



TRADEWEB MARKETS MONTHLY ACTIVITY REPORT

DECEMBER 2018

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TRADEWEB MARKETS – ACTIVITY RECAP

DECEMBER 2018

AMID RISING MARKET VOLATILITY, A NEW RECORD FOR TRADE VOLUME

A rise in market volatility across regions and products contributed to increased trading activity in December 2018. Average daily volume (ADV) for Tradeweb Markets of \$617.4 billion (bn) across rates, credit, money markets and equities during the month increased 40.0 percent (%) year over year representing a new record on the platform. Average daily trades in December 2018 totaled 47,771.

At the start of the month, the yield curve for 2Y and 5Y U.S. Treasuries inverted for the first time since 2007, while the yield for 10Y U.S. Treasuries posted the steepest month-to-month decline in two and a half years. Elsewhere, the markets witnessed spikes in volatility during December. In global equities, daily realized volatility for the S&P 500 rose to its highest level since September 2011, while that of the Euro Stoxx 50 increased to its highest level since June 2016. In credit derivatives, the CDX IG closed at 94.75 bp in late December, representing the highest close since March 2016.

At Tradeweb, average daily volume (ADV) in rates derivatives rose 102.7% year over year (YoY) to a new platform record of \$178.1 bn in December. ADV in U.S. Treasuries increased 42.2% YoY to a new platform record of \$82.8 bn. U.S. High-Grade electronic volumes represented 4.4% of TRACE in December – a new platform record. European ETF volumes were up over 113.6% compared to December 2017, which represented the second highest monthly total ever.

Among the markets in which Tradeweb operates:

- Average daily volume (ADV) in U.S. Government Bonds of \$82.8 billion (bn) increased 2.7 percent (%) month over month (MoM) and 42.2% year over year (YoY).
- ADV in European Government Bonds of \$16.7 bn decreased 18.9% MoM and rose 39.5% YoY.
- ADV in Mortgages of \$131.4 bn increased 1.2% MoM and 5.7% YoY.
- ADV in Rates Derivatives of \$178.1 bn rose 38.6% MoM and 102.7% YoY.
- In U.S. Credit, ADV in High-Grade of \$1.7 bn decreased 19.0% MoM and rose 76.1% YoY while ADV in High-Yield of \$0.2 bn declined 27.5% MoM and increased 62.8% YoY.
- ADV in European Credit of \$0.9 bn fell 35.4% MoM and increased 12.7% YoY.
- ADV in U.S. ETFs of \$4.4 bn rose 55.1% MoM and 18.3% YoY.
- ADV in European ETFs of \$1.4 bn increased 15.5% MoM and 113.6% YoY.
- ADV in Chinese Bonds of \$0.5 bn increased 6.4% MoM and 40.6% YoY.

TRADEWEB MARKETS – SINGLE COUNT

DECEMBER 2018

Asset Class	Product	December 2018		November 2018		December 2017		MoM	YoY
		ADV (USD mm)	Volume (USD mm)	ADV (USD mm)	Volume (USD mm)	ADV (USD mm)	Volume (USD mm)	ADV	ADV
Rates	Cash	232,578	4,436,410	233,013	4,704,162	195,878	3,918,084	-0.19%	18.74%
	U.S. Government Bonds	82,755	1,572,341	80,577	1,611,540	58,209	1,164,172	2.70%	42.17%
	European Government Bonds	16,719	334,382	20,609	453,407	11,988	239,765	-18.88%	39.46%
	Mortgages	131,431	2,497,195	129,881	2,597,621	124,366	2,487,326	1.19%	5.68%
	Other Government Bonds	1,672	32,492	1,946	41,594	1,315	26,821	-14.04%	27.21%
	Derivatives	178,560	3,465,659	129,321	2,698,403	88,072	1,757,841	38.07%	102.74%
	Swaps / Swaptions	178,124	3,457,369	128,549	2,682,958	87,867	1,753,739	38.57%	102.72%
	Futures	436	8,290	772	15,445	205	4,102	-43.52%	112.65%
Credit	Cash	3,616	70,093	4,549	94,642	2,610	52,566	-20.51%	38.55%
	U.S. High-Grade	1,705	32,393	2,105	42,104	968	19,358	-19.01%	76.14%
	U.S. High-Yield	209	3,971	288	5,768	128	2,567	-27.54%	62.84%
	European Credit	854	17,085	1,322	29,093	758	15,164	-35.40%	12.67%
	Municipal Bonds	292	5,548	301	6,020	319	6,379	-3.00%	-8.45%
	Chinese Bonds	518	10,361	487	10,714	368	7,737	6.38%	40.62%
	Other Credit Bonds	38	735	45	943	68	1,362	-15.69%	-44.43%
	Derivatives	5,907	114,541	7,119	148,997	1,845	36,904	-17.02%	220.13%
	Swaps	5,907	114,541	7,119	148,997	1,845	36,904	-17.02%	220.13%
Money Markets	Cash	187,209	3,596,196	189,671	3,885,041	144,677	2,893,545	-1.30%	29.40%
	Repurchase Agreements (Repo)	167,162	3,214,530	170,705	3,503,788	124,151	2,483,027	-2.08%	34.64%
	Other Money Markets	20,047	381,666	18,966	381,253	20,526	410,519	5.70%	-2.33%
Equities	Cash	5,755	110,704	4,012	85,426	4,351	87,011	43.45%	32.28%
	U.S. ETFs	4,390	83,410	2,830	59,423	3,712	74,233	55.14%	18.28%
	European ETFs	1,365	27,294	1,182	26,002	639	12,778	15.45%	113.60%
	Derivatives	3,785	73,267	2,791	59,670	3,688	73,752	35.59%	2.63%
	Options / Convertibles / Swaps	1,479	29,450	1,190	26,035	903	18,065	24.30%	63.70%
	Futures	2,306	43,816	1,602	33,635	2,784	55,688	43.98%	-17.18%

	ADV (USD mm)	Average Daily Trades	ADV (USD mm)	Average Daily Trades	ADV (USD mm)	Average Daily Trades
Total	617,409	47,771	570,476	46,178	441,121	33,717

PRODUCT CATEGORIES INCLUDE

U.S. Government Bonds: U.S. Treasury bills, notes and bonds, and Treasury Inflation-protected Securities.

Mortgages: To-be-announced mortgage-backed securities, specified pools, commercial mortgage-backed securities, other mortgage derivatives and other asset-backed securities.

Other Government Bonds: Japanese, Australian and New Zealand government bonds, covered bonds (including Pfandbriefe), other government-guaranteed securities, supranational, sub-sovereign and agency bonds/debentures.

Rates Futures: Government bond futures leg of exchange for physicals (EFPs).

U.S. High-Grade and High-Yield: All TRACE-reported corporates, excluding convertibles (see page 3 for segmentation methodology)

Chinese Bonds: Chinese Interbank Bond Market (CIBM) instruments – government and corporate – transacted via Bond Connect Company Limited (BCCL).

Other Credit Bonds: Other developed market (including non-TRACE-reported bonds, preferreds and structured notes), developing and emerging market corporate and government bonds.

Credit Swaps: Index and single name credit default swaps.

Other Money Markets: Agency discount notes, commercial paper, certificates of deposits (including structured CDs), and deposits.

ETF: Exchange traded funds (ETFs), ETF leg of EFPs, and net asset value trades.

Equities Futures: Equity futures leg of EFPs.

VOLUMES

Volumes include Tradeweb, Dealerweb and Tradeweb Direct. Except with respect to U.S. Treasuries, both sides of a trade are included in volume totals where the trade is fully-anonymous and a Tradeweb broker-dealer is the matched principal counterparty. Riskless principal trades on Tradeweb Direct are single-count.

All volumes converted to U.S. Dollars.

Volumes for mortgages represent current face value at time of trade.

U.S. CORPORATE BONDS

USING MARKET REPORTING STANDARDS

DECEMBER 2018

TRADEWEB MARKETS

Product	Type	December 2018						November 2018						December 2017						MoM		YoY	
		Volume (USD mm)			Trades			Volume (USD mm)			Trades			Volume (USD mm)			Trades			ADV	ADT	ADV	ADT
		ADV	Total	% of Reported	ADT	Total	% of Reported	ADV	Total	% of Reported	ADT	Total	% of Reported	ADV	Total	% of Reported	ADT	Total	% of Reported				
U.S. High-Grade	Total	1,814	34,462	10.2%	10,202	193,835	20.3%	2,217	44,348	10.2%	10,153	203,061	19.9%	1,069	21,374	7.1%	7,902	158,040	20.2%	-18.20%	0.48%	69.72%	29.10%
	Electronically Processed	1,026	19,491	5.8%	188	3,566	0.4%	1,382	27,641	6.4%	217	4,337	0.4%	613	12,266	4.1%	100	1,991	0.3%	-25.77%	-13.45%	67.27%	88.53%
	Fully Electronic	788	14,971	4.4%	10,014	190,269	19.9%	835	16,707	3.8%	9,936	198,724	19.5%	455	9,108	3.0%	7,802	156,049	20.0%	-5.68%	0.78%	73.02%	28.35%
U.S. High-Yield	Total	219	4,154	3.2%	1,473	27,985	11.1%	297	5,939	3.5%	1,513	30,253	10.6%	140	2,803	2.4%	1,386	27,726	12.4%	-26.38%	-2.63%	55.96%	6.25%
	Electronically Processed	145	2,751	2.1%	47	899	0.4%	191	3,815	2.3%	59	1,176	0.4%	68	1,368	1.2%	20	400	0.2%	-24.08%	-19.53%	111.69%	136.58%
	Fully Electronic	74	1,403	1.1%	1,426	27,086	10.8%	106	2,124	1.3%	1,454	29,077	10.2%	72	1,435	1.2%	1,366	27,326	12.2%	-30.50%	-1.94%	2.86%	4.34%

REPORTED MARKET

Product	December 2018						November 2018						December 2017						MoM		YoY	
	Volume (USD mm)			Trades			Volume (USD mm)			Trades			Volume (USD mm)			Trades			ADV	ADT	ADV	ADT
	ADV	Total		ADT	Total		ADV	Total		ADT	Total		ADV	Total		ADT	Total					
U.S. High-Grade (TRACE)	17,782	337,854		50,217	954,129		21,701	434,012		51,077	1,021,543		15,071	301,417		39,028	780,566		-18.06%	-1.68%	17.99%	28.67%
U.S. High-Yield (TRACE)	6,743	128,109		13,232	251,406		8,462	169,246		14,283	285,658		5,941	118,818		11,169	223,373		-20.32%	-7.36%	13.49%	18.47%

FOOTNOTES

Numbers include all activity on Tradeweb, Dealerweb and Tradeweb Direct.

Corporate bond volume and trade count numbers reflect all trades reported to TRACE, excluding emerging market and convertible bonds.

Monthly average capped volumes for HG and HY applied to capped trades.

Electronically Processed include voice trades processed electronically on Tradeweb.

Day counts for corporate bonds reflect all SIFMA trading days.

Segmentation between HG and HY determined using the following methodology and ratings from Standards & Poor's (S&P), Moody's Investor Services and Fitch Ratings:

- If 2 of 3 of the bond's ratings are equal to or worse than BB+/Ba1/BB+ (but not including "other ratings") then the bond is HY.
- If 1 of 3 of the bond's ratings are equal to or worse than BB+/Ba1/BB+, and none are better, then the bond is HY.
- If the bond is not rated by any agency then the bond is HY.
- If 3 of 3 of the bond's ratings are better than BB+/Ba1/BB+ (but not including "other ratings") then the bond is HG.
- If 2 of 3 of the bond's ratings are better than BB+/Ba1/BB+ then the bond is HG.
- If 1 of 3 of the bond's ratings are better than BB+/Ba1/BB+, and none are equal or worse, then the bond is HG.
- If 1 of 3 of the bond's ratings are better than BB+/Ba1/BB+ and 1 of 3 are equal or worse, then the bond is HG. (i.e. The bond is split rated: 1 HG, 1 HY)

TRADEWEB MARKETS QUARTERLY ACTIVITY SUMMARY

Q4 2018

TRADEWEB MARKETS – SINGLE COUNT

Q4 2018

Asset Class	Product	Q4 2018		Q3 2018		Q4 2017		QoQ	YoY
		ADV (USD mm)	Volume (USD mm)	ADV (USD mm)	Volume (USD mm)	ADV (USD mm)	Volume (USD mm)	ADV	ADV
Rates	Cash	241,779	14,833,540	209,711	13,248,463	207,639	12,905,507	15.29%	16.44%
	U.S. Government Bonds	80,790	4,928,198	66,390	4,182,568	57,993	3,595,585	21.69%	39.31%
	European Government Bonds	20,134	1,308,730	17,745	1,153,418	15,117	967,475	13.47%	33.19%
	Mortgages	138,930	8,474,705	123,600	7,786,819	133,031	8,247,938	12.40%	4.43%
	Other Government Bonds	1,925	121,907	1,976	125,658	1,498	94,509	-2.59%	28.51%
	Derivatives	138,833	8,709,145	133,673	8,514,792	73,024	4,562,056	3.86%	90.12%
	Swaps / Swaptions	138,241	8,673,010	133,183	8,484,046	72,631	4,537,719	3.80%	90.33%
	Futures	592	36,136	490	30,745	393	24,337	20.84%	50.85%
Credit	Cash	4,322	267,955	3,949	251,662	3,216	202,559	9.44%	34.38%
	U.S. High-Grade	2,056	125,431	1,698	106,993	1,285	79,643	21.08%	60.07%
	U.S. High-Yield	269	16,418	229	14,447	199	12,349	17.37%	35.13%
	European Credit	1,171	76,120	1,098	71,359	1,017	65,076	6.67%	15.17%
	Municipal Bonds	292	17,831	256	16,134	286	17,743	14.14%	2.14%
	Chinese Bonds	483	29,010	603	38,571	353	22,938	-19.77%	37.01%
	Other Credit Bonds	50	3,144	65	4,159	77	4,809	-23.28%	-34.88%
	Derivatives	7,711	484,383	7,935	508,512	3,783	237,650	-2.83%	103.85%
	Swaps	7,711	484,383	7,935	508,512	3,783	237,650	-2.83%	103.85%
Money Markets	Cash	188,911	11,687,578	171,489	10,871,573	145,285	9,029,350	10.16%	30.03%
	Repurchase Agreements (Repo)	168,663	10,448,350	151,654	9,619,252	125,050	7,772,163	11.22%	34.88%
	Other Money Markets	20,248	1,239,227	19,836	1,252,321	20,235	1,257,187	2.08%	0.07%
Equities	Cash	5,202	330,282	3,196	203,301	3,463	218,902	62.76%	50.20%
	U.S. ETFs	3,918	246,862	2,217	139,648	2,747	173,084	76.77%	42.63%
	European ETFs	1,283	83,420	979	63,653	716	45,818	31.06%	79.28%
	Derivatives	3,343	212,662	2,618	167,593	2,782	175,964	27.65%	20.16%
	Options / Convertibles / Swaps	1,177	76,238	1,451	94,063	778	49,699	-18.89%	51.40%
	Futures	2,165	136,424	1,167	73,530	2,004	126,265	85.54%	8.05%

	ADV (USD mm)	Average Daily Trades	ADV (USD mm)	Average Daily Trades	ADV (USD mm)	Average Daily Trades
Total	590,101	47,044	532,573	39,038	439,192	34,138

PRODUCT CATEGORIES INCLUDE

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U.S. CORPORATE BONDS

USING MARKET REPORTING STANDARDS

Q4 2018

TRADEWEB MARKETS

Product	Type	Q4 2018						Q3 2018						Q4 2017						QoQ		YoY	
		Volume (USD mm)			Trades			Volume (USD mm)			Trades			Volume (USD mm)			Trades			ADV	ADT	ADV	ADT
		ADV	Total	% of Reported	ADT	Total	% of Reported	ADV	Total	% of Reported	ADT	Total	% of Reported	ADV	Total	% of Reported	ADT	Total	% of Reported				
U.S. High-Grade	Total	2,163	131,932	10.4%	10,058	613,543	20.3%	1,790	112,782	9.5%	8,601	541,892	19.9%	1,383	85,758	7.4%	7,760	481,136	19.9%	20.82%	16.93%	56.36%	29.61%
	Electronically Processed	1,316	80,262	6.4%	210	12,811	0.4%	1,146	72,177	6.1%	178	11,241	0.4%	883	54,753	4.7%	123	7,656	0.3%	14.85%	17.70%	48.99%	70.08%
	Fully Electronic	847	51,670	4.1%	9,848	600,732	19.9%	645	40,605	3.4%	8,423	530,651	19.5%	500	31,005	2.7%	7,637	473,480	19.6%	31.42%	16.92%	69.38%	28.96%
U.S. High-Yield	Total	278	16,979	3.4%	1,541	94,003	10.9%	238	15,014	3.4%	1,322	83,278	10.7%	214	13,270	2.7%	1,646	102,051	12.8%	16.80%	16.58%	30.05%	-6.38%
	Electronically Processed	171	10,443	2.1%	54	3,272	0.4%	158	9,938	2.2%	42	2,630	0.3%	110	6,811	1.4%	30	1,884	0.2%	8.52%	28.49%	55.85%	76.52%
	Fully Electronic	107	6,536	1.3%	1,487	90,731	10.6%	81	5,076	1.1%	1,280	80,648	10.3%	104	6,459	1.3%	1,616	100,167	12.6%	32.99%	16.19%	2.85%	-7.94%

REPORTED MARKET

Product	Q4 2018						Q3 2018						Q4 2017						QoQ		YoY	
	Volume (USD mm)			Trades			Volume (USD mm)			Trades			Volume (USD mm)			Trades			ADV	ADT	ADV	ADT
	ADV	Total		ADT	Total		ADV	Total		ADT	Total		ADV	Total		ADT	Total					
U.S. High-Grade (TRACE)	20,710	1,263,312		49,580	3,024,401		18,925	1,192,300		43,296	2,727,623		18,740	1,161,887		38,923	2,413,233		9.43%	14.52%	10.51%	27.38%
U.S. High-Yield (TRACE)	8,151	497,234		14,081	858,968		7,027	442,676		12,384	780,177		8,036	498,236		12,857	797,154		16.01%	13.71%	1.43%	9.52%

FOOTNOTES

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Monthly average capped volumes for HG and HY applied to capped trades.

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Segmentation between HG and HY determined using the following methodology and ratings from Standards & Poor's (S&P), Moody's Investor Services and Fitch Ratings:

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DISCLOSURES

ABOUT TRADEWEB MARKETS

Tradeweb Markets LLC is a leading, global operator of electronic marketplaces for rates, credit, money markets and equities. Founded in 1996, the company 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 reduced risks in client trading operations. The company serves approximately 2,500 clients in more than 60 countries. In an average trading day, Tradeweb facilitates more than \$530 billion in notional value. For more information, please go to www.tradeweb.com.

LEGAL & COMPLIANCE STATEMENT

This report represents certain trades in instruments that have been reported publicly. The report does not necessarily reflect all transactions that were effected on the system. There is the possibility of errors or delays in the trade submission process. The information provided has been obtained from sources deemed to be reliable, however Tradeweb does not guarantee the accuracy of the information contained in this report.

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