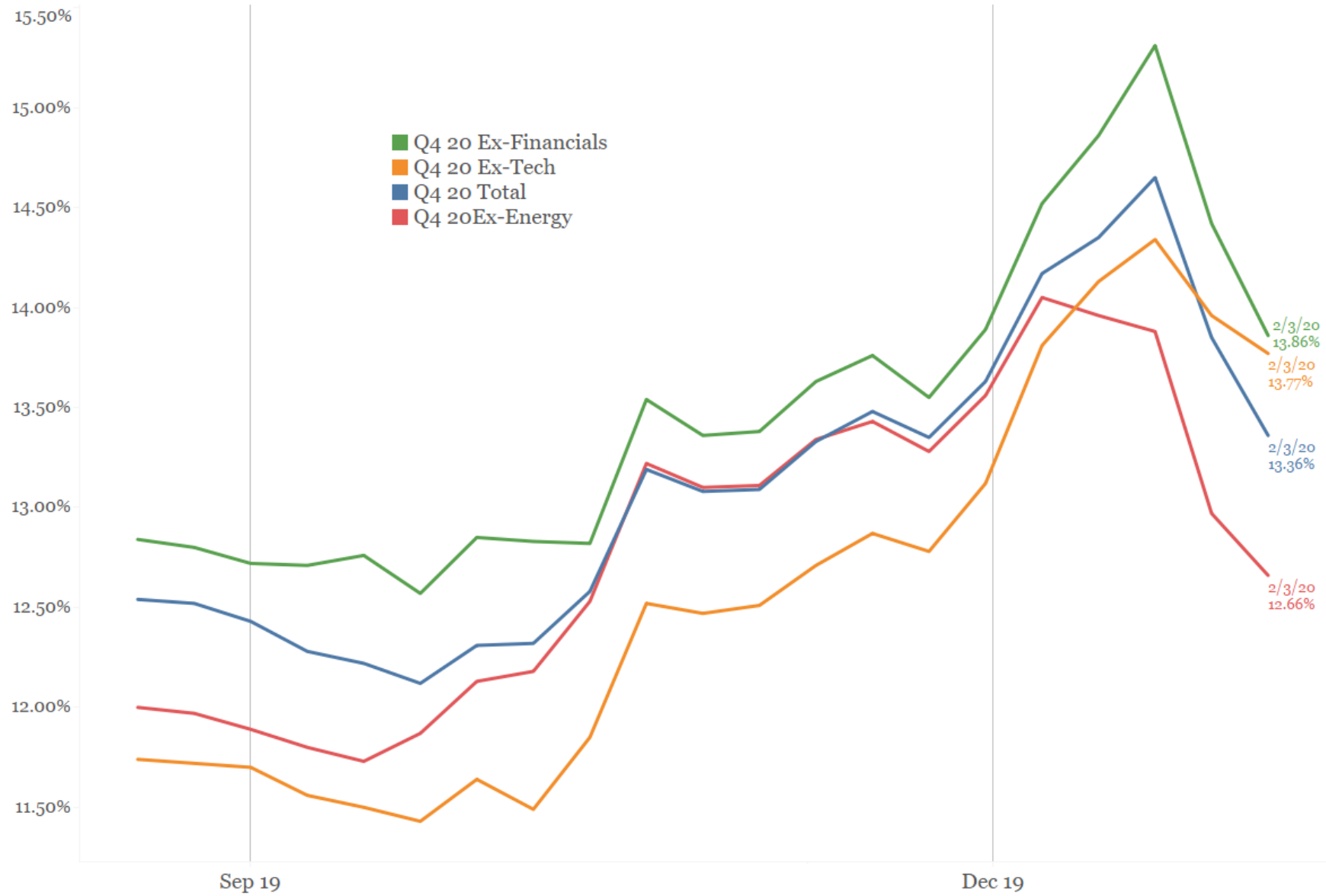
S&P 500 Quarterly Operating Earnings Expectations



Source: Bloomberg

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S&P 500 Q4 2020 Earnings Expectations

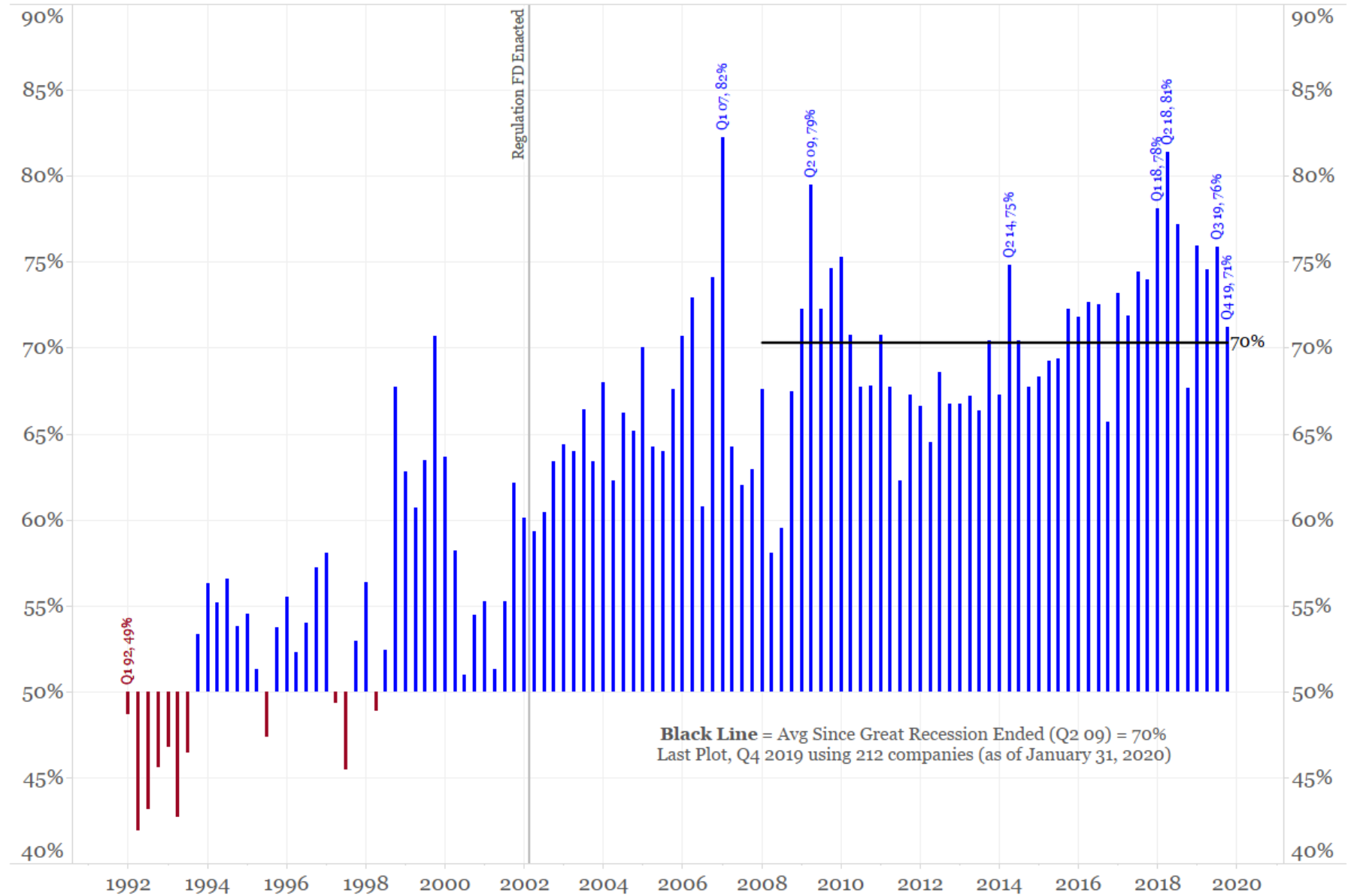


Source: Bloomberg

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Percent Of The S&P 500 That Beat Quarterly Earnings Expectations

(Compared To The Last Median Estimate According to Bloomberg)



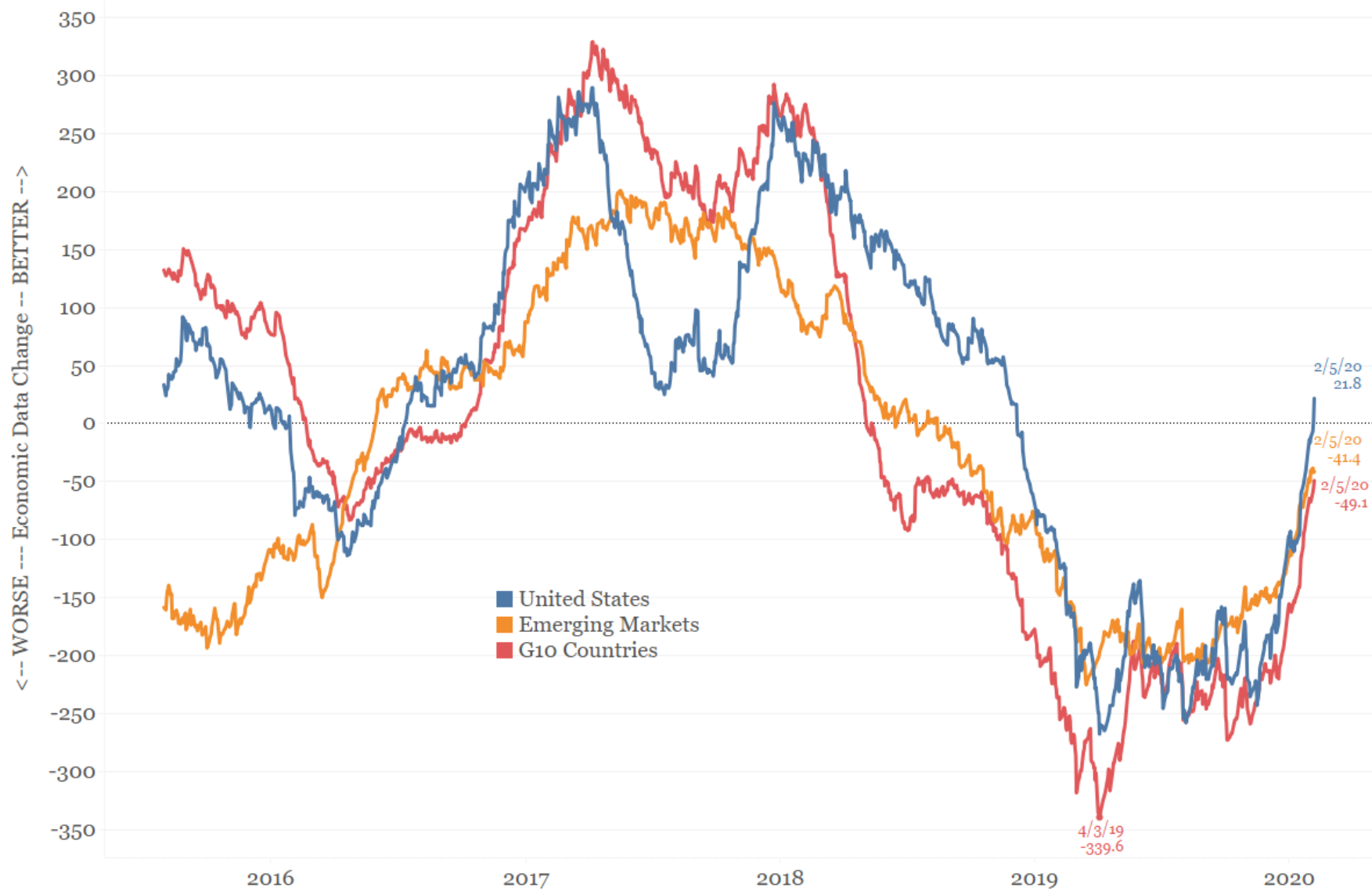
Black Line = Avg Since Great Recession Ended (Q2 09) = 70%
Last Plot, Q4 2019 using 212 companies (as of January 31, 2020)

Data Source: Bloomberg

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Economic Growth Trends

Citigroup Economic Data Change Indices

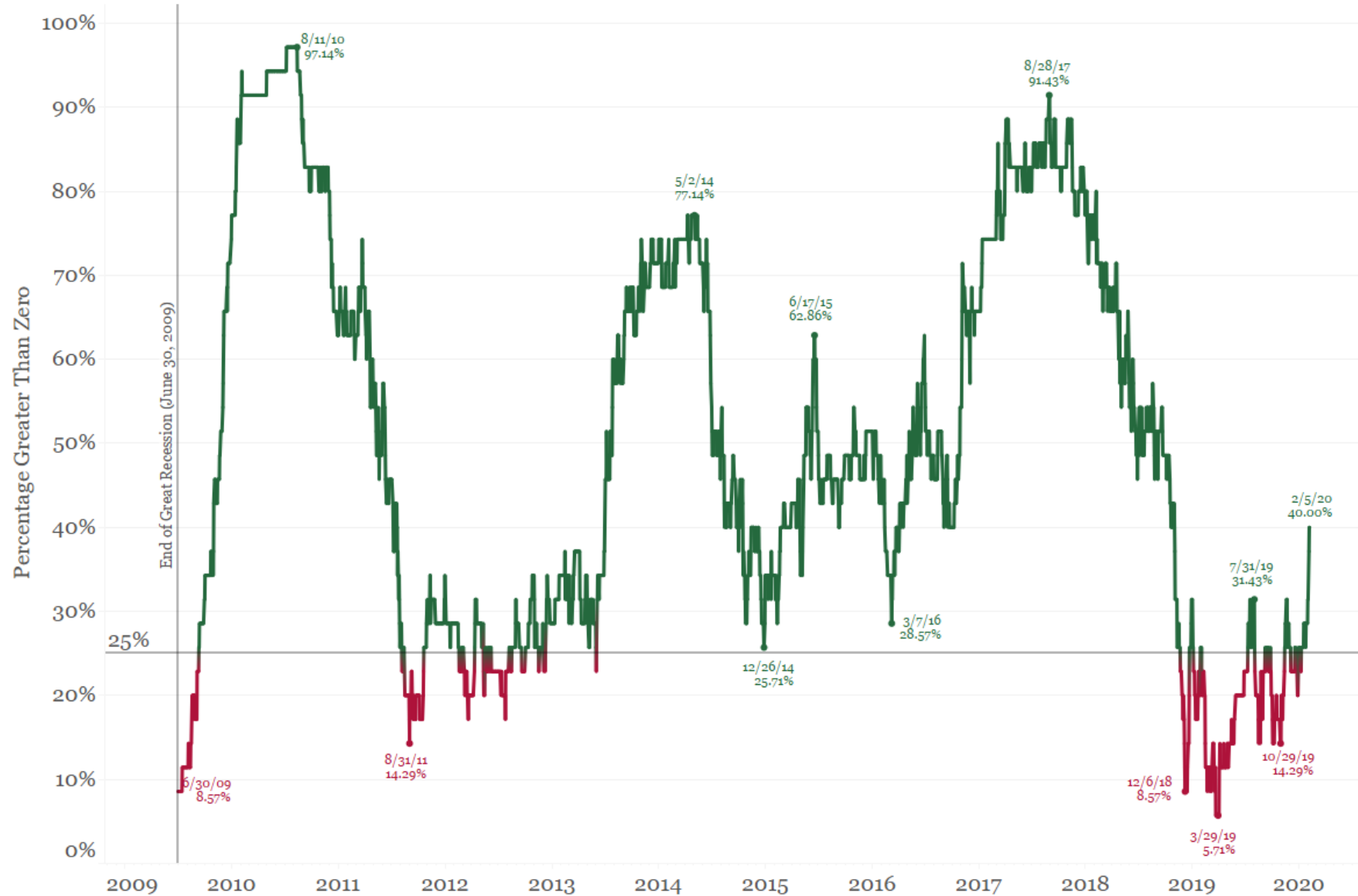


Data Source: Citigroup and Bloomberg

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Percentage of Citi Data Change Measures Above Zero Worldwide

Citigroup tracks over 40 worldwide measures of economic Growth

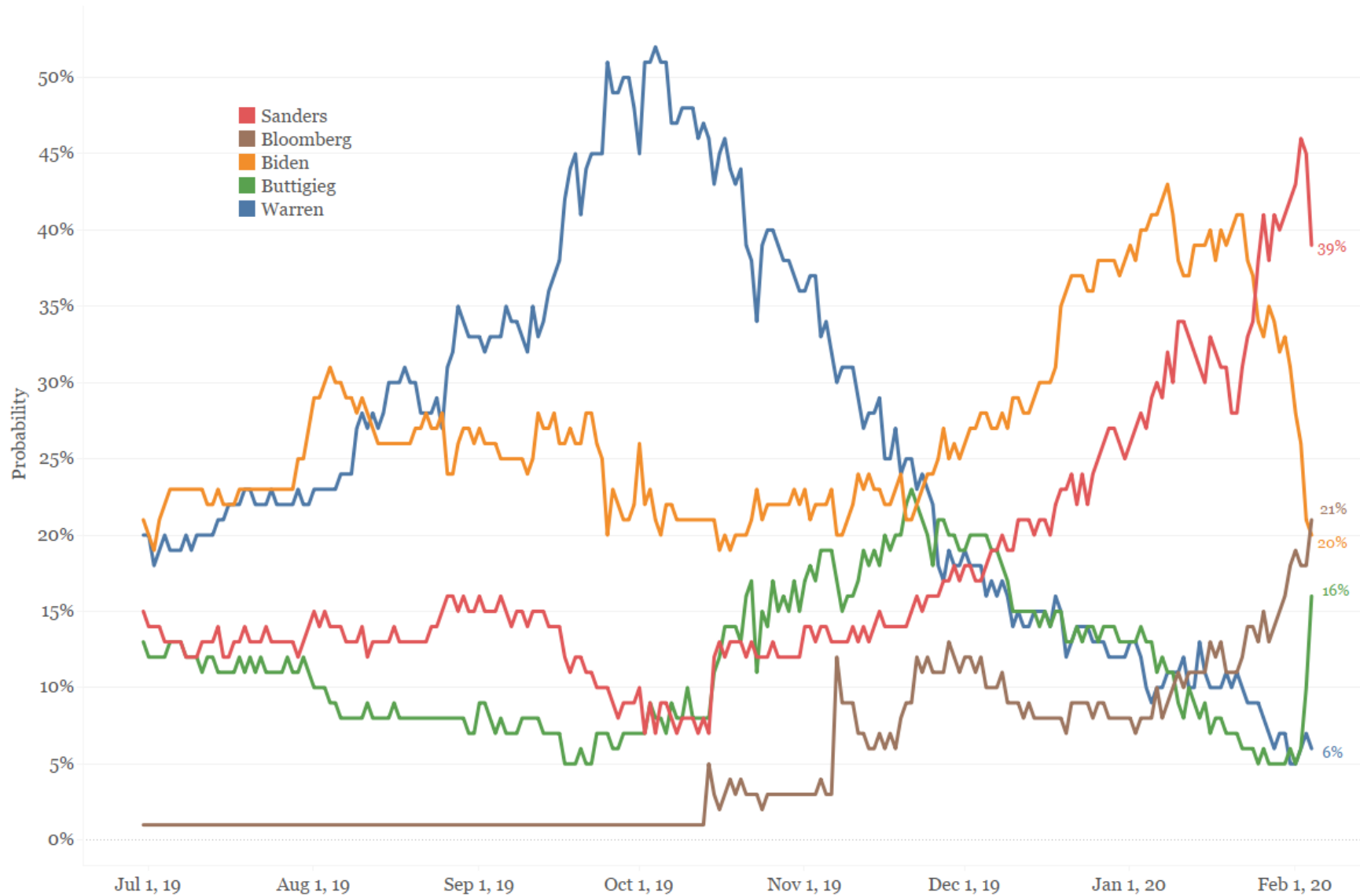


Data Source: Citigroup and Bloomberg

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Who Will Be the 2020 Democrat Nominee?

Predictit.org Betting Markets



Source: Predictit
<https://www.predictit.org/markets/detail/3633/Who-will-win-the-2020-Democratic-presidential-nomination>

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Predictit.org Election Betting

Candidate	Presid	D... ↓	Iowa	NH	NV	SC	CA	MA
Bernie Sanders	24¢ ▼	42¢ ▲	18¢ ▼	81¢ ▲	67¢ ▲	36¢ ▲	63¢ ▼	53¢ ▲
Michael Bloomberg	14¢ ▲	23¢ ▲	1¢	1¢	1¢	1¢	1¢	1¢
Joe Biden	8¢ ▼	19¢ ▼	1¢	3¢ ▼	16¢ ▼	52¢ ▼	7¢ ▼	8¢ ▼
Pete Buttigieg	8¢ ▼	14¢ ▼	83¢ ▲	19¢ ▼	11¢ ▲	7¢	11¢	7¢ ▲
Elizabeth Warren	2¢	6¢	1¢	3¢	5¢ ▲	2¢ ▲	6¢ ▲	25¢ ▼
Hillary Clinton	2¢	5¢ ▲	1¢	1¢	1¢	1¢	1¢	1¢
Andrew Yang	3¢	4¢ ▼	1¢	1¢	1¢ ▼	1¢ ▼	2¢	2¢ ▲

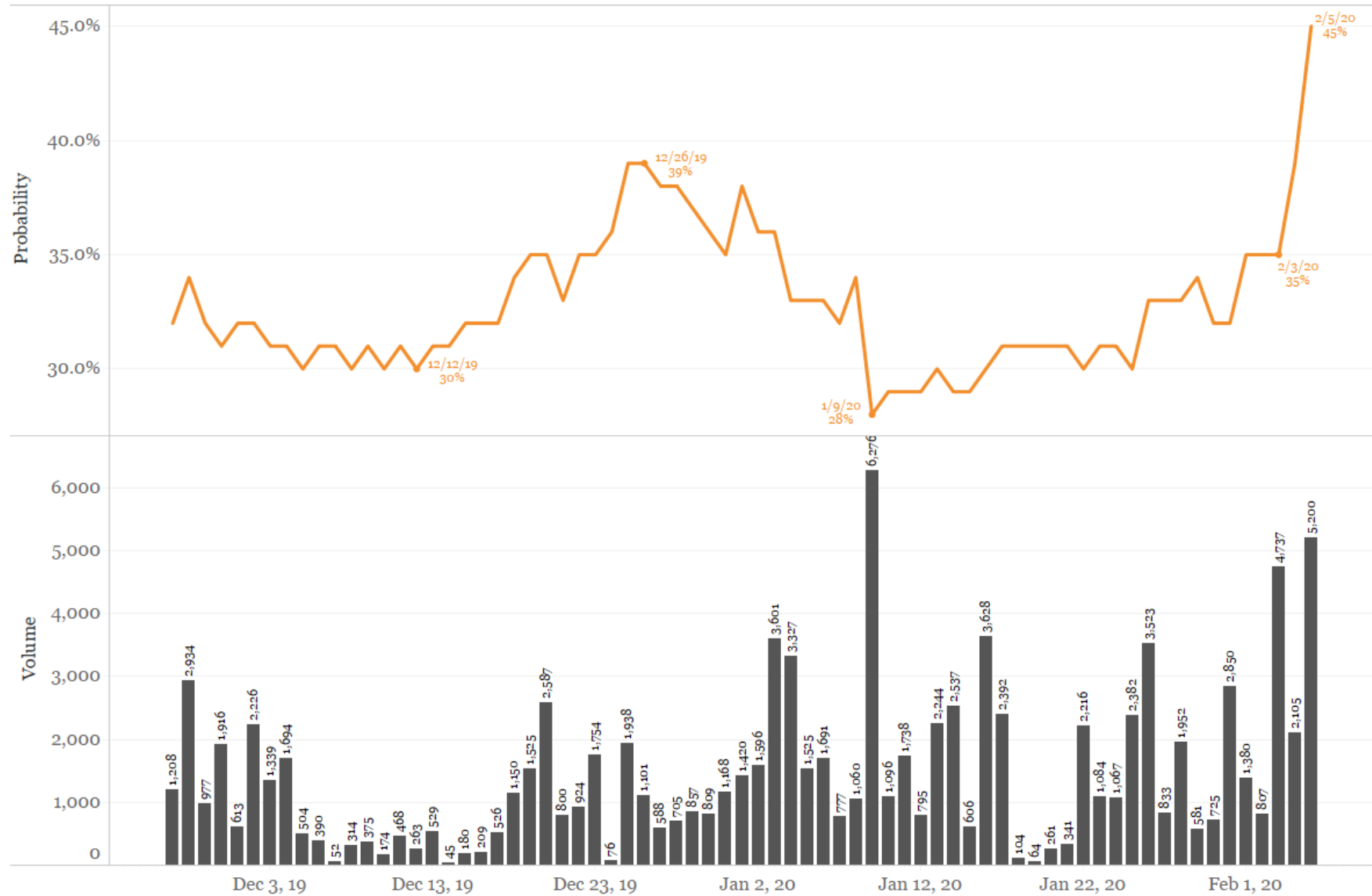
Source: www.predictit.org

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Will the Democrats have a brokered convention in 2020?

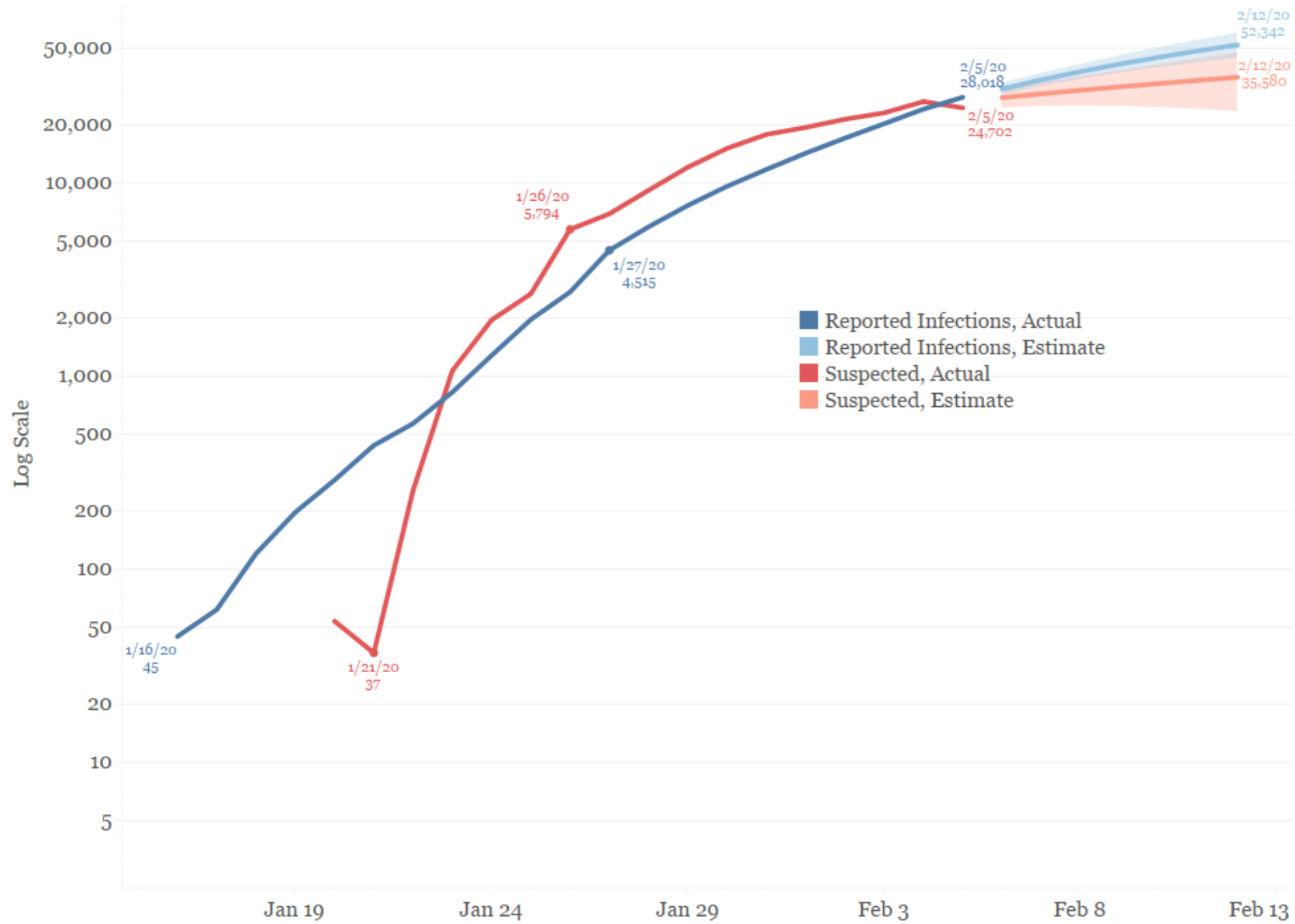
Predictit.com Betting



Source: Predictit
<https://www.predictit.org/markets/detail/6168/Will-the-Democrats-have-a-brokered-convention-in-2020>

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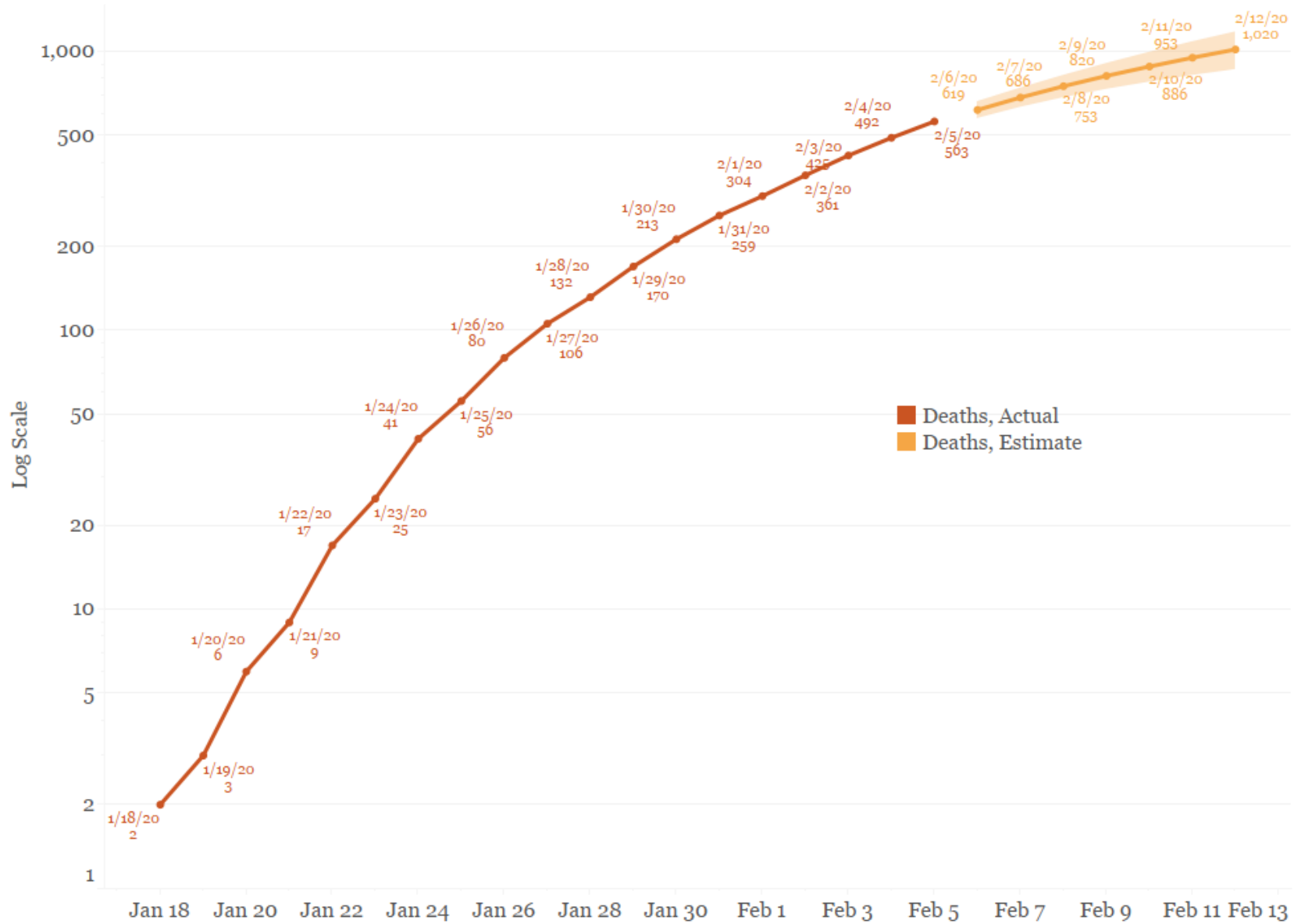
Reported as Infected and Suspected Coronavirus Cases In China



Source: Information comes from the official website of the National Health and Health Commission

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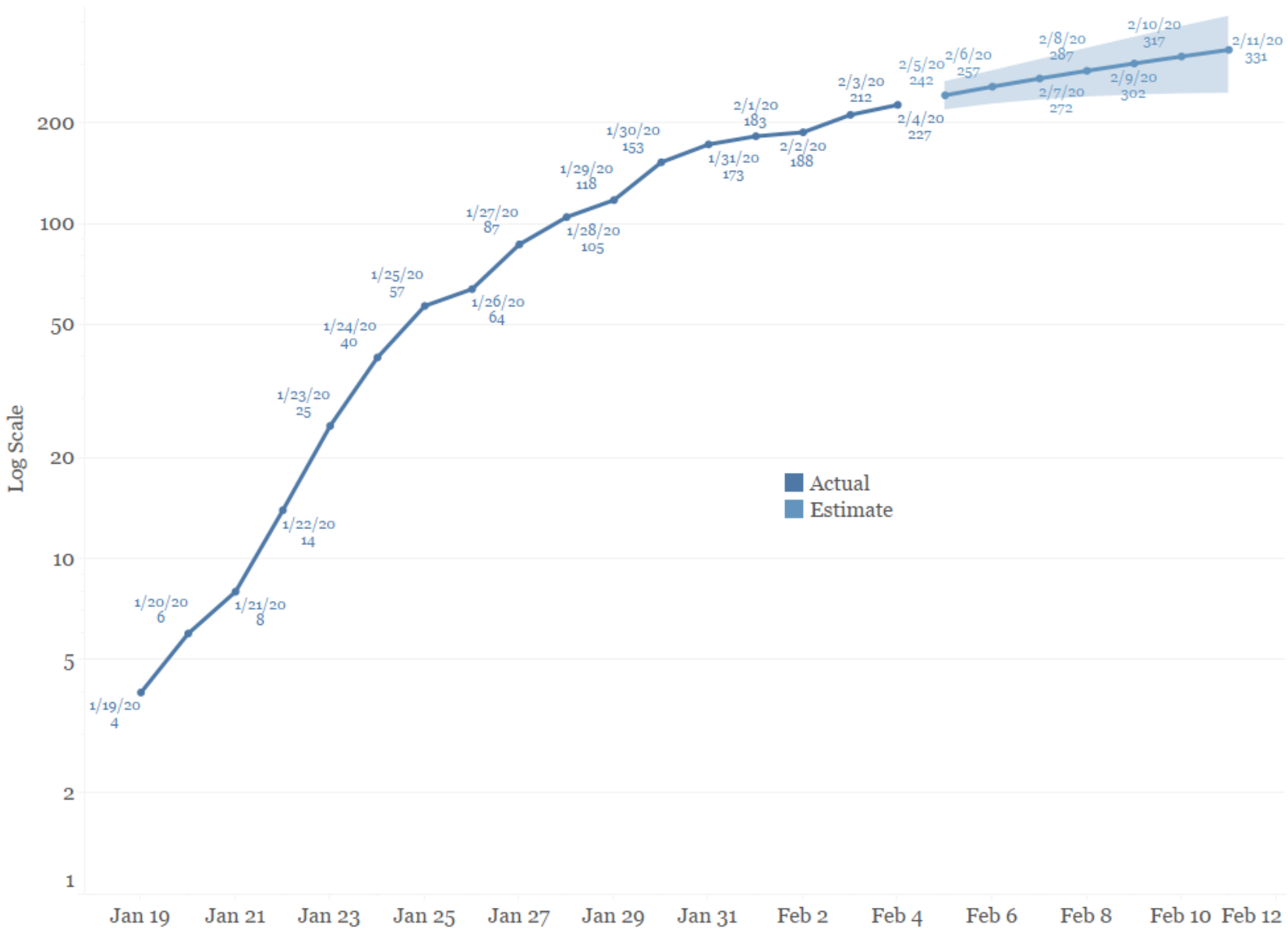
Confirmed Coronavirus Deaths



Source: Information comes from the official website of the National Health and Health Commission

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Non-China Coronavirus Infections



Source: John Hopkins University
<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e..>

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