



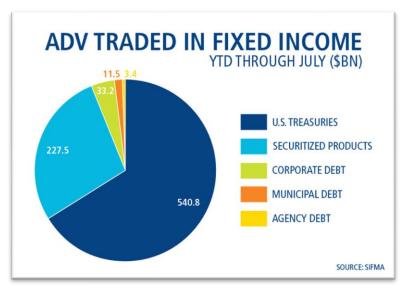
## September 2018

## The new drivers of price formation in U.S. Treasury Securities

The U.S. Treasury market is rapidly modernizing. The emergence of non-traditional liquidity providers and introduction of new trading protocols are providing market participants with additional options when seeking best execution. In the process, pricing data today is arguably more indicative of the true market from moment to moment than ever before.

Treasuries represent the largest segment of the fixed income market. Average daily notional volume in Treasuries of more than half a trillion dollars exceeds that of the markets for mortgage-backed securities, corporate debt and municipal bonds combined. Prices on industry benchmark Reuters Capital Markets (RCM) 19901 update more than one million times per day.

Figure 1 – ADV Traded in Fixed Income (Year-to-date through July)



Source: SIFMA - Click on chart to request a free Eikon trial

Less appreciated, however, are the market dynamics that influence price formation in Treasuries.

The primary market participants in Treasuries include broker dealers, institutions, central banks, market makers and proprietary trading firms (PTFs). The majority of all transactions, historically, occurred through requests-for-quotes (RFQs), central limit order books (CLOBs) and traders interacting by telephone and chat.

In recent years, PTFs are accounting for an increasing percentage of transactions in on-the-run Treasuries.

The shift began following the financial crisis. Increased capital requirements on banks acting as broker dealers and restrictions on proprietary trading created a need for supplemental liquidity in the Treasury market. In response, non-



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traditional liquidity providers including market makers and PTFs progressively increased activity. In order to trade directly with market participants, PTFs built connectivity to broker dealers and institutions possessing the requisite trading and technological capabilities to receive streaming bids and offers.

Direct streaming liquidity on a one-to-one basis allows both providers and consumers to create data-driven, customized trading relationships. The relationships allow for larger top of book quantities in Treasuries at tighter prices with minimal information leakage.

Prices generated through requests-for-quotes (RFQs), central limit order books (CLOBs) and traders interacting by telephone and chat all contribute to the available market data. Pricing data from direct streaming transactions provide new constructive context on movements in the U.S. Treasury market.

Data furnished to RCM 19901 by Dealerweb, a division of Tradeweb, is anonymously aggregated from markets involving broker dealers, institutions, central banks, market makers and PTFs across the different trading protocols.

Figure 2 - RCM 19901 page

:04 GMT	[REUTERS	CAPITAL MKT	S SOURCE ICAP/DW	EB]	0#19901
TREASURY	YIELD	M-YIELD	SWAP-SPREAD	SEMI-BOND	ANN-MONEY
99*29 <sup>1</sup> 4 - A99*29 <sup>1</sup> 2	2.669-2.665	2.667	19.250 - 17.250	2.860 - 2.840	2.841 - 2.821
B* 100*0112 - A100*0134	2.733 - 2.73	2.732	17.500 - 15.500	2.907 - 2.887	2.888 - 2.868
-	-	2.751	16.250 - 14.250	2.913 - 2.893	2.895 - 2.874
B <b>↑</b> 99*29 - A99*29¹₄	2.77 - 2.769	2.769	14.750 - 12.750	2.917 - 2.897	2.898 - 2.878
-	-	2.804	11.500 - 9.500	2.919 - 2.899	2.900 - 2.880
99*14 - A99*14 <sup>1</sup> 2	2.839-2.837	2.838	9.000 - 7.000	2.928 - 2.908	2.909 - 2.889
-	-	2.850	8.250 <b>-</b> 6.250	2.932 - 2.912	2.914 - 2.894
-	-	2.862	8.500 - 6.500	2.947 - 2.927	2.928 - 2.908
100 - A100*00 <sup>1</sup> 2	2.875 - 2.873	2.874	8.750 - 6.750	2.961 - 2.941	2.943 - 2.923
-	-	2.874	10.750 - 8.750	2.981 - 2.961	2.963 - 2.943
-	-	2.910	8.750 - 6.750	2.998 - 2.978	2.979 - 2.959
-	-	2.945	6.000 - 4.000	3.005 - 2.985	2.986 - 2.966
-	-	2.981	1.0001.000	2.991 - 2.971	2.972 - 2.952
B <b>↓</b> 99*21 - A99*22	3.017 - 3.016	3.017	-3.5005.500	2.982 - 2.962	2.963 - 2.943
-	-		-	-	-
-	-		-	-	-
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	99*29'4 - A99*29'5 8+100*01'5 - A100*01'4	TREASURY 99*29'a - A99*29's 2.669-2.665 3+100*01's - A100*01's 2.733-2.73 3+99*29 - A99*29's 2.77-2.769 99*14 - A99*14's 2.839-2.837	TREASURY  99°29'a - A99°29',	TREASURY  99 29 1 - A99 29 29 2 2.669 - 2.665 2.667 19.250 - 17.250 34 100 01 2 - A100 01 4 2.733 - 2.73 2.732 17.500 - 15.500  2.751 16.250 - 14.250 34 99 29 - A99 29 2 2.77 - 2.769 2.769 14.750 - 12.750  2.804 11.500 - 9.500  99 14 - A99 14 2.839 - 2.837 2.838 9.000 - 7.000  2.850 8.250 - 6.250  2.862 8.500 - 6.500  100 - A100 00 2 2.875 - 2.873 2.874 8.750 - 6.750  2.874 10.750 - 8.750  2.945 6.000 - 4.000  - 2.945 6.000 - 4.000  2.945 6.000 - 4.000  2.945 6.000 - 4.000  2.945 6.000 - 4.000  2.945 6.000 - 4.000  2.981 1.0001.000  34 99 21 - A99 22 3.017 - 3.016 3.017 - 3.5005.500	TREASURY 99 29 4 - A99 29 29 2 2.669 - 2.665 2.667 19.250 - 17.250 2.860 - 2.840 34 100 01 2 - A100 01 4 2.733 - 2.73 2.732 17.500 - 15.500 2.907 - 2.887  2.751 16.250 - 14.250 2.913 - 2.893 34 99 29 - A99 29 4 2.77 - 2.769 2.769 14.750 - 12.750 2.917 - 2.897  2.804 11.500 - 9.500 2.917 - 2.897  99 14 - A99 14 2 2.839 - 2.837 2.838 9.000 - 7.000 2.928 - 2.908  2.862 8.500 - 6.500 2.947 - 2.927  100 - A100 00 2 2.875 - 2.873 2.874 8.750 - 6.750 2.947 - 2.927  100 - A100 00 2 2.875 - 2.873 2.874 8.750 - 6.750 2.981 - 2.941  2.862 8.500 - 6.500 2.947 - 2.927  2.874 10.750 - 8.750 2.981 - 2.961  2.945 6.000 - 4.000 3.005 - 2.985  2.945 6.000 - 4.000 3.005 - 2.985  2.981 1.0001.000 2.991 - 2.971  34 99 21 - A99 22 3.017 - 3.016 3.017 - 3.500 - 5.500 2.982 - 2.962

Source: Eikon - Click on chart to request a free trial

Prices from direct streams, similar to disclosed trading between broker dealers and institutions, can be indicative of market moves. While the prices and sizes offered by PTFs are designed for the specific counterparty, price changes in multiple streams provide additional data points that can evidence pattern shifts.

In addition to enhancing trading for liquidity providers and consumers in all market conditions, direct streaming liquidity is improving pricing data that radiates to the overall market to the benefit of market participants.

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## **About the Author**



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Chris Amen is a Managing Director and Head of OTR Treasury Trading at Dealerweb, a division of Tradeweb Markets. In this role, Amen is responsible for leading the strategy and development of market solutions that support market participants trading in U.S. Treasuries across direct streaming liquidity and central limit order book (CLOB) markets.

Amen has played a critical role in expanding electronic fixed income trading in both institutional and wholesale markets for more than a decade at Tradeweb. He previously oversaw U.S. Rates Institutional Sales, Business Development and Strategy at the firm. Prior to that, he managed business development for Dealerweb, where he led the firm's entry into inter-dealer trading through the acquisitions of Hilliard Farber & Co., Inc. and the brokerage assets of Rafferty Capital Markets LLC.

Earlier, Amen worked at Thomson Financial where he played an integral role in the acquisition of Tradeweb in 2004. Before that, he worked in investment banking at Thomas Weisel Partners.

Amen holds a B.A. from Duke University.

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