



# Tradeweb ICE CMT Rates

July 2020



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## Executive Summary

Tradeweb Markets LLC (Tradeweb), a leading global operator of electronic marketplaces for rates, credit, equities and money markets, and ICE Benchmark Administration Limited (IBA), a leading provider of global benchmarks, are introducing the daily Tradeweb ICE Constant Maturity Treasury Rates (the Tradeweb ICE CMT Rates or TWI-CMT Rates).

The Tradeweb ICE CMT Rates have been designed to provide market participants with a daily overview of U.S. Treasury yields for standard maturities, and are based on transactions executed by institutional investors in U.S. Treasuries (and/or quotes provided for U.S. Treasuries) on Tradeweb's electronic trading platform for U.S. Treasury securities (the Tradeweb Platform). Tradeweb and IBA are providing the Tradeweb ICE CMT Rates to help market participants meet their valuation, risk management and potential benchmarking needs.

The Tradeweb ICE CMT Rates will be based on an interpolated U.S. Treasury yield curve from which standard maturity dates and associated U.S. Treasury yields will be published. The Tradeweb ICE CMT Rates will be published for maturities of 1, 2, 3 and 6 months, and 1, 2, 3, 5, 7, 10, 20 and 30 years, all of which relate to the maturities of frequently issued U.S. Treasury securities.

The Tradeweb ICE CMT Rates will be sourced from a constant maturity yield curve (the Tradeweb ICE CMT Yield Curve) that will be constructed using a curve-smoothing quasi-cubic Hermite spline model. The inputs used to generate the Tradeweb ICE CMT Yield Curve and associated Tradeweb ICE CMT Rates will be based upon volume-weighted average prices, and associated yields, for transactions in on-the-run Treasury securities (i.e. the most recently auctioned U.S. Treasury securities) that took place on the Tradeweb Platform over the course of a 7-hour window between 8:00AM Eastern and 3:00PM Eastern. If there is insufficient trading activity in a particular on-the-run U.S. Treasury security on the Tradeweb Platform, then dealer bid - offer quotes displayed electronically to institutional clients on the Tradeweb Platform sourced between approximately 8:00AM Eastern and 3:00PM Eastern time will be used as input data to build the Tradeweb ICE CMT Yield Curve.

Tradeweb and IBA have conducted an 18-month period of testing on the Tradeweb ICE CMT Rates. The results are set out in the [Testing Results](#) section of this paper.

Tradeweb and IBA are now asking market participants and stakeholders to review and provide feedback on the Tradeweb ICE CMT Rates and the proposed calculation methodology by September 18, 2020. Tradeweb and IBA intend to consider and take account of this feedback before finalizing the methodology used to produce the Tradeweb ICE CMT Rates and before launching the rates for use by market participants in financial contracts. The questions that Tradeweb and IBA would like stakeholder feedback on are laid out in the [Request for Feedback](#) section of this paper.



## The Value of Constant Maturity Rates and the Associated Yield Curve

Daily constant maturity U.S. Treasury rates produced from volume-weighted transacted (and/or quoted) prices, and associated yields, over the course of a trading day, offer a number of potential benefits for market participants.

### **Summary overview of U.S. Treasury yields on any trading day**

Daily constant maturity U.S. Treasury rates will provide stakeholders with a summary overview of U.S. Treasury yields across various standard maturity points. These data points can be easily plotted to build a U.S. Treasury yield curve which could help investors evaluate expectations for interest rates over a short-term and a long-term time horizon. The standardized maturities could also help investors measure how U.S. Treasury yields have changed over certain periods of time on a like-for-like maturity basis.

### **Valuation and discounting**

For stakeholders who need to obtain risk free rates across various time horizons for valuation and/or discounting purposes, daily constant maturity U.S. Treasury rates and an associated yield curve could provide an attractive source of information, given the linkage to the U.S. Treasury market.

### **Risk management and relative investment value**

Daily constant maturity U.S. Treasury rates will provide investors with a source of information that could help when evaluating risk-reward decisions associated with making short-term versus intermediate and/or long-term investments in U.S. Treasuries. In addition, the rates could be used to evaluate the return on risk free investments (i.e. U.S. Treasuries) compared to riskier fixed income investments (e.g. corporate bonds, emerging markets bonds, asset backed securities etc.).

### **Benchmarking**

Daily constant maturity U.S. Treasury rates could potentially be used as a reference in lending agreements (e.g. floating rate notes, loans, adjustable rate mortgages etc.) where the interest rate on the borrowing is reset at some predetermined frequency in order to incorporate movements in market interest rates. Given the multiple constant maturity rates that will be published daily by Tradeweb and IBA (1 month, 2 months, 3 months, 6 months, 1 year, 2 years etc.), these rates could potentially provide borrowers and lenders with a choice in benchmark term risk free rate settings. Furthermore, since the yields are derived from volume-weighted transacted prices, and/or mid-quotes as necessary, on term cash instruments (i.e. U.S. Treasury Bills, Notes and Bonds), the Tradeweb ICE CMT Rates could provide an attractive term risk free rate benchmark, without having to rely on the derivatives markets and associated implied pricing.

## Methodology

### Summary overview

The Tradeweb ICE CMT Rates are interpolated U.S. Treasury yields sourced from the Tradeweb ICE CMT Yield Curve (See the [Tradeweb ICE CMT Yield Curve construction](#) section below). The inputs used to build the curve will be prices and yields from the most recently auctioned 4-, 8-, 13-, 26-, and 52-week U.S. Treasury Bills (Bills)<sup>1</sup>; the most recently auctioned U.S. Treasury 2-, 3-, 5-, 7- and 10-year Notes (Notes); and the most recently auctioned 20- and 30-year U.S. Treasury Bonds (Bonds). The knot points through which the curve will be fitted will be derived from volume-weighted average traded prices, and associated yields, for these Bills, Notes and Bonds for a particular maturity over the course of a trading day, or displayed electronic dealer mid-quotes if there is insufficient trading volume<sup>2</sup>. This methodology will provide representative yields for key maturity points, for example 1 year, even if no outstanding security has exactly 1 year remaining to maturity.

### Tradeweb ICE CMT Yield Curve construction

Each trading day, Tradeweb and IBA will produce the Tradeweb ICE CMT Yield Curve, based upon price and yield inputs from trading in (or quotes for) the most recently auctioned Bills, Notes and Bonds. (See the [Tradeweb ICE CMT Yield Curve - U.S. Treasury yield inputs](#) section below). The methodology used to build the curve will be a quasi-cubic Hermite spline method<sup>3</sup>, which produces a “best fit” yield curve based upon the volume-weighted average U.S. Treasury price, and associated yield, inputs provided. From this yield curve, rates for constant maturity settings (e.g. a 6 month point, a 1 year point, a 2 year point, etc.) can be sourced as the Tradeweb ICE CMT Rates.

IBA and Tradeweb are seeking feedback from market participants (See the [Request for Feedback](#) section below) on this curve fitting methodology to generate the Tradeweb ICE CMT Yield Curve.

### Tradeweb ICE CMT Yield Curve - U.S. Treasury yield inputs

The U.S. Treasury yield inputs used in the construction of the Tradeweb ICE CMT Yield Curve will be from trading in (and/or quotes for) the most recently auctioned U.S. Treasury Bills, Notes and Bonds, often referred to as the on-the-run U.S. Treasury securities<sup>4</sup>. These yields will be used to calculate the knot points through which the Tradeweb ICE CMT Yield Curve will be fitted. All yields will be expressed on a basis that reflects semi-annual payments with an Actual/Actual day-count convention (i.e. a U.S. Treasury note and/or bond equivalent basis).

The various knot points on the Tradeweb ICE CMT Yield Curve will be derived from the daily, volume-weighted average prices and associated yields, of trades for each applicable on-the-run U.S. Treasury security traded on the Tradeweb Platform. Using the volume-weighted average prices, and associated yields, for each on-the-run U.S. Treasury security will help ensure that the yields reflect average levels over a trading day. This approach will lead to a yield curve that is more indicative of a full trading day rather than a point in time snapshot. If there are fewer than two transactions with notional amounts equal to or greater than \$1.0MM in a particular security, dealer mid-quotes sourced from the Tradeweb Platform will be used to calculate the knot point yield<sup>5</sup>.

If the U.S. Treasury were to cease issuing certain on-the-run Bills, Notes and Bonds, Tradeweb and IBA would consult with stakeholders to determine if the Tradeweb ICE CMT Yield Curve should continue to be constructed with only on-the-run Treasury issuances or if an interpolated point and/or data from off-the-run U.S. Treasury

<sup>1</sup> The U.S. Treasury Bills will have their yields converted to U.S. Treasury note/and or bond equivalent from a payment and day-count perspective before being used to construct the Tradeweb ICE CMT Yield Curve.

<sup>2</sup> The following table details how many times quote data was required during the testing period:

Period	Term	No Times Quotes Required	Percentage
Jan 2019 to Feb 2020	1M to 12M	9	0.62%
	2Y to 30Y	0	0%
COVID-19 Period	1M to 12M	10	1.96%
Mar 2020 to June 2020	2Y to 30Y	0	0%

<sup>3</sup> A cubic Hermite spline is used for interpolation to obtain a smooth, continuous function, where each piece is a third-degree polynomial specified in Hermite form.

<sup>4</sup> The term “on-the-run” shall refer to the most recently auctioned security for that Tradeweb ICE CMT Yield Curve knot point. Recently announced “when-issued” U.S. Treasury securities shall become “on-the-run” on the trading day following the day the security is auctioned, with settlement being the issue date of the security. For re-openings (either pre-announced re-openings, or de-facto re-openings of older issues due to coupon and maturity matching), the settlement will be the issue date of the security, not T+1, with yields calculated accordingly.

<sup>5</sup> This is an average of the volume-weighted mid-quotes sourced from the Tradeweb Platform using dealer attributable bid/offer quotes and associated volumes. Samples of all dealer volume-weighted mid-quotes are taken at random intervals every hour between 8:00 AM – 3:00 PM Eastern, and the final quote is calculated as the average of all hourly samples.

securities should be used to derive the knot point that previously relied on an on-the-run U.S. Treasury issuance having a particular maturity.

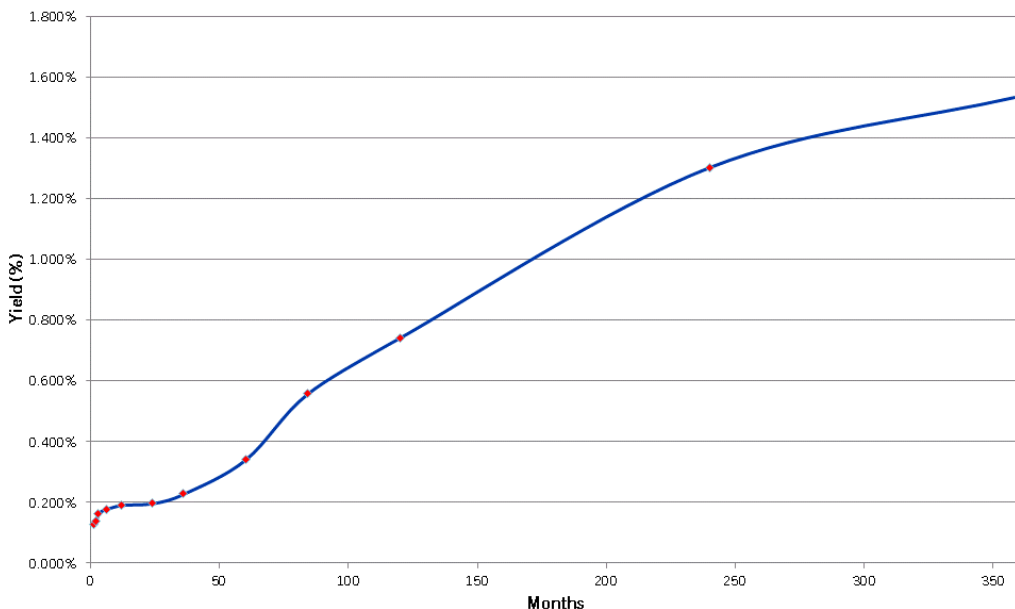
The yields used to construct the Tradeweb ICE CMT Yield Curve will be sourced over the course of a trading window from 8:00AM to 3:00PM Eastern (or to 1:00PM Eastern if there is a planned early close for the U.S. Treasury market).

### Example Tradeweb ICE CMT Yield Curve and associated Tradeweb ICE CMT Rates

The following tables and charts outline: (i) example inputs that serve as knot points for a Tradeweb ICE CMT Yield Curve; (ii) a Tradeweb ICE CMT Yield Curve; and (iii) the associated Tradeweb ICE CMT Rates, in each case on June 17, 2020.

Input	\$ VWAP	Yield
4w Bill	99.99090438	0.128%
8w Bill	99.97976086	0.137%
13w Bill	99.95914161	0.164%
26w Bill	99.9122205	0.177%
52w Bill	99.81076778	0.191%
2yr Note	99.8610958	0.196%
3yr Note	100.0666231	0.228%
5yr Note	99.55697443	0.340%
7yr Note	99.61192269	0.557%
10yr Note	98.88049711	0.742%
20yr Note	96.88649191	1.303%
30yr Bond	93.14366598	1.537%

### Tradeweb ICE CMT Yield Curve



### Tradeweb ICE CMT Rates<sup>6</sup>

Maturity	One Month	Two Month	Three Month	Six Month	One Year	Two Year	Three Year	Five Year	Seven Year	Ten Year	Twenty Year	Thirty Year
Rate (%)	0.129	0.142	0.165	0.177	0.191	0.197	0.228	0.345	0.562	0.747	1.307	1.538

<sup>6</sup> Tradeweb and IBA began using a 20 year knot point following the 20 year bond auction on May 20, 2020.

## Testing Results

Tradeweb and IBA have conducted extensive back-testing of the curve fitting and rate production methodology for the period between January 1, 2019 and June 30, 2020 to generate the Tradeweb ICE CMT Rates for testing purposes.

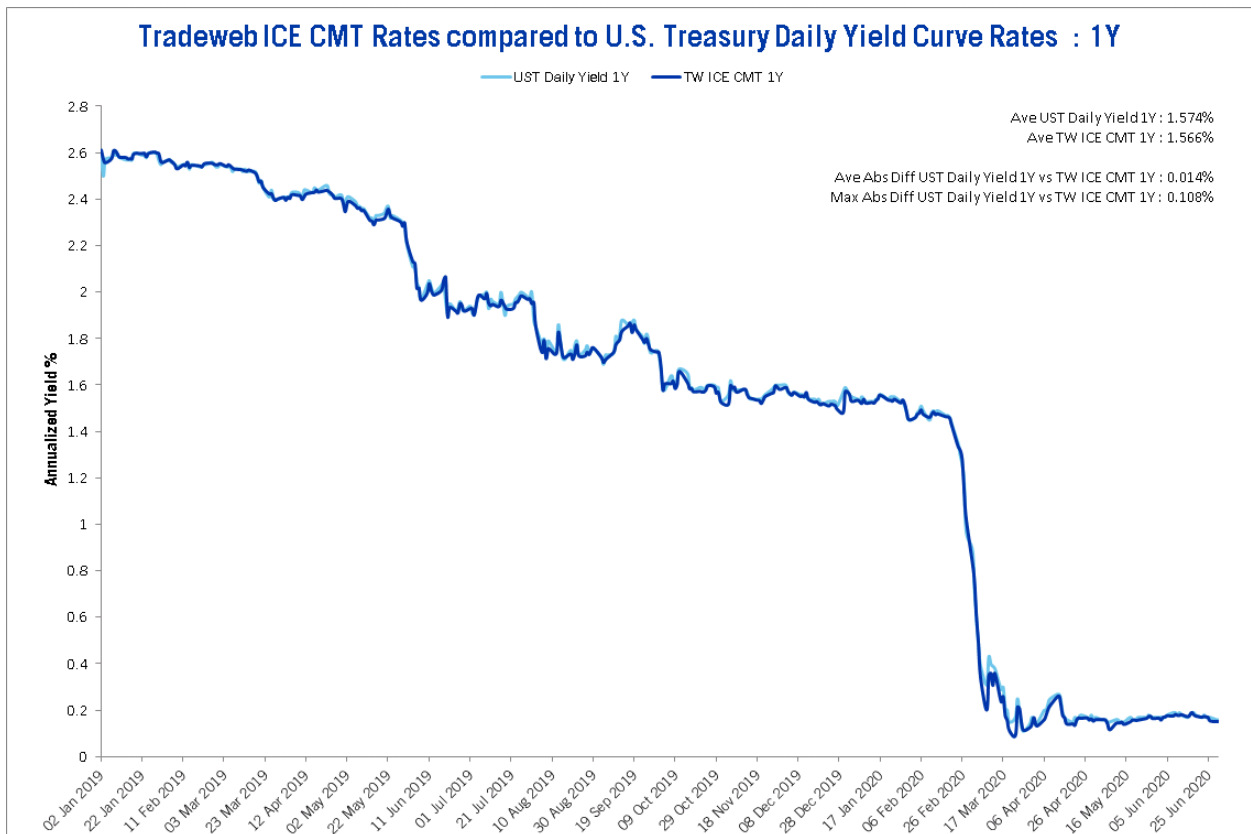
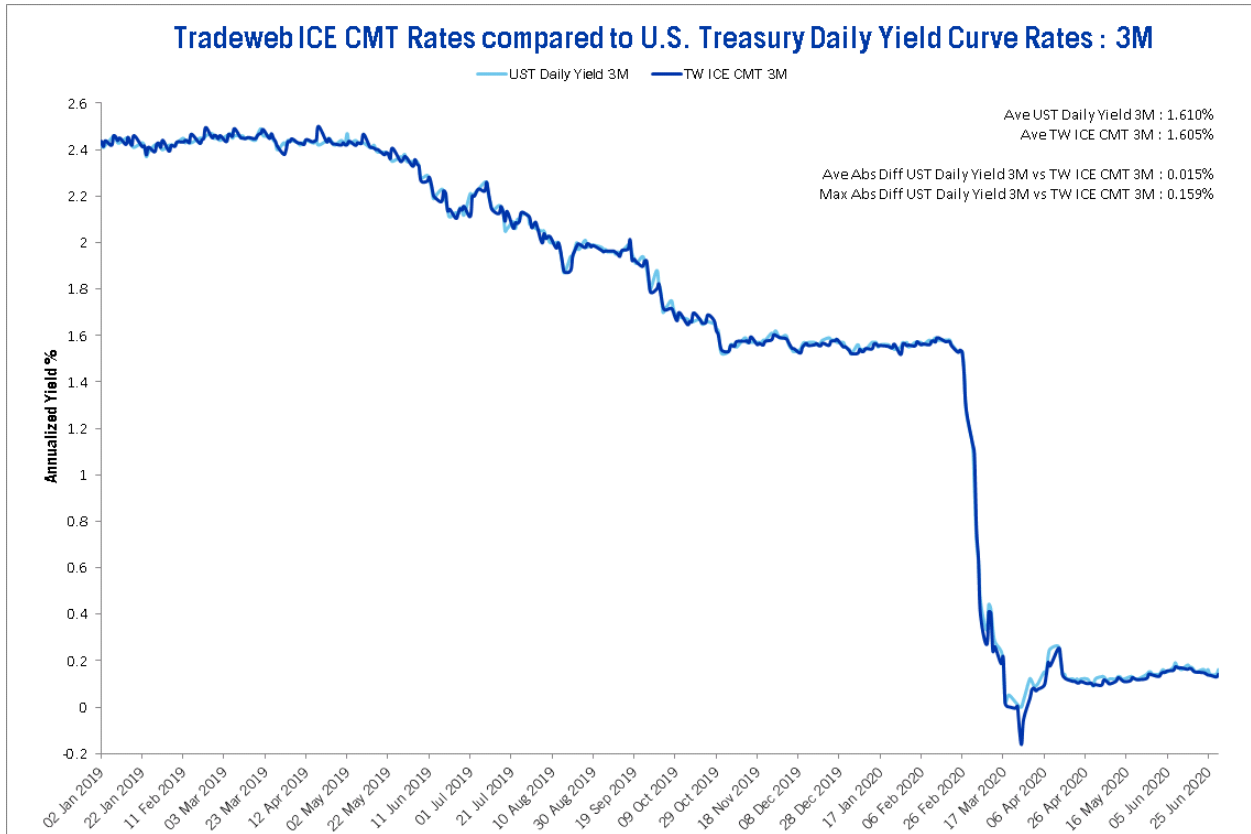
Testing to date has shown consistency with the Daily Yield Curve Rates produced and published by the U.S. Treasury. Random samples of the Tradeweb ICE CMT rates and the U.S. Treasury's Daily Yield Curve Rates are highlighted below (the third Wednesday of each month is used)<sup>7</sup>.

Test Date	Rate	1 Mo	2 Mo	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	30Yr
16/01/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.397</b>	<b>2.41</b>	<b>2.432</b>	<b>2.516</b>	<b>2.574</b>	<b>2.551</b>	<b>2.533</b>	<b>2.55</b>	<b>2.623</b>	<b>2.737</b>	<b>3.085</b>
	US Treasury Daily Yield Curve	2.41	2.4	2.43	2.49	2.57	2.55	2.53	2.54	2.62	2.73	3.07
20/02/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.404</b>	<b>2.423</b>	<b>2.442</b>	<b>2.508</b>	<b>2.538</b>	<b>2.487</b>	<b>2.461</b>	<b>2.466</b>	<b>2.547</b>	<b>2.649</b>	<b>2.996</b>
	US Treasury Daily Yield Curve	2.41	2.42	2.45	2.51	2.54	2.5	2.47	2.47	2.55	2.65	3
20/03/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.462</b>	<b>2.469</b>	<b>2.467</b>	<b>2.493</b>	<b>2.474</b>	<b>2.433</b>	<b>2.374</b>	<b>2.383</b>	<b>2.491</b>	<b>2.577</b>	<b>3</b>
	US Treasury Daily Yield Curve	2.45	2.45	2.48	2.49	2.47	2.4	2.34	2.34	2.44	2.54	2.98
17/04/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.426</b>	<b>2.434</b>	<b>2.443</b>	<b>2.464</b>	<b>2.439</b>	<b>2.409</b>	<b>2.376</b>	<b>2.406</b>	<b>2.506</b>	<b>2.593</b>	<b>2.996</b>
	US Treasury Daily Yield Curve	2.43	2.44	2.44	2.47	2.44	2.4	2.37	2.4	2.49	2.59	2.99
15/05/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.404</b>	<b>2.408</b>	<b>2.406</b>	<b>2.42</b>	<b>2.289</b>	<b>2.162</b>	<b>2.123</b>	<b>2.15</b>	<b>2.256</b>	<b>2.377</b>	<b>2.824</b>
	US Treasury Daily Yield Curve	2.4	2.41	2.42	2.43	2.3	2.16	2.12	2.15	2.25	2.37	2.82
19/06/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.144</b>	<b>2.196</b>	<b>2.213</b>	<b>2.178</b>	<b>2.064</b>	<b>1.855</b>	<b>1.808</b>	<b>1.853</b>	<b>1.961</b>	<b>2.079</b>	<b>2.569</b>
	US Treasury Daily Yield Curve	2.14	2.18	2.18	2.11	1.96	1.74	1.7	1.77	1.89	2.03	2.54
17/07/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.118</b>	<b>2.122</b>	<b>2.131</b>	<b>2.044</b>	<b>1.954</b>	<b>1.839</b>	<b>1.815</b>	<b>1.847</b>	<b>1.952</b>	<b>2.081</b>	<b>2.593</b>
	US Treasury Daily Yield Curve	2.13	2.14	2.14	2.04	1.95	1.83	1.8	1.83	1.94	2.06	2.57
21/08/2019	<b>Tradeweb ICE CMT Rate</b>	<b>2.032</b>	<b>1.954</b>	<b>1.965</b>	<b>1.89</b>	<b>1.734</b>	<b>1.533</b>	<b>1.47</b>	<b>1.457</b>	<b>1.521</b>	<b>1.57</b>	<b>2.047</b>
	US Treasury Daily Yield Curve	2.03	1.98	1.97	1.9	1.77	1.56	1.5	1.47	1.54	1.59	2.07
18/09/2019	<b>Tradeweb ICE CMT Rate</b>	<b>1.927</b>	<b>1.904</b>	<b>1.922</b>	<b>1.877</b>	<b>1.826</b>	<b>1.689</b>	<b>1.634</b>	<b>1.622</b>	<b>1.71</b>	<b>1.76</b>	<b>2.233</b>
	US Treasury Daily Yield Curve	1.94	1.93	1.95	1.91	1.87	1.77	1.72	1.68	1.76	1.8	2.25
16/10/2019	<b>Tradeweb ICE CMT Rate</b>	<b>1.706</b>	<b>1.671</b>	<b>1.66</b>	<b>1.636</b>	<b>1.584</b>	<b>1.592</b>	<b>1.571</b>	<b>1.569</b>	<b>1.654</b>	<b>1.754</b>	<b>2.241</b>
	US Treasury Daily Yield Curve	1.71	1.68	1.66	1.64	1.59	1.58	1.57	1.57	1.65	1.75	2.23
20/11/2019	<b>Tradeweb ICE CMT Rate</b>	<b>1.555</b>	<b>1.555</b>	<b>1.562</b>	<b>1.573</b>	<b>1.521</b>	<b>1.581</b>	<b>1.562</b>	<b>1.594</b>	<b>1.682</b>	<b>1.746</b>	<b>2.207</b>
	US Treasury Daily Yield Curve	1.57	1.56	1.57	1.58	1.54	1.56	1.55	1.58	1.66	1.73	2.2
18/12/2019	<b>Tradeweb ICE CMT Rate</b>	<b>1.551</b>	<b>1.562</b>	<b>1.557</b>	<b>1.57</b>	<b>1.521</b>	<b>1.645</b>	<b>1.673</b>	<b>1.741</b>	<b>1.856</b>	<b>1.916</b>	<b>2.341</b>
	US Treasury Daily Yield Curve	1.56	1.57	1.56	1.58	1.54	1.63	1.67	1.74	1.86	1.92	2.35
15/01/2020	<b>Tradeweb ICE CMT Rate</b>	<b>1.528</b>	<b>1.551</b>	<b>1.564</b>	<b>1.568</b>	<b>1.533</b>	<b>1.572</b>	<b>1.568</b>	<b>1.608</b>	<b>1.715</b>	<b>1.794</b>	<b>2.25</b>
	US Treasury Daily Yield Curve	1.53	1.56	1.57	1.58	1.54	1.56	1.56	1.6	1.71	1.79	2.23
19/02/2020	<b>Tradeweb ICE CMT Rate</b>	<b>1.598</b>	<b>1.593</b>	<b>1.575</b>	<b>1.551</b>	<b>1.463</b>	<b>1.421</b>	<b>1.389</b>	<b>1.409</b>	<b>1.495</b>	<b>1.568</b>	<b>2.014</b>
	US Treasury Daily Yield Curve	1.61	1.61	1.58	1.56	1.47	1.42	1.39	1.41	1.5	1.56	2.01
18/03/2020	<b>Tradeweb ICE CMT Rate</b>	<b>-0.007</b>	<b>0.018</b>	<b>0.017</b>	<b>0.085</b>	<b>0.179</b>	<b>0.46</b>	<b>0.561</b>	<b>0.706</b>	<b>0.997</b>	<b>1.114</b>	<b>1.753</b>
	US Treasury Daily Yield Curve	0.04	0.03	0.02	0.08	0.21	0.54	0.66	0.79	1.08	1.18	1.77
15/04/2020	<b>Tradeweb ICE CMT Rate</b>	<b>0.115</b>	<b>0.132</b>	<b>0.14</b>	<b>0.173</b>	<b>0.18</b>	<b>0.201</b>	<b>0.248</b>	<b>0.35</b>	<b>0.517</b>	<b>0.657</b>	<b>1.302</b>
	US Treasury Daily Yield Curve	0.14	0.15	0.14	0.19	0.19	0.2	0.24	0.34	0.49	0.63	1.27
20/05/2020	<b>Tradeweb ICE CMT Rate</b>	<b>0.085</b>	<b>0.103</b>	<b>0.124</b>	<b>0.147</b>	<b>0.159</b>	<b>0.169</b>	<b>0.212</b>	<b>0.349</b>	<b>0.542</b>	<b>0.696</b>	<b>1.421</b>
	US Treasury Daily Yield Curve	0.08	0.11	0.12	0.14	0.16	0.16	0.21	0.34	0.53	0.68	1.4
17/06/2020	<b>Tradeweb ICE CMT Rate</b>	<b>0.129</b>	<b>0.142</b>	<b>0.165</b>	<b>0.177</b>	<b>0.191</b>	<b>0.197</b>	<b>0.228</b>	<b>0.345</b>	<b>0.562</b>	<b>0.747</b>	<b>1.538</b>
	US Treasury Daily Yield Curve	0.13	0.15	0.17	0.18	0.19	0.19	0.23	0.34	0.55	0.74	1.52

<sup>7</sup> Note that the Tradeweb ICE CMT Rates and the U.S. Treasury's Daily Yield Curve Rates are produced using different sources of data and methodologies. As a result, care should be taken when comparing the rate sets on any day of the testing period or for the entire testing period.

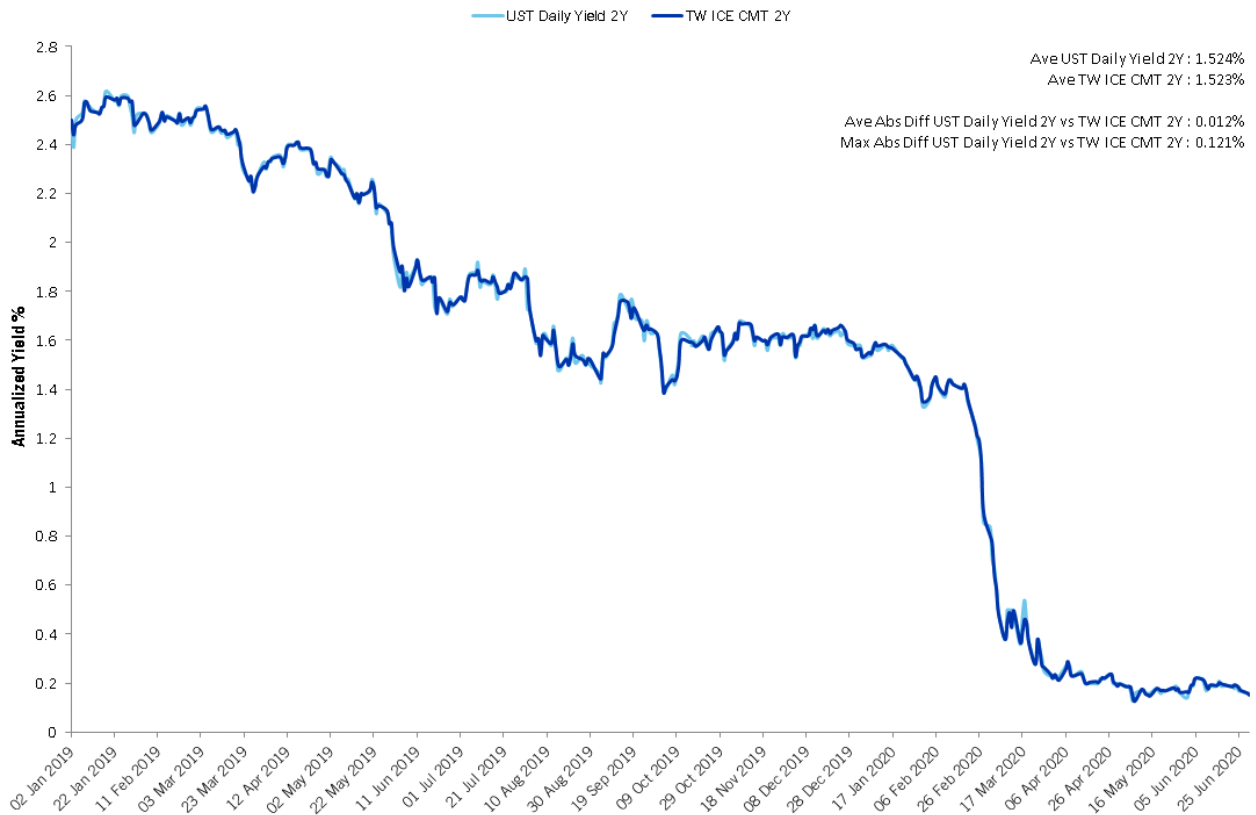


The Tradeweb ICE CMT rates have also shown a close daily correlation with the Daily Treasury Yield Curve Rates produced by the United States Treasury over the course of the testing period.

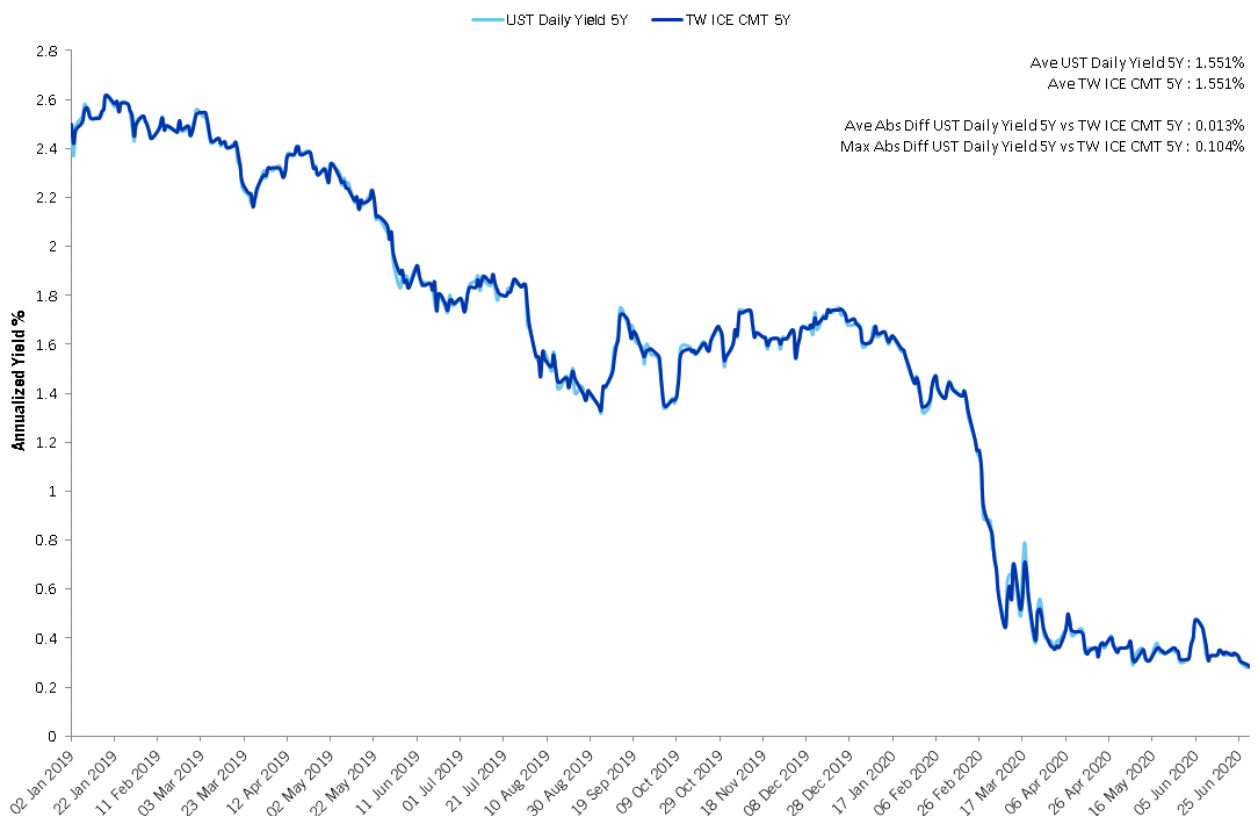




### Tradeweb ICE CMT Rates compared to U.S. Treasury Daily Yield Curve Rates : 2Y



### Tradeweb ICE CMT Rates compared to U.S. Treasury Daily Yield Curve Rates : 5Y



## Comparison of Tradeweb ICE CMT Rates and the Daily Yield Curve Rates Produced by the U.S. Treasury

The Tradeweb ICE CMT Rates have many similarities to the Daily Treasury Yield Curve Rates produced by the U.S. Treasury, but also a number of key differences. Most notably, the data used to build the yield curves is obtained from different sources. The table below provides a summary overview of the Daily Treasury Yield Curve Rates produced by the U.S. Treasury and the Tradeweb ICE CMT Rates produced by Tradeweb and IBA.

Note - Tradeweb and IBA are seeking feedback from market participants regarding the handling of negative rates. (Refer to Question 5 in Request for Feedback section.)

Rates	Daily Treasury Yield Curve Rates	Tradeweb ICE CMT Rates
Provider / Administrator of Rates	The United States Treasury	Tradeweb and IBA
Source of Rates	Yields interpolated by the United States Treasury from the daily Treasury Yield Curve. <sup>8</sup>	Tradeweb U.S. Treasury trading and/or quote data. Yields interpolated by Tradeweb and IBA from the daily Tradeweb ICE CMT Yield Curve.
Yield Curve Inputs (i.e. knot points)	Market yields for the on-the-run securities calculated from composites of indicative, bid-side market quotations (not actual transactions) obtained by the United States Treasury from the Federal Reserve Bank of New York at or near 3:30 PM each trading day. <sup>9</sup>  Note - all points on the daily Treasury yield curve are derived from market quotations. Prior to the re-introduction of 20-year bonds, the United States Treasury used composites of off-the-run bonds for the 20-year knot point.	Average prices and associated yields for the on-the-run securities from the Tradeweb Platform sourced from executed transactions and/or displayed dealer quotes over the course of a trading day. The time period from which data is sourced is 8:00AM to 3:00PM Eastern, unless there is a shortened trading session.  Tradeweb and IBA began using a 20 year knot point following the 20 year bond auction on May 20, 2020.
Methodology to Generate Fitted Yield Curve	A quasi-cubic Hermite spline function is used to produce the Treasury Yield Curve based upon the market yields sourced by the United States Treasury.	A quasi-cubic Hermite spline function is used to produce the Tradeweb ICE CMT Yield Curve based upon the yields sourced by Tradeweb and IBA.
Published Interpolated Rates	One Month, Two Months, Three Months, Six Months, One Year, Two Years, Three Years, Five years, Seven Years, Ten Years, Twenty Years and Thirty Years	One Month, Two Months, Three Months, Six Months, One Year, Two Years, Three Years, Five years, Seven Years, Ten Years, Twenty Years and Thirty Years
Rounding	Two decimal places	Three decimal places
Publication Time	Yield Curve Rates are <i>usually</i> available at Treasury's interest rate web sites by 6:00 PM Eastern Time each trading day	By 5 PM Eastern each trading day
Regulatory Status	N/A	IBA is authorized and regulated by the U.K. Financial Conduct Authority and authorized under the EU Benchmarks Regulation (BMR).

<sup>8</sup> <https://www.treasury.gov/resource-center/data-chart-center/interest-rates/pages/textview.aspx?data=yield>

<sup>9</sup> <https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/yieldmethod.aspx>

## Governance and Controls

IBA will be the administrator of the Tradeweb ICE CMT Rates.

As one of the world's most experienced benchmark administrators, IBA currently administers the Tradeweb ICE U.S. Treasury Closing Prices, ICE LIBOR™, ICE Swap Rate™, and the LBMA Gold and Silver Prices, as well as operating the ISDA SIMM™ crowdsourcing facility and the ICE Term Risk Free Rates (RFR) Portal.

IBA is authorized and regulated by the U.K. Financial Conduct Authority for the regulated activity of administering a benchmark and is authorized as a benchmark administrator under the EU Benchmarks Regulation (BMR).

IBA and Tradeweb will ensure the methodology and processes associated with the production of the Tradeweb ICE CMT Rates are designed and operated in line with the IOSCO Principles for Financial Benchmarks (the IOSCO Principles)<sup>10</sup>.

### IOSCO Principles for Financial Benchmarks

There are 19 IOSCO Principles within four broad categories: Governance; Quality of the Benchmark; Quality of the Methodology; and Accountability. IBA's arrangements for addressing these are outlined below.

#### **Governance**

- As administrator, IBA will retain primary responsibility for the rate determination process. The roles and obligations of other parties involved in the process will be clearly documented, overseen and monitored by IBA;
- IBA has policies and procedures for identifying and managing conflicts of interest, including a published Conflicts of Interest Policy which is subject to regular review by the Board of IBA;
- IBA has a documented Control Framework which is subject to regular review by the Board of IBA. A summary of the Control Framework<sup>11</sup> is published on IBA's website; and
- IBA will establish an effective oversight function to review and provide challenge on all aspects of the Tradeweb ICE CMT rates.

#### **Quality of the Benchmark**


- The Tradeweb ICE CMT Rates are designed to be an accurate and reliable representation of the economic realities of the interest they are intended to measure (i.e. daily yields for U.S. Treasury securities of standard maturities);
- The rates will be based on realized transactions in U.S Treasury securities on the Tradeweb Platform (i.e. an observable, active market with prices formed by the competitive forces of supply and demand) or, where these are not available, dealer quotes displayed through an electronic medium to institutional investors (i.e. quotes that are anchored in an observable, active, marketplace); and
- IBA will, on a regular basis, review conditions in the underlying economic realities of the interest the rates are designed to measure to ascertain whether any changes may be required to the design of the methodology.

#### **Quality of the Methodology**

- IBA and Tradeweb have designed the methodology used to produce the Tradeweb ICE CMT Rates in a manner that reflects underlying market dynamics in U.S. Treasury securities prices and yields over the course of a trading day;
- Tradeweb and IBA will publish the calculation methodology used to produce the Tradeweb ICE CMT Rates in order to ensure full transparency to stakeholders;

<sup>10</sup> <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>

<sup>11</sup> <https://www.theice.com/iba/governance>

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- IBA will provide clarity on changes to the methodology, with consultations on proposals for material changes in accordance with IBA's published Consultation Process; and
  - IBA will run daily surveillance on the input data used to generate the Tradeweb ICE CMT Rates and will have all necessary controls and audit rights to ensure the integrity of the data used to calculate the rates.

***Accountability***

- IBA has a documented complaints process that will allow market participants to express any concerns they might have with the determination of the Tradeweb ICE CMT Rates;
- IBA commissions regular internal and external audit reviews of all of its benchmarks;
- IBA has a documented record retention policy; and
- IBA co-operates with all relevant regulatory authorities.



## Request for Feedback

Tradeweb and IBA are seeking stakeholder feedback on the following questions in regard to the Tradeweb ICE CMT Rates. We are asking for response by September 18, 2020. Responses should be sent to IBA and/or Tradeweb at [IBA@TheICE.com](mailto:IBA@TheICE.com) or [referenceprices@tradeweb.com](mailto:referenceprices@tradeweb.com) with the subject line "Tradeweb ICE CMT Rates Feedback Request".

1. Do you agree the proposed Tradeweb ICE CMT Rates represent useful reference data for the proposed purposes?
2. Do you agree with the proposed list of standard maturities for the Tradeweb ICE CMT Rates (1, 2, 3 and 6 months and 1, 2, 3, 5, 7, 10, 20 and 30 years)?
3. Do you agree with the approach of calculating the Tradeweb ICE CMT Rates using volume-weighted average prices and associated yields transacted over the course of the day on the Tradeweb platform?
4. If the answer to Question 3 is yes, should higher minimum volume and/or transaction count thresholds be established that, if not met, result in electronically displayed dealer quotes over the course of a trading day displayed on the Tradeweb platform being used instead?
5. In the event that the Tradeweb ICE methodology results in a negative CMT rate, should the published Tradeweb ICE CMT rate be floored at zero (as is done with the U.S. Treasury's CMT rates), or should Tradeweb ICE publish the actual negative rate?
6. Should a longer or shorter window be used to source knot point input data? Currently, the window is between 8:00 AM Eastern and 3:00 PM Eastern. If the US Treasury market moves to a 4:00 PM Eastern market close, should there be a similar adjustment to the Tradeweb ICE CMT Yield Curve?
7. For dealer quote data that might be used in the event there are not enough transactions in an on-the-run U.S. Treasury security, how regularly during the course of the trading day should quotes be sourced to derive the knot point yield used in this contingency scenario?
8. Do you have any additional feedback for Tradeweb and IBA on the Tradeweb ICE CMT Rates and associated methodology proposed in this paper?



## Disclaimers

**PLEASE READ THE FOLLOWING PROVISIONS CAREFULLY. PLEASE TAKE SPECIFIC AND PROFESSIONAL LEGAL, TAX, REGULATORY AND FINANCIAL ADVICE AS APPROPRIATE BEFORE USING, OR INVESTING IN ANY FINANCIAL INSTRUMENT OR ENTERING INTO ANY CONTRACT LINKED TO, ICE BENCHMARK ADMINISTRATION LIMITED'S OR TRADEWEB MARKETS LLC'S BENCHMARK, RATE OR OTHER INFORMATION.**

This paper sets out the background to IBA and Tradeweb's proposals to produce and publish, on a preliminary basis, daily Tradeweb ICE CMT Rates and provides a summary of those proposals.

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The information and outputs in this paper, and those provided on IBA's and Tradeweb's websites relating to the Tradeweb ICE CMT Rates, are provided for information and illustration purposes only, might not be accurate or reliable, and may not be used for any other purpose. Any Tradeweb ICE CMT Rates information made available on IBA's and Tradeweb's websites may be accessed and used only on the terms and for the purposes specified on such websites or in any relevant click-through agreement. In particular, Tradeweb ICE CMT Rates information is not intended for use as, and IBA and Tradeweb expressly prohibit its use as, an index by reference to which the amount payable under a financial instrument or a financial contract, or the value of a financial instrument, is determined, or as an index that is used to measure the performance of an investment fund with the purpose of tracking the return of such index or of defining the asset allocation of a portfolio or of computing the performance fees. Tradeweb ICE CMT Rates information may not be used as a benchmark within the meaning of the EU Benchmarks Regulation or otherwise.

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IBA is a benchmark administrator, authorised and regulated by the Financial Conduct Authority under Regulation (EU) 2016/1011 (The EU Benchmarks Regulation). IBA is not a manufacturer or distributor of any investment or product, whether based on Tradeweb ICE CMT Rates information or otherwise, for purposes of Directive 2014/65/EU and Regulation (EU) No 600/2014 (MiFID II) or Regulation (EU) No 1286/2014 (PRIIPs).

Neither IBA nor Tradeweb provides legal, tax or investment advice or recommendations regarding securities and no information and outputs in this paper, or those provided on IBA's and Tradeweb's websites related to the Tradeweb ICE CMT Rates, should be taken as constituting financial or investment advice or a recommendation of securities, an invitation or inducement to engage in any investment activity, including any securities transaction, or a financial promotion.

The methodologies disclosed in this paper and on IBA's and Tradeweb's websites are subject to changes in response to feedback from market participants and other stakeholders and IBA's and Tradeweb's further development work. These changes might alter the outputs shown in this paper and on those websites. There is no



guarantee that IBA and Tradeweb will continue to test the Tradeweb ICE CMT Rates, be able to source data to derive the Tradeweb ICE CMT Rates or publish the Tradeweb ICE CMT Rates in the future.

None of Tradeweb, IBA, Intercontinental Exchange, Inc. (ICE), or any of its or their affiliates accepts any responsibility or will be liable in contract or tort (including negligence), for breach of statutory duty or nuisance, for misrepresentation or under antitrust laws or otherwise, for the information and outputs contained in this paper, or those on IBA's and Tradeweb's websites, or any use that you may make of it or them. All implied terms, conditions and warranties and liabilities in relation to the information and outputs are hereby excluded to the fullest extent permitted by law. None of Tradeweb, IBA, ICE or any of its or their affiliates excludes or limits liability for fraud or fraudulent misrepresentation, or death or personal injury caused by negligence.

## About Intercontinental Exchange

[Intercontinental Exchange](#) (NYSE: ICE) is a Fortune 500 company formed in the year 2000 to modernize markets. ICE serves customers by operating the [exchanges](#), [clearing houses](#) and information services they rely upon to invest, trade and manage risk across global financial and commodity markets. A leader in market data, [ICE Data Services](#) serves the information and connectivity needs across virtually all asset classes. As the parent company of the [New York Stock Exchange](#), the company is the premier venue for raising capital in the world, driving economic growth and transforming markets.

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Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995 -- Statements in this press release regarding ICE's business that are not historical facts are "forward-looking statements" that involve risks and uncertainties. For a discussion of additional risks and uncertainties, which could cause actual results to differ from those contained in the forward-looking statements, see ICE's Securities and Exchange Commission (SEC) filings, including, but not limited to, the risk factors in ICE's Annual Report on Form 10-K for the year ended December 31, 2019, as filed with the SEC on February 6, 2020.


## About Tradeweb Markets

Tradeweb Markets Inc. (Nasdaq: TW) is a leading, global operator of electronic marketplaces for rates, credit, equities and money markets. Founded in 1996, Tradeweb provides access to markets, data and analytics, electronic trading, straight-through-processing and reporting for more than 40 products to clients in the institutional, wholesale and retail markets. Advanced technologies developed by Tradeweb enhance price discovery, order execution and trade workflows while allowing for greater scale and helping to reduce risks in client trading operations. Tradeweb serves approximately 2,500 clients in more than 60 countries. On average, Tradeweb facilitated more than \$790 billion in notional value traded per day over the past four fiscal quarters. For more information, please go to [www.tradeweb.com](http://www.tradeweb.com).

## Forward-Looking Statements

This release contains forward-looking statements within the meaning of the federal securities laws. Statements related to, among other things, the expected timing and availability of the constant maturity Treasury rates service and any broader suite of solutions, our future performance, the markets in which we operate, our expectations, beliefs, plans, strategies, objectives, prospects and assumptions and future events are forward-looking statements.

We have based these forward-looking statements on our current expectations, assumptions, estimates and projections. While we believe these expectations, assumptions, estimates and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of



which are beyond our control. These and other important factors, including those discussed under the heading “Risk Factors” in documents of Tradeweb Markets Inc. on file with or furnished to the SEC, may cause our actual results, performance or achievements to differ materially from those expressed or implied by these forward-looking statements. In particular, preliminary average variable fees per million dollars of volume traded are subject to the completion of management’s final review and our other financial closing procedures and therefore are subject to change. Given these risks and uncertainties, you are cautioned not to place undue reliance on such forward-looking statements. The forward-looking statements contained in this release are not guarantees of future performance and our actual results of operations, financial condition or liquidity, and the development of the industry and markets in which we operate, may differ materially from the forward-looking statements contained in this release. In addition, even if our results of operations, financial condition or liquidity, and events in the industry and markets in which we operate, are consistent with the forward-looking statements contained in this release, they may not be predictive of results or developments in future periods.

Any forward-looking statement that we make in this release speaks only as of the date of such statement. Except as required by law, we do not undertake any obligation to update or revise, or to publicly announce any update or revision to, any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this release.